

# İçindekiler

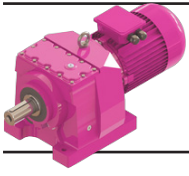
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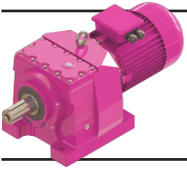
# İçindekiler

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# Genel Bilgiler

## General Information

### Einführung



#### Sembollerin Açıklaması

$c_t$ .....: Anahtarın devreye girme zamanı katsayısı

$f_s$ .....: Servis faktörü

$F_{ama}$ .....: Çıkış milinde müsaade edilen eksenel yükler [kN]

$F_{ame}$ .....: Giriş milinde müsaade edilen eksenel yükler [kN]

$F_{qam}$ .....: Çıkış milinde izin verilen radyal yöndeki yükler [N]

$F_{qem}$ .....: Giriş milinde izin verilen radyal yöndeki yükler [N]

$F_{qa}$ .....: Çıkış miline gelen radyal yöndeki yükler [N]

$F_{qe}$ .....: Giriş miline gelen radyal yöndeki yükler [N]

$F_q$ .....: Radyal yöndeki yükler [N]

$F_a$ .....: Eksenel yöndeki yükler [N]

$i$ .....: Tahvil oranı

$J_{ext}$ .....: Motor miline indirgenmiş toplam dış atalet momenti [kgm<sup>2</sup>]

$M_2$ .....: Çıkış momenti [Nm]

$M_a$ .....: Anma momenti [Nm]

$n_1$ .....: Redüktör giriş mili devri [d/dak]

$n_2$ .....: Redüktör çıkış mili devri [d/dak]

$P_{eq}$ .....: Eşdeğer güç [kW]

$P_e$ .....: Nominal güç (Bak. Güç-Devir Tabloları) [kW]

$P_M$ .....: Tahrik edilecek makina için gerekli güç (Değişken yükler için eşdeğer güç alınır) [kW]

$t$ .....: Zaman [s]

$T_e$ .....: Eşdeğer moment [Nm]

#### Key of Symbols

$c_t$ .....: Coefficient of switch on time.

$f_s$ .....: Service factor

$F_{ama}$ .....: Permissible axial loads which can be applied to output shafts [kN]

$F_{ame}$ .....: Permissible axial loads which can be applied to input shafts [kN]

$F_{qam}$ .....: Permissible overhung loads which can be applied to output shafts [N]

$F_{qem}$ .....: Permissible overhung loads which can be applied to input shafts [N]

$F_{qa}$ .....: Overhung loads applied to the output shaft [N]

$F_{qe}$ .....: Overhung loads applied to the input shafts [N]

$F_q$ .....: Overhung loads on output shaft [N]

$F_a$ .....: Axial loads on output shaft [N]

$i$ .....: Transmission ratio

$J_{ext}$ .....: The total inertia of rotating parts at outside reduced at the motor shaft [kgm<sup>2</sup>]

$M_2$ .....: Output torque [Nm]

$M_a$ .....: Nominal torque [Nm]

$n_1$ .....: Input speed of gearbox [rpm]

$n_2$ .....: Output speed of gearbox [rpm]

$P_{eq}$ .....: Equivalent power [kW]

$P_e$ .....: Nominal power (given on performance tables) [kW]

$P_M$ .....: Power consumption of the driven machine (for alternating power, refer to equivalent power) [kW]

$t$ .....: Time [s]

$T_e$ .....: Equivalent torque [Nm]

#### Erklärung der Bezeichnungen

$c_t$ .....: Koeffizient der Tätigkeitszeit von Schalter

$f_s$ .....: Betriebsfaktor

$F_{ama}$ .....: Zulässige Axialkräfte auf Abtriebswelle [kN]

$F_{ame}$ .....: Zulässige Axialkräfte auf Antriebswelle [kN]

$F_{qam}$ .....: Zulässige Querkräfte auf Abtriebswelle [N]

$F_{qem}$ .....: Zulässige Querkräfte auf Antriebswelle [N]

$F_{qa}$ .....: Querkräfte auf Abtriebswelle [N]

$F_{qe}$ .....: Querkräfte auf Antriebswelle [N]

$F_q$ .....: Querkräfte auf Abtriebswelle [N]

$F_a$ .....: Querkräfte auf Antriebswelle [N]

$i$ .....: Übersetzungsverhältnis

$J_{ext}$ .....: Die Gesamtträgheit der rotierende Teile von der Ausgangsseite reduziert auf Motorwelle [kgm<sup>2</sup>]

$M_2$ .....: Ausgangsdrehmoment [Nm]

$M_a$ .....: Nenndrehmoment [Nm]

$n_1$ .....: Antriebsdrehzahl [U/min]

$n_2$ .....: Abtriebsdrehzahl [U/min]

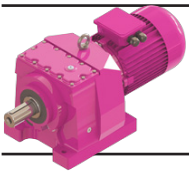
$P_{eq}$ .....: Äquivalente Leistung [kW]

$P_e$ .....: Getriebe Nennleistung (siehe Leistung- Drehzahl tabellen) [kW]

$P_M$ .....: Leistung benötigt an der Abtriebswelle (Zur Berechnung bei variablen Leistungen äquivalente Leistung benutzen) [kW]

$t$ .....: Zeit [s]

$T_e$ .....: Minimales Drehmoment [Nm]



# Genel Bilgiler

## General Information

### Einführung



#### Ürün Yelpazesi

Elinizdeki katalog sadece **M ve N serisi** ürünleri içermektedir.

##### - M ve N Serisi

Helisel alın dişliye sahip, giriş ve çıkış milleri aynı düzlem üzerinde ve birbirine paralel uzanan, üzerlerinde bulunan ayak veya flanş ile makina-ya sabitlenen redüktörlerdir. Dolu mil çıkışıdır.

##### - D Serisi

Helisel alın dişliye sahip, giriş ve çıkış milleri aynı düzlem üzerinde, birbirine paralel ve belirli bir aralıkta yerleştirilmiş, iki yan yüzde bulunan bağlantı civataları, flanş veya tork kolu ile makina-ya sabitlenen redüktörlerdir. Delik milli veya mil çıkışı olabilir.

##### - E Serisi

Sonsuz vida ve çark dişlili, belirli bir aralıkta ve birbirine dik konumlandırılmış giriş ve çıkış millerine sahip, çepçevre konumlandırılmış ayak bağlantıları, flanş veya tork kolu ile makina-ya sabitlenen redüktörlerdir. Delik milli veya mil çıkışı olabilir.

##### - Y Serisi

Yatık tip redüktörler, ağır şartlarda çalışmak üzere dizayn edilmiş redüktör tipleridir. Bu tiplerde redüktör ile bunu tahrik eden mekanizma arasında değişik bağlantı şekilleri mevcuttur (Mekanik ve hidrolik kaplinler, çeşitli tip kayışlar ve zincirle tahrik gibi). Delik milli veya mil çıkışı olabilir.

##### - K Serisi

Helisel alın dişli ve konik dişlilerden oluşan, birbirine dik ve belirli bir aralıkta konumlandırılmış giriş ve çıkış milline sahip, çepçevre sunulan ayaklar, flanş veya tork kolu ile makina-ya sabitlenen redüktörlerdir. E serisinden farklı olarak yüksek verime sahiptirler. Delik milli veya mil çıkışı olabilir.

##### - H ve B Serisi

Helisel ve/veya konik dişliye sahip ağır hizmet tipi redüktörlerdir. Giriş ve çıkış milleri birbirine paralel veya dik olabilir. Her yönden bağlantı için ayak bağlantıları bulunur. Opsiyonel olarak flanş ile de bağlanabilir. Delik milli veya mil çıkışı olabilir.

##### - T Serisi

T Serisi redüktörler helisel dişli iki kademe motorsuz delik milli redüktörlerdir. T Serisi redüktörler delik milli olması ve kompakt gövde yapısı sayesinde daha küçük hacimli alanlara montajı yapılabilmektedir.

##### - P ve R Serisi

P ve R Serisi redüktörler planet dişli redüktörlerdir. Endüstriyel ve mobil uygulamalarda kullanılırlar. Diğer redüktör tiplerine göre daha küçük hacimde daha büyük tork iletebilirler.

##### - VR Serisi

VR vinç redüktörleri M1 - M8 (1Dm - 5m) yük sınıflarına uygun olarak, çift veya sabit devirli frenli motorlarla üretilebilmektedir.

#### Production Range

*This catalogue is containing **M and N series** of gearboxes only.*

##### - M and N Series

*M and N series of YILMAZ REDÜKTÖR are helical geared. The input and output shafts are parallel to each other and on the same plane. The gearbox can be connected to the machine by using the foot or flange on the gearbox. Has solid output shaft.*

##### - D Series

*D series are helical geared gearboxes with parallel input and output shafts. The shafts have a distance in between and located on the same plane. The gearbox can be assembled to the machine by using, the connection screws on the sides, flange or torque arm on the gearbox. Can have hollow or solid output shaft.*

##### - E Series

*E series gearboxes are with worm and worm-wheel. The input and output shafts are perpendicular to each other and have a distance in between. It can be assembled to the driven machine by the use of the foot, flange or torque arm on the gearbox. Can have hollow or solid output shaft.*

##### - Y Series

*Horizontal type gearboxes are designed to operate in heavy conditions. In these types there are a lot of combination forms between gearbox and driver (for example, mechanic and hydraulic couplings, various belt and chain drives etc.). Can have hollow or solid output shaft.*

##### - K Series

*These are gearboxes with helical and bevel gears. The input and output shafts are perpendicular to each other and have a distance in between. It can be assembled to the driven machine using the foot, flange or torque arm on the gearbox. They have high efficiency compared to E series. Can have hollow or solid output shaft.*

##### - H and B Series

*These gearboxes are helical or/and bevel geared industrial gearboxes. The input and output shafts can be arranged parallel or perpendicular to each other. The gearbox can be assembled by the use of the foot connections on each side. Flange connections are optional. Can have hollow or solid output shaft.*

##### - T Series

*T Series are gear units which are helical geared, two staged, hollow shaft mounted gear units and manufactured according to monoblock principal. T Series gearboxes have hollow shaft and compact housing so that T series can be mounted on smaller places.*

##### - P and R Series

*P and R Series gearboxes are planetary gearboxes. They are mostly used by industrial and mobile applications. Planetary gearboxes can transfer high torques in small volumes compared to other gearboxes.*

##### - VR Serie

*VR hoist drives are produced according to M1 - M8 (1Dm - 5m) load classification.*

#### Produktpalette

Dieses Katalog umfasst nur die **M und N Serie** Getriebe.

##### - M und N Serie

Diese Modelle sind Stirnradgetriebe mit parallelen Antriebs- und Abtriebswelle auf einer Ebene. Die Getriebe werden mit Fuß- oder Flanschverbindung an die angetriebene Maschine angekoppelt. Hat Vollwelle am Ausgang.

##### - D Serie

Diese Getriebe sind Stirnradgetriebe mit paralleler Antriebs- und Abtriebswelle, die auf einer Ebene liegen und einen Abstand zueinander haben. Diese Getriebe wird seitlich mit Gewindelöchern am Maschine oder mit einer Flansch verbindet. Kann Voll- und Hohlwelle am Ausgang haben.

##### - E Serie

Diese Getriebe bestehen aus Schnecke und Schneckenrad. Die Antriebs- und Abtriebswellen sind senkrecht zueinander und haben einen bestimmten Abstand. Das Getriebe wird mit Fußbefestigung, Flanschverbindung oder mit Drehmomentstütze an die angetriebene Maschine montiert. Kann Voll- und Hohlwelle am Ausgang haben.

##### - Y Serie

Diese Getrieben sind für Einsatz unter schweren Bedingungen ausgelegt. Bei dieser Ausführung gibt es sehr viele verschiedene Verbindungsmöglichkeiten zwischen Antrieb und Getriebe (Zum Beispiel; mechanische und hydraulische Kupplungen, Riemtrieb, Kettentrieb usw.). Kann Voll- und Hohlwelle am Ausgang haben.

##### - K Serie

Diese Getrieben bestehen aus Stirnräder und Kegelhäder. Die Antrieb und Abtriebswellen sind senkrecht und haben einen Abstand zueinander. Das Getriebe wird mit Fußbefestigung, Flanschverbindung oder Drehmomentstütze an die angetriebene Maschine montiert. Der Wirkungsgrad ist wesentlich höher als E Serie. Kann Voll- und Hohlwelle am Ausgang haben.

##### - H und B Serie

Diese Getriebe sind geeignet für industrielle Anwendungen und haben parallelen oder senkrechten Antrieb und Abtriebswelle auf einer Ebene. Das Getriebe kann mit Füßen, die auf jede Seite der Getriebe vorhanden sind, oder optional mit Flansch an die angetriebene Maschine montiert werden. Kann Voll- und Hohlwelle am Ausgang haben.

##### - T Serie

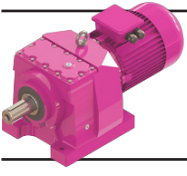
TSerien Getriebe sind zwei stufige, schrägverzahnte Hohlwellenflachgetriebe in Monoblockgehäuse. Die T Serie hat eine kompakte Gehäuse und ist serienmäßig mit Abgangshohlwelle hergestellt, so dass das Getriebe minimalen Platzbedarf hat.

##### - P und R Serie

P und R Serie sind Planetengetriebe, die vielseitig im Industrie und bei mobiler Anwendungen einsetzbar sind, mit Planetenzahnräder. Planetengetriebe können im Vergleich zu anderen Getrieben größere Drehmomente bei kleineren Bauvolumen übertragen.

##### - VR Serie

VR Krane und Hebezeuge werden geeignet zur Belastungsart M1 - M8 (1Dm - 5m) hergestellt.



# Genel Bilgiler

## General Information

### Einführung



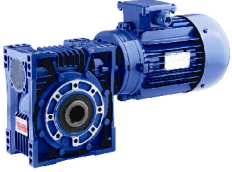
M ...

**13 farklı büyüklükte;**  
**Moment aralığı: 50 - 18.000 Nm**  
**Devir aralığı: 0,1 - 500 d/dak**  
13 different sizes:  
Torque range: 50 - 18.000 Nm  
Speed range: 0,1 - 500 rpm  
13 verschiedene Baugrößen:  
Drehmomentbereich: 50 - 18.000 Nm  
Drehzahlbereich : 0,1 - 500 U/min



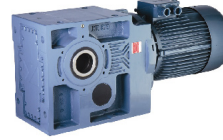
N ...

**13 farklı büyüklükte;**  
**Moment aralığı: 50 - 18.000 Nm**  
**Devir aralığı: 0,1 - 500 d/dak**  
13 different sizes:  
Torque range: 50 - 18.000 Nm  
Speed range: 0,1 - 500 rpm  
13 verschiedene Baugrößen:  
Drehmomentbereich: 50 - 18.000 Nm  
Drehzahlbereich : 0,1 - 500 U/min



E ...

**8 farklı büyüklükte;**  
**Moment aralığı: 5 - 1.000 Nm**  
**Devir aralığı: 0,1 - 400 d/dak**  
8 different sizes:  
Torque range: 5 - 1.000 Nm  
Speed range: 0,1 - 400 rpm  
8 verschiedene Baugrößen:  
Drehmomentbereich: 5-1.000 Nm  
Drehzahlbereich : 0,1-400 U/min



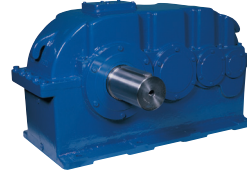
K ...

**7 farklı büyüklükte;**  
**Moment aralığı: 200 - 15.000 Nm**  
**Devir aralığı: 0,1 - 400 d/dak**  
7 different sizes:  
Torque range: 200 - 15.000 Nm  
Speed range: 0,1 - 400 rpm  
7 verschiedene Baugrößen:  
Drehmomentbereich: 200 - 15.000 Nm  
Drehzahlbereich : 0,1 - 400 U/min



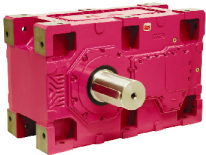
D ...

**10 farklı büyüklükte;**  
**Moment aralığı: 130 - 18.000 Nm**  
**Devir aralığı: 0,1 - 350 d/dak**  
10 different sizes:  
Torque range: 130 - 18.000 Nm  
Speed range: 0,1 - 350 rpm  
10 verschiedene Baugrößen:  
Drehmomentbereich: 130 - 18.000 Nm  
Drehzahlbereich : 0,1 - 350 U/min



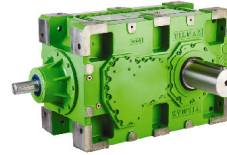
Y ...

**25 farklı büyüklükte;**  
**Moment aralığı: 1200 - 43000 Nm**  
**Devir aralığı: 2,6 - 990 d/dak**  
25 different sizes:  
Torque range: 1200 - 43000 Nm  
Speed range: 2,6 - 990 rpm  
25 verschiedene Baugrößen:  
Drehmomentber. :1200-43000 Nm  
Drehzahlbereich : 2,6-990 U/min



H ...

**13 farklı büyüklükte;**  
**Moment aralığı: 2.500 - 150.000 Nm**  
**Devir aralığı: 0,1 - 250 d/dak**  
13 different sizes:  
Torque range: 2.500 - 150.000 Nm  
Speed range: 0,1 - 250 rpm  
13 verschiedene Baugrößen:  
Drehmomentber. :2.500 - 150.000 Nm  
Drehzahlbereich : 0,1 - 250 U/min



B ...

**13 farklı büyüklükte;**  
**Moment aralığı: 5.000 - 150.000 Nm**  
**Devir aralığı: 0,1 - 115 d/dak**  
13 different sizes:  
Torque range: 5.000 - 150.000 Nm  
Speed range: 0,1 - 115 rpm  
13 verschiedene Baugrößen:  
Drehmomentber. :5.000-150.000 Nm  
Drehzahlbereich : 0,1-115 U/min



P ...

**10 farklı büyüklükte;**  
**Moment aralığı: 1.000 - 50.000 Nm**  
**Tahvil oranları: 3,5 - 3000 arası**  
10 different sizes:  
Torque range: 1.000 - 50.000 Nm  
Transmission ratio: 3,5 - 3000  
10 verschiedene Baugrößen:  
Drehmomentber. : 1.000 - 50.000 Nm  
Übersetzung: 3,5 - 3000



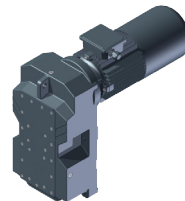
R ...

**10 farklı büyüklükte;**  
**Moment aralığı: 1.000 - 50.000 Nm**  
**Tahvil oranları: 3,5 - 3000 arası**  
10 different sizes:  
Torque range: 1.000 - 50.000 Nm  
Transmission ratio: 3,5 - 3000  
10 verschiedene Baugrößen:  
Drehmomentber. : 1.000 - 50.000 Nm  
Übersetzung: 3,5 - 3000



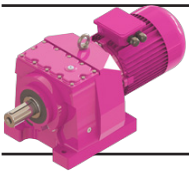
T ...

**10 farklı büyüklükte;**  
**Moment aralığı: 200 - 18.000 Nm**  
**Devir aralığı: 46 - 280 d/dak**  
10 different sizes:  
Torque range: 200-18.000 Nm  
Speed range: 46-280 rpm  
10 verschiedene Baugrößen:  
Drehmomentber. :200-18.000 Nm  
Drehzahlbereich : 46-280 U/min



VR ...

**VR vinç redüktörleri**  
**M1 - M8 ,(1Dm - 5m) yük sınıfı**  
**ISO 4301 / 1 ,(FEM 1.001 / III)**  
VR Hoist Drive Units  
M1 - M8 ,(1Dm - 5m) load classification  
ISO 4301 / 1 ,(FEM 1.001 / III)  
VR Kran und Hebezeug Getriebe  
M1 - M8 ,(1Dm - 5m) Belastungsart  
ISO 4301 / 1 ,(FEM 1.001 / III)



# Genel Bilgiler

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#### M Serisi Redüktörlerin Genel Özellikleri

YILMAZ REDÜKTÖR M serisi redüktörlerini rijitlik, sızdırmazlık, ses ve dişli mukavemetlerinde büyük avantajlar sağlayan bir prensip olan tekil gövde (monoblok) prensibine göre geliştirmiştir. Redüktörler içinde yataklamalar herhangi bir kapak veya gövdeye birleşimi olan parça üzerinde değil, direkt olarak gövdenin kendi üzerinde kalmaktadır. Gövde eksenlerinin tek operasyonda işlenmesi, yüksek imalat hassasiyeti sağlamaktadır. Yüksek teknolojiyle dişli toleranslarında elde ettiğimiz yüksek kalitelere GG20-22 malzemenin olan gövde cevap vermektedir. Bu prensip aynı zamanda rulman ve dişli ömürlerinde bir artış sağlamakta olup; yüksek radyal yükler taşınabilmektedir. Redüktör içinde kullanılan rulman, dişli ve mil hesaplamaları güncel standartlara dayanan profesyonel yazılımlar ile yapılmaktadır. Redüktör gövdesindeki ara perde gövde ana gövdeyle bir bütündür. Ara perde, dişlilerin her iki taraftan, dişliye en yakın noktadan yataklanmasını sağlar. Böylelikle millerin sehim ve salgılarının minimum düzeye inmesini sağlayarak sessiz redüktörlerin üretiminde rol oynamaktadır.

M serisi redüktörler kolay montaj ve esnek kullanım olanağına sahiptir. Redüktörlerin motor bağlantısı müşteri isteğine bağlı olarak standart akuple, IEC B5 veya B14'e uygun olabilir. Tüm modeller ayaklı veya flanşlı olarak, tek gövde içinde iki veya üç kademeli olarak sunulmaktadır. Redüktörler aynı güç ve devir değerleri için daha kompakt hale ve daha düşük eksen mil yüksekliklerine getirilmiştir. Tüm redüktörler modüler sistemde düşünülmüş olup, çiftli redüktörlerde ara bağlantılardaki değişiklikler minimum seviyeye indirilmiştir. Tüm toleranslar kalite güvence sistemi ile aktif kontrol altındadır.

YILMAZ REDÜKTÖR olarak tasarım prensibimiz;

- Yüksek teknoloji kullanmak
- Güvenilirlik,
- Yüksek güç yoğunluğu,
- Yüksek verim,
- Montaj uyumluluğu,
- Esnek çözümler

#### Dikkat Edilecek Hususlar !

- Bu katalogta verilen resimler görsel amaçlıdır ve şekilsel detaylar bağlayıcı değildir.
- YILMAZ REDÜKTÖR, ürünler ve kataloglar üzerinde, müşterileri bilgilendirmeksizin her türlü değişikliği yapma hakkına sahiptir.
- Ürünler teslim alındıktan sonra ürünle birlikte verilen kullanım kılavuzu okunmadan sistem devreye alınmamalıdır.
- Katalogta verilen yağ miktarları referans amaçlıdır. Gerçek yağ seviyesi için redüktör üzerinde bulunan yağ seviye tapası kullanılmalıdır. Yağ viskozitesi için, redüktör etiketine bakınız.
- Sipariş anında montaj pozisyonu bildirilmeyen M serisi redüktörler **M1**, N serisi redüktörler **M4** montaj pozisyonuna uygun sevk edilir. Etiketle yazan montaj pozisyonundan farklı bağlanan redüktörler garanti kapsamından çıkar. Bu katalogta verilen redüktör ağırlıkları ortalama ağırlık değerleridir. Tahvil oranına ve üzerinde bağlı olan aksesuara göre ağırlıklar farklılık gösterebilir.

#### General Specifications of M Series Gearboxes

YILMAZ REDÜKTÖR M series gearboxes has been developed according to the one part housing principle (monoblock) which has advantages in rigidity, oil leakage, noise level and gear strength. All bearings are supported by one part housing itself and not by cover plates or other parts which connects some other parts. Machining axes with one operation cycle gives high precision and very tight tolerances to axes. With high manufacturing technologies achieved high gear qualities have response with housing from GG20-22 material. This design ensures high bearing and gear lifetime at the mean time; high overhung loads can be taken. Calculations of bearings, gears and shafts used in the gearbox has been made with professional software, which are implemented according to up-to-date standards. The middle bearing support plate makes it possible to have optimum support for bearings used in three stage gearboxes. So run out and deformation by running on load is minimized which makes low noise gearbox production possible.

M series gearboxes have the ability of easy mounting and flexible usage. Motor connection of gearboxes can be offered according to customers request suitable to direct, IEC B5 or B14 connection. All models can be delivered foot or flange mounted with two or three stages in one housing. Gearboxes have lower axis height than the old models and compact for the same power and speed. All gearboxes has been designed modular so double gearboxes can be coupled with minimum change. Each tolerances on every part used in gearbox are actively controlled by our quality assurance system.

As we are YILMAZ REDÜKTÖR,our design principals are;

- Using high technology
- Reliability
- High power density
- High efficiency
- Mounting compatible
- Flexible solutions

#### Attention to the following points !

- Drawings are examples only and the details on the drawings or illustrations are not strictly binding.
- YILMAZ REDÜKTÖR reserve the right to make all kinds of changes in products and catalogues without any notice.
- Prior to commissioning, the operating instructions provided with the gearbox must be observed.
- Oil quantities given are guide values only. The exact quantity of oil should be checked by using the provided oil level plugs according mounting positions. For correct oil viscosity refer to the nameplate.
- If the mounting position is not informed upon ordering, the M series gear units are delivered according to **M1** and N series gear units are delivered according to **M4** mounting position. A different operation then the indicated mounting position on the name plate cancels the warranty. The weights given in this catalogue are mean values. Depending on the ratio and accessories the weights can differ.

#### Allgemeine Eigenschaften von M Serie Getrieben

YILMAZ REDÜKTÖR M Serie-Getriebe wurde nach dem Prinzip Blockgehäuse, welche Vor- teile beim Steifigkeit, Dichtheit, Geräusch und Zahnradfestigkeit hervorbringt, entwickelt. Alle Lagerungen sitzen auf nicht geteilte Oberfläche des Gehäuses, wo es keine Verbindung für Deckel oder ein anderes Teil gibt. Alle Achsen werden mit einer Aufspannung bearbeitet. Dieses Vorgehen erlaubt höchste Genauigkeit bei Achsentoleranzen. Mit hohen Fertigungstechnologien erreichte hohe Zahnqualitäten werden mit Gehäuse aus GG20-22 ergänzt. Diese Konstruktion sorgt für hohe Lager- und Zahnlebensdauer; so können hohe Querkräfte getragen werden. Berechnungen von Lagern, Getrieben und Wellen im Getriebe werden mit professioneller Software, die gemäß aktuellen Standards implementiert sind, durchgeführt. Die mittlere Trägerplatte ermöglicht eine optimale Unterstützung für Lager welches in der drei stufige Getriebe eingesetzt wird. So werden Rundlauffehler und Verformung unter Last minimiert, was Produktion von geräuscharmen Getrieben möglich macht.

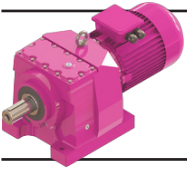
M Serie-Getriebe sind leicht montierbar und einsetzbar. Motoranschluss von Getrieben kann nach Kundenwunsch geeignet zu direkte, IEC B5 oder B14-Verbindung angeboten werden. Alle Modelle können mit Fuß oder Flansch in zwei oder drei stufige Getriebegehäusen geliefert werden. Diese Getriebe haben niedrige Achsenhöhe als alte Modelle und sind kompakter für die gleiche Leistung und Geschwindigkeit. Alle Getriebe wurde modular konzipiert, sodass Doppel-Getriebe mit wenigem Aufwand gekoppelt werden kann. Jede Toleranzen auf jedem Teil in Getriebe werden aktiv durch Qualitätssicherungssystem überprüft.

Als YILMAZ REDÜKTÖR unsere Entwurfsprinzipien sind;

- Verwenden von hohen Fertigungstechniken
- Hohe Betriebssicherheit
- Leistungsdichte
- Hoher Wirkungsgrad
- Universale Montagemöglichkeit
- Sonderlösungen

#### Bitte folgende Punkte beachten !

- Die Abbildungen sind beispielhaft und nicht verbindlich.
- Alle Änderungen auf dem Katalog und an der Produkte bleiben vorbehalten und können ohne Kenntnisnahme erfolgen.
- Vor Inbetriebnahme ist die mit gelieferter Betriebsanleitung zu beachten.
- Angaben über Ölmengen sind unverbindlich. Maßgebend ist die Ölstandsschraube in der geeigneten Montageposition. Ölviskosität und Sorte muss den Angaben des Typenschildes entsprechen.
- Wenn die Bauform bei der Bestellung nicht angegeben ist, erfolgt die Lieferung in der Bauform **M1** für M Serie und **M4** für N Serie. Wenn die Getriebe anders als auf dem Namenschild benannte Bauform eingesetzt werden, verliert die Garantie ihre Gültigkeit. Die angegebenen Gewichte sind unverbindliche Mittelwerte ohne Zubehör; genauere Gewichte sind abhängig von Zubehör und Übersetzung.



# Genel Bilgiler

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#### Teknik Tanımlamalar

##### - Çıkış Momenti ( $M_2$ ): [Nm]

Motorun verdiği momentin tahvil oranı ve verimle ile çarpılarak elde edilen değerdir. Redüktörün çıkışından alınabilecek moment gösterir.

##### - Anma Momenti ( $M_a$ ): [Nm]

Redüktörün  $f_s=1$  şartı için mekanik olarak taşıdığı moment değeridir.

##### - Nominal Güç ( $P_n$ ): [kW]

Nominal güç, redüktörün  $f_s=1$  şartı için mekanik olarak taşıyabileceği güç değeridir. Redüktörlerin nominal güçleri, güç devir tablolarında verilmiştir.

##### - Çevrim oranı (i):

Redüktörün giriş devrinin çıkış devrine oranıdır. Yılmaz Redüktör M serisi redüktörlerde 3,5-23500 arasında değişen çevrim oranları mevcuttur.

##### - Eşdeğer Güç ve Moment

$P_{eq}$  [kW],  $T_e$  [Nm]

Sabit devir altında ancak değişken yük değerlerinde çalışan redüktörlerde, sabit yük altında çalışma şartlarına eşdeğer gelen moment ve güç değerleridir. Hesaplama yöntemi sayfa 23'de verilmiştir.

##### - İhtiyaç güç ( $P_M$ ): [kW]

Redüktörlerin kullanılacağı uygulamanın istenilen şekilde çalışabilmesi için ihtiyaç duyduğu güç değeridir.

##### - İhtiyaç moment (T): [Nm]

Redüktörün kullanılacağı uygulamanın çalışabilmesi için ihtiyaç duyduğu moment değeridir. Seçilen redüktör için her zaman çıkış momentini eşit yada daha düşük olmalıdır.

##### - Müsade Edilen Eksenel ve Radyal Yükler

Fqem, Fqam: [N]

Redüktörün giriş veya çıkış milinde müsade edilen eksenel ve radyal yüklerdir.

##### - Servis Faktörü ( $f_s$ ):

Redüktörün çalıştığı şartlar ile uyumlu olması için gerekli olan emniyet katsayısıdır.  $f_s=1$ , düzgün ve sakin yüklerde, günlük sekiz saat, saatte 100 dur-kalk çalışmayı karşılar. Detaylar için redüktör seçim bölümüne bakınız.

#### Teknik Özellikler:

##### - Ses seviyesi:

Redüktörlerimizin ses seviyesi VDI 2159' da verilen redüktörler için müsade edilen ses seviyelerinin altındadır.

##### - Boya ve Korozyon Koruması:

Redüktörlerin standart rengi DIN1843'e göre RAL 5010 dur. İstek üzerine farklı renklerde boyanabilir. Nemli ve korozyon bölgeler için istek üzerine farklı boya uygulanabilir.

#### Technical Explanations

##### - Output Torque ( $M_2$ ): [Nm]

Multiplication of motor output torque with transmission ratio and efficiency gives the result of output torque at the output shaft of the gear unit.

##### - Nominal Torque ( $M_a$ ): [Nm]

Nominal torque is the mechanical torque which the gearbox can resist under  $f_s=1$  conditions.

##### - Nominal Power ( $P_n$ ): [kW]

The nominal power is the power which gearbox can mechanically resist under  $f_s=1$  condition. The nominal powers are given on the performance tables.

##### - Ratio (i):

Ratio between output shaft speed and input shaft speed. Available ratios of Yılmaz Redüktör M series are between 3,5 to 23500.

##### - Equivalent Power and Torque

$P_{eq}$ : [kW],  $T_e$  [Nm]

For gearbox unit with constant speed but variable working conditions: This is the calculated power or torque which is equivalent to the values at working under constant working conditions.

##### - Required Power ( $P_M$ ): [kW]

Required power for the applications which is able to drive the system.

##### - Required Torque (T): [Nm]

Required torque for applications. Required torque always must be equal or smaller than output torque for selected gearbox.

##### - Permissible Axial and Overhung Loads:

Fqem, Fqam [N]

Permissible axial and overhung load at the output or input shaft of gearboxes.

##### - Service Factor ( $f_s$ ):

Service factor is a safety coefficient, which takes into account the different running conditions of the driven machine.  $f_s=1$  is used for uniform loads 8 hours working per day and up to 100 cycle per hour.

#### Technical Specifications:

##### - Noise Level:

The noise level of our gearboxes is below the permitted values defined in VDI guidelines 2159 for gear units.

##### - Coating and Corrosion Protection:

The gearboxes are painted with RAL 5010 according DIN1843. Different colors are available upon request. Paintings for high humidity or chemically aggressive environments are available upon request.

#### Technische Erläuterungen

##### - Ausgangsmoment ( $M_2$ ): [Nm]

Multiplikation von Ausgangsmoment des Motors mit Übersetzungsgrad und Division das Ergebnis mit Wirkungsgrad ergibt den Betrag von Ausgangsmoment der Getriebe.

##### - Nennmoment ( $M_a$ ): [Nm]

Mechanisches Belastungsmoment der Getriebe unter dem Bedingung  $f_s=1$ .

##### - Nennleistung ( $P_n$ ): [kW]

Die Nennleistung ist die mechanische Grenzfestigkeitsleistung für  $f_s=1$ . Kann von der Leistung-Drehzahltable abgelesen werden.

##### - Übersetzung (i):

Wird aus dem Verhältnis von Ausgang- zu Eingangswinkelgeschwindigkeit bestimmt. Gängige Übersetzungen von Yılmaz M Serie Getriebe liegt zwischen 3,5 bis 23500.

##### - Äquivalente Leistung und Moment

$P_{eq}$ : [kW],  $T_e$  [Nm]

Für mit konstanten Drehzahl aber unter veränderlichen Betriebsbedingungen arbeitende Getriebe berechnete Leistung und Moment äquivalent zu Werten beim Arbeiten unter konstanten Betriebsbedingungen.

##### - Notwendige Leistung ( $P_M$ ): [kW]

Für das Getriebe notwendige Leistung, um Arbeiten von Getriebe bei der für das Getriebe gedachten Anwendung zu gewährleisten.

##### - Notwendige Moment (T): [Nm]

Notwendige Moment für Anwendungen. Für den ausgewählte Getriebe soll das notwendige Moment gleich dem Ausgangsmoment oder kleiner als diesem Moment sein.

##### - Zulässige Axial- oder Querkräfte:

Fqem, Fqam [N]

Bei der Anwendungen während der Betrieb zulässige axiale oder radiale Eingangs- oder Ausgangsbelastungen.

##### - Betriebsfaktor ( $f_s$ ):

Dieser Faktor  $f_s$  ist ein Sicherheitsfaktor, damit die Getriebe unter verschiedenen Bedingungen mit genügender Sicherheit arbeitet.  $f_s=1$  gilt für gleichförmig Belastung, mit 8 Betriebsstunden pro Tag und bis zum 100 Schaltungen pro Stunde.

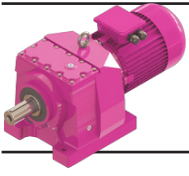
#### Technische Informationen:

##### - Geräuschpegel:

Geräuschstärken aller Getriebe bleiben unter die zulässigen Werte, die für die Getriebe in der VDI-Richtlinie 2159 festgelegt sind.

##### - Lackierung und Korrosionsschutz:

Die Getriebe werden mit der Farbe RAL 5010 nach DIN1843 lackiert. Auf Wunsch sind Sonderlackierungen möglich. Alle Getriebe können auf Wunsch auch in korrosionsgeschützter Ausführung für aggressive Umgebungen geliefert werden.



## Genel Bilgiler General Information Einführung



### - Yağlama:

M ve N Serisi redüktörler yağlama tablolarında verilen yağlar ile doldurulmaktadır. Yağ detayları için yağlama bölümüne bakınız.

### - Aksesuarlar:

M ve N Serisi redüktörlerde aşağıdaki aksesuarlar kullanılabilir.

- IEC B5/B14 Motor bağlantı flanşları
- Çıkış Bağlantı Flanşları
- Geri dönüş kilidi
- Özel keçe çözümleri,
- Şeffaf yağ seviye göstergesi
- Elektromanyetik frenler

Diğer özel aksesuarlar için lütfen, YILMAZ REDÜKTÖR ile temasa geçiniz.

### - Lubrication:

*M and N series of gearboxes are filled with oils which is indicated on lubrication tables. For lubrication details please refer to the lubrication section.*

### - Accessories:

*The following accessories can be applied to M and N series gearboxes.*

- IEC B5/B14 Motor connection flange
- Output flanges
- Backstops
- Special sealing solutions.
- Transparent oil level indicator,
- Electromagnetic brakes.

*For other accessories please contact, YILMAZ REDÜKTÖR.*

### - Schmierung:

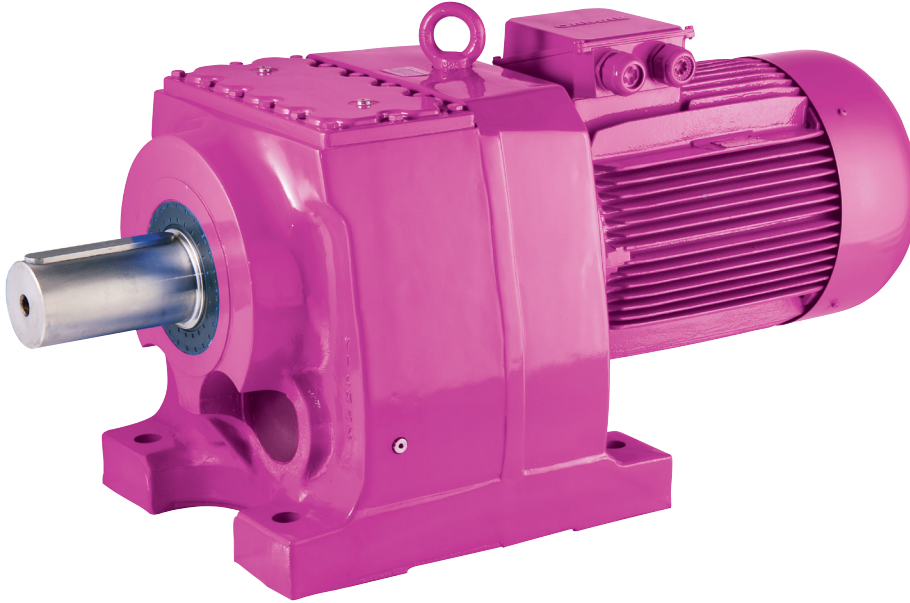
M und N Serien Getriebe werden mit Ölen entsprechend der Schmierungstabellen, falls nicht anders vereinbart, geliefert. Für weitere Schmierungsangaben siehe Kapitel Schmierung.

### - Zubehör:

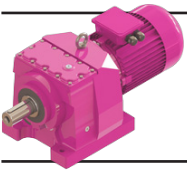
Folgendes Zubehör kann für Getriebe der M und N Serien geliefert werden.

- IEC B5/B14 Motor Adapter,
- Abtriebsflansch,
- Rücklaufsperrn,
- Spezielle Dichtungssysteme,
- Transparente Ölstandsanzeige
- Elektromagnetische Bremsen

Für weiteres Zubehör kontaktieren Sie bitte mit, YILMAZ REDÜKTÖR.

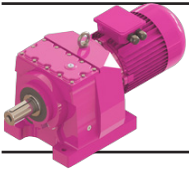






Genel Bilgiler  
General Information  
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# Genel Bilgiler General Information Einführung



Tip Tanımlaması / Unit Designation / Typenbezeichnungen

**M R 4 7 3 - 90S / 4 - L02**

**Fren / Brake / Bremse**

L-220V **Fanlı** / With Fan / Mit Lüfter  
P-24V **Fanlı** / With Fan / Mit Lüfter  
S-220 V **Fansız** / Without Fan / Ohne Lüfter  
Z-24 V **Fansız** / Without Fan / Ohne Lüfter

**01-10 Nm**    **10-100 Nm**  
**02-25 Nm**    **20-200 Nm**  
**04-40 Nm**    **30-300 Nm**  
**05-50 Nm**    **40-400 Nm**

**Kutup sayısı / Number of poles / Anzahl der Polen**

**Motor Büyüklüğü / Motor Size / Motorbaugröße**

**MR / NR ve MV / NV tipleri için / For MR / NR and MV / NV Types / Für die Typen**  
MR / NR und MV / NV

**MN / NN tipleri için / For MN / NN types / Für die Typen**  
MN / NN

**90S / 4**

**Kutup Sayısı / Pole Number / Anzahl der Polen**

**Gövde uzunluğu / Frame Length / Gehäuselänge**  
des Motors

**Motor büyüklüğü / Motor size / Motorbaugröße**

**A06** :63 B5    **A09** : 90 B5    **A13**:132 B5    **A25**: 250 B5  
**B06** :63 B14    **B09** : 90 B14    **B13**:132 B14    **A28**: 280 B5  
**A07** :71 B5    **A10** :100 B5    **A16**:160 B5    **A31**: 315 B5  
**B07** :71 B14    **B10** :100 B14    **A18**:180 B5  
**A08** :80 B5    **A11** :112 B5    **A20**:200 B5  
**B08** :80 B14    **B11** :112 B14    **A22**:225 B5

**Kademe Sayısı / Stage / Anzahl der Stufen**

**2 Kademe / 2 Stages / 2 stufig**    **5 Kademe / 5 Stages / 5 stufig**  
**3 Kademe / 3 Stages / 3 stufig**    **6 Kademe / 6 Stages / 6 stufig**  
**4 Kademe / 4 Stages / 4 stufig**

**Revizyon Numarası / Revision Number / Änderungsnummer**

**Gövde Büyüklük / Housing Size / Größe der Gehäuse**

1...9

**Giriş Tipi / Input Type / Eingangstyp**

**R** :Motorlu / With Motor / Mit Motor

**N** :Motorsuz ve IEC B5/B14 Flanş Girişli / IEC B5 / B14 Flanged without Motor / Mit IEC B5/B14 Motorflansch ohne Motor

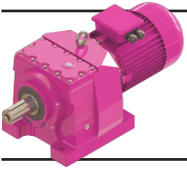
**V** :Motorlu ve IEC B5/B14 Flanş Girişli / IEC B5 / B14 Flanged with Motor / Mit Motor und IEC B5/B14 Motorflansch

**T** :Motorsuz Giriş Milli / With Solid Input Shaft / Eingang ohne Motor

**Redüktör Tipi / Gearbox Type / Getriebe**

**M Serisi / M Serie / M Serie**

**N Serisi / N Serie / N Serie**



# Genel Bilgiler

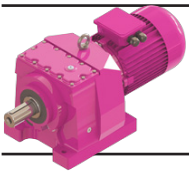
## General Information

### Einführung



#### Tip Tanımlaması / Unit Designation / Typenbezeichnungen

|        |  |
|--------|--|
| MR...  | <b>Monoblok tip, helisel redüktörler, motorlu, ayaklı</b> / Monoblock type helical geared motors, foot mounted / Stirnradtriebemotoren mit Blockgehäuse, Ausführung mit Fuss   |
| NR...  | <b>Monoblok tip, helisel redüktörler, motorlu, flanşlı</b> / Monoblock type helical geared motors, flange mounted / Stirnradtriebemotoren mit Blockgehäuse, Ausführung mit Flansch   |
| MN...  | <b>Monoblok tip, helisel redüktörler, motorsuz, IEC B5/B14 flanşlı, ayaklı</b> / Monoblock type helical geared units with IEC B5/B14 motor flange, foot mounted / Stirnradgetriebe mit Blockgehäuse und IEC B5/B14 Motorflansch, Ausführung mit Fuss   |
| NN...  | <b>Monoblok tip, helisel redüktörler, motorsuz, IEC B5/B14 flanşlı, çıkış flanşlı</b> / Monoblock type helical geared units with IEC B5/B14 motor flange, flange mounted / Stirnradgetriebe mit Blockgehäuse und IEC B5/B14-Flansch, Ausführung mit Flansch                                  |
| MV...  | <b>Monoblok tip, helisel redüktörler, IEC B5/B14 flanşlı, motorlu, ayaklı</b> / Monoblock type helical geared motors with IEC B5/B14 motor flange, foot mounted / Stirnradtriebemotoren mit Blockgehäuse und IEC B5/B14-Flansch, Ausführung mit Fuss   |
| NV...  | <b>Monoblok tip, helisel redüktörler, IEC B5/B14 flanşlı, motorlu, flanşlı</b> / Monoblock type helical geared motors with IEC B5/B14 motor flange, flange mounted / Strinradtriebemotoren mit Blockgehäuse und IEC B5/B14, Ausführung mit Flansch   |
| MT...  | <b>Monoblok tip, helisel redüktörler, motorsuz, mil girişli, ayaklı</b> / Monoblock type helical geared units with solid input shaft, foot mounted / Stirnradgetriebe mit Blockgehäuse und Eingangsvollwelle, Ausführung mit Fuss  |
| NT...  | <b>Monoblok tip, helisel redüktörler, motorsuz, mil girişli, flanşlı</b> / Monoblock type helical geared units with solid input shaft, flange mounted / Strinradgetriebe mit Blockgehäuse und Eingangsvollwelle, Ausführung mit Flansch  |
| MRF... | <b>Monoblok tip, helisel redüktörler, ayaklı, çıkış flanşlı, motorlu</b> / <i>Monoblock type helical geared motors, foot mounted, with output flange</i> / Stirnradtriebemotoren mit Ausgangsflansch, Ausführung mit Fuss  |
| MNF... | <b>Monoblok tip, helisel redüktörler, ayaklı, çıkış flanşlı, motorsuz, IEC B5/B14 flanşlı</b> / <i>Monoblock type helical geared units, foot mounted, with IEC B5/B14 flange, with output flange</i> / Stirnradtriebemotoren mit Ausgangsflansch und IEC B5/B14-Flansch, Ausführung mit Fuss |
| MVF... | <b>Monoblok tip, helisel redüktörler, ayaklı, çıkış flanşlı, motorlu, IEC B5/B14 flanşlı</b> / <i>Monoblock type helical geared motors, foot mounted, with IEC B5/B14 flange, with output flange</i> / Stirnradtriebemotoren mit Ausgangsflansch und IEC B5/B14-Flansch, Ausführung mit Fuss |
| MTF... | <b>Monoblok tip, helisel redüktörler, ayaklı, çıkış flanşlı, motorsuz, giriş milli</b> / <i>Monoblock type helical geared units, foot mounted, with solid input shaft, with output flange</i> / Stirnradgetriebe mit Ausgangsflansch und Eingangsvollwelle, Ausführung mit Fuss.             |
| NRB... | <b>Monoblok tip, helisel redüktörler, agitator boğazlı, motorlu</b> / <i>Monoblock type helical geared motors, with agitator output flange</i> / Stirnradtriebemotoren mit Blockgehäuse und Mischerflansch   |
| NNB... | <b>Monoblok tip, helisel redüktörler, agitator boğazlı, motorsuz, IEC B5/B14 flanşlı</b> / <i>Monoblock type helical geared units, with agitator output flange with IEC B5/B14 flange</i> / Stirnradgetriebe mit Blockgehäuse, IEC B5/B14- und Mischerflansch                                |
| NVB... | <b>Monoblok tip, helisel redüktörler, agitator boğazlı, motorlu, IEC B5/B14 flanşlı</b> / <i>Monoblock type helical geared motors, with agitator output flange with IEC B5/B14 flange</i> / Stirnradtriebemotoren mit Blockgehäuse, IEC B5/B14- und Mischerflansch                           |
| NTB... | <b>Monoblok tip, helisel redüktörler, agitator boğazlı, motorsuz, mil girişli</b> / <i>Monoblock type helical geared units, with agitator output flange, with solid input shaft</i> / Stirnradgetriebe mit Blockgehäuse, Eingangsvollwelle und Mischerflansch                                |



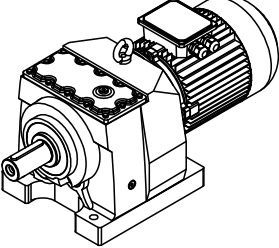
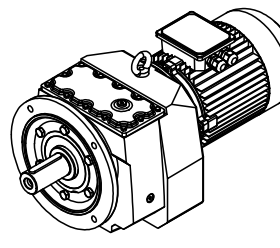
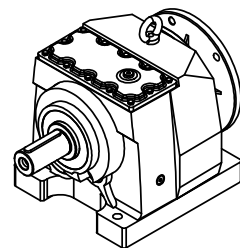
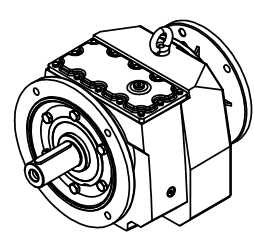
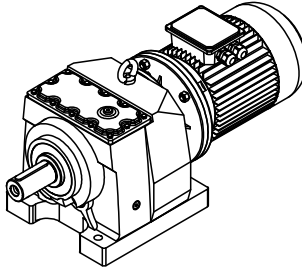
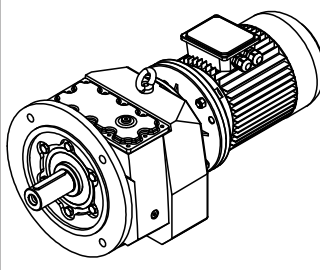
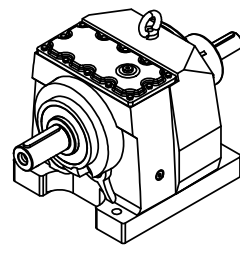
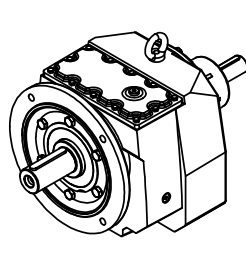
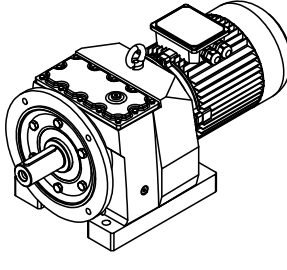
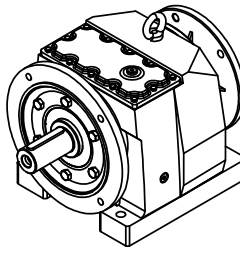
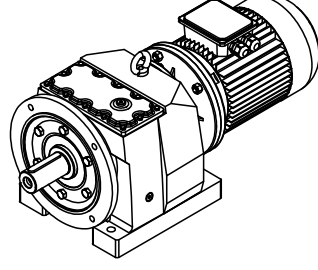
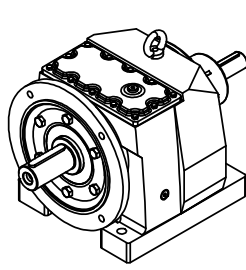
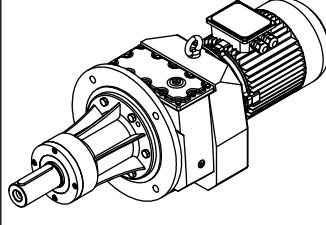
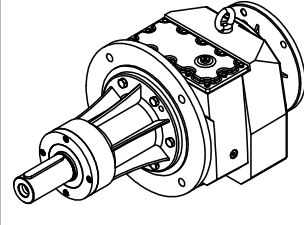
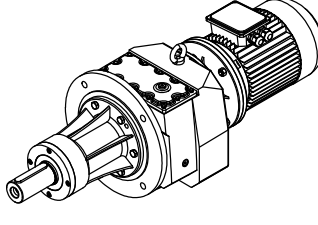
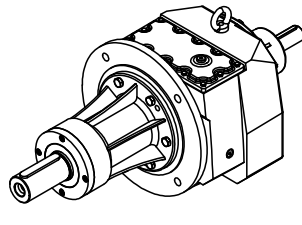
# Genel Bilgiler

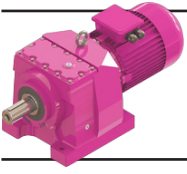
## General Information

### Einführung



Tip Tanımlaması / Unit Designation / Typenbezeichnungen

|   |   |  |   |
|---|---|--|---|
| <br>MR...    | <br>NR...    | <br>MN...    | <br>NN...    |
| <br>MV...    | <br>NV...    | <br>MT...    | <br>NT...    |
| <br>MRF... | <br>MNF... | <br>MVF... | <br>MTF... |
| <br>NRB...  | <br>NNB... | <br>NVB... | <br>NTB... |



# Genel Bilgiler

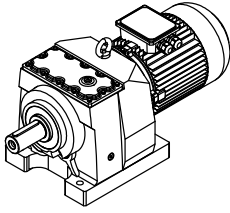
## General Information

### Einführung



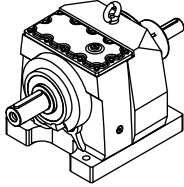
#### Örnek Tip Tanımlamaları

##### MR172 - 90S/4 - L05



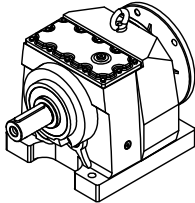
**M**.....: M serisi redüktör  
**R**.....: Motor bağlantılı  
**1**.....: Gövde büyüklük  
**7**.....: Revizyon numarası  
**2**.....: Kademe sayısı  
**90S**.....: Motor büyüklüğü  
**4**.....: Motor kutup sayısı  
**L05**.....: Fren Tipi

#### MT373



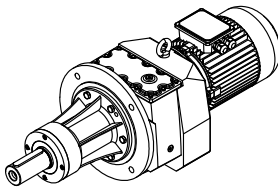
**M**.....: M serisi redüktör  
**T**.....: Motorsuz giriş millî  
**3**.....: Gövde büyüklüğü  
**7**.....: Revizyon numarası  
**3**.....: Kademe sayısı

#### MN473 - A11



**M**.....: M serisi redüktör  
**N**.....: Motorsuz ve IEC B5 giriş flanşlı  
**4**.....: Gövde büyüklüğü  
**7**.....: Revizyon numarası  
**3**.....: Kademe sayısı  
**A11**.....: 112 tip motor, B5 bağlantı flanşı

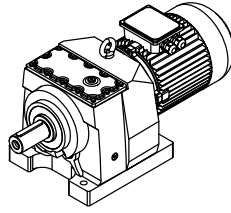
#### NRB473 - 100L/4



**N**.....: N serisi redüktör  
**R**.....: Motorlu  
**B**.....: Agitator boğazlı  
**4**.....: Gövde büyüklüğü  
**7**.....: Revizyon numarası  
**3**.....: Kademe sayısı  
**100L**.....: Motor büyüklüğü  
**4**.....: Motor kutup sayısı

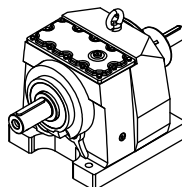
#### Sample Designations

##### MR172 - 90S/4 - L05



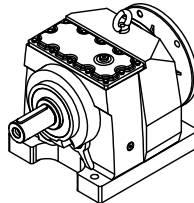
**M**.....: M series gearbox  
**R**.....: With motor connection  
**1**.....: Gear unit size  
**7**.....: Revision number  
**2**.....: Stage number  
**90S**.....: Motor frame size  
**4**.....: Number of poles  
**L05**.....: Brake type

#### MT373



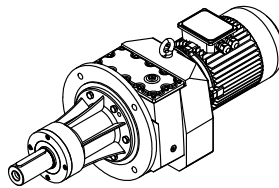
**M**.....: M series gearbox  
**T**.....: Solid input shaft  
**3**.....: Gear unit size  
**7**.....: Revision number  
**3**.....: Stage number

#### MN473 - A11



**M**.....: M series gearbox  
**N**.....: IEC B5 flange without motor input  
**4**.....: Gear unit size  
**7**.....: Revision number  
**3**.....: Stage number  
**A11**.....: Motor type 112, B5 flange

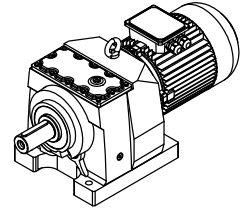
#### NRB473 - 100L/4



**N**.....: N series gearbox  
**R**.....: With motor  
**B**.....: Agitator flange  
**4**.....: Gear unit size  
**7**.....: Revision number  
**3**.....: Stage number  
**100L**.....: Motor size  
**4**.....: Number of poles

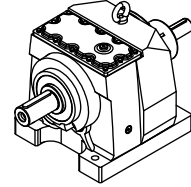
#### Beispiele für Typenbezeichnung

##### MR172 - 90S/4 - L05



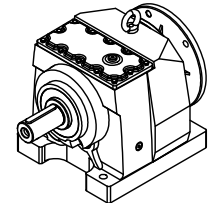
**M**.....: M Serie Getriebe  
**R**.....: Motorverbindung  
**1**.....: Größe der Gehäuse  
**7**.....: Änderungsnummer  
**2**.....: Stufenanzahl  
**90S**.....: Motorbaugröße  
**4**.....: Anzahl der Polen  
**L05**.....: Bremse

#### MT373



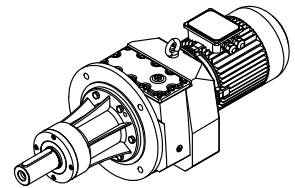
**M**.....: M Serie Getriebe  
**T**.....: Vollwelleneingang ohne Motor  
**3**.....: Größe der Gehäuse  
**7**.....: Änderungsnummer  
**3**.....: Stufenanzahl

#### MN473 - A11

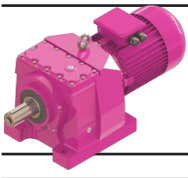


**M**.....: M Serie Getriebe  
**N**.....: IEC B5 Flansch ohne Motor  
**4**.....: Größe der Gehäuse  
**7**.....: Änderungsnummer  
**3**.....: Stufenanzahl  
**A11**.....: Motortyp 112, B5 Motorflansch

#### NRB473 - 100L/4



**N**.....: N Serie Getriebe  
**R**.....: Mit Motor  
**B**.....: Mischerhals  
**4**.....: Größe der Gehäuse  
**7**.....: Änderungsnummer  
**3**.....: Stufenanzahl  
**100L**.....: Motorbaugröße  
**4**.....: Anzahl der Pole



# Genel Bilgiler

## General Information

### Einführung



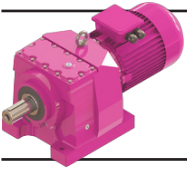
### Motor Büyüklüğüne Göre Geometrik Mümkün Çevrim Oranları

Geometrically Possible Combinations of Ratios According to Motor Size

Geometrisch mögliche Kombinationen von Übersetzungen nach Motorbaugröße

#### Motor Büyüklüğü / Motor Size / Motorbaugröße

| Tip Type Typ | Kademe Stages Stufen | 63                | 71                                      | 80                                      | 90                                      | 100                            | 112                            | 132   |
|--------------|----------------------|-------------------|---|---|---|--------------------------------|--------------------------------|---|
| MR002        | 2                    | 3,62 - 11,14      | 3,62 - 11,14                            | 3,62 - 11,14                            | 3,62 - 11,14                            | -                              | -                              | -   |
| MR003        | 3                    | 13,61 - 45,18     | 13,61 - 45,18                           | 13,61 - 32,02                           | 13,61 - 32,02                           | -                              | -                              | -   |
| MR102        | 2                    | 3,94 - 15,95      | 3,94 - 15,95                            | 3,94 - 15,95                            | 3,94 - 15,95                            | -                              | -                              | -   |
| MR103        | 3                    | 17,33 - 50,51     | 17,33 - 50,51                           | 17,33 - 50,51                           | 17,33 - 50,51                           | -                              | -                              | -   |
| MR172        | 2                    | 3,38 - 20,92      | 3,38 - 20,92                            | 3,38 - 20,92                            | 3,38 - 20,92                            | 3,38 - 18,28                   | 3,38 - 6,60<br>11,08 - 12,66   | -   |
| MR173        | 3                    | 26,10 - 99,21     | 26,10 - 99,21                           | 26,10 - 99,21                           | 26,10 - 99,21                           | 26,10 - 87,60                  | 26,10 - 30,26<br>49,81 - 57,76 | -   |
| MR202        | 2                    | 3,50 - 23,01      | 3,50 - 23,01                            | 3,50 - 23,01                            | 3,50 - 23,01                            | 3,50 - 20,10                   | 3,50 - 13,92                   | -   |
| MR203        | 3                    | 23,23 - 68,03     | 23,23 - 68,03                           | 23,23 - 68,03                           | 23,23 - 68,03                           | 23,23 - 24,77<br>36,02 - 59,43 | 36,02 - 41,16                  | -   |
| MR272        | 2                    | 3,16 - 25,89      | 3,16 - 25,89                            | 3,16 - 25,89                            | 3,16 - 25,89                            | 3,16 - 21,43                   | 3,16 - 16,07                   | -   |
| MR273        | 3                    | 19,00 - 138,55    | 19,00 - 138,55                          | 19,00 - 138,55                          | 19,00 - 138,55                          | 19,00 - 121,03                 | 19,00 - 83,83                  | -   |
| MR275        | 5                    | 149,02 - 1194,61  | 149,02 - 1194,61                        | 149,02 - 1194,61                        | 149,02 - 1194,61                        | -                              | -                              | -   |
| MR276        | 6                    | 1463,49 - 2920,17 | 1463,49 - 2920,17                       | 1463,49 - 2920,17                       | 1463,49 - 2920,17                       | -                              | -                              | -   |
| MR282        | 2                    | -                 | 4,20 - 6,25<br>9,61 - 30,37             | 4,20 - 6,25<br>9,61 - 30,37             | 4,20 - 6,25<br>9,61 - 30,37             | 3,15 - 25,23                   | 3,15 - 19,06                   | 3,15 - 14,31                                    |
| MR283        | 3                    | -                 | 18,33 - 27,80<br>41,96 - 137,91         | 18,33 - 27,80<br>41,96 - 137,91         | 18,33 - 27,80<br>41,96 - 137,91         | 18,33 - 114,14                 | 18,33 - 85,60                  | 18,33 - 27,80<br>41,96 - 63,65                  |
| MR284        | 4                    | 158,52 - 431,18   | 158,52 - 431,18                         | 158,52 - 431,18                         | 158,52 - 431,18                         | -                              | -                              | -   |
| MR285        | 5                    | 376,94 - 1365,28  | 376,94 - 1365,28                        | 376,94 - 1365,28                        | 376,94 - 1365,28                        | -                              | -                              | -   |
| MR286        | 6                    | 1817,07 - 3214,82 | 1817,07 - 3214,82                       | 1817,07 - 3214,82                       | 1817,07 - 3214,82                       | -                              | -                              | -   |
| MR372        | 2                    | -                 | 13,53 - 23,33                           | 13,53 - 23,33                           | 13,53 - 23,33                           | 3,28 - 23,33                   | 3,28 - 20,62                   | 3,28 - 16,20                                    |
| MR373        | 3                    | -                 | 18,68 - 20,64<br>29,47 ; 48,00 - 157,76 | 18,68 - 20,64<br>29,47 ; 48,00 - 157,76 | 18,68 - 20,64<br>29,47 ; 48,00 - 157,76 | 18,68 - 138,72                 | 18,68 - 97,92                  | 18,68 - 72,81                                   |
| MR374        | 4                    | 181,34 - 524,07   | 181,34 - 524,07                         | 181,34 - 524,07                         | 181,34 - 524,07                         | -                              | -                              | -   |
| MR375        | 5                    | 488,82 - 1561,78  | 488,82 - 1561,78                        | 488,82 - 1561,78                        | 488,82 - 1561,78                        | -                              | -                              | -   |
| MR376        | 6                    | 1217,14 - 4945,64 | 1217,14 - 4945,64                       | 1217,14 - 4945,64                       | 1217,14 - 4945,64                       | -                              | -                              | -   |
| MR472        | 2                    | -                 | -                                       | 18,72 - 22,15                           | 18,72 - 22,15                           | 4,89 ; 8,47 - 22,15            | 4,89 ; 8,47 - 22,15            | 3,27 - 22,15                                    |
| MR473        | 3                    | -                 | -                                       | 86,52 - 219,00                          | 86,52 - 219,00                          | 21,74 ; 30,93 - 157,90         | 18,04 - 139,54                 | 18,04 - 109,64                                  |
| MR474        | 4                    | -                 | 229,46 - 674,46                         | 229,46 - 674,46                         | 229,46 - 674,46                         | 229,46 - 295,98                | 229,46 - 259,55                | -   |
| MR475        | 5                    | 726,85 - 2522,85  | 726,85 - 2522,85                        | 726,85 - 2522,85                        | 726,85 - 2522,85                        | 726,85 - 1631,08               | 726,85 - 1386,75               | -   |
| MR476        | 6                    | 2148,94 - 7458,85 | 2148,94 - 7458,85                       | 2148,94 - 7458,85                       | 2148,94 - 7458,85                       | 2148,94 - 5141,34              | 2148,94 - 4822,33              | -   |
| MR572        | 2                    | -                 | -                                       | -                                       | -                                       | 17,07 - 27,00                  | 17,07 - 27,00                  | 4,95 - 27,00                                    |
| MR573        | 3                    | -                 | -                                       | -                                       | -                                       | 26,54 - 167,32                 | 22,64 - 134,45                 | 22,64 - 118,95                                  |
| MR574        | 4                    | -                 | 144,37 - 574,90                         | 144,37 - 574,90                         | 144,37 - 574,90                         | 144,37 - 402,12                | 144,37 - 194,15<br>301,59      | 144,37  |
| MR575        | 5                    | 620,62 - 2736,94  | 620,62 - 2736,94                        | 620,62 - 2736,94                        | 620,62 - 2736,94                        | -                              | -                              | -   |
| MR576        | 6                    | 2850,22 - 8091,82 | 2850,22 - 8091,82                       | 2850,22 - 8091,82                       | 2850,22 - 8091,82                       | -                              | -                              | -   |
| MR672        | 2                    | -                 | -                                       | -                                       | -                                       | -                              | 20,74 - 23,18                  | 5,08 - 5,73<br>10,62 - 23,18                    |
| MR673        | 3                    | -                 | -                                       | -                                       | -                                       | -                              | 110,55 - 196,61                | 30,20 - 174,89                                  |
| MR674        | 4                    | -                 | -                                       | -                                       | 215,97 - 500,39                         | 215,97 - 500,39                | 215,97 - 442,20                | -   |
| MR675        | 5                    | -                 | 730,46 - 2578,93                        | 730,46 - 2578,93                        | 730,46 - 2578,93                        | 583,04 - 2578,93               | 583,04 - 1113,08               | 583,04 - 995,91                                 |
| MR676        | 6                    | -                 | 2863,86 - 17441,07                      | 2863,86 - 17441,07                      | 2863,86 - 17441,07                      | 2863,86 - 7490,08              | 2863,86 - 5287,12              | 2863,86 - 3931,45                               |
| MR772        | 2                    | -                 | -                                       | -                                       | -                                       | -                              | -                              | 6,52 - 7,30<br>12,98 - 21,40                    |
| MR773        | 3                    | -                 | -                                       | -                                       | -                                       | -                              | -                              | 17,53 - 19,76 ; 34,89 - 39,33<br>68,15 - 208,82 |
| MR774        | 4                    | -                 | -                                       | -                                       | 190,96 - 594,92                         | 190,96 - 594,92                | 190,96 - 594,92                | 190,96 - 467,43                                 |
| MR775        | 5                    | -                 | 641,40 - 4812,09                        | 641,40 - 4812,09                        | 641,40 - 4812,09                        | 641,40 - 3103,85               | 641,40<br>822,02 - 1252,60     | 822,02 - 984,18                                 |
| MR776        | 6                    | -                 | 2916,59 - 23464,25                      | 2916,59 - 23464,25                      | 2916,59 - 23464,25                      | 2916,59 - 8428,93              | 2916,59 - 5949,83              | 2916,59 - 4424,24                               |
| MR872        | 2                    | -                 | -                                       | -                                       | -                                       | -                              | -                              | -   |
| MR873        | 3                    | -                 | -                                       | -                                       | -                                       | -                              | -                              | 56,54 - 110,17                                  |
| MR874        | 4                    | -                 | -                                       | -                                       | -                                       | 188,08 - 446,42                | 188,08 - 390,74                | 107,60 - 345,67                                 |
| MR875        | 5                    | -                 | 537,75 - 1924,32                        | 537,75 - 1924,32                        | 537,75 - 1924,32                        | 495,97 - 1924,32               | 495,97 - 1700,56               | 495,97 - 1336,15                                |
| MR876        | 6                    | -                 | 2108,33 - 17501,59                      | 2108,33 - 13014,00                      | 2108,33 - 13014,00                      | 2108,33 - 11443,34             | 2108,33 - 3892,30              | 2108,33 - 2894,28                               |
| MR972        | 2                    | -                 | -                                       | -                                       | -                                       | -                              | -                              | -   |
| MR973        | 3                    | -                 | -                                       | -                                       | -                                       | -                              | -                              | -   |
| MR974        | 4                    | -                 | -                                       | -                                       | -                                       | 172,08 - 510,11                | 172,08 - 510,11                | 172,08 - 510,11                                 |
| MR975        | 5                    | -                 | -                                       | 914,74 - 2027,97                        | 914,74 - 2027,97                        | 588,87 - 2027,97               | 588,87 - 2027,97               | 462,18 - 2027,97                                |
| MR976        | 6                    | -                 | -                                       | 2836,64 - 20051,59                      | 2836,64 - 20051,59                      | 2836,64 - 11064,86             | 2836,64 - 8620,11              | 2836,64 - 5357,43                               |



# Genel Bilgiler

## General Information

### Einführung

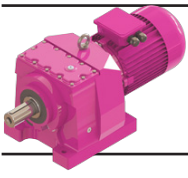


### Motor Büyüklüğüne Göre Geometrik Mümkün Çevrim Oranları

*Geometrically Possible Combinations of Ratios According to Motor Size*  
Geometrisch mögliche Kombinationen von Übersetzungen nach Motorbaugröße

#### Motor Büyüklüğü / Motor Size / Motorbaugröße

| Tip<br>Type<br>Typ | Kademe<br>Stages<br>Stufen | 160   | 180   | 200             | 225                            | 250           | 280           | 315           |
|--------------------|----------------------------|---|---|-----------------|--------------------------------|---------------|---------------|---------------|
| MR002              | 2                          | -   | -   | -               | -                              | -             | -             | -             |
| MR003              | 3                          | -   | -   | -               | -                              | -             | -             | -             |
| MR102              | 2                          | -   | -   | -               | -                              | -             | -             | -             |
| MR103              | 3                          | -   | -   | -               | -                              | -             | -             | -             |
| MR172              | 2                          | -   | -   | -               | -                              | -             | -             | -             |
| MR173              | 3                          | -   | -   | -               | -                              | -             | -             | -             |
| MR202              | 2                          | -   | -   | -               | -                              | -             | -             | -             |
| MR203              | 3                          | -   | -   | -               | -                              | -             | -             | -             |
| MR272              | 2                          | -   | -   | -               | -                              | -             | -             | -             |
| MR273              | 3                          | -   | -   | -               | -                              | -             | -             | -             |
| MR275              | 5                          | -   | -   | -               | -                              | -             | -             | -             |
| MR276              | 6                          | -   | -   | -               | -                              | -             | -             | -             |
| MR282              | 2                          | -   | -   | -               | -                              | -             | -             | -             |
| MR283              | 3                          | -   | -   | -               | -                              | -             | -             | -             |
| MR284              | 4                          | -   | -   | -               | -                              | -             | -             | -             |
| MR285              | 5                          | -   | -   | -               | -                              | -             | -             | -             |
| MR286              | 6                          | -   | -   | -               | -                              | -             | -             | -             |
| MR372              | 2                          | 3,28 - 13,53                                    | -   | -               | -                              | -             | -             | -             |
| MR373              | 3                          | 21,65 - 25,27<br>35,25 - 41,16                  | -   | -               | -                              | -             | -             | -             |
| MR374              | 4                          | -   | -   | -               | -                              | -             | -             | -             |
| MR375              | 5                          | -   | -   | -               | -                              | -             | -             | -             |
| MR376              | 6                          | -   | -   | -               | -                              | -             | -             | -             |
| MR472              | 2                          | 3,27 - 18,72                                    | 3,27 - 15,35                                    | -               | -                              | -             | -             | -             |
| MR473              | 3                          | 18,04 - 84,46 ; 91,58                           | 18,04 - 73,09                                   | -               | -                              | -             | -             | -             |
| MR474              | 4                          | -   | -   | -               | -                              | -             | -             | -             |
| MR475              | 5                          | -   | -   | -               | -                              | -             | -             | -             |
| MR476              | 6                          | -   | -   | -               | -                              | -             | -             | -             |
| MR572              | 2                          | 4,37 - 23,02                                    | 4,37 - 19,15                                    | 4,37 - 14,54    | -                              | -             | -             | -             |
| MR573              | 3                          | 22,64 - 100,53                                  | 22,64 - 39,98<br>54,74 - 82,45                  | -               | -                              | -             | -             | -             |
| MR574              | 4                          | -   | -   | -               | -                              | -             | -             | -             |
| MR575              | 5                          | -   | -   | -               | -                              | -             | -             | -             |
| MR576              | 6                          | -   | -   | -               | -                              | -             | -             | -             |
| MR672              | 2                          | 3,29 - 23,18                                    | 3,29 - 23,18                                    | 3,29 - 17,93    | 3,29 - 11,97                   | -             | -             | -             |
| MR673              | 3                          | 26,66 - 149,11                                  | 26,66 - 124,07                                  | 26,66 - 94,17   | 26,66 - 34,36<br>53,99 - 61,42 | -             | -             | -             |
| MR674              | 4                          | -   | -   | -               | -                              | -             | -             | -             |
| MR675              | 5                          | 583,04 - 673,70                                 | -   | -               | -                              | -             | -             | -             |
| MR676              | 6                          | -   | -   | -               | -                              | -             | -             | -             |
| MR772              | 2                          | 4,25 - 21,40                                    | 4,25 - 21,40                                    | 4,25 - 21,40    | 4,25 - 14,54                   | 4,25 - 14,54  | -             | -             |
| MR773              | 3                          | 15,63 - 178,78                                  | 15,63 - 148,73                                  | 15,63 - 115,06  | 15,63 - 76,81                  | 15,63 - 76,81 | -             | -             |
| MR774              | 4                          | -   | -   | -               | -                              | -             | -             | -             |
| MR775              | 5                          | -   | -   | -               | -                              | -             | -             | -             |
| MR776              | 6                          | -   | -   | -               | -                              | -             | -             | -             |
| MR872              | 2                          | 4,95 ; 5,99 - 10,09                             | 4,95 ; 5,99 - 10,09                             | 4,32 - 10,09    | 4,32 - 10,09                   | 4,32 - 10,09  | 4,32 - 10,09  | -             |
| MR873              | 3                          | 13,30 ; 16,09 - 20,28<br>27,39 - 110,17         | 13,30 ; 16,09 - 20,28<br>27,39 - 110,17         | 11,59 - 86,51   | 11,59 - 52,86                  | 11,59 - 52,86 | 11,59 - 46,12 | -             |
| MR874              | 4                          | 107,60 - 292,15                                 | 107,60 - 239,61                                 | 107,60 - 174,68 | -                              | -             | -             | -             |
| MR875              | 5                          | 495,97 - 537,75                                 | -   | -               | -                              | -             | -             | -             |
| MR876              | 6                          | -   | -   | -               | -                              | -             | -             | -             |
| MR972              | 2                          | 7,92 - 9,99 ; 12,86 - 16,23                     | 7,92 - 9,99 ; 12,86 - 16,23                     | 7,11 - 16,23    | 7,11 - 16,23                   | 7,11 - 16,23  | 7,11 - 16,23  | 7,11 - 16,23  |
| MR973              | 3                          | 20,36 - 26,03 ; 33,08 - 42,30<br>54,80 - 186,95 | 20,36 - 26,03 ; 33,08 - 42,30<br>54,80 - 166,73 | 18,15 - 132,83  | 18,15 - 91,56                  | 18,15 - 91,56 | 18,15 - 70,07 | 18,15 - 70,07 |
| MR974              | 4                          | 172,08 - 216,03                                 | 172,08 - 193,13                                 | -               | -                              | -             | -             | -             |
| MR975              | 5                          | 462,18 - 842,80                                 | 462,18 - 750,24                                 | -               | -                              | -             | -             | -             |
| MR976              | 6                          | -   | -   | -               | -                              | -             | -             | -             |



# Genel Bilgiler

## General Information

### Einführung



#### Servis Faktörü

Servis faktörü (fs) redüktörün çalıştığı şartlar ile uyumlu olması için gerekli olan emniyet katsayısıdır. "fs =1" Düzgün ve sakin yüklerde, günlük sekiz saat ve saatte yüz start çalışmayı karşılar.

Aşağıdaki etkenlere bağlıdır:

- Günlük çalışma süresi
- Yük sınıfı
- Bir saatteki start sayısı
- Redüktör tahrik tipi
- Diğer gözlemler

Bu etkenleri göz önüne aldığımızda, gerekli servis faktörünü belirlemek için:

1. Makinanın günlük çalışma süresini tespit ediniz.
2. Makinanın ne türde yükler verdiğini tespit ediniz (Sayfa 17-18).

- U - Düzgün ve sabit yükler
- M - Orta darbeli yükler
- H - Ağır darbeli yükler

Yük sınıfının daha teknik seçimi için rotora indirgenmiş toplam atalet momenti formülünden faydalanabilirsiniz (Sayfa 18).

3. Saatteki start sayısını tespit ediniz.
4. İlk üç maddeye bağlı servis faktörünü aşağıdaki tablodan seçiniz.

5. fs Redüktörümüzün tahrik tipine bağlı olarak "k" katsayısı ile çarpılarak artırılır.

- k=1 :Elektrik motoru veya hidromotor  
k=1.25 :İçten yanmalı çok silindirli motor  
k=1.5 :İçten yanmalı tek silindirli motor

#### Service Factor

Service Factor (fs) is a safety coefficient, which takes into account the different running conditions of the driven machine. "fs=1" is used for uniform loads 8 hours working per day and up to 100 starts per hour.

Service factor depends on:

- Running time
- Nature of load
- Frequency of starting
- Driver type
- Other considerations

For the right selection of the needed service factor for your machine;

1. Determine the running time of driven machine.
2. Select the nature of load of driven machine (Page 17-18).

- U - Uniform loads
- M - Moderate loads
- H - Heavy shock loads

For a better selection, the nature of load can be calculated from the formulas given (page 18).

3. Determine frequency of starting
4. After determining the above mentioned factors, the service factor can be easily selected from the table given below.
5. The selected service factor must be multiplied with the factor "k" according to the driver type;

- k=1 :Electric motor or Hydrolicmotor  
k=1.25 :Multicylinder internal combustion engine  
k=1.5 :Single cylinder internal combustion engine

#### Betriebsfaktor

Der Betriebsfaktor (fs) ist ein Sicherheitsfaktor für die Getriebe, damit sie unter den Betriebsbedingungen sicher arbeiten. "fs =1" steht für gleichförmige Belastung, 8 Stunden pro Tag und bis zu 100 Schaltungen pro Stunde.

Betriebsfaktor ist abhängig von:

- Betriebsdauer
- Belastungsart
- Schalthäufigkeit
- Antriebsart
- Andere Faktoren

Um die richtigen Betriebsfaktor festzulegen;

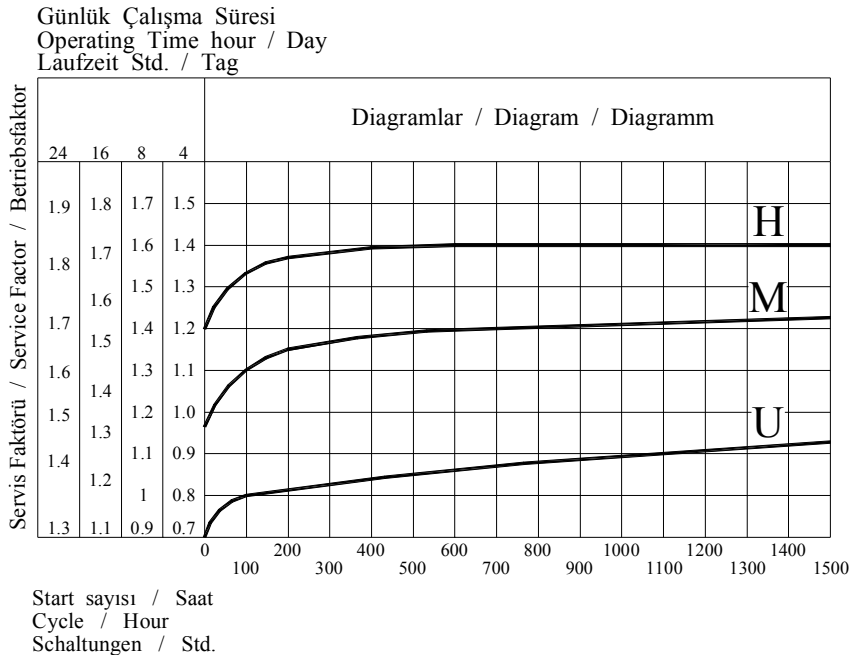
1. Betriebsdauer der angetriebenen Maschine bestimmen.
2. Belastungsart der angetriebenen Maschine auswählen.

- U - Gleichförmig Belastung
- M - Ungleichförmig Belastung
- H - Stark Ungleichförmig Belastung

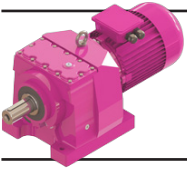
Um eine bessere Auswahl zu treffen, können die Belastungsarten mit den angegebenen Formeln (Seite 18) errechnet werden.

3. Schalthäufigkeit bestimmen.
4. Nach Bestimmen der oben angegebenen Werte, können die Betriebsfaktoren von der unten stehenden Tabelle entnommen werden.
5. Der ausgewählte Betriebsfaktor muß mit dem Faktor "k" abhängig von der Antriebsart multipliziert werden

- k=1 :Elektromotor oder Hydraulikmotor  
k=1.25 :Vielzylindermotor  
k=1.5 :Einzyldermotor







# Genel Bilgiler

## General Information

### Einführung



#### Yük Sınıflandırması

##### Krenler:

- U - Kaldırma Dişlileri
- Palanga Dişlileri
- M - Bomlu Vinç Dişlileri
- Yana Döndürme Dişlileri
- H - Yürütme Dişlileri

##### Pompalar:

- U - Santrifuj Pompalar (ince sıvı)
- M - Santrifuj Pompalar (yarı sıvı)
- H - Basınçlı Pompalar
- Dalgıç Pompalar

##### Taş ve Kil İşleme Makinaları:

- H - Çekiçli Değirmenler
- Döner Fırınlar
- Dövücü Değirmenler
- Kırıcılar
- Kürel Değirmenler
- Tuğla Presi
- Tüp Değirmenler

##### Tekstil Makinaları:

- M - Basma ve Boyama Makinaları
- Dokuma Tezgahları
- Hallac Makinaları
- Harman Makinaları
- Taneleme (Debegat) Tekneleri

##### Yağ Sanayi:

- M - Besleme Pompaları
- Döner Delme Teçhizatları

##### Yiyecek Sanayi:

- M - Kutu Bıçaklar
- Kutu Kaplama
- Mayalama Tekneleri
- H - Kenar Açma

##### Çamaşır Yıkama Makinaları:

- M - Döner Kurutucular
- Yıkama Makinaları

##### Hadde Makinaları:

- M - Hız Ayarlı Silindirler
- Sabit Silindirler
- Sarma Makaraları
- Tel Çekme
- H - Çubuk Kesme Makinaları
- Döner Tablalar (büyük)
- Kabuk Sıyırma Makinaları
- Plaka Haddeleme
- Silindir Haddeleme
- Soğuk Haddeleme

#### Load Classification

##### Cranes:

- U - Hoist Gears
- Lifting Gears
- M - Defrocking jib Gears
- Slowing Gears
- H - Travelling Gears

##### Pumps:

- U - Centrifugal Pumps (light liquids)
- M - Centrifugal Pumps (semi liquid)
- H - Pressure Pumps
- Plunger Pumps

##### Stone and Clay Working Machines:

- H - Hammer Mills
- Rotary Kilns
- Beater Mills
- Breakers
- Ball Mills
- Brick Presses
- Tüp Mills

##### Textile Machines:

- M - Printing and Dyeing Machines
- Looms
- Willow
- Batchers
- Tanning Vats

##### Oil Industry:

- M - Pipeline Pumps
- Rotary Drilling Equipment

##### Food Industry:

- M - Cane Knives
- Cane Crushers
- Mach Tubs
- H - Cane Mills

##### Laundries:

- M - Tumblers
- Washing Machines

##### Metal Rolling Mills:

- M - Roller Adjustment Drives
- Roller Straightened
- Winding Machines
- Wire Drawing Benches
- H - Billet Shears
- Rotary Tables (heavy)
- Descaling Machines,
- Sheet Mills
- Manipulators
- Cold Rolling Mills

#### Belastungsart

##### Krananlagen:

- U - Einziehwerke
- Hubwerke
- M - Schwenkwerke
- Wippwerke
- H - Fahrwerke

##### Pumpen:

- U - Kreiselpumpen (leichte Flüssigkeit)
- M - Kreiselpumpen (zähe Flüssigkeit)
- H - Prebpumpen
- Plungerpumpen

##### Steine und ErdenBearbeitendeMasch.

- H - Hammermühlen
- Drehofen
- Schlagmühlen
- Brecher
- Kugelmühlen
- Ziegelpressen
- Rohrmühlen

##### Textilmaschinen:

- M - Drukerei
- Farbereimachinen
- Aufwickler
- Webstühle
- Gerbfasser
- Reibwolfe

##### Erdölgewinnung:

- M - Pipeline Pumpen
- Rotative Bohranlagen

##### Nahrungsmittelmachinen:

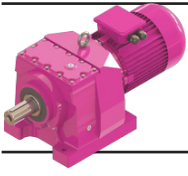
- M - Rohrschneiden
- Knetmaschinen
- Maichen
- H - Rohrmühlen

##### Waschereimaschinen:

- M - Trommeltrockner
- Waschmaschinen

##### Wälzwerke:

- M - Rollenrichtmaschinen
- Walzantriebe
- Drahtzuge
- Haspeln
- H - Blechscheren
- Rollgänge (schwer)
- Knüppelscheren
- Schöpfscheren
- Stranggubanlagen
- Kaltwälzwerke



# Genel Bilgiler

## General Information

### Einführung



#### İnşaat Makinaları:

- M - Beton Mikserleri  
- Ağır Yük Asansörleri

#### Kağıt Makinaları:

- H - Islak Presler  
- Kağıt Hamur Makinaları  
- Kurutma Silindirleri  
- Perdahlama Silindirleri

#### Kauçuk Makinaları:

- M - Kalenderler  
- Mikserler  
H - Extruderler  
- Hamur Karma  
- Silindirler

#### Kimya Sanayi:

- M - Agidatörler (yarı sıvı)  
- Kurutma Merdaneleri  
- Mikserler ve Silindirleri

#### Konveyörler:

- M - Bant Cepli Konveyörler  
- Çelik Bantlı Konveyörler  
- Dökme Yüklü Kayışlı Konv.  
H - Yük Asansörleri  
- Parça Yüklü Kayışlı Konv.

#### Building Machines:

- M - Concrete Mixers  
- Hoist

#### Paper Machines:

- H - Wet Presses  
- Pulpers  
- Drying Cylinders  
- Glazing Cylinders

#### Rubber Machinery:

- M - Calenders  
- Mixers  
H - Extruders  
- Pug Mills  
- Rolling Mills

#### Chemical Industry:

- M - Aggidators (semi- liquid)  
- Drying Drums.  
- Mixers and Rolling Mills

#### Conveyors:

- M - Band Pocket Conveyors  
- Steel Belt Conveyors  
- Belt Conveyors  
H - Hoists  
- Bulk Belt Conveyors

#### Baumaschinen:

- M - Betonmischermaschinen  
- Bauaufzüge

#### Papiermaschinen:

- H - Naßpressen  
- Gautschen  
- Trockenzyylinder  
- Glattzyylinder

#### Kunststoffmaschinen:

- M - Kalender  
- Mischer  
H - Extruder  
- Knetwerke  
- Wälzwerke

#### Chemische Industrie:

- M - Rührwerke (leichte Flüssig.)  
- Trockentrommeln  
- Mischer und Wälzwerke

#### Förderanlagen:

- M - Gurtaschenbecherwerke  
- Stahlbandförderer  
- Gurtbandförderer (Schüttgut)  
H - Schrägaufzüge  
- Gurtbandförderer (Stückgut)

|   |   |              |
|---|---|--------------|
| U | <b>Uniform Yük</b><br>Uniform Loads<br>Gleichförmige Last             | $F_i < 0,25$ |
| M | <b>Orta Darbeli Yük</b><br>Moderate Loads<br>Ungleichförmige Last     | $F_i < 3$    |
| H | <b>Darbeli Yük</b><br>Heavy Shock Loads<br>Stark Ungleichförmige Last | $F_i < 10$   |

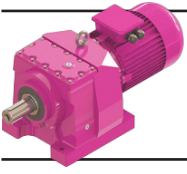
$$J'_{ext} = \frac{J_{ext}}{i^2}$$

$$F_i = \frac{J'_{ext}}{J_{rotor}}$$

$J_{ext}$  : **Motor miline indirgenmiş toplam dış atalet momenti**  
External moments of inertia reduced to the motor shaft  
Externe massenträgheitsmomente reduziert auf motorwelle

$i$  : **Tahvil oranı**  
Transmission ratio  
Übersetzung

$J_{rotor}$  : **Motorun atalet momenti**  
Moments of inertia to the motor  
Massenträgheitsmoment



# Genel Bilgiler

## General Information

### Einführung



#### Redüktör Dönüş Yönleri

M Serisi ürünlerimiz için kullanılan yön tanımlaması aşağıdaki gibidir. Aşağıdaki tanımlama kilitli redüktörler için de geçerlidir.

#### Direction of Rotation

M Series direction of rotation of Yılmaz products are defined as follows. The definitions are also valid for gear units with backstop.

#### Getriebedrehrichtungen

Die Drehrichtungen für M Serie Getriebe sind wie folgt definiert. Die Definition ist auch bei Getrieben mit Rücklauf Sperre gültig.

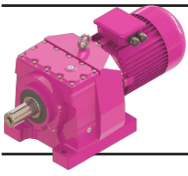
|   | 2-4-6 Kademe / 2-4-6 Stages / 2-4-6 stufig | 3-5 Kademe / 3-5 Stages / 3-5 stufig |
|---|--|--------------------------------------|
| <b>Saat Yönünde</b><br>Clockwise<br>im Uhrzeigersinn<br><b>CW</b>                   |  |                                      |
| <b>Saat Tersi Yönünde</b><br>Counter Clockwise<br>gegen Uhrzeigersinn<br><b>CCW</b> |  |                                      |

Giriş mili dönüş yönüne göre çıkış mili dönüş yönleri aşağıdaki gibidir.

Output shaft rotation directions according to the input shaft rotation directions are as follows.

Drehrichtungen der Abtriebswelle im Abhängigkeit von der Antriebswellen sind wie folgt;

| 2-4-6 Kademe / 2-4-6 Stages / 2-4-6 stufig | 3-5 kademe / 3-5 Stages / 3-5 stufig |
|--|--------------------------------------|
|  |                                      |



# Genel Bilgiler

## General Information

### Einführung



#### Radyal Yükler

Çıkış miline gelebilecek radyal ve aksenal yükler yatak ömrüne göre belirlenmiş ve tablolar halinde verilmiştir. Bu tablolarda verilen  $F_{qam}$  güvenilir radyal yükü emniyet katsayısı 1 için ve yükün mil ortasını yüklediği durum için verilmiştir. Darbeli yüklerin olması ( $f_s \neq 1$ ) durumunda izin verilen radyal yük değerleri servis faktörü kadar azaltılmalıdır. Verilen radyal ve aksenal yükler kuvvetin en kötü açı şartında etki ettiği durum için verilmiştir. Mil ucuna gelen kuvvetin açısına göre daha yüksek radyal yükler mümkündür (Firmamıza danışınız). Bağlantı şekline göre oluşan radyal yük  $F_q$  sayfa 21 de verilen formüller yardımı ile hesaplanır. Redüktör seçiminde ;

$$\begin{aligned} F_{qa} &\leq F_{qam} \\ F_{qe} &\leq F_{qem} \end{aligned}$$

şartı göz önünde tutulmalı. Eğer etkiyen radyal kuvvet milin orta noktasında değil ise verilen güvenilir değer in aşağıda verilen formül ile düzeltilmesi gerekir.

$$F_{qam}' = F_{qam} \cdot \frac{t}{y + u}$$

$$F_{qem}' = F_{qem} \cdot \frac{t}{y + u}$$

"t", "y" Değerleri aşağıda verilmiştir. "u" Değeri görüldüğü gibi kuvvetin uygulama noktasıdır.

#### Overhung Loads

The permissible overhung loads are calculated by considering working life and is listed on the tables. The given permissible overhung loads  $F_{qam}$  are based on safety factor 1 and are valid for forces which are applied to the midpoint of the shaft.

For shock loading ( $f_s \neq 1$ ) permissible radial loads must be divided with service factor. The listed permissible overhung loads are based on the worst loading direction. Higher overhung loads can be applied for different loading directions (Please ask if requested). The effective overhung load at the gearbox shaft  $F_q$  will be determined with the given formulas on page 21.

In Selection ;

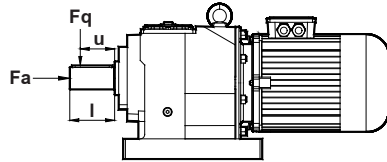
$$\begin{aligned} F_{qa} &\leq F_{qam} \\ F_{qe} &\leq F_{qem} \end{aligned}$$

these formulas must be taken into consideration. If the load is not applied at the midpoint of the shaft; the given permissible load must be corrected with the following formulas.

$$F_{qam}' = F_{qam} \cdot \frac{t}{y + u}$$

$$F_{qem}' = F_{qem} \cdot \frac{t}{y + u}$$

The values "t", "y" can be taken from the below table. The value "u" is the length of the application point as shown below.



#### Querkräfte

Die in den nachfolgenden Tabellen angegebenen zulässigen Radialbelastungen  $F_{qam}$  gelten bei Kraftangriff auf die Mitte Wellenendes. Den Angaben liegt der Sicherheitsfaktor gleich 1 zu Grunde. Bei stoßartigen Belastungsfällen ist auch hier der entsprechende Betriebsfaktor ( $f_s \neq 1$ ) zu berücksichtigen. Zulässige Axialkräfte  $F_{ama}$  oder  $F_{ame}$  wurden für den Fall mit schlechter Belastungsrichtung angegeben. Bei der Ermittlung der zulässige Querkräfte sind höhere Werte möglich (Bitte Rückfragen). Die auftretende Querkraft  $F_q$  ab der Getriebewelle wird wie in der nachfolgenden Formel bestimmt.

Bei dieser Auswahl;

$$\begin{aligned} F_{qa} &\leq F_{qam} \\ F_{qe} &\leq F_{qem} \end{aligned}$$

müssen die oben angegebenen Bedingungen berücksichtigt werden. Ist der Kraftangriff nicht auf Wellenmitte, so kann die zulässige Querkraft mit Hilfe der unten stehenden Formel auf jede beliebige Stelle umgerechnet werden.

$$F_{qam}' = F_{qam} \cdot \frac{t}{y + u}$$

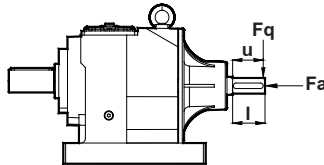
$$F_{qem}' = F_{qem} \cdot \frac{t}{y + u}$$

Die Werte "t" und "y" sind in den nachfolgenden Tabellen angegeben. Der Wert "u" ist die Stelle des Kraftangriffs wie auf der nächsten Seite angegeben.

Çıkış Milinde Radyal Kuvvet Hesabı Düzeltme Katsayıları

Overhung Load Correcting Values on Output Shaft  
Querkräfte auf Ausgangswelle Korrigierungszahlen

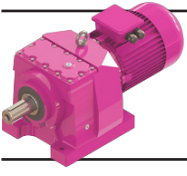
| Tip<br>Type<br>Typ | MR002-003<br>NR002-003 | MR102-103<br>NR102-103 | MR172-173<br>NR172-173 | MR202-203<br>NR202-203 | MR272-273<br>NR272-273 | MR282-283<br>NR282-283 | MR372-373<br>NR372-373 | MR472-473<br>NR472-473 | MR572-573<br>NR572-573 | MR672-673<br>NR672-673 | MR772-773<br>NR772-773 | MR872-873<br>NR872-873 | MR972-973<br>NR972-973 |
|--------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| t                  | 90                     | 108                    | 109                    | 140                    | 141                    | 158                    | 170                    | 214                    | 256                    | 291                    | 314                    | 404                    | 440                    |
| y                  | 70                     | 83                     | 84                     | 110                    | 106                    | 123                    | 130                    | 164                    | 196                    | 226                    | 244                    | 299                    | 334                    |
| l                  | 40                     | 50                     | 50                     | 60                     | 70                     | 70                     | 80                     | 100                    | 120                    | 130                    | 140                    | 210                    | 210                    |



Giriş Milinde Radyal Kuvvet Hesabı Düzeltme Katsayıları

Overhung Load Correcting Values on Input Shaft  
Querkräfte auf Eigangswelle Korrigierungszahlen

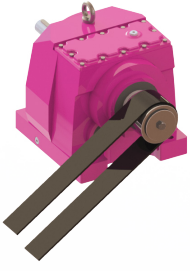
| Tip<br>Type<br>Typ | MT002-003<br>NT002-003 | MT102-103<br>NT102-103 | MT172-173<br>NT172-173 | MT202-203<br>NT202-203 | MT272-273<br>NT272-273 | MT282-283<br>NT282-283 | MT372-373<br>NT372-373 | MT472-473<br>NT472-473 | MT572-573<br>NT572-573 | MT672-673<br>NT672-673 | MT772-773<br>NT772-773 | MT872-873<br>NT872-873 | MT972-973<br>NT972-973 |
|--------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| t                  | 78                     | 108                    | 108                    | 111                    | 111                    | 126                    | 126                    | 137                    | 158                    | 180                    | 207                    | 220                    | 261                    |
| y                  | 58                     | 83                     | 83                     | 86                     | 86                     | 96                     | 96                     | 102                    | 113                    | 130                    | 147                    | 165                    | 207                    |
| l                  | 40                     | 50                     | 50                     | 50                     | 50                     | 60                     | 60                     | 70                     | 90                     | 100                    | 120                    | 110                    | 110                    |



# Genel Bilgiler

## General Information

### Einführung



#### Radyal Yüklerin Hesabı

Radyal Yük  $F_q(N)$ 'nin hesaplanmasında, gerekli tahrik momenti  $M$  (Nm), kasnak veya dişli çapı  $D$  (mm) olmak üzere aşağıdaki formüller kullanılır.

##### 1. Elastik Kaplin

Çalışma sırasında oluşan sapmalar kaplinin güvenlik sınırları içinde ise kuvvetler ihmal edilebilir.

##### 2. Düz Dişli

(20° kavrama açılı)

$$F_q = \frac{2100 \times M_2}{D}$$

##### 3. Küçük Hızlarda Zincir Dişli ( $z > 17$ )

$$F_q = \frac{2100 \times M_2}{D}$$

##### 4. Triger Kayış

$$F_q = \frac{2500 \times M_2}{D}$$

##### 5. V Kayış

$$F_q = \frac{5000 \times M_2}{D}$$

##### 6. Gerdirme Makaralı Kayış

$$F_q = \frac{5000 \times M_2}{D}$$

#### Calc. Of Overhung Loads

Radial Load  $F_q(N)$  is calculated with the following equations where required moment  $M$  (Nm) and hoop or gear diameter  $D$  (mm) is used.

##### 1. Elastic Coupling

If Elastic Coupling is working in its reliable working area, the overhung loads can be neglected.

##### 2. For Spur Gear

(Pressure angle 20°)

$$F_q = \frac{2100 \times M_2}{D}$$

##### 3. For Chain Drive

With Low Speed ( $z > 17$ )

$$F_q = \frac{2100 \times M_2}{D}$$

##### 4. For Trigger Belt

$$F_q = \frac{2500 \times M_2}{D}$$

##### 5. For V Belt

$$F_q = \frac{5000 \times M_2}{D}$$

##### 6. Flat Belt With Spanning Pulley

$$F_q = \frac{5000 \times M_2}{D}$$

#### Berechnung der Querkräfte

Der Fall der radialen Belastung  $F_q(N)$  kann mit den angegebenen Gleichungen berechnet werden. Antriebsmoment  $M$  (Nm) und Zahnrad- oder Riemenscheiben Durchmesser  $D$  (mm).

##### 1. Elastische Kupplung

Wenn die elastische Kupplung in ihren zulässige Arbeitstoleranz arbeitet, können die radialen Belastungen vernachlässigt werden.

##### 2. Stirnradgetriebe

(Angriffswinkel 20°)

$$F_q = \frac{2100 \times M_2}{D}$$

##### 3. Kettenantrieb mit niedriger Geschwindigkeit ( $z > 17$ )

$$F_q = \frac{2100 \times M_2}{D}$$

##### 4. Zahnriemenantrieb

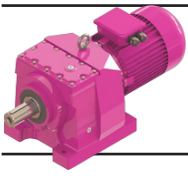
$$F_q = \frac{2500 \times M_2}{D}$$

##### 5. Keilriemenantrieb

$$F_q = \frac{5000 \times M_2}{D}$$

##### 6. Flachriemenantrieb mit Spannungstrommel

$$F_q = \frac{5000 \times M_2}{D}$$



# Genel Bilgiler

## General Information

### Einführung



#### Eşdeğer Güç Hesabı

Sabit devirde, ancak değişken momentlerde (güçlerde) çalışan redüktörler için eşdeğer tork altındaki, eşdeğer güç hesaplanabilir. Bu eşdeğer güç kullanılarak bilinen sabit güçteki redüktör seçim yöntemi kullanılarak seçim yapılabilir. Burada ağırlıklı torka göre eşdeğer anma torku belirlenmektedir. Hesaplanan bu güçte çalışan redüktör, teorik olarak, değişken yüklerde çalışan redüktör ile aynı emniyet değerine ve ömre sahiptir.

Bir çevrim boyunca oluşan değişken torklar, en yüksek torktan, en düşüğe doğru yatay zaman eksenini boyunca sıralanır (bakınız alttaki şekil). Bu şekile göre eşdeğer tork şu formül ile hesaplanır;

$$T_e = \left( \frac{\Delta t_1 \times T_1^{6.6} + \dots + \Delta t_n \times T_n^{6.6}}{t} \right)^{\frac{1}{6.6}}$$

Eğer  $T_n$  değerleri (en düşük tork),  $T_e$ 'nin 0,5 katının altında ise, bu tork dilimi yok sayılarak, işlem tekrarlanır;

Eğer  $T_n < T_e \times 0.5$  ise

$$T_e = \left( \frac{\Delta t_1 \times T_1^{6.6} + \dots + \Delta t_{n-1} \times T_{n-1}^{6.6}}{t - \Delta t_n} \right)^{\frac{1}{6.6}}$$

Tüm  $T_n$  değerleri  $T_e$ 'nin 0,5 katının üzerinde ise, eşdeğer güç aşağıdaki gibi hesaplanır;

$$P_{eq} = P_N = \frac{T_e \times n}{9550}$$

Eşdeğer gücün bulunmasından sonra eşdeğer güç değeri kullanılarak, bu katalogta verilen redüktör seçimi bölümünde anlatılan adımlar uygulanarak redüktör seçimi tamamlanır.

#### Equivalent Power Rating Calculation

The equivalent power by an equivalent constant torque can be calculated for gearboxes working in constant speed but variable torques (or powers). Using this equivalent power it is possible to make a gearbox selection according to the usual gearbox selection method with constant torques. The equivalent torque will be determined according to the mean of dominating torques. The gearbox working in constant equivalent torque will theoretically have the same lifetime and safety compared to the variable torque one.

To calculate the equivalent torques, the variable torques in a cycle must be sorted from the maximal to the minimal on a horizontal time line (Check the graphic below). According to the graphic below the equivalent torque can be calculated with the following formula;

$$T_e = \left( \frac{\Delta t_1 \times T_1^{6.6} + \dots + \Delta t_n \times T_n^{6.6}}{t} \right)^{\frac{1}{6.6}}$$

If  $T_n$  (the lowest torque) is lower than 50 % of  $T_e$ , this torque part must be taken out of the torque graph and the calculation must be repeated;

If  $T_n < T_e \times 0.5$  then

$$T_e = \left( \frac{\Delta t_1 \times T_1^{6.6} + \dots + \Delta t_{n-1} \times T_{n-1}^{6.6}}{t - \Delta t_n} \right)^{\frac{1}{6.6}}$$

If all  $T_n$  values are higher than 50% of  $T_e$  then the equivalent power can be calculated by the following formula;

$$P_{eq} = P_N = \frac{T_e \times n}{9550}$$

After the equivalent power is determined the selection of gearbox is made according to the selection procedures given on the gearbox selection part in this catalogue.

#### Berechnung Äquivalenter Leistung

Die äquivalente Leistung bei äquivalenten Drehmoment kann für Getrieben mit konstanten Drehzahl und variablen Momente berechnet werden. Mit dieser Leistung kann das Getriebe ausgelegt werden, wie bei konstanten Leistung. Man bestimmt hiermit also die maßgebende Belastung. Das ausgelegte Getriebe erreicht theoretisch dem gleichen Lebensdauer und hat die gleiche Sicherheit.

Für die Berechnung der äquivalenten Drehmoment müssen die einzelnen Drehmomentanteile auf eine Zeitachse von größten bis zu kleinsten angeordnet werden (siehe unteres Bild). Das äquivalente Drehmoment wird nach folgender Formel berechnet;

$$T_e = \left( \frac{\Delta t_1 \times T_1^{6.6} + \dots + \Delta t_n \times T_n^{6.6}}{t} \right)^{\frac{1}{6.6}}$$

Wenn  $T_n$  (niedrigstes Drehmoment) kleiner als 50% von  $T_e$  ist, muss dieser Anteil vernachlässigt werden und die Berechnung soll neu durchgeführt werden;

Wenn  $T_n < T_e \times 0.5$  dann

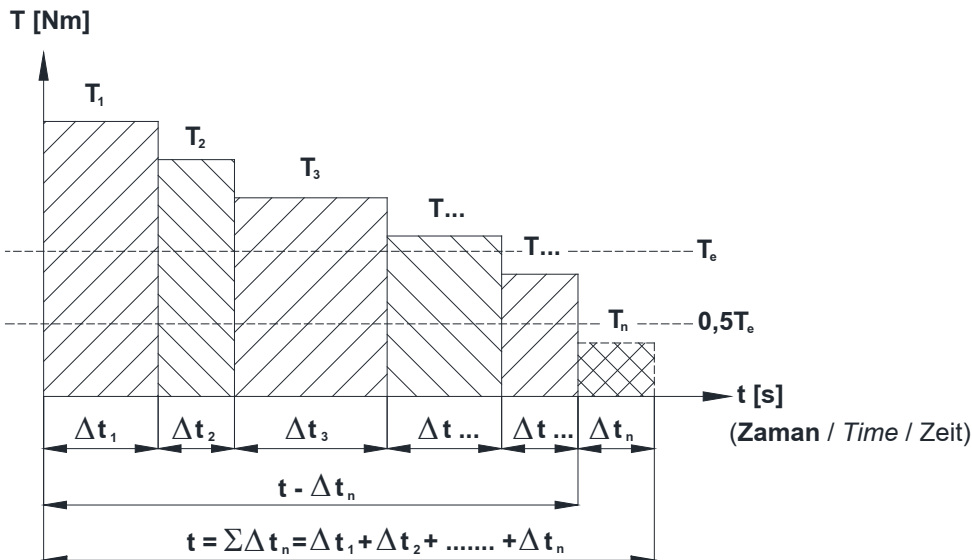
$$T_e = \left( \frac{\Delta t_1 \times T_1^{6.6} + \dots + \Delta t_{n-1} \times T_{n-1}^{6.6}}{t - \Delta t_n} \right)^{\frac{1}{6.6}}$$

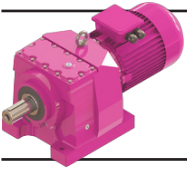
Wenn alle  $T_n$  Werte höher als 50% von  $T_e$  sind, dann wird die äquivalente Leistung nach folgender Formel berechnet;

$$P_{eq} = P_N = \frac{T_e \times n}{9550}$$

Nach Bestimmung der äquivalenter Leistung, erfolgt die Getriebeauslegung wie bei konstanter Leistung. Die Auswahlverfahren für konstante Leistung ist in diesem Katalog angegeben.

(Moment / Torque / Moment)





# Genel Bilgiler

## General Information

### Einführung



#### Eşdeğer Güç Hesabı Örneği

Çift yönlü çalışan ham demir haddesi için aşağıdaki çalışma koşulları belirlenmiş;

##### Veriler:

Toplam bir iş çevrimi: 2 dak.

1. Yük kademesi: 48 kNm, 30 s
2. Yük Kademesi: 32 kNm, 22 s
3. Yük Kademesi: 28 kNm, 15 s
4. Yük Kademesi: 16 kNm, 10 s
5. Yük Kademesi: 5 kNm, 43 s

Makina sabit devri: 50 d/dak

Redüktör seçimine esas olacak eşdeğer yük aranmaktadır.

##### Çözüm:

Bir çevrimin toplam zamanı;

$$t = t_1 + t_2 + t_3 + t_4 + t_5 = 120 \text{ sn}$$

Eşdeğer Tork;

$$T_e = \left( \frac{30 \times 48^{6.6} + \dots + 43 \times 5^{6.6}}{120} \right)^{\frac{1}{6.6}}$$
$$= 39,2 \text{ kNm}$$

%50 eşdeğer tork;

$$0.5 \times T_e = 19.6 \text{ kNm}$$

Her bir tork dilimi bu değerin üzerinde olmalı

$$T_4, T_5 < 0.5 \times T_e$$

%50 torkun altındakileri çıkararak hesabı tekrarlayalım;

$$t' = t - t_4 - t_5 = 120 - 43 - 10 = 67 \text{ s}$$

$$T_e = \left( \frac{30 \times 48^{6.6} + \dots + 15 \times 28^{6.6}}{67} \right)^{\frac{1}{6.6}}$$
$$= 42,9 \text{ kNm}$$

Moment ve devir değerlerini kullanarak eşdeğer gücümüzü hesaplayalım ;

$$P_{eq} = \frac{T_e \times n}{9550} = \frac{42,9 \times 1000 \times 50}{9550} \cong 225 \text{ kW}$$

Yukarıdaki güç ve devir değeri kullanılarak bu katalogta anlatılan seçim presüdüğü ile redüktör seçimi yapılabilir.

#### Equivalent Power Rating Sample

The following data is given for a reversing blooming mill;

##### Torque steps:

Total one cycle time: 2 min.

1st torque part: 48 kNm, 30 s

2nd torque part: 32 kNm, 22 s

3th torque part: 28 kNm, 15 s

4th torque part: 16 kNm, 10 s

5th torque part: 5 kNm, 43 s

Machine constant speed: 50 rpm

The equivalent power, which is required for gear unit selection, is to determine.

##### Solution:

Total time in a cycle;

$$t = t_1 + t_2 + t_3 + t_4 + t_5 = 120 \text{ sn}$$

Equivalent Torque;

$$T_e = \left( \frac{30 \times 48^{6.6} + \dots + 43 \times 5^{6.6}}{120} \right)^{\frac{1}{6.6}}$$
$$= 39,2 \text{ kNm}$$

50% of Equivalent torque;

$$0.5 \times T_e = 19.6 \text{ kNm}$$

Every torque part must be lower then this value;

$$T_4, T_5 < 0.5 \times T_e$$

We are repeating the calculation by taking out the torque parts, which are below 50%;

$$t' = t - t_4 - t_5 = 120 - 43 - 10 = 67 \text{ s}$$

$$T_e = \left( \frac{30 \times 48^{6.6} + \dots + 15 \times 28^{6.6}}{67} \right)^{\frac{1}{6.6}}$$
$$= 42,9 \text{ kNm}$$

By using the equivalent torque and constant speed we calculate the equivalent power ;

$$P_{eq} = \frac{T_e \times n}{9550} = \frac{42,9 \times 1000 \times 50}{9550} \cong 225 \text{ kW}$$

Now by using the above calculated equivalent power and constant speed we can make the gearbox selection with the procedures described in this catalogue.

#### Beispiel für Äquivalente Leistung

Die nachfolgenden Angaben sind für eine Blechreversierwalze;

##### Drehmoment stufen:

Gesamte Zeit für einem Arbeitszyklus: 2 min.

Drehmomentanteil 1: 48 kNm 30 s

Drehmomentanteil 2: 32 kNm 22 s

Drehmomentanteil 3: 28 kNm 15 s

Drehmomentanteil 4: 16 kNm 10 s

Drehmomentanteil 5: 5 kNm 43 s

Maschine hat konstante Drehzahl: 50 U/min

Gesucht ist die äquivalente Leistung, die für die Getriebeauslegung nötig ist.

##### Lösung:

Gesamte Zeit für einem Arbeitszyklus;

$$t = t_1 + t_2 + t_3 + t_4 + t_5 = 120 \text{ sn}$$

Äquivalentes Drehmoment;

$$T_e = \left( \frac{30 \times 48^{6.6} + \dots + 43 \times 5^{6.6}}{120} \right)^{\frac{1}{6.6}}$$
$$= 39,2 \text{ kNm}$$

50% von äquivalenten Drehmoment;

$$0.5 \times T_e = 19.6 \text{ kNm}$$

Drehmomentanteile müssen größer als dieser Wert sein;

$$T_4, T_5 < 0.5 \times T_e$$

Wir wiederholen die Berechnung nochmals ohne die kleine Drehmomentanteile;

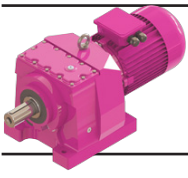
$$t' = t - t_4 - t_5 = 120 - 43 - 10 = 67 \text{ s}$$

$$T_e = \left( \frac{30 \times 48^{6.6} + \dots + 15 \times 28^{6.6}}{67} \right)^{\frac{1}{6.6}}$$
$$= 42,9 \text{ kNm}$$

Mit Hilfe von äquivalenten Drehmoment und konstanter Drehzahl berechnet man die äquivalente Leistung ;

$$P_{eq} = \frac{T_e \times n}{9550} = \frac{42,9 \times 1000 \times 50}{9550} \cong 225 \text{ kW}$$

Nach Bestimmung der äquivalente Leistung und konstanter Drehzahl, erfolgt die Getriebeauslegung dann wie die Getriebeauswahl gemäß dem in diesem Katalog beschriebenen Verfahren für konstante Leistung.



# Genel Bilgiler

## General Information

### Einführung



### Redüktör Seçimi

Bir redüktör seçiminde aşağıdaki yol izlenmelidir.

1. Çalışma şartlarına bağlı olarak servis faktörünü (fs) belirleyiniz. (Servis Faktörü Sayfa 16).

2. Makinanız için gerekli olan momenti belirleyiniz  $M_2$  (redüktör gerekli çıkış momenti ).

3. Makinanızın devrini belirleyiniz  $n_2$  (redüktör gerekli çıkış devri ).

4. Makinanızın güç ihtiyacını (Redüktör çıkış gücünü) " $P_2$ " hesaplayınız.

$$P_2 = \frac{M_2 \times n_2}{9550}$$

5. Redüktör ile makina arasında kullanılan bağlantı elemanına göre radyal yükü hesaplayınız. (Sayfa 20). Yukarıdaki verilere uygun olarak çıkış devri, değerlerine uyan servis faktörü ve radyal yükü bulduğunuzdan daha yüksek veya eşit olan redüktörü, güç-devir seçim tablolarından seçiniz. Helisel tip redüktörlerde verim yüksek olduğundan çıkış gücü verilmemiştir. Hesapladığınız güç değerini giriş gücü olarak kabul edip seçiminizi yapınız. Tablolarda verilen  $M_2$  çıkış momentinin hesapladığınız  $M_2$  den büyük olmasına dikkat ediniz. Eğer seçilen redüktörünki daha ufak ise bir üst motor gücüne geçiniz.

### Örnek

#### 1. Makina Cinsi:

Lastik bantlı konveyör , dökme yük taşıyor.

#### 2. Makina için gerekli moment:

Makina için hesaplanan moment  $M_2 = 470 \text{ Nm}$ .

#### 3. Makina gerekli çıkış devri:

$n_2 = 50 \text{ dev/dak}$ .

#### 4. Günlük çalışma süresi:

16 saat.

#### 5. Saatte start sayısı:

Saatte 1 start

#### 6. Makina ile bağlantı şekli:

Zincir dişli ( çap -160 mm )

- Yük sınıflandırma tablosundan yük sınıfı M olarak seçilir (sayfa 17-18)

- Günlük çalışma süresi 16 saat Saatte start sayısı 1 ve yük sınıfı M'ye tekabül eden servis faktörü tablosundan, servis faktörü için  $fs = 1.3$  değeri bulunur.(sayfa 16)

- Makinanızın güç ihtiyacı (Redüktör Çıkış Gücü) :

$$P_2 = \frac{M_2 \times n_2}{9550} = \frac{470 \times 50}{9550} = 2,46 \text{ kW}$$

### Gearbox Selection

For the correct selection of the appropriate gear units follow this steps.

1. Determine service factor (fs) on the basis of running conditions (Page 16).

2. Determine the required Torque  $M_2$  (required output torque of gearbox) for the driven machine.

3. Determine required speed (output speed of gearbox) for the driven machine.

4. Calculate the required power for your machine (Calculate power " $P_2$ " required at output side of gear reducer using the formula);

$$P_2 = \frac{M_2 \times n_2}{9550}$$

5. Calculate overhung load required at output shaft according to type of connection between gear unit and machine (Refer to directions and values given on page 20). After determining the above mentioned values, the gear reducer which corresponds to our requirements can be selected from the performance tables (the service factor and the permissible overhung load should be less than or equal to our requirements). For Helical gears the output power is not given on the performance tables because they have high efficiency and the output power can be taken as input power. The output torque should be checked if it meets to our requirements. If the output torque is low, search for a higher input power gearbox.

### Example:

#### 1. Machine Type:

Belt Conveyor (Bulk Load)

#### 2. Required Torque:

Required Torque calculated for the driven machine is  $M_2 = 470 \text{ Nm}$ .

#### 3. Required speed:

$n_2 = 50 \text{ rpm}$

#### 4. Running time:

16 hours per day

#### 5. Frequency of starting:

1 start per hour

#### 6. Connection type between gear reducer

Chain drive (output dimension-160 mm)

- From the load classification table (on page 17-18), the load class M can be selected for the known application.

- The service factor can be selected as  $fs = 1,3$  from the service factor table (page 16) by taking into consideration 16 hours running time, one start per hour, and load class M.

- Required power for your machine (Power at output side of gear reducer) :

$$P_2 = \frac{M_2 \times n_2}{9550} = \frac{470 \times 50}{9550} = 2,46 \text{ kW}$$

### Getriebeauswahl

Für die korrekte Auswahl des Antriebes;

1. Den Betriebsfaktor(fs) in Abhängigkeit von den Betriebsbedingungen bestimmen.(Bezug auf Seite 16).

2. Die erforderte Drehmoment  $M_2$  für die angetriebene Maschine (Abtriebsdrehmoment für die Getriebe) bestimmen.

3. Erforderte Drehzahl bestimmen (Abtriebsdrehzahl für die Getriebe).

4. Berechnen der erforderte Leistung der angetriebene Maschine (Die an der Abtriebswelle erforderte Leistung " $P_2$ ") mit der unten angegebenen Formel.

$$P_2 = \frac{M_2 \times n_2}{9550}$$

5. Die an der Getriebeabtriebswelle erforderte Querkraft in Abhängigkeit von Antriebsselement bestimmen (Bezug auf Seite 20). Nach Bestimmen der oben angegebenen Werte, die passende Getriebe kann von den angegebenen Leistungstabellen entnommen werden. Dabei soll darauf geachtet werden, dass der Betriebsfaktor und Querkraft stets unterhalb von angegebenen Werten liegt. Weil Stirnradgetrieben einen hohen Wirkungsgrad haben, sind die Abtriebsleistungen für Stirnradgetrieben nicht angegeben. Bei dieser Getrieben die erforderte Leistung kann als Antriebsleistung benutzt werden. Achten sie darauf, dass der Abtriebsmoment größer als die erforderte Drehmoment ist.

### Beispiel:

#### 1. Maschinentyp:

Gurtbandförderer (Schüttgut)

#### 2. Erforderte Drehmoment:

Für die Maschine berechnete Drehmoment  $M_2 = 470 \text{ Nm}$ .

#### 3. Erforderte Drehzahl:

$n_2 = 50 \text{ upm}$

#### 4. Betriebsdauer:

16 stunden pro Tag

#### 5. Schalthäufigkeit:

1 Start pro Stunde

#### 6. Antriebselement für verbindung

Getriebe-Machine:Kettentrieb(Durchmesser-160 mm)

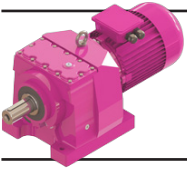
- Von den Belastungsart Tabellen(Seite 17-18) nimmt man Belastungsart M

- Für den Schaltungszahl 1 und die Laufzeit16 und für den passenden Belastungsart erhält man Betriebsfaktor  $fs = 1,3$  von Tabelle auf Seite 16.

- Erforderte Leistung der angetriebe Maschine (Die an der Getriebeabtriebswelle erforderte Leistung)

$$P_2 = \frac{M_2 \times n_2}{9550} = \frac{470 \times 50}{9550} = 2,46 \text{ kW}$$





## Genel Bilgiler General Information Einführung



- Zincir dişli uygulaması için (Sayfa 21)  $F_q$  değeri;

$$F_q = \frac{2100 \times M_2}{D} = \frac{2100 \times 470}{180} = 5484 \text{ N}$$

- Ortaya çıkan redüktör ihtiyacı

$$\begin{aligned} P_2 &\geq 2,46 \text{ kW} \\ M_2 &\geq 470 \text{ Nm} \\ fs &\geq 1,3 \\ n_2 &= 50 \text{ d/dak} \\ F_q &\geq 5484 \text{ N} \end{aligned}$$

Güç ve devir sayılarından,

**MR373-100L/4a** seçilir. (Sayfa 81)

$$\begin{aligned} P_2 &= 3 \text{ kW} > 2,46 \text{ kW} \\ M_2 &= 573 \text{ Nm} > 470 \text{ Nm} \\ fs &= 1,3 \\ n_2 &= 47 \text{ d/dak} \\ F_{qam} &= 6616 \text{ N} > 5484 \text{ N} \end{aligned}$$

- For chain drive application the requested overhang load can be calculated from (page 21).

$$F_q = \frac{2100 \times M_2}{D} = \frac{2100 \times 470}{180} = 5484 \text{ N}$$

- The required gearbox is as follows:

$$\begin{aligned} P_2 &\geq 2,46 \text{ kW} \\ M_2 &\geq 470 \text{ Nm} \\ fs &\geq 1,3 \\ n_2 &= 50 \text{ rpm} \\ F_q &\geq 5484 \text{ N} \end{aligned}$$

From the performance table,

**MR373-100L/4a** selected. (Page 81)

$$\begin{aligned} P_2 &= 3 \text{ kW} > 2,46 \text{ kW} \\ M_2 &= 573 \text{ Nm} > 470 \text{ Nm} \\ fs &= 1,3 \\ n_2 &= 47 \text{ rpm} \\ F_{qam} &= 6616 \text{ N} > 5484 \text{ N} \end{aligned}$$

- Für Kettentrieb die erforderte Querkraft (seite 21).

$$F_q = \frac{2100 \times M_2}{D} = \frac{2100 \times 470}{180} = 5484 \text{ N}$$

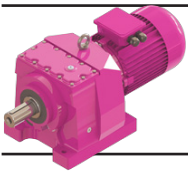
- Von den oben angegebenen Berechnungen die erforderte Getriebe ist wie folgt;

$$\begin{aligned} P_2 &\geq 2,46 \text{ kW} \\ M_2 &\geq 470 \text{ Nm} \\ fs &\geq 1,3 \\ n_2 &= 50 \text{ U/min} \\ F_q &\geq 5484 \text{ N} \end{aligned}$$

Von der Leistung- DrehzahlTabelle ,

wurde **MR373-100L/4a** gewählt. (Seite 81)

$$\begin{aligned} P_2 &= 3 \text{ kW} > 2,46 \text{ kW} \\ M_2 &= 573 \text{ Nm} > 470 \text{ Nm} \\ fs &= 1,3 \\ n_2 &= 47 \text{ U/min} \\ F_{qam} &= 6616 \text{ N} > 5484 \text{ N} \end{aligned}$$



# Genel Bilgiler

## General Information

### Einführung



#### Redüktör Seçim Formu

Kullanıldığı Sektör.....  
Kullanıldığı Yer.....  
Gerekli Ortalama Devir.....d/dak

#### Makina ihtiyaç gücü:

-Normal..... kW  
-En çok..... kW  
-En az..... kW

#### Tahrik Şekli:

AC Motor [ ]  
AC Motor + Invertör [ ]  
DC Motor [ ]  
Hidromotor [ ]  
1-3 silindri içten yanmalı [ ]  
2-4 silindri içten yanmalı [ ]

#### Motor Bağlantı Şekli (Elektrik Motorları):

IEC B5 Flanşlı [ ]  
NEMA Flanşlı [ ]  
B3 Ayaklı [ ]

IEC veya NEMA flanş kodu. ....

#### Motor Gücü:

-Nominal..... kW

#### Motor Devri:

-Normal..... d/dak  
-En çok..... d/dak  
-En az..... d/dak

#### Motor Torku:

-Normal..... Nm  
-En çok..... Nm  
-En az..... Nm

#### Dönüş şekli:

saat yönü [ ] saat yönüne ters [ ] değişken [ ]

#### Günlük çalışma süresi:

<4 [ ] 4-8 [ ] 8-16 [ ] >16 [ ]

#### Saatteki start sayısı:

0-50 [ ] 50-100 [ ] 100-200 [ ]  
200-300 [ ] 300-500 [ ] 500-700 [ ]  
700-1000 [ ] >1000 [ ]

Motor Redüktör Arası Tahvil Oranı.....

Kalkış için gerekli moment.....Nm

#### Saatteki pik moment adedi:

1-5 [ ] 6-30 [ ] 31-100 [ ] >100 [ ]

#### Bir çevrimde aktif çalışma oranı (ED):

%100 [ ] %80 [ ] %60 [ ] 40% [ ] %20 [ ]

#### Deniz seviyesinden yükseklik:

<1000 [ ] <2000 [ ] <3000 [ ]  
<4000 [ ] <5000 [ ]

#### Montaj yeri:

Küçük kapalı oda (w<1m/sn) [ ]  
Kapalı oda (w<3m/sn) [ ]  
Büyük oda ve holler (w>=3m/sn) [ ]  
Tamamen açık ortam [ ]

#### Çevre Şartları:

Normal [ ] Tozlu [ ] Nemli [ ]  
Korozif [ ] Kuru [ ]

#### Çevre Sıcaklığı:

Ortalama..... °C  
En Yüksek..... °C  
En Düşük..... °C

#### Kilit İhtiyacı:

Var [ ] Yok [ ]

#### Redüktör Giriş Opsiyonu:

R.. [ ] V.. [ ] N.. [ ] T.. [ ]

#### Montaj Pozisyonu:

M1 [ ] M2 [ ] M3 [ ] M4 [ ] M5 [ ] M6 [ ]

#### Giriş mili bağlantı şekli:

Elastik kaplin [ ]  
Fıçı tipi kaplin [ ]  
Rijit kaplin [ ]  
Hidrolik Kaplin [ ]  
Kayış kasnak [ ]  
Zincir dişli [ ]  
Pinyon dişli [ ]  
Bağlantı elemanı çapı.....mm  
Radyal yükü.....N  
Radyal yük "u" mesafesi.....mm  
Aksiyal yükü (mile doğru +).....N

#### Çıkış mili bağlantı şekli:

Elastik kaplin [ ]  
Fıçı tipi kaplin [ ]  
Rijit kaplin [ ]  
Kayış kasnak [ ]  
Zincir dişli [ ]  
Pinyon dişli [ ]  
Bağlantı elemanı çapı.....mm  
Radyal yükü.....N  
Radyal yük "u" mesafesi.....mm  
Aksiyal yükü (mile doğru +).....N

#### Çıkış Mili Özelliği:

Dolu Mil Kamalı [ ]  
Dolu Mil Kamasız [ ]  
Özel Mil [ ]

#### Giriş Mili Özelliği:

Kamalı [ ]  
Kamasız düz mil [ ]  
Özel Mil [ ]

#### Elektrik Gerilimi:

AC-Monofaze [ ] AC-Trifaze [ ] DC [ ]  
Voltaj.....Volt  
Frekans.....Hz

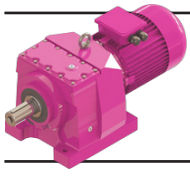
#### Koruma Sınıfı:

IP55 [ ] IP65 [ ] Exproof [ ]  
Diğer IP.....

#### Ekler:

Yük diyagramı [ ]  
Proje [ ]  
İstenen ana boyutlar [ ]  
Teknik veriler [ ]

#### Diğer Notlar:



# Genel Bilgiler

## General Information

### Einführung



#### Gearbox Selection Form

Field of Industry.....  
 Application.....  
 Required Average Speed..... rpm

#### Required Power on Driven Machine:

-Normal..... kW  
 -Maximum..... kW  
 -Minimum..... kW

#### Driving Machine:

AC Motor [ ]  
 AC Motor + Inverter [ ]  
 DC Motor [ ]  
 Hydraulic Motor [ ]  
 Piston Engine with 1-3 cylinder [ ]  
 Piston Engine with 4-24 cylinder [ ]

#### Motor Connection Type (Electric Motors):

IEC B5 Flange [ ]  
 NEMA Flange [ ]  
 B3 Foot Mounted [ ]

IEC or NEMA Flange Code.....

#### Motor Power:

-Nominal.....kW

#### Motor Speed:

-Normal.....rpm  
 -Maximum.....rpm  
 -Minimum.....rpm

#### Motor Torque:

-Normal.....Nm  
 -Maximum.....Nm  
 -Minimum.....Nm

#### Direction of Rotation:

cw [ ] ccw [ ] variable [ ]

#### Working hours per day:

<4 [ ] 4-8 [ ] 8-16 [ ] >16 [ ]

#### Startings per cycle:

0-50 [ ] 50-100 [ ] 100-200 [ ]  
 200-300 [ ] 300-500 [ ] 500-700 [ ]  
 700-1000 [ ] >1000 [ ]

Transmission ratio between motor and gear unit.....

Required Starting Torque.....Nm

#### Peak torques per hour:

1-5 [ ] 6-30 [ ] 31-100 [ ] >100 [ ]

#### Effective working time in a cycle (ED):

%100 [ ] %80 [ ] %60 [ ] 40% [ ]  
 20% [ ]

#### Altitude:

<1000 [ ] <2000 [ ] <3000 [ ]  
 <4000 [ ] <5000 [ ]

#### Mounting Place:

Small closed room (w<1m/sn) [ ]  
 Closed room (w<3m/sn) [ ]  
 Big rooms and halls (w>=3m/sn) [ ]  
 Outdoor [ ]

#### Ambient Conditions:

Normal [ ] Dusty [ ] Humid [ ]  
 Corrosive [ ] Dry [ ]

#### Ambient Temperature:

Average.....°C  
 Maximum.....°C  
 Minimum.....°C

#### Backstop Required:

Yes [ ] No [ ]

#### Gearbox input options:

R.. [ ] V.. [ ] N.. [ ] T.. [ ]

#### Mounting Position:

M1 [ ] M2 [ ] M3 [ ] M4 [ ] M5 [ ] M6 [ ]

#### Input Shaft Connection Type:

Elastic Coupling [ ]  
 Barrel Type Coupling [ ]  
 Hydraulic Coupling [ ]  
 Rigid Flange Coupling [ ]  
 Pulley [ ]  
 Chain Sprocket [ ]  
 Pinion [ ]  
 Diameter of Connection element.....mm  
 Radial Load.....N  
 "u" Distance of Radial Load.....mm  
 Axial Load (Towards Shaft) .....N

#### Output Shaft Connection Type:

Elastic Coupling [ ]  
 Barrel Type Coupling [ ]  
 Rigid Flange Coupling [ ]  
 Pulley [ ]  
 Chain Sprocket [ ]  
 Pinion [ ]  
 Diameter of Connection Element.....mm  
 Radial Load.....N  
 "u" Distance of Radial Load.....mm  
 Axial Load (Towards Shaft) .....N

#### Output Shaft Specification:

Solid Shaft with Keyway [ ]  
 Solid Shaft without Keyway [ ]  
 Special Shaft [ ]

#### Input Shaft Specification:

Solid Shaft with Keyway [ ]  
 Solid Shaft without Keyway [ ]  
 Special Shaft [ ]

#### Electrical Supply:

AC-1 Phase [ ] AC-3 Phase [ ] DC [ ]  
 Voltage.....Volt  
 Frequency..... Hz

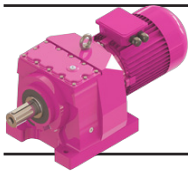
#### Protection Class:

IP55 [ ] IP65 [ ] Exproof [ ]  
 Other IP.....

#### Attachments:

Load Diagram [ ]  
 Project [ ]  
 Required Dimensions [ ]  
 Technical Specifications [ ]

#### Notes:



# Genel Bilgiler

## General Information

### Einführung



#### Formular für Getriebeauswahl

Industriebereich.....  
 Anwendung.....  
 Erforderliche Drehzahl.....U/min

#### Erforderliche Leistung für die Maschine:

-Normal.....kW  
 -Minimal.....kW  
 -Maximal.....kW

#### Antriebsmaschine:

AC Motor [ ]  
 AC Motor mit Frequenzumrichter [ ]  
 DC Motor [ ]  
 Hydromotor [ ]  
 Kolbenmaschinen mit 1-3 Zylinder [ ]  
 Kolbenmaschinen mit 2-4 Zylinder [ ]

#### Motorverbindungsart (Elektromotoren):

IEC B5 Flansch [ ]  
 NEMA Flansch [ ]  
 B3 Fussausführung [ ]

IEC oder NEMA Flanschcode.....

#### Motorleistung:

-Nominal.....kW

#### Motordrehzahl:

-Normal.....U/min  
 -Maximal.....U/min  
 -Minimal.....U/min

#### Motordrehmoment:

-Normal.....Nm  
 -Maximal.....Nm  
 -Minimal.....Nm

#### Drehrichtung:

in Uhrzeigersinn [ ] gegen Uhrzeigersinn [ ]  
 veränderlich [ ]

#### Betriebsdauer in Stunden pro Tag:

<4 [ ] 4-8 [ ] 8-16 [ ] >16 [ ]

#### Anzahl der Anläufe pro Stunde:

0-50 [ ] 50-100 [ ] 100-200 [ ]  
 200-300 [ ] 300-500 [ ] 500-700 [ ]  
 700-1000 [ ] >1000 [ ]

Übersetzung zwischen Motor und Antriebs-  
 welle.....

Erforderliches Anlaufmoment.....Nm

#### Häufigkeit von Lastspitzen pro Stunde:

1-5 [ ] 6-30 [ ] 31-100 [ ] >100 [ ]

#### Einschaltdauer je Stunde (ED):

%100 [ ] %80 [ ] %60 [ ] 40% [ ] %20 [ ]

#### Höhenlage über Meeresspiegel (m):

<1000 [ ] <2000 [ ] <3000 [ ]  
 <4000 [ ] <5000 [ ]

#### Betriebsort:

Kleine geschlossene Räume (w<1m/sn) [ ]  
 Geschlossene Räume (w<3m/sn) [ ]  
 Große Räume und Hallen (w>=3m/sn) [ ]  
 im Freien [ ]

#### Umgebungsbedingungen:

Normal [ ] Staubig [ ] Feucht [ ]  
 Korrodierend [ ] Trocken [ ] Verklebend [ ]

#### Umgebungstemperatur:

Mittelwert.....°C  
 Maximal.....°C  
 Minimal.....°C

#### Rücklaufsperre erforderlich:

Ja [ ] Nein [ ]

#### Getriebeeingangsvarianten:

R.. [ ] V.. [ ] N.. [ ] T.. [ ]

#### Montageposition:

M1 [ ] M2 [ ] M3 [ ] M4 [ ] M5 [ ] M6 [ ]

#### Antriebswellenanschluss:

Elastische Kupplung [ ]  
 Trommelkupplung [ ]  
 Hydrokupplung [ ]  
 Starre Flanschkupplung [ ]  
 Keilriementrieb [ ]  
 Kettenrad [ ]  
 Ritzel [ ]  
 Durchmesser von Anschlusselement.....mm  
 Querkraft.....N  
 "u" Abstand von der Wellenschulter.....mm  
 Axialkraft (in Richtung der Welle +) .....N

#### Abtriebswellenanschluss:

Elastische Kupplung [ ]  
 Trommelkupplung [ ]  
 Starre Flanschkupplung [ ]  
 Keilriementrieb [ ]  
 Kettenrad [ ]  
 Ritzel [ ]  
 Durchmesser von Anschlusselement.....mm  
 Querkraft.....N  
 "u" Abstand von der Wellenschulter.....mm  
 Axialkraft (in Richtung der Welle +) .....N

#### Eigenschaften der Abtriebswelle:

Vollwelle mit Passfeder [ ]  
 Vollwelle ohne Passfeder [ ]  
 Sonderwelle [ ]

#### Eigenschaften der Antriebswelle:

Vollwelle mit Paßfeder [ ]  
 Vollwelle ohne Paßfeder [ ]  
 Sonderwelle [ ]

#### Spannungsversorgung:

AC-1 phasig [ ] AC-3 phasig [ ] DC [ ]  
 Spannung.....Volt  
 Frequenz.....Hz

#### Schutzart:

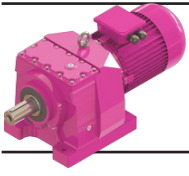
IP55 [ ] IP65 [ ] Exproof [ ]  
 Andere IP.....

#### Anhang:

Lastdiagramm [ ]  
 Projekt [ ]  
 Erforderliche Abmessungen [ ]  
 Technische Spezifikationen [ ]

#### Andere Merkmale:





# Genel Bilgiler

## General Information

### Einführung



#### Yağlama

Redüktörlerin uzun ömürlü olması ve iyi performansla çalışabilmesi için, kullanılan yağın seçimi doğru olmalı ve belirtilen zamanlarda değişimleri yapılmalıdır.

Yağın seçiminde devir, çevre sıcaklığı, re-  
düksör yağ sıcaklığı, çalışma koşulları ve yağ  
ömrü önem taşımaktadır. Redüksörler yağ  
doldurulmuş olarak sevkedilmektedir. Redük-  
törler uzun süre depolanacakları zaman veya  
çalışmaya başlanacağı zaman çalışma konu-  
muna göre üstte kalan tapa sökülmeli ve redük-  
törün beraberinde verilen havalandırma tapanı  
kullanılmalıdır. Bu redüksörün iç basıncından  
dolayı oluşacak yağ sızmalarını önleyecektir.

Redüksörlerde standart olarak kullanılan yağlar  
yan sayfadaki tabloda verilmiştir. Redüksörü-  
nüzde kullanılan yağ tipi için lütfen etiketine  
bakınız. Siparişte belirtilmez ise M serisi  
redüksörler **M1** ve N serisi redüksörler **M4**  
pozisyonuna göre yağ miktarları ile doldurulur.  
Bu pozisyonlar dışındaki çalışma durumlarında  
tablolarda verilen yağ miktarlarına göre ilave  
veya eksiltme yapılmalıdır. Özel çalışma  
koşullarında firmamızla danışmanız tavsiye edilir.

Mineral yağlar her 10.000 çalışma saatinde,  
sentetik yağlar ise her 20.000 çalışma saa-  
tinde değiştirilmelidir. Ağır çevre koşullarında  
(ani ısı değişiklikleri, yüksek nemlilik v.b) yağ  
değiştirme periyotlarının kısaltılması tavsiye  
edilir. Mineral yağlar ile sentetik yağlar birbirine  
kesinlikle karıştırılmamalıdır. Değiştirme işlemi  
bir çalışma periyodunun hemen peşinden ve yağ  
sıcakken yapılmalıdır. Bu şekilde bir değiştirme,  
redüksör içindeki partiküllerin yağa karışmış  
olarak bulunmasından dolayı iyi bir temizleme  
ve yağın rahat boşalması neticesini verecektir.

#### Lubrication

*To work in perfect condition and to have long life  
for the gear box the lubricant must be chosen  
correctly and changed in time.*

*In selection of oil it is important to consider speed,  
ambient temperature, gear box oil temperature,  
working conditions and the life required from the  
lubricant. All units are filled with lubricant before  
shipping. Before the gearbox is stored for a long  
time or before starting up, the top plug (accord-  
ing to the working position) must be removed  
and the extra given vent plug must be replaced.  
This prevents excessive pressure which causes  
oil leakages.*

*The lubricants for standard gear units are given  
on the table on next page. Please look at your  
gear units label for filled oil type. If it is not writ-  
ten on the gearbox selection form, the M type  
gearboxes are filled for mounting position of **M1**  
and N type gearboxes are filled for mounting  
position **M4**. For other mounting positions please  
refer to the table given on the next pages. For  
special working conditions please contact us.*

*The mineral lubricant should be changed after  
every 10.000 service hours and the synthetic  
lubricant should be changed after every 20.000  
working hours. If the operation conditions are  
very heavy (e.g. high temperature differences,  
high humidity) shorter intervals between changes  
are recommended. Mineral and synthetic oils  
must not be mixed up. By changing the lubricant  
complete cleaning is advised. The oil change  
should be done after a working period. Because  
oil is hot in this condition and impurities are mixed  
with it the changing of oil will be done in best  
result and the oil will drain easily.*

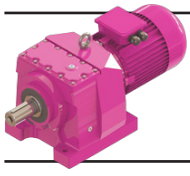
#### Schmierung

Um eine lange Lebensdauer zu gewährleis-  
ten muss der Schmierstoff richtig ausgewählt  
werden.

Für die richtige Ölauswahl müssen Drehzahl,  
Umgebungs-temperatur, Belastungsart und  
Lebensdauer des Öls berücksichtigt werden.  
Die mitgelieferte Entlüftungsschraube ist vor  
Inbetriebnahme oder längeren Lagern gegen  
die Einfüllschraube auszutauschen, um einen  
Überdruck im Getriebe und damit eine Undich-  
tigkeit des Getriebes zu vermeiden. Getriebe  
und Getriebemotoren sind bei Auslieferung  
betriebsfertig gefüllt.

Ohne besondere Bestellangaben werden die  
Getriebe grundsätzlich mit den auf der folgenden  
Seite in der grau unterlegten Spalte angegebe-  
nen Schmierstoffen gefüllt. Bitte im Getriebe  
verwendetes Öl von dem Namensschild ablesen.  
Die fußbefestigten Getriebe (M Serie) sind ge-  
füllt für Bauform **M1** und die flanschbefestigten  
Getriebe (N Serie) für Bauform **M4**, wenn bei  
der Bestellung keine Angaben vorgegeben sind.  
Für andere Bauformen sind die auf der nächsten  
Seite angegebenen Füllmengen zu beachten.

Ein Schmierstoffwechsel sollte alle 10.000  
Betriebsstunden durchgeführt werden. Für  
synthetische Produkte verdoppeln sich diese  
Fristen. Bei extremen Betriebsbedingungen,  
z.B. hohe Luftfeuchtigkeit, aggressiver Umgebung  
und hohen Temperatur-schwankungen sind  
kürzere Schmierstoffintervalle vorteilhaft. Es  
ist empfehlenswert, dem Schmierstoffwechsel  
mit einer gründlichen Reinigung des Getriebes  
zu verbinden. Synthetische und mineralische  
Schmierstoffe dürfen nicht miteinander vermischt  
werden. Das Ablassen des Öls soll unmittelbar  
nach dem Abschalten erfolgen, solange das  
Öl noch warm ist. In dieser Zustand ist das Öl  
mit den Schmutzpartikeln vermischt, so dass  
eine Entfernung des Altöls eine gute Reinigung  
benötigt.



# Genel Bilgiler

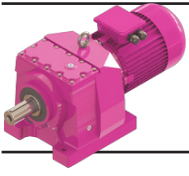
## General Information

## Einführung



### Yağ Tipleri / Oil Types / Schmierstoffe

| Yağ Cinsi<br>Lubricant<br>Art des Schmierstoffes  | DIN<br>51517-3 | Çevre Sıcaklığı [°C]<br>Ambient Temp. [°C]<br>Umgebungstemp. [°C] | ISO VG | Aral             | Beyond<br>Petroleum  | Castrol                   | Klüber<br>Lubrication      | Mobil                       | Shell                      | Total                        |
|---|----------------|---|--------|------------------|----------------------|---------------------------|----------------------------|-----------------------------|----------------------------|------------------------------|
|   |                | Daldırma<br>Yağlama<br>Dip Lubrication<br>Tauschschmierung        |        |                  |                      |                           |                            |                             |                            |                              |
| Mineral Yağlar<br>Mineral Oil<br>Mineralöl  | CLP            | 0 ... +50   | 680    | Degol<br>BG 680  | Energol<br>GR-XP 680 | Alpha<br>SP 680           | Klüberoil<br>GEM 1-680 N   | Mobilgear<br>XMP 680        | Omala<br>680               | Carter<br>EP 680             |
|   |                | -5 ... +45  | 460    | Degol<br>BG 460  | Energol<br>GR-XP 460 | Alpha<br>SP 460           | Klüberoil<br>GEM 1-460 N   | Mobilgear<br>XMP 460        | Omala<br>F460              | Carter<br>EP 460             |
|   |                | -10 ... +40   | 320    | Degol<br>BG 320  | Energol<br>GR-XP 320 | Alpha<br>SP 320           | Klüberoil<br>GEM 1-320 N   | Mobilgear<br>XMP 320        | Omala<br>F320              | Carter<br>EP 320             |
|   |                | -15 ... +30   | 220    | Degol<br>BG 220  | Energol<br>GR-XP 220 | Alpha<br>SP 220           | Klüberoil<br>GEM 1-220 N   | Mobilgear<br>XMP 220        | Omala<br>F220              | Carter<br>EP 220             |
|   |                | -20 ... +20   | 150    | Degol<br>BG 150  | Energol<br>GR-XP 150 | Alpha<br>SP 150           | Klüberoil<br>GEM 1-150 N   | Mobilgear<br>XMP 150        | Omala<br>150               | Carter<br>EP 150             |
|   |                | -25... +10  | 100    | Degol<br>BG 100  | Energol<br>GR-XP 100 | Alpha<br>SP 100           | Klüberoil<br>GEM 1-100 N   | -                           | Omala<br>100               | Carter<br>EP 100             |
| Sentetik Yağlar<br>Synthetic Oil<br>Synthetisches Öl  | CLP PG         | -10 ... +60   | 680    | Degol<br>GS 680  | Energol<br>SG-XP 680 | -                         | Klübersynth<br>GH 6 -680   | Mobil<br>Glygoyle 680       | Tivela<br>S 680            | Carter<br>SY 680             |
|   |                | -20 ... +50   | 460    | Degol<br>GS 460  | Energol<br>SG-XP 460 | Aphasyn<br>PG 460         | Klübersynth<br>GH 6 -460   | Mobil<br>Glygoyle 460       | Tivela<br>S 460            | Carter<br>SY 460             |
|   |                | -25 ... +40   | 320    | Degol<br>GS 320  | Energol<br>SG-XP 320 | Aphasyn<br>PG 320         | Klübersynth<br>GH 6 -320   | Mobil<br>Glygoyle 320       | Tivela<br>S 320            | Carter<br>SY 320             |
|   |                | -30 ... +30   | 220    | Degol<br>GS 220  | Energol<br>SG-XP 220 | Aphasyn<br>PG 220         | Klübersynth<br>GH 6 -220   | -                           | Tivela<br>S 220            | Carter<br>SY 220             |
|   |                | -35 ... +20   | 150    | Degol<br>GS 150  | Energol<br>SG-XP 150 | Aphasyn<br>PG 150         | Klübersynth<br>GH 6 -150   | -                           | Tivela<br>S 150            | Carter<br>SY 150             |
|   |                | -40 ... +10   | 100    | -                | -                    | -                         | Klübersynth<br>GH 6 -100   | -                           | -                          | -                            |
|   | CLP HC         | -10 ... +60   | 680    | -                | -                    | -                         | Klübersynth<br>GEM 4-680 N | Mobilgear<br>SHC XMP<br>680 | -                          | Carter<br>SH 680             |
|   |                | -20 ... +50   | 460    | Degol<br>PAS 460 | Energol<br>EP-XF 460 | Alphasyn<br>T 460         | Klübersynth<br>GEM 4-460 N | Mobilgear<br>SHC XMP<br>460 | Omala<br>HD 460            | Carter<br>SH 460             |
|   |                | -25 ... +40   | 320    | Degol<br>PAS 320 | Energol<br>EP-XF 320 | Alphasyn<br>T 320         | Klübersynth<br>GEM 4-320 N | Mobilgear<br>SHC XMP<br>320 | Omala<br>HD 320            | Carter<br>SH 320             |
|   |                | -30 ... +30   | 220    | Degol<br>PAS 220 | Energol<br>EP-XF 220 | Alphasyn<br>T 220         | Klübersynth<br>GEM 4-220 N | Mobilgear<br>SHC XMP<br>220 | Omala<br>HD 220            | Carter<br>SH 220             |
|   |                | -35 ... +20   | 150    | Degol<br>PAS 150 | Energol<br>EP-XF 150 | Alphasyn<br>T 150         | Klübersynth<br>GEM 4-150 N | Mobilgear<br>SHC XMP<br>150 | Omala<br>HD 150            | Carter<br>SH 150             |
|   |                | -40 ... +10   | 100    | -                | -                    | -                         | Klübersynth<br>GEM 4-100 N | -                           | -                          | -                            |
| Gıda Uyumlu Yağ<br>Food Grade Oil<br>Lebensmittelöl   | CLP<br>NSF H1  | -15 ... +25   | 320    | -                | -                    | Optileb<br>GT 320         | Klüberoil<br>4 UH1-320 N   | Mobil<br>SHC<br>Cibus 320   | Cassida<br>Fluid<br>GL-320 | Nevastane<br>SL 320          |
| Çevre Dostu Yağ<br>Biodegradable Oil<br>Biologisch<br>abbaubares Öl   | CLP E          | -25 ... +40   | 320    | -                | -                    | Tribol BioTop<br>1418-320 | Klübersynth<br>GEM 2-320   | -                           | -                          | Carter<br>Bio 320            |
| Mineral Gresler [-20 ... +130 Çalışma Sıcaklığı °C]<br>Mineral Grease [-20 ... +130 Working Temperature °C]<br>Mineral-Fett [-20 ... +130 Betriebstemperatur °C]          |                |   |        | Aralub<br>HL3    | Energol<br>LS 3      | Spheerol<br>AP3           | Centoplex<br>2 EP          | Mobilux<br>EP 3             | Alvania<br>RL3             | Multis<br>Complex<br>EP 2    |
| Sentetik Gresler [-30 ... +130 Çalışma Sıcaklığı °C]<br>Synthetic Grease [-30 ... +130 Working Temperature °C]<br>Synthetisches Fett [-30 ... +130 Betriebstemperatur °C] |                |   |        | -                | Energol<br>SY 2202   | -                         | Petamo<br>GHY 133 N        | Mobiltemp<br>SHC 100        | Cassida<br>RLS 2           | Multis<br>Complex<br>SHD 220 |



# Genel Bilgiler

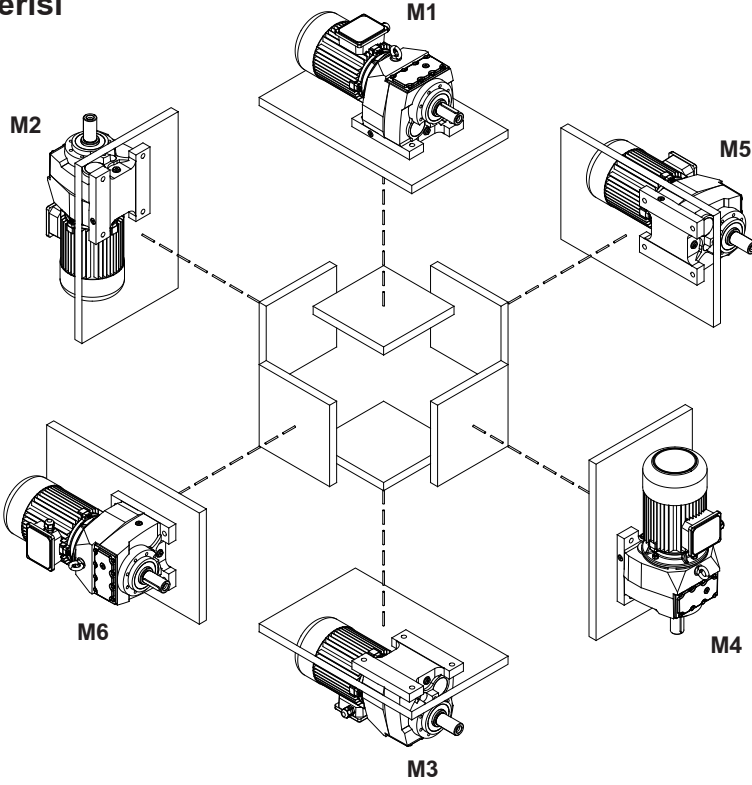
## General Information

### Einführung



#### Montaj Pozisyonları / Mounting Positions / Bauformen

### M Serisi

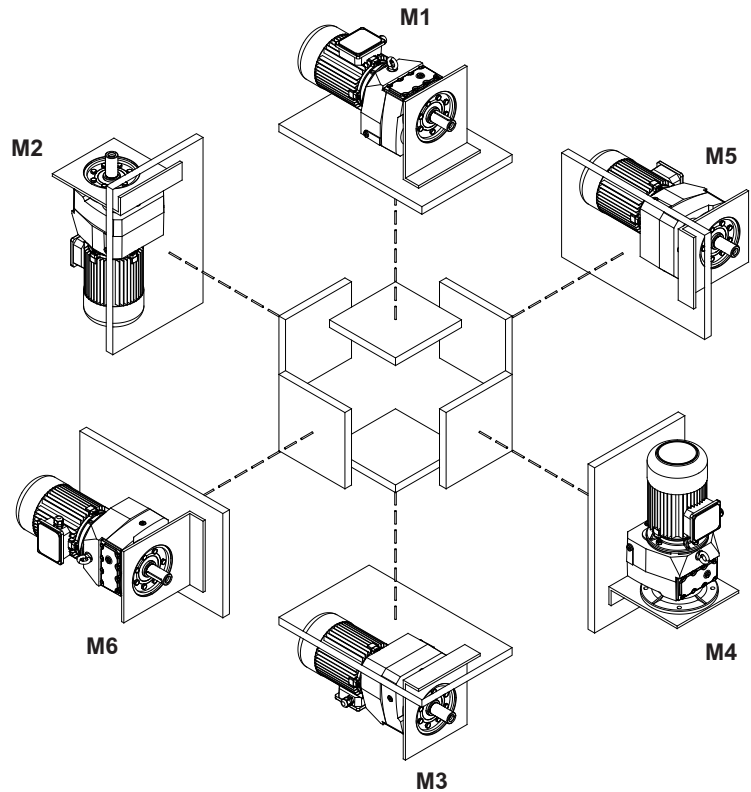


M1....M6 'ya kadar belirtilen montaj pozisyonları redüktörün duruş yönü referans alınarak belirlenmiştir. Montaj yüzeyleri bağlayıcı değildir.

Figured mounting positions of M1 to M6 are determined as reference of directional position of the gearbox. Mounting surfaces are not binding.

Dargestellte Montagepositionen M1 bis M6 wurden nach der Stehrichtung von Getriebe bestimmt. Montageoberflächen sind unverbindlich.

### N Serisi

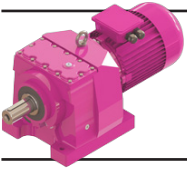


M1....M6 'ya kadar belirtilen montaj pozisyonları redüktörün duruş yönü referans alınarak belirlenmiştir. Montaj yüzeyleri bağlayıcı değildir.

Figured mounting positions of M1 to M6 are determined as reference of directional position of the gearbox. Mounting surfaces are not binding.

Dargestellte Montagepositionen M1 bis M6 wurden nach der Stehrichtung von Getriebe bestimmt. Montageoberflächen sind unverbindlich.





# Genel Bilgiler

## General Information

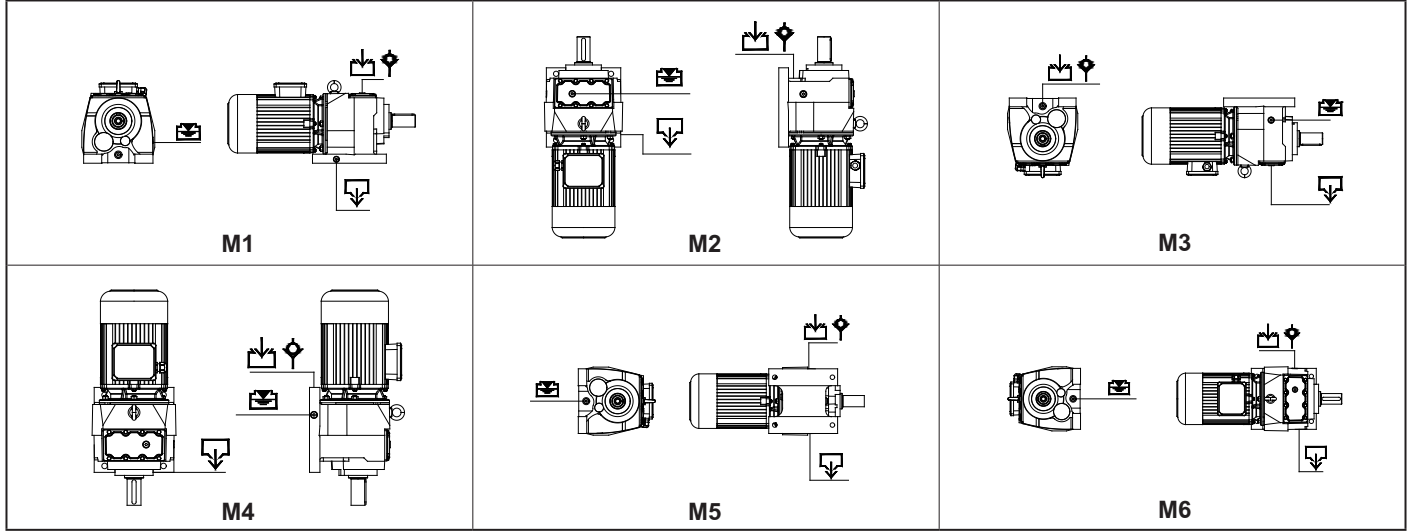
### Einführung



#### M Serisi İki Üç Kademeli Helisel Dişli Redüktörler Yağ Seviye Tapaları

M Series Two -Three Stage Helical Gearboxes Oil Level Plugs

M Serie Zwei-Dreistufig Stirnradgetriebe Ölverschlußschrauben



#### Yağ Miktarları (lt) / Oil Quantities (lt) / Ölmengen (lt)

| Tip<br>Type<br>Typ | M Serisi 2-3 Kademe Yağ Miktarları<br>M Series 2-3 Stages Oil Quantities<br>Ölmengen von M Serie mit 2-3 Stufen |             |             |             |           |           |
|--------------------|---|-------------|-------------|-------------|-----------|-----------|
|                    | M1  | M2          | M3          | M4          | M5        | M6        |
| M002 / 003         | 0.4 / 0.35  | 0.6 / 0.55  | 0.5 / 0.5   | 0.6 / 0.55  | 0.5 / 0.4 | 0.5 / 0.4 |
| M102 / 103         | 0.65 / 0.6  | 0.95 / 0.8  | 0.7 / 0.7   | 0.95 / 0.8  | 0.7 / 0.7 | 0.7 / 0.7 |
| M172 / 173         | 0.7 / 0.65  | 0.95 / 0.9  | 0.8 / 0.8   | 0.95 / 0.9  | 0.8 / 0.7 | 0.8 / 0.7 |
| M202 / 203         | 1.2 / 1.1   | 2.1 / 2     | 2 / 1.9     | 2.1 / 2     | 1.4 / 1.3 | 1.4 / 1.3 |
| M272 / 273         | 1.1 / 1   | 2 / 1.7     | 1.9 / 1.5   | 2 / 1.7     | 1.3 / 1.2 | 1.3 / 1.2 |
| M282 / 283         | 1.7 / 1.6   | 3 / 2.85    | 2.8 / 2.5   | 3 / 2.85    | 2.6 / 2.4 | 2.6 / 2.4 |
| M372 / 373         | 2 / 1.9   | 3.4 / 3.3   | 3.1 / 3     | 3.4 / 3.3   | 2.8 / 2.6 | 2.8 / 2.6 |
| M472 / 473         | 4.5 / 4   | 8 / 7.6     | 7.5 / 7     | 8 / 7.6     | 5.5 / 5   | 5.5 / 5   |
| M572 / 573         | 7 / 6   | 12.8 / 11.7 | 11.5 / 10.5 | 12.8 / 11.7 | 8 / 7.5   | 8 / 7.5   |
| M672 / 673         | 10 / 8.5  | 22.5 / 20   | 20 / 18     | 22.5 / 20   | 11 / 11   | 11 / 11   |
| M772 / 773         | 20 / 18   | 35 / 32     | 30 / 28     | 35 / 32     | 22 / 20   | 22 / 20   |
| M872 / 873         | 28 / 20   | 53 / 45     | 45 / 39     | 53 / 45     | 30 / 28   | 30 / 28   |
| M972 / 973         | 53 / 50   | 90 / 87     | 82 / 80     | 90 / 87     | 70 / 65   | 70 / 65   |

Semboller :  
Symbols :  
Symbole :



:Yağ doldurma  
:Oil filling  
:Ölfüllung



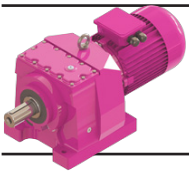
:Yağ boşaltma  
:Drain plug  
:Ölauslass



:Yağ seviyesi  
:Oil level  
:Ölstand



:Havalandırma  
:Vent Plug  
:Entlüftungsschraube



# Genel Bilgiler

## General Information

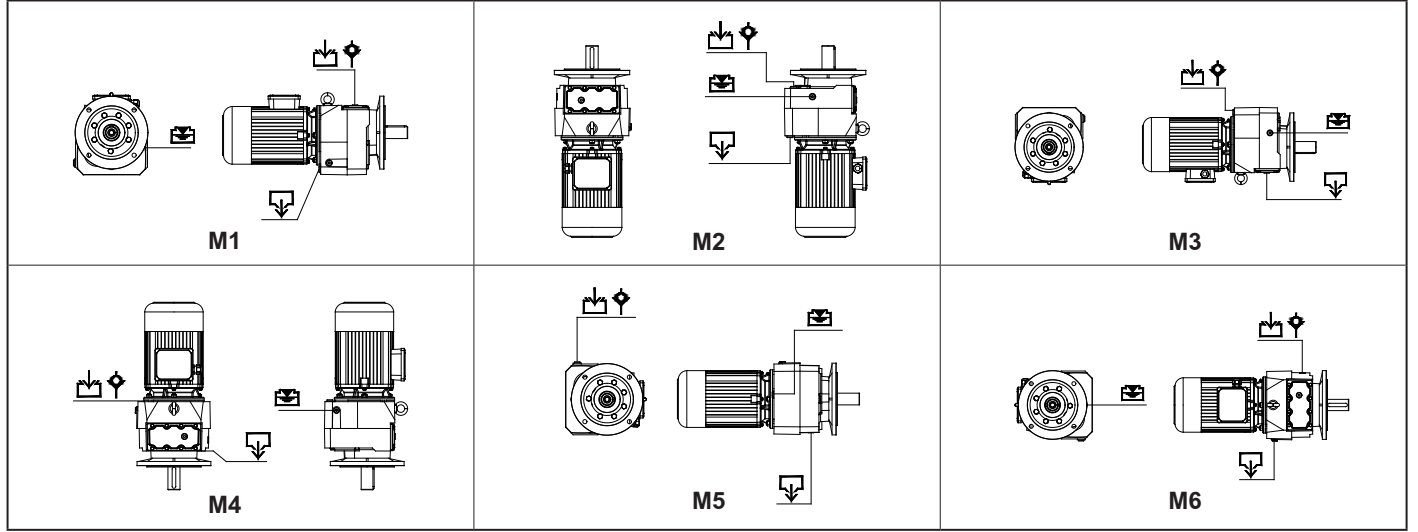
### Einführung



#### N Serisi İki Üç Kademeli Helisel Dişli Redüktörler Yağ Seviye Tapaları

N Series Two -Three Stage Helical Gearboxes Oil Level Plugs

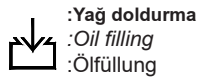
N Serie Zwei-Dreistufig Stirnradgetriebe Ölverschlußschrauben



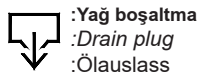
#### Yağ Miktarları (lt) / Oil Quantities (lt) / Ölmengen (lt)

| Tip<br>Type<br>Typ | N Serisi 2-3 Kademe Yağ Miktarları<br>N Series 2-3 Stages Oil Quantities<br>Ölmengen von N Serie mit 2-3 Stufen |             |             |             |           |           |
|--------------------|---|-------------|-------------|-------------|-----------|-----------|
|                    | M1  | M2          | M3          | M4          | M5        | M6        |
| N002 / 003         | 0.4 / 0.35  | 0.6 / 0.55  | 0.5 / 0.5   | 0.6 / 0.55  | 0.5 / 0.4 | 0.5 / 0.4 |
| N102 / 103         | 0.65 / 0.6  | 0.95 / 0.8  | 0.7 / 0.7   | 0.95 / 0.8  | 0.7 / 0.7 | 0.7 / 0.7 |
| N172 / 173         | 0.7 / 0.65  | 0.95 / 0.9  | 0.8 / 0.8   | 0.95 / 0.9  | 0.8 / 0.7 | 0.8 / 0.7 |
| N202 / 203         | 1.2 / 1.1   | 2.1 / 2     | 2 / 1.9     | 2.1 / 2     | 1.4 / 1.3 | 1.4 / 1.3 |
| N272 / 273         | 1.1 / 1   | 2 / 1.7     | 1.9 / 1.5   | 2 / 1.7     | 1.3 / 1.2 | 1.3 / 1.2 |
| N282 / 283         | 1.7 / 1.6   | 3 / 2.85    | 2.8 / 2.5   | 3 / 2.85    | 2.6 / 2.4 | 2.6 / 2.4 |
| N372 / 373         | 2 / 1.9   | 3.4 / 3.3   | 3.1 / 3     | 3.4 / 3.3   | 2.8 / 2.6 | 2.8 / 2.6 |
| N472 / 473         | 4.5 / 4   | 8 / 7.6     | 7.5 / 7     | 8 / 7.6     | 5.5 / 5   | 5.5 / 5   |
| N572 / 573         | 7 / 6   | 12.8 / 11.7 | 11.5 / 10.5 | 12.8 / 11.7 | 8 / 7.5   | 8 / 7.5   |
| N672 / 673         | 10 / 8.5  | 22.5 / 20   | 20 / 18     | 22.5 / 20   | 11 / 11   | 11 / 11   |
| N772 / 773         | 20 / 18   | 35 / 32     | 30 / 28     | 35 / 32     | 22 / 20   | 22 / 20   |
| N872 / 873         | 28 / 20   | 53 / 45     | 45 / 39     | 53 / 45     | 30 / 28   | 30 / 28   |
| N972 / 973         | 53 / 50   | 90 / 87     | 82 / 80     | 90 / 87     | 70 / 65   | 70 / 65   |

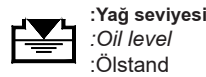
Semboller :  
Symbols :  
Symbole :



:Yağ doldurma  
:Oil filling  
:Ölfüllung



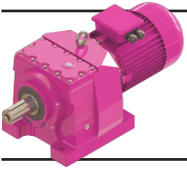
:Yağ boşaltma  
:Drain plug  
:Ölauslass



:Yağ seviyesi  
:Oil level  
:Ölstand



:Havalandırma  
:Vent Plug  
:Entlüftungsschraube



# Genel Bilgiler

## General Information

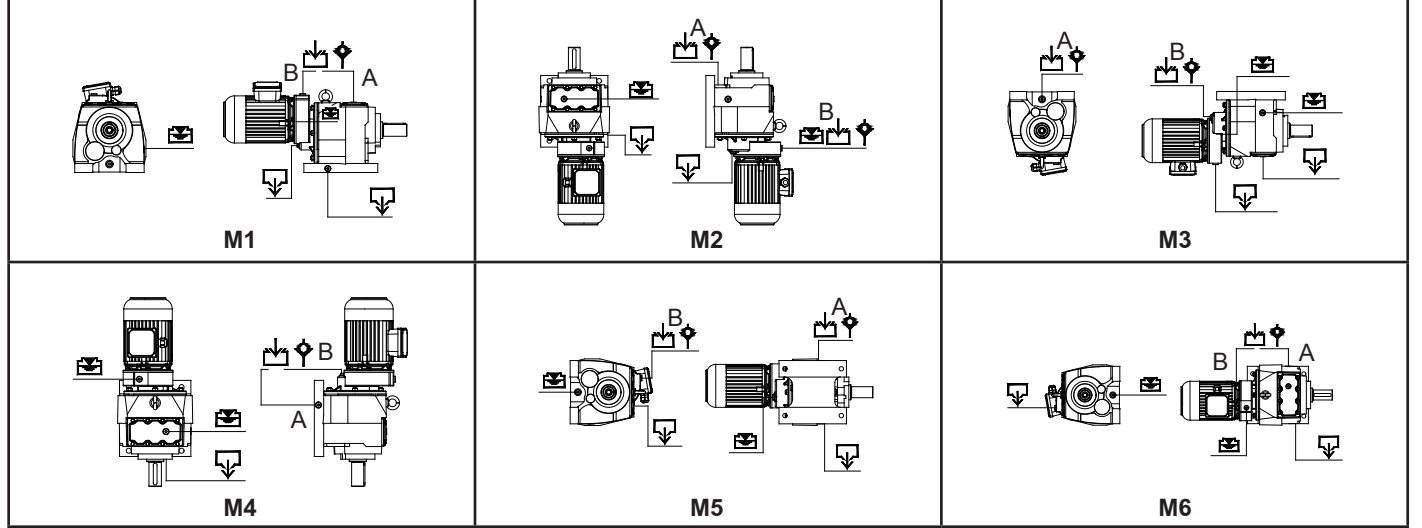
### Einführung



#### M Serisi Dört Kademeli Helisel Dişli Redüktörler Yağ Seviye Tapaları

M Series Four Stage Helical Gearboxes Oil Level Plugs

M Serie Vierstufig Stirnradgetriebe mit Ölverschlußschrauben



#### Yağ Miktarları (lt) / Oil Quantities (lt) / Ölmengen (lt)

| Tip<br>Type<br>Typ | M Serisi 4 Kademe Yağ Miktarları<br>M Series 4 Stages Oil Quantities<br>Ölmengen von M Serie mit 4 Stufen |             |             |             |             |             |
|--------------------|---|-------------|-------------|-------------|-------------|-------------|
|                    | M1<br>A / B   | M2<br>A / B | M3<br>A / B | M4<br>A / B | M5<br>A / B | M6<br>A / B |
| M284               | 1.6 / 0.25  | 2.85 / 0.25 | 2.5 / 0.25  | 2.85 / 0.25 | 2.4 / 0.25  | 2.4 / 0.25  |
| M374               | 1.9 / 0.25  | 3.3 / 0.25  | 3 / 0.25    | 3.3 / 0.25  | 2.6 / 0.25  | 2.6 / 0.25  |
| M474               | 4 / 0.4   | 7.6 / 0.4   | 7 / 0.4     | 7.6 / 0.4   | 5 / 0.4     | 5 / 0.4     |
| M574               | 6 / 0.50  | 11.7 / 0.50 | 10.5 / 0.50 | 11.7 / 0.50 | 7.5 / 0.50  | 7.5 / 0.50  |
| M674               | 8.5 / 0.90  | 20 / 0.90   | 18 / 0.90   | 20 / 0.90   | 11 / 0.90   | 10.5 / 0.90 |
| M774               | 18 / 1  | 32 / 1      | 28 / 1      | 32 / 1      | 20 / 1      | 20 / 1      |
| M874               | 20 / 2.15   | 45 / 2.15   | 39 / 2.15   | 45 / 2.15   | 28 / 2.15   | 28 / 2.15   |
| M974               | 50 / 7  | 87 / 7      | 80 / 7      | 87 / 7      | 65 / 7      | 65 / 7      |

Semboller :  
Symbols :  
Symbole :



:Yağ doldurma  
:Oil filling  
:Ölfüllung



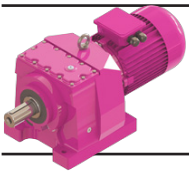
:Yağ boşaltma  
:Drain plug  
:Ölauslass



:Yağ seviyesi  
:Oil level  
:Ölstand



:Havalandırma  
:Vent Plug  
:Entlüftungsschraube



# Genel Bilgiler

## General Information

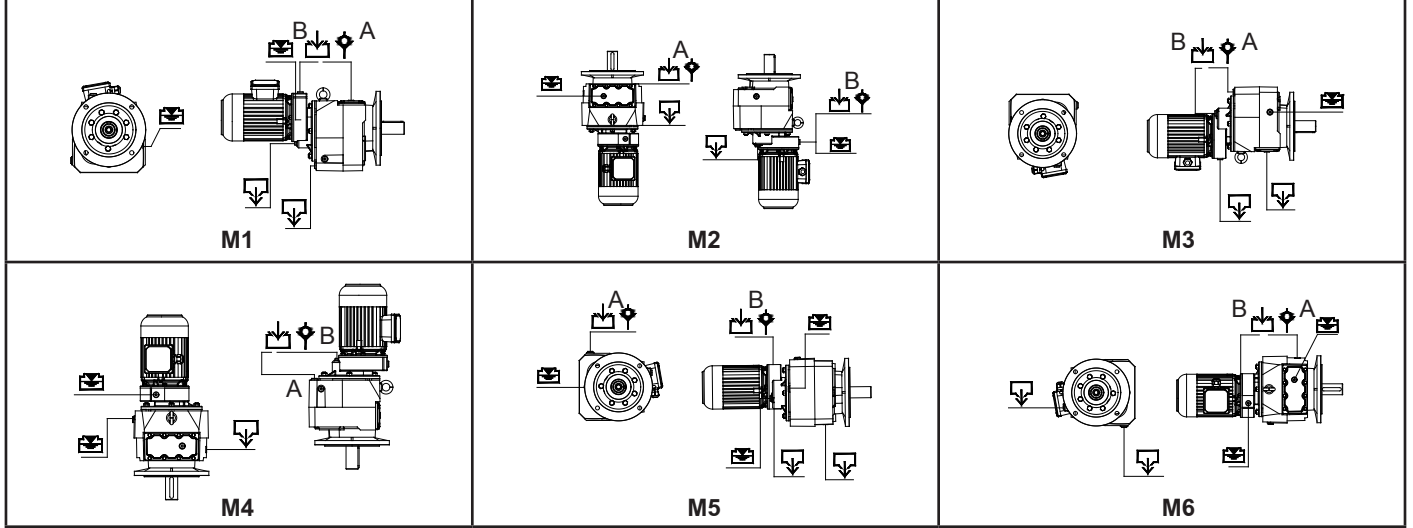
### Einführung



#### N Serisi Dört Kademeli Helisel Dişli Redüktörler Yağ Seviye Tapaları

N Series Four Stage Helical Gearboxes Oil Level Plugs

N Serie Vierstufig Stirnradgetriebe mit Ölverschlußschrauben



#### Yağ Miktarları (lt) / Oil Quantities (lt) / Ölmengen (lt)

| Tip<br>Type<br>Typ | N Serisi 4 Kademe Yağ Miktarları<br>N Series 4 Stages Oil Quantities<br>Ölmengen von N Serie mit 4 Stufen |             |             |             |             |             |
|--------------------|---|-------------|-------------|-------------|-------------|-------------|
|                    | M1<br>A / B   | M2<br>A / B | M3<br>A / B | M4<br>A / B | M5<br>A / B | M6<br>A / B |
| N284               | 1.6 / 0.25  | 2.85 / 0.25 | 2.5 / 0.25  | 2.85 / 0.25 | 2.4 / 0.25  | 2.4 / 0.25  |
| N374               | 1.9 / 0.25  | 3.3 / 0.25  | 3 / 0.25    | 3.3 / 0.25  | 2.6 / 0.25  | 2.6 / 0.25  |
| N474               | 4 / 0.4   | 7.6 / 0.4   | 7 / 0.4     | 7.6 / 0.4   | 5 / 0.4     | 5 / 0.4     |
| N574               | 6 / 0.50  | 11.7 / 0.50 | 10.5 / 0.50 | 11.7 / 0.50 | 7.5 / 0.50  | 7.5 / 0.50  |
| N674               | 8.5 / 0.90  | 20 / 0.90   | 18 / 0.90   | 20 / 0.90   | 11 / 0.90   | 10.5 / 0.90 |
| N774               | 18 / 1  | 32 / 1      | 28 / 1      | 32 / 1      | 20 / 1      | 20 / 1      |
| N874               | 20 / 2.15   | 45 / 2.15   | 39 / 2.15   | 45 / 2.15   | 28 / 2.15   | 28 / 2.15   |
| N974               | 50 / 7  | 87 / 7      | 80 / 7      | 87 / 7      | 65 / 7      | 65 / 7      |

#### Semboller :

Symbols :

Symbole :



:Yağ doldurma

:Oil filling

:Ölfüllung



:Yağ boşaltma

:Drain plug

:Ölauslass



:Yağ seviyesi

:Oil level

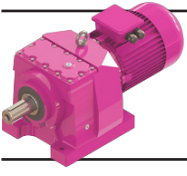
:Ölstand



:Havalandırma

:Vent Plug

:Entlüftungsschraube



# Genel Bilgiler

## General Information

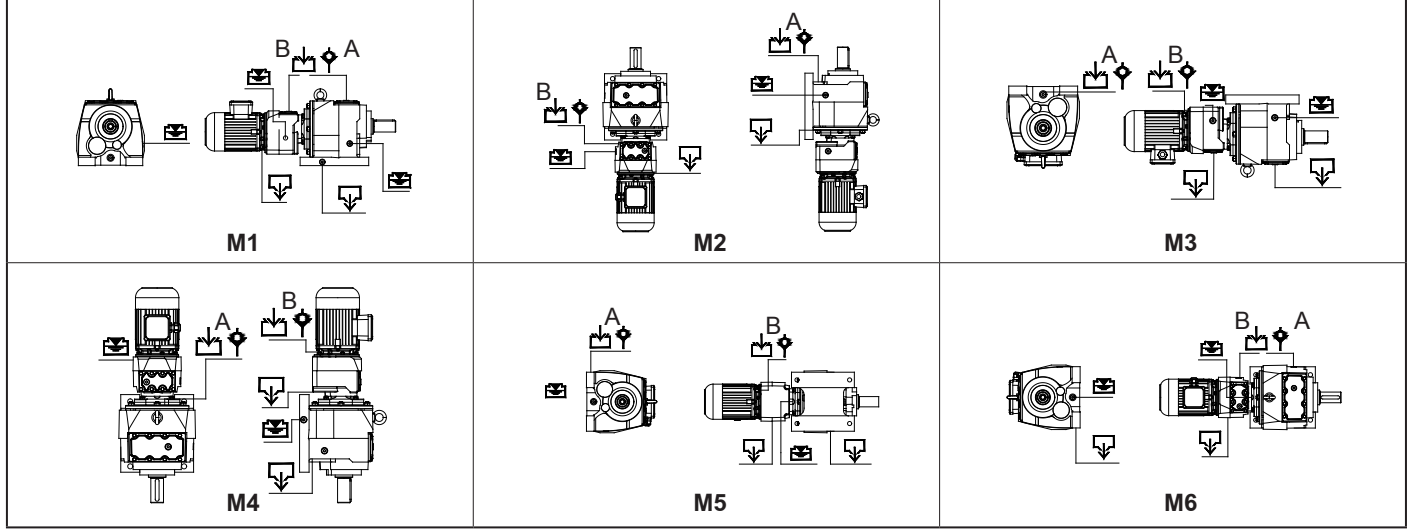
### Einführung



#### M Serisi Beş-Altı Kademeli Helisel Dişli Redüktörler Yağ Seviye Tapaları

M Series Five-Six Stage Helical Gearboxes Oil Level Plugs

M Serie Fünf-Sechsstufig Stirnradgetriebe Ölverschlußschrauben



Yağ Miktarları (lt.) / Oil Quantities. (lt) / Ölmenngen (lt.)

| Tip<br>Type<br>Typ | M Serisi 5-6 Kademe Yağ Miktarları<br>M Series 5-6 Stages Oil Quantities<br>Ölmenngen von M Serie mit 5-6 Stufen |             |             |             |             |             |
|--------------------|--|-------------|-------------|-------------|-------------|-------------|
|                    | M1<br>A / B  | M2<br>A / B | M3<br>A / B | M4<br>A / B | M5<br>A / B | M6<br>A / B |
| M275               | 1 / 0.4  | 1.7 / 0.6   | 1.5 / 0.5   | 1.7 / 0.6   | 1.2 / 0.5   | 1.2 / 0.5   |
| M285               | 1.6 / 0.7  | 2.85 / 0.95 | 2.5 / 0.7   | 2.85 / 0.95 | 2.4 / 0.7   | 2.4 / 0.7   |
| M375               | 1.9 / 0.7  | 3.3 / 0.95  | 3 / 0.7     | 3.3 / 0.95  | 2.6 / 0.7   | 2.6 / 0.7   |
| M475               | 4 / 1.2  | 7.6 / 2.1   | 7.01 / 2.1  | 7.6 / 2.1   | 5 / 1.4     | 5 / 1.4     |
| M575               | 6 / 1.2  | 11.7 / 2.1  | 10.5 / 2    | 11.7 / 2.1  | 7.5 / 1.4   | 7.5 / 1.4   |
| M675               | 8.5 / 2  | 20 / 3.4    | 18 / 3.1    | 20 / 3.4    | 11 / 2.8    | 10.5 / 2.8  |
| M775               | 18 / 2   | 32 / 3.4    | 28 / 3.1    | 32 / 3.4    | 20 / 2.8    | 20 / 2.8    |
| M875               | 20 / 2   | 45 / 3.4    | 39 / 3.1    | 45 / 3.4    | 28 / 2.8    | 28 / 2.8    |
| M975               | 50 / 4.5   | 87 / 8      | 80 / 7.5    | 87 / 8      | 65 / 5.5    | 65 / 5.5    |
| M276               | 1 / 0.4  | 1.7 / 0.55  | 1.5 / 0.5   | 1.7 / 0.55  | 1.2 / 0.4   | 1.2 / 0.4   |
| M286               | 1.6 / 0.6  | 2.85 / 0.8  | 2.5 / 0.7   | 2.85 / 0.8  | 2.4 / 0.7   | 2.4 / 0.65  |
| M376               | 1.9 / 0.6  | 3.3 / 0.8   | 3 / 0.7     | 3.3 / 0.8   | 2.6 / 0.7   | 2.6 / 0.65  |
| M476               | 4 / 1.1  | 7.6 / 2     | 7 / 1.9     | 7.6 / 2     | 5 / 1.3     | 5 / 1.3     |
| M576               | 6 / 1.1  | 11.7 / 2    | 10.5 / 1.9  | 11.7 / 2    | 7.5 / 1.3   | 7.5 / 1.3   |
| M676               | 8.5 / 1.9  | 20 / 3.3    | 18 / 3      | 20 / 3.3    | 11 / 2.6    | 10.5 / 2.6  |
| M776               | 18 / 1.9   | 32 / 3.3    | 28 / 3      | 32 / 3.3    | 20 / 2.6    | 20 / 2.6    |
| M876               | 20 / 1.9   | 45 / 3.3    | 39 / 3      | 45 / 3.3    | 28 / 2.6    | 28 / 2.6    |
| M976               | 50 / 4   | 87 / 7.6    | 80 / 7      | 87 / 7.6    | 65 / 5      | 65 / 5      |

Semboller :  
Symbols :  
Symbole :



:Yağ doldurma  
:Oil filling  
:Ölfüllung



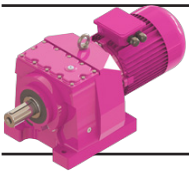
:Yağ boşaltma  
:Drain plug  
:Ölauslass



:Yağ seviyesi  
:Oil level  
:Ölstand



:Havalandırma  
:Vent Plug  
:Entlüftungsschraube



# Genel Bilgiler

## General Information

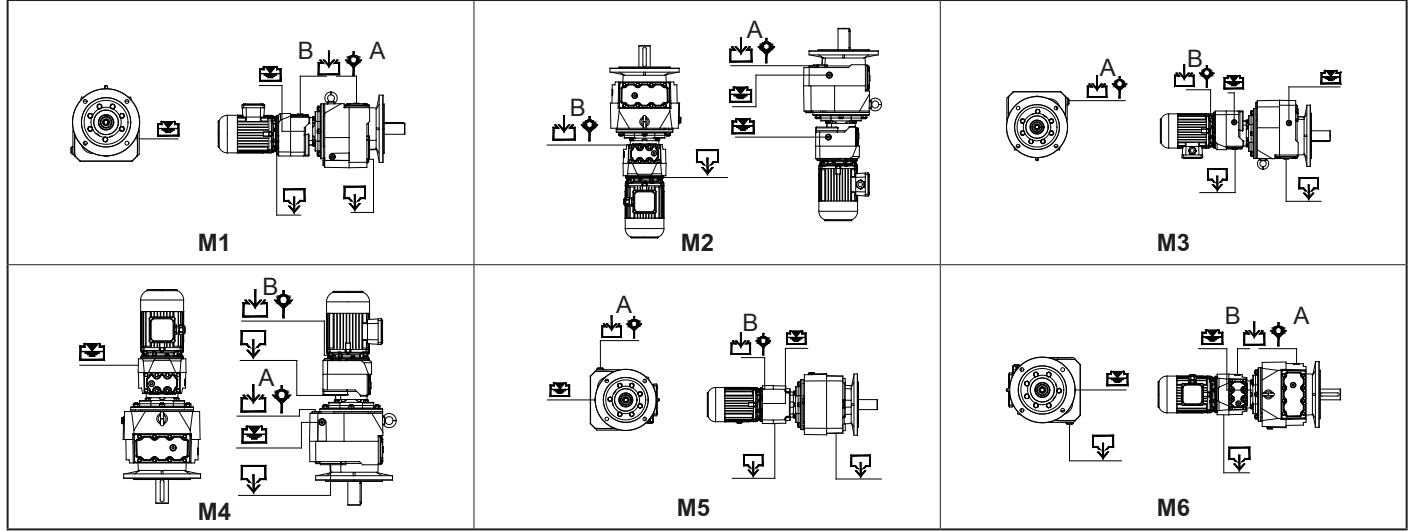
### Einführung



#### N Serisi Beş-Altı Kademeli Helisel Dişli Redüktörler Yağ Seviye Tapaları

N Series Five-Six Stage Helical Gearboxes Oil Level Plugs

N Serie Fünf-Sechsstufig Stirnradgetriebe Ölverschlußschrauben



Yağ Miktarları (lt.) / Oil Quantities. (lt) / Ölmengen (lt.)

| Tip<br>Type<br>Typ | N Serisi 5-6 Kademe Yağ Miktarları<br>N Series 5-6 Stages Oil Quantities<br>Ölmengen von N Serie mit 5-6 Stufen |             |             |             |             |             |
|--------------------|---|-------------|-------------|-------------|-------------|-------------|
|                    | M1<br>A / B   | M2<br>A / B | M3<br>A / B | M4<br>A / B | M5<br>A / B | M6<br>A / B |
| N275               | 1 / 0.4   | 1.7 / 0.6   | 1.5 / 0.5   | 1.7 / 0.6   | 1.2 / 0.5   | 1.2 / 0.5   |
| N285               | 1.6 / 0.7   | 2.85 / 0.95 | 2.5 / 0.7   | 2.85 / 0.95 | 2.4 / 0.7   | 2.4 / 0.7   |
| N375               | 1.9 / 0.7   | 3.3 / 0.95  | 3 / 0.7     | 3.3 / 0.95  | 2.6 / 0.7   | 2.6 / 0.7   |
| N475               | 4 / 1.2   | 7.6 / 2.1   | 7.01 / 2.1  | 7.6 / 2.1   | 5 / 1.4     | 5 / 1.4     |
| N575               | 6 / 1.2   | 11.7 / 2.1  | 10.5 / 2    | 11.7 / 2.1  | 7.5 / 1.4   | 7.5 / 1.4   |
| N675               | 8.5 / 2   | 20 / 3.4    | 18 / 3.1    | 20 / 3.4    | 11 / 2.8    | 10.5 / 2.8  |
| N775               | 18 / 2  | 32 / 3.4    | 28 / 3.1    | 32 / 3.4    | 20 / 2.8    | 20 / 2.8    |
| N875               | 20 / 2  | 45 / 3.4    | 39 / 3.1    | 45 / 3.4    | 28 / 2.8    | 28 / 2.8    |
| N975               | 50 / 4.5  | 87 / 8      | 80 / 7.5    | 87 / 8      | 65 / 5.5    | 65 / 5.5    |
| N276               | 1 / 0.4   | 1.7 / 0.55  | 1.5 / 0.5   | 1.7 / 0.55  | 1.2 / 0.4   | 1.2 / 0.4   |
| N286               | 1.6 / 0.6   | 2.85 / 0.8  | 2.5 / 0.7   | 2.85 / 0.8  | 2.4 / 0.7   | 2.4 / 0.65  |
| N376               | 1.9 / 0.6   | 3.3 / 0.8   | 3 / 0.7     | 3.3 / 0.8   | 2.6 / 0.7   | 2.6 / 0.65  |
| N476               | 4 / 1.1   | 7.6 / 2     | 7 / 1.9     | 7.6 / 2     | 5 / 1.3     | 5 / 1.3     |
| N576               | 6 / 1.1   | 11.7 / 2    | 10.5 / 1.9  | 11.7 / 2    | 7.5 / 1.3   | 7.5 / 1.3   |
| N676               | 8.5 / 1.9   | 20 / 3.3    | 18 / 3      | 20 / 3.3    | 11 / 2.6    | 10.5 / 2.6  |
| N776               | 18 / 1.9  | 32 / 3.3    | 28 / 3      | 32 / 3.3    | 20 / 2.6    | 20 / 2.6    |
| N876               | 20 / 1.9  | 45 / 3.3    | 39 / 3      | 45 / 3.3    | 28 / 2.6    | 28 / 2.6    |
| N976               | 50 / 4  | 87 / 7.6    | 80 / 7      | 87 / 7.6    | 65 / 5      | 65 / 5      |

Semboller :

Symbols :

Symbole :



:Yağ doldurma

:Oil filling

:Ölfüllung



:Yağ boşaltma

:Drain plug

:Ölauslass



:Yağ seviyesi

:Oil level

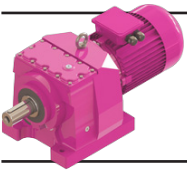
:Ölstand



:Havalandırma

:Vent Plug

:Entlüftungsschraube



# Genel Bilgiler

## General Information

### Einführung

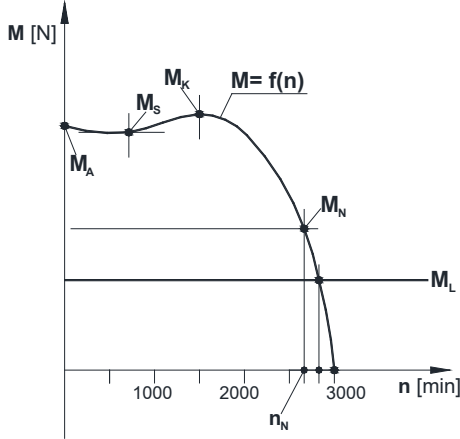


#### MOTORLAR

##### AC Motorlar

###### a- Genel Özellikler:

Basit konstrüksiyonlu, bakım gerektirmez, güvenilirliği yüksek ve uygun fiyatlı olmaları nedeni ile trifaze asenkron motorlar en çok kullanılan motor cinsidir. Bu motorların çalışma karakteristikleri moment-hız eğrisi ile belirlenir. Aşağıda bu karakteristik eğrisine bir örnek verilmiştir.



Motorun her start yapılmasında bu eğriye uygun hareket eder ve yük momenti  $M_L$  ile bu eğrinin çakıştığı nokta, motorun çalışma anındaki moment ve devirini verir.

Statorun manyetik alanı senkron hızla  $n_s$  döner. Kutuplar arasındaki faz kayması 3 fazlı motorlarda  $120^\circ$  'dir.

$$n_s = 120 \times \frac{f}{p_s}$$

f.....: şebeke frekansı [Hz]  
p\_s.....: statorun kutup sayısı

Rotorun değişken manyetik alanı rotorun statorun manyetik alanının dönüşü yönünde dönmeye başlamasını sağlar. Rotor bu hareketinde statorun manyetik alanını takip eder ama hiçbir zaman yakalayamaz. Rotor statorun manyetik alanının hızından yavaş döner. Rotorun bu hızına baz hız  $n_N$  denir. Yükün azalması rotorun hızının artmasını sağlar, aynı zamanda sapma azalır. Sapma aşağıdaki gibi belirlenmiştir:

$$s = \frac{n_s - n_N}{n_s} \times 100$$

Sapmanın miktarına göre motorun nominal değerlerinde şu farklılıklar olabilir.

Sapma s .....:  $\pm 20\%$   
Kalkış Akımı.....:  $\pm 20\%$   
Kalkış Momenti.....:  $-15/+25\%$   
Kütle Atalet Momenti.....:  $\pm 10\%$   
Verim (37 kW'a kadar).....:  $-0,15 (1-\eta)$

#### MOTORS

##### AC Motors

###### a- General Specifications:

On account of its simple and maintenance free construction, good reliability and price, the three phase squirrel cage motor is one of the most frequently employed electric motors. The run up behavior of a three phase squirrel cage motor is described by the torque-speed characteristic curve. An example is shown below.

$M_A$ : Start momenti / Starting torque / Anlaufmoment

$M_S$ : Demeraj momenti / Pull-up torque / Anziehungsmoment

$M_K$ : Frenleme momenti / Pull-out torque / Bremsungsmoment

$M_N$ : Motorun ilettiği moment / Motor rated torque / Treibmoment

$M_L$ : Yük momenti / Load torque / Lastmoment

The motor follows this torque characteristics up to its stable operating point every time, when it is switched on. Operating point is that point, where the moment speed curve intersects with load torque  $M_L$  line.

The magnetic field in the stator rotates at a synchronous speed  $n_s$ . Phase shift of each pole is  $120^\circ$  at 3 phase motors.

$$n_s = 120 \times \frac{f}{p_s}$$

f.....: supply frequency [Hz]  
p\_s.....: number of stator poles

Because of the alternating magnetic field in the rotor, the rotor starts running in the same direction of the stator flux and tries to catch up with the rotating flux. The rotor never catches up the stator field. The rotor runs slower than the speed of the stator field. This speed is called the base speed  $n_N$ .

A decrease in load will cause the rotor to speed up or decrease slip. The slip is defined as follows:

$$s = \frac{n_s - n_N}{n_s} \times 100$$

According to the slip, the nominal values of the electric motor can alter as follows:

Slip s .....:  $\pm 20\%$   
Starting current .....:  $\pm 20\%$   
Starting torque .....:  $-15/+25\%$   
Moment of inertia.....:  $\pm 10\%$   
Efficiency (up to 37 kW).....:  $-0,15 (1-\eta)$

#### MOTOREN

##### Drehstrommotoren:

###### a- Allgemeine Eigenschaften

Wegen die wartungsarme und leichte Konstruktion, hohe Sicherheit bei Nutzung und günstige Preise werden die asynchrone Drehstrommotoren am meisten benutzt. Motoranlaufverhalten wird mit Moment-Drehzahl-Kurve charakterisiert. Ein Beispiel ist unten angegeben.

Der Drehstrommotor läuft diese Kurve bei jeder Anlauf, bis dem stabilen Betriebspunkt erreicht wird. Betriebspunkt ist der Zustand, bei dem die Moment-Drehzahl-Kurve sich mit der Linie von erforderlichen Moment  $M_L$  schneidet.

Magnetisches Feld von Stator dreht sich mit synchroner Geschwindigkeit  $n_s$ . Phasenverschiebung von den Polen ist  $120^\circ$  bei 3phasigen Drehstrommotoren.

$$n_s = 120 \times \frac{f}{p_s}$$

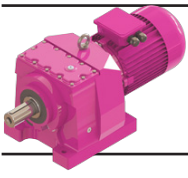
f.....: Frequenz der Spannung [Hz]  
p\_s.....: Anzahl der Polen von Stator

Durch das magnetische Wechselfeld in den Rotor, beginnt der Rotor sich in der gleichen Richtung des Statorflusses zu drehen und versucht diese Bewegung aufzuholen. Der Rotor kann den Statorfeld nie aufholen. Die Rotorgeschwindigkeit nennt man Basisgeschwindigkeit  $n_N$ . Eine Abnahme der Belastung bewirkt, dass der Rotor sich beschleunigt und der Schlupf sich verringert. Der Schlupf wird wie folgt definiert:

$$s = \frac{n_s - n_N}{n_s} \times 100$$

Für die nominale Werte der Drehstrommotoren sind folgende Abweichungen zulässig:

Schlupf s .....:  $\pm 20\%$   
Anzugsstrom .....:  $\pm 20\%$   
Anzugsmoment .....:  $-15/+25\%$   
Massentägheitsmoment .....:  $\pm 10\%$   
Wirkungsgrad (bis 37 kW).....:  $-0,15 (1-\eta)$



# Genel Bilgiler

## General Information

### Einführung



#### b- Çalışma Türleri

Katalogta verilen tüm redüktörlerin motorları S1 çalışma türüne uygun verilmektedir. Diğer çalışma türleri aşağıdaki tabloda gösterilmiştir.

#### b-Modes of Operation

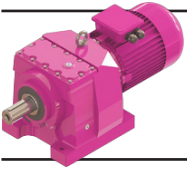
All motors of the catalogue have been laid out for duty S1 (continuous operation). Other duty types are given on the following table.

#### b-Betriebsarten

Die im Katalog angeführten Motoren sind für Betriebsart S1 (Dauerbetrieb) ausgelegt. Andere Betriebsarten sind unten angegeben.

| Çalışma Türü<br>Operation<br>Betriebsarten | Açıklama<br>Explanation<br>Erläuterung   | Yük Grafiği<br>Load Graphic<br>Lastverläufe |
|--|--|---|
| S1   | <b>Sabit yükte sürekli çalışma</b><br><i>Continuous operation under constant load</i><br>Dauerbetrieb mit konstanter Belastung   |   |
| S2   | <b>Sabit yükte kısa süreli çalışma</b><br><i>Short-time duty under constant load</i><br>Kurzbetrieb mit konstanter Belastung   |   |
| S3   | <b>Yolvermede sıcaklık artımı olmadan periyodik çalışma</b><br><i>Periodic duty without influence of start-up on temperature</i><br>Aussetzbetrieb ohne Einfluss des Anlaufes auf die Temperatur               |   |
| S4   | <b>Yolvermede sıcaklık artımı olan periyodik çalışma</b><br><i>Periodic duty with influence of start up on temperature</i><br>Aussetzbetrieb mit Einfluss des Anlaufes auf die Temperatur                      |   |
| S5   | <b>Yolvermede ve frenlemede sıcaklık artımlı periyodik çalışma</b><br><i>Periodic duty with influence of startup and braking on temp.</i><br>Aussetzbetrieb mit Einfluss des Anlaufes / Bremsung auf die Temp. |   |
| S6   | <b>Sürekli orta darbeleri çalışma</b><br><i>Continuous operation with intermittent loading</i><br>Durchlaufbetrieb mit Aussetzungsbelastung  |   |
| S7   | <b>Elektriksel frenlemeli sürekli orta darbeleri çalışma</b><br><i>Continuous operation with intermittent loading and braking</i><br>Ununterbrochener Betrieb mit Anlauf und Bremsung                          |   |
| S8   | <b>Devir ve yük değişimli sürekli çalışma</b><br><i>Continuous operation duty type with related load-speed changes</i><br>Ununterbrochener periodischer Betrieb mit Drehzahländerung                           |   |





# Genel Bilgiler

## General Information

### Einführung



#### c- Koruma Sınıfı:

Yılmaz Redüktörde standart olarak IP55 (IEC 34-5) koruma sınıfı motorlar kullanılmaktadır. Diğer koruma sınıfları istendiğinde firmamıza danışınız.

#### d- İzolasyon Sınıfı:

Yılmaz Redüktörde kullanılan standart izolasyon sınıfı F (IEC 317-8) dir. İstek üzerine H sınıfı yapılabilmektedir.

#### e- Verim Sınıfları:

Üç fazlı, az gerilim asenkron motorların verim sınıfı ölçümü IEC 60034-2-1:2007 normu ile belirlenmiştir. Yeni IE verim sınıfı 0,75 kW'tan 375 kW'a kadar güç aralığında çalışan AC motorlar için geçerlidir. EFF verim sınıfından farklı olarak IE verim sınıfı 6 kutup sayılı motorlar içinde kullanılabilir. Aşağıda verim sınıfları sıralanmıştır. Bölgeler dışında verim sınıfı zorunlulukları ülkelere göre de farklılık gösterebilir. Lütfen firmamıza danışınız. Başka ürünlere entegre olmuş ve bu nedenle motorun veriminin bağımsız belirlenemediği sistemlerde (redüktör pompa gibi) verim sınıflandırması geçerli değildir.

#### c- Protection Class:

Yılmaz Redüktör uses IP55 (IEC 34-5) protection class electric motors for standard products. If different kind of protection class is requested please contact us.

#### d- Insulation Class:

Yılmaz Redüktör uses F (IEC 317-8) insulation class electric motors for standard products. H insulation class is available upon request.

#### e- Efficiency Classes:

The method for measuring the efficiency of low voltage three-phase asynchronous motors was revised with the new IEC 60034-2-1:2007 standard. The new IE classes is valid for AC Motors in power range from 0,75 to 375 kW. Unlike the EFF classes IE classes can be used for 6-pole AC motors. Below is the table of efficiency classes. The instructions for efficiency classes can differ from country to country. Please contact with us for more information. For the motors, which are fully integrated into a product (for example gear, pump) so their energy efficiency can not be recognized independently, the requirements of efficiency are not valid in Europe.

#### c- Schutzarten:

Yılmaz Redüktör Getriebemotoren werden serienmäßig mit Schutzart IP55 (IEC34-5) ausgeführt. Für andere Schutzarten bitte rückfragen.

#### d- Isolationsklasse:

Yılmaz Redüktör Getriebemotoren werden serienmäßig in Wärmeklasse F (IEC317-8) ausgeführt. H Wärmeklasse ist möglich auf Kundenwunsch.

#### e- Energieeffizienzklassen:

Die Methode für Messung die Effizienz von drei phasigen gering Spannung Asynchronmotoren hat neu mit IEC 60034-2-1:2007 Norm festgestellt. Die neue IE-Klassen gelten für alle Drehstrommotoren im Leistungsbereich von 0,75 bis 375 kW. Anders als EFF-Klassen die IE-Klassen können auch für 6-polige Drehstrommotoren verwendet werden. Unten steht die Tabelle der Effizienzklassen. Die Richtlinien für Effizienzklassen können sich je nach dem Land unterscheiden. Bitte mit unserem Firma Kontakt aufnehmen. Für die Motoren, die vollständig in ein Produkt (zum Beispiel Getriebe, Pumpe) eingebaut sind und deren Energieeffizienz nicht unabhängig von diesem Produkt erfasst werden kann, gelten in Europa die Anforderungen der Effizienzklassen nicht.

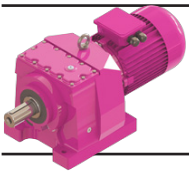
| Verim Sınıfları<br>Efficiency Classes<br>Energieeffizienzklassen |       | 4 Kutuplu Motor Verim Değeri Hesabı<br>Calculating Efficiency Values of Motors with 4 Poles<br>Berechnung der Wirkungsgrade von Elektromotoren mit 4 Polen |   |
|--|-------|--|---|
| IE1  | EFF 2 | <b>Standart Verim</b><br>Standart Efficiency<br>Standarte Energieeffizienz   | A=0,5234<br>B=-5,0499<br>C=17,4180<br>D=74,3171 |
| IE2  | EFF 1 | <b>Yüksek Verim</b><br>High Efficiency<br>Hohe Energieeffizienz  | A=0,0278<br>B=-1,9247<br>C=10,4395<br>D=80,9761 |
| IE3  | -     | <b>Premium Verim</b><br>Premium Efficiency<br>Premium Energieeffizienz   | A=0,0773<br>B=-1,8951<br>C=9,2984<br>D=83,7025  |
| IE4  | -     | <b>Süper Premium Verim</b><br>Super Premium Efficiency<br>Super Premium Energieeffizienz   | -   |

$$\eta_{Mn} = A \times [\log_{10}(P_L)] + B \times [\log_{10}(P_L)]^2 + C \times \log_{10}(P_L) + D$$

$P_L$  :Anma Yüğü [kW] / Nominal Load [kW] / Nennlast [kW]

$\eta_{Mn}$  :Nominal verim / Nominal Efficiency / Sollwirkungsgrad

| 4 Kutuplu Motor Verim Değeri<br>Efficiency Values of Motor with 4 poles<br>Sollwirkungsgrad des Motors mit 4 Polen | Anma Yüğü [kW]<br>Nominal Load [kW]<br>Nennlast [kW] | Verim Sınıfı / Efficiency Class / Energieeffizienzklasse |        |        |
|--|--|--|--------|--------|
|  |  | IE1  | IE2    | IE3    |
|  | 0,75   | 72,1 %   | 79,6 % | 82,5 % |
|  | 1,5  | 77,2 %   | 82,8 % | 85,3 % |
|  | 3  | 81,5 %   | 85,5 % | 87,7 % |
|  | 7,5  | 86 %   | 88,7 % | 90,4 % |
|  | 15   | 88,7 %   | 90,6 % | 92,1 % |
|  | 22   | 89,9 %   | 91,6 % | 93 %   |
|  | 37   | 91,2 %   | 92,7 % | 93,9 % |
|  | 45   | 91,7 %   | 93,1 % | 94,2 % |
|  | 75   | 92,7 %   | 94 %   | 95 %   |
|  | 90   | 93 %   | 94,2 % | 95,2 % |
|  | 330  | 94 %   | 95,1 % | 96 %   |

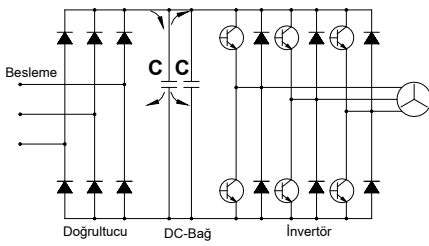


# Genel Bilgiler General Information Einführung

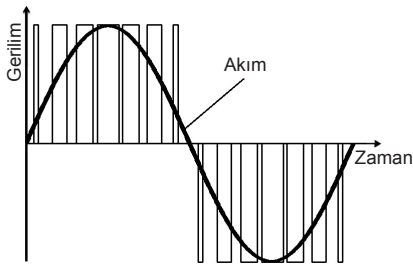


## f- AC Frekans İnvörtörler

Doğru Akımı (DC), alternatif akıma (AC) çeviren elektronik çeviricilere İnvörtör denilmektedir. AC motorlar için elektronik hız kontrol cihazları genellikle AC giriş akımını doğrultucu diyotlarla DC akıma çevirir ve daha sonra çevirici diyotlar vasıtası ile bu akımı tekrar AC akıma çevirir. Doğrultucu diyotlar ile çevirici diyotlar arasındaki bağlantı DC-bağ olarak tanımlanmaktadır. DC kontrol cihazının (genellikle İnvörtör olarak isimlendirilir) elektriksel blok şeması aşağıda verilmiştir.

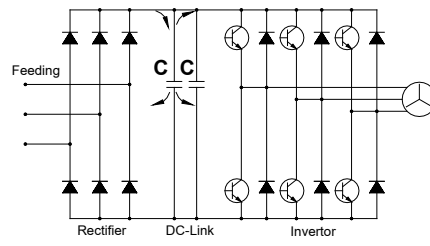


Tam dalga doğrultucuları besleyen üç faz besleme akımı DC-bağ kapasitörlerine iletilir. Kapasitörler voltajdaki dalgalanmaları azaltır ve kısa süreli ağıdaki akım kesintilerinde enerji sağlar. Kapasitörlerdeki voltaj kontrolsüzdür ve gelen AC akımın pik akım değerlerine bağlıdır. DC akım tekrar AC akıma, Puls genişliği modülasyonu (PWM) kullanılarak çevrilir. İstlenen dalga formu, sabit bir frekansta (Puls frekansında), çıkış transistörlerinin (İzole edilmiş geçit Bipolar transistörleri; IGBT'ler) açılıp kapatılması ile oluşturulur. IGBT'lerin açma kapama zamanlarının değişimi ile istenen akım oluşturulabilir. Çıkış voltajı bir seri kare dalga pulslardır ve motor sargılarının İndüktansı ile sinusoidal bir motor akımı oluşur. Puls genişliği modülasyonu aşağıda gösterilmiştir.

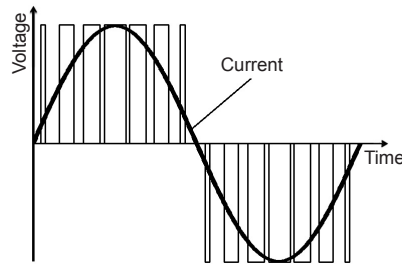


## f- AC Frequency Inverters

An electronic converter is a device which converts Direct Current (DC) to Alternating Current (AC) is known as an inverter. Electronic speed controllers for AC motors usually convert the AC supply to DC using a rectifier, and then convert it back to a variable frequency, variable voltage AC supply using an inverter bridge. The connection between the rectifier and inverter is called the DC link. The block diagram of a speed controller (often called an inverter) is shown below.

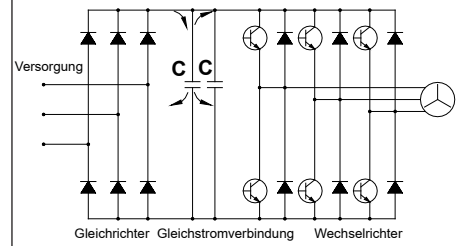


The three phase supply is fed into a full wave rectifier which supplies the DC link capacitors. The capacitors reduce the voltage ripple (especially on single supplies) and supply energy for short mains breaks. The voltage on the capacitors is uncontrolled and depends on the peak AC supply voltage. The DC voltage is converted back to AC using Pulse Width Modulation (PWM). The desired waveform is built up by switching the output transistors (Insulated Gate Bipolar Transistors; IGBTs) on and off at a fixed frequency (the switching frequency). By varying the on and off time of the IGBTs the desired current can be generated. The output voltage is still a series of square wave pulses and the inductance of the motor windings results in a sinusoidal motor current. Pulse Width Modulation is shown in the figure below.

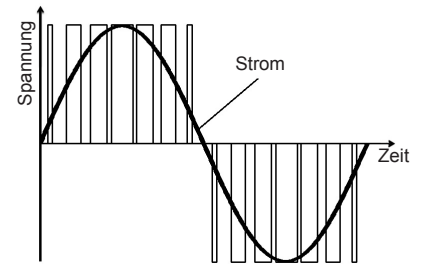


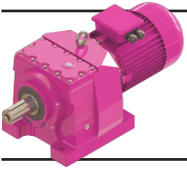
## f- AC Frequenz Umrichter

Ein elektronischer Wandler, der den Gleichstrom (DC) in Wechselstrom (AC) umwandelt, wird als Umrichter bezeichnet. Ein Frequenzumrichter benutzt einen ungesteuerten Eingangsgleichrichter, um die Netzspannung in Gleichspannung umzuwandeln. Diese wird dann in den Zwischenkreiskondensatoren gespeichert. An diesem Gleichspannungszwischenkreis ist ein Wechselrichter angeschlossen. Dieser Wechselrichter erzeugt am Ausgang eine variable Frequenz und eine variable Spannung. Der Anschluss zwischen dem Gleichrichter und dem Wechselrichter nennt man Gleichstromverbindung. Das Blockschaltbild von diesem System wurde unten dargestellt:



Auch bei dreiphasiger Versorgung wird die gleichrichtete Netzspannung den Zwischenkreiskondensatoren zugeführt. Die Kondensatoren reduzieren die Oberwelligkeit der Spannung (was besonders bei einphasiger Versorgung entscheidend ist) und liefern Energie, die kurze Unterbrechungen der Netzstromversorgung ermöglicht. Die Spannung der Kondensatoren ist vom Spitzenwert der Wechselspannung abhängig. Die Gleichspannung wird im Wechselrichter durch Pulsweitenmodulation (PWM) in Wechselspannung umgewandelt. Die gewünschte Wellenform wird durch Ein- und Ausschalten der Ausgangstransistoren (IGBT's Isolierte Gate Bipolar Transistoren) mit einer festen Frequenz (der Pulsfrequenz) erzeugt. Der gewünschte Strom kann durch die Variation der Ein- und Ausschaltzeit der Ausgangstransistoren generiert werden. Die Ausgangsspannung ist dadurch eine Reihe von Spannungsimpulsen, die in Verbindung mit der Induktivität der Motorspulen zu einem sinusförmigen Motorstrom führt. Die Pulsweitenmodulation wird wie folgt dargestellt





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#### DC MOTORLAR

##### a- Genel Özellikler

DC motorlar, elektronik parçalardaki gelişmeler nedeni ile yeni uygulama alanları bulmuştur. Daha önce çok pahalı olan ve ekonomik olmayan kontrol sistemlerinin yerini ucuz ve kompakt güç kontrol üniteleri almıştır. Yol vermenin kontrol altına alınabildiği, tork ve akım izlenebilirliği, aşırı yüklenmeye karşı elektronik koruma sağlanabilmesi ve daha birçok pahalı olmayan uygulamalar DC motorlarını cazip kılmaya başlamıştır.

##### b- DC Motorların Çalışma İlkeleri

DC motorlar için DC çıkış veren bir doğrultucuya ihtiyaç vardır. Motor armatür sargıları, alan sargıları, komutasyon sargıları ve kompanse sargılar olmak üzere rotorda ve statorda bulunan sargılardan oluşur. Rotora voltaj ve akım karbon fırçalar ve komutator sargılarla ulaştırılır. Bu karbon fırçalar aşındığından DC motorlar belirli periyotlarla bakıma alınmalıdır. İyi kontrol edilebilme özelliklerinden dolayı DC motorlar otomasyon teknolojisinde sıkça kullanılmaktadır.

##### c- DC Motor Çeşitleri

Temel olarak Şönt (Shunt) ve seri sargılı DC motorlar bulunmaktadır. Bu sargıların çeşidine göre moment eğrisi değişmektedir.

##### d- DC Motorlarda Hız Kontrolü

Bu motorlarda devir değişimi DC voltajın değiştirilmesi ile yapılır. Şönt sarımlı DC motorların sıfır yük ile maximum yük arasındaki davranışı AC motorlara benzer. Devir artan yükte beraber düşer. Bu devir farkı ufak güçlü motorlarda büyük, büyük güçlü motorlarda ise ufaktır. Fakat bu hız farkı DC doğrultucu cihazda armatür voltajı ( $I \times R$ ) ile oynanarak kompanse edilebilir. Hassas hız kontrol gereksinimi olduğunda, tako jeneratörler kullanılabilir. DC motorların gücü aşağıdaki formülden hesaplanır;

$$P_g = U \times I = \frac{P_c}{\eta}$$

$P_g$  : Giriş gücü W  
 $P_c$  : Çıkış gücü W  
U : Armatür gerilimi V  
I : Armatür akımı A  
 $\eta$  : Motor verimi

#### DC MOTORS

##### a- General Specifications of DC Motors

*DC drive systems have found new possible applications with the development of the electronic components sector. What was previously extremely expensive and in some cases not economically feasible is nowadays realized by miniaturized power converter technology. Additional functions such as guided startup after a predetermined time, torque and current monitoring with electronic protection against overloading, and many inexpensive special applications have made DC drive systems more attractive.*

##### b- Operating principles of the DC Motors

*The DC motor requires, a converter with DC output. The motor includes windings, such as armature, field, commutation and compensation windings, which are arranged in the stator as well as on rotor. Voltage and current are supplied to the rotor via the carbon brushes and the commutator. The carbon brushes are wearing parts therefore a DC motor requires maintenance at service intervals. While its good control properties, the DC motor is an essential item in automation technology.*

##### c- Types of DC Motors

*Depending on the wiring of the exciting winding or field winding, two basically different variants are regards torque speed characteristics may be distinguished.*

##### d- Speed Control of DC motors

*In DC motors the speed is adjusted by altering the DC voltage. DC shunt wounded motors behave similar to three phase induction motors between no load operation and maximum load. The speed drops with increasing loading of the motor. This difference is greater in small motors and smaller in larger motors. The speed difference can be compensated in the DC converter device by adjusting ( $I \times R$ ). If great control accuracy is required, a speed control with measurement of the actual values by a tachogenerator can be used. The power of DC motor;*

$$P_g = U \times I = \frac{P_c}{\eta}$$

$P_g$  : Input Power W  
 $P_c$  : Output Power W  
U : Armature Voltage V  
I : Armature Current A  
 $\eta$  : Motor efficiency

#### DC MOTOREN

##### a- Eigenschaften von DC Motoren

Mit den Entwicklungen bei elektronischen Komponenten haben DC Motoren neue Anwendungsbereiche gefunden. Regelungssysteme, die früher sehr teuer und im manchen Anwendungsfällen ungünstig waren, sind jetzt kompakt und günstig. Bei den DC Motoren ist kontrolliertes Anlauf, Moment- und Stromüberwachung mit Überlastschutz möglich. Es gibt viele günstige Sonderanwendungen für diese Motoren. Wegen oben genannten Eigenschaften werden die DC Motoren immer mehr bei unterschiedlichen Anwendungen benutzt.

##### b- Funktionsprinzip der DC Motoren

Bei DC Motoren ist eine Kommutatorwicklung im Rotor angeordnet, während der magnetische Fluss vom Stator erzeugt wird. Dies kann wiederum mittels einer Erregerwicklung oder durch Permanentmagnete geschehen. Wie bei der Synchronmaschine wird durch das Erregerfeld in der Ankerwicklung eine Wechsellspannung, die bei der Gleichstrommaschine jedoch durch den mechanischen Kommutator und die darauf schleifenden Bürsten in eine Gleichspannung umgeformt wird, induziert.

##### c- Arten von DC Motoren

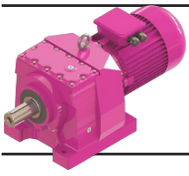
Es gibt zwei verschiedene Wicklungen, nämlich Shunt- und Serial-Wicklung. Das Drehmoment-Drehzahl-Verhältnis ist für beide Wicklungen unterschiedlich.

##### d- Drehzahl Kontrolle für DC Motoren

Drehzahl von DC Motoren kann man mit Steuerung der DC Spannung ändern. DC Motoren mit Shunt Wicklungen ist ähnlich zu drei phasen AC Motoren zwischen maximalen Last und ohne Last. Drehzahl wird mit der Last reduziert. Mit kleineren Motoren wird dieser Differenz höher mit größeren Motoren kleiner. Der Drehzahlunterschied kann geregelt werden mit ( $I \times R$ ) Veränderung. Wenn eine genaue Kontrolle gebraucht, soll ein Tachogenerator benutzt werden. Leistung des DC Motors;

$$P_g = U \times I = \frac{P_c}{\eta}$$

$P_g$  : Eingangsleistung W  
 $P_c$  : Ausgangsleistung W  
U : Ankerspannung V  
I : Ankerstrom A  
 $\eta$  : Wirkungsgrad des Motors



# Genel Bilgiler

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#### Elektromanyetik Frenler

Bu tip frenlerin iki sürtünme yüzeyi vardır. Fren torku, voltaj uygulanmadığı zaman yayların kuvveti ile oluşturulur. Fren elektromanyetik alanın oluşumu ile serbest kalır. Bobinin beslenmesi ile mıknatıslanan balata baskı pulu, elektromıknatısa doğru çekilir. Bu hareket yayları baskı altına alır ve rotor mili üzerine takılan çoklu kama üzerinde aksiyal yönde serbest hareket edebilen balata serbest kalır. Akım kesildiğinde yayların baskısıyla, balata baskı pulu fren balatasına doğru itilir ve bu hareket rotoru frenler.

#### Fren Çeşitleri

##### a) Soğutmasız tip frenler

Motor fanı çıkarılıp motor kapağı arkasına akuple edilerek kullanılan frenler; genellikle sıkça açılıp kapanmayan ve kısa zaman aralıklarında çalışan sistemlerde tercih edilir.

##### b) Soğutmalı tip frenler

Motor fanı çıkarılıp motor kapağı arkasına akuple edilen ve motorun mili uzatılarak fren ve motorun arkasına alınan fan sayesinde daimi bir hava sirkülasyonu sağlanarak kullanılan frenlerdir. Genellikle uzun süreli çalışan ve kapalı mekanlarda kullanılan sistemlerde tercih edilirler.

##### c) Manuel kol sistemli frenler

Çalışma sistemi olarak her iki fren tipinde de kullanılabilir (soğutmalı veya soğutmasız). Özel durumlarda (elektrik kesilmesi; mekanik problemler) üzerinde bulunan bir kol vasıtası ile sistemi yay baskısından kurtararak serbest kalmasını sağlayan frenlerdir. Genellikle manuel olarak sistemin açılması gereken yerlerde (otomatik giriş kapıları, dış cepe boyama asansörleri v.b.) tercih edilir.

#### Fren çalışma voltajları

Elektromanyetik frenler 230V AC veya 400V AC beslemeli olarak sipariş edilebilir. Frenler DC fren olmaları nedeni ile besleme ile fren bobini arasında fren tipine bağlı olarak, yarım dalga, tam dalga doğrultucular veya trafolar kullanılır. Özel olarak belirtilmedikçe 230V beslemeli ve yarım dalga doğrultuculu frenler kullanılmaktadır. Özel durumlar için YILMAZ Redüktöre danışınız.

##### a) 230V AC ile beslenen frenler

Motor klemens kutusundan alınan 230V'luk AC besleme fren tipine bağlı olarak yarım dalga veya tam dalga doğrultucu ile fren bobininin voltajına düşürülür. Fren bobin DC voltajı etiketi üzerinde belirtilmiştir.

##### b) 400V AC ile beslenen DC frenler

Motor klemens kutusundan alınan 400V'luk AC besleme, yarım dalga doğrultucu ile fren bobininin voltajına düşürülür. Fren bobininin DC voltajı etiket üzerinde belirtilmiştir.

##### c) 24V DC Frenler

Kullanılan fren momentinin büyüklüğüne göre besleme transformatörü seçilir. Şebekeden veya motorun klemens kutusundan alınan besleme voltajı transformatörde 29 V'a çevrilen gerilim tam dalga doğrultuculardan geçerek 24V DC'ye çevrilir ve fren bobini beslenir.

#### Electromagnetic Brakes

*This type of brakes has two friction surfaces. Brake torque is generated by springs when no voltage is applied. The brake is electromagnetically released. On exciting the electromagnet means of the current, the armature plate is pulled towards the electromagnet itself, thrust loading the pressure spring and enabling the friction disc which is axially movable on the key, to turn freely. When current fails, the pressured springs drive the armature plate towards the disc, thus braking the motor shaft.*

#### Brake Types

##### a) Brakes without cooling

*This type of brakes are assembled on the back cover of the electric motor. There is no fan on the backside. This brake type is mostly preferred in short working times and short working cycles.*

##### b) Fan cooled brakes

*This type of brakes are assembled on the back cover of electric motor by removing the electric motor fan. A fan is coupled to the backside of the brake by extending the rotor shaft of the electric motor. Fan cooled brakes are preferred in long working times and closed places without airflow.*

##### c) Brakes with hand release

*This brakes can be released by help of an arm. It can be applied to both of the above mentioned brakes and used in special cases (fail of electric current, mechanical problems etc.) These brakes are mostly preferred if operation (releasing) without a current is needed (automatic controlled doors, gates, building wall painting elevators etc.).*

#### Working Voltages

*Electromagnetic brakes can be ordered with 230V AC or 400V AC supply voltage. The coil of brakes needs DC voltage and therefore depending on brake type a half wave, a full wave rectifier or transformer should be used between supply and coil voltage. As standard the brakes will be delivered with 230V supply voltage and half wave rectifier, if there is no special request. For special cases please contact YILMAZ Redüktör.*

##### a) Brakes with 230V supply voltage

*230V AC supply voltage from the motor terminal box will be reduced to the coil voltage depending on the brake type with half-wave or full-wave rectifier. DC brake coil voltage is indicated on the label.*

##### b) Brakes with 400V supply voltage

*400V AC supply voltage from the motor terminal box will be reduced to the coil voltage with half-wave rectifier. DC brake coil voltage indicated on the label.*

##### c) 24V DC Brakes

*The transformer's size is selected according to value of brake torque. The current is taken from the electric motor terminal box or from the electric panel and is transformed to 29V DC current. This current is transferred to 24V DC current with full-wave rectifier and supplies brake coil.*

#### Elektromagnetische Bremsen

Die Bremse hat zwei Reibflächen und arbeitet nach dem Ruhestromprinzip. Im stromlosen Zustand wird das Bremsmoment durch den Druck der Feder erzeugt, während die Bremse beim Betrieb elektromagnetisch losgelassen wird. Durch die Erregung der Elektromagneten wird die Ankerscheibe zu den Elektromagneten gezogen und die Feder zusammengedrückt. Dadurch kann sich die Bremscheibe, die axial beweglich auf dem Mitnehmer angeordnet ist, frei drehen. Wird der Strom unterbrochen, drücken die Feder die Ankerscheibe gegen die Bremscheibe und halten die Motorwelle an.

#### Bremsearten:

##### a) Bremsen ohne Kühlung

Diese Bremsen sind für Kurzlaufzeiten geeignet. Die Lüfterhaube und Lüfter des Motors ist ausgebaut und die Bremse ist an dem Ende der Motorwelle befestigt.

##### b) Bremsen mit Kühlung

Diese Bremsen sind für lange Laufzeiten und kleine, abgedeckte Räume geeignet. Durch die Verlängerung der Motorwelle wurde Lüfter hinter dem Bremse und dem Motor verbunden. Somit wurde eine konstante Lüftung ermöglicht.

##### c) Bremsen mit Hebelarm

Diese Bremsenart kann mit oder ohne Kühlung verwendet werden. Diese Bremsen sind bei der speziellen Fälle, wie keine Spannung an der Leitung, mechanische Probleme usw., anwendbar. Die Bremse wird mit einem Hebelarm manuell betätigt. Diese Bremsen werden am meisten an den Stellen, wo die Lüftung ohne Spannung erfolgen soll, benutzt (automatische Türe, Wandaufzüge).

#### Betriebsspannungen

Elektromagnetische Bremsen können mit 230V AC oder 400V AC Versorgungsspannung bestellt werden. Die Wicklungen der Bremsen brauchen Gleichspannung und deswegen abhängig von Bremsenart zwischen Versorgungsspannung und Wicklungsspannung soll Halbwellen-, Vollweggleichrichter oder Transformator verwendet werden. Als Standard die Bremsen werden mit 230V Versorgungsspannung und Halbwellengleichrichter geliefert.

##### a) Bremsen mit 230V Versorgungsspannung

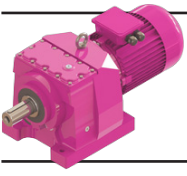
230V AC Versorgungsspannung von Klemmenkasten wird auf die Wicklungsspannung abhängig von der Bremsentyp mit Halbwellen- oder Vollweggleichrichter reduziert. Wicklungsspannung ist auf dem Etikett angegeben.

##### b) Bremsen mit 400V Versorgungsspannung

400V AC Versorgungsspannung von Klemmenkasten wird auf die Wicklungsspannung mit Halbwellengleichrichter reduziert. Wicklungsspannung ist auf dem Etikett angegeben.

##### c) 24 V DC Bremsen

Die Spannung wird von den Klemmkasten des Motors oder Elektrischrank entnommen. Diese Spannung wird zuerst mittels Transformator zu 24 V reduziert. Danach wird diese Spannung mit Hilfe von Gleichrichter zu Gleichstromspannung umgewandelt. Die Größe des Transformators ist abhängig von der Größe des Bremsmoments.



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#### d) Şok ikazlı trafolar

Büyük güçteki ve momentteki frenlerin manyetik doyuma ulaşmaları uzun zaman alır. Şok ikazlı trafolar frenin yay baskısını yenmede gecikmesini engellemek için kullanılır ve zaman rölesi yardımı ile çok kısa bir süre normal besleme voltajının iki katı ile (48V DC) beslenip sistemin ani açılmasını sağlar. Bu sayede gecikmeli açılmada ortaya çıkacak sürtünmeyi engellemeye yarayan bir trafo şeklidir.

#### Fren bağlantı şekli

##### a) Gecikmeli frenleme

Genellikle sistemin yavaş ve kaydırılarak durması gereken yerlerde tercih edilen bağlantı şeklidir. Vinç yürütme motorlarındaki sarsıntıyı önlemek için gecikmeli bağlantı şekli kullanılır. Frenler fabrika çıkışında gecikmeli bağlantıya uygun ayarlanır.

##### b) Ani frenleme

Genellikle sistemin enerjisi kesildiği anda ani olarak durdurulması gereken sistemlerde kullanılan bağlantı şeklidir. Vinç kaldırma sistemleri, asansör motorlarında kullanılan bağlantı şeklidir.

#### d) Shock voltage supply transformer

Brakes which consist of high power and torques take long time to get in electromagnetic field. Shock voltage supply transformers with time relay are aiming to overcome spring pressure delaying for brakes. Also this transformers provide to open system suddenly by feeding double(48V DC) voltage in a short time and preventing to frictional losses occurring in delayed opening.

#### Connection Types

##### a) Delayed Braking

Generally this type of connection uses in slow and sliding brake intended systems. Delayed connection type using to prevent shock loadings in crane driving systems. Brakes are setting up to delayed connection if any other types are not specified by customer

##### b) Sudden Braking

This type of connections are mostly used in systems when short braking times are needed. The braking torque will be produced as soon as the current fails. These brakes are mostly used in hoisting of lifting units and elevators.

#### d) Trafos mit Schock-Spannung

Diese Transformatoren werden bei großen Bremsen mit hohen Momenten verwendet. Da die große Bremsen eine lange Zeit braucht, um die erforderliche magnetische Feld zu erzeugen, wird an der Bremse kurz 48V Gleichstromspannung angelegt, um die Zeit zur Bildung von magnetischem Feld zu kürzen. Dies ermöglicht kürzere Reibungszeiten beim Start.

#### Schaltungsarten:

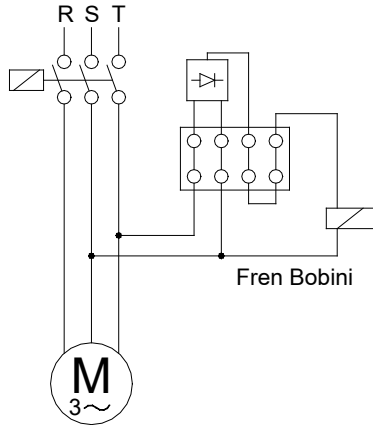
##### a) Verspätetes Bremsen

Diese Schaltung wird benutzt, wenn ein langsames und gleitendes Bremsen erforderlich ist. Am meisten wird es bei Fahrtriebemotoren von Aufzügen verwendet. Wenn keine Angabe bei der Bestellung gegeben wird, werden die Bremsen mit verspäteter Schaltung geliefert.

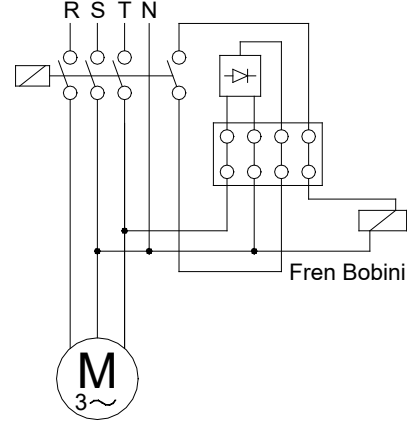
##### b) Schnelles Bremsen:

Allgemein verwendet man diese Schaltung bei Bedarf an plötzlichen Bremsen in dem Augenblick, in dem das System keine Energie mehr erhält. Diese Schaltungsart wird meist bei Kräne und Motoren von Aufzüge verwendet.

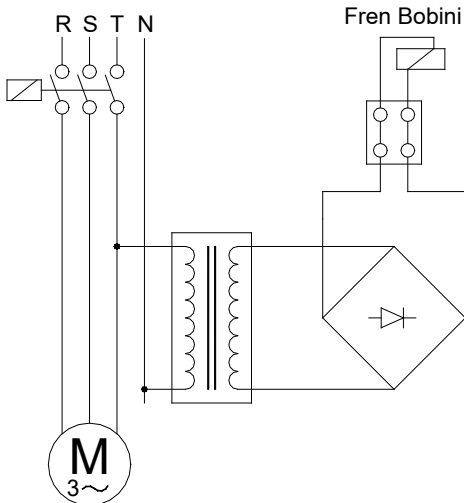
Geçikmeli Frenleme / Delayed Running Brake / Verspätete Bremsung (230 V)



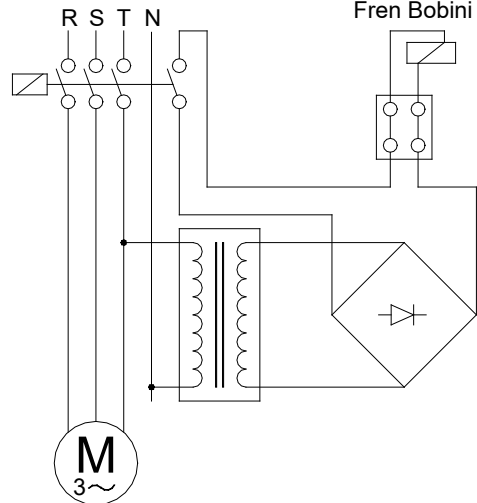
Ani Frenleme / Sudden Brake / Plötzliche Bremsung (230 V)

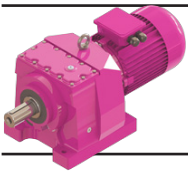


Geçikmeli Frenleme / Delayed Running Brake / Verspätete Bremsung (24 V)



Ani Frenleme / Sudden Brake / Plötzliche Bremsung (24 V)





# Genel Bilgiler

## General Information

### Einführung



#### Fren Seçimi:

Doğru bir fren seçimi için aşağıdaki parametreler bilinmelidir.

- $I_{tot}$  [kg.m<sup>2</sup>] : Motor miline indirgenmiş toplam atalet momenti
- $n_0$  [d/dak] : Maksimum motor devir sayısı
- $t_f$  [s] : İstenilen en uzun frenleme zamanı
- $c_t$  : Anahtarın devreye girme zamanı katsayısı (ortalama 0,995).
- $M_L$  [Nm] : Sistemin statik tork ihtiyacı.
- $C_s$  : Emniyet katsayısı ( $C_s \geq 2$  olmalı)

Gerekli fren momenti aşağıdaki şekilde hesaplanır:

a)  $M_L$  Statik yük torku, motor dönüş yönünde (motorun dönüşüne yardımcı olarak, yükün indirilmesi veya hızlandırıcı sabit yük momenti hali):

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} + M_L$$

b)  $M_L$  Statik yük torku, motor aksi dönüş yönünde (motorun dönüşüne engel olarak, yükün yukarı kaldırılması veya frenleyici sabit yük/direnç momenti hali):

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} - M_L$$

Yukarıda bulunan sonuç  $C_s$  katsayısı ile çarpılarak ( $C_s \geq 2$ ), fren momenti seçilir;

$$M_f = M_{fc} \times C_s$$

#### Yaklaşım Yolu ile Fren Seçimi:

Eğer yalnızca motorun gücü ve en yüksek devri biliniyor ise :

W [Watt]: Motorun nominal gücü

$$M_f = \frac{W}{\left(\frac{2\pi \times n_0}{60}\right)} \times C_s \quad (C_s \geq 2)$$

#### Standart Frenler / Standard Brakes / Standart Bremsen

|   |      |      |      |      |      |      |      |      |      |
|---|------|------|------|------|------|------|------|------|------|
| <b>Fren statik momenti [Nm]</b><br>Brake Static Torque [Nm]<br>Statische Bremskraft [Nm]          | 4,5  | 8    | 12   | 16   | 35   | 60   | 80   | 150  | 200  |
| <b>Fren Dinamik Momenti [Nm]</b><br>Brake Dynamic Torque [Nm]<br>Dynamische Bremskraft [Nm]       | 3,6  | 6,4  | 9,6  | 12,8 | 28   | 48   | 64   | 120  | 160  |
| <b>Maksimum Motor Hızı [d/dak]</b><br>Maximum Motor Speed [rpm]<br>Maximale Motordrehzahl [U/min] | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 3000 | 1500 | 1500 |
| <b>Giriş Gücü [W]</b><br>Input Power [W]<br>Antriebsleistung [W]                                  | 15   | 20   | 25   | 30   | 45   | 50   | 55   | 60   | 65   |

#### Brake Selection:

To select a brake correctly the following data are necessary;

- $I_{tot}$  [kg . m<sup>2</sup>] : The total inertia of rotating parts reduced at the motor shaft
- $n_0$  [rpm] : Maximum motor speed.
- $t_f$  [s] : The maximum admitted time of the braking.
- $c_t$  : Coefficient of switch on time (average 0,995).
- $M_L$  [Nm] : Required static torque of system.
- $C_s$  : Safety coefficient ( $C_s \geq 2$ )

The necessary braking torque calculates below;

a) The static load torque  $M_L$ , same direction of motor rotation (Descent of a load or steady resisting torque which favours the rotation of the motor)

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} + M_L$$

b) The static load torque  $M_L$ , opposes the rotation of the motor (Lifting of a load or steady resisting torque which opposes the rotation of the motor)

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} - M_L$$

The necessary braking torque will result from the following equation using  $C_s$  ( $C_s \geq 2$ );

$$M_f = M_{fc} \times C_s$$

#### Approximated Brake Selection

Its only the motor power and its maximum speed are known:

W [Watt]: Motor Nominal Power

$$M_f = \frac{W}{\left(\frac{2\pi \times n_0}{60}\right)} \times C_s \quad (C_s \geq 2)$$

#### Bremswahl:

Um die richtige Bremse auszuwählen, braucht man unten aufgelistete Variablen;

- $I_{tot}$  [kg . m<sup>2</sup>] : Die Gesamtträgheit der rotierenden Teile (siehe Anwendungsbeispiele)
- $n_0$  [U/min] : Die höchste Drehzahl des Motors
- $t_f$  [s] : Die längste zulässige Bremszeit
- $c_t$  : Reduktionskoeffizient der Tätigkeitszeit (gemittelt 0,995).
- $M_L$  [Nm] : Vom system benötigtes, statisches Drehmoment.
- $C_s$  : Sicherheitskoeffizient ( $C_s \geq 2$ )

Die benötigte Bremskraft wird wie folgt berechnet:

a) konstantes Belastungsmoment  $M_L$ , das die Motordrehung fördert (konstante Erhöhung der Motorgeschwindigkeit oder Herunterlassen der Last)

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} + M_L$$

b) konstantes Belastungsmoment  $M_L$ , das sich entgegen der Motordrehung widersetzt (konstante Verminderung der Motorgeschwindigkeit oder Aufheben der Last)

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} - M_L$$

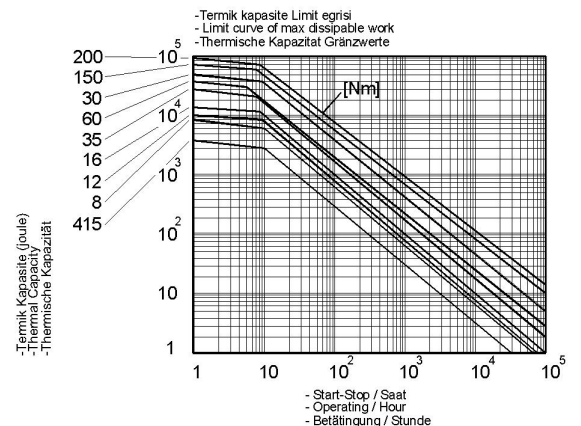
Wenn die Bremskraft mit dem Sicherheitskoeffizient  $C_s$  ( $C_s \geq 2$ ) multipliziert wird, erhält man die erforderliche Bremskraft;

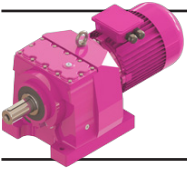
$$M_f = M_{fc} \times C_s$$

#### Abschätzung zur Bremswahl

Wenn man nur die Motorleistung und die höchste Drehzahl kennt, kann die Bremskraft mit der folgenden Formel annähernd berechnet werden:  
W [Watt] : Nennleistung des Motors

$$M_f = \frac{W}{\left(\frac{2\pi \times n_0}{60}\right)} \times C_s \quad (C_s \geq 2)$$





# Genel Bilgiler

## General Information

### Einführung



#### Frenin Termik Kapasitesi

Yukarıdaki seçime ek olarak frenin termik kapasitesinin kontrol edilmesi gerekir. L (joule) olarak gerekli soğutma işi aşağıdaki formüller ile hesaplanır ve "Termik kapasite limit eğrisi" kullanılarak eğrinin altında kalıp kalmadığı kontrol edilir.

a)  $M_L$  Statik yük torku motor dönüş yönünde (motorun dönüşüne yardımcı olarak, yükün indirilmesi hali)

$$L = \frac{I_{tot} \times (2 \pi \times n_0 \div 60)^2}{2} \times \left( \frac{M_f}{M_f - M_L} \right)$$

b)  $M_L$  Statik yük torku motor aksi dönüş yönünde (motorun dönüşüne engel olarak, yükün kaldırılması hali):

$$L = \frac{I_{tot} \times (2 \pi \times n_0 \div 60)^2}{2} \times \frac{M_f}{M_f + M_L}$$

c)  $M_L$  Statik yük torku sabit, motor yönünde veya aksi yönde (kaldırma ve indirme harici hızlandırıcı veya frenleyici sabit bir yük momenti hali).

$$L = \frac{I_{tot} \times (2 \pi \times n_0 \div 60)^2}{2}$$

#### Fren Hava Boşluğunun Ayarı:

Frenin sürekli aynı performansın alınabilmesi için, fren balatasının aşınmasına bağlı olarak, fren hava boşluğu belirli zaman aralıklarında yeniden ayarlanmalıdır. Fren hava boşluğu ayar zaman aralığı ve ayarın yapılması için firmamıza danışınız.

#### Fren Seçim Örneği:

İstenilen en uzun frenleme zamanı: 0,5 sn.  
Motor devri: 1400 d/dak  
Motora indirgenmiş toplam atalet momenti: 0,08 kgm<sup>2</sup>

Gerekli çalışma momenti: 50 Nm

Yük Durumu: Yük motor dönüş yönü ile aynı (Vinçten yük indirilmesi: Saatte dur-kalk sayısı:30)

$$M_{fc} = \frac{(2 \pi \times 1400 \div 60)}{0,5 \times 0,995} + 50 = 73,6 \text{ Nm}$$

$$M_f = 73,6 \times 2 = 147,2 \text{ Nm}$$

Standart frenler tablosundan 150 Nm lik fren seçilebilir.

Gerekli termik kapasite;

$$L = \frac{0,08 \times (2 \pi \times 1400 \div 60)^2}{2} \times \left( \frac{147,2}{147,2 - 50} \right)$$

=1302,0 < 18000 Joule (150 Nm eğrisinden)  
150 Nm lik fren uygun görülüyor.

#### The Thermal Capacity of Brake

The thermal capacity of the brake must also be checked after the above mentioned calculations heat dissipation energy L (joule) can be calculated from the following equation and must be checked if the result is under the limit curve shown on "Limit curve of may dissipated work".

a) The static load torque  $M_L$ , favours the rotation of the motor (Descent of a load which favours the rotation of the motor)

$$L = \frac{I_{tot} \times (2 \pi \times n_0 \div 60)^2}{2} \times \left( \frac{M_f}{M_f - M_L} \right)$$

b) The static load torque  $M_L$ , opposes the rotation of the motor (Lifting of a load which opposes the rotation of the motor)

$$L = \frac{I_{tot} \times (2 \pi \times n_0 \div 60)^2}{2} \times \frac{M_f}{M_f + M_L}$$

c) The static load torque  $M_L$ , is constant and opposes or favours the rotation of the motor (except lifting of a load)

$$L = \frac{I_{tot} \times (2 \pi \times n_0 \div 60)^2}{2}$$

#### Adjustment of the air-gap:

In order to obtain the same performance from the brake during its lifetime, the air-gap of the brake must be re-adjusted after a limited time of operation. For the air-gap and the time interval of the adjustment please contact us.

#### Selection Example:

The maximum admitted time for braking 0,5 s  
Motor speed: 1400 rpm  
Total inertia reduced at motor shaft: 0,08 kgm<sup>2</sup>

Required operating torque: 50 Nm

Nature of load: Load direction is same as motor direction (Unloading process: Start-stop time per hour :30)

$$M_{fc} = \frac{(2 \pi \times 1400 \div 60)}{0,5 \times 0,995} + 50 = 73,6 \text{ Nm}$$

$$M_f = 73,6 \times 2 = 147,2 \text{ Nm}$$

From the brake selection table a standard brake of 150 Nm is selected.

Necessary thermal capacity

$$L = \frac{0,08 \times (2 \pi \times 1400 \div 60)^2}{2} \times \left( \frac{147,2}{147,2 - 50} \right)$$

=1302,0 < 18000 Joule (from 150 Nm curve)  
The selected brake with 150 Nm is suitable.

#### Thermische Kapazität der Bremsen

Nach den oben genannten Berechnungen muss die thermische Kapazität überprüft werden. Die Wärme, d.h. die gebrauchte Energie L, werden mit den folgenden Formeln berechnet. Die gerechnete Werte von Kapazitäten sollen unter dem Grenzkurve "Thermische Kapazität Grenzwerte" der gewählten Bremse liegen.

a) Konstantes Belastungsmoment  $M_L$ , das die Motordrehung fördert (Herunterlassen der Last)

$$L = \frac{I_{tot} \times (2 \pi \times n_0 \div 60)^2}{2} \times \left( \frac{M_f}{M_f - M_L} \right)$$

b) Konstantes Belastungsmoment  $M_L$ , das sich entgegen der Motordrehung widersetzt (Aufheben der Last)

$$L = \frac{I_{tot} \times (2 \pi \times n_0 \div 60)^2}{2} \times \frac{M_f}{M_f + M_L}$$

c) Konstantes Belastungsmoment  $M_L$ , das sich gegen der Motorbewegung widersetzt oder die Motorrotation fördert (Konstante Verminderung oder Erhöhung der Motorgeschwindigkeit, kein Herunterlassen oder Aufheben der Last)

$$L = \frac{I_{tot} \times (2 \pi \times n_0 \div 60)^2}{2}$$

#### Einstellung des Luftspaltes:

Um eine immer konstant bleibende Bremsfähigkeit zu erhalten, muss das Luftspalt nach einer bestimmten Arbeitszeit neu eingestellt werden. Für die Bestimmung des Luftspaltes und die Einstellzeiten bitten wir Sie um Rückfrage.

#### Beispiel für eine Auswahl:

Die höchste zulässige Bremszeit: 0,5 s  
Motordrehzahl: 1400 U/min  
Gesamträgheit der rotierenden Teile: 0,08 kgm<sup>2</sup>  
Das auf das System wirkende Drehmoment: 50 Nm  
Belastungsart: Drehmoment, das die Motorrotation fördert (Herunterlassen der Last)  
Betätigungen pro Stunde: 30

$$M_{fc} = \frac{(2 \pi \times 1400 \div 60)}{0,5 \times 0,995} + 50 = 73,6 \text{ Nm}$$

$$M_f = 73,6 \times 2 = 147,2 \text{ Nm}$$

Eine Bremse von 150 Nm kann man auswählen.

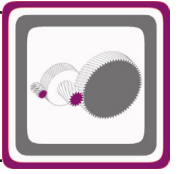
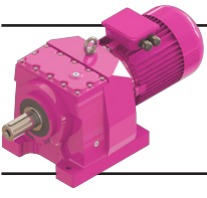
Die thermische Kapazität;

$$L = \frac{0,08 \times (2 \pi \times 1400 \div 60)^2}{2} \times \left( \frac{147,2}{147,2 - 50} \right)$$

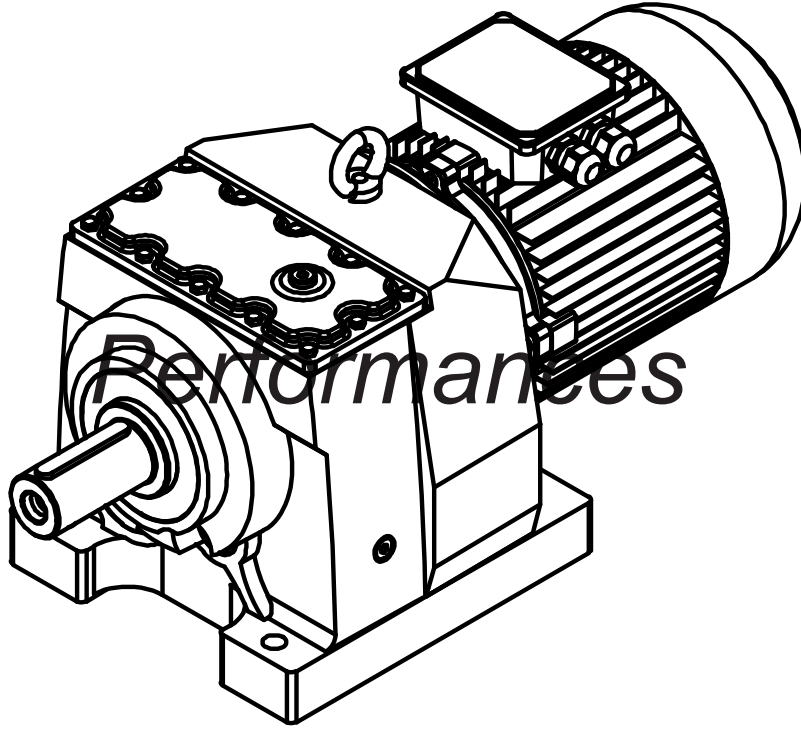
=1302,0 < 18000 Joule (von 150 Nm Kurve) Die ausgewählte 150 Nm Bremse ist ausreichend.



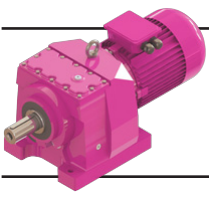




# Güç ve Devir Tabloları



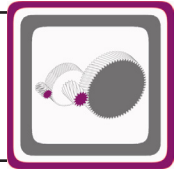
## Leistung und Drehzahlübersicht



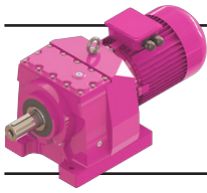
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



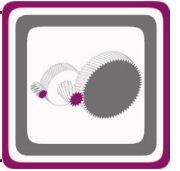
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi        | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|-------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type        | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ         | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 0,12<br>0,18   | 0,28   | 3161   | 4953,44          | 18719  | 0,9                              | MR576-63/4a | 0,41             | 157                  | 119          | MR402      |
|  | 0,32   | 2811   | 4402,68          | 20916  | 1,1                              | NR576-63/4a |                  | 151                  |              | NR402      |
|  | 0,42   | 2157   | 3372,36          | 24268  | 1,4                              |             |                  |                      |              |            |
|  | 0,49   | 1825   | 2850,22          | 25640  | 1,6                              |             |                  |                      |              |            |
|  | 0,51   | 1786   | 2736,94          | 25789  | 1,7                              | MR575-63/4a | 0,41             | 155                  | 119          | MR403      |
|  | 0,61   | 1511   | 2313,18          | 26807  | 2,0                              | NR575-63/4a |                  | 149                  |              | NR403      |
|  | 0,74   | 1239   | 1897,20          | 27712  | 2,4                              |             |                  |                      |              |            |
|  | 0,84   | 1095   | 1675,43          | 28156  | 2,7                              |             |                  |                      |              |            |
|  | 0,94   | 973  | 1489,14          | 28508  | 3,1                              |             |                  |                      |              |            |
|  | 1,1  | 824  | 1259,61          | 28915  | 3,6                              |             |                  |                      |              |            |
|  | 1,2  | 748  | 1140,65          | 29153  | 4,0                              |             |                  |                      |              |            |
|  | 0,55   | 1648   | 2522,85          | 13992  | 0,9                              | MR475-63/4a | 0,41             | 100                  | 116          | MR003      |
| 0,66   | 1378   | 2107,15  | 17772            | 1,1  | NR475-63/4a                      |             | 103              |                      | NR003        |            |
| 0,70   | 1302   | 1990,76  | 18643            | 1,2  |                                  |             |                  |                      |              |            |
| 0,81   | 1139   | 1738,98  | 20338            | 1,4  |                                  |             |                  |                      |              |            |
| 0,86   | 1070   | 1631,08  | 21007            | 1,4  |                                  |             |                  |                      |              |            |
| 1,0  | 910  | 1386,75  | 22317            | 1,7  |                                  |             |                  |                      |              |            |
| 1,1  | 845  | 1285,79  | 22818            | 1,8  |                                  |             |                  |                      |              |            |
| 1,2  | 792  | 1204,49  | 23218            | 2,0  |                                  |             |                  |                      |              |            |
| 1,3  | 694  | 1053,93  | 23939            | 2,2  |                                  |             |                  |                      |              |            |
| 1,5  | 617  | 934,94   | 24430            | 2,5  |                                  |             |                  |                      |              |            |
| 0,90   | 1019   | 1561,78  | 7642             | 0,8  | MR375-63/4a                      | 0,41        | 76               | 113                  | MR004        |            |
| 1,0  | 902  | 1380,71  | 10238            | 0,9  | NR375-63/4a                      |             | 78               |                      | NR004        |            |
| 1,2  | 759  | 1161,33  | 12601            | 1,1  |                                  |             |                  |                      |              |            |
| 1,4  | 646  | 987,33   | 14090            | 1,3  |                                  |             |                  |                      |              |            |
| 1,7  | 554  | 845,97   | 15082            | 1,5  |                                  |             |                  |                      |              |            |
| 1,8  | 501  | 765,58   | 15595            | 1,6  |                                  |             |                  |                      |              |            |
| 2,1  | 443  | 676,02   | 16127            | 1,8  |                                  |             |                  |                      |              |            |
| 2,2  | 414  | 631,45   | 16378            | 2,0  |                                  |             |                  |                      |              |            |
| 2,6  | 351  | 533,70   | 16915            | 2,3  |                                  |             |                  |                      |              |            |
| 2,7  | 352  | 524,07   | 16901            | 2,3  | MR374-63/4a                      | 0,41        | 55               | 112                  | MR005        |            |
| 3,3  | 284  | 421,85   | 17401            | 2,9  | NR374-63/4a                      |             | 58               |                      | NR005        |            |
| 3,8  | 249  | 369,93   | 17646            | 3,3  |                                  |             |                  |                      |              |            |
| 1,2  | 789  | 1206,98  | 3708             | 0,8  | MR285-63/4a                      | 0,41        | 74               | 110                  | MR006        |            |
| 1,4  | 664  | 1015,21  | 7884             | 0,9  | NR285-63/4a                      |             | 75               |                      | NR006        |            |
| 1,6  | 565  | 863,11   | 9893             | 1,1  |                                  |             |                  |                      |              |            |
| 1,9  | 484  | 739,53   | 11164            | 1,2  |                                  |             |                  |                      |              |            |
| 2,1  | 439  | 669,25   | 11789            | 1,4  |                                  |             |                  |                      |              |            |
| 2,4  | 375  | 573,81   | 12571            | 1,6  |                                  |             |                  |                      |              |            |
| 2,8  | 322  | 491,50   | 13143            | 1,9  |                                  |             |                  |                      |              |            |
| 3,2  | 290  | 431,18   | 13466            | 2,1  | MR284-63/4a                      | 0,41        | 74               | 109                  | MR007        |            |
| 3,8  | 248  | 368,77   | 13836            | 2,4  | NR284-63/4a                      |             | 75               |                      | NR007        |            |
| 4,3  | 218  | 323,39   | 14123            | 2,8  |                                  |             |                  |                      |              |            |
| 1,7  | 541  | 827,44   | 5983             | 0,8  | MR275-63/4a                      | 0,41        | 41               | 107                  | MR008        |            |
| 1,9  | 474  | 724,01   | 6562             | 0,9  | NR275-63/4a                      |             | 43               |                      | NR008        |            |
| 2,3  | 392  | 598,70   | 7152             | 1,1  |                                  |             |                  |                      |              |            |
| 2,8  | 328  | 499,32   | 7553             | 1,4  |                                  |             |                  |                      |              |            |
| 3,3  | 275  | 418,57   | 7843             | 1,6  |                                  |             |                  |                      |              |            |
| 3,9  | 236  | 358,33   | 8034             | 1,9  |                                  |             |                  |                      |              |            |
| 4,2  | 219  | 332,52   | 8108             | 2,1  |                                  |             |                  |                      |              |            |
| 5,6  | 166  | 252,20   | 8350             | 2,7  |                                  |             |                  |                      |              |            |



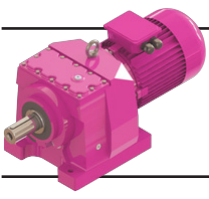
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



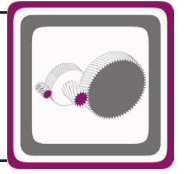
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi        | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|-------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type        | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ         | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 0,12<br>0,18   | 6,5  | 142  | 215,91           | 8.446  | 3,2                              | MR275-63/4a | 0,41             | 41                   | 107          | MR008      |
|  | 6,8  | 135  | 205,95           | 8.474  | 3,3                              | NR275-63/4a |                  | 43                   |              | NR008      |
|  | 7,8  | 119  | 180,21           | 8.540  | 3,8                              |             |                  |                      |              |            |
|  | 9,4  | 98   | 149,02           | 8.615  | 4,0                              |             |                  |                      |              |            |
|  | 10   | 105  | 138,55           | 8.588  | 4,0                              | MR273-63/4a | 0,41             | 30                   | 106          | MR009      |
|  | 12   | 91   | 121,03           | 8.640  | 4,0                              | NR273-63/4a |                  | 32                   |              | NR009      |
|  | 13   | 86   | 113,52           | 8.656  | 4,0                              |             |                  |                      |              |            |
|  | 14   | 75   | 99,21            | 5723   | 2,7                              | MR173-63/4a | 0,41             | 30                   | 104          | MR010      |
|  | 16   | 66   | 87,60            | 5524   | 3,0                              | NR173-63/4a |                  | 32                   |              | NR010      |
|  | 17   | 62   | 81,82            | 5417   | 3,2                              |             |                  |                      |              |            |
|  | 20   | 52   | 69,16            | 5159   | 3,8                              |             |                  |                      |              |            |
|  | 24   | 44   | 57,76            | 4891   | 4,0                              |             |                  |                      |              |            |
| 28   | 38   | 49,81  | 4679             | 4,0  |                                  |             |                  |                      |              |            |
| 0,18<br>0,25   | 31   | 34   | 45,18            | 2844   | 2,4                              | MR003-63/4a | 0,41             | 12                   | 102          | MR011      |
|  | 35   | 30   | 40,04            | 2862   | 2,7                              | NR003-63/4a |                  | 13                   |              | NR011      |
|  | 44   | 24   | 32,02            | 2894   | 3,4                              |             |                  |                      |              |            |
|  | 49   | 21   | 28,38            | 2906   | 3,8                              |             |                  |                      |              |            |
|  | 58   | 18   | 24,13            | 2773   | 4,0                              |             |                  |                      |              |            |
|  | 66   | 16   | 21,26            | 2655   | 4,0                              |             |                  |                      |              |            |
|  | 68   | 16   | 20,66            | 2626   | 4,0                              |             |                  |                      |              |            |
|  | 73   | 15   | 19,17            | 2558   | 4,0                              |             |                  |                      |              |            |
|  | 77   | 14   | 18,20            | 2515   | 4,0                              |             |                  |                      |              |            |
|  | 83   | 13   | 16,89            | 2450   | 4,0                              |             |                  |                      |              |            |
|  | 95   | 11   | 14,67            | 2337   | 4,0                              |             |                  |                      |              |            |
|  | 103  | 10   | 13,61            | 2277   | 4,0                              |             |                  |                      |              |            |
|  | 126  | 9  | 11,14            | 2137   | 4,0                              | MR002-63/4a | 0,41             | 11                   | 102          | MR012      |
|  | 142  | 8  | 9,87             | 2050   | 4,0                              | NR002-63/4a |                  | 12                   |              | NR012      |
|  | 161  | 7  | 8,70             | 1963   | 4,0                              |             |                  |                      |              |            |
| 166  | 6  | 8,45   | 1942             | 4,0  |                                  |             |                  |                      |              |            |
| 179  | 6  | 7,84   | 1892             | 4,0  |                                  |             |                  |                      |              |            |
| 188  | 6  | 7,45   | 1860             | 4,0  |                                  |             |                  |                      |              |            |
| 203  | 5  | 6,91   | 1812             | 4,0  |                                  |             |                  |                      |              |            |
| 233  | 5  | 6,00   | 1727             | 4,0  |                                  |             |                  |                      |              |            |
| 251  | 4  | 5,57   | 1684             | 4,0  |                                  |             |                  |                      |              |            |
| 307  | 3  | 4,56   | 1574             | 4,0  |                                  |             |                  |                      |              |            |
| 359  | 3  | 3,90   | 1493             | 4,0  |                                  |             |                  |                      |              |            |
| 387  | 3  | 3,62   | 1455             | 4,0  |                                  |             |                  |                      |              |            |
| 0,18<br>0,25   | 0,11   | 13102  | 8345,18          | 71858  | 1,0                              | MR876-71/6a | 0,61             | 605                  | 128          | MR013      |
|  | 0,12   | 11333  | 7233,00          | 81412  | 1,1                              | NR876-71/6a |                  | 620                  |              | NR013      |
|  | 0,14   | 9902   | 6313,78          | 87961  | 1,3                              |             |                  |                      |              |            |
|  | 0,16   | 8741   | 5569,66          | 92611  | 1,5                              |             |                  |                      |              |            |
|  | 0,18   | 7781   | 4954,95          | 96036  | 1,7                              |             |                  |                      |              |            |
|  | 0,20   | 6974   | 4438,59          | 98943  | 1,9                              |             |                  |                      |              |            |
|  | 0,23   | 6125   | 3892,30          | 101645   | 2,1                              |             |                  |                      |              |            |
|  | 0,26   | 5423   | 3441,02          | 103736   | 2,4                              |             |                  |                      |              |            |
|  | 0,31   | 4571   | 2894,28          | 106104   | 2,8                              |             |                  |                      |              |            |
|  | 0,37   | 3893   | 2460,65          | 107857   | 3,3                              |             |                  |                      |              |            |
|  | 0,15   | 9332   | 5949,83          | 43189  | 0,9                              | MR776-71/6a | 0,61             | 258                  | 125          | MR404      |
|  | 0,17   | 8263   | 5260,00          | 47843  | 1,0                              | NR776-71/6a |                  | 320                  |              | NR404      |
| 0,19   | 7732   | 4812,09  | 49999            | 1,0  | MR775-71/6a                      | 0,61        | 255              | 125                  | MR405        |            |
| 0,21   | 6850   | 4263,81  | 53064            | 1,2  | NR775-71/6a                      |             | 315              |                      | NR405        |            |



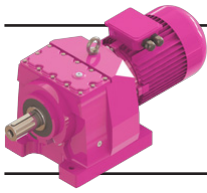
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



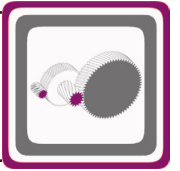
| Güç  | Çıkış Devri   | Çıkış Momenti                                       | Çevrim Oranı     | Güv. Rad. Yük Çıkış                                 | Servis Faktörü                   | Tipi                       | Anma Akımı       | Ağırlık              | Ölçü Sayfası   | Fiyat Kodu     |
|--|---|---|------------------|---|----------------------------------|----------------------------|------------------|----------------------|----------------|----------------|
| Power  | Output Speeds   | Output Torque                                       | Ratio            | Per.O. Loads (Output)                               | Service Factors                  | Type                       | Rated Current    | Weight               | Dim. Page      | Price Ref.     |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle<br>Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle<br>Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte<br>(Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ                        | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite     | Preis No.      |
| 0,18<br>0,25   | 0,24  | 6132  | 3814,39          | 55325   | 1,3                              | MR775-71/6a                | 0,61             | 255                  | 125            | MR405          |
|  | 0,29  | 5004  | 3103,85          | 58620   | 1,6                              | NR775-71/6a                |                  | 315                  |                | NR405          |
|  | 0,34  | 4319  | 2684,10          | 60366   | 1,9                              |                            |                  |                      |                |                |
|  | 0,39  | 3744  | 2324,10          | 61720   | 2,1                              |                            |                  |                      |                |                |
|  | 0,44  | 3277  | 2032,66          | 62744   | 2,4                              |                            |                  |                      |                |                |
|  | 0,50  | 2891  | 1791,91          | 63542   | 2,8                              |                            |                  |                      |                |                |
|  | 0,57  | 2567  | 1589,68          | 64179   | 3,1                              |                            |                  |                      |                |                |
|  | 0,63  | 2290  | 1417,41          | 64789   | 3,5                              |                            |                  |                      |                |                |
|  | 0,72  | 2027  | 1252,60          | 65282   | 3,9                              |                            |                  |                      |                |                |
|  | 0,31  | 4523  | 2863,86          | 25026   | 1,0                              | MR676-71/6a<br>NR676-71/6a | 0,61             | 238<br>247           | 122            | MR406<br>NR406 |
| 0,35   | 4159  | 2578,93   | 27204            | 1,0   | MR675-71/6a                      | 0,61                       | 228              | 122                  | MR407          |                |
| 0,41   | 3536  | 2196,86   | 30417            | 1,2   | NR675-71/6a                      |                            | 242              |                      | NR407          |                |
| 0,48   | 3043  | 1888,53   | 32546            | 1,4   |                                  |                            |                  |                      |                |                |
| 0,55   | 2643  | 1638,93   | 34152            | 1,6   |                                  |                            |                  |                      |                |                |
| 0,63   | 2312  | 1432,74   | 35318            | 1,9   |                                  |                            |                  |                      |                |                |
| 0,71   | 2034  | 1259,54   | 36200            | 2,1   |                                  |                            |                  |                      |                |                |
| 0,81   | 1801  | 1113,08   | 36968            | 2,4   |                                  |                            |                  |                      |                |                |
| 0,90   | 1612  | 995,91  | 37525            | 2,7   |                                  |                            |                  |                      |                |                |
| 1,0  | 1418  | 874,56  | 38071            | 3,0   |                                  |                            |                  |                      |                |                |
| 1,2  | 1187  | 730,46  | 38688            | 3,6   |                                  |                            |                  |                      |                |                |
| 0,49   | 2889  | 2850,22   | 20466            | 1,0   | MR576-63/4b<br>NR576-63/4b       | 0,60                       | 160<br>153       | 119                  | MR408<br>NR408 |                |
| 0,51   | 2828  | 2736,94   | 20831            | 1,1   | MR575-63/4b                      | 0,60                       | 152              | 119                  | MR409          |                |
| 0,61   | 2392  | 2313,18   | 23153            | 1,3   | NR575-63/4b                      |                            | 148              |                      | NR409          |                |
| 0,74   | 1961  | 1897,20   | 25085            | 1,5   |                                  |                            |                  |                      |                |                |
| 0,84   | 1733  | 1675,43   | 26009            | 1,7   |                                  |                            |                  |                      |                |                |
| 0,94   | 1541  | 1489,14   | 26691            | 1,9   |                                  |                            |                  |                      |                |                |
| 1,1  | 1305  | 1259,61   | 27489            | 2,3   |                                  |                            |                  |                      |                |                |
| 1,2  | 1184  | 1140,65   | 27867            | 2,5   |                                  |                            |                  |                      |                |                |
| 1,6  | 954   | 574,90  | 28543            | 3,1   | MR574-71/6a                      | 0,61                       | 135              | 118                  | MR410          |                |
| 1,9  | 807   | 485,89  | 28992            | 3,7   | NR574-71/6a                      |                            | 133              |                      | NR410          |                |
| 2,2  | 670   | 402,12  | 29334            | 4,0   |                                  |                            |                  |                      |                |                |
| 0,81   | 1804  | 1738,98   | 11081            | 0,9   | MR475-63/4b                      | 0,60                       | 111              | 116                  | MR016          |                |
| 0,86   | 1693  | 1631,08   | 13214            | 0,9   | NR475-63/4b                      |                            | 115              |                      | NR016          |                |
| 1,0  | 1441  | 1386,75   | 17001            | 1,1   |                                  |                            |                  |                      |                |                |
| 1,1  | 1339  | 1285,79   | 18231            | 1,2   |                                  |                            |                  |                      |                |                |
| 1,2  | 1253  | 1204,49   | 19174            | 1,2   |                                  |                            |                  |                      |                |                |
| 1,3  | 1119  | 674,46  | 20517            | 1,4   | MR474-71/6a                      | 0,61                       | 94               | 115                  | MR017          |                |
| 1,5  | 1001  | 603,46  | 21579            | 1,5   | NR474-71/6a                      |                            | 98               |                      | NR017          |                |
| 1,7  | 880   | 529,93  | 22559            | 1,8   |                                  |                            |                  |                      |                |                |
| 2,0  | 736   | 442,61  | 23617            | 2,1   |                                  |                            |                  |                      |                |                |
| 2,2  | 696   | 418,16  | 23900            | 2,2   |                                  |                            |                  |                      |                |                |
| 2,6  | 577   | 346,07  | 24656            | 2,7   |                                  |                            |                  |                      |                |                |
| 3,0  | 494   | 295,98  | 25177            | 3,1   |                                  |                            |                  |                      |                |                |
| 1,4  | 1022  | 987,33  | 7515             | 0,8   | MR375-63/4b                      | 0,60                       | 76               | 113                  | MR018          |                |
| 1,7  | 877   | 845,97  | 10731            | 0,9   | NR375-63/4b                      |                            | 81               |                      | NR018          |                |



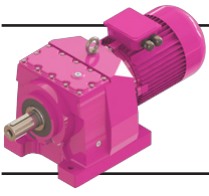
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



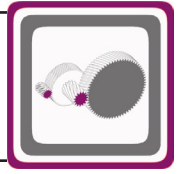
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi               | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|--------------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type               | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ                | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 0,18<br>0,25   | 1,7  | 867  | <b>524,07</b>    | 10899  | 0,9                              | <b>MR374-71/6a</b> | 0,61             | 58                   | 112          | MR019      |
|  | 2,1  | 698  | <b>421,85</b>    | 13419  | 1,2                              | <b>NR374-71/6a</b> |                  | 61                   |              | NR019      |
|  | 2,4  | 613  | <b>369,93</b>    | 14433  | 1,3                              |                    |                  |                      |              |            |
|  | 2,7  | 558  | <b>524,07</b>    | 15060  | 1,5                              | <b>MR374-63/4b</b> | 0,60             | 55                   | 112          | MR020      |
|  | 3,3  | 449  | <b>421,85</b>    | 16080  | 1,8                              | <b>NR374-63/4b</b> |                  | 58                   |              | NR020      |
|  | 3,8  | 394  | <b>369,93</b>    | 16545  | 2,1                              |                    |                  |                      |              |            |
|  | 5,7  | 280  | <b>157,76</b>    | 16612  | 2,9                              | <b>MR373-71/6a</b> | 0,61             | 54                   | 111          | MR021      |
|  | 6,5  | 246  | <b>138,72</b>    | 15997  | 3,3                              | <b>NR373-71/6a</b> |                  | 57                   |              | NR021      |
|  | 2,1  | 715  | <b>431,18</b>    | 6617   | 0,8                              | <b>MR284-71/6a</b> | 0,61             | 62                   | 109          | MR022      |
|  | 2,4  | 611  | <b>368,77</b>    | 9042   | 1,0                              | <b>NR284-71/6a</b> |                  | 65                   |              | NR022      |
|  | 2,8  | 536  | <b>323,39</b>    | 10374  | 1,1                              |                    |                  |                      |              |            |
|  | 3,2  | 459  | <b>431,18</b>    | 11525  | 1,3                              | <b>MR284-63/4b</b> | 0,60             | 60                   | 109          | MR023      |
|  | 3,8  | 393  | <b>368,77</b>    | 12359  | 1,5                              | <b>NR284-63/4b</b> |                  | 63                   |              | NR023      |
|  | 4,3  | 345  | <b>323,39</b>    | 12886  | 1,7                              |                    |                  |                      |              |            |
|  | 4,9  | 305  | <b>285,89</b>    | 13313  | 2,0                              |                    |                  |                      |              |            |
|  | 5,8  | 257  | <b>240,47</b>    | 13658  | 2,3                              |                    |                  |                      |              |            |
|  | 6,5  | 245  | <b>137,91</b>    | 13228  | 2,4                              | <b>MR283-71/6a</b> | 0,61             | 40                   | 108          | MR024      |
|  | 7,9  | 203  | <b>114,14</b>    | 12532  | 3,0                              | <b>NR283-71/6a</b> |                  | 42                   |              | NR024      |
|  | 2,8  | 519  | <b>499,32</b>    | 6.196  | 0,9                              | <b>MR275-63/4b</b> | 0,60             | 41                   | 107          | MR025      |
|  | 3,3  | 435  | <b>418,57</b>    | 6.857  | 1,0                              | <b>NR275-63/4b</b> |                  | 43                   |              | NR025      |
|  | 3,9  | 373  | <b>358,33</b>    | 7.277  | 1,2                              |                    |                  |                      |              |            |
|  | 4,2  | 347  | <b>332,52</b>    | 7.439  | 1,3                              |                    |                  |                      |              |            |
|  | 5,6  | 263  | <b>252,20</b>    | 7.904  | 1,7                              |                    |                  |                      |              |            |
|  | 6,5  | 246  | <b>138,55</b>    | 7.988  | 1,8                              | <b>MR273-71/6a</b> | 0,61             | 30                   | 106          | MR026      |
|  | 7,4  | 215  | <b>121,03</b>    | 8.133  | 2,1                              | <b>NR273-71/6a</b> |                  | 32                   |              | NR026      |
|  | 7,9  | 202  | <b>113,52</b>    | 8.195  | 2,2                              |                    |                  |                      |              |            |
|  | 9,3  | 172  | <b>96,52</b>     | 8.324  | 2,6                              |                    |                  |                      |              |            |
|  | 10   | 158  | <b>138,55</b>    | 8.388  | 2,8                              | <b>MR273-63/4b</b> | 0,60             | 28                   | 106          | MR027      |
|  | 12   | 138  | <b>121,03</b>    | 8.461  | 3,3                              | <b>NR273-63/4b</b> |                  | 30                   |              | NR027      |
|  | 13   | 130  | <b>113,52</b>    | 8.490  | 3,5                              |                    |                  |                      |              |            |
|  | 13   | 121  | <b>68,03</b>     | 8463   | 2,3                              | <b>MR203-71/6a</b> | 0,61             | 28                   | 105          | MR028      |
|  | 15   | 106  | <b>59,43</b>     | 8501   | 2,6                              | <b>NR203-71/6a</b> |                  | 30                   |              | NR028      |
|  | 16   | 99   | <b>55,74</b>     | 8427   | 2,8                              |                    |                  |                      |              |            |
|  | 21   | 78   | <b>68,03</b>     | 7840   | 3,6                              | <b>MR203-63/4b</b> | 0,60             | 27                   | 105          | MR029      |
|  |  |  |                  |  |                                  | <b>NR203-63/4b</b> |                  | 29                   |              | NR029      |
|  | 9,1  | 176  | <b>99,21</b>     | 5799   | 1,1                              | <b>MR173-71/6a</b> | 0,61             | 16                   | 104          | MR030      |
|  | 10   | 156  | <b>87,60</b>     | 5900   | 1,3                              | <b>NR173-71/6a</b> |                  | 18                   |              | NR030      |
|  | 11   | 146  | <b>81,82</b>     | 5846   | 1,4                              |                    |                  |                      |              |            |
|  | 13   | 123  | <b>69,16</b>     | 5613   | 1,6                              |                    |                  |                      |              |            |
|  | 14   | 113  | <b>99,21</b>     | 5501   | 1,8                              | <b>MR173-63/4b</b> | 0,60             | 13                   | 104          | MR031      |
|  | 16   | 100  | <b>87,60</b>     | 5328   | 2,0                              | <b>NR173-63/4b</b> |                  | 15                   |              | NR031      |
|  | 17   | 93   | <b>81,82</b>     | 5234   | 2,1                              |                    |                  |                      |              |            |



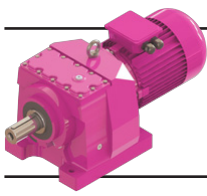
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



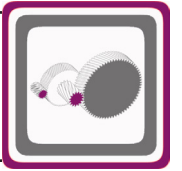
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi        | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|-------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type        | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ         | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 0,18<br>0,25   | 20   | 79   | 69,16            | 5004   | 2,5                              | MR173-63/4b | 0,60             | 13                   | 104          | MR031      |
|  | 24   | 66   | 57,76            | 4762   | 3,0                              | NR173-63/4b |                  | 15                   |              | NR031      |
|  | 28   | 57   | 49,81            | 4567   | 3,5                              |             |                  |                      |              |            |
|  | 18   | 90   | 50,51            | 3538   | 1,6                              | MR103-71/6a | 0,61             | 15                   | 103          | MR032      |
|  | 20   | 80   | 44,60            | 3437   | 1,8                              | NR103-71/6a |                  | 17                   |              | NR032      |
|  | 22   | 74   | 41,66            | 3382   | 1,9                              |             |                  |                      |              |            |
|  | 28   | 58   | 50,51            | 3177   | 2,4                              | MR103-63/4b | 0,60             | 16                   | 103          | MR033      |
|  | 31   | 51   | 44,60            | 3076   | 2,7                              | NR103-63/4b |                  | 18                   |              | NR033      |
|  | 34   | 48   | 41,66            | 3021   | 2,9                              |             |                  |                      |              |            |
|  | 40   | 40   | 35,21            | 2886   | 3,5                              |             |                  |                      |              |            |
| 20   | 80   | 45,18  | 2507             | 1,0  | MR003-71/6a                      | 0,61        | 14               | 102                  | MR034        |            |
|  | 22   | 71   | 40,04            | 2585   | 1,2                              | NR003-71/6a |                  | 15                   |              | NR034      |
|  | 28   | 57   | 32,02            | 2691   | 1,4                              |             |                  |                      |              |            |
|  | 31   | 51   | 45,18            | 2730   | 1,6                              | MR003-63/4b | 0,60             | 13                   | 102          | MR035      |
|  | 35   | 46   | 40,04            | 2770   | 1,8                              | NR003-63/4b |                  | 14                   |              | NR035      |
|  | 44   | 36   | 32,02            | 2818   | 2,2                              |             |                  |                      |              |            |
|  | 49   | 32   | 28,38            | 2772   | 2,5                              |             |                  |                      |              |            |
|  | 58   | 28   | 24,13            | 2717   | 3,0                              |             |                  |                      |              |            |
|  | 66   | 24   | 21,26            | 2646   | 3,4                              |             |                  |                      |              |            |
|  | 68   | 24   | 20,66            | 2654   | 3,5                              |             |                  |                      |              |            |
| 73   | 22   | 19,17  | 2587             | 3,7  |                                  |             |                  |                      |              |            |
|  | 77   | 21   | 18,20            | 2544   | 3,9                              |             |                  |                      |              |            |
|  | 83   | 19   | 16,89            | 2477   | 4,0                              |             |                  |                      |              |            |
|  | 95   | 17   | 14,67            | 2361   | 4,0                              |             |                  |                      |              |            |
|  | 103  | 16   | 13,61            | 2300   | 4,0                              |             |                  |                      |              |            |
|  | 126  | 13   | 11,14            | 2162   | 4,0                              | MR002-63/4b | 0,60             | 12                   | 102          | MR036      |
|  | 142  | 11   | 9,87             | 2073   | 4,0                              | NR002-63/4b |                  | 13                   |              | NR036      |
|  | 161  | 10   | 8,70             | 1983   | 4,0                              |             |                  |                      |              |            |
|  | 166  | 10   | 8,45             | 1962   | 4,0                              |             |                  |                      |              |            |
|  | 179  | 9  | 7,84             | 1910   | 4,0                              |             |                  |                      |              |            |
| 188  | 9  | 7,45   | 1878             | 4,0  |                                  |             |                  |                      |              |            |
|  | 203  | 8  | 6,91             | 1829   | 4,0                              |             |                  |                      |              |            |
|  | 233  | 7  | 6,00             | 1743   | 4,0                              |             |                  |                      |              |            |
|  | 251  | 6  | 5,57             | 1698   | 4,0                              |             |                  |                      |              |            |
|  | 307  | 5  | 4,56             | 1587   | 4,0                              |             |                  |                      |              |            |
|  | 359  | 5  | 3,90             | 1504   | 4,0                              |             |                  |                      |              |            |
|  | 387  | 4  | 3,62             | 1465   | 4,0                              |             |                  |                      |              |            |
|  | 405  | 4  | 6,91             | 1437   | 4,0                              | MR002-63/2a | 0,50             | 12                   | 102          | MR037      |
|  | 467  | 3  | 6,00             | 1370   | 4,0                              | NR002-63/2a |                  | 13                   |              | NR037      |
|  | 503  | 3  | 5,57             | 1335   | 4,0                              |             |                  |                      |              |            |
| 615  | 3  | 4,56   | 1248             | 4,0  |                                  |             |                  |                      |              |            |
| 718  | 2  | 3,90   | 1184             | 4,0  |                                  |             |                  |                      |              |            |
| 774  | 2  | 3,62   | 1154             | 4,0  |                                  |             |                  |                      |              |            |
| 0,25<br>0,34   | 0,12   | 16352  | 11443,34         | 47139  | 0,8                              | MR876-71/4a | 0,81             | 610                  | 128          | MR038      |
|  | 0,17   | 11945  | 8345,18          | 78313  | 1,1                              | NR876-71/4a |                  | 625                  |              | NR038      |
|  | 0,19   | 10332  | 7233,00          | 86091  | 1,3                              |             |                  |                      |              |            |
|  | 0,22   | 9027   | 6313,78          | 91518  | 1,4                              |             |                  |                      |              |            |
|  | 0,25   | 7969   | 5569,66          | 95396  | 1,6                              |             |                  |                      |              |            |
|  | 0,28   | 7094   | 4954,95          | 98545  | 1,8                              |             |                  |                      |              |            |
|  | 0,32   | 6358   | 4438,59          | 100925   | 2,0                              |             |                  |                      |              |            |
|  | 0,36   | 5584   | 3892,30          | 103268   | 2,3                              |             |                  |                      |              |            |



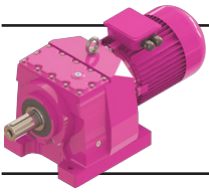
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



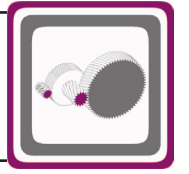
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi        | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|-------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type        | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ         | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 0,25<br>0,34   | 0,41   | 4944   | 3441,02          | 105090   | 2,6                              | MR876-71/4a | 0,81             | 610                  | 128          | MR038      |
|  | 0,48   | 4167   | 2894,28          | 107163   | 3,1                              | NR876-71/4a |                  | 625                  |              | NR038      |
|  | 0,57   | 3549   | 2460,65          | 108704   | 3,7                              |             |                  |                      |              |            |
|  | 0,66   | 3046   | 2108,33          | 109889   | 4,0                              |             |                  |                      |              |            |
|  | 0,24   | 8508   | 5949,83          | 46821  | 0,9                              | MR776-71/4a | 0,81             | 258                  | 125          | MR411      |
|  | 0,27   | 7533   | 5260,00          | 50676  | 1,1                              | NR776-71/4a |                  | 320                  |              | NR411      |
|  | 0,29   | 7049   | 4812,09          | 52395  | 1,1                              | MR775-71/4a | 0,81             | 255                  | 125          | MR412      |
|  | 0,33   | 6245   | 4263,81          | 54986  | 1,3                              | NR775-71/4a |                  | 316                  |              | NR412      |
|  | 0,37   | 5591   | 3814,39          | 56998  | 1,4                              |             |                  |                      |              |            |
|  | 0,45   | 4562   | 3103,85          | 59765  | 1,8                              |             |                  |                      |              |            |
|  | 0,52   | 3938   | 2684,10          | 61275  | 2,0                              |             |                  |                      |              |            |
|  | 0,60   | 3413   | 2324,10          | 62452  | 2,3                              |             |                  |                      |              |            |
| 0,69   | 2988   | 2032,66  | 63346            | 2,7  |                                  |             |                  |                      |              |            |
| 0,78   | 2636   | 1791,91  | 64046            | 3,0  |                                  |             |                  |                      |              |            |
| 0,88   | 2340   | 1589,68  | 64693            | 3,4  |                                  |             |                  |                      |              |            |
| 0,99   | 2087   | 1417,41  | 65170            | 3,8  |                                  |             |                  |                      |              |            |
| 1,1  | 1848   | 1252,60  | 65609            | 4,0  |                                  |             |                  |                      |              |            |
| 0,42   | 4805   | 3342,43  | 23089            | 0,9  | MR676-71/4a                      | 0,81        | 230              | 122                  | MR413        |            |
| 0,49   | 4124   | 2863,86  | 27402            | 1,0  | NR676-71/4a                      |             | 242              |                      | NR413        |            |
| 0,54   | 3792   | 2578,93  | 29170            | 1,1  | MR675-71/4a                      | 0,81        | 228              | 122                  | MR414        |            |
| 0,64   | 3224   | 2196,86  | 31808            | 1,3  | NR675-71/4a                      |             | 243              |                      | NR414        |            |
| 0,74   | 2774   | 1888,53  | 33656            | 1,5  |                                  |             |                  |                      |              |            |
| 0,85   | 2410   | 1638,93  | 34935            | 1,8  |                                  |             |                  |                      |              |            |
| 0,98   | 2108   | 1432,74  | 35973            | 2,0  |                                  |             |                  |                      |              |            |
| 1,1  | 1855   | 1259,54  | 36805            | 2,3  |                                  |             |                  |                      |              |            |
| 1,3  | 1642   | 1113,08  | 37438            | 2,6  |                                  |             |                  |                      |              |            |
| 1,4  | 1469   | 995,91   | 37928            | 2,9  |                                  |             |                  |                      |              |            |
| 1,6  | 1293   | 874,56   | 38410            | 3,3  |                                  |             |                  |                      |              |            |
| 1,9  | 1082   | 730,46   | 38957            | 4,0  |                                  |             |                  |                      |              |            |
| 0,74   | 2781   | 1897,20  | 21134            | 1,1  | MR575-71/4a                      | 0,81        | 151              | 119                  | MR415        |            |
| 0,84   | 2458   | 1675,43  | 22834            | 1,2  | NR575-71/4a                      |             | 147              |                      | NR415        |            |
| 0,94   | 2186   | 1489,14  | 24122            | 1,4  |                                  |             |                  |                      |              |            |
| 1,1  | 1850   | 1259,61  | 25531            | 1,6  |                                  |             |                  |                      |              |            |
| 1,2  | 1680   | 1140,65  | 26185            | 1,8  |                                  |             |                  |                      |              |            |
| 1,6  | 1353   | 574,90   | 27325            | 2,2  | MR574-71/6b                      | 0,83        | 137              | 118                  | MR416        |            |
| 1,9  | 1145   | 485,89   | 27982            | 2,6  | NR574-71/6b                      |             | 133              |                      | NR416        |            |
| 2,2  | 950  | 402,12   | 28571            | 3,2  |                                  |             |                  |                      |              |            |
| 2,4  | 870  | 574,90   | 28808            | 3,5  | MR574-71/4a                      | 0,81        | 132              | 118                  | MR417        |            |
| 2,9  | 736  | 485,89   | 29182            | 4,0  | NR574-71/4a                      |             | 128              |                      | NR417        |            |
| 1,1  | 1898   | 1285,79  | 8731             | 0,8  | MR475-71/4a                      | 0,81        | 100              | 116                  | MR045        |            |
| 1,2  | 1777   | 1204,49  | 11638            | 0,9  | NR475-71/4a                      |             | 105              |                      | NR045        |            |
| 1,3  | 1587   | 674,46   | 14952            | 1,0  | MR474-71/6b                      | 0,83        | 95               | 115                  | MR046        |            |
| 1,5  | 1419   | 603,46   | 17270            | 1,1  | NR474-71/6b                      |             | 100              |                      | NR046        |            |
| 1,7  | 1248   | 529,93   | 19226            | 1,2  |                                  |             |                  |                      |              |            |
| 2,0  | 1044   | 442,61   | 21195            | 1,5  |                                  |             |                  |                      |              |            |



# Motorlu Güç Devir Sayfaları

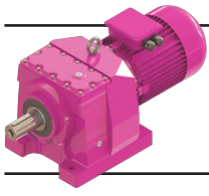
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi                                     | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu     |
|--|--|--|------------------|--|----------------------------------|--|------------------|----------------------|--------------|----------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type                                     | Rated Current    | Weight               | Dim. Page    | Price Ref.     |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ                                      | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.      |
| 0,25<br>0,34   | 2,1  | 1020   | <b>674,46</b>    | 21400  | 1,5                              | <b>MR474-71/4a</b>                       | 0,81             | 95                   | 115          | MR047          |
|  | 2,3  | 912  | <b>603,46</b>    | 22299  | 1,7                              | <b>NR474-71/4a</b>                       |                  | 100                  |              | NR047          |
|  | 2,6  | 802  | <b>529,93</b>    | 23156  | 1,9                              |  |                  |                      |              |                |
|  | 3,2  | 671  | <b>442,61</b>    | 24046  | 2,3                              |  |                  |                      |              |                |
|  | 3,3  | 634  | <b>418,16</b>    | 24302  | 2,4                              |  |                  |                      |              |                |
|  | 4,0  | 526  | <b>346,07</b>    | 24977  | 2,9                              |  |                  |                      |              |                |
|  | 2,1  | 990  | <b>421,85</b>    | 8390   | 0,8                              | <b>MR374-71/6b</b>                       | 0,83             | 58                   | 112          | MR048          |
|  | 2,4  | 869  | <b>369,93</b>    | 10865  | 0,9                              | <b>NR374-71/6b</b>                       |                  | 63                   |              | NR048          |
|  | 2,7  | 791  | <b>524,07</b>    | 12141  | 1,0                              | <b>MR374-71/4a</b>                       | 0,81             | 58                   | 112          | MR049          |
|  | 3,3  | 637  | <b>421,85</b>    | 14175  | 1,3                              | <b>NR374-71/4a</b>                       |                  | 63                   |              | NR049          |
|  | 3,8  | 559  | <b>369,93</b>    | 15022  | 1,5                              |  |                  |                      |              |                |
|  | 4,3  | 495  | <b>327,04</b>    | 15661  | 1,7                              |  |                  |                      |              |                |
|  | 5,1  | 416  | <b>275,08</b>    | 16358  | 2,0                              |  |                  |                      |              |                |
|  | 5,7  | 390  | <b>157,76</b>    | 16204  | 2,1                              | <b>MR373-71/6b</b>                       | 0,83             | 58                   | 111          | MR050          |
|  | 6,5  | 343  | <b>138,72</b>    | 15639  | 2,4                              | <b>NR373-71/6b</b>                       |                  | 63                   |              | NR050          |
|  | 8,1  | 276  | <b>111,67</b>    | 14708  | 3,0                              |  |                  |                      |              |                |
|  | 8,9  | 251  | <b>157,76</b>    | 14306  | 3,3                              | <b>MR373-71/4a</b><br><b>NR373-71/4a</b> | 0,81             | 52<br>57             | 111          | MR051<br>NR051 |
|  | 2,4  | 866  | <b>368,77</b>    | -  | 0,7                              | <b>MR284-71/6b</b>                       | 0,83             | 62                   | 109          | MR052          |
| 2,8  | 761  | <b>323,39</b>                                    | 5008             | 0,8  | <b>NR284-71/6b</b>               |  | 65               |                      | NR052        |                |
| 3,2  | 651  | <b>431,18</b>                                    | 8204             | 0,9  | <b>MR284-71/4a</b>               | 0,81                                     | 62               | 109                  | MR053        |                |
| 3,8  | 557  | <b>368,77</b>                                    | 10030            | 1,1  | <b>NR284-71/4a</b>               |  | 65               |                      | NR053        |                |
| 4,3  | 489  | <b>323,39</b>                                    | 11099            | 1,2  |                                  |  |                  |                      |              |                |
| 4,9  | 433  | <b>285,89</b>                                    | 11849            | 1,4  |                                  |  |                  |                      |              |                |
| 5,8  | 364  | <b>240,47</b>                                    | 12678            | 1,6  |                                  |  |                  |                      |              |                |
| 6,5  | 341  | <b>137,91</b>                                    | 12835            | 1,8  | <b>MR283-71/6b</b>               | 0,83                                     | 30               | 108                  | MR054        |                |
| 7,9  | 283  | <b>114,14</b>                                    | 12207            | 2,1  | <b>NR283-71/6b</b>               |  | 32               |                      | NR054        |                |
| 9,2  | 242  | <b>97,62</b>                                     | 11696            | 2,5  |                                  |  |                  |                      |              |                |
| 10   | 219  | <b>137,91</b>                                    | 11387            | 2,7  | <b>MR283-71/4a</b>               | 0,81                                     | 30               | 108                  | MR055        |                |
| 12   | 182  | <b>114,14</b>                                    | 10791            | 3,3  | <b>NR283-71/4a</b>               |  | 32               |                      | NR055        |                |
| 3,9  | 529  | <b>358,33</b>                                    | 6.097            | 0,9  | <b>MR275-71/4a</b>               | 0,81                                     | 45               | 107                  | MR056        |                |
| 4,2  | 492  | <b>332,52</b>                                    | 6.422            | 0,9  | <b>NR275-71/4a</b>               |  | 47               |                      | NR056        |                |
| 5,6  | 373  | <b>252,20</b>                                    | 7.281            | 1,2  |                                  |  |                  |                      |              |                |
| 6,5  | 343  | <b>138,55</b>                                    | 7.465            | 1,3  | <b>MR273-71/6b</b>               | 0,83                                     | 30               | 106                  | MR057        |                |
| 7,4  | 300  | <b>121,03</b>                                    | 7.711            | 1,5  | <b>NR273-71/6b</b>               |  | 32               |                      | NR057        |                |
| 7,9  | 281  | <b>113,52</b>                                    | 7.802            | 1,6  |                                  |  |                  |                      |              |                |
| 9,3  | 239  | <b>96,52</b>                                     | 8.021            | 1,9  |                                  |  |                  |                      |              |                |
| 10   | 220  | <b>138,55</b>                                    | 8.110            | 2,0  | <b>MR273-71/4a</b>               | 0,81                                     | 30               | 106                  | MR058        |                |
| 12   | 193  | <b>121,03</b>                                    | 8.238            | 2,3  | <b>NR273-71/4a</b>               |  | 32               |                      | NR058        |                |
| 13   | 181  | <b>113,52</b>                                    | 8.287            | 2,5  |                                  |  |                  |                      |              |                |
| 15   | 154  | <b>96,52</b>                                     | 8.400            | 2,9  |                                  |  |                  |                      |              |                |
| 17   | 134  | <b>83,83</b>                                     | 8.475            | 3,4  |                                  |  |                  |                      |              |                |

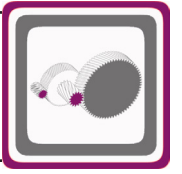




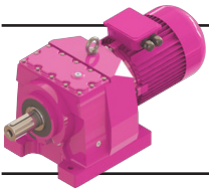
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



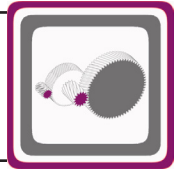
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi               | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|--------------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type               | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ                | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 0,25<br>0,34   | 13   | 169  | <b>68,03</b>     | 8300   | 1,7                              | <b>MR203-71/6b</b> | 0,83             | 28                   | 105          | MR059      |
|  | 15   | 148  | <b>59,43</b>     | 8381   | 1,9                              | <b>NR203-71/6b</b> |                  | 30                   |              | NR059      |
|  | 16   | 138  | <b>55,74</b>     | 8234   | 2,0                              |                    |                  |                      |              |            |
|  | 21   | 108  | <b>68,03</b>     | 7689   | 2,6                              | <b>MR203-71/4a</b> | 0,81             | 28                   | 105          | MR060      |
|  | 24   | 95   | <b>59,43</b>     | 7395   | 3,0                              | <b>NR203-71/4a</b> |                  | 30                   |              | NR060      |
|  | 25   | 89   | <b>55,74</b>     | 7258   | 3,1                              |                    |                  |                      |              |            |
|  | 30   | 76   | <b>47,39</b>     | 6919   | 3,7                              |                    |                  |                      |              |            |
|  | 9,1  | 245  | <b>99,21</b>     | 5390   | 0,8                              | <b>MR173-71/6b</b> | 0,83             | 17                   | 104          | MR061      |
|  | 10   | 217  | <b>87,60</b>     | 5574   | 0,9                              | <b>NR173-71/6b</b> |                  | 19                   |              | NR061      |
|  | 14   | 158  | <b>99,21</b>     | 5241   | 1,3                              | <b>MR173-71/4a</b> | 0,81             | 18                   | 104          | MR062      |
| 16   | 139  | <b>87,60</b>                                     | 5099             | 1,4  | <b>NR173-71/4a</b>               |                    | 19               |                      | NR062        |            |
| 17   | 130  | <b>81,82</b>                                     | 5020             | 1,5  |                                  |                    |                  |                      |              |            |
| 20   | 110  | <b>69,16</b>                                     | 4823             | 1,8  |                                  |                    |                  |                      |              |            |
| 24   | 92   | <b>57,76</b>                                     | 4611             | 2,2  |                                  |                    |                  |                      |              |            |
| 28   | 79   | <b>49,81</b>                                     | 4437             | 2,5  |                                  |                    |                  |                      |              |            |
| 31   | 73   | <b>45,90</b>                                     | 4342             | 2,7  |                                  |                    |                  |                      |              |            |
| 33   | 68   | <b>42,87</b>                                     | 4263             | 2,9  |                                  |                    |                  |                      |              |            |
| 39   | 58   | <b>36,24</b>                                     | 4070             | 3,5  |                                  |                    |                  |                      |              |            |
| 18   | 125  | <b>50,51</b>                                     | 3320             | 1,1  | <b>MR103-71/6b</b>               | 0,83               | 17               | 103                  | MR063        |            |
| 20   | 111  | <b>44,60</b>                                     | 3244             | 1,3  | <b>NR103-71/6b</b>               |                    | 19               |                      | NR063        |            |
| 22   | 103  | <b>41,66</b>                                     | 3201             | 1,4  |                                  |                    |                  |                      |              |            |
| 28   | 80   | <b>50,51</b>                                     | 3037             | 1,7  | <b>MR103-71/4a</b>               | 0,81               | 16               | 103                  | MR064        |            |
| 31   | 71   | <b>44,60</b>                                     | 2952             | 2,0  | <b>NR103-71/4a</b>               |                    | 17               |                      | NR064        |            |
| 34   | 67   | <b>41,66</b>                                     | 2905             | 2,1  |                                  |                    |                  |                      |              |            |
| 40   | 56   | <b>35,21</b>                                     | 2788             | 2,5  |                                  |                    |                  |                      |              |            |
| 43   | 52   | <b>32,25</b>                                     | 2727             | 2,7  |                                  |                    |                  |                      |              |            |
| 48   | 47   | <b>29,40</b>                                     | 2663             | 3,0  |                                  |                    |                  |                      |              |            |
| 56   | 40   | <b>24,86</b>                                     | 2519             | 3,3  |                                  |                    |                  |                      |              |            |
| 20   | 111  | <b>45,18</b>                                     | 1844             | 0,7  | <b>MR003-71/6b</b>               | 0,83               | 13               | 102                  | MR065        |            |
| 22   | 99   | <b>40,04</b>                                     | 1969             | 0,8  | <b>NR003-71/6b</b>               |                    | 14               |                      | NR065        |            |
| 28   | 79   | <b>32,02</b>                                     | 2224             | 1,0  |                                  |                    |                  |                      |              |            |
| 31   | 72   | <b>45,18</b>                                     | 2290             | 1,1  | <b>MR003-71/4a</b>               | 0,81               | 12               | 102                  | MR066        |            |
| 35   | 64   | <b>40,04</b>                                     | 2326             | 1,3  | <b>NR003-71/4a</b>               |                    | 13               |                      | NR066        |            |
| 44   | 51   | <b>32,02</b>                                     | 2414             | 1,6  |                                  |                    |                  |                      |              |            |
| 49   | 45   | <b>28,38</b>                                     | 2409             | 1,8  |                                  |                    |                  |                      |              |            |
| 58   | 38   | <b>24,13</b>                                     | 2408             | 2,1  |                                  |                    |                  |                      |              |            |
| 66   | 34   | <b>21,26</b>                                     | 2367             | 2,4  |                                  |                    |                  |                      |              |            |
| 68   | 33   | <b>20,66</b>                                     | 2389             | 2,5  |                                  |                    |                  |                      |              |            |
| 73   | 31   | <b>19,17</b>                                     | 2375             | 2,7  |                                  |                    |                  |                      |              |            |
| 77   | 29   | <b>18,20</b>                                     | 2341             | 2,8  |                                  |                    |                  |                      |              |            |
| 83   | 27   | <b>16,89</b>                                     | 2324             | 3,0  |                                  |                    |                  |                      |              |            |
| 95   | 23   | <b>14,67</b>                                     | 2255             | 3,5  |                                  |                    |                  |                      |              |            |
| 103  | 22   | <b>13,61</b>                                     | 2233             | 3,7  |                                  |                    |                  |                      |              |            |
| 126  | 18   | <b>11,14</b>                                     | 2192             | 3,6  | <b>MR002-71/4a</b>               | 0,81               | 12               | 102                  | MR067        |            |
| 142  | 16   | <b>9,87</b>                                      | 2099             | 4,0  | <b>NR002-71/4a</b>               |                    | 13               |                      | NR067        |            |
| 161  | 14   | <b>8,70</b>                                      | 2008             | 4,0  |                                  |                    |                  |                      |              |            |
| 166  | 14   | <b>8,45</b>                                      | 1984             | 4,0  |                                  |                    |                  |                      |              |            |
| 179  | 13   | <b>7,84</b>                                      | 1932             | 4,0  |                                  |                    |                  |                      |              |            |
| 188  | 12   | <b>7,45</b>                                      | 1898             | 4,0  |                                  |                    |                  |                      |              |            |
| 203  | 11   | <b>6,91</b>                                      | 1848             | 4,0  |                                  |                    |                  |                      |              |            |



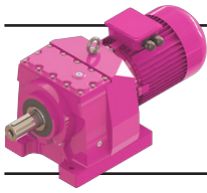
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



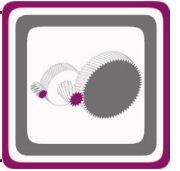
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi        | Anma Akımı       | Ağırlık              | Ölçü Sayfası    | Fiyat Kodu     |       |
|--|--|--|------------------|--|----------------------------------|-------------|------------------|----------------------|-----------------|----------------|-------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type        | Rated Current    | Weight               | Dim. Page       | Price Ref.     |       |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ         | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite<br>f | Preis No.      |       |
| 0,25<br>0,34   | 233  | 10   | 6,00             | 1760   | 4,0                              | MR002-71/4a | 0,81             | 12                   | 102             | MR067<br>NR067 |       |
|  | 251  | 9  | 5,57             | 1714   | 4,0                              | NR002-71/4a |                  | 13                   |                 |                |       |
|  | 307  | 7  | 4,56             | 1602   | 4,0                              |             |                  |                      |                 |                |       |
|  | 359  | 6  | 3,90             | 1517   | 4,0                              |             |                  |                      |                 |                |       |
|  | 387  | 6  | 3,62             | 1477   | 4,0                              |             |                  |                      |                 |                |       |
|  | 405  | 6  | 6,91             | 1447   | 4,0                              | MR002-63/2b | 0,67             | 13                   | 102             | MR068<br>NR068 |       |
|  | 467  | 5  | 6,00             | 1379   | 4,0                              | NR002-63/2b |                  | 14                   |                 |                |       |
|  | 503  | 4  | 5,57             | 1343   | 4,0                              |             |                  |                      |                 |                |       |
|  | 615  | 4  | 4,56             | 1256   | 4,0                              |             |                  |                      |                 |                |       |
|  | 718  | 3  | 3,90             | 1190   | 4,0                              |             |                  |                      |                 |                |       |
|  | 774  | 3  | 3,62             | 1160   | 4,0                              |             |                  |                      |                 |                |       |
|  | 0,37<br>0,50                                       | 0,19   | 15764            | 7233,00  | 52556                            | 0,8         | MR876-71/4b      | 1,15                 | 598             | 128            | MR069 |
|  |  | 0,22   | 13773            | 6313,78  | 67696                            | 0,9         | NR876-71/4b      |                      | 610             |                |       |
|  |  | 0,25   | 12159            | 5569,66  | 77181                            | 1,1         |                  |                      |                 |                |       |
| 0,28   |  | 10823  | 4954,95          | 83854  | 1,2                              |             |                  |                      |                 |                |       |
| 0,32   |  | 9700   | 4438,59          | 88809  | 1,3                              |             |                  |                      |                 |                |       |
| 0,36   |  | 8520   | 3892,30          | 93432  | 1,5                              |             |                  |                      |                 |                |       |
| 0,41   |  | 7544   | 3441,02          | 97015  | 1,7                              |             |                  |                      |                 |                |       |
| 0,48   |  | 6358   | 2894,28          | 100924   | 2,0                              |             |                  |                      |                 |                |       |
| 0,57   |  | 5415   | 2460,65          | 103759   | 2,4                              |             |                  |                      |                 |                |       |
| 0,66   |  | 4648   | 2108,33          | 105897   | 2,8                              |             |                  |                      |                 |                |       |
| 0,73   |  | 4328   | 1924,32          | 106745   | 3,0                              | MR875-71/4b | 1,15             | 595                  | 128             | MR070<br>NR070 |       |
| 0,82   |  | 3831   | 1700,56          | 108012   | 3,4                              | NR875-71/4b |                  | 605                  |                 |                |       |
| 0,92   |  | 3428   | 1521,55          | 108994   | 3,8                              |             |                  |                      |                 |                |       |
| 0,37   |  | 8530   | 3814,39          | 46727  | 0,9                              | MR775-71/4b | 1,15             | 263                  | 125             | MR418<br>NR418 |       |
| 0,45   |  | 6960   | 3103,85          | 52696  | 1,1                              | NR775-71/4b |                  | 321                  |                 |                |       |
| 0,52   |  | 6008   | 2684,10          | 55691  | 1,3                              |             |                  |                      |                 |                |       |
| 0,60   |  | 5208   | 2324,10          | 58071  | 1,5                              |             |                  |                      |                 |                |       |
| 0,69   |  | 4558   | 2032,66          | 59774  | 1,8                              |             |                  |                      |                 |                |       |
| 0,78   |  | 4022   | 1791,91          | 61080  | 2,0                              |             |                  |                      |                 |                |       |
| 0,88   |  | 3570   | 1589,68          | 62109  | 2,2                              |             |                  |                      |                 |                |       |
| 0,99   |  | 3185   | 1417,41          | 62938  | 2,5                              |             |                  |                      |                 |                |       |
| 1,1  |  | 2820   | 1252,60          | 63685  | 2,8                              |             |                  |                      |                 |                |       |
| 1,2  |  | 2524   | 1120,74          | 64261  | 3,2                              |             |                  |                      |                 |                |       |
| 1,4  |  | 2220   | 984,18           | 64921  | 3,6                              |             |                  |                      |                 |                |       |
| 1,5  |  | 2141   | 594,92           | 65069  | 3,7                              | MR774-80/6a | 1,10             | 243                  | 124             | MR419<br>NR419 |       |
| 1,7  |  | 1916   | 532,29           | 65485  | 4,0                              | NR774-80/6a |                  | 300                  |                 |                |       |
| 0,74   |  | 4233   | 1888,53          | 26785  | 1,0                              | MR675-71/4b | 1,15             | 227                  | 122             | MR420<br>NR420 |       |
| 0,85   |  | 3677   | 1638,93          | 29744  | 1,2                              | NR675-71/4b |                  | 243                  |                 |                |       |
| 0,98   |  | 3217   | 1432,74          | 31839  | 1,3                              |             |                  |                      |                 |                |       |
| 1,1  |  | 2830   | 1259,54          | 33442  | 1,5                              |             |                  |                      |                 |                |       |
| 1,3  |  | 2505   | 1113,08          | 34659  | 1,7                              |             |                  |                      |                 |                |       |
| 1,4  |  | 2242   | 995,91           | 35549  | 1,9                              |             |                  |                      |                 |                |       |
| 1,6  |  | 1972   | 874,56           | 36387  | 2,2                              |             |                  |                      |                 |                |       |
| 1,8  |  | 1801   | 500,39           | 36969  | 2,4                              | MR674-80/6a | 1,10             | 217                  | 121             | MR421<br>NR421 |       |
| 2,0  |  | 1594   | 442,20           | 37577  | 2,7                              | NR674-80/6a |                  | 233                  |                 |                |       |
| 2,4  |  | 1356   | 376,69           | 38240  | 3,2                              |             |                  |                      |                 |                |       |
| 2,8  | 1167   | 323,82   | 38740            | 3,7  |                                  |             |                  |                      |                 |                |       |
| 3,2  | 1014   | 281,02   | 39128            | 4,0  |                                  |             |                  |                      |                 |                |       |



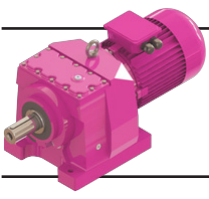
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



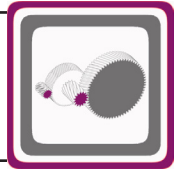
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi        | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|-------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type        | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ         | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 0,37<br>0,50   | 1,1  | 2823   | 1259,61          | 20859  | 1,1                              | MR575-71/4b | 1,15             | 151                  | 119          | MR422      |
|  | 1,2  | 2563   | 1140,65          | 22299  | 1,2                              | NR575-71/4b |                  | 148                  |              | NR422      |
|  | 1,5  | 2168   | 964,05           | 24194  | 1,4                              |             |                  |                      |              |            |
|  | 1,6  | 2064   | 574,90           | 24650  | 1,5                              | MR574-80/6a | 1,10             | 137                  | 118          | MR423      |
|  | 1,9  | 1747   | 485,89           | 25930  | 1,7                              | NR574-80/6a |                  | 133                  |              | NR423      |
|  | 2,2  | 1449   | 402,12           | 27005  | 2,1                              |             |                  |                      |              |            |
|  | 2,4  | 1327   | 574,90           | 27421  | 2,3                              | MR574-71/4b | 1,15             | 132                  | 118          | MR424      |
|  | 2,9  | 1123   | 485,89           | 28074  | 2,7                              | NR574-71/4b |                  | 128                  |              | NR424      |
|  | 3,5  | 931  | 402,12           | 28679  | 3,2                              |             |                  |                      |              |            |
|  | 4,1  | 797  | 343,91           | 29031  | 3,8                              |             |                  |                      |              |            |
|  | 4,6  | 700  | 301,59           | 29283  | 4,0                              |             |                  |                      |              |            |
|  | 4,8  | 675  | 291,25           | 29347  | 4,0                              |             |                  |                      |              |            |
|  | 1,7  | 1904   | 529,93           | 8618   | 0,8                              | MR474-80/6a | 1,10             | 135                  | 115          | MR077      |
|  | 2,0  | 1593   | 442,61           | 14843  | 1,0                              | NR474-80/6a |                  | 140                  |              | NR077      |
|  | 2,1  | 1557   | 674,46           | 15399  | 1,0                              | MR474-71/4b | 1,15             | 130                  | 115          | MR078      |
|  | 2,3  | 1392   | 603,46           | 17638  | 1,1                              | NR474-71/4b |                  | 135                  |              | NR078      |
|  | 2,6  | 1224   | 529,93           | 19503  | 1,3                              |             |                  |                      |              |            |
|  | 3,2  | 1024   | 442,61           | 21375  | 1,5                              |             |                  |                      |              |            |
|  | 3,3  | 968  | 418,16           | 21849  | 1,6                              |             |                  |                      |              |            |
|  | 4,0  | 803  | 346,07           | 23137  | 1,9                              |             |                  |                      |              |            |
|  | 4,1  | 802  | 219,00           | 23145  | 1,9                              | MR473-80/6a | 1,10             | 85                   | 114          | MR079      |
|  | 4,6  | 710  | 194,05           | 23820  | 2,2                              | NR473-80/6a |                  | 88                   |              | NR079      |
|  | 5,7  | 579  | 157,90           | 24655  | 2,7                              |             |                  |                      |              |            |
|  | 6,4  | 512  | 139,54           | 25068  | 3,0                              |             |                  |                      |              |            |
|  | 7,2  | 458  | 124,85           | 25377  | 3,4                              |             |                  |                      |              |            |
|  | 3,3  | 971  | 421,85           | 8839   | 0,8                              | MR374-71/4b | 1,15             | 58                   | 112          | MR080      |
|  | 3,8  | 853  | 369,93           | 11153  | 1,0                              | NR374-71/4b |                  | 63                   |              | NR080      |
|  | 4,3  | 755  | 327,04           | 12665  | 1,1                              |             |                  |                      |              |            |
|  | 5,1  | 635  | 275,08           | 14178  | 1,3                              |             |                  |                      |              |            |
|  | 5,7  | 577  | 157,76           | 14828  | 1,4                              | MR373-80/6a | 1,10             | 63                   | 111          | MR081      |
|  | 6,5  | 507  | 138,72           | 15025  | 1,6                              | NR373-80/6a |                  | 68                   |              | NR081      |
|  | 8,1  | 409  | 111,67           | 14214  | 2,0                              |             |                  |                      |              |            |
|  | 8,9  | 372  | 157,76           | 13857  | 2,2                              | MR373-71/4b | 1,15             | 52                   | 111          | MR082      |
|  | 10   | 327  | 138,72           | 13384  | 2,5                              | NR373-71/4b |                  | 57                   |              | NR082      |
|  | 13   | 264  | 111,67           | 12603  | 3,1                              |             |                  |                      |              |            |
|  | 14   | 231  | 97,92            | 12142  | 3,5                              |             |                  |                      |              |            |
|  | 4,9  | 660  | 285,89           | 8020   | 0,9                              | MR284-71/4b | 1,15             | 62                   | 109          | MR083      |
|  |  |  |                  |  |                                  | NR284-71/4b |                  | 65                   |              | NR083      |
|  | 6,5  | 504  | 137,91           | 10851  | 1,2                              | MR283-80/6a | 1,10             | 42                   | 108          | MR084      |
|  | 7,9  | 418  | 114,14           | 11649  | 1,4                              | NR283-80/6a |                  | 44                   |              | NR084      |
|  | 9,2  | 358  | 97,62            | 11219  | 1,7                              |             |                  |                      |              |            |
|  | 10   | 325  | 137,91           | 10953  | 1,8                              | MR283-71/4b | 1,15             | 38                   | 108          | MR085      |
|  | 12   | 270  | 114,14           | 10432  | 2,2                              | NR283-71/4b |                  | 41                   |              | NR085      |
|  | 14   | 231  | 97,62            | 10006  | 2,6                              |             |                  |                      |              |            |



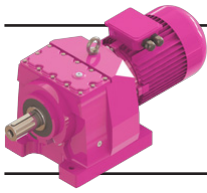
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



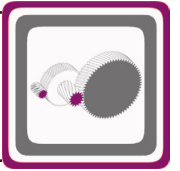
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi                       | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu     |
|--|--|--|------------------|--|----------------------------------|----------------------------|------------------|----------------------|--------------|----------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type                       | Rated Current    | Weight               | Dim. Page    | Price Ref.     |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ                        | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.      |
| 0,37<br>0,50   | 16   | 202  | 85,60            | 9654   | 3,0                              | MR283-71/4b<br>NR283-71/4b | 1,15             | 38<br>41             | 108          | MR085<br>NR085 |
|  | 6,5  | 507  | 138,55           | 6.295  | 0,9                              | MR273-80/6a                | 1,10             | 30                   | 106          | MR086          |
|  | 7,4  | 443  | 121,03           | 6.799  | 1,0                              | NR273-80/6a                |                  | 33                   |              | NR086          |
|  | 7,9  | 416  | 113,52           | 6.994  | 1,1                              |                            |                  |                      |              |                |
|  | 9,3  | 354  | 96,52            | 7.399  | 1,3                              |                            |                  |                      |              |                |
|  | 10   | 327  | 138,55           | 7.558  | 1,4                              | MR273-71/4b                | 1,15             | 28                   | 106          | MR087          |
|  | 11   | 286  | 121,03           | 7.785  | 1,6                              | NR273-71/4b                |                  | 31                   |              | NR087          |
|  | 12   | 268  | 113,52           | 7.884  | 1,7                              |                            |                  |                      |              |                |
|  | 15   | 228  | 96,52            | 8.074  | 2,0                              |                            |                  |                      |              |                |
|  | 17   | 198  | 83,83            | 8.210  | 2,3                              |                            |                  |                      |              |                |
| 19   | 174  | 73,35  | 8.316            | 2,6  |                                  |                            |                  |                      |              |                |
| 23   | 144  | 60,66  | 7.857            | 3,1  |                                  |                            |                  |                      |              |                |
|  | 13   | 249  | 68,03            | 7966   | 1,1                              | MR203-80/6a                | 1,10             | 35                   | 105          | MR088          |
|  | 15   | 218  | 59,43            | 8029   | 1,3                              | NR203-80/6a                |                  | 37                   |              | NR088          |
|  | 16   | 205  | 55,74            | 7904   | 1,4                              |                            |                  |                      |              |                |
|  | 21   | 161  | 68,03            | 7430   | 1,7                              | MR203-71/4b                | 1,15             | 33                   | 105          | MR089          |
|  | 24   | 141  | 59,43            | 7168   | 2,0                              | NR203-71/4b                |                  | 36                   |              | NR089          |
|  | 25   | 132  | 55,74            | 7046   | 2,1                              |                            |                  |                      |              |                |
|  | 30   | 112  | 47,39            | 6738   | 2,5                              |                            |                  |                      |              |                |
|  | 32   | 104  | 43,94            | 6597   | 2,7                              |                            |                  |                      |              |                |
|  | 34   | 98   | 41,16            | 6477   | 2,9                              |                            |                  |                      |              |                |
|  | 39   | 86   | 36,02            | 6234   | 3,3                              |                            |                  |                      |              |                |
|  | 14   | 234  | 99,21            | 4796   | 0,9                              | MR173-71/4b                | 1,15             | 18                   | 104          | MR090          |
|  | 16   | 207  | 87,60            | 4706   | 1,0                              | NR173-71/4b                |                  | 19                   |              | NR090          |
|  | 17   | 193  | 81,82            | 4653   | 1,0                              |                            |                  |                      |              |                |
|  | 20   | 163  | 69,16            | 4513   | 1,2                              |                            |                  |                      |              |                |
|  | 24   | 137  | 57,76            | 4352   | 1,5                              |                            |                  |                      |              |                |
|  | 28   | 118  | 49,81            | 4214   | 1,7                              |                            |                  |                      |              |                |
|  | 31   | 109  | 45,90            | 4136   | 1,8                              |                            |                  |                      |              |                |
|  | 33   | 102  | 42,87            | 4070   | 2,0                              |                            |                  |                      |              |                |
|  | 39   | 86   | 36,24            | 3908   | 2,3                              |                            |                  |                      |              |                |
|  | 46   | 72   | 30,26            | 3734   | 2,8                              |                            |                  |                      |              |                |
|  | 54   | 62   | 26,10            | 3591   | 3,2                              |                            |                  |                      |              |                |
|  | 18   | 185  | 50,51            | 2945   | 0,8                              | MR103-80/6a                | 1,10             | 20                   | 103          | MR091          |
|  | 20   | 164  | 44,60            | 2913   | 0,9                              | NR103-80/6a                |                  | 22                   |              | NR091          |
|  | 22   | 153  | 41,66            | 2892   | 0,9                              |                            |                  |                      |              |                |
|  | 28   | 120  | 50,51            | 2796   | 1,2                              | MR103-71/4b                | 1,15             | 17                   | 103          | MR092          |
|  | 31   | 106  | 44,60            | 2739   | 1,3                              | NR103-71/4b                |                  | 18                   |              | NR092          |
|  | 34   | 99   | 41,66            | 2706   | 1,4                              |                            |                  |                      |              |                |
|  | 40   | 84   | 35,21            | 2620   | 1,7                              |                            |                  |                      |              |                |
|  | 43   | 77   | 32,25            | 2573   | 1,8                              |                            |                  |                      |              |                |
|  | 48   | 70   | 29,40            | 2522   | 2,0                              |                            |                  |                      |              |                |
|  | 56   | 59   | 24,86            | 2387   | 2,2                              |                            |                  |                      |              |                |
|  | 64   | 52   | 21,96            | 2321   | 2,3                              |                            |                  |                      |              |                |
|  | 68   | 49   | 20,51            | 2285   | 2,5                              |                            |                  |                      |              |                |
|  | 81   | 41   | 17,33            | 2194   | 2,7                              |                            |                  |                      |              |                |
|  | 88   | 38   | 15,95            | 2175   | 3,0                              | MR102-71/4b                | 1,15             | 17                   | 103          | MR093          |
|  | 99   | 34   | 14,08            | 2105   | 3,2                              | NR102-71/4b                |                  | 18                   |              | NR093          |



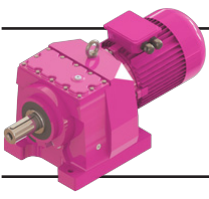
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



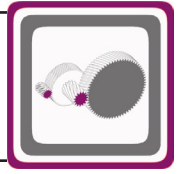
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi                       | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu     |       |
|--|--|--|------------------|--|----------------------------------|----------------------------|------------------|----------------------|--------------|----------------|-------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type                       | Rated Current    | Weight               | Dim. Page    | Price Ref.     |       |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ                        | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.      |       |
| 0,37<br>0,50   | 106  | 31,7   | 13,15            | 2066   | 3,3                              | MR102-71/4b<br>NR102-71/4b | 1,15             | 17<br>18             | 103          | MR093<br>NR093 |       |
|  | 31   | 106  | 45,18            | 1312   | 0,8                              | MR003-71/4b                | 1,15             | 13                   | 102          | MR094          |       |
|  | 35   | 94   | 40,04            | 1448   | 0,9                              | NR003-71/4b                |                  | 14                   |              | NR094          |       |
|  | 44   | 76   | 32,02            | 1721   | 1,1                              |                            |                  |                      |              |                |       |
|  | 49   | 67   | 28,38            | 1786   | 1,2                              |                            |                  |                      |              |                |       |
|  | 58   | 57   | 24,13            | 1879   | 1,4                              |                            |                  |                      |              |                |       |
|  | 66   | 50   | 21,26            | 1888   | 1,6                              |                            |                  |                      |              |                |       |
|  | 68   | 49   | 20,66            | 1936   | 1,7                              |                            |                  |                      |              |                |       |
|  | 73   | 46   | 19,17            | 1955   | 1,8                              |                            |                  |                      |              |                |       |
|  | 77   | 43   | 18,20            | 1931   | 1,9                              |                            |                  |                      |              |                |       |
|  | 83   | 40   | 16,89            | 1943   | 2,0                              |                            |                  |                      |              |                |       |
|  | 95   | 35   | 14,67            | 1910   | 2,4                              |                            |                  |                      |              |                |       |
|  | 103  | 32   | 13,61            | 1913   | 2,5                              |                            |                  |                      |              |                |       |
|  |  | 126  | 27               | 11,14  | 2091                             | 2,4                        | MR002-71/4b      | 1,15                 | 13           | 102            | MR095 |
|  |  | 142  | 24               | 9,87   | 2046                             | 3,3                        | NR002-71/4b      |                      | 14           |                | NR095 |
|  |  | 161  | 21               | 8,70   | 1989                             | 3,5                        |                  |                      |              |                |       |
|  |  | 166  | 20               | 8,45   | 1995                             | 3,6                        |                  |                      |              |                |       |
|  |  | 179  | 19               | 7,84   | 1968                             | 3,8                        |                  |                      |              |                |       |
|  |  | 188  | 18               | 7,45   | 1933                             | 4,0                        |                  |                      |              |                |       |
|  |  | 203  | 17               | 6,91   | 1881                             | 4,0                        |                  |                      |              |                |       |
|  |  | 233  | 15               | 6,00   | 1790                             | 4,0                        |                  |                      |              |                |       |
|  |  | 251  | 13               | 5,57   | 1741                             | 4,0                        |                  |                      |              |                |       |
|  |  | 307  | 11               | 4,56   | 1628                             | 4,0                        |                  |                      |              |                |       |
|  |  | 359  | 9                | 3,90   | 1539                             | 4,0                        |                  |                      |              |                |       |
|  |  | 387  | 9                | 3,62   | 1498                             | 4,0                        |                  |                      |              |                |       |
|  |  | 405  | 8                | 6,91   | 1463                             | 4,0                        | MR002-71/2a      | 1,05                 | 13           | 102            | MR096 |
|  |  | 467  | 7                | 6,00   | 1394                             | 4,0                        | NR002-71/2a      |                      | 14           |                | NR096 |
|  |  | 503  | 7                | 5,57   | 1357                             | 4,0                        |                  |                      |              |                |       |
|  |  | 615  | 6                | 4,56   | 1269                             | 4,0                        |                  |                      |              |                |       |
|  |  | 718  | 5                | 3,90   | 1201                             | 4,0                        |                  |                      |              |                |       |
|  |  | 774  | 4                | 3,62   | 1170                             | 4,0                        |                  |                      |              |                |       |
|  | 0,55<br>0,75                                       | 0,20   | 22315            | 6842,29  | 60646                            | 0,8                        | MR976-80/4a      | 1,60                 | 1100         | 131            | MR365 |
|  |  | 0,26   | 17510            | 5357,43  | 97965                            | 1,0                        | NR976-80/4a      |                      | 1150         |                | NR365 |
|  |  | 0,31   | 14657            | 4474,67  | 113064                           | 1,2                        |                  |                      |              |                |       |
|  |  | 0,33   | 13857            | 4227,50  | 116743                           | 1,3                        |                  |                      |              |                |       |
|  |  | 0,39   | 11799            | 3594,81  | 125182                           | 1,5                        |                  |                      |              |                |       |
|  |  | 0,49   | 9341             | 2836,64  | 134198                           | 1,9                        |                  |                      |              |                |       |
|  |  | 0,69   | 6811             | 2027,97  | 142037                           | 2,6                        | MR975-80/4a      | 1,60                 | 1098         | 131            | MR366 |
|  |  | 0,77   | 6119             | 1820,78  | 143981                           | 2,9                        | NR975-80/4a      |                      | 1148         |                | NR366 |
|  |  | 0,90   | 5213             | 1552,10  | 146403                           | 3,5                        |                  |                      |              |                |       |
| 0,28   |  | 16089  | 4954,95          | 49597  | 0,8                              | MR876-80/4a                | 1,60             | 600                  | 128          | MR097          |       |
| 0,32   |  | 14419  | 4438,59          | 63360  | 0,9                              | NR876-80/4a                |                  | 610                  |              | NR097          |       |
| 0,36   |  | 12665  | 3892,30          | 74393  | 1,0                              |                            |                  |                      |              |                |       |
| 0,41   |  | 11213  | 3441,02          | 81997  | 1,2                              |                            |                  |                      |              |                |       |
| 0,48   |  | 9451   | 2894,28          | 89993  | 1,4                              |                            |                  |                      |              |                |       |
| 0,57   |  | 8050   | 2460,65          | 95115  | 1,6                              |                            |                  |                      |              |                |       |
| 0,66   |  | 6909   | 2108,33          | 99155  | 1,9                              |                            |                  |                      |              |                |       |
| 0,73   |  | 6434   | 1924,32          | 100685   | 2,0                              | MR875-80/4a                | 1,60             | 596                  | 128          | MR098          |       |
| 0,82   |  | 5695   | 1700,56          | 102942   | 2,3                              | NR875-80/4a                |                  | 606                  |              | NR098          |       |
| 0,92   |  | 5096   | 1521,55          | 104666   | 2,6                              |                            |                  |                      |              |                |       |
| 1,0  |  | 4483   | 1336,15          | 106338   | 2,9                              |                            |                  |                      |              |                |       |



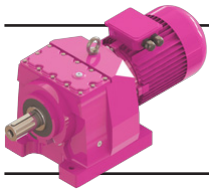
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



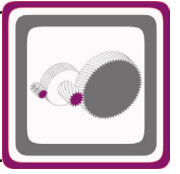
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi        | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|-------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type        | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ         | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 0,55<br>0,75   | 1,2  | 4064   | 1210,51          | 107425   | 3,2                              | MR875-80/4a | 1,60             | 596                  | 128          | MR098      |
|  | 1,3  | 3517   | 1049,18          | 108783   | 3,7                              | NR875-80/4a |                  | 606                  |              | NR098      |
|  | 0,60   | 7741   | 2324,10          | 49968  | 1,0                              | MR775-80/4a | 1,60             | 337                  | 125          | MR425      |
|  | 0,69   | 6776   | 2032,66          | 53310  | 1,2                              | NR775-80/4a |                  | 412                  |              | NR425      |
|  | 0,78   | 5978   | 1791,91          | 55778  | 1,3                              |             |                  |                      |              |            |
|  | 0,88   | 5307   | 1589,68          | 57798  | 1,5                              |             |                  |                      |              |            |
|  | 0,99   | 4735   | 1417,41          | 59325  | 1,7                              |             |                  |                      |              |            |
|  | 1,1  | 4191   | 1252,60          | 60677  | 1,9                              |             |                  |                      |              |            |
|  | 1,2  | 3751   | 1120,74          | 61703  | 2,1                              |             |                  |                      |              |            |
|  | 1,4  | 3300   | 984,18           | 62695  | 2,4                              |             |                  |                      |              |            |
|  | 1,5  | 3183   | 594,92           | 62942  | 2,5                              | MR774-80/6b | 1,50             | 317                  | 124          | MR426      |
|  | 1,7  | 2849   | 532,29           | 63627  | 2,8                              | NR774-80/6b |                  | 392                  |              | NR426      |
|  | 1,9  | 2506   | 467,43           | 64294  | 3,2                              |             |                  |                      |              |            |
|  | 2,2  | 2244   | 418,17           | 64875  | 3,6                              |             |                  |                      |              |            |
|  | 2,4  | 2046   | 594,92           | 65246  | 3,9                              | MR774-80/4a | 1,60             | 312                  | 124          | MR427      |
|  | 2,6  | 1831   | 532,29           | 65639  | 4,0                              | NR774-80/4a |                  | 388                  |              | NR427      |
|  | 0,98   | 4781   | 1432,74          | 23257  | 0,9                              | MR675-80/4a | 1,60             | 242                  | 122          | MR428      |
|  | 1,1  | 4206   | 1259,54          | 26937  | 1,0                              | NR675-80/4a |                  | 252                  |              | NR428      |
|  | 1,3  | 3723   | 1113,08          | 29513  | 1,2                              |             |                  |                      |              |            |
|  | 1,4  | 3332   | 995,91           | 31341  | 1,3                              |             |                  |                      |              |            |
|  | 1,6  | 2932   | 874,56           | 32977  | 1,5                              |             |                  |                      |              |            |
|  | 1,8  | 2676   | 500,39           | 34028  | 1,6                              | MR674-80/6b | 1,50             | 222                  | 121          | MR429      |
|  | 2,0  | 2369   | 442,20           | 35159  | 1,8                              | NR674-80/6b |                  | 232                  |              | NR429      |
|  | 2,4  | 2016   | 376,69           | 36257  | 2,1                              |             |                  |                      |              |            |
|  | 2,8  | 1721   | 500,39           | 37207  | 2,5                              | MR674-80/4a | 1,60             | 217                  | 121          | MR430      |
|  | 3,2  | 1523   | 442,20           | 37778  | 2,8                              | NR674-80/4a |                  | 228                  |              | NR430      |
|  | 3,7  | 1296   | 376,69           | 38402  | 3,3                              |             |                  |                      |              |            |
|  | 4,3  | 1116   | 323,82           | 38873  | 3,9                              |             |                  |                      |              |            |
|  | 5,0  | 969  | 281,02           | 39240  | 4,0                              |             |                  |                      |              |            |
|  | 1,6  | 3068   | 574,90           | 19348  | 1,0                              | MR574-80/6b | 1,50             | 152                  | 118          | MR431      |
|  | 1,9  | 2596   | 485,89           | 22135  | 1,2                              | NR574-80/6b |                  | 148                  |              | NR431      |
|  | 2,2  | 2154   | 402,12           | 24257  | 1,4                              |             |                  |                      |              |            |
|  | 2,4  | 1972   | 574,90           | 25036  | 1,5                              | MR574-80/4a | 1,60             | 148                  | 118          | MR432      |
|  | 2,9  | 1669   | 485,89           | 26228  | 1,8                              | NR574-80/4a |                  | 143                  |              | NR432      |
|  | 3,5  | 1385   | 402,12           | 27265  | 2,2                              |             |                  |                      |              |            |
|  | 4,1  | 1185   | 343,91           | 27894  | 2,5                              |             |                  |                      |              |            |
|  | 4,6  | 1041   | 301,59           | 28326  | 2,9                              |             |                  |                      |              |            |
|  | 4,8  | 1004   | 291,25           | 28435  | 3,0                              |             |                  |                      |              |            |
|  | 5,4  | 893  | 258,87           | 28790  | 3,4                              |             |                  |                      |              |            |
|  | 6,3  | 765  | 221,40           | 29111  | 3,9                              |             |                  |                      |              |            |
|  | 7,2  | 672  | 194,15           | 29355  | 4,0                              |             |                  |                      |              |            |
|  | 2,6  | 1820   | 529,93           | 10653  | 0,9                              | MR474-80/4a | 1,60             | 130                  | 115          | MR106      |
|  | 3,2  | 1522   | 442,61           | 15915  | 1,0                              | NR474-80/4a |                  | 134                  |              | NR106      |
|  | 3,3  | 1439   | 418,16           | 17031  | 1,1                              |             |                  |                      |              |            |
|  | 4,0  | 1193   | 346,07           | 19787  | 1,3                              |             |                  |                      |              |            |



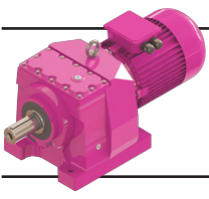
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



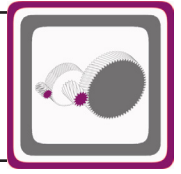
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                           | Tipi                                     | Anma Akımı       | Ağırlık              | Ölçü Sayfası   | Fiyat Kodu     |
|--|--|--|------------------|--|--|--|------------------|----------------------|----------------|----------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                          | Type                                     | Rated Current    | Weight               | Dim. Page      | Price Ref.     |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub>         | Typ                                      | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite     | Preis No.      |
| 0,55<br>0,75   | 4,1  | 1195   | <b>219,00</b>    | 19775  | 1,3                                      | <b>MR473-80/6b</b>                       | 1,50             | 110                  | 114            | MR107          |
|  | 4,6  | 1058   | <b>194,05</b>    | 21103  | 1,5                                      | <b>NR473-80/6b</b>                       |                  | 113                  |                | NR107          |
|  | 5,7  | 863  | <b>157,90</b>    | 22693  | 1,8                                      |  |                  |                      |                |                |
|  | 6,4  | 769  | <b>219,00</b>    | 23341  | 2,0                                      | <b>MR473-80/4a</b>                       | 1,60             | 108                  | 114            | MR108          |
|  | 7,2  | 681  | <b>194,05</b>    | 23993  | 2,3                                      | <b>NR473-80/4a</b>                       |                  | 111                  |                | NR108          |
|  | 8,9  | 556  | <b>157,90</b>    | 24667  | 2,8                                      |  |                  |                      |                |                |
|  | 10   | 491  | <b>139,54</b>    | 23803  | 3,2                                      |  |                  |                      |                |                |
|  | 11   | 440  | <b>124,85</b>    | 23042  | 3,5                                      |  |                  |                      |                |                |
|  | 5,1  | 945  | <b>275,08</b>    | 9452   | 0,9                                      | <b>MR374-80/4a</b><br><b>NR374-80/4a</b> | 1,60             | 63<br>67             | 112            | MR109<br>NR109 |
|  | 5,7  | 859  | <b>157,76</b>    | 11044  | 1,0                                      | <b>MR373-80/6b</b>                       | 1,50             | 57                   | 111            | MR110          |
|  | 6,5  | 756  | <b>138,72</b>    | 12629  | 1,1                                      | <b>NR373-80/6b</b>                       |                  | 60                   |                | NR110          |
|  | 8,1  | 609  | <b>111,67</b>    | 13472  | 1,3                                      |  |                  |                      |                |                |
|  | 8,9  | 553  | <b>157,76</b>    | 13183  | 1,5                                      | <b>MR373-80/4a</b>                       | 1,60             | 63                   | 111            | MR111          |
|  | 10   | 487  | <b>138,72</b>    | 12792  | 1,7                                      | <b>NR373-80/4a</b>                       |                  | 67                   |                | NR111          |
|  | 13   | 392  | <b>111,67</b>    | 12126  | 2,1                                      |  |                  |                      |                |                |
| 14   | 344  | <b>97,92</b>                                     | 11724            | 2,4  |  |  |                  |                      |                |                |
| 16   | 305  | <b>86,57</b>                                     | 11348            | 2,7  |  |  |                  |                      |                |                |
| 19   | 257  | <b>72,81</b>                                     | 10828            | 3,2  |  |  |                  |                      |                |                |
| 23   | 218  | <b>61,91</b>                                     | 10350            | 3,8  |  |  |                  |                      |                |                |
| 6,5  | 751  | <b>137,91</b>                                    | 5392             | 0,8  | <b>MR283-80/6b</b>                       | 1,50                                     | 45               | 108                  | MR112          |                |
| 7,9  | 623  | <b>114,14</b>                                    | 8813             | 1,0  | <b>NR283-80/6b</b>                       |  | 48               |                      | NR112          |                |
| 9,2  | 533  | <b>97,62</b>                                     | 10504            | 1,1  |  |  |                  |                      |                |                |
| 10   | 484  | <b>137,91</b>                                    | 10304            | 1,2  | <b>MR283-80/4a</b>                       | 1,60                                     | 45               | 108                  | MR113          |                |
| 12   | 401  | <b>114,14</b>                                    | 9895             | 1,5  | <b>NR283-80/4a</b>                       |  | 48               |                      | NR113          |                |
| 14   | 343  | <b>97,62</b>                                     | 9547             | 1,7  |  |  |                  |                      |                |                |
| 16   | 301  | <b>85,60</b>                                     | 9250             | 2,0  |  |  |                  |                      |                |                |
| 18   | 267  | <b>75,68</b>                                     | 8971             | 2,3  |  |  |                  |                      |                |                |
| 22   | 225  | <b>63,65</b>                                     | 8581             | 2,7  |  |  |                  |                      |                |                |
| 26   | 191  | <b>54,12</b>                                     | 8218             | 3,1  |  |  |                  |                      |                |                |
| 9,3  | 527  | <b>96,52</b>                                     | 6120             | 0,9  | <b>MR273-80/6b</b><br><b>NR273-80/6b</b> | 1,50                                     | 30<br>33         | 106                  | MR114<br>NR114 |                |
| 10   | 486  | <b>138,55</b>                                    | 6466             | 0,9  | <b>MR273-80/4a</b>                       | 1,60                                     | 30               | 106                  | MR115          |                |
| 12   | 425  | <b>121,03</b>                                    | 6929             | 1,1  | <b>NR273-80/4a</b>                       |  | 33               |                      | NR115          |                |
| 13   | 399  | <b>113,52</b>                                    | 7109             | 1,1  |  |  |                  |                      |                |                |
| 15   | 339  | <b>96,52</b>                                     | 7479             | 1,3  |  |  |                  |                      |                |                |
| 17   | 295  | <b>83,83</b>                                     | 7737             | 1,5  |  |  |                  |                      |                |                |
| 19   | 258  | <b>73,35</b>                                     | 7927             | 1,7  |  |  |                  |                      |                |                |
| 23   | 214  | <b>60,66</b>                                     | 7999             | 2,1  |  |  |                  |                      |                |                |
| 28   | 179  | <b>50,59</b>                                     | 7483             | 2,5  |  |  |                  |                      |                |                |
| 33   | 150  | <b>42,41</b>                                     | 7018             | 3,0  |  |  |                  |                      |                |                |
| 38   | 129  | <b>36,55</b>                                     | 6651             | 3,5  |  |  |                  |                      |                |                |
| 13   | 372  | <b>68,03</b>                                     | 7330             | 0,8  | <b>MR203-80/6b</b>                       | 1,50                                     | 33               | 105                  | MR116          |                |
| 15   | 325  | <b>59,43</b>                                     | 7500             | 0,9  | <b>NR203-80/6b</b>                       |  | 34               |                      | NR116          |                |
| 16   | 305  | <b>55,74</b>                                     | 7408             | 0,9  |  |  |                  |                      |                |                |



# Motorlu Güç Devir Sayfaları

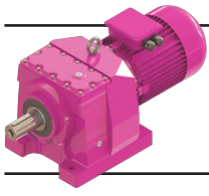
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi        | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |       |
|--|--|--|------------------|--|----------------------------------|-------------|------------------|----------------------|--------------|------------|-------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type        | Rated Current    | Weight               | Dim. Page    | Price Ref. |       |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ         | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |       |
| 0,55<br>0,75   | 21   | 239  | 68,03            | 7041   | 1,2                              | MR203-80/4a | 1,60             | 31                   | 105          | MR117      |       |
|  | 24   | 209  | 59,43            | 6829   | 1,3                              | NR203-80/4a |                  | 33                   |              | NR117      |       |
|  | 25   | 197  | 55,74            | 6727   | 1,4                              |             |                  |                      |              |            |       |
|  | 30   | 167  | 47,39            | 6468   | 1,7                              |             |                  |                      |              |            |       |
|  | 32   | 155  | 43,94            | 6346   | 1,8                              |             |                  |                      |              |            |       |
|  | 34   | 145  | 41,16            | 6242   | 1,9                              |             |                  |                      |              |            |       |
|  | 39   | 127  | 36,02            | 6028   | 2,2                              |             |                  |                      |              |            |       |
|  | 49   | 100  | 28,35            | 6501   | 2,8                              |             |                  |                      |              |            |       |
|  | 57   | 87   | 24,77            | 6186   | 3,1                              |             |                  |                      |              |            |       |
|  | 60   | 82   | 23,23            | 6043   | 3,3                              |             |                  |                      |              |            |       |
|  | 20   | 243  | 69,16            | 4048   | 0,8                              | MR173-80/4a | 1,60             | 20                   | 104          | MR118      |       |
|  | 24   | 203  | 57,76            | 3963   | 1,0                              | NR173-80/4a |                  | 22                   |              | NR118      |       |
|  | 28   | 175  | 49,81            | 3879   | 1,1                              |             |                  |                      |              |            |       |
|  | 31   | 162  | 45,90            | 3827   | 1,2                              |             |                  |                      |              |            |       |
|  | 33   | 151  | 42,87            | 3782   | 1,3                              |             |                  |                      |              |            |       |
|  | 39   | 128  | 36,24            | 3664   | 1,6                              |             |                  |                      |              |            |       |
|  | 46   | 107  | 30,26            | 3530   | 1,9                              |             |                  |                      |              |            |       |
|  | 54   | 92   | 26,10            | 3416   | 2,2                              |             |                  |                      |              |            |       |
|  |  | 67   | 75               | 20,92  | 3576                             | 2,7         | MR172-80/4a      | 1,60                 | 19           | 104        | MR119 |
|  |  | 77   | 66               | 18,28  | 3428                             | 3,0         | NR172-80/4a      |                      | 21           |            | NR119 |
|  | 28   | 178  | 50,51            | 2435   | 0,8                              | MR103-80/4a | 1,60             | 20                   | 103          | MR120      |       |
|  | 31   | 157  | 44,60            | 2420   | 0,9                              | NR103-80/4a |                  | 21                   |              | NR120      |       |
|  | 34   | 147  | 41,66            | 2408   | 1,0                              |             |                  |                      |              |            |       |
|  | 40   | 124  | 35,21            | 2368   | 1,1                              |             |                  |                      |              |            |       |
|  | 43   | 114  | 32,25            | 2342   | 1,2                              |             |                  |                      |              |            |       |
|  | 48   | 104  | 29,40            | 2312   | 1,3                              |             |                  |                      |              |            |       |
|  | 56   | 88   | 24,86            | 2189   | 1,5                              |             |                  |                      |              |            |       |
|  | 64   | 78   | 21,96            | 2147   | 1,5                              |             |                  |                      |              |            |       |
|  | 68   | 72   | 20,51            | 2122   | 1,7                              |             |                  |                      |              |            |       |
|  | 81   | 61   | 17,33            | 2056   | 1,8                              |             |                  |                      |              |            |       |
|  | 88   | 57   | 15,95            | 2061   | 2,0                              | MR102-80/4a | 1,60             | 19                   | 103          | MR121      |       |
|  | 99   | 51   | 14,08            | 2004   | 2,2                              | NR102-80/4a |                  | 20                   |              | NR121      |       |
|  | 106  | 47   | 13,15            | 1972   | 2,2                              |             |                  |                      |              |            |       |
|  | 126  | 40   | 11,12            | 1894   | 2,5                              |             |                  |                      |              |            |       |
|  | 137  | 37   | 10,18            | 1852   | 2,7                              |             |                  |                      |              |            |       |
|  | 151  | 33   | 9,29             | 1809   | 2,8                              |             |                  |                      |              |            |       |
|  | 175  | 29   | 8,01             | 1740   | 3,1                              |             |                  |                      |              |            |       |
|  | 202  | 25   | 6,93             | 1657   | 3,6                              |             |                  |                      |              |            |       |
|  | 44   | 112  | 32,02            | 681  | 0,7                              | MR003-80/4a | 1,60             | 16                   | 102          | MR122      |       |
|  | 49   | 100  | 28,38            | 853  | 0,8                              | NR003-80/4a |                  | 17                   |              | NR122      |       |
|  | 58   | 85   | 24,13            | 1085   | 1,0                              |             |                  |                      |              |            |       |
|  | 66   | 75   | 21,26            | 1169   | 1,1                              |             |                  |                      |              |            |       |
|  | 68   | 73   | 20,66            | 1257   | 1,1                              |             |                  |                      |              |            |       |
|  | 73   | 68   | 19,17            | 1324   | 1,2                              |             |                  |                      |              |            |       |
|  | 77   | 64   | 18,20            | 1315   | 1,3                              |             |                  |                      |              |            |       |
|  | 83   | 60   | 16,89            | 1372   | 1,4                              |             |                  |                      |              |            |       |
|  | 95   | 52   | 14,67            | 1392   | 1,6                              |             |                  |                      |              |            |       |
|  | 103  | 48   | 13,61            | 1433   | 1,7                              |             |                  |                      |              |            |       |
|  | 126  | 40   | 11,14            | 1789   | 1,6                              | MR002-80/4a | 1,60             | 14                   | 102          | MR123      |       |
|  | 142  | 35   | 9,87             | 1774   | 2,2                              | NR002-80/4a |                  | 15                   |              | NR123      |       |
|  | 161  | 31   | 8,70             | 1741   | 2,4                              |             |                  |                      |              |            |       |
|  | 166  | 30   | 8,45             | 1762   | 2,4                              |             |                  |                      |              |            |       |
|  | 179  | 28   | 7,84             | 1753   | 2,6                              |             |                  |                      |              |            |       |
|  | 188  | 27   | 7,45             | 1724   | 2,7                              |             |                  |                      |              |            |       |

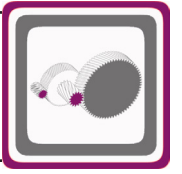




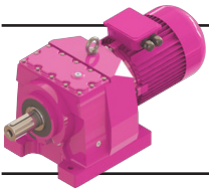
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



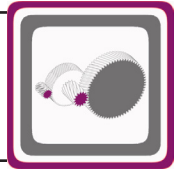
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi        | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |       |
|--|--|--|------------------|--|----------------------------------|-------------|------------------|----------------------|--------------|------------|-------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type        | Rated Current    | Weight               | Dim. Page    | Price Ref. |       |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ         | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |       |
| 0,55<br>0,75   | 203  | 25   | 6,91             | 1712   | 2,8                              | MR002-80/4a | 1,60             | 14                   | 102          | MR123      |       |
|  | 233  | 22   | 6,00             | 1658   | 3,1                              | NR002-80/4a |                  | 15                   |              | NR123      |       |
|  | 251  | 20   | 5,57             | 1643   | 3,2                              |             |                  |                      |              |            |       |
|  | 307  | 16   | 4,56             | 1535   | 3,5                              |             |                  |                      |              |            |       |
|  | 359  | 14   | 3,90             | 1502   | 3,9                              |             |                  |                      |              |            |       |
|  | 387  | 13   | 3,62             | 1485   | 4,0                              |             |                  |                      |              |            |       |
|  | 405  | 12   | 6,91             | 1488   | 4,0                              | MR002-71/2b | 1,27             | 14                   | 102          | MR124      |       |
|  | 467  | 11   | 6,00             | 1416   | 4,0                              | NR002-71/2b |                  | 15                   |              | NR124      |       |
|  | 503  | 10   | 5,57             | 1378   | 4,0                              |             |                  |                      |              |            |       |
|  | 615  | 8  | 4,56             | 1288   | 4,0                              |             |                  |                      |              |            |       |
|  | 718  | 7  | 3,90             | 1218   | 4,0                              |             |                  |                      |              |            |       |
|  | 774  | 6  | 3,62             | 1185   | 4,0                              |             |                  |                      |              |            |       |
|  | 0,75<br>1,0  | 0,26   | 23877            | 5357,43  | 39308                            | 0,8         | MR976-80/4b      | 2,00                 | 1090         | 131        | MR367 |
|  |  | 0,31   | 19987            | 4474,67  | 81469                            | 0,9         | NR976-80/4b      |                      | 1140         |            | NR367 |
| 0,33   |  | 18896  | 4227,50          | 89168  | 1,0                              |             |                  |                      |              |            |       |
| 0,39   |  | 16089  | 3594,81          | 105912   | 1,1                              |             |                  |                      |              |            |       |
| 0,49   |  | 12737  | 2836,64          | 121560   | 1,4                              |             |                  |                      |              |            |       |
| 0,69   |  | 9288   | 2027,97          | 134374   | 1,9                              | MR975-80/4b | 2,00             | 1088                 | 131          | MR368      |       |
| 0,77   |  | 8345   | 1820,78          | 137427   | 2,2                              | NR975-80/4b |                  | 1138                 |              | NR368      |       |
| 0,90   |  | 7109   | 1552,10          | 141175   | 2,5                              |             |                  |                      |              |            |       |
| 1,0  |  | 6272   | 1368,27          | 143560   | 2,9                              |             |                  |                      |              |            |       |
| 1,2  |  | 5568   | 1213,85          | 145470   | 3,2                              |             |                  |                      |              |            |       |
| 0,41   |  | 15291  | 3441,02          | 56525  | 0,9                              | MR876-80/4b | 2,00             | 605                  | 128          | MR125      |       |
| 0,48   |  | 12887  | 2894,28          | 73120  | 1,0                              | NR876-80/4b |                  | 610                  |              | NR125      |       |
| 0,57   |  | 10977  | 2460,65          | 83131  | 1,2                              |             |                  |                      |              |            |       |
| 0,66   |  | 9422   | 2108,33          | 90089  | 1,4                              |             |                  |                      |              |            |       |
| 0,73   |  | 8774   | 1924,32          | 92488  | 1,5                              | MR875-80/4b | 2,00             | 602                  | 128          | MR126      |       |
| 0,82   |  | 7766   | 1700,56          | 96088  | 1,7                              | NR875-80/4b |                  | 607                  |              | NR126      |       |
| 0,92   |  | 6950   | 1521,55          | 99023  | 1,9                              |             |                  |                      |              |            |       |
| 1,0  |  | 6113   | 1336,15          | 101682   | 2,1                              |             |                  |                      |              |            |       |
| 1,2  |  | 5542   | 1210,51          | 103390   | 2,3                              |             |                  |                      |              |            |       |
| 1,3  |  | 4795   | 1049,18          | 105498   | 2,7                              |             |                  |                      |              |            |       |
| 1,5  |  | 4191   | 915,85           | 107102   | 3,1                              |             |                  |                      |              |            |       |
| 1,7  |  | 3700   | 807,91           | 108336   | 3,5                              |             |                  |                      |              |            |       |
| 0,78   |  | 8152   | 1791,91          | 48294  | 1,0                              | MR775-80/4b | 2,00             | 257                  | 125          | MR433      |       |
| 0,88   |  | 7237   | 1589,68          | 51743  | 1,1                              | NR775-80/4b |                  | 315                  |              | NR433      |       |
| 0,99   |  | 6456   | 1417,41          | 54336  | 1,2                              |             |                  |                      |              |            |       |
| 1,1  |  | 5715   | 1252,60          | 56638  | 1,4                              |             |                  |                      |              |            |       |
| 1,2  |  | 5115   | 1120,74          | 58321  | 1,6                              |             |                  |                      |              |            |       |
| 1,4  |  | 4500   | 984,18           | 59919  | 1,8                              |             |                  |                      |              |            |       |
| 1,5  |  | 4341   | 594,92           | 60314  | 1,8                              | MR774-90S/6 | 2,10             | 237                  | 124          | MR434      |       |
| 1,7  |  | 3885   | 532,29           | 61398  | 2,1                              | NR774-90S/6 |                  | 295                  |              | NR434      |       |
| 1,9  | 3417   | 467,43   | 62443            | 2,3  |                                  |             |                  |                      |              |            |       |
| 2,2  | 3060   | 418,17   | 63197            | 2,6  |                                  |             |                  |                      |              |            |       |
| 2,4  | 2790   | 594,92   | 63743            | 2,9  | MR774-80/4b                      | 2,00        | 227              | 124                  | MR435        |            |       |
| 2,6  | 2497   | 532,29   | 64311            | 3,2  | NR774-80/4b                      |             | 280              |                      | NR435        |            |       |
| 3,0  | 2197   | 467,43   | 64965            | 3,6  |                                  |             |                  |                      |              |            |       |
| 3,3  | 1967   | 418,17   | 65392            | 4,0  |                                  |             |                  |                      |              |            |       |



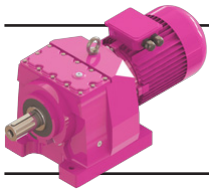
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



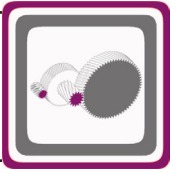
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi        | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|-------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type        | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ         | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 0,75<br>1,0  | 1,4  | 4544   | 995,91           | 24906  | 0,9                              | MR675-80/4b | 2,00             | 238                  | 122          | MR436      |
|  | 1,6  | 3998   | 874,56           | 28088  | 1,1                              | NR675-80/4b |                  | 249                  |              | NR436      |
|  | 1,8  | 3650   | 500,39           | 29829  | 1,2                              | MR674-90S/6 | 2,10             | 225                  | 121          | MR437      |
|  | 2,0  | 3231   | 442,20           | 31780  | 1,3                              | NR674-90S/6 |                  | 235                  |              | NR437      |
|  | 2,4  | 2749   | 376,69           | 33755  | 1,6                              |             |                  |                      |              |            |
|  | 2,8  | 2346   | 500,39           | 35205  | 1,8                              |             |                  |                      |              |            |
|  | 3,2  | 2077   | 442,20           | 36070  | 2,1                              |             |                  |                      |              |            |
|  | 3,7  | 1767   | 376,69           | 37069  | 2,4                              |             |                  |                      |              |            |
|  | 4,3  | 1521   | 323,82           | 37783  | 2,8                              |             |                  |                      |              |            |
|  | 5,0  | 1322   | 281,02           | 38332  | 3,3                              |             |                  |                      |              |            |
|  | 5,7  | 1157   | 245,67           | 38767  | 3,7                              |             |                  |                      |              |            |
|  | 6,5  | 1018   | 215,97           | 39119  | 4,0                              |             |                  |                      |              |            |
|  | 2,2  | 2937   | 402,12           | 20175  | 1,0                              | MR574-90S/6 | 2,10             | 141                  | 118          | MR438      |
|  |  |  |                  |  |                                  | NR574-90S/6 |                  | 137                  |              | NR438      |
|  | 2,4  | 2689   | 574,90           | 21627  | 1,1                              | MR574-80/4b | 2,00             | 135                  | 118          | MR439      |
|  | 2,9  | 2276   | 485,89           | 23740  | 1,3                              | NR574-80/4b |                  | 132                  |              | NR439      |
|  | 3,5  | 1888   | 402,12           | 25403  | 1,6                              |             |                  |                      |              |            |
|  | 4,1  | 1616   | 343,91           | 26434  | 1,9                              |             |                  |                      |              |            |
|  | 4,6  | 1420   | 301,59           | 27120  | 2,1                              |             |                  |                      |              |            |
|  | 4,8  | 1369   | 291,25           | 27289  | 2,2                              |             |                  |                      |              |            |
|  | 5,4  | 1218   | 258,87           | 27779  | 2,5                              |             |                  |                      |              |            |
|  | 6,3  | 1043   | 221,40           | 28324  | 2,9                              |             |                  |                      |              |            |
|  | 7,2  | 916  | 194,15           | 28687  | 3,3                              |             |                  |                      |              |            |
|  | 8,2  | 811  | 171,64           | 28986  | 3,7                              |             |                  |                      |              |            |
| 9,7  | 684  | 144,37   | 29323            | 4,0  |                                  |             |                  |                      |              |            |
|  | 3,3  | 1962   | 418,16           | 6733   | 0,8                              | MR474-80/4b | 2,00             | 135                  | 115          | MR134      |
|  | 4,0  | 1627   | 346,07           | 14344  | 1,0                              | NR474-80/4b |                  | 139                  |              | NR134      |
|  | 4,1  | 1628   | 219,00           | 14337  | 1,0                              | MR473-90S/6 | 2,10             | 94                   | 114          | MR135      |
|  | 4,6  | 1442   | 194,05           | 16984  | 1,1                              | NR473-90S/6 |                  | 97                   |              | NR135      |
|  | 5,7  | 1176   | 157,90           | 19975  | 1,3                              |             |                  |                      |              |            |
|  | 6,4  | 1050   | 219,00           | 21139  | 1,5                              | MR473-80/4b | 2,00             | 92                   | 114          | MR136      |
|  | 7,2  | 930  | 194,05           | 22135  | 1,7                              | NR473-80/4b |                  | 95                   |              | NR136      |
|  | 8,9  | 759  | 157,90           | 23453  | 2,0                              |             |                  |                      |              |            |
|  | 10   | 671  | 139,54           | 23247  | 2,3                              |             |                  |                      |              |            |
|  | 11   | 600  | 124,85           | 22545  | 2,6                              |             |                  |                      |              |            |
|  | 13   | 528  | 109,64           | 21737  | 2,9                              |             |                  |                      |              |            |
|  | 15   | 442  | 91,58            | 20645  | 3,5                              |             |                  |                      |              |            |
|  | 6,5  | 1030   | 138,72           | 7343   | 0,8                              | MR373-90S/6 | 2,10             | 55                   | 111          | MR137      |
|  | 8,1  | 830  | 111,67           | 11533  | 1,0                              | NR373-90S/6 |                  | 57                   |              | NR137      |
|  | 8,9  | 755  | 157,76           | 12435  | 1,1                              | MR373-80/4b | 2,00             | 51                   | 111          | MR138      |
|  | 10   | 665  | 138,72           | 12134  | 1,2                              | NR373-80/4b |                  | 53                   |              | NR138      |
|  | 13   | 536  | 111,67           | 11596  | 1,5                              |             |                  |                      |              |            |
|  | 14   | 470  | 97,92            | 11259  | 1,7                              |             |                  |                      |              |            |
|  | 16   | 416  | 86,57            | 10938  | 2,0                              |             |                  |                      |              |            |
|  | 19   | 350  | 72,81            | 10483  | 2,3                              |             |                  |                      |              |            |
|  | 23   | 298  | 61,91            | 10057  | 2,7                              |             |                  |                      |              |            |
|  | 26   | 256  | 53,04            | 9654   | 3,2                              |             |                  |                      |              |            |
|  | 29   | 232  | 48,00            | 9397   | 3,5                              |             |                  |                      |              |            |



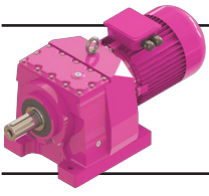
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



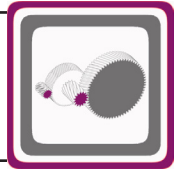
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi                       | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu     |
|--|--|--|------------------|--|----------------------------------|----------------------------|------------------|----------------------|--------------|----------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type                       | Rated Current    | Weight               | Dim. Page    | Price Ref.     |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ                        | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.      |
| 0,75<br>1,0  | 9,2  | 726  | 97,62            | 6265   | 0,8                              | MR283-90S/6<br>NR283-90S/6 | 2,10             | 42<br>44             | 108          | MR139<br>NR139 |
|  | 10   | 661  | 137,91           | 7990   | 0,9                              | MR283-80/4b<br>NR283-80/4b | 2,00             | 41<br>45             | 108          | MR140<br>NR140 |
|  | 12   | 548  | 114,14           | 9297   | 1,1                              |                            |                  |                      |              |                |
|  | 14   | 469  | 97,62            | 9035   | 1,3                              |                            |                  |                      |              |                |
|  | 16   | 411  | 85,60            | 8802   | 1,5                              |                            |                  |                      |              |                |
|  | 18   | 364  | 75,68            | 8575   | 1,6                              |                            |                  |                      |              |                |
|  | 22   | 307  | 63,65            | 8247   | 2,0                              |                            |                  |                      |              |                |
|  | 26   | 261  | 54,12            | 7934   | 2,3                              |                            |                  |                      |              |                |
|  | 30   | 224  | 46,37            | 7635   | 2,5                              |                            |                  |                      |              |                |
|  | 33   | 203  | 41,96            | 7442   | 2,7                              |                            |                  |                      |              |                |
|  | 12   | 581  | 121,03           | 5.409  | 0,8                              | MR273-80/4b<br>NR273-80/4b | 2,00             | 32<br>34             | 106          | MR141<br>NR141 |
|  | 13   | 545  | 113,52           | 5.715  | 0,8                              |                            |                  |                      |              |                |
|  | 15   | 463  | 96,52            | 6.349  | 1,0                              |                            |                  |                      |              |                |
|  | 17   | 403  | 83,83            | 6.758  | 1,1                              |                            |                  |                      |              |                |
|  | 19   | 353  | 73,35            | 7.043  | 1,3                              |                            |                  |                      |              |                |
|  | 23   | 292  | 60,66            | 7.306  | 1,5                              |                            |                  |                      |              |                |
|  | 28   | 244  | 50,59            | 7.429  | 1,8                              |                            |                  |                      |              |                |
|  | 33   | 205  | 42,41            | 7.128  | 2,2                              |                            |                  |                      |              |                |
|  | 38   | 177  | 36,55            | 6.746  | 2,5                              |                            |                  |                      |              |                |
|  | 46   | 148  | 30,48            | 6.312  | 3,1                              |                            |                  |                      |              |                |
|  | 21   | 327  | 68,03            | 6609   | 0,9                              | MR203-80/4b<br>NR203-80/4b | 2,00             | 30<br>32             | 105          | MR142<br>NR142 |
|  | 24   | 286  | 59,43            | 6451   | 1,0                              |                            |                  |                      |              |                |
|  | 25   | 268  | 55,74            | 6373   | 1,0                              |                            |                  |                      |              |                |
|  | 30   | 228  | 47,39            | 6167   | 1,2                              |                            |                  |                      |              |                |
|  | 32   | 212  | 43,94            | 6067   | 1,3                              |                            |                  |                      |              |                |
|  | 34   | 199  | 41,16            | 5980   | 1,4                              |                            |                  |                      |              |                |
|  | 39   | 174  | 36,02            | 5800   | 1,6                              |                            |                  |                      |              |                |
|  | 49   | 136  | 28,35            | 6628   | 2,1                              |                            |                  |                      |              |                |
|  | 57   | 119  | 24,77            | 6297   | 2,3                              |                            |                  |                      |              |                |
|  | 60   | 112  | 23,23            | 6147   | 2,4                              |                            |                  |                      |              |                |
|  | 61   | 112  | 23,01            | 6034   | 2,5                              | MR202-80/4b<br>NR202-80/4b | 2,00             | 30<br>31             | 105          | MR143<br>NR143 |
|  | 70   | 98   | 20,10            | 5744   | 2,6                              |                            |                  |                      |              |                |
|  | 74   | 92   | 18,85            | 5612   | 2,8                              |                            |                  |                      |              |                |
|  | 87   | 78   | 16,03            | 5293   | 3,1                              |                            |                  |                      |              |                |
|  | 28   | 240  | 49,81            | 3506   | 0,8                              | MR173-80/4b<br>NR173-80/4b | 2,00             | 20<br>21             | 104          | MR144<br>NR144 |
|  | 31   | 221  | 45,90            | 3484   | 0,9                              |                            |                  |                      |              |                |
|  | 33   | 206  | 42,87            | 3462   | 1,0                              |                            |                  |                      |              |                |
|  | 39   | 174  | 36,24            | 3394   | 1,1                              |                            |                  |                      |              |                |
|  | 46   | 146  | 30,26            | 3304   | 1,4                              |                            |                  |                      |              |                |
|  | 54   | 126  | 26,10            | 3221   | 1,6                              |                            |                  |                      |              |                |
|  | 67   | 102  | 20,92            | 3529   | 2,0                              | MR172-80/4b<br>NR172-80/4b | 2,00             | 20<br>22             | 104          | MR145<br>NR145 |
|  | 77   | 90   | 18,28            | 3388   | 2,2                              |                            |                  |                      |              |                |
|  | 82   | 84   | 17,14            | 3323   | 2,4                              |                            |                  |                      |              |                |
|  | 96   | 71   | 14,57            | 3162   | 2,7                              |                            |                  |                      |              |                |
|  | 111  | 62   | 12,66            | 3027   | 3,1                              |                            |                  |                      |              |                |
|  | 126  | 54   | 11,08            | 2903   | 3,3                              |                            |                  |                      |              |                |
|  | 40   | 170  | 35,21            | 2088   | 0,8                              | MR103-80/4b<br>NR103-80/4b | 2,00             | 19<br>22             | 103          | MR146<br>NR146 |
|  | 43   | 156  | 32,25            | 2086   | 0,9                              |                            |                  |                      |              |                |
|  | 48   | 142  | 29,40            | 2078   | 1,0                              |                            |                  |                      |              |                |
|  | 56   | 120  | 24,86            | 1969   | 1,1                              |                            |                  |                      |              |                |
|  | 64   | 106  | 21,96            | 1952   | 1,1                              |                            |                  |                      |              |                |



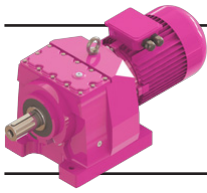
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



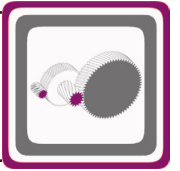
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi        | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|-------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type        | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ         | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 0,75<br>1,0  | 68   | 99   | 20,51            | 1940   | 1,2                              | MR103-80/4b | 2,00             | 19                   | 103          | MR146      |
|  | 81   | 84   | 17,33            | 1903   | 1,3                              | NR103-80/4b |                  | 22                   |              | NR146      |
|  | 88   | 78   | 15,95            | 1934   | 1,5                              | MR102-80/4b | 2,00             | 19                   | 103          | MR147      |
|  | 99   | 69   | 14,08            | 1892   | 1,6                              | NR102-80/4b |                  | 20                   |              | NR147      |
|  | 106  | 64   | 13,15            | 1868   | 1,6                              |             |                  |                      |              |            |
|  | 126  | 55   | 11,12            | 1805   | 1,8                              |             |                  |                      |              |            |
|  | 137  | 50   | 10,18            | 1772   | 2,0                              |             |                  |                      |              |            |
|  | 151  | 46   | 9,29             | 1735   | 2,1                              |             |                  |                      |              |            |
|  | 175  | 39   | 8,01             | 1677   | 2,3                              |             |                  |                      |              |            |
|  | 202  | 34   | 6,93             | 1596   | 2,6                              |             |                  |                      |              |            |
|  | 216  | 32   | 6,48             | 1570   | 2,7                              |             |                  |                      |              |            |
|  | 256  | 27   | 5,47             | 1506   | 3,0                              |             |                  |                      |              |            |
|  | 279  | 25   | 5,01             | 1472   | 3,2                              |             |                  |                      |              |            |
|  | 306  | 22   | 4,57             | 1437   | 3,3                              |             |                  |                      |              |            |
|  |  | 58   | 116              | 24,13  | 203                              | 0,7         | MR003-80/4b      | 2,00                 | 16           | 102        |
| 66   |  | 102  | 21,26            | 370  | 0,8                              | NR003-80/4b |                  | 17                   |              | NR148      |
| 68   |  | 100  | 20,66            | 502  | 0,8                              |             |                  |                      |              |            |
| 73   |  | 92   | 19,17            | 624  | 0,9                              |             |                  |                      |              |            |
| 77   |  | 88   | 18,20            | 631  | 0,9                              |             |                  |                      |              |            |
| 83   |  | 81   | 16,89            | 738  | 1,0                              |             |                  |                      |              |            |
| 95   |  | 71   | 14,67            | 817  | 1,2                              |             |                  |                      |              |            |
| 103  |  | 66   | 13,61            | 899  | 1,2                              |             |                  |                      |              |            |
|  |  | 126  | 54               | 11,14  | 1453                             | 1,2         | MR002-80/4b      | 2,00                 | 16           | 102        |
|  | 142  | 48   | 9,87             | 1471   | 1,6                              | NR002-80/4b |                  | 17                   |              | NR149      |
|  | 161  | 43   | 8,70             | 1466   | 1,7                              |             |                  |                      |              |            |
|  | 166  | 41   | 8,45             | 1503   | 1,8                              |             |                  |                      |              |            |
|  | 179  | 38   | 7,84             | 1512   | 1,9                              |             |                  |                      |              |            |
|  | 188  | 36   | 7,45             | 1488   | 1,9                              |             |                  |                      |              |            |
|  | 203  | 34   | 6,91             | 1493   | 2,0                              |             |                  |                      |              |            |
|  | 233  | 29   | 6,00             | 1458   | 2,2                              |             |                  |                      |              |            |
|  | 251  | 27   | 5,57             | 1458   | 2,3                              |             |                  |                      |              |            |
|  | 307  | 22   | 4,56             | 1361   | 2,6                              |             |                  |                      |              |            |
|  | 359  | 19   | 3,90             | 1353   | 2,9                              |             |                  |                      |              |            |
|  | 387  | 18   | 3,62             | 1346   | 3,0                              |             |                  |                      |              |            |
|  |  | 405  | 17               | 6,91   | 1426                             | 3,2         | MR002-80/2a      | 1,80                 | 17           | 102        |
| 467  |  | 15   | 6,00             | 1377   | 3,5                              | NR002-80/2a |                  | 18                   |              | NR150      |
| 503  |  | 14   | 5,57             | 1361   | 3,7                              |             |                  |                      |              |            |
| 615  |  | 11   | 4,56             | 1272   | 4,0                              |             |                  |                      |              |            |
| 718  |  | 10   | 3,90             | 1236   | 4,0                              |             |                  |                      |              |            |
| 774  |  | 9  | 3,62             | 1202   | 4,0                              |             |                  |                      |              |            |
| 1,1<br>1,5   | 0,39   | 23598  | 3594,81          | 43789  | 0,8                              | MR976-90S/4 | 2,60             | 1092                 | 131          | MR369      |
|  | 0,49   | 18682  | 2836,64          | 90609  | 1,0                              | NR976-90S/4 |                  | 1142                 |              | NR369      |
|  | 0,69   | 13622  | 2027,97          | 117785   | 1,3                              | MR975-90S/4 | 2,60             | 1090                 | 131          | MR370      |
|  | 0,77   | 12239  | 1820,78          | 123364   | 1,5                              | NR975-90S/4 |                  | 1140                 |              | NR370      |
|  | 0,90   | 10426  | 1552,10          | 130549   | 1,7                              |             |                  |                      |              |            |
|  | 1,0  | 9199   | 1368,27          | 134670   | 2,0                              |             |                  |                      |              |            |
|  | 1,2  | 8167   | 1213,85          | 137984   | 2,2                              |             |                  |                      |              |            |
|  | 1,3  | 7287   | 1082,31          | 140653   | 2,5                              |             |                  |                      |              |            |
|  | 1,5  | 6173   | 914,74           | 143832   | 2,9                              |             |                  |                      |              |            |
|  | 1,7  | 5684   | 842,80           | 145160   | 3,2                              |             |                  |                      |              |            |
|  | 0,73   | 12868  | 1924,32          | 73232  | 1,0                              | MR875-90S/4 | 2,60             | 595                  | 128          | MR151      |
|  | 0,82   | 11390  | 1700,56          | 81134  | 1,1                              | NR875-90S/4 |                  | 600                  |              | NR151      |



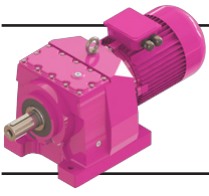
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



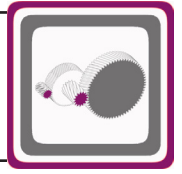
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi               | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|--------------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type               | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ                | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 1,1<br>1,5   | 0,92   | 10193  | <b>1521,55</b>   | 86705  | 1,3                              | <b>MR875-90S/4</b> | 2,60             | 595                  | 128          | MR151      |
|  | 1,0  | 8966   | <b>1336,15</b>   | 91754  | 1,4                              | <b>NR875-90S/4</b> |                  | 600                  |              | NR151      |
|  | 1,2  | 8129   | <b>1210,51</b>   | 94838  | 1,6                              |                    |                  |                      |              |            |
|  | 1,3  | 7033   | <b>1049,18</b>   | 98746  | 1,8                              |                    |                  |                      |              |            |
|  | 1,5  | 6146   | <b>915,85</b>    | 101581   | 2,1                              |                    |                  |                      |              |            |
|  | 1,7  | 5427   | <b>807,91</b>    | 103725   | 2,4                              |                    |                  |                      |              |            |
|  | 1,9  | 4832   | <b>718,74</b>    | 105398   | 2,7                              |                    |                  |                      |              |            |
|  | 2,2  | 4332   | <b>643,84</b>    | 106736   | 3,0                              |                    |                  |                      |              |            |
|  | 2,6  | 3627   | <b>537,75</b>    | 108515   | 3,6                              |                    |                  |                      |              |            |
|  | 1,1  | 8382   | <b>1252,60</b>   | 47349  | 1,0                              | <b>MR775-90S/4</b> | 2,60             | 333                  | 125          | MR440      |
|  | 1,2  | 7502   | <b>1120,74</b>   | 50776  | 1,1                              | <b>NR775-90S/4</b> |                  | 403                  |              | NR440      |
|  | 1,4  | 6601   | <b>984,18</b>    | 53879  | 1,2                              |                    |                  |                      |              |            |
|  | 1,5  | 6366   | <b>594,92</b>    | 54616  | 1,3                              | <b>MR774-90L/6</b> | 3,00             | 306                  | 124          | MR441      |
|  | 1,7  | 5698   | <b>532,29</b>    | 56689  | 1,4                              | <b>NR774-90L/6</b> |                  | 372                  |              | NR441      |
|  | 1,9  | 5012   | <b>467,43</b>    | 58598  | 1,6                              |                    |                  |                      |              |            |
|  | 2,2  | 4488   | <b>418,17</b>    | 59949  | 1,8                              |                    |                  |                      |              |            |
|  | 2,4  | 4093   | <b>594,92</b>    | 60912  | 2,0                              | <b>MR774-90S/4</b> | 2,60             | 300                  | 124          | MR442      |
|  | 2,6  | 3663   | <b>532,29</b>    | 61903  | 2,2                              | <b>NR774-90S/4</b> |                  | 366                  |              | NR442      |
|  | 3,0  | 3222   | <b>467,43</b>    | 62860  | 2,5                              |                    |                  |                      |              |            |
| 3,3  | 2885   | <b>418,17</b>                                    | 63553            | 2,8  |                                  |                    |                  |                      |              |            |
| 3,9  | 2492   | <b>361,62</b>                                    | 64321            | 3,2  |                                  |                    |                  |                      |              |            |
| 4,5  | 2161   | <b>313,11</b>                                    | 65032            | 3,7  |                                  |                    |                  |                      |              |            |
| 5,1  | 1893   | <b>273,85</b>                                    | 65528            | 4,0  |                                  |                    |                  |                      |              |            |
| 2,0  | 4738   | <b>442,20</b>                                    | 23566            | 0,9  | <b>MR674-90L/6</b>               | 3,00               | 230              | 121                  | MR443        |            |
| 2,4  | 4031   | <b>376,69</b>                                    | 27909            | 1,1  | <b>NR674-90L/6</b>               |                    | 240              |                      | NR443        |            |
| 2,8  | 3441   | <b>500,39</b>                                    | 30857            | 1,2  | <b>MR674-90S/4</b>               | 2,60               | 225              | 121                  | MR444        |            |
| 3,2  | 3046   | <b>442,20</b>                                    | 32534            | 1,4  | <b>NR674-90S/4</b>               |                    | 235              |                      | NR444        |            |
| 3,7  | 2591   | <b>376,69</b>                                    | 34344            | 1,7  |                                  |                    |                  |                      |              |            |
| 4,3  | 2231   | <b>323,82</b>                                    | 35584            | 1,9  |                                  |                    |                  |                      |              |            |
| 5,0  | 1939   | <b>281,02</b>                                    | 36545            | 2,2  |                                  |                    |                  |                      |              |            |
| 5,7  | 1697   | <b>245,67</b>                                    | 37277            | 2,5  |                                  |                    |                  |                      |              |            |
| 6,5  | 1493   | <b>215,97</b>                                    | 37861            | 2,9  |                                  |                    |                  |                      |              |            |
| 3,5  | 2769   | <b>402,12</b>                                    | 21171            | 1,1  | <b>MR574-90S/4</b>               | 2,60               | 146              | 118                  | MR445        |            |
| 4,1  | 2370   | <b>343,91</b>                                    | 23264            | 1,3  | <b>NR574-90S/4</b>               |                    | 142              |                      | NR445        |            |
| 4,6  | 2082   | <b>301,59</b>                                    | 24576            | 1,4  |                                  |                    |                  |                      |              |            |
| 4,8  | 2008   | <b>291,25</b>                                    | 24890            | 1,5  |                                  |                    |                  |                      |              |            |
| 5,4  | 1787   | <b>258,87</b>                                    | 25783            | 1,7  |                                  |                    |                  |                      |              |            |
| 6,3  | 1529   | <b>221,40</b>                                    | 26748            | 2,0  |                                  |                    |                  |                      |              |            |
| 7,2  | 1344   | <b>194,15</b>                                    | 27372            | 2,2  |                                  |                    |                  |                      |              |            |
| 8,2  | 1190   | <b>171,64</b>                                    | 27871            | 2,5  |                                  |                    |                  |                      |              |            |
| 9,7  | 1003   | <b>144,37</b>                                    | 28436            | 3,0  |                                  |                    |                  |                      |              |            |
| 5,7  | 1727   | <b>157,90</b>                                    | 12637            | 0,9  | <b>MR473-90L/6</b>               | 3,00               | 94               | 114                  | MR159        |            |
|  |  |  |                  |  | <b>NR473-90L/6</b>               |                    | 96               |                      | NR159        |            |
| 6,4  | 1541   | <b>219,00</b>                                    | 15655            | 1,0  | <b>MR473-90S/4</b>               | 2,60               | 92               | 114                  | MR160        |            |
| 7,2  | 1365   | <b>194,05</b>                                    | 17922            | 1,1  | <b>NR473-90S/4</b>               |                    | 94               |                      | NR160        |            |
| 8,9  | 1113   | <b>157,90</b>                                    | 20563            | 1,4  |                                  |                    |                  |                      |              |            |
| 10   | 985  | <b>139,54</b>                                    | 21700            | 1,6  |                                  |                    |                  |                      |              |            |
| 11   | 881  | <b>124,85</b>                                    | 21675            | 1,8  |                                  |                    |                  |                      |              |            |



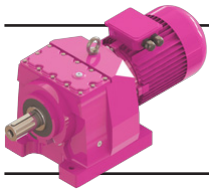
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



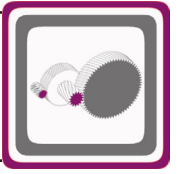
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi        | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|-------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type        | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ         | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 1,1<br>1,5   | 13   | 775  | 109,64           | 20973  | 2,0                              | MR473-90S/4 | 2,60             | 92                   | 114          | MR160      |
|  | 15   | 648  | 91,58            | 20007  | 2,4                              | NR473-90S/4 |                  | 94                   |              | NR160      |
|  | 16   | 613  | 86,52            | 19705  | 2,5                              |             |                  |                      |              |            |
|  | 10   | 976  | 138,72           | 8775   | 0,8                              | MR373-90S/4 | 2,60             | 53                   | 111          | MR161      |
|  | 13   | 786  | 111,67           | 10669  | 1,0                              | NR373-90S/4 |                  | 56                   |              | NR161      |
|  | 14   | 690  | 97,92            | 10446  | 1,2                              |             |                  |                      |              |            |
|  | 16   | 611  | 86,57            | 10219  | 1,3                              |             |                  |                      |              |            |
|  | 19   | 514  | 72,81            | 9879   | 1,6                              |             |                  |                      |              |            |
|  | 23   | 438  | 61,91            | 9543   | 1,9                              |             |                  |                      |              |            |
|  | 26   | 376  | 53,04            | 9214   | 2,2                              |             |                  |                      |              |            |
| 29   | 340  | 48,00  | 8999             | 2,4  |                                  |             |                  |                      |              |            |
|  | 39   | 260  | 23,33            | 9769   | 3,1                              | MR372-90L/6 | 3,00             | 56                   | 111          | MR162      |
|  | 44   | 230  | 20,62            | 9343   | 3,6                              | NR372-90L/6 |                  | 60                   |              | NR162      |
|  | 14   | 688  | 97,62            | 7332   | 0,9                              | MR283-90S/4 | 2,60             | 45                   | 108          | MR163      |
|  | 16   | 604  | 85,60            | 8018   | 1,0                              | NR283-90S/4 |                  | 49                   |              | NR163      |
|  | 18   | 534  | 75,68            | 7882   | 1,1                              |             |                  |                      |              |            |
|  | 22   | 450  | 63,65            | 7664   | 1,3                              |             |                  |                      |              |            |
|  | 26   | 383  | 54,12            | 7439   | 1,6                              |             |                  |                      |              |            |
|  | 30   | 329  | 46,37            | 7210   | 1,7                              |             |                  |                      |              |            |
|  | 33   | 298  | 41,96            | 7057   | 1,8                              |             |                  |                      |              |            |
|  |  |  |                  |  |                                  |             |                  |                      |              |            |
|  | 36   | 281  | 25,23            | 8599   | 2,1                              | MR282-90L/6 | 3,00             | 44                   | 108          | MR164      |
|  | 42   | 241  | 21,66            | 8127   | 2,4                              | NR282-90L/6 |                  | 48                   |              | NR164      |
|  | 46   | 218  | 30,37            | 7824   | 2,6                              | MR282-90S/4 | 2,60             | 45                   | 108          | MR165      |
|  | 55   | 181  | 25,23            | 7312   | 2,9                              | NR282-90S/4 |                  | 48                   |              | NR165      |
|  | 65   | 156  | 21,66            | 6919   | 3,2                              |             |                  |                      |              |            |
|  | 17   | 591  | 83,83            | 3.440  | 0,8                              | MR273-90S/4 | 2,60             | 35                   | 106          | MR166      |
|  | 19   | 518  | 73,35            | 4.140  | 0,9                              | NR273-90S/4 |                  | 37                   |              | NR166      |
|  | 23   | 429  | 60,66            | 4.905  | 1,0                              |             |                  |                      |              |            |
|  | 28   | 358  | 50,59            | 5.426  | 1,3                              |             |                  |                      |              |            |
|  | 33   | 301  | 42,41            | 5.775  | 1,5                              |             |                  |                      |              |            |
|  | 38   | 259  | 36,55            | 5.969  | 1,7                              |             |                  |                      |              |            |
|  | 46   | 216  | 30,48            | 6.107  | 2,1                              |             |                  |                      |              |            |
|  | 54   | 186  | 25,89            | 6.058  | 2,4                              | MR272-90S/4 | 2,60             | 36                   | 106          | MR167      |
|  | 65   | 154  | 21,43            | 5.648  | 2,9                              | NR272-90S/4 |                  | 38                   |              | NR167      |
|  | 76   | 132  | 18,33            | 5.333  | 3,4                              |             |                  |                      |              |            |
|  | 30   | 335  | 47,39            | 5640   | 0,8                              | MR203-90S/4 | 2,60             | 34                   | 105          | MR168      |
|  | 32   | 311  | 43,94            | 5579   | 0,9                              | NR203-90S/4 |                  | 37                   |              | NR168      |
|  | 34   | 291  | 41,16            | 5523   | 1,0                              |             |                  |                      |              |            |
|  | 39   | 255  | 36,02            | 5400   | 1,1                              |             |                  |                      |              |            |
|  | 49   | 200  | 28,35            | 5528   | 1,4                              |             |                  |                      |              |            |
|  | 57   | 175  | 24,77            | 5715   | 1,6                              |             |                  |                      |              |            |
|  | 60   | 164  | 23,23            | 5781   | 1,6                              |             |                  |                      |              |            |
|  |  |  |                  |  |                                  |             |                  |                      |              |            |
|  | 61   | 165  | 23,01            | 6170   | 1,7                              | MR202-90S/4 | 2,60             | 36                   | 105          | MR169      |
|  | 70   | 144  | 20,10            | 5863   | 1,8                              | NR202-90S/4 |                  | 38                   |              | NR169      |
|  | 74   | 135  | 18,85            | 5724   | 1,9                              |             |                  |                      |              |            |
|  | 87   | 115  | 16,03            | 5389   | 2,1                              |             |                  |                      |              |            |
|  | 94   | 107  | 14,86            | 5240   | 2,2                              |             |                  |                      |              |            |
|  | 101  | 100  | 13,92            | 5116   | 2,3                              |             |                  |                      |              |            |



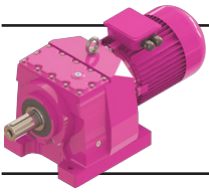
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



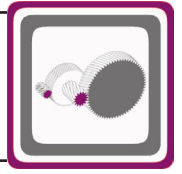
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi        | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|-------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type        | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ         | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 1,1<br>1,5   | 115  | 88   | 12,18            | 4872   | 2,6                              | MR202-90S/4 | 2,60             | 36                   | 105          | MR169      |
|  | 130  | 78   | 10,81            | 4664   | 2,8                              | NR202-90S/4 |                  | 38                   |              | NR169      |
|  | 139  | 73   | 10,07            | 4547   | 2,9                              |             |                  |                      |              |            |
|  | 167  | 61   | 8,40             | 4260   | 3,3                              |             |                  |                      |              |            |
|  | 39   | 256  | 36,24            | 2920   | 0,8                              | MR173-90S/4 | 2,60             | 25                   | 104          | MR170      |
|  | 46   | 214  | 30,26            | 2908   | 0,9                              | NR173-90S/4 |                  | 27                   |              | NR170      |
|  | 54   | 185  | 26,10            | 2879   | 1,1                              |             |                  |                      |              |            |
|  | 67   | 150  | 20,92            | 3430   | 1,3                              | MR172-90S/4 | 2,60             | 24                   | 104          | MR171      |
|  | 77   | 131  | 18,28            | 3306   | 1,5                              | NR172-90S/4 |                  | 25                   |              | NR171      |
|  | 82   | 123  | 17,14            | 3248   | 1,6                              |             |                  |                      |              |            |
|  | 96   | 105  | 14,57            | 3101   | 1,9                              |             |                  |                      |              |            |
|  | 111  | 91   | 12,66            | 2976   | 2,1                              |             |                  |                      |              |            |
| 126  | 80   | 11,08  | 2861             | 2,3  |                                  |             |                  |                      |              |            |
| 147  | 69   | 9,53   | 2703             | 2,5  |                                  |             |                  |                      |              |            |
| 157  | 65   | 8,94   | 2652             | 2,6  |                                  |             |                  |                      |              |            |
| 184  | 55   | 7,60   | 2526             | 2,9  |                                  |             |                  |                      |              |            |
| 212  | 48   | 6,60   | 2420             | 3,0  |                                  |             |                  |                      |              |            |
| 242  | 42   | 5,78   | 2322             | 3,2  |                                  |             |                  |                      |              |            |
| 56   | 176  | 24,86  | 1584             | 0,7  | MR103-90S/4                      | 2,60        | 24               | 103                  | MR172        |            |
| 64   | 155  | 21,96  | 1612             | 0,8  | NR103-90S/4                      |             | 26               |                      | NR172        |            |
| 68   | 145  | 20,51  | 1622             | 0,8  |                                  |             |                  |                      |              |            |
| 81   | 123  | 17,33  | 1634             | 0,9  |                                  |             |                  |                      |              |            |
| 88   | 115  | 15,95  | 1712             | 1,0  | MR102-90S/4                      | 2,60        | 25               | 103                  | MR173        |            |
| 99   | 101  | 14,08  | 1696             | 1,1  | NR102-90S/4                      |             | 26               |                      | NR173        |            |
| 106  | 95   | 13,15  | 1685             | 1,1  |                                  |             |                  |                      |              |            |
| 126  | 80   | 11,12  | 1651             | 1,2  |                                  |             |                  |                      |              |            |
| 137  | 73   | 10,18  | 1630             | 1,4  |                                  |             |                  |                      |              |            |
| 151  | 67   | 9,29   | 1606             | 1,4  |                                  |             |                  |                      |              |            |
| 175  | 58   | 8,01   | 1565             | 1,6  |                                  |             |                  |                      |              |            |
| 202  | 50   | 6,93   | 1488             | 1,8  |                                  |             |                  |                      |              |            |
| 216  | 47   | 6,48   | 1469             | 1,8  |                                  |             |                  |                      |              |            |
| 256  | 39   | 5,47   | 1421             | 2,0  |                                  |             |                  |                      |              |            |
| 279  | 36   | 5,01   | 1395             | 2,2  |                                  |             |                  |                      |              |            |
| 306  | 33   | 4,57   | 1366             | 2,3  |                                  |             |                  |                      |              |            |
| 355  | 28   | 3,94   | 1321             | 2,5  |                                  |             |                  |                      |              |            |
| 404  | 25   | 6,93   | 1280             | 2,8  | MR102-80/2b                      | 2,40        | 23               | 103                  | MR174        |            |
| 432  | 23   | 6,48   | 1259             | 3,0  | NR102-80/2b                      |             | 24               |                      | NR174        |            |
| 512  | 20   | 5,47   | 1206             | 3,3  |                                  |             |                  |                      |              |            |
| 95   | 104  | 14,67  | -                | -  | 0,8                              | MR003-90S/4 | 2,60             | 19                   | 102          | MR175      |
| 103  | 96   | 13,61  | -                | -  | 0,8                              | NR003-90S/4 |                  | 20                   |              | NR175      |
| 126  | 80   | 11,14  | 864              | 0,8  | MR002-90S/4                      | 2,60        | 19               | 102                  | MR176        |            |
| 142  | 71   | 9,87   | 941              | 1,1  | NR002-90S/4                      |             | 20               |                      | NR176        |            |
| 161  | 62   | 8,70   | 984              | 1,2  |                                  |             |                  |                      |              |            |
| 166  | 61   | 8,45   | 1050             | 1,2  |                                  |             |                  |                      |              |            |
| 179  | 56   | 7,84   | 1091             | 1,3  |                                  |             |                  |                      |              |            |
| 188  | 54   | 7,45   | 1076             | 1,3  |                                  |             |                  |                      |              |            |
| 203  | 50   | 6,91   | 1111             | 1,4  |                                  |             |                  |                      |              |            |
| 233  | 43   | 6,00   | 1109             | 1,5  |                                  |             |                  |                      |              |            |
| 251  | 40   | 5,57   | 1133             | 1,6  |                                  |             |                  |                      |              |            |
| 307  | 33   | 4,56   | 1056             | 1,8  |                                  |             |                  |                      |              |            |
| 359  | 28   | 3,90   | 1092             | 2,0  |                                  |             |                  |                      |              |            |
| 387  | 26   | 3,62   | 1104             | 2,0  |                                  |             |                  |                      |              |            |



# Motorlu Güç Devir Sayfaları

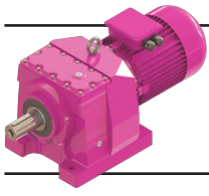
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



| Güç  | Çıkış Devri   | Çıkış Momenti                                       | Çevrim Oranı     | Güv. Rad. Yük Çıkış                                 | Servis Faktörü                   | Tipi         | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|---|---|------------------|---|----------------------------------|--------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds   | Output Torque                                       | Ratio            | Per.O. Loads (Output)                               | Service Factors                  | Type         | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle<br>Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle<br>Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte<br>(Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ          | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 1,1  | 405   | 25  | 6,91             | 1235  | 2,2                              | MR002-80/2b  | 2,40             | 16                   | 102          | MR177      |
| 1,5  | 467   | 22  | 6,00             | 1203  | 2,4                              | NR002-80/2b  |                  | 18                   |              | NR177      |
|  | 503   | 20  | 5,57             | 1199  | 2,5                              |              |                  |                      |              |            |
|  | 615   | 16  | 4,56             | 1120  | 2,8                              |              |                  |                      |              |            |
|  | 718   | 14  | 3,90             | 1108  | 3,1                              |              |                  |                      |              |            |
|  | 774   | 13  | 3,62             | 1100  | 3,2                              |              |                  |                      |              |            |
| 1,5  | 0,69  | 18576   | 2027,97          | 91307   | 1,0                              | MR975-90L/4  | 3,50             | 1026                 | 131          | MR371      |
| 2,0  | 0,77  | 16689   | 1820,78          | 102672  | 1,1                              | NR975-90L/4  |                  | 1076                 |              | NR371      |
|  | 0,90  | 14217   | 1552,10          | 115114  | 1,3                              |              |                  |                      |              |            |
|  | 1,0   | 12544   | 1368,27          | 122357  | 1,4                              |              |                  |                      |              |            |
|  | 1,2   | 11136   | 1213,85          | 127825  | 1,6                              |              |                  |                      |              |            |
|  | 1,3   | 9936  | 1082,31          | 132362  | 1,8                              |              |                  |                      |              |            |
|  | 1,5   | 8418  | 914,74           | 137195  | 2,1                              |              |                  |                      |              |            |
|  | 1,7   | 7751  | 842,80           | 139260  | 2,3                              |              |                  |                      |              |            |
|  | 1,9   | 6913  | 750,24           | 141742  | 2,6                              |              |                  |                      |              |            |
|  | 2,1   | 6117  | 662,54           | 143988  | 2,9                              |              |                  |                      |              |            |
|  | 2,4   | 5446  | 588,87           | 145792  | 3,3                              |              |                  |                      |              |            |
|  | 0,82  | 15532   | 1700,56          | 54554   | 0,8                              | MR875-90L/4  | 3,50             | 590                  | 128          | MR178      |
|  | 0,92  | 13899   | 1521,55          | 66871   | 0,9                              | NR875-90L/4  |                  | 595                  |              | NR178      |
|  | 1,0   | 12226   | 1336,15          | 76816   | 1,1                              |              |                  |                      |              |            |
|  | 1,2   | 11085   | 1210,51          | 82618   | 1,2                              |              |                  |                      |              |            |
|  | 1,3   | 9591  | 1049,18          | 89262   | 1,4                              |              |                  |                      |              |            |
|  | 1,5   | 8381  | 915,85           | 93938   | 1,6                              |              |                  |                      |              |            |
|  | 1,7   | 7400  | 807,91           | 97508   | 1,8                              |              |                  |                      |              |            |
|  | 2,0   | 6521  | 446,42           | 100411  | 2,0                              | MR874-100L/6 | 3,50             | 583                  | 127          | MR179      |
|  | 2,3   | 5718  | 390,74           | 102874  | 2,3                              | NR874-100L/6 |                  | 588                  |              | NR179      |
|  | 2,6   | 5067  | 345,67           | 104749  | 2,6                              |              |                  |                      |              |            |
|  | 3,1   | 4292  | 292,15           | 106840  | 3,0                              |              |                  |                      |              |            |
|  | 3,8   | 3523  | 239,61           | 108766  | 3,7                              |              |                  |                      |              |            |
|  | 1,5   | 8681  | 594,92           | 46075   | 0,9                              | MR774-100L/6 | 3,50             | 319                  | 124          | MR446      |
|  | 1,7   | 7769  | 532,29           | 49868   | 1,0                              | NR774-100L/6 |                  | 390                  |              | NR446      |
|  | 1,9   | 6834  | 467,43           | 53117   | 1,2                              |              |                  |                      |              |            |
|  | 2,2   | 6121  | 418,17           | 55359   | 1,3                              |              |                  |                      |              |            |
|  | 2,4   | 5581  | 594,92           | 57026   | 1,4                              | MR774-90L/4  | 3,50             | 313                  | 124          | MR447      |
|  | 2,6   | 4995  | 532,29           | 58645   | 1,6                              | NR774-90L/4  |                  | 380                  |              | NR447      |
|  | 3,0   | 4394  | 467,43           | 60184   | 1,8                              |              |                  |                      |              |            |
|  | 3,3   | 3935  | 418,17           | 61282   | 2,0                              |              |                  |                      |              |            |
|  | 3,9   | 3398  | 361,62           | 62484   | 2,4                              |              |                  |                      |              |            |
|  | 4,5   | 2947  | 313,11           | 63429   | 2,7                              |              |                  |                      |              |            |
|  | 5,1   | 2581  | 273,85           | 64151   | 3,1                              |              |                  |                      |              |            |
|  | 5,8   | 2278  | 241,42           | 64811   | 3,5                              |              |                  |                      |              |            |
|  | 6,5   | 2023  | 214,17           | 65289   | 4,0                              |              |                  |                      |              |            |
|  | 2,8   | 4692  | 500,39           | 23872   | 0,9                              | MR674-90L/4  | 3,50             | 232                  | 121          | MR448      |
|  | 3,2   | 4154  | 442,20           | 27234   | 1,0                              | NR674-90L/4  |                  | 243                  |              | NR448      |
|  | 3,7   | 3534  | 376,69           | 30429   | 1,2                              |              |                  |                      |              |            |
|  | 4,3   | 3042  | 323,82           | 32549   | 1,4                              |              |                  |                      |              |            |
|  | 5,0   | 2644  | 281,02           | 34150   | 1,6                              |              |                  |                      |              |            |
|  | 5,7   | 2314  | 245,67           | 35313   | 1,9                              |              |                  |                      |              |            |
|  | 6,5   | 2036  | 215,97           | 36194   | 2,1                              |              |                  |                      |              |            |

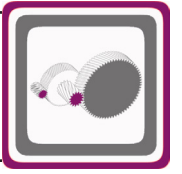




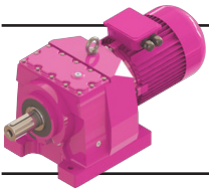
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



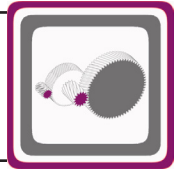
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi                | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|---------------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type                | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ                 | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 1,5<br>2,0   | 4,1  | 3232   | <b>343,91</b>    | 18265  | 0,9                              | <b>MR574-90L/4</b>  | 3,50             | 148                  | 118          | MR449      |
|  | 4,6  | 2839   | <b>301,59</b>    | 20766  | 1,1                              | <b>NR574-90L/4</b>  |                  | 132                  |              | NR449      |
|  | 5,4  | 2493   | <b>167,32</b>    | 22643  | 1,2                              | <b>MR573-100L/6</b> | 3,50             | 136                  | 117          | MR450      |
|  | 5,9  | 2288   | <b>153,61</b>    | 23689  | 1,3                              | <b>NR573-100L/6</b> |                  | 132                  |              | NR450      |
|  | 6,7  | 2005   | <b>134,45</b>    | 24912  | 1,5                              |                     |                  |                      |              |            |
|  | 7,6  | 1776   | <b>118,95</b>    | 25824  | 1,7                              |                     |                  |                      |              |            |
|  | 9,0  | 1503   | <b>100,53</b>    | 26829  | 2,0                              |                     |                  |                      |              |            |
|  | 11   | 1233   | <b>82,45</b>     | 27756  | 2,4                              |                     |                  |                      |              |            |
|  | 12   | 1090   | <b>72,81</b>     | 28181  | 2,8                              |                     |                  |                      |              |            |
|  | 14   | 970  | <b>64,72</b>     | 28500  | 3,1                              |                     |                  |                      |              |            |
|  | 16   | 822  | <b>54,74</b>     | 28954  | 3,7                              |                     |                  |                      |              |            |
|  | 18   | 733  | <b>48,74</b>     | 29184  | 4,0                              |                     |                  |                      |              |            |
|  | 7,2  | 1864   | <b>194,05</b>    | 9664   | 0,8                              | <b>MR473-90L/4</b>  | 3,50             | 95                   | 114          | MR188      |
|  | 8,9  | 1520   | <b>157,90</b>    | 15941  | 1,0                              | <b>NR473-90L/4</b>  |                  | 97                   |              | NR188      |
|  | 10   | 1344   | <b>139,54</b>    | 18160  | 1,2                              |                     |                  |                      |              |            |
|  | 11   | 1203   | <b>124,85</b>    | 19686  | 1,3                              |                     |                  |                      |              |            |
|  | 13   | 1058   | <b>109,64</b>    | 20100  | 1,5                              |                     |                  |                      |              |            |
|  | 15   | 885  | <b>91,58</b>     | 19278  | 1,8                              |                     |                  |                      |              |            |
|  | 16   | 836  | <b>86,52</b>     | 19016  | 1,9                              |                     |                  |                      |              |            |
|  | 18   | 758  | <b>157,90</b>    | 18593  | 2,0                              | <b>MR473-90S/2</b>  | 3,30             | 94                   | 114          | MR189      |
|  | 20   | 671  | <b>139,54</b>    | 18022  | 2,3                              | <b>NR473-90S/2</b>  |                  | 96                   |              | NR189      |
|  | 22   | 600  | <b>124,85</b>    | 17509  | 2,6                              |                     |                  |                      |              |            |
|  | 26   | 528  | <b>109,64</b>    | 16915  | 2,9                              |                     |                  |                      |              |            |
|  | 14   | 942  | <b>97,92</b>     | 9517   | 0,9                              | <b>MR373-90L/4</b>  | 3,50             | 56                   | 111          | MR190      |
|  | 16   | 833  | <b>86,57</b>     | 9398   | 1,0                              | <b>NR373-90L/4</b>  |                  | 59                   |              | NR190      |
|  | 19   | 702  | <b>72,81</b>     | 9188   | 1,2                              |                     |                  |                      |              |            |
|  | 23   | 598  | <b>61,91</b>     | 8956   | 1,4                              |                     |                  |                      |              |            |
|  | 26   | 513  | <b>53,04</b>     | 8711   | 1,6                              |                     |                  |                      |              |            |
|  | 29   | 464  | <b>48,00</b>     | 8543   | 1,8                              |                     |                  |                      |              |            |
|  | 39   | 355  | <b>23,33</b>     | 9919   | 2,3                              | <b>MR372-100L/6</b> | 3,50             | 58                   | 111          | MR191      |
|  | 44   | 314  | <b>20,62</b>     | 9476   | 2,6                              | <b>NR372-100L/6</b> |                  | 60                   |              | NR191      |
|  | 49   | 281  | <b>18,45</b>     | 9097   | 2,9                              |                     |                  |                      |              |            |
|  | 56   | 247  | <b>16,20</b>     | 8676   | 3,3                              |                     |                  |                      |              |            |
|  | 60   | 229  | <b>23,33</b>     | 8437   | 3,5                              | <b>MR372-90L/4</b>  | 3,50             | 55                   | 111          | MR192      |
|  | 68   | 203  | <b>20,62</b>     | 8069   | 3,8                              | <b>NR372-90L/4</b>  |                  | 57                   |              | NR192      |
|  | 76   | 181  | <b>18,45</b>     | 7753   | 4,0                              |                     |                  |                      |              |            |
|  | 18   | 729  | <b>75,68</b>     | 6130   | 0,8                              | <b>MR283-90L/4</b>  | 3,50             | 47                   | 108          | MR193      |
|  | 22   | 614  | <b>63,65</b>     | 6998   | 1,0                              | <b>NR283-90L/4</b>  |                  | 49                   |              | NR193      |
|  | 26   | 523  | <b>54,12</b>     | 6872   | 1,1                              |                     |                  |                      |              |            |
|  | 30   | 449  | <b>46,37</b>     | 6725   | 1,3                              |                     |                  |                      |              |            |
|  | 33   | 406  | <b>41,96</b>     | 6618   | 1,4                              |                     |                  |                      |              |            |
|  | 36   | 384  | <b>25,23</b>     | 8499   | 1,6                              | <b>MR282-100L/6</b> | 3,50             | 51                   | 108          | MR194      |
|  | 42   | 329  | <b>21,66</b>     | 8280   | 1,8                              | <b>NR282-100L/6</b> |                  | 53                   |              | NR194      |
|  | 46   | 297  | <b>30,37</b>     | 7962   | 1,9                              | <b>MR282-90L/4</b>  | 3,50             | 46                   | 108          | MR195      |
|  | 55   | 247  | <b>25,23</b>     | 7428   | 2,1                              | <b>NR282-90L/4</b>  |                  | 48                   |              | NR195      |
|  | 65   | 212  | <b>21,66</b>     | 7020   | 2,4                              |                     |                  |                      |              |            |
|  | 73   | 187  | <b>19,06</b>     | 6698   | 2,6                              |                     |                  |                      |              |            |
|  | 83   | 166  | <b>16,91</b>     | 6412   | 2,8                              |                     |                  |                      |              |            |



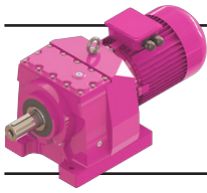
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



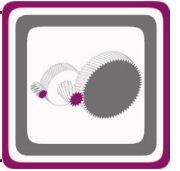
| Güç  | Çıkış Devri  | Çıkış Momenti  | Çevrim Oranı   | Güv. Rad. Yük Çıkış  | Servis Faktörü   | Tipi                       | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu     |
|--|--|--|--|--|--|----------------------------|------------------|----------------------|--------------|----------------|
| Power  | Output Speeds  | Output Torque  | Ratio  | Per.O. Loads (Output)  | Service Factors  | Type                       | Rated Current    | Weight               | Dim. Page    | Price Ref.     |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle<br>Drehzahlen<br>n <sub>2</sub> [r.p.m]                                      | Abtriebswelle<br>Drehmomente<br>M <sub>2</sub> [Nm]                                    | Übersetzung<br>i   | Zul.Querkräfte<br>(Abtrieb)<br>F <sub>qam</sub> [N]  | Betriebsfaktor<br>f <sub>s</sub>   | Typ                        | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.      |
| 1,5<br>2,0   | 98   | 141  | 14,31  | 6035   | 3,1  | MR282-90L/4<br>NR282-90L/4 | 3,50             | 46<br>48             | 108          | MR195<br>NR195 |
|  | 23<br>28<br>33<br>38<br>46   | 585<br>489<br>410<br>354<br>295  | 60,66<br>50,59<br>42,41<br>36,55<br>30,48  | 2.161<br>3.138<br>3.857<br>4.316<br>4.728  | 0,8<br>0,9<br>1,1<br>1,3<br>1,5  | MR273-90L/4<br>NR273-90L/4 | 3,50             | 38<br>40             | 106          | MR196<br>NR196 |
|  | 54<br>65<br>76<br>87<br>99<br>117  | 254<br>211<br>180<br>158<br>140<br>118   | 25,89<br>21,43<br>18,33<br>16,07<br>14,21<br>11,95   | 4.983<br>5.167<br>5.246<br>5.165<br>4.934<br>4.630   | 1,8<br>2,1<br>2,5<br>2,7<br>2,9<br>3,3   | MR272-90L/4<br>NR272-90L/4 | 3,50             | 37<br>39             | 106          | MR197<br>NR197 |
|  | 39<br>49<br>57<br>60   | 348<br>273<br>239<br>224   | 36,02<br>28,35<br>24,77<br>23,23   | 4942<br>3628<br>4055<br>4224   | 0,8<br>1,0<br>1,1<br>1,2   | MR203-90L/4<br>NR203-90L/4 | 3,50             | 38<br>39             | 105          | MR198<br>NR198 |
|  | 61<br>70<br>74<br>87<br>94<br>101<br>115<br>130<br>139<br>167<br>199<br>241                | 225<br>197<br>185<br>157<br>146<br>137<br>120<br>106<br>99<br>83<br>69<br>57           | 23,01<br>20,10<br>18,85<br>16,03<br>14,86<br>13,92<br>12,18<br>10,81<br>10,07<br>8,40<br>7,04<br>5,80              | 5187<br>5358<br>5418<br>5496<br>5340<br>5210<br>4954<br>4738<br>4616<br>4317<br>4048<br>3820                 | 1,2<br>1,3<br>1,4<br>1,6<br>1,6<br>1,7<br>1,9<br>2,0<br>2,1<br>2,4<br>2,7<br>3,1               | MR202-90L/4<br>NR202-90L/4 | 3,50             | 36<br>38             | 105          | MR199<br>NR199 |
|  | 67<br>77<br>82<br>96<br>111<br>126<br>147<br>157<br>184<br>212<br>242<br>293<br>343<br>414 | 205<br>179<br>168<br>143<br>125<br>109<br>94<br>88<br>75<br>65<br>57<br>47<br>40<br>33 | 20,92<br>18,28<br>17,14<br>14,57<br>12,66<br>11,08<br>9,53<br>8,94<br>7,60<br>6,60<br>5,78<br>4,78<br>4,09<br>3,38 | 3291<br>3192<br>3143<br>3018<br>2908<br>2804<br>2642<br>2596<br>2481<br>2382<br>2290<br>2164<br>2049<br>1934 | 1,0<br>1,1<br>1,2<br>1,4<br>1,5<br>1,7<br>1,8<br>1,9<br>2,1<br>2,2<br>2,4<br>2,8<br>3,0<br>3,3 | MR172-90L/4<br>NR172-90L/4 | 3,50             | 26<br>28             | 104          | MR200<br>NR200 |
|  | 424<br>485<br>586<br>685<br>829  | 32<br>28<br>24<br>20<br>17   | 6,60<br>5,78<br>4,78<br>4,09<br>3,38   | 1931<br>1852<br>1744<br>1653<br>1556   | 3,8<br>4,0<br>4,0<br>4,0<br>4,0  | MR172-90S/2<br>NR172-90S/2 | 3,30             | 26<br>28             | 104          | MR201<br>NR201 |
|  | 99<br>106<br>126<br>137  | 138<br>129<br>109<br>100   | 14,08<br>13,15<br>11,12<br>10,18   | 1472<br>1476<br>1474<br>1468   | 0,8<br>0,8<br>0,9<br>1,0   | MR102-90L/4<br>NR102-90L/4 | 3,50             | 25<br>26             | 103          | MR202<br>NR202 |



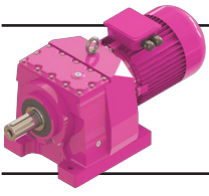
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



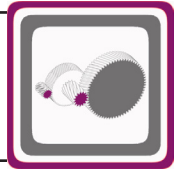
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi          | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |       |       |     |       |       |
|--|--|--|------------------|--|----------------------------------|---------------|------------------|----------------------|--------------|------------|-------|-------|-----|-------|-------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type          | Rated Current    | Weight               | Dim. Page    | Price Ref. |       |       |     |       |       |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ           | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |       |       |     |       |       |
| 1,5<br>2,0   | 151  | 91   | 9,29             | 1459   | 1,0                              | MR102-90L/4   | 3,50             | 25                   | 103          | MR202      |       |       |     |       |       |
|  | 175  | 79   | 8,01             | 1438   | 1,1                              | NR102-90L/4   |                  | 26                   |              |            | NR202 |       |     |       |       |
|  | 202  | 68   | 6,93             | 1366   | 1,3                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 216  | 64   | 6,48             | 1355   | 1,3                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 256  | 54   | 5,47             | 1324   | 1,5                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 279  | 49   | 5,01             | 1306   | 1,6                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 306  | 45   | 4,57             | 1286   | 1,7                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 355  | 39   | 3,94             | 1251   | 1,8                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 404  | 34   | 6,93             | 1219   | 2,1                              | MR102-90S/2   |                  | 3,30                 |              |            |       | 24    | 103 | MR203 |       |
|  | 432  | 32   | 6,48             | 1202   | 2,2                              | NR102-90S/2   |                  |                      |              |            |       | 26    |     |       | NR203 |
|  | 512  | 27   | 5,47             | 1158   | 2,4                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 559  | 25   | 5,01             | 1134   | 2,4                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 613  | 22   | 4,57             | 1109   | 2,7                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 710  | 19   | 3,94             | 1070   | 2,8                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 142  | 97   | 9,87             | 336  | 0,8                              | MR002-90L/4   |                  | 3,50                 |              |            |       | 22    | 102 | MR204 |       |
|  | 161  | 85   | 8,70             | 433  | 0,9                              | NR002-90L/4   | 23               |                      | NR204        |            |       |       |     |       |       |
|  | 166  | 83   | 8,45             | 531  | 0,9                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 179  | 77   | 7,84             | 610  | 0,9                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 188  | 73   | 7,45             | 604  | 1,0                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 203  | 68   | 6,91             | 673  | 1,0                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 233  | 59   | 6,00             | 709  | 1,1                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 251  | 55   | 5,57             | 763  | 1,2                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 307  | 45   | 4,56             | 708  | 1,3                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 359  | 38   | 3,90             | 794  | 1,4                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 387  | 36   | 3,62             | 828  | 1,5                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 405  | 34   | 6,91             | 1016   | 1,6                              | MR002-90S/2   | 3,30             |                      |              | 21         | 102   | MR205 |     |       |       |
|  | 467  | 29   | 6,00             | 1003   | 1,8                              | NR002-90S/2   |                  |                      |              | 23         |       |       |     |       | NR205 |
|  | 503  | 27   | 5,57             | 1014   | 1,9                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 615  | 22   | 4,56             | 945  | 2,1                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 718  | 19   | 3,90             | 959  | 2,3                              |               |                  |                      |              |            |       |       |     |       |       |
| 774  | 18   | 3,62   | 962              | 2,4  |                                  |               |                  |                      |              |            |       |       |     |       |       |
| 2,2<br>3,0   | 0,90   | 20852  | 1552,10          | 74382  | 0,9                              | MR975-100L/4a | 5,10             | 1110                 | 131          | MR372      |       |       |     |       |       |
|  | 1,0  | 18397  | 1368,27          | 92469  | 1,0                              | NR975-100L/4a |                  | 1160                 |              |            | NR372 |       |     |       |       |
|  | 1,2  | 16333  | 1213,85          | 104614   | 1,1                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 1,3  | 14573  | 1082,31          | 113462   | 1,2                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 1,5  | 12347  | 914,74           | 122911   | 1,5                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 1,7  | 11369  | 842,80           | 126908   | 1,6                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 1,9  | 10140  | 750,24           | 131615   | 1,8                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 2,1  | 8971   | 662,54           | 135418   | 2,0                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 2,4  | 7988   | 588,87           | 138537   | 2,3                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 2,6  | 7407   | 546,94           | 140296   | 2,4                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 2,7  | 7059   | 510,11           | 141319   | 2,5                              | MR974-100L/4a |                  | 5,10                 |              |            |       | 1125  | 130 | MR373 |       |
|  | 3,1  | 6344   | 457,99           | 143358   | 2,8                              | NR974-100L/4a |                  |                      |              |            |       | 1175  |     |       | NR373 |
|  | 3,6  | 5407   | 390,41           | 145895   | 3,3                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 1,2  | 16258  | 1210,51          | 47959  | 0,8                              | MR875-100L/4a |                  | 5,10                 |              |            |       | 615   | 128 | MR206 |       |
|  | 1,3  | 14067  | 1049,18          | 65987  | 0,9                              | NR875-100L/4a |                  |                      |              |            |       | 620   |     |       | NR206 |
|  | 1,5  | 12292  | 915,85           | 76459  | 1,1                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 1,7  | 10854  | 807,91           | 83711  | 1,2                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 1,9  | 9664   | 718,74           | 88960  | 1,3                              |               |                  |                      |              |            |       |       |     |       |       |
|  | 2,3  | 8386   | 390,74           | 93920  | 1,6                              | MR874-112M/6  | 5,10             | 605                  | 127          | MR207      |       |       |     |       |       |
|  | 2,6  | 7431   | 345,67           | 97403  | 1,7                              | NR874-112M/6  |                  | 610                  |              |            | NR207 |       |     |       |       |



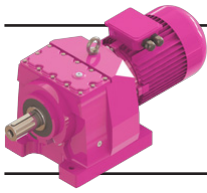
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



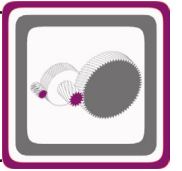
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi          | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|---------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type          | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ           | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 2,2<br>3,0   | 3,1  | 6148   | 446,42           | 101575   | 2,1                              | MR874-100L/4a | 5,10             | 600                  | 127          | MR208      |
|  | 3,6  | 5391   | 390,74           | 103828   | 2,4                              | NR874-100L/4a |                  | 605                  |              | NR208      |
|  | 4,1  | 4777   | 345,67           | 105548   | 2,7                              |               |                  |                      |              |            |
|  | 4,8  | 4046   | 292,15           | 107471   | 3,2                              |               |                  |                      |              |            |
|  | 5,8  | 3322   | 239,61           | 109247   | 3,9                              |               |                  |                      |              |            |
|  | 2,4  | 8185   | 594,92           | 48159  | 1,0                              | MR774-100L/4a | 5,10             | 324                  | 124          | MR451      |
|  | 2,6  | 7325   | 532,29           | 51343  | 1,1                              | NR774-100L/4a |                  | 397                  |              | NR451      |
|  | 3,0  | 6444   | 467,43           | 54375  | 1,2                              |               |                  |                      |              |            |
|  | 3,3  | 5771   | 418,17           | 56475  | 1,4                              |               |                  |                      |              |            |
|  | 3,9  | 4984   | 361,62           | 58672  | 1,6                              |               |                  |                      |              |            |
|  | 4,5  | 4322   | 313,11           | 60359  | 1,9                              |               |                  |                      |              |            |
|  | 5,1  | 3786   | 273,85           | 61625  | 2,1                              |               |                  |                      |              |            |
|  | 5,8  | 3341   | 241,42           | 62607  | 2,4                              |               |                  |                      |              |            |
|  | 6,5  | 2968   | 214,17           | 63387  | 2,7                              |               |                  |                      |              |            |
|  | 7,3  | 2649   | 190,96           | 64020  | 3,0                              |               |                  |                      |              |            |
|  | 4,6  | 4300   | 196,61           | 26433  | 1,0                              | MR673-112M/6  | 5,10             | 195                  | 120          | MR452      |
|  | 5,1  | 3829   | 174,89           | 29022  | 1,1                              | NR673-112M/6  |                  | 196                  |              | NR452      |
|  | 6,0  | 3269   | 149,11           | 31639  | 1,3                              |               |                  |                      |              |            |
|  | 7,3  | 2721   | 124,07           | 33858  | 1,6                              |               |                  |                      |              |            |
|  | 8,1  | 2427   | 110,55           | 34930  | 1,8                              |               |                  |                      |              |            |
|  | 6,7  | 2945   | 134,45           | 20141  | 1,0                              | MR573-112M/6  | 5,10             | 143                  | 117          | MR453      |
|  | 7,6  | 2608   | 118,95           | 22061  | 1,2                              | NR573-112M/6  |                  | 149                  |              | NR453      |
|  | 8,4  | 2361   | 167,32           | 23297  | 1,3                              | MR573-100L/4a | 5,10             | 133                  | 117          | MR454      |
|  | 9,1  | 2167   | 153,61           | 24211  | 1,4                              | NR573-100L/4a |                  | 139                  |              | NR454      |
|  | 10   | 1899   | 134,45           | 25379  | 1,6                              |               |                  |                      |              |            |
|  | 12   | 1682   | 118,95           | 26195  | 1,8                              |               |                  |                      |              |            |
|  | 14   | 1424   | 100,53           | 24004  | 2,1                              |               |                  |                      |              |            |
|  | 17   | 1169   | 82,45            | 27936  | 2,6                              |               |                  |                      |              |            |
|  | 19   | 1033   | 72,81            | 28344  | 2,9                              |               |                  |                      |              |            |
|  | 22   | 919  | 64,72            | 27884  | 3,3                              |               |                  |                      |              |            |
|  | 26   | 779  | 54,74            | 26593  | 3,9                              |               |                  |                      |              |            |
|  | 29   | 695  | 48,74            | 25718  | 4,0                              |               |                  |                      |              |            |
|  | 10   | 1973   | 139,54           | 6265   | 0,8                              | MR473-100L/4a | 5,10             | 101                  | 114          | MR218      |
|  | 11   | 1765   | 124,85           | 11889  | 0,9                              | NR473-100L/4a |                  | 104                  |              | NR218      |
|  | 13   | 1552   | 109,64           | 15509  | 1,0                              |               |                  |                      |              |            |
|  | 15   | 1298   | 91,58            | 18002  | 1,2                              |               |                  |                      |              |            |
|  | 16   | 1227   | 86,52            | 17811  | 1,3                              |               |                  |                      |              |            |
|  | 17   | 1196   | 84,46            | 17728  | 1,3                              |               |                  |                      |              |            |
|  | 19   | 1037   | 73,09            | 17218  | 1,5                              |               |                  |                      |              |            |
|  | 22   | 905  | 63,70            | 16715  | 1,7                              |               |                  |                      |              |            |
|  | 25   | 794  | 55,82            | 16219  | 2,0                              |               |                  |                      |              |            |
|  | 29   | 698  | 49,05            | 15728  | 2,2                              |               |                  |                      |              |            |
|  | 33   | 609  | 42,75            | 15204  | 2,5                              |               |                  |                      |              |            |
|  | 37   | 534  | 37,45            | 14699  | 2,9                              |               |                  |                      |              |            |
| 45   | 442  | 30,93  | 13976            | 3,5  |                                  |               |                  |                      |              |            |
|  | 19   | 1030   | 72,81            | 7353   | 0,8                              | MR373-100L/4a | 5,10             | 60                   | 111          | MR219      |
|  | 23   | 877  | 61,91            | 7928   | 0,9                              | NR373-100L/4a |                  | 61                   |              | NR219      |
|  | 26   | 752  | 53,04            | 7830   | 1,1                              |               |                  |                      |              |            |
|  | 29   | 681  | 48,00            | 7746   | 1,2                              |               |                  |                      |              |            |
|  | 34   | 584  | 41,16            | 7591   | 1,4                              |               |                  |                      |              |            |
|  | 40   | 501  | 35,25            | 7409   | 1,6                              |               |                  |                      |              |            |
|  | 47   | 420  | 29,47            | 7175   | 1,8                              |               |                  |                      |              |            |
|  | 55   | 360  | 25,27            | 6959   | 2,0                              |               |                  |                      |              |            |



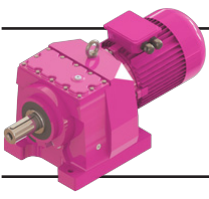
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



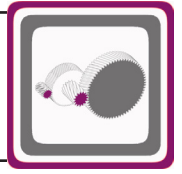
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi          | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|---------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type          | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ           | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 2,2<br>3,0   | 60   | 336  | 23,33            | 8604   | 2,4                              | MR372-100L/4a | 5,10             | 59                   | 111          | MR220      |
|  | 68   | 298  | 20,62            | 8218   | 2,6                              | NR372-100L/4a |                  | 62                   |              | NR220      |
|  | 76   | 266  | 18,45            | 7887   | 2,8                              |               |                  |                      |              |            |
|  | 86   | 234  | 16,20            | 7519   | 3,0                              |               |                  |                      |              |            |
|  | 103  | 196  | 13,53            | 7042   | 3,4                              |               |                  |                      |              |            |
|  | 112  | 180  | 12,48            | 6839   | 3,6                              |               |                  |                      |              |            |
|  | 26   | 767  | 54,12            | 4765   | 0,8                              | MR283-100L/4a | 5,10             | 53                   | 108          | MR221      |
|  | 30   | 658  | 46,37            | 5875   | 0,9                              | NR283-100L/4a |                  | 55                   |              | NR221      |
|  | 33   | 596  | 41,96            | 5849   | 0,9                              |               |                  |                      |              |            |
|  | 39   | 511  | 35,98            | 5780   | 1,0                              |               |                  |                      |              |            |
|  | 45   | 438  | 30,82            | 5683   | 1,1                              |               |                  |                      |              |            |
|  | 55   | 363  | 25,23            | 6832   | 1,5                              | MR282-100L/4a | 5,10             | 50                   | 108          | MR222      |
|  | 65   | 312  | 21,66            | 7039   | 1,6                              | NR282-100L/4a |                  | 54                   |              | NR222      |
|  | 73   | 275  | 19,06            | 6849   | 1,7                              |               |                  |                      |              |            |
|  | 83   | 244  | 16,91            | 6547   | 1,9                              |               |                  |                      |              |            |
|  | 98   | 207  | 14,31            | 6151   | 2,1                              |               |                  |                      |              |            |
|  | 114  | 177  | 12,24            | 5806   | 2,4                              |               |                  |                      |              |            |
|  | 132  | 153  | 10,57            | 5500   | 2,7                              |               |                  |                      |              |            |
|  | 146  | 139  | 9,61             | 5313   | 2,9                              |               |                  |                      |              |            |
|  | 168  | 121  | 8,33             | 5044   | 3,2                              |               |                  |                      |              |            |
|  | 38   | 519  | 36,55            | 1423   | 0,9                              | MR273-100L/4a | 5,10             | 43                   | 106          | MR223      |
|  | 46   | 434  | 30,48            | 2315   | 1,0                              | NR273-100L/4a |                  | 45                   |              | NR223      |
|  | 55   | 364  | 25,55            | 2976   | 1,2                              |               |                  |                      |              |            |
|  | 65   | 309  | 21,43            | 3470   | 1,5                              | MR272-100L/4a | 5,10             | 41                   | 106          | MR224      |
|  | 76   | 264  | 18,33            | 3795   | 1,7                              | NR272-100L/4a |                  | 43                   |              | NR224      |
|  | 87   | 232  | 16,07            | 3998   | 1,8                              |               |                  |                      |              |            |
|  | 99   | 205  | 14,21            | 4140   | 2,0                              |               |                  |                      |              |            |
|  | 117  | 173  | 11,95            | 4272   | 2,3                              |               |                  |                      |              |            |
|  | 138  | 147  | 10,16            | 4336   | 2,5                              |               |                  |                      |              |            |
|  | 161  | 126  | 8,71             | 4204   | 2,9                              |               |                  |                      |              |            |
|  | 225  | 90   | 6,21             | 3758   | 3,7                              |               |                  |                      |              |            |
|  | 265  | 77   | 5,28             | 3539   | 3,5                              |               |                  |                      |              |            |
|  | 57   | 351  | 24,77            | 1150   | 0,8                              | MR203-100L/4a | 5,10             | 41                   | 105          | MR225      |
|  | 60   | 329  | 23,23            | 1500   | 0,8                              | NR203-100L/4a |                  | 43                   |              | NR225      |
|  | 70   | 289  | 20,10            | 3383   | 0,9                              | MR202-100L/4a | 5,10             | 41                   | 105          | MR226      |
|  | 74   | 271  | 18,85            | 3566   | 1,0                              | NR202-100L/4a |                  | 43                   |              | NR226      |
|  | 87   | 231  | 16,03            | 3943   | 1,1                              |               |                  |                      |              |            |
|  | 94   | 214  | 14,86            | 4082   | 1,1                              |               |                  |                      |              |            |
|  | 101  | 201  | 13,92            | 4186   | 1,2                              |               |                  |                      |              |            |
|  | 115  | 176  | 12,18            | 4354   | 1,3                              |               |                  |                      |              |            |
|  | 130  | 156  | 10,81            | 4461   | 1,4                              |               |                  |                      |              |            |
|  | 139  | 146  | 10,07            | 4506   | 1,4                              |               |                  |                      |              |            |
|  | 167  | 122  | 8,40             | 4416   | 1,6                              |               |                  |                      |              |            |
|  | 199  | 102  | 7,04             | 4132   | 1,8                              |               |                  |                      |              |            |
|  | 241  | 84   | 5,80             | 3911   | 2,1                              |               |                  |                      |              |            |
|  | 276  | 73   | 5,08             | 3718   | 2,2                              |               |                  |                      |              |            |
|  | 311  | 65   | 4,50             | 3554   | 2,3                              |               |                  |                      |              |            |
|  | 333  | 61   | 4,20             | 3462   | 2,4                              |               |                  |                      |              |            |
|  | 400  | 51   | 3,50             | 3236   | 2,5                              |               |                  |                      |              |            |
|  | 77   | 263  | 18,28            | 2933   | 0,8                              | MR172-100L/4a | 5,10             | 31                   | 104          | MR227      |
|  | 82   | 247  | 17,14            | 2909   | 0,8                              | NR172-100L/4a |                  | 33                   |              | NR227      |
|  | 96   | 210  | 14,57            | 2834   | 0,9                              |               |                  |                      |              |            |



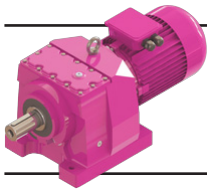
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



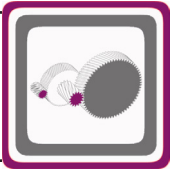
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi          | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |      |       |       |
|--|--|--|------------------|--|----------------------------------|---------------|------------------|----------------------|--------------|------------|------|-------|-------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type          | Rated Current    | Weight               | Dim. Page    | Price Ref. |      |       |       |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ           | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |      |       |       |
| 2,2<br>3,0   | 111  | 183  | 12,66            | 2759   | 1,0                              | MR172-100L/4a | 5,10             | 31                   | 104          | MR227      |      |       |       |
|  | 126  | 160  | 11,08            | 2680   | 1,1                              | NR172-100L/4a |                  | 33                   |              |            |      |       |       |
|  | 147  | 138  | 9,53             | 2514   | 1,2                              |               |                  |                      |              |            |      |       |       |
|  | 157  | 129  | 8,94             | 2479   | 1,3                              |               |                  |                      |              |            |      |       |       |
|  | 184  | 110  | 7,60             | 2387   | 1,5                              |               |                  |                      |              |            |      |       |       |
|  | 212  | 96   | 6,60             | 2305   | 1,5                              |               |                  |                      |              |            |      |       |       |
|  | 242  | 84   | 5,78             | 2226   | 1,6                              |               |                  |                      |              |            |      |       |       |
|  | 293  | 69   | 4,78             | 2113   | 1,9                              |               |                  |                      |              |            |      |       |       |
|  | 343  | 59   | 4,09             | 2000   | 2,0                              |               |                  |                      |              |            |      |       |       |
|  | 414  | 49   | 3,38             | 1895   | 2,2                              |               |                  |                      |              |            |      |       |       |
|  | 424  | 48   | 6,60             | 1900   | 2,6                              | MR172-90L/2   |                  | 4,65                 |              |            | 28   | 104   | MR228 |
|  | 485  | 42   | 5,78             | 1825   | 2,9                              | NR172-90L/2   |                  |                      |              |            | 30   |       | NR228 |
|  | 586  | 35   | 4,78             | 1723   | 3,2                              |               |                  |                      |              |            |      |       |       |
|  | 685  | 30   | 4,09             | 1632   | 3,4                              |               |                  |                      |              |            |      |       |       |
| 829  | 25   | 3,38   | 1540             | 3,5  |                                  |               |                  |                      |              |            |      |       |       |
| 3,0<br>4,0   | 1,2  | 22272  | 1213,85          | 61087  | 0,8                              | MR975-100L/4b | 6,45             | 1125                 | 131          | MR374      |      |       |       |
|  | 1,3  | 19872  | 1082,31          | 82275  | 0,9                              | NR975-100L/4b |                  | 1175                 |              |            |      |       |       |
|  | 1,5  | 16836  | 914,74           | 101851   | 1,1                              |               |                  |                      |              |            |      |       |       |
|  | 1,7  | 15503  | 842,80           | 108936   | 1,2                              |               |                  |                      |              |            |      |       |       |
|  | 1,9  | 13827  | 750,24           | 116879   | 1,3                              |               |                  |                      |              |            |      |       |       |
|  | 2,1  | 12234  | 662,54           | 123385   | 1,5                              |               |                  |                      |              |            |      |       |       |
|  | 2,4  | 10893  | 588,87           | 128620   | 1,7                              |               |                  |                      |              |            |      |       |       |
|  | 2,6  | 10100  | 546,94           | 131761   | 1,8                              |               |                  |                      |              |            |      |       |       |
|  | 2,7  | 9627   | 510,11           | 133235   | 1,9                              | MR974-100L/4b |                  | 6,45                 |              |            | 1140 | 130   | MR375 |
|  | 3,1  | 8651   | 457,99           | 136453   | 2,1                              | NR974-100L/4b |                  |                      |              |            | 1190 |       |       |
|  | 3,6  | 7374   | 390,41           | 140395   | 2,4                              |               |                  |                      |              |            |      |       |       |
|  | 4,1  | 6508   | 344,17           | 142899   | 2,8                              |               |                  |                      |              |            |      |       |       |
|  | 4,6  | 5780   | 305,33           | 144903   | 3,1                              |               |                  |                      |              |            |      |       |       |
|  | 2,6  | 10133  | 345,67           | 86964  | 1,3                              | MR874-132S/6  | 6,90             | 605                  | 127          | MR229      |      |       |       |
|  |  |  |                  |  |                                  | NR874-132S/6  |                  | 610                  |              |            |      |       |       |
|  | 3,1  | 8384   | 446,42           | 93930  | 1,6                              | MR874-100L/4b | 6,45             | 598                  | 127          | MR230      |      |       |       |
|  | 3,6  | 7352   | 390,74           | 97675  | 1,8                              | NR874-100L/4b |                  | 603                  |              |            |      |       |       |
|  | 4,1  | 6514   | 345,67           | 100430   | 2,0                              |               |                  |                      |              |            |      |       |       |
|  | 4,8  | 5518   | 292,15           | 103462   | 2,4                              |               |                  |                      |              |            |      |       |       |
|  | 5,8  | 4530   | 239,61           | 106213   | 2,9                              |               |                  |                      |              |            |      |       |       |
|  | 6,6  | 4007   | 211,60           | 107571   | 3,2                              |               |                  |                      |              |            |      |       |       |
|  | 7,4  | 3567   | 188,08           | 108661   | 3,6                              |               |                  |                      |              |            |      |       |       |
|  | 8,0  | 3307   | 174,68           | 109282   | 3,9                              |               |                  |                      |              |            |      |       |       |
|  | 9,5  | 2801   | 147,61           | 110614   | 4,0                              |               |                  |                      |              |            |      |       |       |
| 11   | 2391   | 125,70   | 111557           | 4,0  |                                  |               |                  |                      |              |            |      |       |       |
| 13   | 2050   | 107,60   | 112313           | 4,0  |                                  |               |                  |                      |              |            |      |       |       |
| 3,3  | 7869   | 418,17   | 49511            | 1,0  | MR774-100L/4b                    | 6,45          |                  | 316                  |              |            | 124  | MR455 |       |
| 3,9  | 6797   | 361,62   | 53242            | 1,2  | NR774-100L/4b                    |               |                  | 385                  |              |            |      |       |       |
| 4,3  | 6227   | 208,82   | 55042            | 1,3  | MR773-132S/6                     | 6,90          | 300              | 123                  | MR456        |            |      |       |       |
| 5,0  | 5338   | 178,78   | 57711            | 1,5  | NR773-132S/6                     |               | 369              |                      |              |            |      |       |       |
| 6,1  | 4442   | 148,73   | 60064            | 1,8  |                                  |               |                  |                      |              |            |      |       |       |
| 6,8  | 3978   | 133,05   | 61182            | 2,0  |                                  |               |                  |                      |              |            |      |       |       |
| 7,8  | 3437   | 115,06   | 62400            | 2,3  |                                  |               |                  |                      |              |            |      |       |       |
| 9,0  | 2980   | 99,63  | 63361            | 2,7  |                                  |               |                  |                      |              |            |      |       |       |
| 10   | 2610   | 87,13  | 64096            | 3,1  |                                  |               |                  |                      |              |            |      |       |       |
| 12   | 2303   | 76,81  | 64763            | 3,5  |                                  |               |                  |                      |              |            |      |       |       |
| 13   | 2045   | 68,15  | 65248            | 3,9  |                                  |               |                  |                      |              |            |      |       |       |



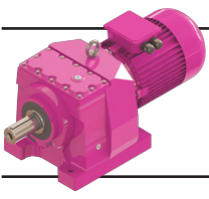
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



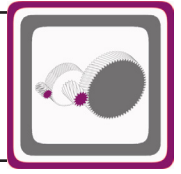
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi          | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |       |
|--|--|--|------------------|--|----------------------------------|---------------|------------------|----------------------|--------------|------------|-------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type          | Rated Current    | Weight               | Dim. Page    | Price Ref. |       |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ           | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |       |
| 3,0<br>4,0   | 6,0  | 4454   | 149,11           | 25453  | 1,0                              | MR673-132S/6  | 6,90             | 212                  | 120          | MR457      |       |
|  | 7,3  | 3707   | 124,07           | 29598  | 1,2                              | NR673-132S/6  |                  | 214                  |              | NR457      |       |
|  | 8,1  | 3306   | 110,55           | 31505  | 1,3                              |               |                  |                      |              |            |       |
|  | 9,6  | 2814   | 94,17            | 33525  | 1,5                              |               |                  |                      |              |            |       |
|  | 11   | 2423   | 80,96            | 34947  | 1,8                              |               |                  |                      |              |            |       |
|  | 13   | 2105   | 70,26            | 36024  | 2,0                              |               |                  |                      |              |            |       |
|  | 15   | 1843   | 61,42            | 36804  | 2,3                              |               |                  |                      |              |            |       |
|  | 17   | 1622   | 53,99            | 37216  | 2,7                              |               |                  |                      |              |            |       |
|  | 17   | 1581   | 52,68            | 36968  | 2,7                              |               |                  |                      |              |            |       |
|  | 20   | 1361   | 45,29            | 35463  | 3,2                              |               |                  |                      |              |            |       |
|  | 23   | 1183   | 39,30            | 34080  | 3,6                              |               |                  |                      |              |            |       |
|  | 26   | 1036   | 34,36            | 32796  | 4,0                              |               |                  |                      |              |            |       |
|  |  | 8,4  | 3221             | 167,32   | 18287                            | 0,9           | MR573-100L/4b    | 6,45                 | 138          | 117        | MR458 |
|  |  | 9,1  | 2957             | 153,61   | 20056                            | 1,0           | NR573-100L/4b    |                      | 132          |            | NR458 |
|  |  | 10   | 2591             | 134,45   | 22163                            | 1,2           |                  |                      |              |            |       |
|  |  | 12   | 2295             | 118,95   | 23633                            | 1,3           |                  |                      |              |            |       |
|  |  | 14   | 1943             | 100,53   | 25161                            | 1,5           |                  |                      |              |            |       |
|  |  | 17   | 1595             | 82,45  | 26505                            | 1,9           |                  |                      |              |            |       |
|  |  | 19   | 1410             | 72,81  | 27143                            | 2,1           |                  |                      |              |            |       |
|  |  | 22   | 1254             | 64,72  | 27076                            | 2,4           |                  |                      |              |            |       |
|  |  | 26   | 1063             | 54,74  | 25909                            | 2,8           |                  |                      |              |            |       |
|  |  | 29   | 948              | 48,74  | 25110                            | 3,2           |                  |                      |              |            |       |
|  |  | 35   | 778              | 39,98  | 23769                            | 3,7           |                  |                      |              |            |       |
|  |  | 40   | 688              | 35,31  | 22947                            | 4,0           |                  |                      |              |            |       |
|  |  | 45   | 612              | 31,38  | 22183                            | 4,0           |                  |                      |              |            |       |
|  |  | 15   | 1771             | 91,58  | 11771                            | 0,9           | MR473-100L/4b    | 6,45                 | 103          | 114        | MR239 |
|  | 16   | 1674   | 86,52            | 13603  | 0,9                              | NR473-100L/4b |                  | 106                  |              | NR239      |       |
|  | 17   | 1632   | 84,46            | 14272  | 0,9                              |               |                  |                      |              |            |       |
|  | 19   | 1415   | 73,09            | 16054  | 1,1                              |               |                  |                      |              |            |       |
|  | 22   | 1234   | 63,70            | 15700  | 1,3                              |               |                  |                      |              |            |       |
|  | 25   | 1083   | 55,82            | 15331  | 1,4                              |               |                  |                      |              |            |       |
|  | 29   | 952  | 49,05            | 14948  | 1,6                              |               |                  |                      |              |            |       |
|  | 33   | 831  | 42,75            | 14523  | 1,9                              |               |                  |                      |              |            |       |
|  | 37   | 729  | 37,45            | 14103  | 2,1                              |               |                  |                      |              |            |       |
|  | 41   | 676  | 22,15            | 13834  | 2,3                              | MR472-132S/6  | 6,90             | 105                  | 114          | MR240      |       |
|  | 48   | 572  | 18,72            | 13286  | 2,7                              | NR472-132S/6  |                  | 108                  |              | NR240      |       |
|  | 52   | 527  | 17,25            | 13018  | 2,8                              |               |                  |                      |              |            |       |
|  | 59   | 469  | 15,35            | 12638  | 3,0                              |               |                  |                      |              |            |       |
|  | 26   | 1026   | 53,04            | 6824   | 0,8                              | MR373-100L/4b | 6,45             | 63                   | 111          | MR241      |       |
|  | 29   | 929  | 48,00            | 6835   | 0,9                              | NR373-100L/4b |                  | 66                   |              | NR241      |       |
|  | 34   | 796  | 41,16            | 6810   | 1,0                              |               |                  |                      |              |            |       |
|  | 40   | 683  | 35,25            | 6740   | 1,1                              |               |                  |                      |              |            |       |
|  | 47   | 573  | 29,47            | 6616   | 1,3                              |               |                  |                      |              |            |       |
|  | 55   | 491  | 25,27            | 6479   | 1,4                              |               |                  |                      |              |            |       |
|  | 60   | 459  | 23,33            | 8211   | 1,8                              | MR372-100L/4b | 6,45             | 61                   | 111          | MR242      |       |
|  | 68   | 406  | 20,62            | 8382   | 1,9                              | NR372-100L/4b |                  | 63                   |              | NR242      |       |
|  | 76   | 363  | 18,45            | 8035   | 2,0                              |               |                  |                      |              |            |       |
|  | 86   | 319  | 16,20            | 7651   | 2,2                              |               |                  |                      |              |            |       |
|  | 103  | 267  | 13,53            | 7153   | 2,5                              |               |                  |                      |              |            |       |
|  | 112  | 246  | 12,48            | 6942   | 2,6                              |               |                  |                      |              |            |       |
|  | 130  | 213  | 10,80            | 6582   | 2,9                              |               |                  |                      |              |            |       |
|  | 149  | 186  | 9,41             | 6259   | 3,2                              |               |                  |                      |              |            |       |
|  | 170  | 163  | 8,25             | 5965   | 3,4                              |               |                  |                      |              |            |       |



# Motorlu Güç Devir Sayfaları

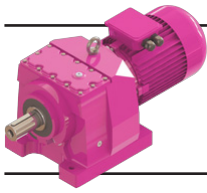
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



| Güç  | Çıkış Devri  | Çıkış Momenti  | Çevrim Oranı  | Güv. Rad. Yük Çıkış  | Servis Faktörü  | Tipi                           | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu     |
|--|--|--|---|--|---|--------------------------------|------------------|----------------------|--------------|----------------|
| Power  | Output Speeds  | Output Torque  | Ratio   | Per.O. Loads (Output)  | Service Factors   | Type                           | Rated Current    | Weight               | Dim. Page    | Price Ref.     |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle<br>Drehzahlen<br>n <sub>2</sub> [r.p.m]  | Abtriebswelle<br>Drehmomente<br>M <sub>2</sub> [Nm]  | Übersetzung<br>i  | Zul.Querkräfte<br>(Abtrieb)<br>F <sub>qam</sub> [N]  | Betriebsfaktor<br>f <sub>s</sub>  | Typ                            | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.      |
| 3,0<br>4,0   | 45   | 598  | 30,82   | 5037   | 0,8   | MR283-100L/4b<br>NR283-100L/4b | 6,45             | 55<br>57             | 108          | MR243<br>NR243 |
|  | 55<br>65<br>73<br>83<br>98<br>114<br>132<br>146<br>168<br>194<br>224<br>262<br>303<br>333<br>385 | 496<br>425<br>375<br>333<br>282<br>242<br>209<br>190<br>165<br>143<br>123<br>106<br>91<br>83<br>72 | 25,23<br>21,66<br>19,06<br>16,91<br>14,31<br>12,24<br>10,57<br>9,61<br>8,33<br>7,21<br>6,25<br>5,35<br>4,62<br>4,20<br>3,64 | 4672<br>5186<br>5514<br>5748<br>5978<br>5916<br>5597<br>5402<br>5121<br>4856<br>4675<br>4412<br>4179<br>4037<br>3831 | 1,1<br>1,2<br>1,3<br>1,4<br>1,6<br>1,7<br>2,0<br>2,1<br>2,4<br>2,6<br>2,9<br>3,0<br>3,1<br>3,1<br>3,3 | MR282-100L/4b<br>NR282-100L/4b | 6,45             | 53<br>55             | 108          | MR244<br>NR244 |
|  | 55   | 497  | 25,55   | 664  | 0,9   | MR273-100L/4b<br>NR273-100L/4b | 6,45             | 45<br>47             | 106          | MR245<br>NR245 |
|  | 65<br>76<br>87<br>99<br>117<br>138<br>161<br>225<br>265<br>309                                   | 422<br>361<br>317<br>280<br>236<br>201<br>172<br>123<br>105<br>90                                  | 21,43<br>18,33<br>16,07<br>14,21<br>11,95<br>10,16<br>8,71<br>6,21<br>5,28<br>4,53  | 1.532<br>2.137<br>2.544<br>2.855<br>3.190<br>3.416<br>3.565<br>3.439<br>3.490<br>3.401                               | 1,1<br>1,2<br>1,3<br>1,5<br>1,7<br>1,9<br>2,1<br>2,7<br>2,5<br>2,6                                    | MR272-100L/4b<br>NR272-100L/4b | 6,45             | 44<br>46             | 106          | MR246<br>NR246 |
|  | 87<br>94<br>101<br>115<br>130<br>139<br>167<br>199<br>241<br>276<br>311<br>333<br>400            | 315<br>293<br>274<br>240<br>213<br>199<br>166<br>139<br>114<br>100<br>89<br>83<br>69               | 16,03<br>14,86<br>13,92<br>12,18<br>10,81<br>10,07<br>8,40<br>7,04<br>5,80<br>5,08<br>4,50<br>4,20<br>3,50                  | 2143<br>2413<br>2622<br>2986<br>3247<br>3375<br>3632<br>3795<br>3420<br>3509<br>3560<br>3536<br>3299                 | 0,8<br>0,8<br>0,9<br>0,9<br>1,0<br>1,1<br>1,2<br>1,3<br>1,5<br>1,6<br>1,7<br>1,7<br>1,8               | MR202-100L/4b<br>NR202-100L/4b | 6,45             | 44<br>46             | 105          | MR247<br>NR247 |
|  | 483<br>552<br>622<br>667<br>800  | 57<br>50<br>44<br>41<br>35   | 5,80<br>5,08<br>4,50<br>4,20<br>3,50  | 3072<br>2923<br>2796<br>2724<br>2549   | 2,4<br>2,5<br>2,7<br>2,8<br>2,9   | MR202-100L/2<br>NR202-100L/2   | 6,00             | 42<br>44             | 105          | MR248<br>NR248 |
|  | 111<br>126<br>147<br>157<br>184<br>212<br>242  | 249<br>218<br>188<br>176<br>150<br>130<br>114  | 12,66<br>11,08<br>9,53<br>8,94<br>7,60<br>6,60<br>5,78  | 2537<br>2501<br>2332<br>2313<br>2256<br>2197<br>2137   | 0,8<br>0,8<br>0,9<br>0,9<br>1,1<br>1,1<br>1,2   | MR172-100L/4b<br>NR172-100L/4b | 6,45             | 34<br>35             | 104          | MR249<br>NR249 |

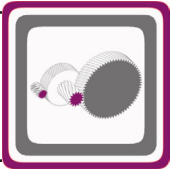




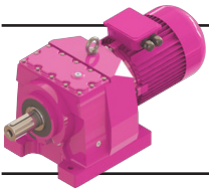
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



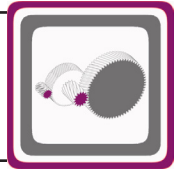
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi          | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|---------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type          | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ           | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 3,0<br>4,0   | 293  | 95   | 4,78             | 2045   | 1,4                              | MR172-100L/4b | 6,45             | 34                   | 104          | MR249      |
|  | 343  | 81   | 4,09             | 1934   | 1,5                              | NR172-100L/4b |                  | 35                   |              | NR249      |
|  | 414  | 67   | 3,38             | 1844   | 1,6                              |               |                  |                      |              |            |
|  | 424  | 65   | 6,60             | 1858   | 1,9                              | MR172-100L/2  | 6,00             | 34                   | 104          | MR250      |
|  | 485  | 57   | 5,78             | 1790   | 2,1                              | NR172-100L/2  |                  | 35                   |              | NR250      |
|  | 586  | 47   | 4,78             | 1696   | 2,3                              |               |                  |                      |              |            |
|  | 685  | 40   | 4,09             | 1605   | 2,5                              |               |                  |                      |              |            |
|  | 829  | 33   | 3,38             | 1518   | 2,5                              |               |                  |                      |              |            |
| 4,0<br>5,5   | 1,7  | 20671  | 842,80           | 75900  | 0,9                              | MR975-112M/4  | 8,20             | 1130                 | 131          | MR376      |
|  | 1,9  | 18436  | 750,24           | 92220  | 1,0                              | NR975-112M/4  |                  | 1180                 |              | NR376      |
|  | 2,1  | 16311  | 662,54           | 104731   | 1,1                              |               |                  |                      |              |            |
|  | 2,4  | 14524  | 588,87           | 113695   | 1,2                              |               |                  |                      |              |            |
|  | 2,6  | 13467  | 546,94           | 118464   | 1,3                              |               |                  |                      |              |            |
|  | 2,7  | 12835  | 510,11           | 121153   | 1,4                              | MR974-112M/4  | 8,20             | 1180                 | 130          | MR377      |
|  | 3,1  | 11535  | 457,99           | 126265   | 1,6                              | NR974-112M/4  |                  | 1230                 |              | NR377      |
|  | 3,6  | 9832   | 390,41           | 132758   | 1,8                              |               |                  |                      |              |            |
|  | 4,1  | 8678   | 344,17           | 136369   | 2,1                              |               |                  |                      |              |            |
|  | 4,6  | 7707   | 305,33           | 139396   | 2,3                              |               |                  |                      |              |            |
|  | 5,1  | 6879   | 272,24           | 141842   | 2,6                              |               |                  |                      |              |            |
|  | 6,5  | 5469   | 216,03           | 145733   | 3,3                              |               |                  |                      |              |            |
|  | 2,6  | 13511  | 345,67           | 69362  | 1,0                              | MR874-132M/6a | 9,00             | 620                  | 127          | MR251      |
|  | 3,1  | 11444  | 292,15           | 80864  | 1,1                              | NR874-132M/6a |                  | 625                  |              | NR251      |
|  | 3,6  | 9802   | 390,74           | 88382  | 1,3                              | MR874-112M/4  | 8,20             | 616                  | 127          | MR252      |
|  | 4,1  | 8686   | 345,67           | 92818  | 1,5                              | NR874-112M/4  |                  | 621                  |              | NR252      |
|  | 4,8  | 7357   | 292,15           | 97657  | 1,8                              |               |                  |                      |              |            |
|  | 5,8  | 6040   | 239,61           | 101906   | 2,2                              |               |                  |                      |              |            |
|  | 7,4  | 4756   | 188,08           | 105605   | 2,7                              |               |                  |                      |              |            |
|  | 8,0  | 4410   | 174,68           | 106532   | 2,9                              |               |                  |                      |              |            |
|  | 8,2  | 4395   | 110,17           | 106569   | 3,0                              | MR873-132M/6a | 9,00             | 585                  | 126          | MR253      |
|  | 9,0  | 3982   | 99,81            | 107634   | 3,3                              | NR873-132M/6a |                  | 590                  |              | NR253      |
|  | 4,3  | 8310   | 208,82           | 47650  | 1,0                              | MR773-132M/6a | 9,00             | 322                  | 123          | MR459      |
|  | 5,0  | 7124   | 178,78           | 52136  | 1,1                              | NR773-132M/6a |                  | 390                  |              | NR459      |
|  | 6,1  | 5928   | 148,73           | 55922  | 1,3                              |               |                  |                      |              |            |
|  | 6,8  | 5309   | 133,05           | 57792  | 1,5                              |               |                  |                      |              |            |
|  | 7,8  | 4587   | 115,06           | 59702  | 1,7                              |               |                  |                      |              |            |
|  | 9,0  | 3977   | 99,63            | 61183  | 2,0                              |               |                  |                      |              |            |
|  | 10   | 3483   | 87,13            | 62300  | 2,3                              |               |                  |                      |              |            |
|  | 12   | 3074   | 76,81            | 63169  | 2,6                              |               |                  |                      |              |            |
|  | 13   | 2730   | 68,15            | 63862  | 2,9                              |               |                  |                      |              |            |
|  | 8,0  | 4493   | 174,89           | 25196  | 1,0                              | MR673-112M/4  | 8,20             | 217                  | 120          | MR460      |
|  | 9,4  | 3837   | 149,11           | 28963  | 1,1                              | NR673-112M/4  |                  | 226                  |              | NR460      |
|  | 11   | 3194   | 124,07           | 31960  | 1,3                              |               |                  |                      |              |            |
|  | 13   | 2849   | 110,55           | 33310  | 1,5                              |               |                  |                      |              |            |
|  | 15   | 2459   | 61,42            | 34796  | 1,7                              | MR673-132M/6a | 9,00             | 217                  | 120          | MR461      |
|  | 17   | 2164   | 53,99            | 36045  | 2,0                              | NR673-132M/6a |                  | 225                  |              | NR461      |
|  | 17   | 2110   | 52,68            | 35826  | 2,0                              |               |                  |                      |              |            |
|  | 20   | 1817   | 45,29            | 34481  | 2,4                              |               |                  |                      |              |            |
|  | 23   | 1579   | 39,30            | 33228  | 2,7                              |               |                  |                      |              |            |



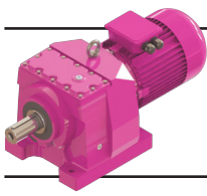
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



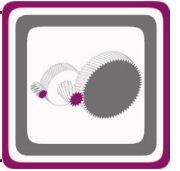
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi          | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|---------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type          | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ           | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 4,0<br>5,5   | 26   | 1382   | 34,36            | 32051  | 3,1                              | MR673-132M/6a | 9,00             | 217                  | 120          | MR461      |
|  | 30   | 1217   | 30,20            | 30938  | 3,5                              | NR673-132M/6a |                  | 225                  |              | NR461      |
|  | 12   | 3062   | 118,95           | 19365  | 1,0                              | MR573-112M/4  | 8,20             | 142                  | 117          | MR462      |
|  | 14   | 2592   | 100,53           | 22146  | 1,2                              | NR573-112M/4  |                  | 136                  |              | NR462      |
|  | 17   | 2127   | 82,45            | 24375  | 1,4                              |               |                  |                      |              |            |
|  | 19   | 1880   | 72,81            | 25391  | 1,6                              |               |                  |                      |              |            |
|  | 22   | 1673   | 64,72            | 26066  | 1,8                              |               |                  |                      |              |            |
|  | 26   | 1417   | 54,74            | 25055  | 2,1                              |               |                  |                      |              |            |
|  | 29   | 1265   | 48,74            | 24349  | 2,4                              |               |                  |                      |              |            |
|  | 35   | 1037   | 39,98            | 23145  | 2,8                              |               |                  |                      |              |            |
|  | 40   | 917  | 35,31            | 22396  | 3,0                              |               |                  |                      |              |            |
|  | 45   | 816  | 31,38            | 21693  | 3,2                              |               |                  |                      |              |            |
|  | 52   | 710  | 27,00            | 20811  | 3,9                              | MR572-112M/4  | 8,20             | 135                  | 117          | MR463      |
|  | 61   | 606  | 23,02            | 19894  | 4,4                              | NR572-112M/4  |                  | 129                  |              | NR463      |
|  | 19   | 1887   | 73,09            | 9049   | 0,8                              | MR473-112M/4  | 8,20             | 115                  | 114          | MR262      |
|  | 22   | 1647   | 63,70            | 14037  | 0,9                              | NR473-112M/4  |                  | 123                  |              | NR262      |
|  | 25   | 1444   | 55,82            | 14220  | 1,1                              |               |                  |                      |              |            |
|  | 29   | 1270   | 49,05            | 13971  | 1,2                              |               |                  |                      |              |            |
|  | 33   | 1109   | 42,75            | 13672  | 1,4                              |               |                  |                      |              |            |
|  | 37   | 972  | 37,45            | 13358  | 1,6                              |               |                  |                      |              |            |
|  | 45   | 805  | 30,93            | 12867  | 1,9                              |               |                  |                      |              |            |
|  | 55   | 669  | 25,67            | 12363  | 2,3                              |               |                  |                      |              |            |
|  | 63   | 583  | 22,15            | 11952  | 2,5                              | MR472-112M/4  | 8,20             | 108                  | 114          | MR263      |
|  | 75   | 493  | 18,72            | 11477  | 2,9                              | NR472-112M/4  |                  | 116                  |              | NR263      |
|  | 81   | 454  | 17,25            | 11245  | 2,9                              |               |                  |                      |              |            |
|  | 91   | 404  | 15,35            | 10916  | 3,1                              |               |                  |                      |              |            |
|  | 40   | 911  | 35,25            | 5904   | 0,9                              | MR373-112M/4  | 8,20             | 69                   | 111          | MR264      |
|  | 47   | 765  | 29,47            | 5917   | 1,0                              | NR373-112M/4  |                  | 71                   |              | NR264      |
|  | 55   | 655  | 25,27            | 5880   | 1,1                              |               |                  |                      |              |            |
|  | 65   | 562  | 21,65            | 5807   | 1,2                              |               |                  |                      |              |            |
|  | 68   | 542  | 20,62            | 6315   | 1,4                              | MR372-112M/4  | 8,20             | 69                   | 111          | MR265      |
|  | 76   | 485  | 18,45            | 6666   | 1,5                              | NR372-112M/4  |                  | 72                   |              | NR265      |
|  | 86   | 426  | 16,20            | 6983   | 1,7                              |               |                  |                      |              |            |
|  | 103  | 356  | 13,53            | 7282   | 1,9                              |               |                  |                      |              |            |
|  | 112  | 328  | 12,48            | 7067   | 2,0                              |               |                  |                      |              |            |
|  | 130  | 285  | 10,80            | 6691   | 2,2                              |               |                  |                      |              |            |
|  | 149  | 248  | 9,41             | 6355   | 2,4                              |               |                  |                      |              |            |
|  | 170  | 218  | 8,25             | 6050   | 2,6                              |               |                  |                      |              |            |
|  | 205  | 181  | 6,84             | 5693   | 3,1                              |               |                  |                      |              |            |
|  | 73   | 500  | 19,06            | 3474   | 1,0                              | MR282-112M/4  | 8,20             | 62                   | 108          | MR266      |
|  | 83   | 444  | 16,91            | 3939   | 1,1                              | NR282-112M/4  |                  | 64                   |              | NR266      |
|  | 98   | 376  | 14,31            | 4447   | 1,2                              |               |                  |                      |              |            |
|  | 114  | 322  | 12,24            | 4796   | 1,3                              |               |                  |                      |              |            |
|  | 132  | 279  | 10,57            | 5032   | 1,5                              |               |                  |                      |              |            |
|  | 146  | 254  | 9,61             | 5144   | 1,6                              |               |                  |                      |              |            |
|  | 168  | 220  | 8,33             | 5215   | 1,8                              |               |                  |                      |              |            |
|  | 194  | 190  | 7,21             | 4938   | 1,9                              |               |                  |                      |              |            |
|  | 224  | 165  | 6,25             | 4769   | 2,2                              |               |                  |                      |              |            |
|  | 262  | 141  | 5,35             | 4493   | 2,3                              |               |                  |                      |              |            |
|  | 303  | 122  | 4,62             | 4249   | 2,3                              |               |                  |                      |              |            |
|  | 333  | 111  | 4,20             | 4101   | 2,3                              |               |                  |                      |              |            |
|  | 385  | 96   | 3,64             | 3887   | 2,5                              |               |                  |                      |              |            |



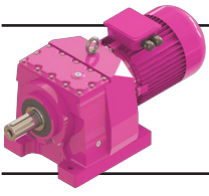
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



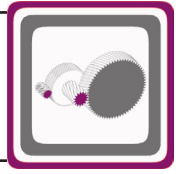
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi                         | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu     |
|--|--|--|------------------|--|----------------------------------|------------------------------|------------------|----------------------|--------------|----------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type                         | Rated Current    | Weight               | Dim. Page    | Price Ref.     |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ                          | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.      |
| 4,0<br>5,5   | 444  | 83   | 3,15             | 3686   | 2,6                              | MR282-112M/4<br>NR282-112M/4 | 8,20             | 62<br>64             | 108          | MR266<br>NR266 |
|  | 524  | 71   | 5,35             | 3470   | 3,7                              | MR282-112M/2<br>NR282-112M/2 | 7,80             | 62<br>64             | 108          | MR267<br>NR267 |
|  | 74   | 492  | 19,00            | -  | 0,9                              | MR273-112M/4<br>NR273-112M/4 | 8,20             | 52<br>54             | 106          | MR268<br>NR268 |
|  | 87   | 423  | 16,07            | 727  | 1,0                              | MR272-112M/4                 | 8,20             | 52                   | 106          | MR269          |
|  | 99   | 374  | 14,21            | 1.248  | 1,1                              | NR272-112M/4                 |                  | 54                   |              | NR269          |
|  | 117  | 315  | 11,95            | 1.839  | 1,2                              |                              |                  |                      |              |                |
|  | 138  | 268  | 10,16            | 2.267  | 1,4                              |                              |                  |                      |              |                |
|  | 161  | 230  | 8,71             | 2.581  | 1,6                              |                              |                  |                      |              |                |
|  | 225  | 164  | 6,21             | 2.643  | 2,0                              |                              |                  |                      |              |                |
|  | 265  | 140  | 5,28             | 2.813  | 1,9                              |                              |                  |                      |              |                |
|  | 309  | 120  | 4,53             | 2.924  | 1,9                              |                              |                  |                      |              |                |
|  | 451  | 82   | 6,21             | 3.007  | 3,4                              | MR272-112M/2                 | 7,80             | 52                   | 106          | MR270          |
|  | 530  | 70   | 5,28             | 2.830  | 2,8                              | NR272-112M/2                 |                  | 54                   |              | NR270          |
|  | 619  | 60   | 4,53             | 2.672  | 3,0                              |                              |                  |                      |              |                |
|  | 130  | 284  | 10,81            | 1730   | 0,8                              | MR202-112M/4                 | 8,20             | 52                   | 105          | MR271          |
| 139  | 265  | 10,07  | 1961             | 0,8  | NR202-112M/4                     |                              | 54               |                      | NR271        |                |
| 167  | 221  | 8,40   | 2453             | 0,9  |                                  |                              |                  |                      |              |                |
| 199  | 186  | 7,04   | 2807             | 1,0  |                                  |                              |                  |                      |              |                |
| 241  | 153  | 5,80   | 2448             | 1,1  |                                  |                              |                  |                      |              |                |
| 276  | 134  | 5,08   | 2658             | 1,2  |                                  |                              |                  |                      |              |                |
| 311  | 119  | 4,50   | 2805             | 1,3  |                                  |                              |                  |                      |              |                |
| 333  | 111  | 4,20   | 2875             | 1,3  |                                  |                              |                  |                      |              |                |
| 400  | 92   | 3,50   | 3008             | 1,4  |                                  |                              |                  |                      |              |                |
| 483  | 76   | 5,80   | 3085             | 1,8  | MR202-112M/2                     | 7,80                         | 50               | 105                  | MR272        |                |
| 552  | 67   | 5,08   | 2979             | 1,9  | NR202-112M/2                     |                              | 52               |                      | NR272        |                |
| 622  | 59   | 4,50   | 2846             | 2,0  |                                  |                              |                  |                      |              |                |
| 667  | 55   | 4,20   | 2771             | 2,1  |                                  |                              |                  |                      |              |                |
| 800  | 46   | 3,50   | 2588             | 2,2  |                                  |                              |                  |                      |              |                |
| 212  | 174  | 6,60   | 2033             | 0,8  | MR172-112M/4                     | 8,20                         | 42               | 104                  | MR273        |                |
| 242  | 153  | 5,78   | 2002             | 0,9  | NR172-112M/4                     |                              | 44               |                      | NR273        |                |
| 293  | 126  | 4,78   | 1942             | 1,0  |                                  |                              |                  |                      |              |                |
| 343  | 108  | 4,09   | 1837             | 1,1  |                                  |                              |                  |                      |              |                |
| 414  | 90   | 3,38   | 1769             | 1,2  |                                  |                              |                  |                      |              |                |
| 424  | 87   | 6,60   | 1797             | 1,4  | MR172-112M/2                     | 7,80                         | 41               | 104                  | MR274        |                |
| 485  | 76   | 5,78   | 1740             | 1,6  | NR172-112M/2                     |                              | 43               |                      | NR274        |                |
| 586  | 63   | 4,78   | 1656             | 1,7  |                                  |                              |                  |                      |              |                |
| 685  | 54   | 4,09   | 1567             | 1,9  |                                  |                              |                  |                      |              |                |
| 829  | 45   | 3,38   | 1489             | 1,9  |                                  |                              |                  |                      |              |                |
| 5,5<br>7,5   | 2,1  | 22428  | 662,54           | 59449  | 0,8                              | MR975-132S/4                 | 11,30            | 1150                 | 131          | MR378          |
|  | 2,4  | 19970  | 588,87           | 81598  | 0,9                              | NR975-132S/4                 |                  | 1200                 |              | NR378          |
|  | 2,6  | 18517  | 546,94           | 91692  | 1,0                              |                              |                  |                      |              |                |
|  | 2,7  | 17649  | 510,11           | 97133  | 1,0                              | MR974-132S/4<br>NR974-132S/4 | 11,30            | 1200<br>1250         | 130          | MR379<br>NR379 |



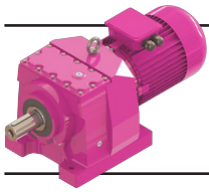
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



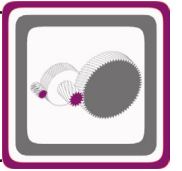
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi                           | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu     |
|--|--|--|------------------|--|----------------------------------|--------------------------------|------------------|----------------------|--------------|----------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type                           | Rated Current    | Weight               | Dim. Page    | Price Ref.     |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ                            | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.      |
| 5,5<br>7,5   | 3,1  | 15861  | 457,99           | 107107   | 1,1                              | MR974-132S/4                   | 11,30            | 1200                 | 130          | MR379          |
|  | 3,6  | 13519  | 390,41           | 118239   | 1,3                              | NR974-132S/4                   |                  | 1250                 |              | NR379          |
|  | 4,1  | 11932  | 344,17           | 124658   | 1,5                              |                                |                  |                      |              |                |
|  | 4,6  | 10597  | 305,33           | 129922   | 1,7                              |                                |                  |                      |              |                |
|  | 5,1  | 9458   | 272,24           | 133804   | 1,9                              |                                |                  |                      |              |                |
|  | 6,5  | 7519   | 216,03           | 139960   | 2,4                              |                                |                  |                      |              |                |
|  | 7,2  | 6735   | 193,13           | 142255   | 2,7                              |                                |                  |                      |              |                |
|  | 8,1  | 6012   | 172,08           | 144275   | 3,0                              |                                |                  |                      |              |                |
|  | 4,1  | 11943  | 345,67           | 78321  | 1,1                              | MR874-132S/4                   | 11,30            | 615                  | 127          | MR275          |
|  | 4,8  | 10116  | 292,15           | 87040  | 1,3                              | NR874-132S/4                   |                  | 620                  |              | NR275          |
|  | 5,8  | 8305   | 239,61           | 94212  | 1,6                              |                                |                  |                      |              |                |
|  | 6,6  | 7346   | 211,60           | 97693  | 1,8                              |                                |                  |                      |              |                |
|  | 7,4  | 6540   | 188,08           | 100351   | 2,0                              |                                |                  |                      |              |                |
|  | 8,0  | 6063   | 174,68           | 101836   | 2,1                              |                                |                  |                      |              |                |
|  | 9,5  | 5136   | 147,61           | 104555   | 2,5                              |                                |                  |                      |              |                |
|  | 11   | 4383   | 125,70           | 106602   | 3,0                              |                                |                  |                      |              |                |
|  | 6,1  | 8157   | 148,73           | 48271  | 1,0                              | MR773-132M/6b<br>NR773-132M/6b | 12,30            | 322<br>390           | 123          | MR464<br>NR464 |
|  | 6,7  | 7375   | 208,82           | 51187  | 1,1                              | MR773-132S/4                   | 11,30            | 320                  | 123          | MR465          |
|  | 7,8  | 6323   | 178,78           | 54748  | 1,3                              | NR773-132S/4                   |                  | 388                  |              | NR465          |
|  | 9,4  | 5263   | 148,73           | 57919  | 1,5                              |                                |                  |                      |              |                |
|  | 11   | 4713   | 133,05           | 59380  | 1,7                              |                                |                  |                      |              |                |
|  | 12   | 4073   | 115,06           | 60959  | 2,0                              |                                |                  |                      |              |                |
|  | 14   | 3532   | 99,63            | 62193  | 2,3                              |                                |                  |                      |              |                |
|  | 16   | 3093   | 87,13            | 63130  | 2,6                              |                                |                  |                      |              |                |
|  | 18   | 2730   | 76,81            | 63862  | 2,9                              |                                |                  |                      |              |                |
|  | 21   | 2425   | 68,15            | 64448  | 3,3                              |                                |                  |                      |              |                |
|  | 11   | 4392   | 124,07           | 25835  | 1,0                              | MR673-132S/4                   | 11,30            | 231                  | 120          | MR466          |
|  | 13   | 3917   | 110,55           | 28527  | 1,1                              | NR673-132S/4                   |                  | 241                  |              | NR466          |
|  | 15   | 3335   | 94,17            | 31336  | 1,3                              |                                |                  |                      |              |                |
| 17   | 2871   | 80,96  | 33271            | 1,5  |                                  |                                |                  |                      |              |                |
| 20   | 2495   | 70,26  | 32989            | 1,7  |                                  |                                |                  |                      |              |                |
| 23   | 2184   | 61,42  | 31985            | 2,0  |                                  |                                |                  |                      |              |                |
| 26   | 1922   | 53,99  | 31011            | 2,2  |                                  |                                |                  |                      |              |                |
| 27   | 1875   | 52,68  | 30824            | 2,3  |                                  |                                |                  |                      |              |                |
| 31   | 1614   | 45,29  | 29677            | 2,6  |                                  |                                |                  |                      |              |                |
| 36   | 1403   | 39,30  | 28606            | 2,8  |                                  |                                |                  |                      |              |                |
| 41   | 1228   | 34,36  | 27599            | 3,1  |                                  |                                |                  |                      |              |                |
| 46   | 1081   | 30,20  | 26647            | 3,4  |                                  |                                |                  |                      |              |                |
|  | 17   | 2925   | 82,45            | 20253  | 1,0                              | MR573-132S/4                   | 11,30            | 159                  | 117          | MR467          |
|  | 19   | 2586   | 72,81            | 22170  | 1,2                              | NR573-132S/4                   |                  | 153                  |              | NR467          |
|  | 22   | 2301   | 64,72            | 23581  | 1,3                              |                                |                  |                      |              |                |
|  | 26   | 1949   | 54,74            | 23774  | 1,5                              |                                |                  |                      |              |                |
|  | 29   | 1739   | 48,74            | 23208  | 1,7                              |                                |                  |                      |              |                |
|  | 35   | 1426   | 39,98            | 22209  | 2,0                              |                                |                  |                      |              |                |
|  | 40   | 1261   | 35,31            | 21569  | 2,2                              |                                |                  |                      |              |                |
|  | 45   | 1122   | 31,38            | 20958  | 2,4                              |                                |                  |                      |              |                |
|  | 52   | 976  | 27,00            | 20179  | 2,8                              | MR572-132S/4                   | 11,30            | 150                  | 117          | MR468          |
|  | 61   | 834  | 23,02            | 19355  | 3,2                              | NR572-132S/4                   |                  | 143                  |              | NR468          |
|  | 52   | 976  | 27,00            | 20179  | 2,8                              |                                |                  |                      |              |                |
|  | 61   | 834  | 23,02            | 19355  | 3,2                              |                                |                  |                      |              |                |
|  | 73   | 694  | 19,15            | 18419  | 3,6                              |                                |                  |                      |              |                |
|  | 82   | 619  | 17,07            | 17842  | 4,0                              |                                |                  |                      |              |                |



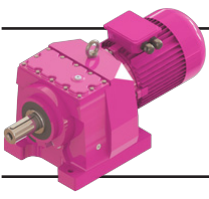
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



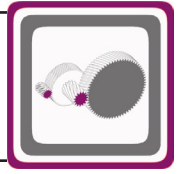
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi          | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|---------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type          | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ           | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 5,5<br>7,5   | 25   | 1986   | 55,82            | 5759   | 0,8                              | MR473-132S/4  | 11,30            | 126                  | 114          | MR283      |
|  | 29   | 1747   | 49,05            | 12507  | 0,9                              | NR473-132S/4  |                  | 128                  |              | NR283      |
|  | 33   | 1524   | 42,75            | 12396  | 1,0                              |               |                  |                      |              |            |
|  | 37   | 1337   | 37,45            | 12239  | 1,2                              |               |                  |                      |              |            |
|  | 45   | 1106   | 30,93            | 11944  | 1,4                              |               |                  |                      |              |            |
|  | 55   | 920  | 25,67            | 11596  | 1,7                              |               |                  |                      |              |            |
|  | 63   | 801  | 22,15            | 11291  | 1,8                              | MR472-132S/4  | 11,30            | 121                  | 114          | MR284      |
|  | 75   | 678  | 18,72            | 10918  | 2,1                              | NR472-132S/4  |                  | 124                  |              | NR284      |
|  | 81   | 624  | 17,25            | 10730  | 2,1                              |               |                  |                      |              |            |
|  | 91   | 556  | 15,35            | 10457  | 2,2                              |               |                  |                      |              |            |
| 103  | 492  | 13,56  | 10161            | 2,5  |                                  |               |                  |                      |              |            |
| 116  | 437  | 12,05  | 9878             | 2,7  |                                  |               |                  |                      |              |            |
| 130  | 391  | 10,79  | 9554             | 2,8  |                                  |               |                  |                      |              |            |
| 147  | 346  | 9,53   | 9261             | 3,0  |                                  |               |                  |                      |              |            |
| 55   | 65   | 773  | 21,65            | 5037   | 0,8                              | MR373-132S/4  | 11,30            | 80                   | 111          | MR285      |
|  | 68   | 737  | 20,64            | 4872   | 0,9                              | NR373-132S/4  |                  | 82                   |              | NR285      |
|  | 75   | 668  | 18,68            | 4891   | 1,0                              |               |                  |                      |              |            |
|  | 86   | 586  | 16,20            | 4498   | 1,2                              | MR372-132S/4  | 11,30            | 80                   | 111          | MR286      |
| 103  | 490  | 13,53  | 5207             | 1,4  | NR372-132S/4                     |               | 82               |                      | NR286        |            |
| 112  | 452  | 12,48  | 5457             | 1,4  |                                  |               |                  |                      |              |            |
| 130  | 391  | 10,80  | 5815             | 1,6  |                                  |               |                  |                      |              |            |
| 149  | 341  | 9,41   | 6062             | 1,7  |                                  |               |                  |                      |              |            |
| 170  | 299  | 8,25   | 6174             | 1,9  |                                  |               |                  |                      |              |            |
| 205  | 248  | 6,84   | 5812             | 2,3  |                                  |               |                  |                      |              |            |
| 235  | 217  | 5,97   | 5516             | 2,4  |                                  |               |                  |                      |              |            |
| 268  | 190  | 5,23   | 5247             | 2,7  |                                  |               |                  |                      |              |            |
| 282  | 180  | 4,96   | 5214             | 2,6  |                                  |               |                  |                      |              |            |
| 326  | 156  | 4,29   | 4935             | 2,8  |                                  |               |                  |                      |              |            |
| 374  | 136  | 3,74   | 4685             | 3,0  |                                  |               |                  |                      |              |            |
| 298  | 170  | 9,41   | 5003             | 2,7  | MR372-132S/2a                    | 11,00         | 78               | 111                  | MR287        |            |
|  | 340  | 149  | 8,25             | 4766   | 2,9                              | NR372-132S/2a |                  | 80                   |              | NR287      |
|  | 409  | 124  | 6,84             | 4484   | 3,5                              |               |                  |                      |              |            |
|  | 469  | 108  | 5,97             | 4264   | 3,9                              |               |                  |                      |              |            |
|  | 536  | 95   | 5,23             | 4064   | 4,0                              |               |                  |                      |              |            |
|  | 565  | 90   | 4,96             | 4022   | 4,0                              |               |                  |                      |              |            |
|  | 653  | 78   | 4,29             | 3816   | 4,0                              |               |                  |                      |              |            |
|  | 749  | 68   | 3,74             | 3630   | 4,0                              |               |                  |                      |              |            |
| 98   | 517  | 14,31  | 2151             | 0,9  | MR282-132S/4                     | 11,30         | 73               | 108                  | MR288        |            |
|  | 114  | 443  | 12,24            | 2830   | 0,9                              | NR282-132S/4  |                  | 75                   |              | NR288      |
|  | 132  | 383  | 10,57            | 3336   | 1,1                              |               |                  |                      |              |            |
|  | 146  | 349  | 9,61             | 3601   | 1,1                              |               |                  |                      |              |            |
|  | 168  | 302  | 8,33             | 3924   | 1,3                              |               |                  |                      |              |            |
|  | 194  | 262  | 7,21             | 4168   | 1,4                              |               |                  |                      |              |            |
|  | 224  | 227  | 6,25             | 3730   | 1,6                              |               |                  |                      |              |            |
|  | 262  | 194  | 5,35             | 3944   | 1,6                              |               |                  |                      |              |            |
|  | 303  | 168  | 4,62             | 4082   | 1,7                              |               |                  |                      |              |            |
|  | 333  | 153  | 4,20             | 4143   | 1,7                              |               |                  |                      |              |            |
|  | 385  | 132  | 3,64             | 3970   | 1,8                              |               |                  |                      |              |            |
|  | 444  | 115  | 3,15             | 3758   | 1,9                              |               |                  |                      |              |            |
|  | 524  | 97   | 5,35             | 3532   | 2,7                              | MR282-132S/2a | 11,00            | 72                   | 108          | MR289      |
| 607  |  | 84   | 4,62             | 3343   | 2,7                              | NR282-132S/2a |                  | 74                   |              | NR289      |
| 667  |  | 76   | 4,20             | 3228   | 2,8                              |               |                  |                      |              |            |
| 769  |  | 66   | 3,64             | 3062   | 2,9                              |               |                  |                      |              |            |



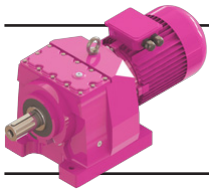
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



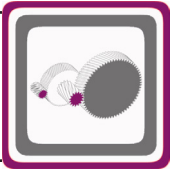
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi                           | Anma Akımı       | Ağırlık              | Ölçü Sayfası    | Fiyat Kodu     |
|--|--|--|------------------|--|----------------------------------|--------------------------------|------------------|----------------------|-----------------|----------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type                           | Rated Current    | Weight               | Dim. Page       | Price Ref.     |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ                            | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite<br>f | Preis No.      |
| 5,5<br>7,5   | 889  | 57   | 3,15             | 2905   | 3,0                              | MR282-132S/2a<br>NR282-132S/2a | 11,00            | 72<br>74             | 108             | MR289<br>NR289 |
| 7,5<br>10  | 3,1  | 21629  | 457,99           | 67448  | 0,8                              | MR974-132M/4                   | 15,30            | 1155                 | 130             | MR380<br>NR380 |
|  | 3,6  | 18434  | 390,41           | 92230  | 1,0                              | NR974-132M/4                   |                  | 1205                 |                 |                |
|  | 4,1  | 16271  | 344,17           | 104950   | 1,1                              |                                |                  |                      |                 |                |
|  | 4,6  | 14450  | 305,33           | 114036   | 1,2                              |                                |                  |                      |                 |                |
|  | 4,8  | 14013  | 186,95           | 116163   | 1,3                              | MR973-160M/6                   | 15,20            | 1090                 | 129             | MR381<br>NR381 |
|  | 5,4  | 12512  | 166,73           | 122481   | 1,4                              | NR973-160M/6                   |                  | 1140                 |                 |                |
|  | 6,0  | 11270  | 150,02           | 127342   | 1,6                              |                                |                  |                      |                 |                |
|  | 6,8  | 9969   | 132,83           | 132036   | 1,8                              |                                |                  |                      |                 |                |
|  | 7,7  | 8732   | 116,17           | 136178   | 2,1                              |                                |                  |                      |                 |                |
|  | 8,8  | 7729   | 102,69           | 139314   | 2,3                              |                                |                  |                      |                 |                |
|  | 9,8  | 6899   | 91,56            | 141978   | 2,6                              |                                |                  |                      |                 |                |
|  | 11   | 6200   | 82,20            | 143851   | 2,9                              |                                |                  |                      |                 |                |
|  | 4,8  | 13794  | 292,15           | 67557  | 0,9                              | MR874-132M/4                   | 15,30            | 615                  | 127             | MR290<br>NR290 |
|  | 5,8  | 11325  | 239,61           | 81452  | 1,1                              | NR874-132M/4                   |                  | 620                  |                 |                |
|  | 6,6  | 10018  | 211,60           | 87464  | 1,3                              |                                |                  |                      |                 |                |
|  | 7,4  | 8918   | 188,08           | 91940  | 1,5                              |                                |                  |                      |                 |                |
|  | 8,0  | 8268   | 174,68           | 94346  | 1,6                              |                                |                  |                      |                 |                |
|  | 8,2  | 8241   | 110,17           | 94440  | 1,6                              | MR873-160M/6                   | 15,20            | 610                  | 126             | MR291<br>NR291 |
|  | 9,0  | 7466   | 99,81            | 97282  | 1,7                              | NR873-160M/6                   |                  | 615                  |                 |                |
|  | 10   | 6471   | 86,51            | 100567   | 2,0                              |                                |                  |                      |                 |                |
| 12   | 5649   | 75,51  | 103078           | 2,3  |                                  |                                |                  |                      |                 |                |
| 14   | 4846   | 64,77  | 105361           | 2,7  |                                  |                                |                  |                      |                 |                |
| 16   | 4230   | 56,54  | 107001           | 3,1  |                                  |                                |                  |                      |                 |                |
| 7,8  | 8625   | 178,78   | 46319            | 0,9  | MR773-132M/4                     | 15,30                          | 344              | 123                  | MR469<br>NR469  |                |
| 9,4  | 7179   | 148,73   | 51946            | 1,1  | NR773-132M/4                     |                                | 430              |                      |                 |                |
| 11   | 6429   | 133,05   | 54421            | 1,2  |                                  |                                |                  |                      |                 |                |
| 12   | 5555   | 115,06   | 57099            | 1,4  |                                  |                                |                  |                      |                 |                |
| 14   | 4818   | 99,63  | 59111            | 1,7  |                                  |                                |                  |                      |                 |                |
| 16   | 4219   | 87,13  | 60609            | 1,9  |                                  |                                |                  |                      |                 |                |
| 18   | 3724   | 76,81  | 61765            | 2,1  |                                  |                                |                  |                      |                 |                |
| 21   | 3307   | 68,15  | 62679            | 2,4  |                                  |                                |                  |                      |                 |                |
| 15   | 4549   | 94,17  | 24784            | 0,9  | MR673-132M/4                     | 15,30                          | 233              | 120                  | MR470<br>NR470  |                |
| 17   | 3916   | 80,96  | 28529            | 1,1  | NR673-132M/4                     |                                | 244              |                      |                 |                |
| 20   | 3403   | 70,26  | 30966            | 1,3  |                                  |                                |                  |                      |                 |                |
| 23   | 2979   | 61,42  | 30273            | 1,4  |                                  |                                |                  |                      |                 |                |
| 26   | 2622   | 53,99  | 29506            | 1,6  |                                  |                                |                  |                      |                 |                |
| 27   | 2557   | 52,68  | 29356            | 1,7  |                                  |                                |                  |                      |                 |                |
| 31   | 2202   | 45,29  | 28415            | 1,9  |                                  |                                |                  |                      |                 |                |
| 36   | 1914   | 39,30  | 27511            | 2,1  |                                  |                                |                  |                      |                 |                |
| 41   | 1676   | 34,36  | 26642            | 2,3  |                                  |                                |                  |                      |                 |                |
| 46   | 1475   | 30,20  | 25805            | 2,5  |                                  |                                |                  |                      |                 |                |
| 60   | 1144   | 23,18  | 24094            | 3,2  | MR672-132M/4                     | 15,30                          | 228              | 120                  | MR471<br>NR471  |                |
| 68   | 1025   | 20,74  | 23382            | 3,5  | NR672-132M/4                     |                                | 238              |                      |                 |                |
| 22   | 3138   | 64,72  | 18872            | 1,0  | MR573-132M/4                     | 15,30                          | 167              | 117                  | MR472<br>NR472  |                |
| 26   | 2659   | 54,74  | 21782            | 1,1  | NR573-132M/4                     |                                | 160              |                      |                 |                |
| 29   | 2372   | 48,74  | 21687            | 1,3  |                                  |                                |                  |                      |                 |                |
| 35   | 1946   | 39,98  | 20961            | 1,5  |                                  |                                |                  |                      |                 |                |
| 40   | 1721   | 35,31  | 20467            | 1,6  |                                  |                                |                  |                      |                 |                |
| 45   | 1531   | 31,38  | 19979            | 1,7  |                                  |                                |                  |                      |                 |                |



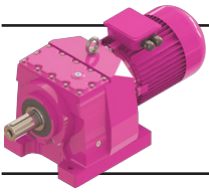
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



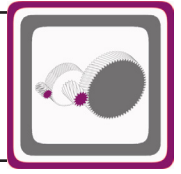
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi                | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|---------------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type                | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ                 | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 7,5<br>10  | 52   | 1332   | <b>27,00</b>     | 19336  | 2,1                              | <b>MR572-132M/4</b> | 15,30            | 160                  | 117          | MR473      |
|  | 61   | 1137   | <b>23,02</b>     | 18637  | 2,3                              | <b>NR572-132M/4</b> |                  | 153                  |              | NR473      |
|  | 73   | 946  | <b>19,15</b>     | 17822  | 2,7                              |                     |                  |                      |              |            |
|  | 82   | 844  | <b>17,07</b>     | 17309  | 2,9                              |                     |                  |                      |              |            |
|  | 96   | 718  | <b>14,54</b>     | 16600  | 3,3                              |                     |                  |                      |              |            |
|  | 112  | 619  | <b>12,50</b>     | 15939  | 3,8                              |                     |                  |                      |              |            |
|  | 37   | 1824   | <b>37,45</b>     | 10749  | 0,8                              | <b>MR473-132M/4</b> | 15,30            | 133                  | 114          | MR298      |
|  | 45   | 1509   | <b>30,93</b>     | 10713  | 1,0                              | <b>NR473-132M/4</b> |                  | 136                  |              | NR298      |
|  | 55   | 1255   | <b>25,67</b>     | 10574  | 1,2                              |                     |                  |                      |              |            |
|  | 63   | 1093   | <b>22,15</b>     | 10409  | 1,3                              | <b>MR472-132M/4</b> | 15,30            | 130                  | 114          | MR299      |
| 75   | 925  | <b>18,72</b>                                     | 10173            | 1,6  | <b>NR472-132M/4</b>              |                     | 133              |                      | NR299        |            |
| 81   | 852  | <b>17,25</b>                                     | 10044            | 1,5  |                                  |                     |                  |                      |              |            |
| 91   | 759  | <b>15,35</b>                                     | 9846             | 1,6  |                                  |                     |                  |                      |              |            |
| 103  | 671  | <b>13,56</b>                                     | 9622             | 1,8  |                                  |                     |                  |                      |              |            |
| 116  | 597  | <b>12,05</b>                                     | 9398             | 2,0  |                                  |                     |                  |                      |              |            |
| 130  | 534  | <b>10,79</b>                                     | 9104             | 2,1  |                                  |                     |                  |                      |              |            |
| 147  | 472  | <b>9,53</b>                                      | 8863             | 2,2  |                                  |                     |                  |                      |              |            |
| 165  | 420  | <b>8,47</b>                                      | 8630             | 2,4  |                                  |                     |                  |                      |              |            |
| 178  | 389  | <b>7,87</b>                                      | 8482             | 2,6  |                                  |                     |                  |                      |              |            |
| 211  | 329  | <b>6,65</b>                                      | 8143             | 3,0  |                                  |                     |                  |                      |              |            |
| 86   | 799  | <b>16,20</b>                                     | 1186             | 0,9  | <b>MR372-132M/4</b>              | 15,30               | 91               | 111                  | MR301        |            |
| 103  | 668  | <b>13,53</b>                                     | 2440             | 1,0  | <b>NR372-132M/4</b>              |                     | 93               |                      | NR301        |            |
| 112  | 616  | <b>12,48</b>                                     | 2905             | 1,1  |                                  |                     |                  |                      |              |            |
| 130  | 534  | <b>10,80</b>                                     | 3606             | 1,2  |                                  |                     |                  |                      |              |            |
| 149  | 466  | <b>9,41</b>                                      | 4138             | 1,3  |                                  |                     |                  |                      |              |            |
| 170  | 409  | <b>8,25</b>                                      | 4542             | 1,4  |                                  |                     |                  |                      |              |            |
| 205  | 339  | <b>6,84</b>                                      | 4534             | 1,7  |                                  |                     |                  |                      |              |            |
| 235  | 296  | <b>5,97</b>                                      | 4806             | 1,8  |                                  |                     |                  |                      |              |            |
| 268  | 259  | <b>5,23</b>                                      | 4998             | 2,0  |                                  |                     |                  |                      |              |            |
| 298  | 233  | <b>9,41</b>                                      | 5098             | 2,0  | <b>MR372-132S/2b</b>             | 14,60               | 81               | 111                  | MR302        |            |
| 340  | 204  | <b>8,25</b>                                      | 4850             | 2,2  | <b>NR372-132S/2b</b>             |                     | 83               |                      | NR302        |            |
| 409  | 170  | <b>6,84</b>                                      | 4565             | 2,5  |                                  |                     |                  |                      |              |            |
| 469  | 148  | <b>5,97</b>                                      | 4335             | 2,8  |                                  |                     |                  |                      |              |            |
| 536  | 130  | <b>5,23</b>                                      | 4127             | 3,1  |                                  |                     |                  |                      |              |            |
| 565  | 123  | <b>4,96</b>                                      | 4095             | 3,1  |                                  |                     |                  |                      |              |            |
| 653  | 107  | <b>4,29</b>                                      | 3878             | 3,3  |                                  |                     |                  |                      |              |            |
| 749  | 93   | <b>3,74</b>                                      | 3685             | 3,5  |                                  |                     |                  |                      |              |            |
| 855  | 81   | <b>3,28</b>                                      | 3510             | 3,7  |                                  |                     |                  |                      |              |            |
| 132  | 523  | <b>10,57</b>                                     | 1074             | 0,8  | <b>MR282-132M/4</b>              | 15,30               | 83               | 108                  | MR303        |            |
| 146  | 476  | <b>9,61</b>                                      | 1543             | 0,8  | <b>NR282-132M/4</b>              |                     | 85               |                      | NR303        |            |
| 168  | 412  | <b>8,33</b>                                      | 2141             | 0,9  |                                  |                     |                  |                      |              |            |
| 194  | 357  | <b>7,21</b>                                      | 2624             | 1,0  |                                  |                     |                  |                      |              |            |
| 224  | 309  | <b>6,25</b>                                      | 2169             | 1,2  |                                  |                     |                  |                      |              |            |
| 262  | 265  | <b>5,35</b>                                      | 2607             | 1,2  |                                  |                     |                  |                      |              |            |
| 303  | 229  | <b>4,62</b>                                      | 2929             | 1,2  |                                  |                     |                  |                      |              |            |
| 333  | 208  | <b>4,20</b>                                      | 3094             | 1,2  |                                  |                     |                  |                      |              |            |
| 385  | 180  | <b>3,64</b>                                      | 3291             | 1,3  |                                  |                     |                  |                      |              |            |
| 444  | 156  | <b>3,15</b>                                      | 3434             | 1,4  |                                  |                     |                  |                      |              |            |
| 524  | 132  | <b>5,35</b>                                      | 3541             | 2,0  | <b>MR282-132S/2b</b>             | 14,60               | 83               | 108                  | MR304        |            |
| 607  | 114  | <b>4,62</b>                                      | 3412             | 2,0  | <b>NR282-132S/2b</b>             |                     | 85               |                      | NR304        |            |
| 667  | 104  | <b>4,20</b>                                      | 3291             | 2,0  |                                  |                     |                  |                      |              |            |
| 769  | 90   | <b>3,64</b>                                      | 3117             | 2,1  |                                  |                     |                  |                      |              |            |
| 889  | 78   | <b>3,15</b>                                      | 2953             | 2,2  |                                  |                     |                  |                      |              |            |



# Motorlu Güç Devir Sayfaları

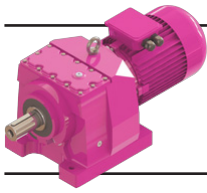
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi                | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|---------------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type                | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ                 | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 11<br>15   | 4,8  | 20564  | <b>186,95</b>    | 76718  | 0,9                              | <b>MR973-160L/6</b> | 22,00            | 1131                 | 129          | MR382      |
|  | 5,4  | 18361  | <b>166,73</b>    | 92705  | 1,0                              | <b>NR973-160L/6</b> |                  | 1181                 |              | NR382      |
|  | 6,8  | 14630  | <b>132,83</b>    | 113278   | 1,2                              |                     |                  |                      |              |            |
|  | 7,5  | 13265  | <b>186,95</b>    | 119565   | 1,4                              | <b>MR973-160M/4</b> | 21,50            | 1108                 | 129          | MR383      |
|  | 8,4  | 11845  | <b>166,73</b>    | 125147   | 1,5                              | <b>NR973-160M/4</b> |                  | 1158                 |              | NR383      |
|  | 9,3  | 10670  | <b>150,02</b>    | 129764   | 1,7                              |                     |                  |                      |              |            |
|  | 11   | 9439   | <b>132,83</b>    | 133986   | 1,9                              |                     |                  |                      |              |            |
|  | 12   | 8269   | <b>116,17</b>    | 137718   | 2,2                              |                     |                  |                      |              |            |
|  | 14   | 7319   | <b>102,69</b>    | 140569   | 2,5                              |                     |                  |                      |              |            |
|  | 15   | 6533   | <b>91,56</b>     | 142817   | 2,8                              |                     |                  |                      |              |            |
|  | 17   | 5872   | <b>82,20</b>     | 144822   | 3,1                              |                     |                  |                      |              |            |
|  | 8,2  | 12087  | <b>110,17</b>    | 77560  | 1,1                              | <b>MR873-160L/6</b> | 22,00            | 650                  | 126          | MR305      |
|  | 9,0  | 10951  | <b>99,81</b>     | 83256  | 1,2                              | <b>NR873-160L/6</b> |                  | 655                  |              | NR305      |
|  | 10   | 9491   | <b>86,51</b>     | 89670  | 1,4                              |                     |                  |                      |              |            |
|  | 12   | 8285   | <b>75,51</b>     | 94284  | 1,6                              |                     |                  |                      |              |            |
|  | 14   | 7107   | <b>64,77</b>     | 98501  | 1,8                              |                     |                  |                      |              |            |
|  | 13   | 7770   | <b>110,17</b>    | 96072  | 1,7                              | <b>MR873-160M/4</b> | 21,50            | 645                  | 126          | MR306      |
|  | 14   | 7040   | <b>99,81</b>     | 98725  | 1,8                              | <b>NR873-160M/4</b> |                  | 650                  |              | NR306      |
|  | 16   | 6102   | <b>86,51</b>     | 101718   | 2,1                              |                     |                  |                      |              |            |
|  | 19   | 5326   | <b>75,51</b>     | 104015   | 2,4                              |                     |                  |                      |              |            |
|  | 22   | 4569   | <b>64,77</b>     | 106110   | 2,8                              |                     |                  |                      |              |            |
|  | 25   | 3988   | <b>56,54</b>     | 107619   | 3,3                              |                     |                  |                      |              |            |
|  | 26   | 3728   | <b>52,86</b>     | 108779   | 3,5                              |                     |                  |                      |              |            |
|  |  |  |                  |  |                                  |                     |                  |                      |              |            |
|  | 11   | 9431   | <b>133,05</b>    | 42683  | 0,8                              | <b>MR773-160M/4</b> | 21,50            | 413                  | 123          | MR474      |
|  | 12   | 8150   | <b>115,06</b>    | 48302  | 1,0                              | <b>NR773-160M/4</b> |                  | 505                  |              | NR474      |
|  | 14   | 7067   | <b>99,63</b>     | 52331  | 1,1                              |                     |                  |                      |              |            |
|  | 16   | 6190   | <b>87,13</b>     | 55154  | 1,3                              |                     |                  |                      |              |            |
|  | 18   | 5463   | <b>76,81</b>     | 57361  | 1,5                              |                     |                  |                      |              |            |
|  | 21   | 4852   | <b>68,15</b>     | 59020  | 1,6                              |                     |                  |                      |              |            |
|  | 23   | 4331   | <b>60,76</b>     | 60618  | 1,8                              |                     |                  |                      |              |            |
|  | 24   | 4173   | <b>58,59</b>     | 60735  | 1,9                              |                     |                  |                      |              |            |
|  | 28   | 3619   | <b>50,75</b>     | 62020  | 2,2                              |                     |                  |                      |              |            |
|  | 32   | 3154   | <b>44,17</b>     | 63029  | 2,5                              |                     |                  |                      |              |            |
|  | 36   | 2816   | <b>39,33</b>     | 63719  | 2,8                              |                     |                  |                      |              |            |
|  | 40   | 2501   | <b>34,89</b>     | 64337  | 3,2                              |                     |                  |                      |              |            |
|  | 45   | 2233   | <b>31,11</b>     | 64843  | 3,6                              |                     |                  |                      |              |            |
| 47   | 2151   | <b>30,00</b>                                     | 64993            | 3,7  |                                  |                     |                  |                      |              |            |
|  | 23   | 4370   | <b>61,42</b>     | 25961  | 1,0                              | <b>MR673-160M/4</b> | 21,50            | 282                  | 120          | MR475      |
|  | 26   | 3847   | <b>53,99</b>     | 26872  | 1,1                              | <b>NR673-160M/4</b> |                  | 295                  |              | NR475      |
|  | 27   | 3752   | <b>52,68</b>     | 26786  | 1,1                              |                     |                  |                      |              |            |
|  | 31   | 3231   | <b>45,29</b>     | 26206  | 1,3                              |                     |                  |                      |              |            |
|  | 36   | 2808   | <b>39,30</b>     | 25594  | 1,4                              |                     |                  |                      |              |            |
|  | 41   | 2458   | <b>34,36</b>     | 24966  | 1,6                              |                     |                  |                      |              |            |
|  | 46   | 2164   | <b>30,20</b>     | 24332  | 1,7                              |                     |                  |                      |              |            |
|  | 53   | 1913   | <b>26,66</b>     | 23696  | 1,8                              |                     |                  |                      |              |            |
|  | 60   | 1679   | <b>23,18</b>     | 22963  | 2,2                              | <b>MR672-160M/4</b> | 21,50            | 280                  | 120          | MR476      |
|  | 68   | 1504   | <b>20,74</b>     | 22371  | 2,4                              | <b>NR672-160M/4</b> |                  | 290                  |              | NR476      |
|  | 78   | 1299   | <b>17,93</b>     | 21593  | 2,7                              |                     |                  |                      |              |            |
|  | 90   | 1126   | <b>15,53</b>     | 20821  | 3,0                              |                     |                  |                      |              |            |
|  | 103  | 986  | <b>13,58</b>     | 20106  | 3,3                              |                     |                  |                      |              |            |
|  | 117  | 870  | <b>11,97</b>     | 19439  | 3,6                              |                     |                  |                      |              |            |

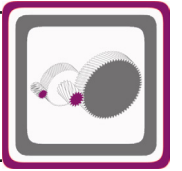




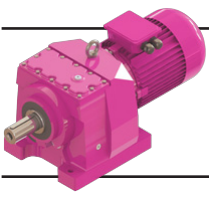
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



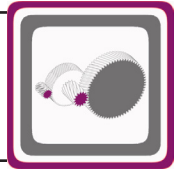
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi                                       | Anma Akımı                                 | Ağırlık              | Ölçü Sayfası | Fiyat Kodu     |                |
|--|--|--|------------------|--|----------------------------------|--|--|----------------------|--------------|----------------|----------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type                                       | Rated Current                              | Weight               | Dim. Page    | Price Ref.     |                |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ  | Nennstrom<br>[A]                           | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.      |                |
| 11<br>15   | 35   | 2854   | <b>39,98</b>     | 18777  | 1,0                              | <b>MR573-160M/4</b>                        | 21,50                                      | 213                  | 117          | MR477          |                |
|  | 40   | 2524   | <b>35,31</b>     | 18539  | 1,1                              | <b>NR573-160M/4</b>                        |  | 205                  |              | NR477          |                |
|  | 45   | 2246   | <b>31,38</b>     | 18265  | 1,2                              |  |  |                      |              |                |                |
|  | 53   | 1903   | <b>26,54</b>     | 17812  | 1,3                              |  |  |                      |              |                |                |
|  | 61   | 1668   | <b>23,02</b>     | 17380  | 1,6                              | <b>MR572-160M/4</b>                        | 21,50                                      | 210                  | 117          | MR478          |                |
|  | 73   | 1389   | <b>19,15</b>     | 16775  | 1,8                              | <b>NR572-160M/4</b>                        |  | 202                  |              | NR478          |                |
|  | 82   | 1239   | <b>17,07</b>     | 16377  | 2,0                              |  |  |                      |              |                |                |
|  | 96   | 1054   | <b>14,54</b>     | 15806  | 2,3                              |  |  |                      |              |                |                |
|  | 112  | 908  | <b>12,50</b>     | 15257  | 2,6                              |  |  |                      |              |                |                |
|  | 129  | 789  | <b>10,85</b>     | 14737  | 2,9                              |  |  |                      |              |                |                |
|  | 148  | 690  | <b>9,48</b>      | 14244  | 3,2                              |  |  |                      |              |                |                |
|  | 168  | 607  | <b>8,34</b>      | 13773  | 3,6                              |  |  |                      |              |                |                |
|  | 189  | 540  | <b>7,41</b>      | 13252  | 4,0                              |  |  |                      |              |                |                |
|  | 15<br>20   | 64   | 1557             | <b>21,74</b>                                     | 8645                             | 1,0  | <b>MR473-160M/4</b>                        | 21,50                | 182          | 114            | MR313          |
|  |  | 78   | 1294             | <b>18,04</b>                                     | 8672                             | 1,2  | <b>NR473-160M/4</b>                        |                      | 184          |                | NR313          |
| 81   |  | 1249   | <b>17,25</b>     | 8842   | 1,0                              | <b>MR472-160M/4</b>                        | 21,50                                      | 180                  | 114          | MR314          |                |
| 91   |  | 1114   | <b>15,35</b>     | 8777   | 1,1                              | <b>NR472-160M/4</b>                        |  | 182                  |              | NR314          |                |
| 103  |  | 984  | <b>13,56</b>     | 8677   | 1,2                              |  |  |                      |              |                |                |
| 116  |  | 876  | <b>12,05</b>     | 8559   | 1,3                              |  |  |                      |              |                |                |
| 130  |  | 783  | <b>10,79</b>     | 8317   | 1,4                              |  |  |                      |              |                |                |
| 147  |  | 692  | <b>9,53</b>      | 8168   | 1,5                              |  |  |                      |              |                |                |
| 165  |  | 616  | <b>8,47</b>      | 8012   | 1,7                              |  |  |                      |              |                |                |
| 178  |  | 571  | <b>7,87</b>      | 7909   | 1,8                              |  |  |                      |              |                |                |
| 211  |  | 483  | <b>6,65</b>      | 7658   | 2,0                              |  |  |                      |              |                |                |
| 247  |  | 412  | <b>5,66</b>      | 7405   | 2,2                              |  |  |                      |              |                |                |
| 287  |  | 356  | <b>4,89</b>      | 7041   | 2,2                              |  |  |                      |              |                |                |
| 309  |  | 330  | <b>4,54</b>      | 6928   | 2,1                              |  |  |                      |              |                |                |
| 365  |  | 280  | <b>3,83</b>      | 6666   | 2,3                              |  |  |                      |              |                |                |
| 429  | 238  | <b>3,27</b>                                      | 6404             | 2,5  |                                  |  |  |                      |              |                |                |
| 15<br>20   | 6,8  | 19953  | <b>132,83</b>    | 81953  | 0,9                              | <b>MR973-180L/6</b><br><b>NR973-180L/6</b> | 29,00                                      | 1187<br>1237         | 129          | MR384<br>NR384 |                |
|  | 7,5  | 18091  | <b>186,95</b>    | 94405  | 1,0                              | <b>MR973-160L/4</b><br><b>NR973-160L/4</b> | 29,00                                      | 1140<br>1190         | 129          | MR385<br>NR385 |                |
|  | 8,4  | 16155  | <b>166,73</b>    | 105558   | 1,1                              |  |  |                      |              |                |                |
|  | 9,3  | 14552  | <b>150,02</b>    | 113609   | 1,2                              |  |  |                      |              |                |                |
|  | 11   | 12874  | <b>132,83</b>    | 121059   | 1,4                              |  |  |                      |              |                |                |
|  | 12   | 11277  | <b>116,17</b>    | 127373   | 1,6                              |  |  |                      |              |                |                |
|  | 14   | 9982   | <b>102,69</b>    | 132035   | 1,8                              |  |  |                      |              |                |                |
|  | 15   | 8911   | <b>91,56</b>     | 135622   | 2,0                              |  |  |                      |              |                |                |
|  | 17   | 8009   | <b>82,20</b>     | 138467   | 2,2                              |  |  |                      |              |                |                |
|  | 20   | 6830   | <b>70,07</b>     | 142012   | 2,6                              |  |  |                      |              |                |                |
|  | 23   | 6029   | <b>61,77</b>     | 144077   | 3,0                              |  |  |                      |              |                |                |
|  | 26   | 5355   | <b>54,80</b>     | 146026   | 3,4                              |  |  |                      |              |                |                |
|  | 15<br>20   | 8,2  | 16483            | <b>110,17</b>                                    | 46009                            | 0,8  | <b>MR873-180L/6</b><br><b>NR873-180L/6</b> | 29,00                | 655<br>660   | 126            | MR315<br>NR315 |
|  |  | 9,0  | 14933            | <b>99,81</b>                                     | 59313                            | 0,9  |  |                      |              |                |                |
|  |  | 10   | 12943            | <b>86,51</b>                                     | 72798                            | 1,0  |  |                      |              |                |                |
| 12   |  | 11298  | <b>75,51</b>     | 81586  | 1,2                              |  |  |                      |              |                |                |
| 15<br>20   | 13   | 10596  | <b>110,17</b>    | 84902  | 1,2                              | <b>MR873-160L/4</b><br><b>NR873-160L/4</b> | 29,00                                      | 615<br>620           | 126          | MR316<br>NR316 |                |
|  | 14   | 9600   | <b>99,81</b>     | 89226  | 1,4                              |  |  |                      |              |                |                |
|  | 16   | 8320   | <b>86,51</b>     | 94158  | 1,6                              |  |  |                      |              |                |                |
|  | 19   | 7263   | <b>75,51</b>     | 97976  | 1,8                              |  |  |                      |              |                |                |
|  | 22   | 6230   | <b>64,77</b>     | 101322   | 2,1                              |  |  |                      |              |                |                |
|  | 25   | 5438   | <b>56,54</b>     | 103692   | 2,4                              |  |  |                      |              |                |                |



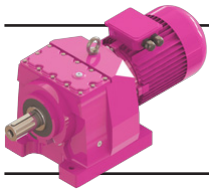
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



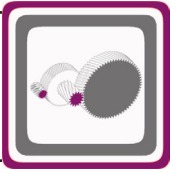
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi                                       | Anma Akımı                                 | Ağırlık              | Ölçü Sayfası | Fiyat Kodu     |                |
|--|--|--|------------------|--|----------------------------------|--|--|----------------------|--------------|----------------|----------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type                                       | Rated Current                              | Weight               | Dim. Page    | Price Ref.     |                |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ  | Nennstrom<br>[A]                           | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.      |                |
| 15<br>20   | 26   | 5084   | <b>52,86</b>     | 105493   | 2,6                              | <b>MR873-160L/4</b>                        | 29,00                                      | 615                  | 126          | MR316          |                |
|  | 30   | 4436   | <b>46,12</b>     | 106902   | 2,9                              | <b>NR873-160L/4</b>                        |  | 620                  |              | NR316          |                |
|  | 35   | 3900   | <b>40,55</b>     | 108032   | 3,3                              |  |  |                      |              |                |                |
|  | 14   | 9639   | <b>99,63</b>     | 41586  | 0,8                              | <b>MR773-160L/4</b>                        | 29,00                                      | 406                  | 123          | MR479          |                |
|  | 16   | 8442   | <b>87,13</b>     | 47100  | 0,9                              | <b>NR773-160L/4</b>                        |  | 490                  |              | NR479          |                |
|  | 18   | 7451   | <b>76,81</b>     | 50943  | 1,1                              |  |  |                      |              |                |                |
|  | 21   | 6618   | <b>68,15</b>     | 53824  | 1,2                              |  |  |                      |              |                |                |
|  | 23   | 5907   | <b>60,76</b>     | 56400  | 1,4                              |  |  |                      |              |                |                |
|  | 24   | 5691   | <b>58,59</b>     | 56702  | 1,4                              |  |  |                      |              |                |                |
|  | 28   | 4937   | <b>50,75</b>     | 58795  | 1,6                              |  |  |                      |              |                |                |
|  | 32   | 4302   | <b>44,17</b>     | 60399  | 1,9                              |  |  |                      |              |                |                |
|  | 36   | 3840   | <b>39,33</b>     | 61480  | 2,1                              |  |  |                      |              |                |                |
|  | 40   | 3411   | <b>34,89</b>     | 62435  | 2,3                              |  |  |                      |              |                |                |
|  | 45   | 3045   | <b>31,11</b>     | 63208  | 2,6                              |  |  |                      |              |                |                |
|  | 47   | 2934   | <b>30,00</b>     | 63432  | 2,7                              |  |  |                      |              |                |                |
|  | 54   | 2545   | <b>25,99</b>     | 64276  | 3,1                              |  |  |                      |              |                |                |
|  | 62   | 2218   | <b>22,62</b>     | 64903  | 3,6                              |  |  |                      |              |                |                |
|  | 65   | 2115   | <b>21,40</b>     | 65074  | 3,8                              | <b>MR772-160L/4</b><br><b>NR772-160L/4</b> | 29,00                                      | 376<br>460           | 123          | MR480<br>NR480 |                |
|  | 31   | 4406   | <b>45,29</b>     | 23681  | 0,9                              | <b>MR673-160L/4</b><br><b>NR673-160L/4</b> | 29,00                                      | 305<br>317           | 120          | MR481<br>NR481 |                |
|  | 36   | 3830   | <b>39,30</b>     | 23403  | 1,0                              |  |  |                      |              |                |                |
|  | 41   | 3353   | <b>34,36</b>     | 23050  | 1,1                              |  |  |                      |              |                |                |
|  | 46   | 2951   | <b>30,20</b>     | 22648  | 1,2                              |  |  |                      |              |                |                |
|  | 53   | 2609   | <b>26,66</b>     | 22209  | 1,4                              |  |  |                      |              |                |                |
|  | 60   | 2290   | <b>23,18</b>     | 21671  | 1,6                              | <b>MR672-160L/4</b><br><b>NR672-160L/4</b> | 29,00                                      | 300<br>312           | 120          | MR482<br>NR482 |                |
|  | 68   | 2051   | <b>20,74</b>     | 21215  | 1,7                              |  |  |                      |              |                |                |
|  | 78   | 1772   | <b>17,93</b>     | 20593  | 2,0                              |  |  |                      |              |                |                |
|  | 90   | 1536   | <b>15,53</b>     | 19955  | 2,2                              |  |  |                      |              |                |                |
|  | 103  | 1345   | <b>13,58</b>     | 19349  | 2,4                              |  |  |                      |              |                |                |
|  | 117  | 1187   | <b>11,97</b>     | 18772  | 2,7                              |  |  |                      |              |                |                |
|  | 132  | 1054   | <b>10,62</b>     | 18222  | 2,9                              |  |  |                      |              |                |                |
|  | 148  | 941  | <b>9,47</b>      | 17696  | 3,2                              |  |  |                      |              |                |                |
|  | 153  | 906  | <b>9,13</b>      | 17529  | 3,3                              |  |  |                      |              |                |                |
|  | 177  | 786  | <b>7,91</b>      | 16876  | 3,7                              |  |  |                      |              |                |                |
|  | 45   | 3064   | <b>31,38</b>     | 16306  | 0,9                              | <b>MR573-160L/4</b><br><b>NR573-160L/4</b> | 29,00                                      | 251<br>242           | 117          | MR483<br>NR483 |                |
|  | 53   | 2596   | <b>26,54</b>     | 16155  | 1,0                              |  |  |                      |              |                |                |
|  |  | 61   | 2275             | <b>23,02</b>                                     | 15943                            | 1,2  | <b>MR572-160L/4</b><br><b>NR572-160L/4</b> | 29,00                | 245<br>237   | 117            | MR484<br>NR484 |
|  |  | 73   | 1894             | <b>19,15</b>                                     | 15580                            | 1,3  |  |                      |              |                |                |
|  |  | 82   | 1689             | <b>17,07</b>                                     | 15311                            | 1,5  |  |                      |              |                |                |
|  |  | 96   | 1438             | <b>14,54</b>                                     | 14899                            | 1,7  |  |                      |              |                |                |
| 112  |  | 1238   | <b>12,50</b>     | 14476  | 1,9                              |  |  |                      |              |                |                |
| 129  |  | 1076   | <b>10,85</b>     | 14060  | 2,1                              |  |  |                      |              |                |                |
| 148  |  | 941  | <b>9,48</b>      | 13652  | 2,3                              |  |  |                      |              |                |                |
| 168  |  | 828  | <b>8,34</b>      | 13253  | 2,6                              |  |  |                      |              |                |                |
| 189  |  | 736  | <b>7,41</b>      | 12754  | 3,0                              |  |  |                      |              |                |                |
| 218  |  | 640  | <b>6,43</b>      | 12326  | 3,3                              |  |  |                      |              |                |                |
| 249  |  | 560  | <b>5,63</b>      | 11919  | 3,5                              |  |  |                      |              |                |                |
| 283  |  | 493  | <b>4,95</b>      | 11529  | 3,9                              |  |  |                      |              |                |                |
| 321  |  | 435  | <b>4,37</b>      | 11156  | 4,0                              |  |  |                      |              |                |                |
|  |  | 78   | 1765             | <b>18,04</b>                                     | 7168                             | 0,9  | <b>MR473-160L/4</b><br><b>NR473-160L/4</b> | 29,00                | 202<br>205   | 114            | MR323<br>NR323 |



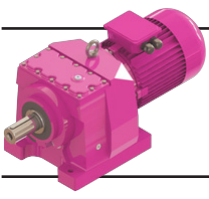
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



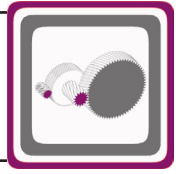
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi          | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|---------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type          | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ           | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 15<br>20   | 81   | 1704   | 17,25            | 7469   | 0,8                              | MR472-160L/4  | 29,00            | 200                  | 114          | MR324      |
|  | 91   | 1519   | 15,35            | 7555   | 0,8                              | NR472-160L/4  |                  | 203                  |              | NR324      |
|  | 103  | 1343   | 13,56            | 7598   | 0,9                              |               |                  |                      |              |            |
|  | 116  | 1195   | 12,05            | 7599   | 1,0                              |               |                  |                      |              |            |
|  | 130  | 1068   | 10,79            | 7418   | 1,0                              |               |                  |                      |              |            |
|  | 147  | 944  | 9,53             | 7374   | 1,1                              |               |                  |                      |              |            |
|  | 165  | 840  | 8,47             | 7306   | 1,2                              |               |                  |                      |              |            |
|  | 178  | 779  | 7,87             | 7253   | 1,3                              |               |                  |                      |              |            |
|  | 211  | 659  | 6,65             | 7104   | 1,5                              |               |                  |                      |              |            |
|  | 247  | 562  | 5,66             | 6933   | 1,6                              |               |                  |                      |              |            |
|  | 287  | 486  | 4,89             | 6588   | 1,6                              |               |                  |                      |              |            |
|  | 309  | 451  | 4,54             | 6507   | 1,6                              |               |                  |                      |              |            |
|  | 365  | 382  | 3,83             | 6310   | 1,7                              |               |                  |                      |              |            |
| 429  | 325  | 3,27   | 6110             | 1,8  |                                  |               |                  |                      |              |            |
| 18,5<br>25   | 8,4  | 19925  | 166,73           | 81754  | 0,9                              | MR973-180M/4  | 36,00            | 1160                 | 129          | MR386      |
|  | 9,3  | 17949  | 150,02           | 95286  | 1,0                              | NR973-180M/4  |                  | 1210                 |              | NR386      |
|  | 11   | 15879  | 132,83           | 107016   | 1,1                              |               |                  |                      |              |            |
|  | 12   | 13910  | 116,17           | 116530   | 1,3                              |               |                  |                      |              |            |
|  | 14   | 12312  | 102,69           | 123314   | 1,5                              |               |                  |                      |              |            |
|  | 15   | 10991  | 91,56            | 128406   | 1,6                              |               |                  |                      |              |            |
|  | 17   | 9879   | 82,20            | 132373   | 1,8                              |               |                  |                      |              |            |
|  | 20   | 8424   | 70,07            | 137243   | 2,1                              |               |                  |                      |              |            |
|  | 23   | 7436   | 61,77            | 140202   | 2,4                              |               |                  |                      |              |            |
|  | 26   | 6605   | 54,80            | 142613   | 2,7                              |               |                  |                      |              |            |
|  | 29   | 5896   | 48,86            | 144582   | 3,1                              |               |                  |                      |              |            |
|  | 33   | 5109   | 42,30            | 146652   | 3,5                              |               |                  |                      |              |            |
|  | 12   | 13934  | 75,51            | 66643  | 0,9                              | MR873-200L/6a | 36,00            | 705                  | 126          | MR325      |
|  | 14   | 11952  | 64,77            | 78272  | 1,1                              | NR873-200L/6a |                  | 710                  |              | NR325      |
|  | 16   | 10262  | 86,51            | 86402  | 1,3                              | MR873-180M/4  | 36,00            | 660                  | 126          | MR326      |
|  | 19   | 8958   | 75,51            | 91786  | 1,5                              | NR873-180M/4  |                  | 665                  |              | NR326      |
|  | 22   | 7684   | 64,77            | 96363  | 1,7                              |               |                  |                      |              |            |
|  | 25   | 6707   | 56,54            | 99813  | 1,9                              |               |                  |                      |              |            |
|  | 26   | 6270   | 52,86            | 102280   | 2,1                              |               |                  |                      |              |            |
|  | 30   | 5471   | 46,12            | 104193   | 2,4                              |               |                  |                      |              |            |
|  | 35   | 4810   | 40,55            | 105716   | 2,7                              |               |                  |                      |              |            |
|  | 18   | 9190   | 76,81            | 43763  | 0,9                              | MR773-180M/4  | 36,00            | 423                  | 123          | MR485      |
|  | 21   | 8162   | 68,15            | 48251  | 1,0                              | NR773-180M/4  |                  | 515                  |              | NR485      |
| 23   | 7286   | 60,76  | 51573            | 1,1  |                                  |               |                  |                      |              |            |
| 24   | 7020   | 58,59  | 52505            | 1,1  |                                  |               |                  |                      |              |            |
| 28   | 6089   | 50,75  | 55514            | 1,3  |                                  |               |                  |                      |              |            |
| 32   | 5306   | 44,17  | 57777            | 1,5  |                                  |               |                  |                      |              |            |
| 36   | 4737   | 39,33  | 59279            | 1,7  |                                  |               |                  |                      |              |            |
| 40   | 4207   | 34,89  | 60587            | 1,9  |                                  |               |                  |                      |              |            |
| 45   | 3756   | 31,11  | 61632            | 2,1  |                                  |               |                  |                      |              |            |
| 47   | 3619   | 30,00  | 61939            | 2,2  |                                  |               |                  |                      |              |            |
| 54   | 3139   | 25,99  | 63056            | 2,5  |                                  |               |                  |                      |              |            |
| 62   | 2736   | 22,62  | 63888            | 2,9  |                                  |               |                  |                      |              |            |
| 65   | 2609   | 21,40  | 64116            | 3,1  | MR772-180M/4                     | 36,00         | 418              | 123                  | MR486        |            |
| 75   | 2274   | 18,63  | 64753            | 3,5  | NR772-180M/4                     |               | 510              |                      | NR486        |            |
| 36   | 4724   | 39,30  | 21486            | 0,8  | MR673-180M/4                     | 36,00         | 314              | 120                  | MR487        |            |
| 41   | 4135   | 34,36  | 21375            | 0,9  | NR673-180M/4                     |               | 328              |                      | NR487        |            |
| 46   | 3640   | 30,20  | 21174            | 1,0  |                                  |               |                  |                      |              |            |
| 53   | 3218   | 26,66  | 20909            | 1,1  |                                  |               |                  |                      |              |            |



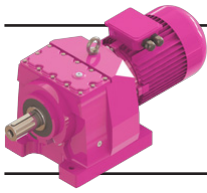
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



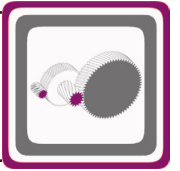
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi                | Anma Akımı           | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |       |
|--|--|--|------------------|--|----------------------------------|---------------------|----------------------|----------------------|--------------|------------|-------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type                | Rated Current        | Weight               | Dim. Page    | Price Ref. |       |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ                 | Nennstrom<br>[A]     | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |       |
| <b>18,5</b><br>25                                      | 60   | 2825   | <b>23,18</b>     | 20540  | 1,3                              | <b>MR672-180M/4</b> | 36,00                | 311                  | 120          | MR488      |       |
|  | 68   | 2530   | <b>20,74</b>     | 20204  | 1,4                              | <b>NR672-180M/4</b> |                      | 325                  |              | NR488      |       |
|  | 78   | 2185   | <b>17,93</b>     | 19719  | 1,6                              |                     |                      |                      |              |            |       |
|  | 90   | 1895   | <b>15,53</b>     | 19198  | 1,8                              |                     |                      |                      |              |            |       |
|  | 103  | 1660   | <b>13,58</b>     | 18686  | 2,0                              |                     |                      |                      |              |            |       |
|  | 117  | 1465   | <b>11,97</b>     | 18188  | 2,2                              |                     |                      |                      |              |            |       |
|  | 132  | 1301   | <b>10,62</b>     | 17704  | 2,4                              |                     |                      |                      |              |            |       |
|  | 148  | 1161   | <b>9,47</b>      | 17234  | 2,6                              |                     |                      |                      |              |            |       |
|  | 153  | 1118   | <b>9,13</b>      | 17084  | 2,7                              |                     |                      |                      |              |            |       |
|  | 177  | 970  | <b>7,91</b>      | 16490  | 3,0                              |                     |                      |                      |              |            |       |
|  | 203  | 845  | <b>6,88</b>      | 15916  | 3,4                              |                     |                      |                      |              |            |       |
|  | 244  | 704  | <b>5,73</b>      | 14984  | 4,0                              |                     |                      |                      |              |            |       |
|  |  | 73   | 2336             | <b>19,15</b>                                     | 14534                            | 1,1                 | <b>MR572-180M/4</b>  | 36,00                | 262          | 117        | MR489 |
|  |  | 82   | 2084             | <b>17,07</b>                                     | 14379                            | 1,2                 | <b>NR572-180M/4</b>  |                      | 250          |            | NR489 |
|  |  | 96   | 1773             | <b>14,54</b>                                     | 14104                            | 1,3                 |                      |                      |              |            |       |
|  |  | 112  | 1527             | <b>12,50</b>                                     | 13794                            | 1,5                 |                      |                      |              |            |       |
|  |  | 129  | 1327             | <b>10,85</b>                                     | 13468                            | 1,7                 |                      |                      |              |            |       |
|  |  | 148  | 1161             | <b>9,48</b>                                      | 13134                            | 1,9                 |                      |                      |              |            |       |
|  |  | 168  | 1022             | <b>8,34</b>                                      | 12798                            | 2,1                 |                      |                      |              |            |       |
|  |  | 189  | 908              | <b>7,41</b>                                      | 12318                            | 2,4                 |                      |                      |              |            |       |
|  |  | 218  | 789              | <b>6,43</b>                                      | 11948                            | 2,6                 |                      |                      |              |            |       |
|  |  | 249  | 691              | <b>5,63</b>                                      | 11588                            | 2,9                 |                      |                      |              |            |       |
|  |  | 283  | 608              | <b>4,95</b>                                      | 11239                            | 3,1                 |                      |                      |              |            |       |
|  |  | 321  | 537              | <b>4,37</b>                                      | 10899                            | 3,4                 |                      |                      |              |            |       |
|  | 103  | 1656   | <b>13,56</b>     | 6653   | 0,7                              | <b>MR472-180M/4</b> | 36,00                | 242                  | 114          | MR333      |       |
|  | 116  | 1474   | <b>12,05</b>     | 6760   | 0,8                              | <b>NR472-180M/4</b> |                      | 245                  |              | NR333      |       |
|  | 130  | 1318   | <b>10,79</b>     | 6630   | 0,8                              |                     |                      |                      |              |            |       |
|  | 147  | 1165   | <b>9,53</b>      | 6679   | 0,9                              |                     |                      |                      |              |            |       |
|  | 165  | 1036   | <b>8,47</b>      | 6688   | 1,0                              |                     |                      |                      |              |            |       |
|  | 178  | 961  | <b>7,87</b>      | 6679   | 1,1                              |                     |                      |                      |              |            |       |
|  | 211  | 813  | <b>6,65</b>      | 6619   | 1,2                              |                     |                      |                      |              |            |       |
|  | 247  | 693  | <b>5,66</b>      | 6520   | 1,3                              |                     |                      |                      |              |            |       |
|  | 287  | 600  | <b>4,89</b>      | 6191   | 1,3                              |                     |                      |                      |              |            |       |
|  | 309  | 556  | <b>4,54</b>      | 6139   | 1,3                              |                     |                      |                      |              |            |       |
|  | 365  | 471  | <b>3,83</b>      | 5999   | 1,4                              |                     |                      |                      |              |            |       |
|  | 429  | 401  | <b>3,27</b>      | 5845   | 1,5                              |                     |                      |                      |              |            |       |
| <b>22</b><br>30  | 11   | 18884  | <b>132,83</b>    | 89201  | 1,0                              | <b>MR973-180L/4</b> | 42,00                | 1185                 | 129          | MR387      |       |
|  | 12   | 16542  | <b>116,17</b>    | 103474   | 1,1                              | <b>NR973-180L/4</b> |                      | 1235                 |              | NR387      |       |
|  | 14   | 14643  | <b>102,69</b>    | 113137   | 1,2                              |                     |                      |                      |              |            |       |
|  | 15   | 13071  | <b>91,56</b>     | 120169   | 1,4                              |                     |                      |                      |              |            |       |
|  | 17   | 11749  | <b>82,20</b>     | 125527   | 1,5                              |                     |                      |                      |              |            |       |
|  | 20   | 10018  | <b>70,07</b>     | 131991   | 1,8                              |                     |                      |                      |              |            |       |
|  | 23   | 8844   | <b>61,77</b>     | 135846   | 2,0                              |                     |                      |                      |              |            |       |
|  | 26   | 7855   | <b>54,80</b>     | 139151   | 2,3                              |                     |                      |                      |              |            |       |
|  | 29   | 7012   | <b>48,86</b>     | 141455   | 2,6                              |                     |                      |                      |              |            |       |
|  | 33   | 6076   | <b>42,30</b>     | 144081   | 3,0                              |                     |                      |                      |              |            |       |
|  | 38   | 5364   | <b>37,29</b>     | 146088   | 3,4                              |                     |                      |                      |              |            |       |
|  |  | 12   | 16570            | <b>75,51</b>                                     | 44950                            | 0,8                 | <b>MR873-200L/6b</b> | 43,00                | 720          | 126        | MR334 |
|  |  | 14   | 14214            | <b>64,77</b>                                     | 64907                            | 0,9                 | <b>NR873-200L/6b</b> |                      | 725          |            | NR334 |
|  |  | 16   | 12203            | <b>86,51</b>                                     | 76942                            | 1,1                 | <b>MR873-180L/4</b>  | 42,00                | 660          | 126        | MR335 |
|  |  | 19   | 10652            | <b>75,51</b>                                     | 84645                            | 1,2                 | <b>NR873-180L/4</b>  |                      | 665          |            | NR335 |
|  |  | 22   | 9137             | <b>64,77</b>                                     | 91003                            | 1,4                 |                      |                      |              |            |       |
|  |  | 25   | 7976             | <b>56,54</b>                                     | 95370                            | 1,6                 |                      |                      |              |            |       |
|  |  | 26   | 7457             | <b>52,86</b>                                     | 98737                            | 1,7                 |                      |                      |              |            |       |
|  | 30   | 6505   | <b>46,12</b>     | 101231   | 2,0                              |                     |                      |                      |              |            |       |
|  | 35   | 5720   | <b>40,55</b>     | 103200   | 2,3                              |                     |                      |                      |              |            |       |



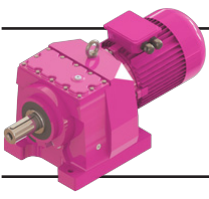
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



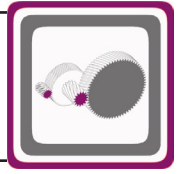
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi                | Anma Akımı          | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |       |
|--|--|--|------------------|--|----------------------------------|---------------------|---------------------|----------------------|--------------|------------|-------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type                | Rated Current       | Weight               | Dim. Page    | Price Ref. |       |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ                 | Nennstrom<br>[A]    | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |       |
| 22<br>30   | 23   | 8665   | <b>60,76</b>     | 46142  | 0,9                              | <b>MR773-180L/4</b> | 42,00               | 462                  | 123          | MR490      |       |
|  | 24   | 8348   | <b>58,59</b>     | 47488  | 1,0                              | <b>NR773-180L/4</b> |                     | 560                  |              | NR490      |       |
|  | 28   | 7242   | <b>50,75</b>     | 51720  | 1,1                              |                     |                     |                      |              |            |       |
|  | 32   | 6310   | <b>44,17</b>     | 54810  | 1,3                              |                     |                     |                      |              |            |       |
|  | 36   | 5633   | <b>39,33</b>     | 56824  | 1,4                              |                     |                     |                      |              |            |       |
|  | 40   | 5004   | <b>34,89</b>     | 58553  | 1,6                              |                     |                     |                      |              |            |       |
|  | 45   | 4467   | <b>31,11</b>     | 60014  | 1,8                              |                     |                     |                      |              |            |       |
|  | 47   | 4304   | <b>30,00</b>     | 60418  | 1,9                              |                     |                     |                      |              |            |       |
|  | 54   | 3734   | <b>25,99</b>     | 61744  | 2,1                              |                     |                     |                      |              |            |       |
|  | 62   | 3254   | <b>22,62</b>     | 62806  | 2,5                              |                     |                     |                      |              |            |       |
|  |  | 65   | 3103             | <b>21,40</b>                                     | 63096                            | 2,6                 | <b>MR772-180L/4</b> | 42,00                | 430          | 123        | MR491 |
|  |  | 75   | 2705             | <b>18,63</b>                                     | 63897                            | 3,0                 | <b>NR772-180L/4</b> |                      | 530          |            | NR491 |
|  |  | 85   | 2382             | <b>16,39</b>                                     | 65101                            | 3,2                 |                     |                      |              |            |       |
|  |  | 96   | 2115             | <b>14,54</b>                                     | 66117                            | 3,5                 |                     |                      |              |            |       |
|  |  | 46   | 4329             | <b>30,20</b>                                     | 19701                            | 0,8                 | <b>MR673-180L/4</b> | 42,00                | 343          | 120        | MR492 |
|  |  | 53   | 3827             | <b>26,66</b>                                     | 19608                            | 0,9                 | <b>NR673-180L/4</b> |                      | 357          |            | NR492 |
|  |  | 60   | 3359             | <b>23,18</b>                                     | 19410                            | 1,1                 | <b>MR672-180L/4</b> | 42,00                | 318          | 120        | MR493 |
|  |  | 68   | 3008             | <b>20,74</b>                                     | 19192                            | 1,2                 | <b>NR672-180L/4</b> |                      | 322          |            | NR493 |
|  |  | 78   | 2599             | <b>17,93</b>                                     | 18844                            | 1,3                 |                     |                      |              |            |       |
|  |  | 90   | 2254             | <b>15,53</b>                                     | 18441                            | 1,5                 |                     |                      |              |            |       |
|  |  | 103  | 1974             | <b>13,58</b>                                     | 18024                            | 1,6                 |                     |                      |              |            |       |
|  |  | 117  | 1742             | <b>11,97</b>                                     | 17604                            | 1,8                 |                     |                      |              |            |       |
|  |  | 132  | 1547             | <b>10,62</b>                                     | 17186                            | 2,0                 |                     |                      |              |            |       |
|  |  | 148  | 1380             | <b>9,47</b>                                      | 16772                            | 2,2                 |                     |                      |              |            |       |
|  |  | 153  | 1330             | <b>9,13</b>                                      | 16639                            | 2,2                 |                     |                      |              |            |       |
|  |  | 177  | 1153             | <b>7,91</b>                                      | 16105                            | 2,5                 |                     |                      |              |            |       |
|  |  | 203  | 1005             | <b>6,88</b>                                      | 15580                            | 2,9                 |                     |                      |              |            |       |
|  |  | 244  | 837              | <b>5,73</b>                                      | 14671                            | 3,8                 |                     |                      |              |            |       |
|  |  | 275  | 743              | <b>5,08</b>                                      | 14242                            | 3,9                 |                     |                      |              |            |       |
|  |  | 309  | 663              | <b>4,53</b>                                      | 13831                            | 4,0                 |                     |                      |              |            |       |
|  | 320  | 639  | <b>4,37</b>      | 13702  | 4,0                              |                     |                     |                      |              |            |       |
|  | 370  | 554  | <b>3,79</b>      | 13192  | 4,0                              |                     |                     |                      |              |            |       |
|  | 73   | 2778   | <b>19,15</b>     | 13488  | 0,9                              | <b>MR572-180L/4</b> | 42,00               | 284                  | 117          | MR494      |       |
|  | 82   | 2478   | <b>17,07</b>     | 13447  | 1,0                              | <b>NR572-180L/4</b> |                     | 271                  |              | NR494      |       |
|  | 96   | 2109   | <b>14,54</b>     | 13310  | 1,1                              |                     |                     |                      |              |            |       |
|  | 112  | 1816   | <b>12,50</b>     | 13111  | 1,3                              |                     |                     |                      |              |            |       |
|  | 129  | 1578   | <b>10,85</b>     | 12875  | 1,4                              |                     |                     |                      |              |            |       |
|  | 148  | 1381   | <b>9,48</b>      | 12616  | 1,6                              |                     |                     |                      |              |            |       |
|  | 168  | 1215   | <b>8,34</b>      | 12342  | 1,8                              |                     |                     |                      |              |            |       |
|  | 189  | 1080   | <b>7,41</b>      | 11882  | 2,0                              |                     |                     |                      |              |            |       |
|  | 218  | 939  | <b>6,43</b>      | 11569  | 2,2                              |                     |                     |                      |              |            |       |
|  | 249  | 822  | <b>5,63</b>      | 11257  | 2,4                              |                     |                     |                      |              |            |       |
|  | 283  | 723  | <b>4,95</b>      | 10948  | 2,6                              |                     |                     |                      |              |            |       |
|  | 321  | 639  | <b>4,37</b>      | 10642  | 2,9                              |                     |                     |                      |              |            |       |
|  | 147  | 1385   | <b>9,53</b>      | 5984   | 0,8                              | <b>MR472-180L/4</b> | 42,00               | 242                  | 114          | MR341      |       |
|  | 165  | 1233   | <b>8,47</b>      | 6071   | 0,8                              | <b>NR472-180L/4</b> |                     | 244                  |              | NR341      |       |
|  | 178  | 1143   | <b>7,87</b>      | 6105   | 0,9                              |                     |                     |                      |              |            |       |
|  | 211  | 967  | <b>6,65</b>      | 6134   | 1,0                              |                     |                     |                      |              |            |       |
|  | 247  | 825  | <b>5,66</b>      | 6107   | 1,1                              |                     |                     |                      |              |            |       |
|  | 287  | 714  | <b>4,89</b>      | 5794   | 1,1                              |                     |                     |                      |              |            |       |
|  | 309  | 662  | <b>4,54</b>      | 5770   | 1,1                              |                     |                     |                      |              |            |       |
|  | 365  | 560  | <b>3,83</b>      | 5688   | 1,2                              |                     |                     |                      |              |            |       |
|  | 429  | 477  | <b>3,27</b>      | 5580   | 1,2                              |                     |                     |                      |              |            |       |



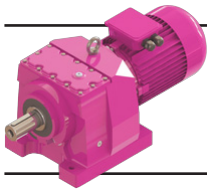
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



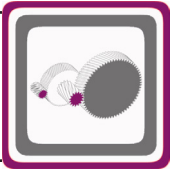
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi                | Anma Akımı          | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |       |
|--|--|--|------------------|--|----------------------------------|---------------------|---------------------|----------------------|--------------|------------|-------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type                | Rated Current       | Weight               | Dim. Page    | Price Ref. |       |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ                 | Nennstrom<br>[A]    | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |       |
| 30<br>40   | 14   | 19969  | <b>102,69</b>    | 81478  | 0,9                              | <b>MR973-200L/4</b> | 54,00               | 1240                 | 129          | MR388      |       |
|  | 15   | 17825  | <b>91,56</b>     | 96243  | 1,0                              | <b>NR973-200L/4</b> |                     | 1290                 |              | NR388      |       |
|  | 17   | 16022  | <b>82,20</b>     | 106261   | 1,1                              |                     |                     |                      |              |            |       |
|  | 20   | 13662  | <b>70,07</b>     | 117776   | 1,3                              |                     |                     |                      |              |            |       |
|  | 23   | 12060  | <b>61,77</b>     | 124360   | 1,5                              |                     |                     |                      |              |            |       |
|  | 26   | 10712  | <b>54,80</b>     | 129423   | 1,7                              |                     |                     |                      |              |            |       |
|  | 29   | 9563   | <b>48,86</b>     | 133453   | 1,9                              |                     |                     |                      |              |            |       |
|  | 33   | 8287   | <b>42,30</b>     | 137606   | 2,2                              |                     |                     |                      |              |            |       |
|  | 38   | 7316   | <b>37,29</b>     | 140677   | 2,5                              |                     |                     |                      |              |            |       |
|  | 42   | 6498   | <b>33,08</b>     | 142940   | 2,8                              |                     |                     |                      |              |            |       |
|  | 47   | 5801   | <b>29,49</b>     | 144827   | 3,1                              |                     |                     |                      |              |            |       |
|  |  | 19   | 14526            | <b>75,51</b>                                     | 62750                            | 0,9                 | <b>MR873-200L/4</b> | 54,00                | 746          | 126        | MR342 |
|  |  | 22   | 12460            | <b>64,77</b>                                     | 75541                            | 1,0                 | <b>NR873-200L/4</b> |                      | 751          |            | NR342 |
|  |  | 25   | 10877            | <b>56,54</b>                                     | 83605                            | 1,2                 |                     |                      |              |            |       |
|  | 26   | 10168  | <b>52,86</b>     | 86813  | 1,3                              |                     |                     |                      |              |            |       |
|  | 30   | 8871   | <b>46,12</b>     | 92157  | 1,5                              |                     |                     |                      |              |            |       |
|  | 35   | 7800   | <b>40,55</b>     | 96044  | 1,7                              |                     |                     |                      |              |            |       |
|  | 41   | 6642   | <b>34,53</b>     | 100037   | 2,0                              |                     |                     |                      |              |            |       |
|  | 46   | 5840   | <b>30,36</b>     | 102452   | 2,2                              |                     |                     |                      |              |            |       |
|  | 51   | 5270   | <b>27,39</b>     | 104225   | 2,5                              |                     |                     |                      |              |            |       |
|  | 59   | 4592   | <b>23,87</b>     | 106099   | 2,8                              |                     |                     |                      |              |            |       |
|  | 69   | 3900   | <b>20,28</b>     | 107929   | 3,3                              |                     |                     |                      |              |            |       |
|  | 79   | 3429   | <b>17,83</b>     | 106358   | 3,8                              |                     |                     |                      |              |            |       |
|  | 87   | 3094   | <b>16,09</b>     | 104176   | 4,0                              |                     |                     |                      |              |            |       |
|  | 100  | 2696   | <b>14,02</b>     | 101201   | 4,0                              |                     |                     |                      |              |            |       |
|  | 36   | 7682   | <b>39,33</b>     | 50060  | 1,0                              | <b>MR773-200L/4</b> | 54,00               | 497                  | 123          | MR495      |       |
|  | 40   | 6824   | <b>34,89</b>     | 53080  | 1,2                              | <b>NR773-200L/4</b> |                     | 600                  |              | NR495      |       |
|  | 45   | 6092   | <b>31,11</b>     | 55518  | 1,3                              |                     |                     |                      |              |            |       |
|  | 47   | 5869   | <b>30,00</b>     | 56189  | 1,4                              |                     |                     |                      |              |            |       |
|  | 54   | 5092   | <b>25,99</b>     | 58392  | 1,6                              |                     |                     |                      |              |            |       |
|  | 62   | 4437   | <b>22,62</b>     | 60091  | 1,8                              |                     |                     |                      |              |            |       |
|  | 65   | 4232   | <b>21,40</b>     | 60516  | 1,9                              | <b>MR772-200L/4</b> | 54,00               | 465                  | 123          | MR496      |       |
|  | 75   | 3689   | <b>18,63</b>     | 61869  | 2,2                              | <b>NR772-200L/4</b> |                     | 570                  |              | NR496      |       |
|  | 85   | 3249   | <b>16,39</b>     | 63380  | 2,4                              |                     |                     |                      |              |            |       |
|  | 96   | 2885   | <b>14,54</b>     | 64703  | 2,6                              |                     |                     |                      |              |            |       |
|  | 108  | 2579   | <b>12,98</b>     | 65799  | 2,8                              |                     |                     |                      |              |            |       |
|  | 120  | 2317   | <b>11,65</b>     | 66674  | 3,0                              |                     |                     |                      |              |            |       |
|  | 127  | 2186   | <b>11,00</b>     | 67105  | 3,1                              |                     |                     |                      |              |            |       |
|  | 146  | 1913   | <b>9,62</b>      | 67999  | 3,4                              |                     |                     |                      |              |            |       |
|  | 78   | 3545   | <b>17,93</b>     | 16845  | 1,0                              | <b>MR672-200L/4</b> | 54,00               | 386                  | 120          | MR497      |       |
|  | 90   | 3074   | <b>15,53</b>     | 16710  | 1,1                              | <b>NR672-200L/4</b> |                     | 380                  |              | NR497      |       |
|  | 103  | 2692   | <b>13,58</b>     | 16510  | 1,2                              |                     |                     |                      |              |            |       |
|  | 117  | 2376   | <b>11,97</b>     | 16270  | 1,3                              |                     |                     |                      |              |            |       |
|  | 132  | 2110   | <b>10,62</b>     | 16002  | 1,5                              |                     |                     |                      |              |            |       |
|  | 148  | 1883   | <b>9,47</b>      | 15716  | 1,6                              |                     |                     |                      |              |            |       |
|  | 153  | 1814   | <b>9,13</b>      | 15621  | 1,6                              |                     |                     |                      |              |            |       |
|  | 177  | 1573   | <b>7,91</b>      | 15223  | 1,9                              |                     |                     |                      |              |            |       |
|  | 203  | 1370   | <b>6,88</b>      | 14813  | 2,1                              |                     |                     |                      |              |            |       |
|  | 244  | 1142   | <b>5,73</b>      | 13954  | 2,8                              |                     |                     |                      |              |            |       |
|  | 275  | 1014   | <b>5,08</b>      | 13606  | 2,9                              |                     |                     |                      |              |            |       |
|  | 309  | 905  | <b>4,53</b>      | 13265  | 3,0                              |                     |                     |                      |              |            |       |
|  | 320  | 872  | <b>4,37</b>      | 13155  | 3,1                              |                     |                     |                      |              |            |       |
|  | 370  | 756  | <b>3,79</b>      | 12719  | 3,2                              |                     |                     |                      |              |            |       |
|  | 425  | 658  | <b>3,29</b>      | 12293  | 3,3                              |                     |                     |                      |              |            |       |
|  | 96   | 2876   | <b>14,54</b>     | 11495  | 0,8                              | <b>MR572-200L/4</b> | 54,00               | 304                  | 117          | MR498      |       |
|  |  |  |                  |  |                                  | <b>NR572-200L/4</b> |                     | 291                  |              | NR498      |       |



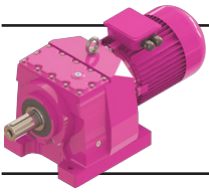
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



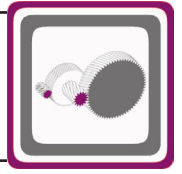
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi         | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |       |
|--|--|--|------------------|--|----------------------------------|--------------|------------------|----------------------|--------------|------------|-------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type         | Rated Current    | Weight               | Dim. Page    | Price Ref. |       |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ          | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |       |
| 30<br>40   | 112  | 2476   | 12,50            | 11551  | 0,9                              | MR572-200L/4 | 54,00            | 304                  | 117          | MR498      |       |
|  | 129  | 2152   | 10,85            | 11521  | 1,0                              | NR572-200L/4 |                  | 291                  |              | NR498      |       |
|  | 148  | 1883   | 9,48             | 11432  | 1,2                              |              |                  |                      |              |            |       |
|  | 168  | 1657   | 8,34             | 11302  | 1,3                              |              |                  |                      |              |            |       |
|  | 189  | 1473   | 7,41             | 10885  | 1,5                              |              |                  |                      |              |            |       |
|  | 218  | 1280   | 6,43             | 10704  | 1,6                              |              |                  |                      |              |            |       |
|  | 249  | 1120   | 5,63             | 10501  | 1,8                              |              |                  |                      |              |            |       |
|  | 283  | 986  | 4,95             | 10283  | 1,9                              |              |                  |                      |              |            |       |
|  | 321  | 871  | 4,37             | 10055  | 2,1                              |              |                  |                      |              |            |       |
| 37<br>50   | 17   | 19762  | 82,20            | 82795  | 0,9                              | MR973-225S/4 | 66,00            | 1210                 | 129          | MR389      |       |
|  | 20   | 16851  | 70,07            | 101879   | 1,1                              | NR973-225S/4 |                  | 1260                 |              | NR389      |       |
|  | 23   | 14875  | 61,77            | 112106   | 1,2                              |              |                  |                      |              |            |       |
|  | 26   | 13213  | 54,80            | 119585   | 1,4                              |              |                  |                      |              |            |       |
|  | 29   | 11794  | 48,86            | 125123   | 1,5                              |              |                  |                      |              |            |       |
|  | 33   | 10221  | 42,30            | 131180   | 1,8                              |              |                  |                      |              |            |       |
|  | 38   | 9023   | 37,29            | 135390   | 2,0                              |              |                  |                      |              |            |       |
|  | 42   | 8015   | 33,08            | 138490   | 2,2                              |              |                  |                      |              |            |       |
|  | 47   | 7155   | 29,49            | 141031   | 2,5                              |              |                  |                      |              |            |       |
|  | 54   | 6311   | 26,03            | 143463   | 2,9                              |              |                  |                      |              |            |       |
|  | 61   | 5571   | 22,95            | 145274   | 3,2                              |              |                  |                      |              |            |       |
|  |  | 30   | 10941            | 46,12  | 83317                            | 1,2          | MR873-225S/4     | 66,00                | 770          | 126        | MR347 |
|  |  | 35   | 9620             | 40,55  | 89134                            | 1,4          | NR873-225S/4     |                      | 775          |            | NR347 |
|  |  | 41   | 8192             | 34,53  | 94707                            | 1,6          |                  |                      |              |            |       |
|  |  | 46   | 7203             | 30,36  | 98202                            | 1,8          |                  |                      |              |            |       |
|  |  | 51   | 6499             | 27,39  | 100495                           | 2,0          |                  |                      |              |            |       |
|  |  | 59   | 5664             | 23,87  | 102985                           | 2,3          |                  |                      |              |            |       |
|  |  | 69   | 4810             | 20,28  | 104887                           | 2,7          |                  |                      |              |            |       |
|  | 79   | 4229   | 17,83            | 102724   | 3,1                              |              |                  |                      |              |            |       |
|  | 87   | 3816   | 16,09            | 100898   | 3,4                              |              |                  |                      |              |            |       |
|  | 100  | 3326   | 14,02            | 98344  | 3,9                              |              |                  |                      |              |            |       |
|  | 105  | 3155   | 13,30            | 103377   | 4,0                              |              |                  |                      |              |            |       |
|  | 40   | 8417   | 34,89            | 47122  | 1,0                              | MR773-225S/4 | 66,00            | 534                  | 123          | MR499      |       |
|  | 45   | 7513   | 31,11            | 50750  | 1,1                              | NR773-225S/4 |                  | 645                  |              | NR499      |       |
|  | 47   | 7239   | 30,00            | 51741  | 1,1                              |              |                  |                      |              |            |       |
|  | 54   | 6280   | 25,99            | 54937  | 1,3                              |              |                  |                      |              |            |       |
|  | 62   | 5473   | 22,62            | 57341  | 1,5                              |              |                  |                      |              |            |       |
|  | 71   | 4779   | 19,76            | 59231  | 1,7                              |              |                  |                      |              |            |       |
|  | 80   | 4245   | 17,53            | 61028  | 1,8                              |              |                  |                      |              |            |       |
|  | 90   | 3790   | 15,63            | 62719  | 2,0                              |              |                  |                      |              |            |       |
|  | 96   | 3558   | 14,54            | 63347  | 2,1                              | MR772-225S/4 | 66,00            | 525                  | 123          | MR500      |       |
|  | 108  | 3181   | 12,98            | 64680  | 2,2                              | NR772-225S/4 |                  | 635                  |              | NR500      |       |
|  | 120  | 2858   | 11,65            | 65733  | 2,4                              |              |                  |                      |              |            |       |
|  | 127  | 2696   | 11,00            | 66253  | 2,5                              |              |                  |                      |              |            |       |
|  | 146  | 2360   | 9,62             | 67312  | 2,7                              |              |                  |                      |              |            |       |
|  | 166  | 2077   | 8,46             | 68175  | 3,0                              |              |                  |                      |              |            |       |
|  | 192  | 1795   | 7,30             | 70020  | 2,8                              |              |                  |                      |              |            |       |
|  | 215  | 1605   | 6,52             | 70589  | 3,0                              |              |                  |                      |              |            |       |
|  | 117  | 2930   | 11,97            | 15102  | 1,1                              | MR672-225S/4 | 66,00            | 410                  | 120          | MR501      |       |
|  | 132  | 2602   | 10,62            | 14966  | 1,2                              | NR672-225S/4 |                  | 426                  |              | NR501      |       |
|  | 148  | 2322   | 9,47             | 14793  | 1,3                              |              |                  |                      |              |            |       |
|  | 153  | 2237   | 9,13             | 14730  | 1,3                              |              |                  |                      |              |            |       |
|  | 177  | 1940   | 7,91             | 14451  | 1,5                              |              |                  |                      |              |            |       |
|  | 203  | 1690   | 6,88             | 14142  | 1,7                              |              |                  |                      |              |            |       |
|  | 244  | 1408   | 5,73             | 13327  | 2,3                              |              |                  |                      |              |            |       |
|  | 275  | 1251   | 5,08             | 13050  | 2,3                              |              |                  |                      |              |            |       |
|  | 309  | 1116   | 4,53             | 12769  | 2,4                              |              |                  |                      |              |            |       |



# Motorlu Güç Devir Sayfaları

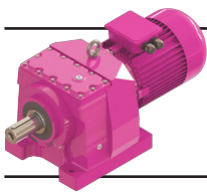
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi         | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |       |
|--|--|--|------------------|--|----------------------------------|--------------|------------------|----------------------|--------------|------------|-------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type         | Rated Current    | Weight               | Dim. Page    | Price Ref. |       |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ          | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |       |
| 37<br>50   | 320  | 1075   | 4,37             | 12677  | 2,5                              | MR672-225S/4 | 66,00            | 410                  | 120          | MR501      |       |
|  | 370  | 932  | 3,79             | 12304  | 2,6                              | NR672-225S/4 |                  | 426                  |              | NR501      |       |
|  | 425  | 812  | 3,29             | 11933  | 2,6                              |              |                  |                      |              |            |       |
| 45<br>60   | 23   | 18092  | 61,77            | 94418  | 1,0                              | MR973-225M/4 | 80,00            | 1173                 | 129          | MR390      |       |
|  | 26   | 16070  | 54,80            | 106045   | 1,1                              | NR973-225M/4 |                  | 1223                 |              | NR390      |       |
|  | 29   | 14345  | 48,86            | 114532   | 1,3                              |              |                  |                      |              |            |       |
|  | 33   | 12432  | 42,30            | 122976   | 1,4                              |              |                  |                      |              |            |       |
|  | 38   | 10975  | 37,29            | 128625   | 1,6                              |              |                  |                      |              |            |       |
|  | 42   | 9749   | 33,08            | 132877   | 1,8                              |              |                  |                      |              |            |       |
|  | 47   | 8703   | 29,49            | 136296   | 2,1                              |              |                  |                      |              |            |       |
|  | 54   | 7676   | 26,03            | 139517   | 2,3                              |              |                  |                      |              |            |       |
|  | 61   | 6776   | 22,95            | 141913   | 2,7                              |              |                  |                      |              |            |       |
|  | 69   | 6020   | 20,36            | 144229   | 3,0                              |              |                  |                      |              |            |       |
|  | 77   | 5374   | 18,15            | 141977   | 3,3                              |              |                  |                      |              |            |       |
|  | 30   | 13307  | 46,12            | 70637  | 1,0                              | MR873-225M/4 | 80,00            | 784                  | 126          | MR352      |       |
|  |  | 35   | 11700            | 40,55  | 79584                            | 1,1          | NR873-225M/4     |                      | 788          |            | NR352 |
|  |  | 41   | 9964             | 34,53  | 87496                            | 1,3          |                  |                      |              |            |       |
| 46   |  | 8760   | 30,36            | 92580  | 1,5                              |              |                  |                      |              |            |       |
| 51   |  | 7905   | 27,39            | 95583  | 1,6                              |              |                  |                      |              |            |       |
| 59   |  | 6888   | 23,87            | 99211  | 1,9                              |              |                  |                      |              |            |       |
| 69   |  | 5850   | 20,28            | 100164   | 2,2                              |              |                  |                      |              |            |       |
| 79   |  | 5144   | 17,83            | 98572  | 2,5                              |              |                  |                      |              |            |       |
| 87   |  | 4641   | 16,09            | 97151  | 2,8                              |              |                  |                      |              |            |       |
| 100  |  | 4045   | 14,02            | 95079  | 3,2                              |              |                  |                      |              |            |       |
| 105  |  | 3837   | 13,30            | 101584   | 3,4                              |              |                  |                      |              |            |       |
| 121  |  | 3344   | 11,59            | 98365  | 3,8                              |              |                  |                      |              |            |       |
| 139  | 2973   | 10,09  | 96488            | 3,9  | MR872-225M/4                     | 80,00        | 780              | 126                  | MR353        |            |       |
|  | 158  | 2614   | 8,87             | 93356  | 4,0                              | NR872-225M/4 |                  | 784                  |              | NR353      |       |
|  | 185  | 2226   | 7,55             | 84341  | 4,0                              |              |                  |                      |              |            |       |
|  | 211  | 1957   | 6,64             | 81967  | 4,0                              |              |                  |                      |              |            |       |
|  | 234  | 1766   | 5,99             | 80064  | 4,0                              |              |                  |                      |              |            |       |
|  | 268  | 1539   | 5,22             | 77518  | 4,0                              |              |                  |                      |              |            |       |
|  | 283  | 1460   | 4,95             | 78695  | 4,0                              |              |                  |                      |              |            |       |
|  | 324  | 1272   | 4,32             | 75895  | 4,0                              |              |                  |                      |              |            |       |
| 54   | 7639   | 25,99  | 50279            | 1,0  | MR773-225M/4                     | 80,00        | 540              | 123                  | MR502        |            |       |
|  | 62   | 6657   | 22,62            | 53732  | 1,2                              | NR773-225M/4 |                  | 650                  |              | NR502      |       |
|  | 71   | 5812   | 19,76            | 56338  | 1,4                              |              |                  |                      |              |            |       |
|  | 80   | 5164   | 17,53            | 58719  | 1,5                              |              |                  |                      |              |            |       |
|  | 90   | 4610   | 15,63            | 60849  | 1,6                              |              |                  |                      |              |            |       |
| 96   | 4328   | 14,54  | 61653            | 1,7  | MR772-225M/4                     | 80,00        | 530              | 123                  | MR503        |            |       |
|  | 108  | 3869   | 12,98            | 63292  | 1,8                              | NR772-225M/4 |                  | 640                  |              | NR503      |       |
|  | 120  | 3477   | 11,65            | 64577  | 2,0                              |              |                  |                      |              |            |       |
|  | 127  | 3280   | 11,00            | 65202  | 2,1                              |              |                  |                      |              |            |       |
|  | 146  | 2870   | 9,62             | 66474  | 2,3                              |              |                  |                      |              |            |       |
|  | 166  | 2526   | 8,46             | 67417  | 2,5                              |              |                  |                      |              |            |       |
|  | 192  | 2184   | 7,30             | 65370  | 2,3                              |              |                  |                      |              |            |       |
|  | 215  | 1952   | 6,52             | 62988  | 2,4                              |              |                  |                      |              |            |       |
|  | 239  | 1754   | 5,86             | 60814  | 2,6                              |              |                  |                      |              |            |       |
|  | 117  | 3564   | 11,97            | 13767  | 0,9                              | MR672-225M/4 | 80,00            | 420                  | 120          | MR504      |       |
| 132  |  | 3165   | 10,62            | 13782  | 1,0                              | NR672-225M/4 |                  | 435                  |              | NR504      |       |
| 148  |  | 2824   | 9,47             | 13737  | 1,1                              |              |                  |                      |              |            |       |
| 153  |  | 2721   | 9,13             | 13712  | 1,1                              |              |                  |                      |              |            |       |
| 177  |  | 2360   | 7,91             | 13569  | 1,2                              |              |                  |                      |              |            |       |
| 203  |  | 2056   | 6,88             | 13374  | 1,4                              |              |                  |                      |              |            |       |

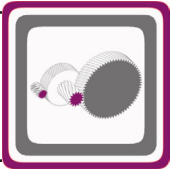




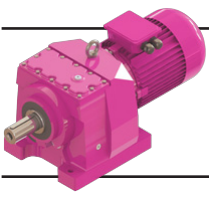
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



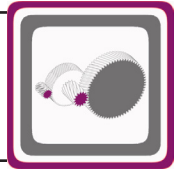
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi         | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|--------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type         | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ          | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 45<br>60   | 244  | 1713   | 5,73             | 12611  | 1,9                              | MR672-225M/4 | 80,00            | 420                  | 120          | MR504      |
|  | 275  | 1521   | 5,08             | 12415  | 1,9                              | NR672-225M/4 |                  | 435                  |              | NR504      |
|  | 309  | 1357   | 4,53             | 12202  | 2,0                              |              |                  |                      |              |            |
|  | 320  | 1308   | 4,37             | 12131  | 2,0                              |              |                  |                      |              |            |
|  | 370  | 1134   | 3,79             | 11831  | 2,1                              |              |                  |                      |              |            |
|  | 425  | 988  | 3,29             | 11521  | 2,2                              |              |                  |                      |              |            |
| 55<br>75   | 26   | 19642  | 54,80            | 83858  | 0,9                              | MR973-250M/4 | 97,00            | 1400                 | 129          | MR391      |
|  | 29   | 17534  | 48,86            | 97827  | 1,0                              | NR973-250M/4 |                  | 1450                 |              | NR391      |
|  | 33   | 15194  | 42,30            | 110470   | 1,2                              |              |                  |                      |              |            |
|  | 38   | 13414  | 37,29            | 118877   | 1,3                              |              |                  |                      |              |            |
|  | 42   | 11916  | 33,08            | 124955   | 1,5                              |              |                  |                      |              |            |
|  | 47   | 10637  | 29,49            | 129714   | 1,7                              |              |                  |                      |              |            |
|  | 54   | 9382   | 26,03            | 134009   | 1,9                              |              |                  |                      |              |            |
|  | 61   | 8283   | 22,95            | 137623   | 2,2                              |              |                  |                      |              |            |
|  | 69   | 7358   | 20,36            | 140412   | 2,4                              |              |                  |                      |              |            |
|  | 77   | 6569   | 18,15            | 139669   | 2,7                              |              |                  |                      |              |            |
|  | 86   | 5922   | 16,23            | 136969   | 3,0                              | MR972-250M/4 | 97,00            | 1360                 | 129          | MR392      |
|  | 97   | 5260   | 14,40            | 132890   | 3,4                              | NR972-250M/4 |                  | 1410                 |              | NR392      |
|  | 41   | 12178  | 34,53            | 76957  | 1,1                              | MR873-250M/4 | 97,00            | 865                  | 126          | MR358      |
|  | 46   | 10707  | 30,36            | 84377  | 1,2                              | NR873-250M/4 |                  | 870                  |              | NR358      |
|  | 51   | 9661   | 27,39            | 88876  | 1,3                              |              |                  |                      |              |            |
|  | 59   | 8419   | 23,87            | 93915  | 1,5                              |              |                  |                      |              |            |
|  | 69   | 7150   | 20,28            | 94261  | 1,8                              |              |                  |                      |              |            |
|  | 79   | 6287   | 17,83            | 93382  | 2,1                              |              |                  |                      |              |            |
|  | 87   | 5673   | 16,09            | 92468  | 2,3                              |              |                  |                      |              |            |
|  | 100  | 4944   | 14,02            | 90998  | 2,6                              |              |                  |                      |              |            |
|  | 105  | 4690   | 13,30            | 99344  | 2,8                              |              |                  |                      |              |            |
| 121  | 4087   | 11,59  | 96412            | 3,1  |                                  |              |                  |                      |              |            |
| 139  | 3633   | 10,09  | 95090            | 3,2  | MR872-250M/4                     | 97,00        | 860              | 126                  | MR359        |            |
| 158  | 3195   | 8,87   | 92126            | 3,5  | NR872-250M/4                     |              | 865              |                      | NR359        |            |
| 185  | 2721   | 7,55   | 82142            | 3,9  |                                  |              |                  |                      |              |            |
| 211  | 2392   | 6,64   | 80033            | 4,0  |                                  |              |                  |                      |              |            |
| 234  | 2158   | 5,99   | 78319            | 4,0  |                                  |              |                  |                      |              |            |
| 268  | 1881   | 5,22   | 75997            | 4,0  |                                  |              |                  |                      |              |            |
| 283  | 1784   | 4,95   | 77730            | 4,0  |                                  |              |                  |                      |              |            |
| 324  | 1555   | 4,32   | 75054            | 4,0  |                                  |              |                  |                      |              |            |
| 62   | 8137   | 22,62  | 48314            | 1,0  | MR773-250M/4                     | 97,00        | 582              | 123                  | MR505        |            |
| 71   | 7104   | 19,76  | 52116            | 1,1  | NR773-250M/4                     |              | 710              |                      | NR505        |            |
| 80   | 6311   | 17,53  | 55428            | 1,2  |                                  |              |                  |                      |              |            |
| 90   | 5634   | 15,63  | 58140            | 1,3  |                                  |              |                  |                      |              |            |
| 96   | 5290   | 14,54  | 59396            | 1,4  | MR772-250M/4                     | 97,00        | 552              | 123                  | MR506        |            |
| 108  | 4729   | 12,98  | 61384            | 1,5  | NR772-250M/4                     |              | 680              |                      | NR506        |            |
| 120  | 4249   | 11,65  | 63000            | 1,6  |                                  |              |                  |                      |              |            |
| 127  | 4009   | 11,00  | 63779            | 1,7  |                                  |              |                  |                      |              |            |
| 146  | 3508   | 9,62   | 65344            | 1,8  |                                  |              |                  |                      |              |            |
| 166  | 3087   | 8,46   | 66568            | 2,0  |                                  |              |                  |                      |              |            |
| 192  | 2669   | 7,30   | 65358            | 1,9  |                                  |              |                  |                      |              |            |
| 215  | 2386   | 6,52   | 63466            | 2,0  |                                  |              |                  |                      |              |            |
| 239  | 2144   | 5,86   | 61244            | 2,1  |                                  |              |                  |                      |              |            |
| 75<br>97   | 38   | 18293  | 37,29            | 93140  | 1,0                              | MR973-280S/4 | 133,00           | 1530                 | 129          | MR393      |
|  | 42   | 16250  | 33,08            | 105016   | 1,1                              | NR973-280S/4 |                  | 1580                 |              | NR393      |
|  | 47   | 14506  | 29,49            | 113816   | 1,2                              |              |                  |                      |              |            |



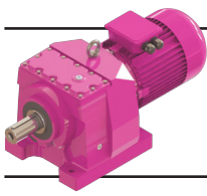
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



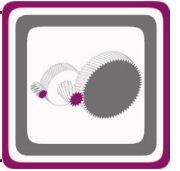
| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi         | Anma Akımı       | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|--------------|------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type         | Rated Current    | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ          | Nennstrom<br>[A] | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| 75<br>97   | 54   | 12794  | 26,03            | 121329   | 1,4                              | MR973-280S/4 | 133,00           | 1530                 | 129          | MR393      |
|  | 61   | 11295  | 22,95            | 127274   | 1,6                              | NR973-280S/4 |                  | 1580                 |              | NR393      |
|  | 69   | 10034  | 20,36            | 131735   | 1,8                              |              |                  |                      |              |            |
|  | 77   | 8958   | 18,15            | 135053   | 2,0                              |              |                  |                      |              |            |
|  | 86   | 8076   | 16,23            | 133222   | 2,2                              | MR972-280S/4 | 133,00           | 1490                 | 129          | MR394      |
|  | 97   | 7173   | 14,40            | 129566   | 2,5                              | NR972-280S/4 |                  | 1540                 |              | NR394      |
|  | 109  | 6414   | 12,86            | 126123   | 2,8                              |              |                  |                      |              |            |
|  | 121  | 5767   | 11,56            | 122866   | 3,1                              |              |                  |                      |              |            |
|  | 140  | 4987   | 9,99             | 117608   | 2,5                              |              |                  |                      |              |            |
|  | 158  | 4430   | 8,86             | 114158   | 2,6                              |              |                  |                      |              |            |
|  | 177  | 3961   | 7,92             | 110940   | 2,7                              |              |                  |                      |              |            |
|  | 197  | 3561   | 7,11             | 107918   | 2,8                              |              |                  |                      |              |            |
|  | 51   | 13174  | 27,39            | 71425  | 1,0                              | MR873-280S/4 | 133,00           | 910                  | 126          | MR362      |
|  | 59   | 11481  | 23,87            | 80962  | 1,1                              | NR873-280S/4 |                  | 915                  |              | NR362      |
|  | 69   | 9751   | 20,28            | 82454  | 1,3                              |              |                  |                      |              |            |
|  | 79   | 8573   | 17,83            | 83001  | 1,5                              |              |                  |                      |              |            |
|  | 87   | 7736   | 16,09            | 83101  | 1,7                              |              |                  |                      |              |            |
|  | 100  | 6741   | 14,02            | 82835  | 1,9                              |              |                  |                      |              |            |
|  | 105  | 6395   | 13,30            | 94863  | 2,0                              |              |                  |                      |              |            |
| 121  | 5573   | 11,59  | 92507            | 2,3  |                                  |              |                  |                      |              |            |
| 139  | 4955   | 10,09  | 92292            | 2,3  | MR872-280S/4                     | 133,00       | 905              | 126                  | MR363        |            |
| 158  | 4356   | 8,87   | 89666            | 2,6  | NR872-280S/4                     |              | 910              |                      | NR363        |            |
| 185  | 3710   | 7,55   | 77743            | 2,9  |                                  |              |                  |                      |              |            |
| 211  | 3262   | 6,64   | 76166            | 3,1  |                                  |              |                  |                      |              |            |
| 234  | 2943   | 5,99   | 74829            | 3,4  |                                  |              |                  |                      |              |            |
| 268  | 2565   | 5,22   | 72956            | 3,7  |                                  |              |                  |                      |              |            |
| 283  | 2433   | 4,95   | 75799            | 3,7  |                                  |              |                  |                      |              |            |
| 324  | 2120   | 4,32   | 73372            | 4,0  |                                  |              |                  |                      |              |            |
| 90<br>117  | 47   | 17408  | 29,49            | 98535  | 1,0                              | MR973-280M/4 | 158,00           | 1530                 | 129          | MR395      |
|  | 54   | 15353  | 26,03            | 109691   | 1,2                              | NR973-280M/4 |                  | 1580                 |              | NR395      |
|  | 61   | 13555  | 22,95            | 117935   | 1,3                              |              |                  |                      |              |            |
|  | 69   | 12042  | 20,36            | 124168   | 1,5                              |              |                  |                      |              |            |
|  | 77   | 10750  | 18,15            | 129274   | 1,7                              |              |                  |                      |              |            |
|  | 86   | 9691   | 16,23            | 130412   | 1,9                              | MR972-280M/4 | 158,00           | 1490                 | 129          | MR396      |
|  | 97   | 8609   | 14,40            | 127072   | 2,1                              | NR972-280M/4 |                  | 1540                 |              | NR396      |
|  | 109  | 7698   | 12,86            | 123895   | 2,3                              |              |                  |                      |              |            |
|  | 121  | 6921   | 11,56            | 120865   | 2,6                              |              |                  |                      |              |            |
|  | 140  | 5985   | 9,99             | 115703   | 2,1                              |              |                  |                      |              |            |
|  | 158  | 5316   | 8,86             | 112468   | 2,2                              |              |                  |                      |              |            |
|  | 177  | 4754   | 7,92             | 109430   | 2,3                              |              |                  |                      |              |            |
|  | 197  | 4274   | 7,11             | 106562   | 2,3                              |              |                  |                      |              |            |
|  | 69   | 11701  | 20,28            | 73599  | 1,1                              | MR873-280M/4 | 158,00           | 930                  | 126          | MR364      |
|  | 79   | 10288  | 17,83            | 75215  | 1,3                              | NR873-280M/4 |                  | 935                  |              | NR364      |
|  | 87   | 9283   | 16,09            | 76076  | 1,4                              |              |                  |                      |              |            |
|  | 100  | 8089   | 14,02            | 76713  | 1,6                              |              |                  |                      |              |            |
|  | 105  | 7674   | 13,30            | 91502  | 1,7                              |              |                  |                      |              |            |
|  | 121  | 6688   | 11,59            | 89579  | 1,9                              |              |                  |                      |              |            |
| 139  | 5946   | 10,09  | 90193            | 1,9  | MR872-280M/4                     | 158,00       | 925              | 126                  | MR365        |            |
| 158  | 5227   | 8,87   | 87821            | 2,1  | NR872-280M/4                     |              | 930              |                      | NR365        |            |
| 185  | 4452   | 7,55   | 74444            | 2,4  |                                  |              |                  |                      |              |            |
| 211  | 3914   | 6,64   | 73265            | 2,6  |                                  |              |                  |                      |              |            |
| 234  | 3532   | 5,99   | 72212            | 2,8  |                                  |              |                  |                      |              |            |



# Motorlu Güç Devir Sayfaları

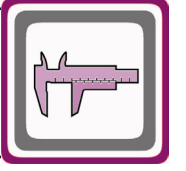
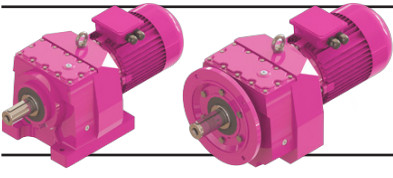
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren

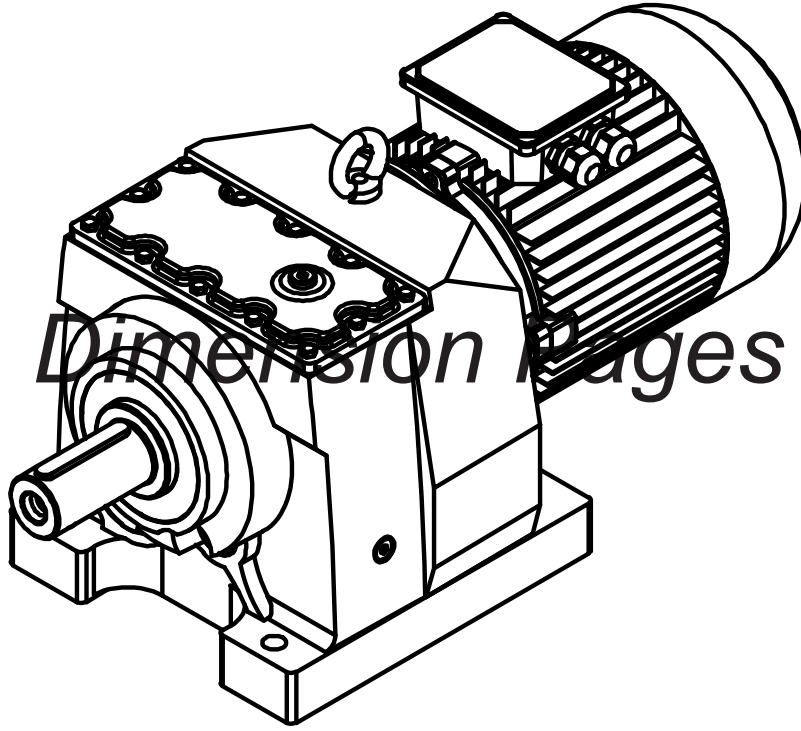


| Güç  | Çıkış Devri  | Çıkış Momenti                                    | Çevrim Oranı     | Güv. Rad. Yük Çıkış                              | Servis Faktörü                   | Tipi                 | Anma Akımı           | Ağırlık              | Ölçü Sayfası | Fiyat Kodu |
|--|--|--|------------------|--|----------------------------------|----------------------|----------------------|----------------------|--------------|------------|
| Power  | Output Speeds                                      | Output Torque                                    | Ratio            | Per.O. Loads (Output)                            | Service Factors                  | Type                 | Rated Current        | Weight               | Dim. Page    | Price Ref. |
| Leistung<br>P <sub>g</sub> [kW]<br>P <sub>g</sub> [HP] | Abtriebswelle Drehzahlen<br>n <sub>2</sub> [r.p.m] | Abtriebswelle Drehmomente<br>M <sub>2</sub> [Nm] | Übersetzung<br>i | Zul.Querkräfte (Abtrieb)<br>F <sub>qam</sub> [N] | Betriebsfaktor<br>f <sub>s</sub> | Typ                  | Nennstrom<br>[A]     | Gewicht<br>~<br>[kg] | Maße Seite   | Preis No.  |
| <b>90</b><br>117                                       | 268  | 3078   | <b>5,22</b>      | 70675  | 3,1                              | <b>MR872-280M/4</b>  | 158,00               | 925                  | 126          | MR365      |
|  | 283  | 2920   | <b>4,95</b>      | 74351  | 3,1                              | <b>NR872-280M/4</b>  |                      | 930                  |              | NR365      |
|  | 324  | 2545   | <b>4,32</b>      | 72110  | 3,4                              |                      |                      |                      |              |            |
| <b>110</b><br>150                                      | 61   | 16568  | <b>22,95</b>     | 103339   | 1,1                              | <b>MR973-315S/4</b>  | 195,00               | 1740                 | 129          | MR397      |
|  | 69   | 14718  | <b>20,36</b>     | 112723   | 1,2                              | <b>NR973-315S/4</b>  |                      | 1790                 |              | NR397      |
|  | 77   | 13139  | <b>18,15</b>     | 119791   | 1,4                              |                      |                      |                      |              |            |
|  | 86   | 11845  | <b>16,23</b>     | 125147   | 1,5                              | <b>MR972-315S/4</b>  | 195,00               | 1700                 | 129          | MR398      |
|  | 97   | 10522  | <b>14,40</b>     | 123748   | 1,7                              | <b>NR972-315S/4</b>  |                      | 1750                 |              | NR398      |
|  | 109  | 9409   | <b>12,86</b>     | 120925   | 1,9                              |                      |                      |                      |              |            |
|  | 121  | 8459   | <b>11,56</b>     | 118197   | 2,1                              |                      |                      |                      |              |            |
|  | 140  | 7316   | <b>9,99</b>      | 113163   | 1,7                              |                      |                      |                      |              |            |
|  | 158  | 6498   | <b>8,86</b>      | 110214   | 1,8                              |                      |                      |                      |              |            |
|  | 177  | 5810   | <b>7,92</b>      | 107416   | 1,8                              |                      |                      |                      |              |            |
|  | 197  | 5224   | <b>7,11</b>      | 104753   | 1,9                              |                      |                      |                      |              |            |
| <b>132</b><br>180                                      | 69   | 17662  | <b>20,36</b>     | 96909  | 1,0                              | <b>MR973-315M/4a</b> | 235,00               | 1845                 | 129          | MR399      |
|  | 77   | 15768  | <b>18,15</b>     | 107572   | 1,1                              | <b>NR973-315M/4a</b> |                      | 1895                 |              | NR399      |
|  | 86   | 14215  | <b>16,23</b>     | 115049   | 1,3                              | <b>MR972-315M/4a</b> | 235,00               | 1805                 | 129          | MR400      |
|  | 97   | 12627  | <b>14,40</b>     | 120091   | 1,4                              | <b>NR972-315M/4a</b> |                      | 1855                 |              | NR400      |
|  | 109  | 11291  | <b>12,86</b>     | 117659   | 1,6                              |                      |                      |                      |              |            |
|  | 121  | 10151  | <b>11,56</b>     | 115262   | 1,8                              |                      |                      |                      |              |            |
|  | 140  | 8779   | <b>9,99</b>      | 110369   | 1,4                              |                      |                      |                      |              |            |
|  | 158  | 7798   | <b>8,86</b>      | 107735   | 1,5                              |                      |                      |                      |              |            |
|  | 177  | 6973   | <b>7,92</b>      | 105202   | 1,5                              |                      |                      |                      |              |            |
|  | 197  | 6269   | <b>7,11</b>      | 102764   | 1,6                              |                      |                      |                      |              |            |
|  | <b>160</b><br>218                                  | 97   | 15306            | <b>14,40</b>                                     | 109891                           | 1,2                  | <b>MR972-315M/4b</b> | 280,00               | 1885         | 129        |
| 109  |  | 13686  | <b>12,86</b>     | 113501   | 1,3                              | <b>NR972-315M/4b</b> |                      | 1935                 |              | NR401      |
| 121  |  | 12305  | <b>11,56</b>     | 111527   | 1,5                              |                      |                      |                      |              |            |
| 140  |  | 10642  | <b>9,99</b>      | 106813   | 1,2                              |                      |                      |                      |              |            |
| 158  |  | 9453   | <b>8,86</b>      | 104580   | 1,2                              |                      |                      |                      |              |            |
| 177  |  | 8452   | <b>7,92</b>      | 102383   | 1,3                              |                      |                      |                      |              |            |
| 197  |  | 7599   | <b>7,11</b>      | 100232   | 1,3                              |                      |                      |                      |              |            |

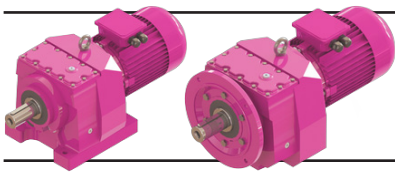




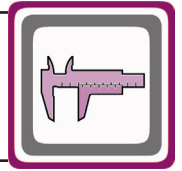
# Ölçü Sayfaları



Abmessungsseiten

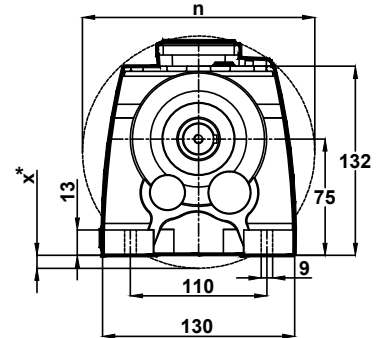
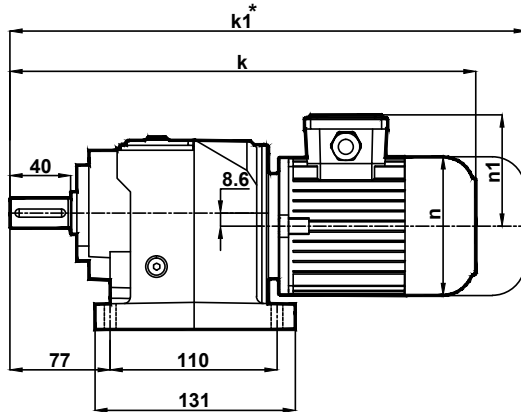
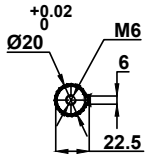


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

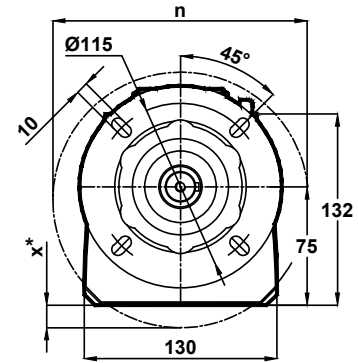
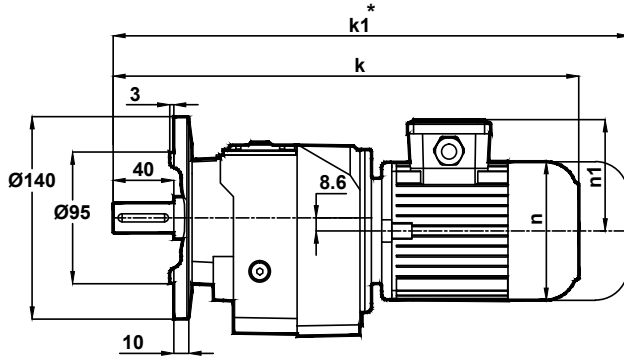
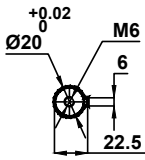


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR002 MR003

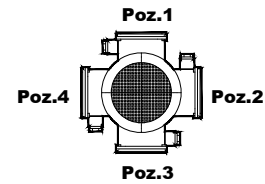


## NR002 NR003



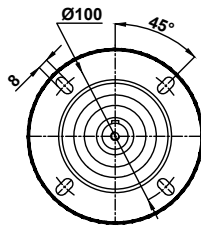
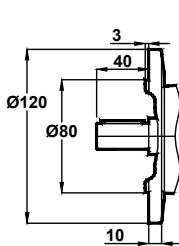
| Motor Büyüklüğü / Motor Size / Motorbaugroße | 63  | 71  | 80  | 90S | 90L |
|--|-----|-----|-----|-----|-----|
| k  | 368 | 387 | 415 | 443 | 483 |
| k1   | 421 | 507 | 535 | 568 | 608 |
| n  | 121 | 138 | 156 | 176 | 176 |
| n1   | 97  | 111 | 118 | 126 | 126 |
| x  | -   | 5   | 14  | 24  | 24  |

Klemens Kutusu / Terminal Box / Klemmenkasten

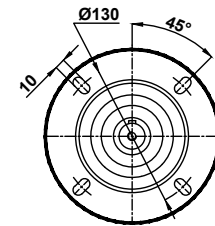
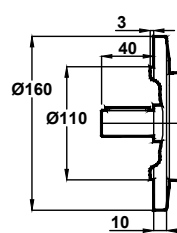


63-71-80-90

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



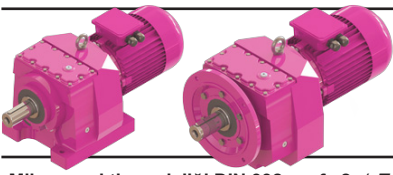
Opt. 1



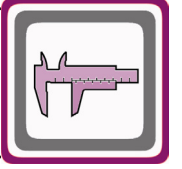
Opt. 2

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

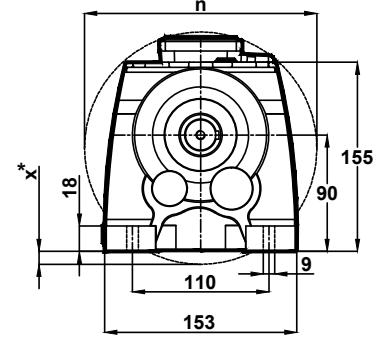
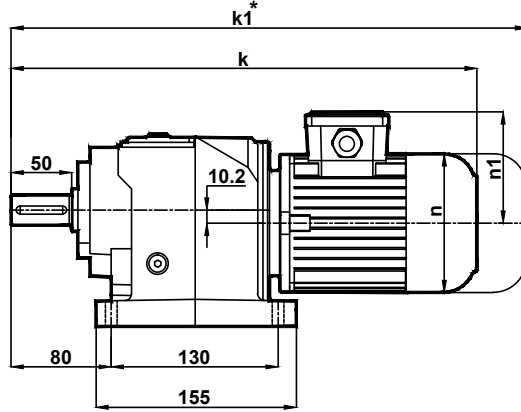
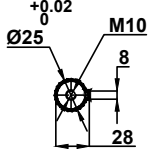


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

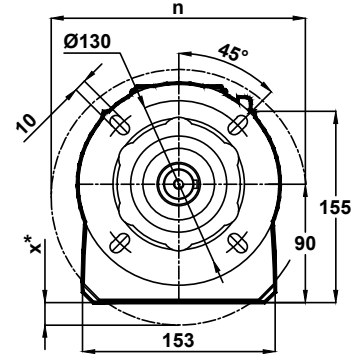
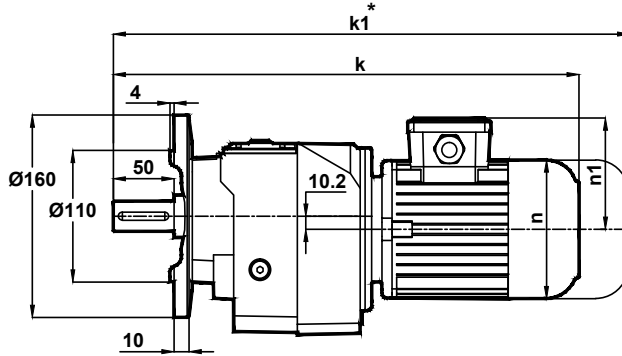
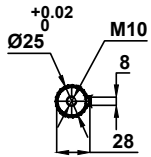


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR102 MR103

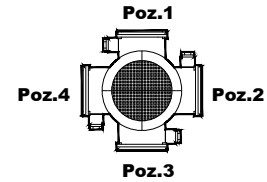


## NR102 NR103



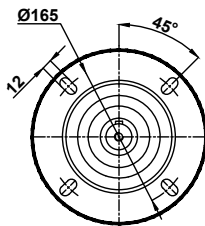
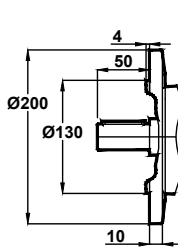
| Motor Büyüklüğü / Motor Size / Motorbaugroße | 63  | 71  | 80  | 90S | 90L |
|--|-----|-----|-----|-----|-----|
| k  | 394 | 413 | 442 | 471 | 596 |
| k1   | 447 | 533 | 562 | 596 | 633 |
| n  | 121 | 138 | 156 | 176 | 176 |
| n1   | 97  | 111 | 118 | 126 | 126 |
| x  | -   | -   | -   | 10  | 10  |

Klemens Kutusu / Terminal Box / Klemmenkasten

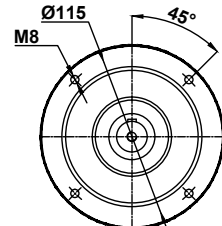
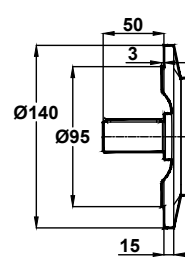


63-71-80-90

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



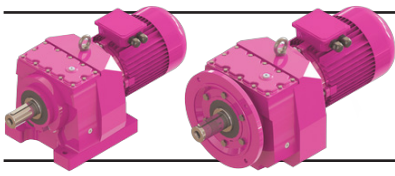
Opt. 2

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

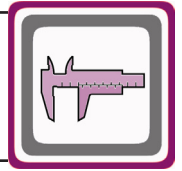
x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

## Dimension Pages

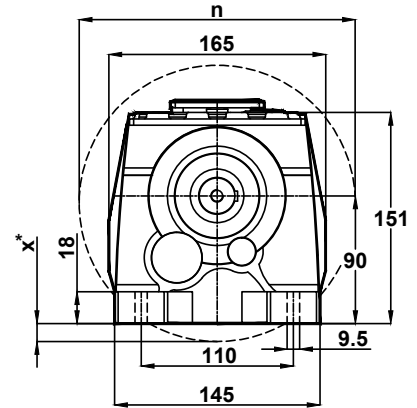
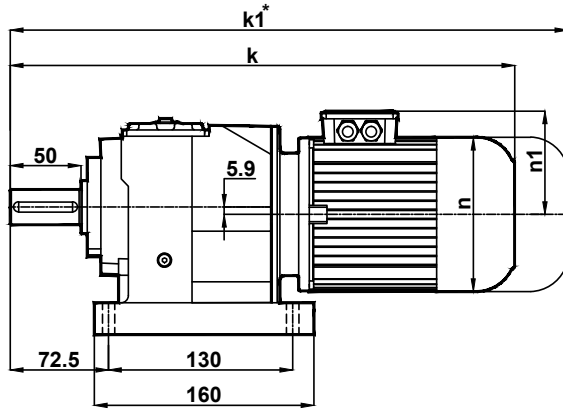
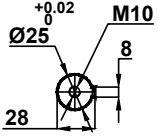
### Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

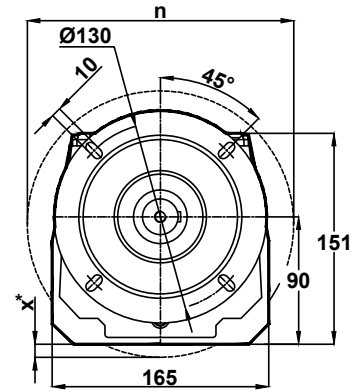
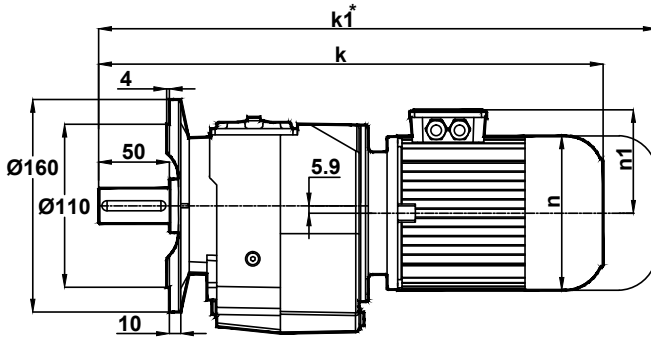
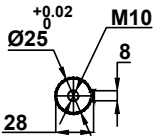
### MR172

### MR173



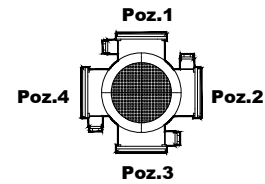
### NR172

### NR173



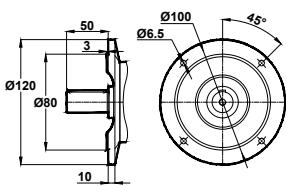
| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |     |     |      |      |
|--|-----|-----|-----|-----|-----|------|------|
|  | 63  | 71  | 80  | 90S | 90L | 100L | 112M |
| k  | 395 | 414 | 442 | 470 | 510 | 536  | 559  |
| k1   | 448 | 534 | 562 | 595 | 635 | 671  | 694  |
| n  | 121 | 138 | 156 | 176 | 176 | 194  | 218  |
| n1   | 97  | 111 | 118 | 126 | 126 | 135  | 146  |
| x  | -   | -   | -   | 6   | 6   | 16   | 28   |

Klemens Kutusu / Terminal Box / Klemmenkasten

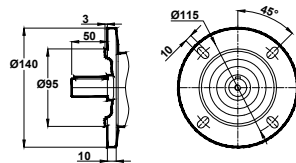


63-71-80-90-100-112

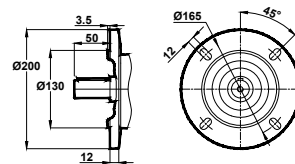
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



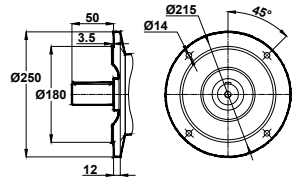
Opt. 1



Opt. 2



Opt. 3



Opt. 4

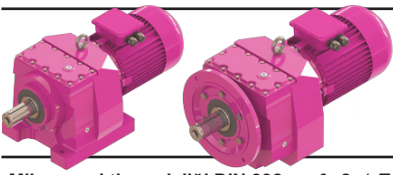
\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

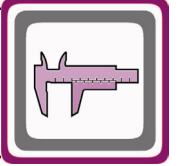
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



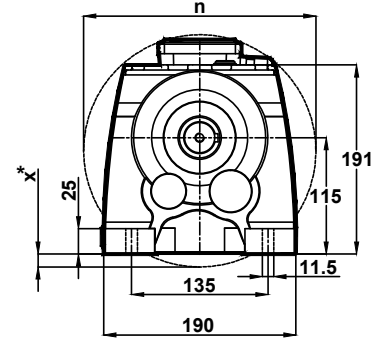
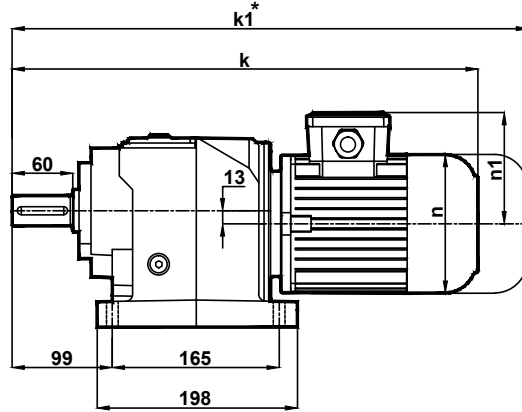
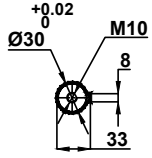


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

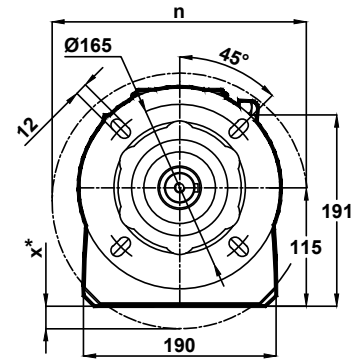
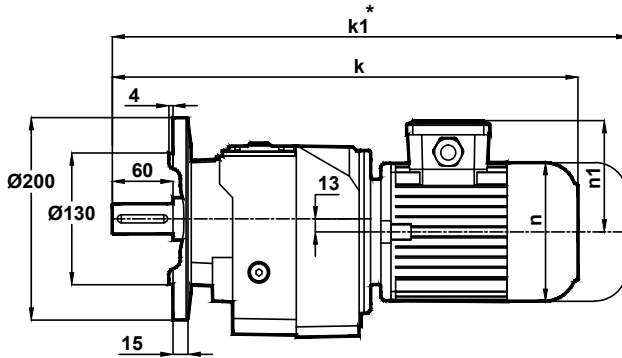
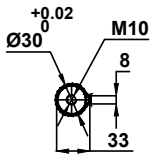


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR202 MR203

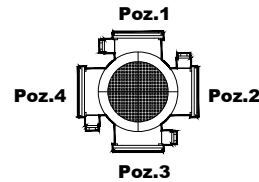


## NR202 NR203

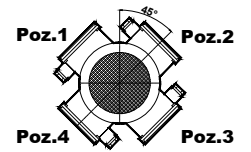


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |     |     |      |      |
|--|-----|-----|-----|-----|-----|------|------|
|  | 63  | 71  | 80  | 90S | 90L | 100L | 112M |
| k  | 442 | 461 | 489 | 517 | 542 | 583  | 606  |
| k1   | 495 | 581 | 609 | 642 | 667 | 718  | 741  |
| n  | 121 | 138 | 156 | 176 | 176 | 194  | 218  |
| n1   | 97  | 111 | 118 | 126 | 126 | 135  | 146  |
| x  | -   | -   | -   | -   | -   | -    | 10   |

Klemens Kutusu / Terminal Box / Klemmenkasten

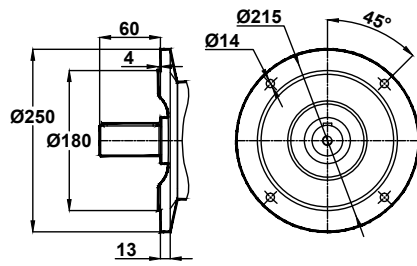


63-80-90-100-112

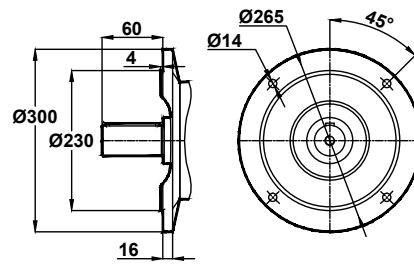


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## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



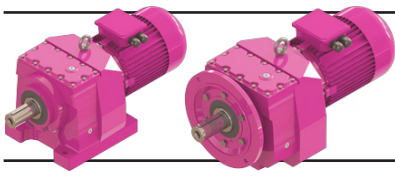
Opt. 2

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

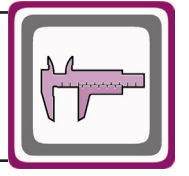
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

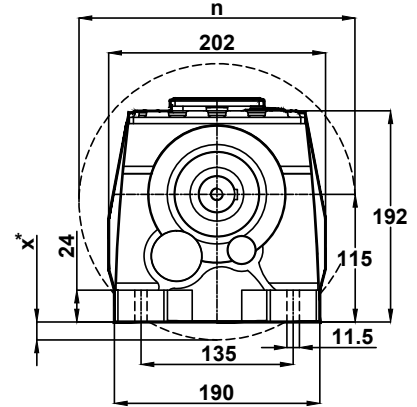
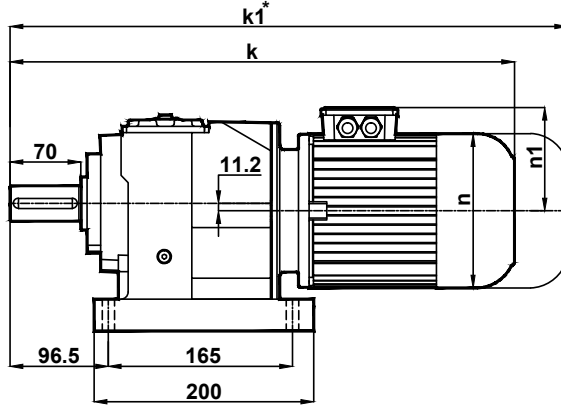
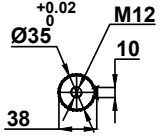


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

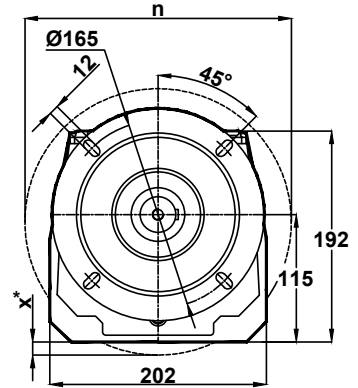
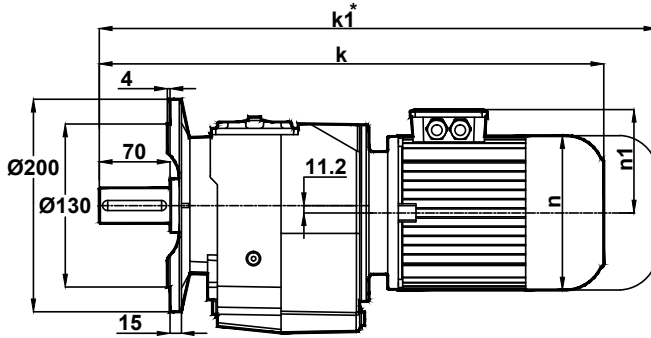
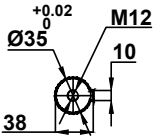


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR272 MR273

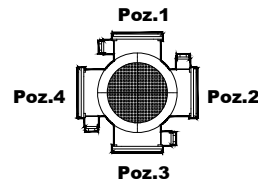


## NR272 NR273

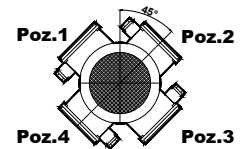


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |     |     |      |      |
|--|-----|-----|-----|-----|-----|------|------|
|  | 63  | 71  | 80  | 90S | 90L | 100L | 112M |
| k  | 443 | 462 | 490 | 518 | 543 | 584  | 607  |
| k1   | 496 | 582 | 610 | 643 | 668 | 719  | 742  |
| n  | 121 | 138 | 156 | 176 | 176 | 194  | 218  |
| n1   | 97  | 111 | 118 | 126 | 126 | 135  | 146  |
| x  | -   | -   | -   | -   | -   | -    | 9    |

Klemens Kutusu / Terminal Box / Klemmenkasten

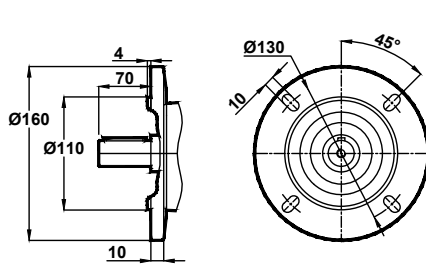


63-80-90-100-112

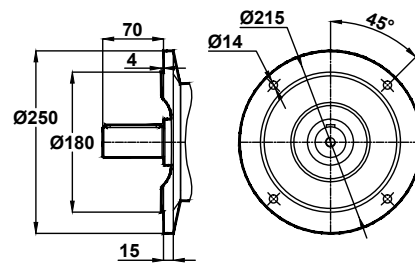


71

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

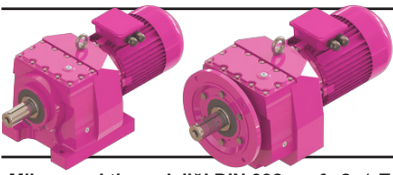


Opt. 1

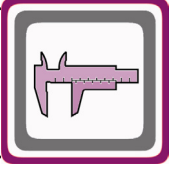


Opt. 2

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

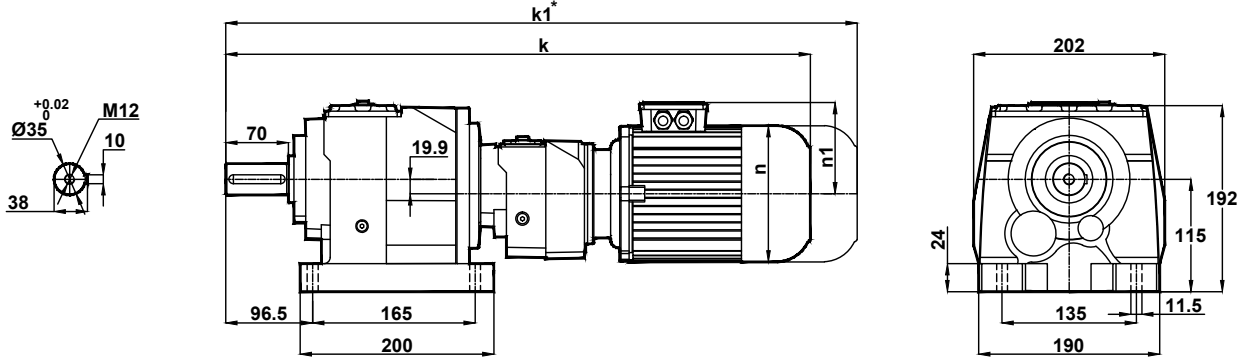


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

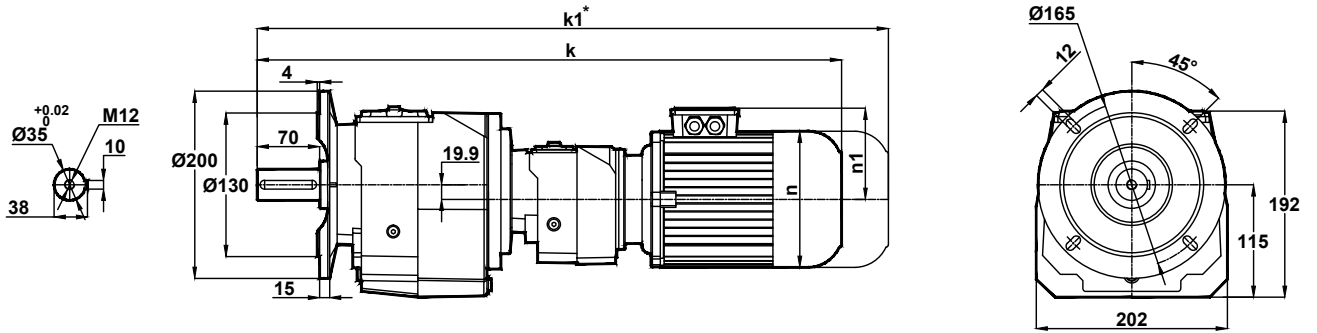


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR275 MR276

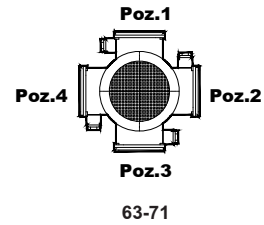


## NR275 NR276

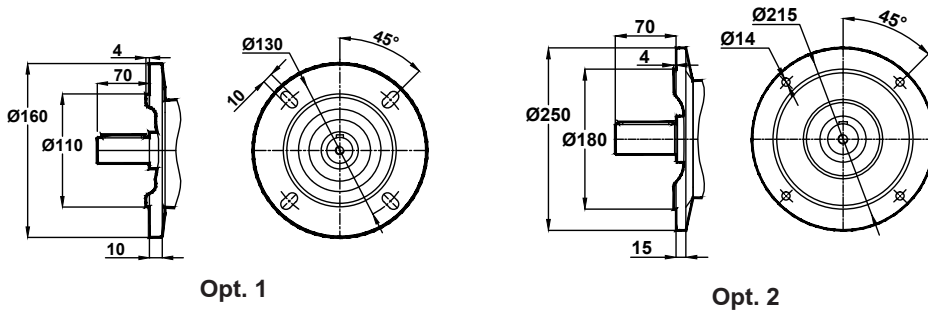


| Motor Büyüklüğü / Motor Size / Motorbaugroße | 63  | 71  |
|--|-----|-----|
| k  | 593 | 614 |
| k1   | 646 | 734 |
| n  | 121 | 138 |
| n1   | 97  | 111 |

Klemens Kutusu / Terminal Box / Klemmenkasten

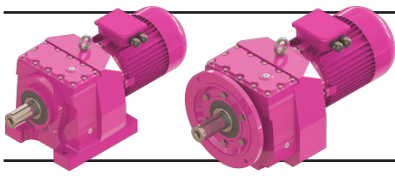


## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

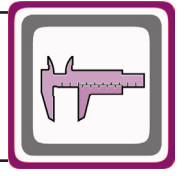


\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

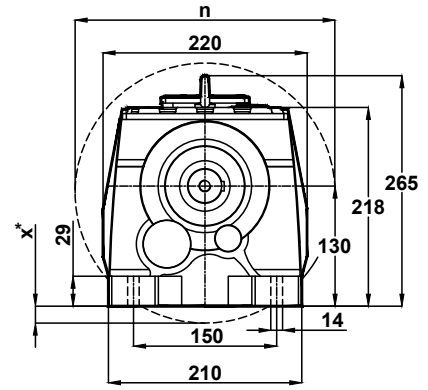
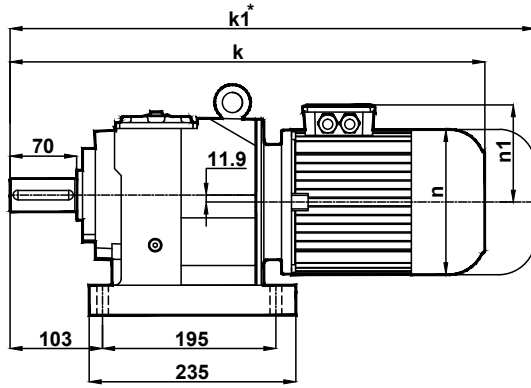
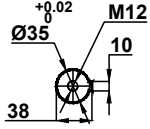


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

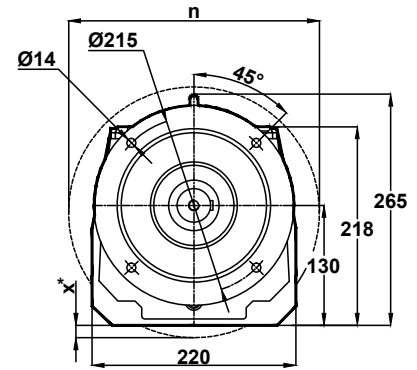
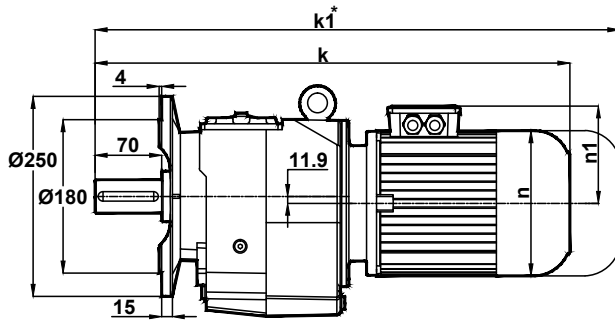
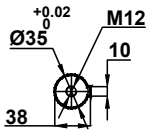


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR282 MR283

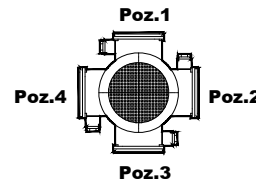


## NR282 NR283

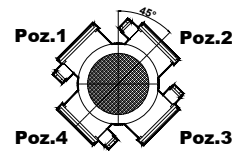


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |     |      |      |      |      |
|--|-----|-----|-----|-----|------|------|------|------|
|  | 71  | 80  | 90S | 90L | 100L | 112M | 132S | 132M |
| k  | 479 | 507 | 537 | 562 | 602  | 625  | 679  | 717  |
| k1   | 599 | 627 | 662 | 687 | 737  | 760  | 824  | 862  |
| n  | 138 | 156 | 176 | 176 | 194  | 218  | 257  | 257  |
| n1   | 111 | 118 | 126 | 126 | 135  | 146  | 168  | 168  |
| x  | -   | -   | -   | -   | -    | -    | -    | 14   |

Klemens Kutusu / Terminal Box / Klemmenkasten

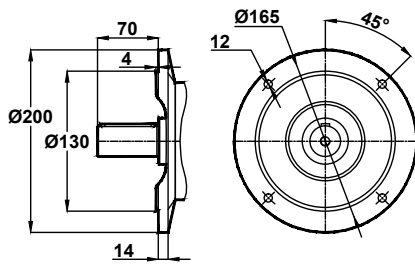


71-100-112-132

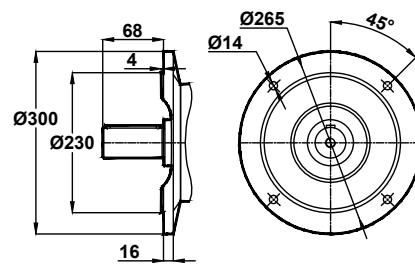


80-90

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

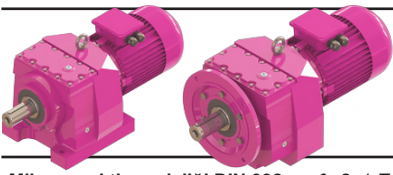


Opt. 1

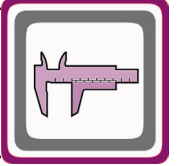


Opt. 2

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

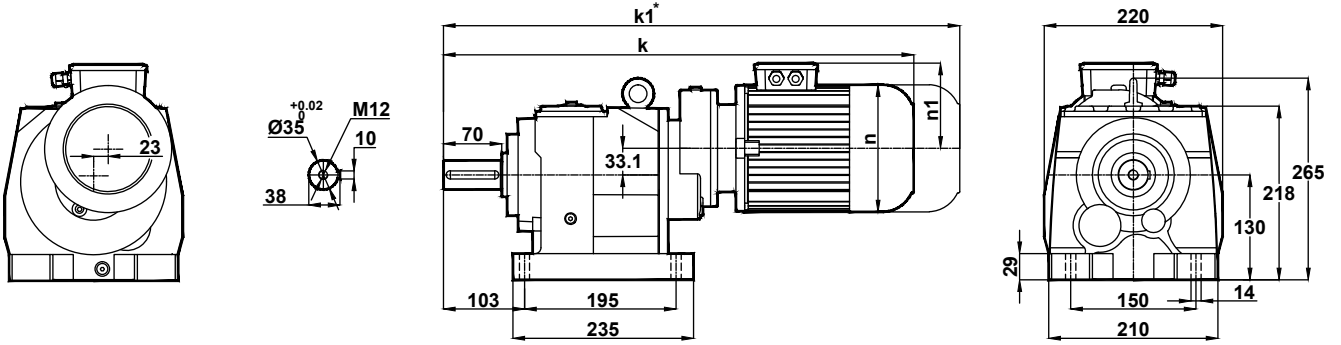


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

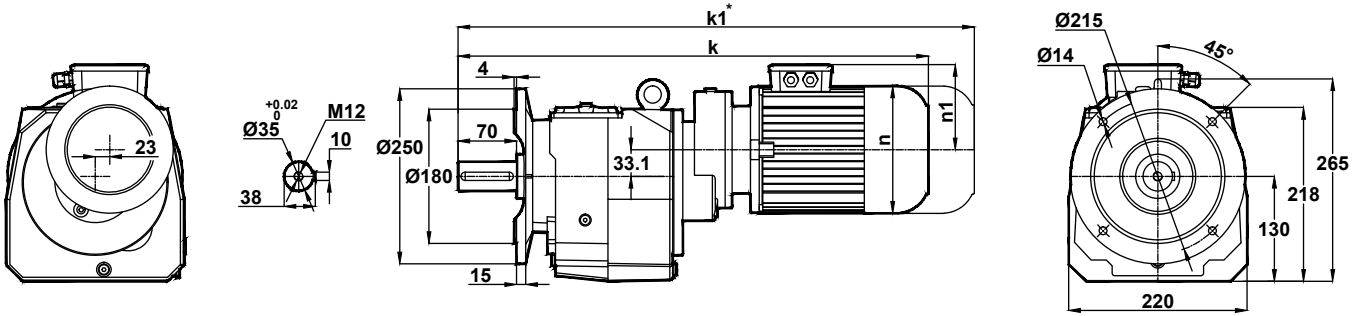


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR284

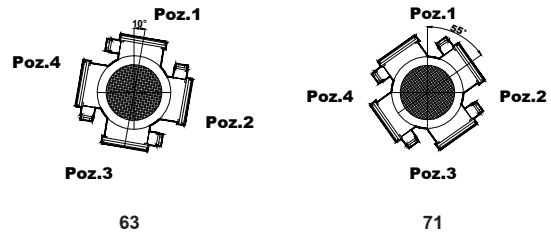


## NR284

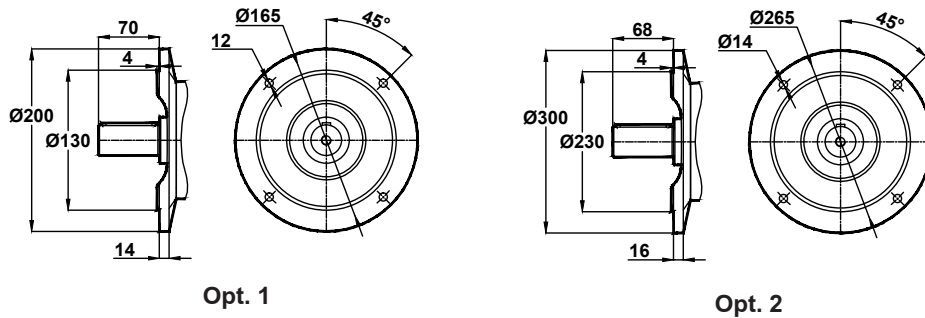


| Motor Büyüklüğü / Motor Size / Motorbaugroße | 63  | 71  |
|--|-----|-----|
| k  | 540 | 558 |
| k1   | 593 | 678 |
| n  | 121 | 138 |
| n1   | 97  | 111 |

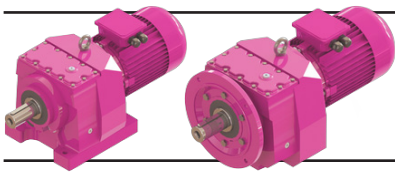
### Klemens Kutusu / Terminal Box / Klemmenkasten



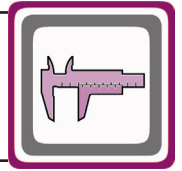
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

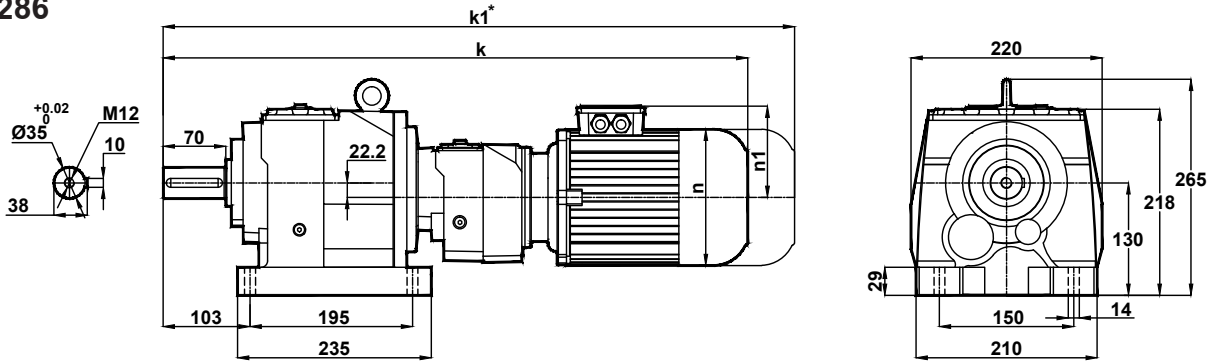


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

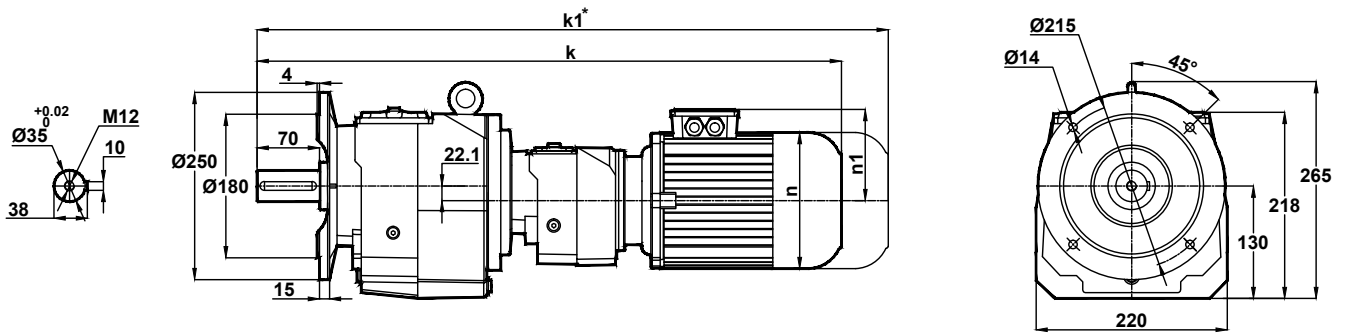


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR285 MR286

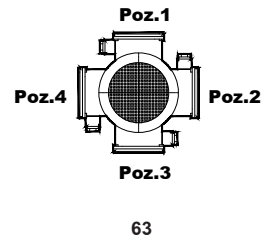


## NR285 NR286

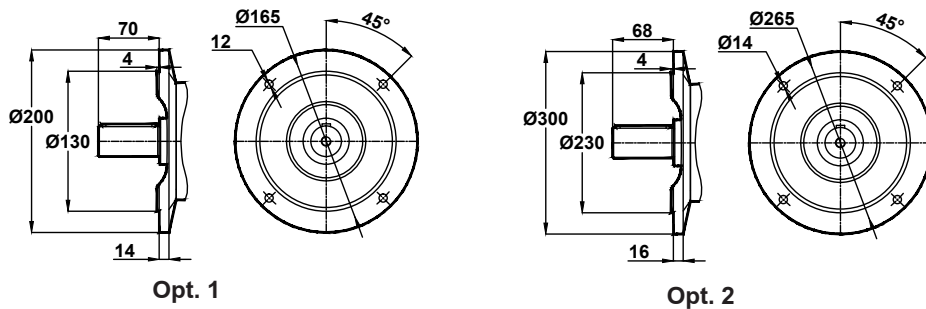


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |
|--|-----|
|  | 63  |
| k  | 641 |
| k1   | 694 |
| n  | 121 |
| n1   | 97  |

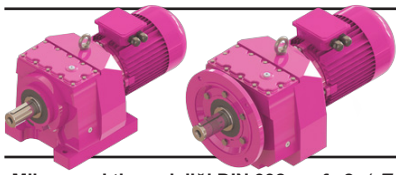
Klemens Kutusu / Terminal Box / Klemmenkasten



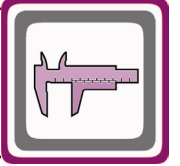
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

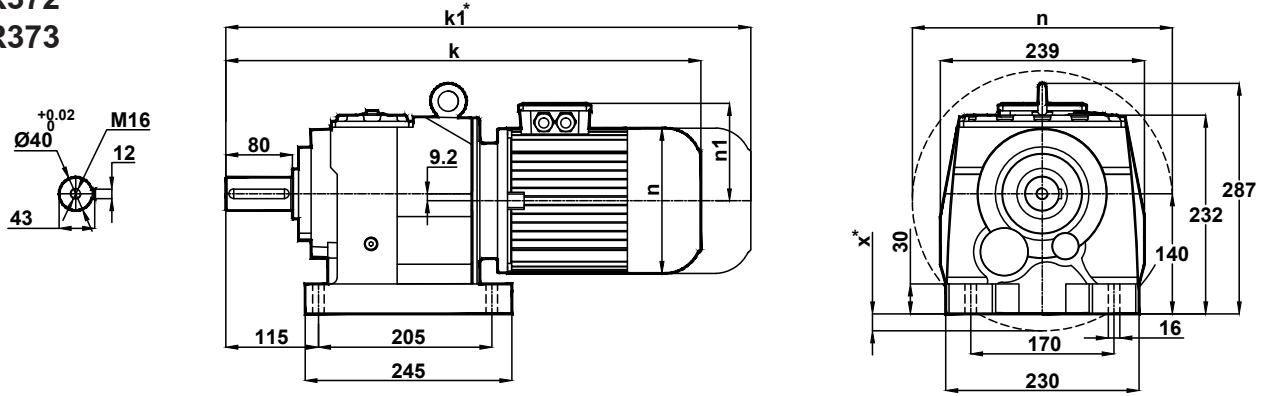


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

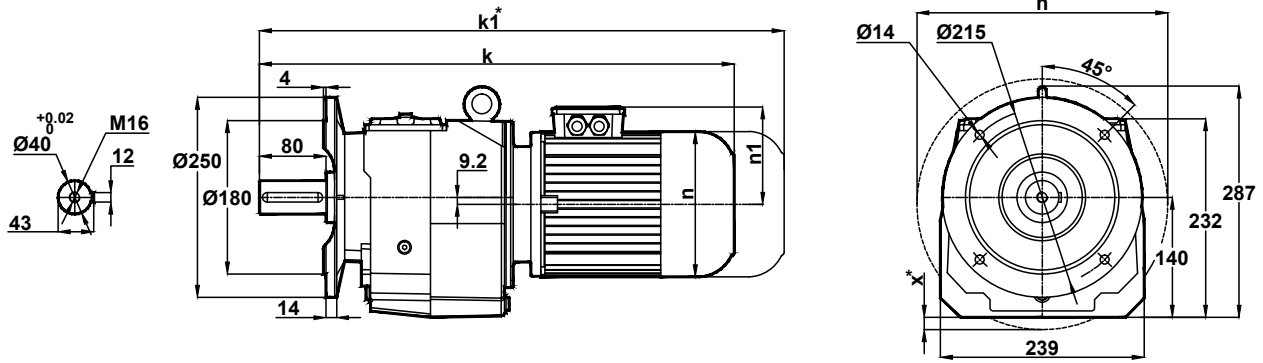


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR372 MR373

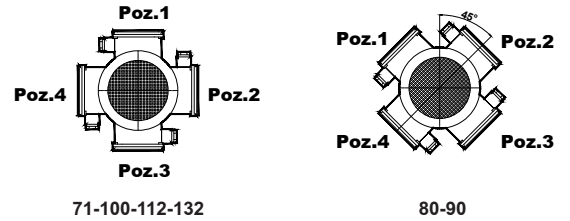


## NR372 NR373

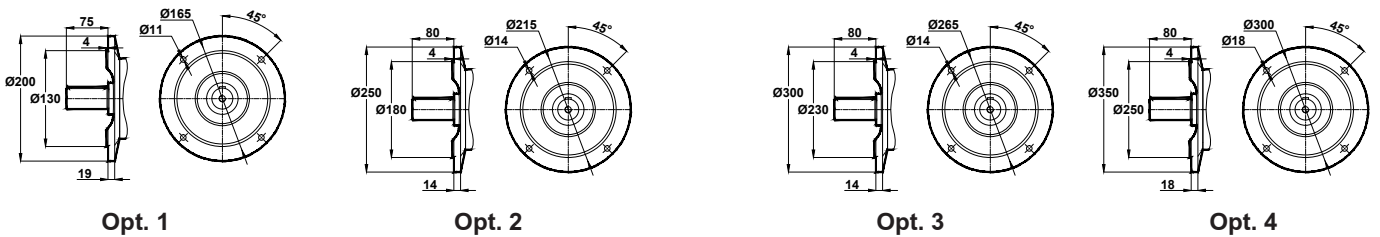


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |     |      |      |      |      |
|--|-----|-----|-----|-----|------|------|------|------|
|  | 71  | 80  | 90S | 90L | 100L | 112M | 132S | 132M |
| k  | 500 | 528 | 558 | 583 | 623  | 646  | 700  | 738  |
| k1   | 620 | 648 | 683 | 708 | 758  | 781  | 845  | 883  |
| n  | 138 | 156 | 176 | 176 | 194  | 218  | 257  | 257  |
| n1   | 111 | 118 | 126 | 126 | 135  | 146  | 168  | 168  |
| x  | -   | -   | -   | -   | -    | -    | 2    | 30   |

Klemens Kutusu / Terminal Box / Klemmenkasten



## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

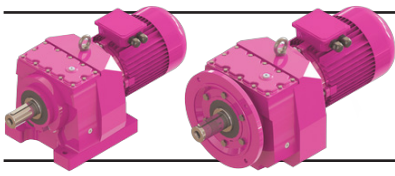


\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

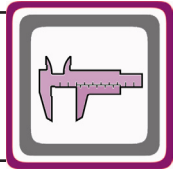
x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlussplatte



# Ölçü Sayfaları

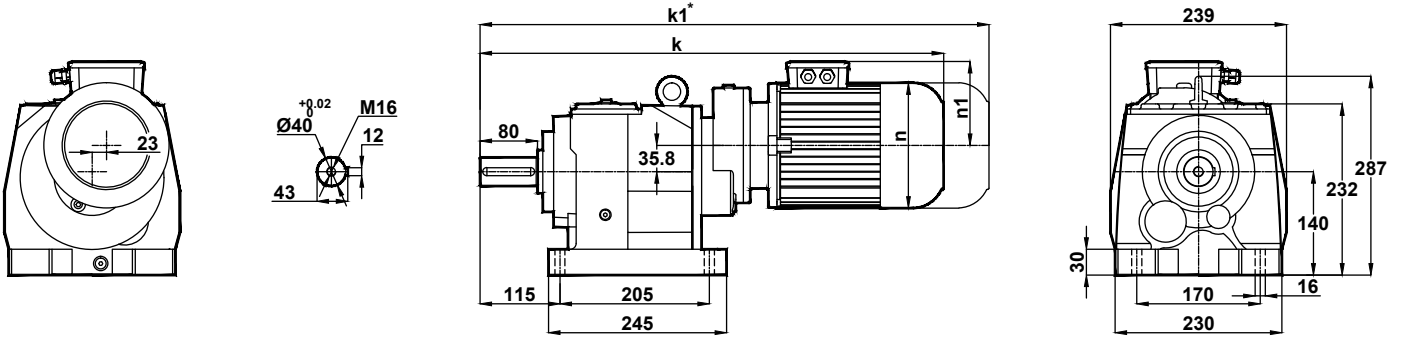
## Dimension Pages

### Abmessungsseiten

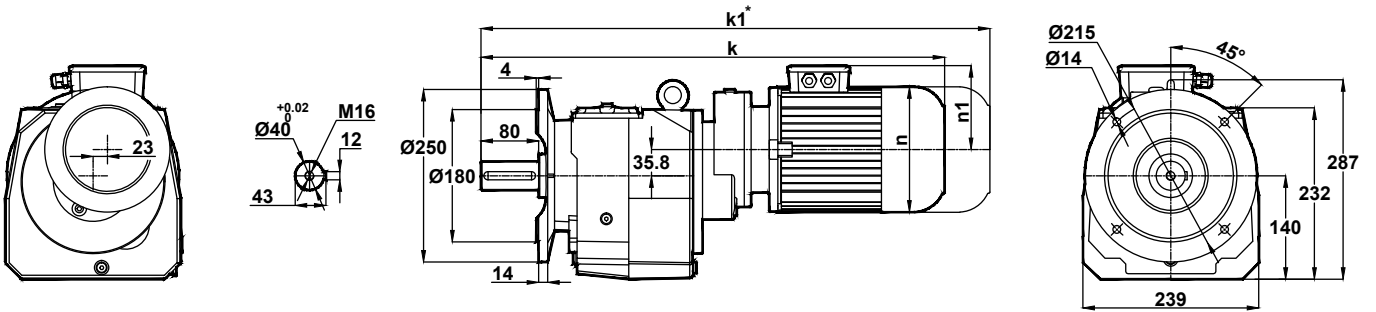


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

### MR374

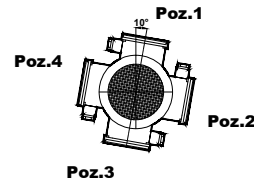


### NR374

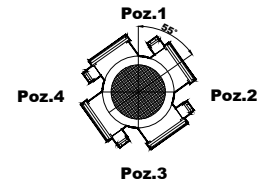


| Motor Büyüklüğü / Motor Size / Motorbaugroße | 63  | 71  | 80  |
|--|-----|-----|-----|
| k  | 561 | 579 | 608 |
| k1   | 614 | 699 | 728 |
| n  | 121 | 138 | 156 |
| n1   | 97  | 111 | 118 |

Klemens Kutusu / Terminal Box / Klemmenkasten

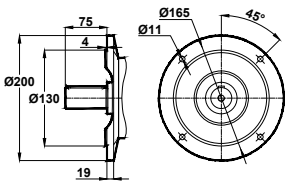


63-80

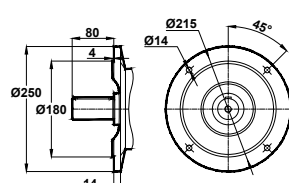


71

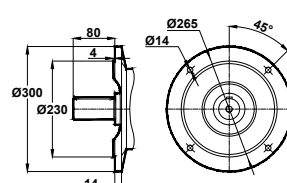
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



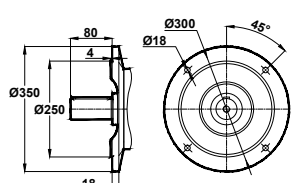
Opt. 1



Opt. 2



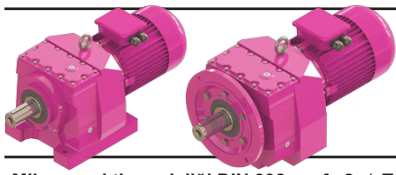
Opt. 3



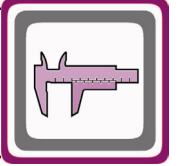
Opt. 4

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.



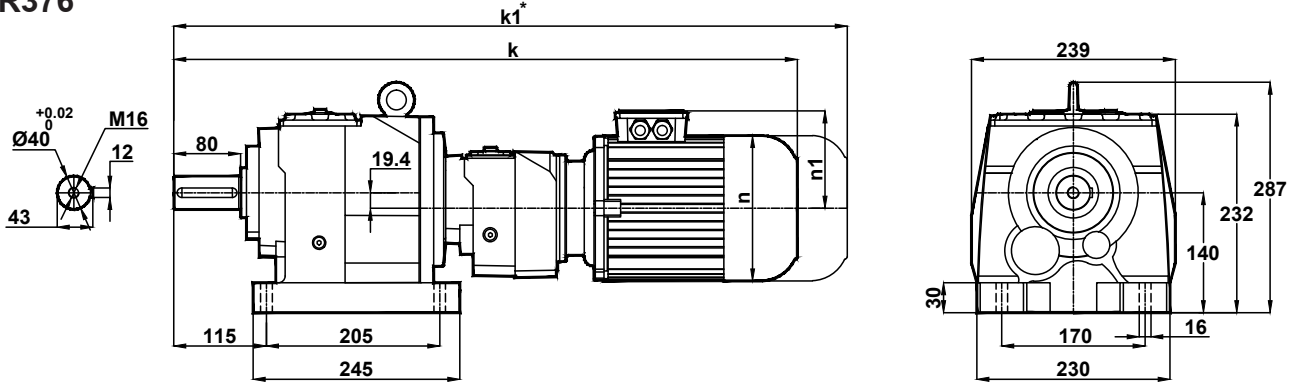


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

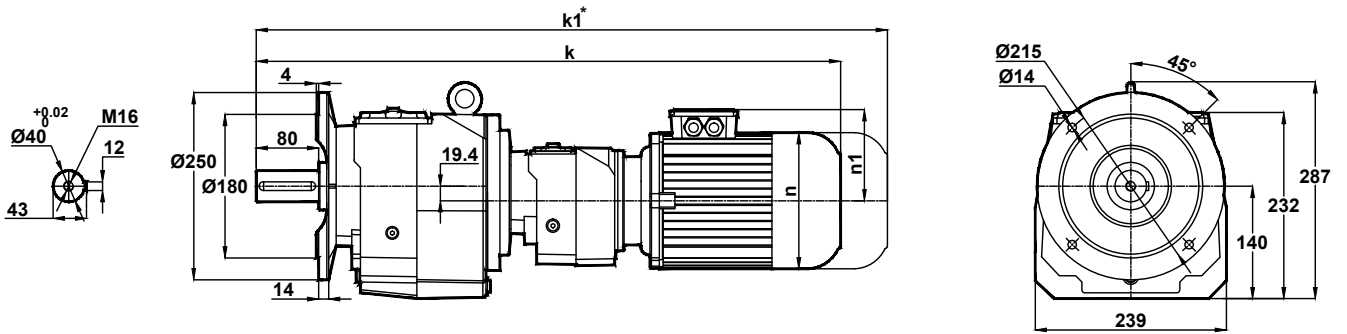


-Mil ucu çekirtme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR375 MR376

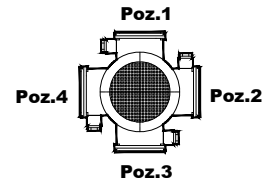


## NR375 NR376



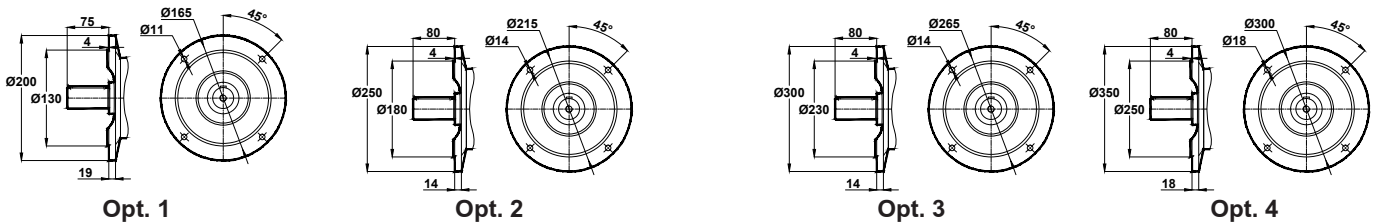
| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |
|--|-----|
|  | 63  |
| k  | 662 |
| k1   | 715 |
| n  | 121 |
| n1   | 97  |

Klemens Kutusu / Terminal Box / Klemmenkasten

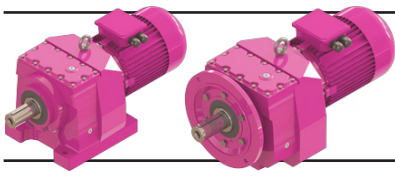


63

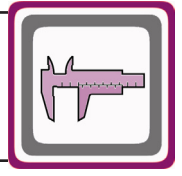
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

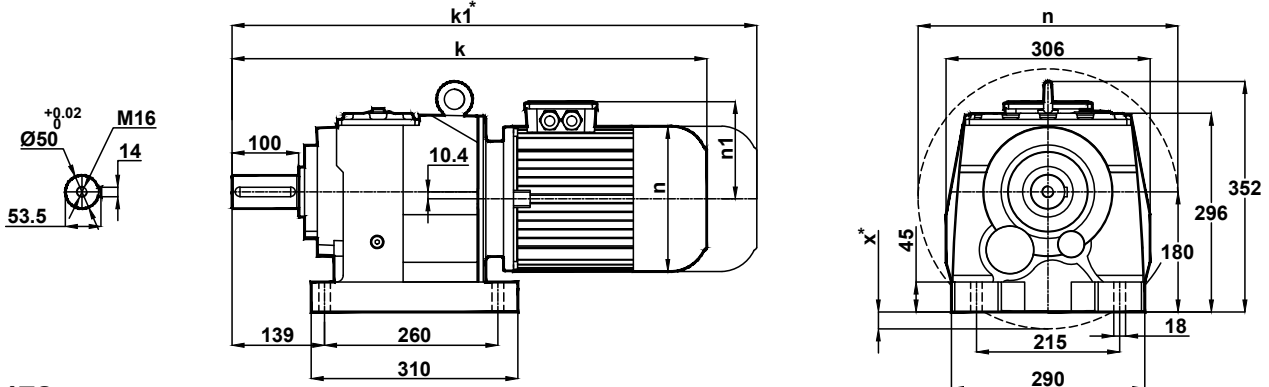


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

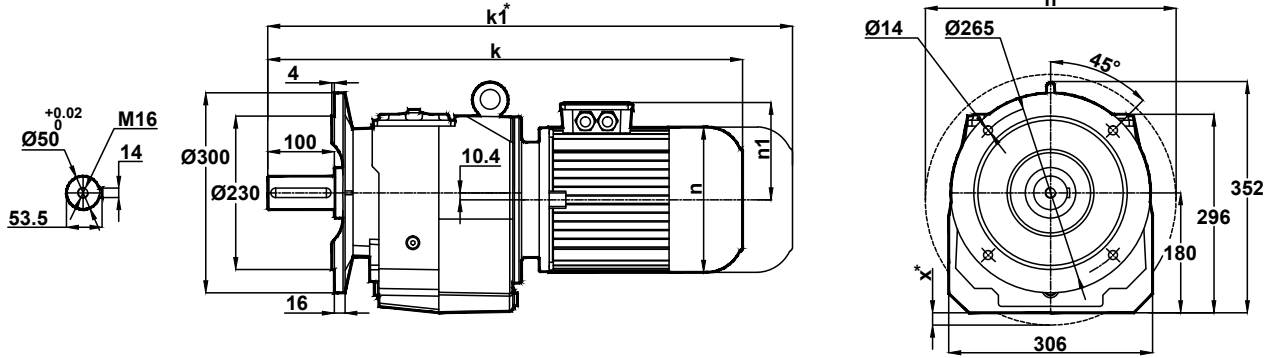


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR472 MR473

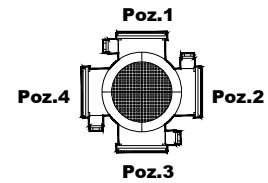


## NR472 NR473



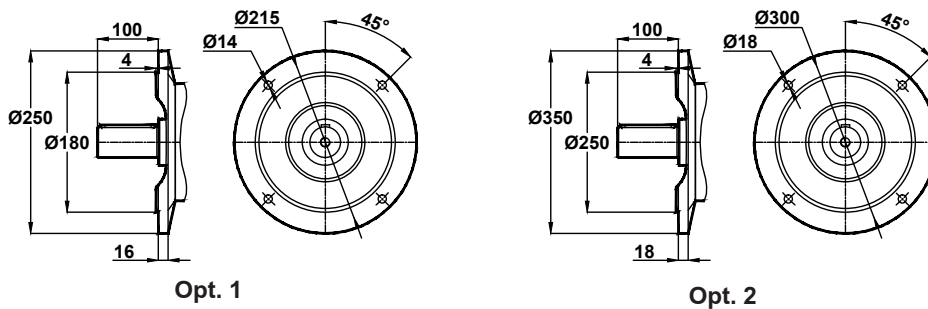
| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |      |      |      |      |      |      |      |      |
|--|-----|-----|-----|------|------|------|------|------|------|------|------|
|  | 80  | 90S | 90L | 100L | 112M | 132S | 132M | 160M | 160L | 180M | 180L |
| k  | 596 | 624 | 649 | 688  | 713  | 762  | 800  | 875  | 919  | 936  | 974  |
| k1   | 716 | 749 | 774 | 823  | 848  | 907  | 945  | 1045 | 1089 | 1106 | 1144 |
| n  | 156 | 176 | 176 | 194  | 218  | 257  | 257  | 310  | 310  | 348  | 348  |
| n1   | 118 | 126 | 126 | 135  | 146  | 168  | 168  | 225  | 225  | 241  | 241  |
| x  | -   | -   | -   | -    | -    | -    | -    | -    | -    | 11   | 11   |

Klemens Kutusu / Terminal Box / Klemmenkasten

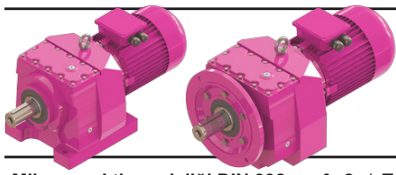


80-90-100-112-132-160-180

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



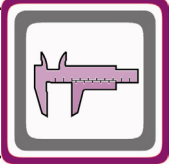
\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

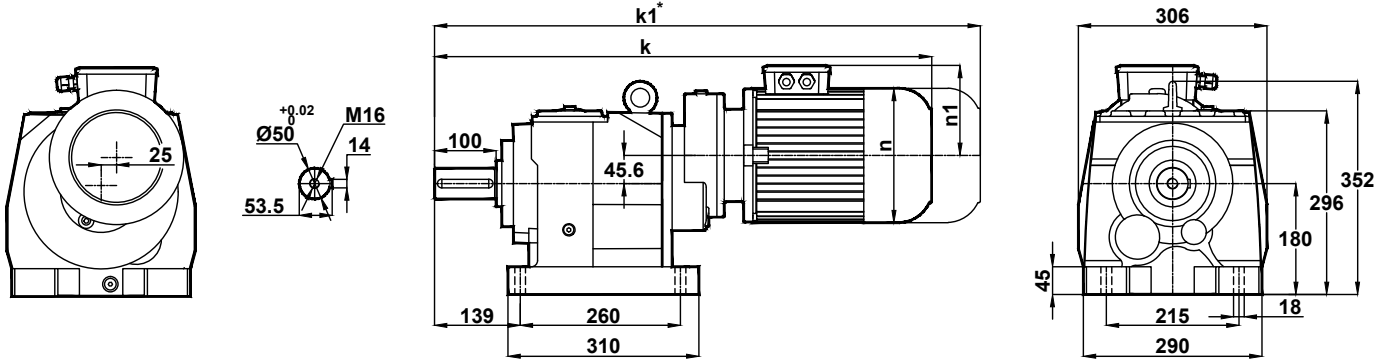
## Dimension Pages

### Abmessungsseiten

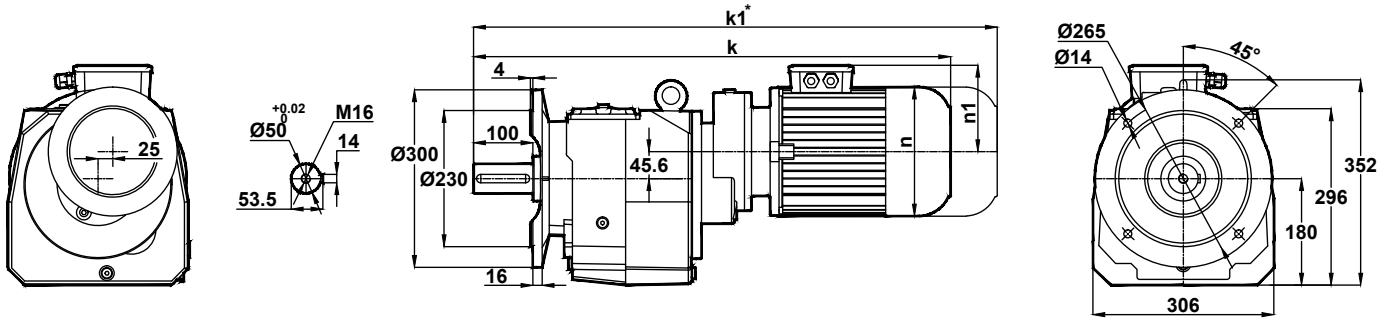


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

### MR474

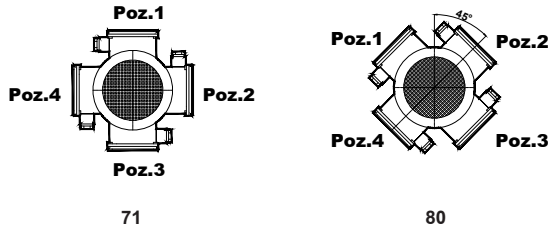


### NR474

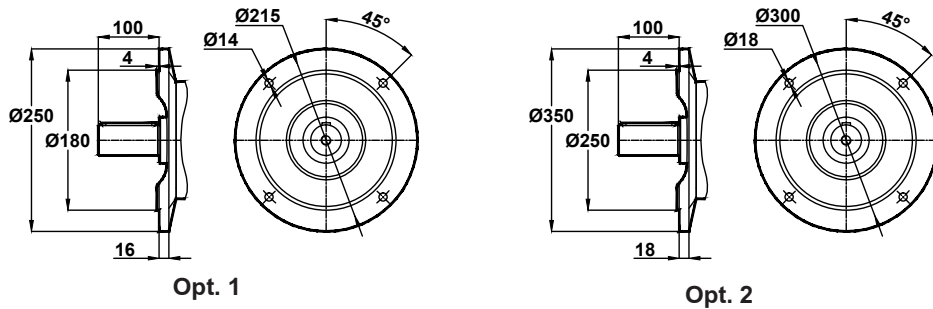


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |
|--|-----|-----|
|  | 71  | 80  |
| k  | 661 | 689 |
| k1   | 781 | 809 |
| n  | 138 | 156 |
| n1   | 111 | 118 |

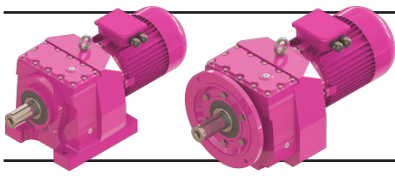
Klemens Kutusu / Terminal Box / Klemmenkasten



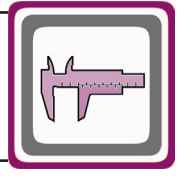
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

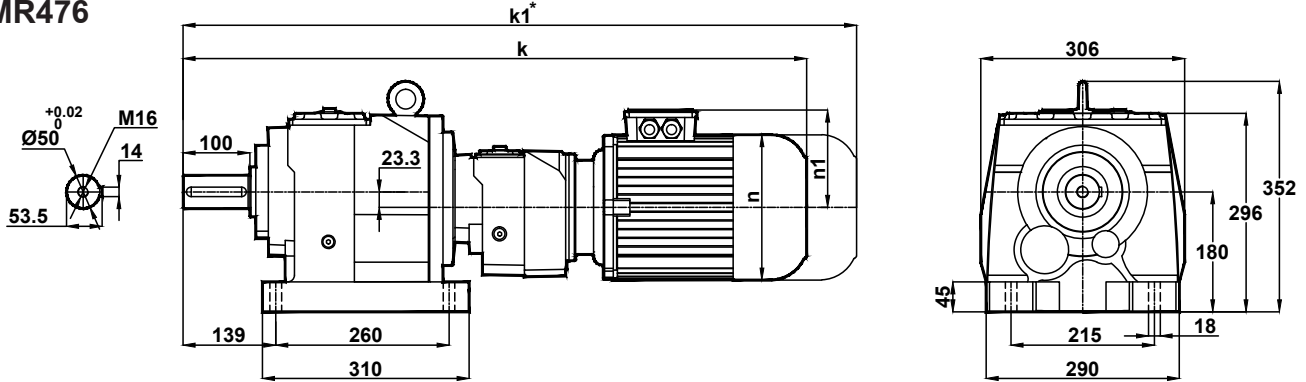


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

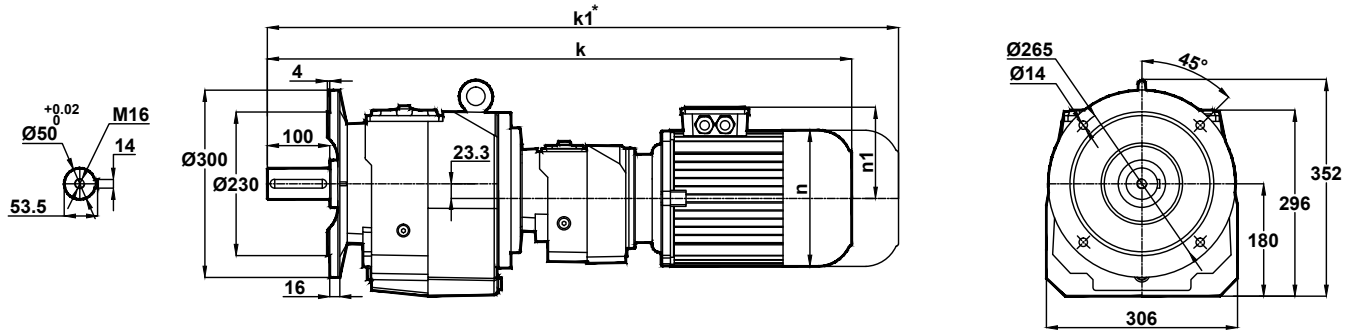


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR475 MR476

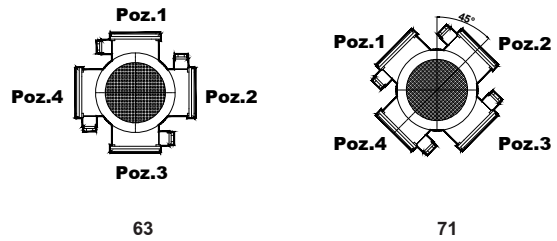


## NR475 NR476

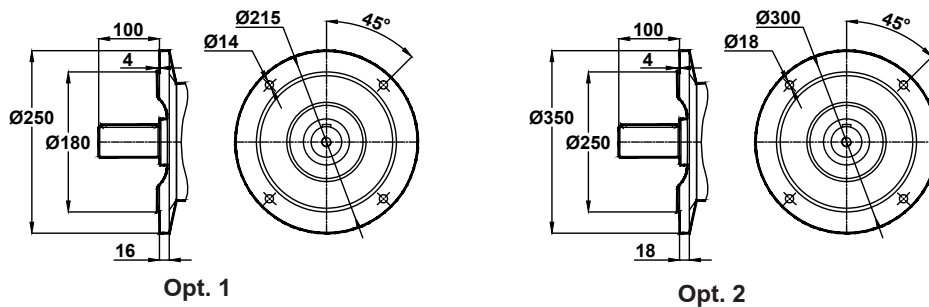


| Motor Büyüklüğü / Motor Size / Motorbaugroße | 63  | 71  |
|--|-----|-----|
| k  | 772 | 791 |
| k1   | 825 | 911 |
| n  | 121 | 138 |
| n1   | 97  | 111 |

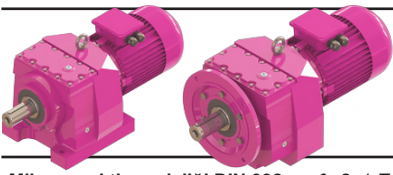
Klemens Kutusu / Terminal Box / Klemmenkasten



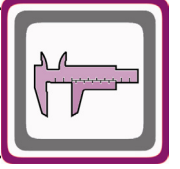
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

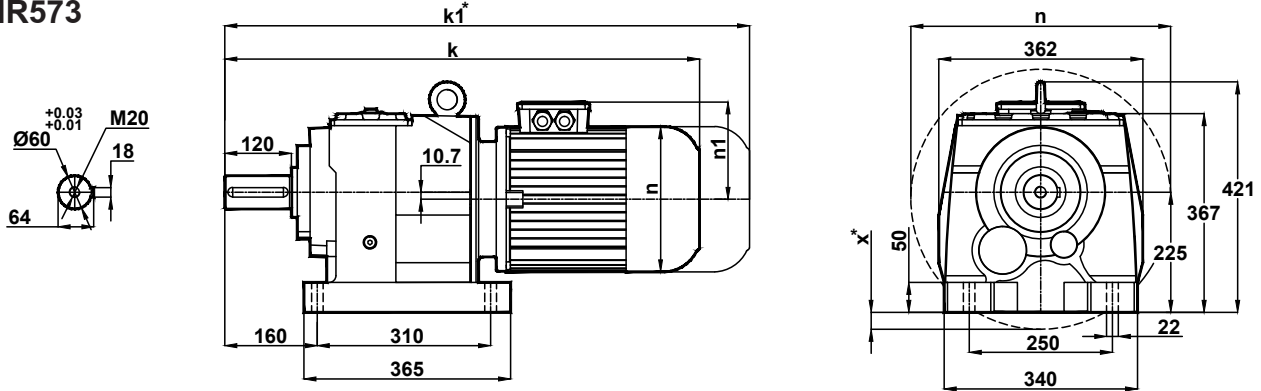


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

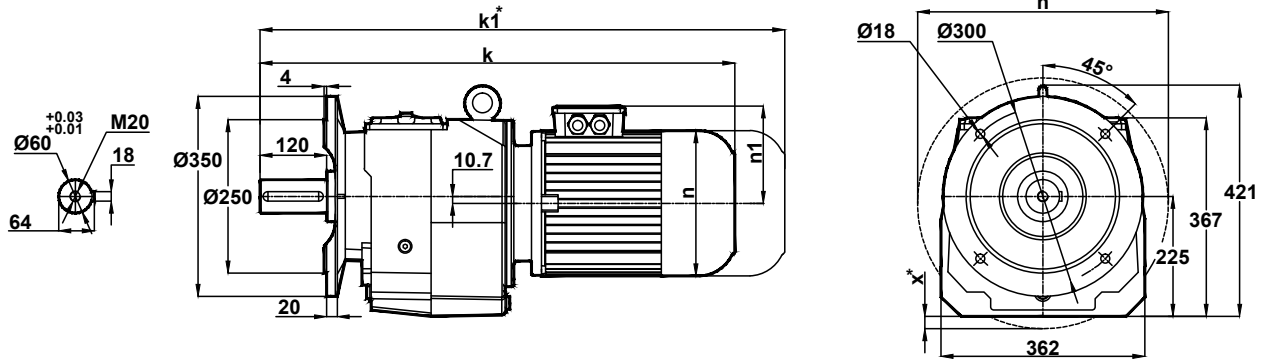


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR572 MR573

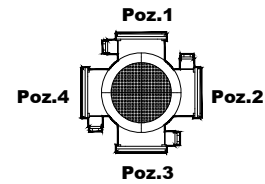


## NR572 NR573



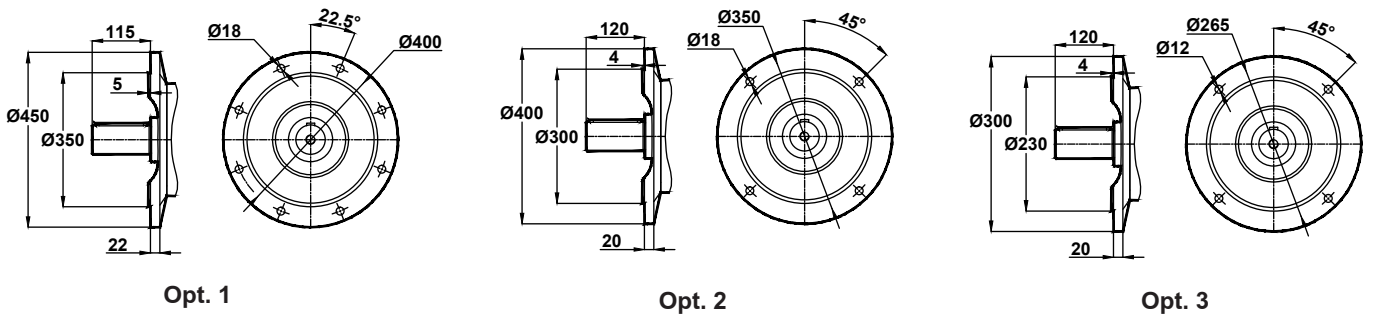
| Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |      |      |      |      |      |      |      |
|--|------|------|------|------|------|------|------|------|------|
|  | 100L | 112M | 132S | 132M | 160M | 160L | 180M | 180L | 200L |
| <b>k</b>                                     | 745  | 768  | 822  | 860  | 935  | 979  | 995  | 1033 | 1072 |
| <b>k1</b>                                    | 880  | 903  | 967  | 1005 | 1105 | 1149 | 1165 | 1203 | 1272 |
| <b>n</b>                                     | 194  | 218  | 257  | 257  | 310  | 310  | 348  | 348  | 390  |
| <b>n1</b>                                    | 135  | 146  | 168  | 168  | 225  | 225  | 241  | 241  | 275  |
| <b>x</b>                                     | -    | -    | -    | -    | -    | -    | -    | -    | -    |

Klemens Kutusu / Terminal Box / Klemmenkasten



100-112-132-160-180-200

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

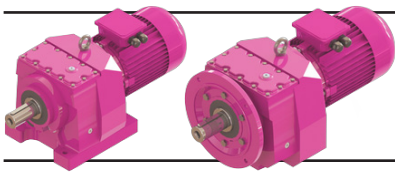


\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

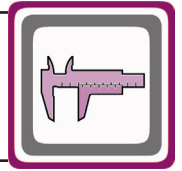
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlussplatte

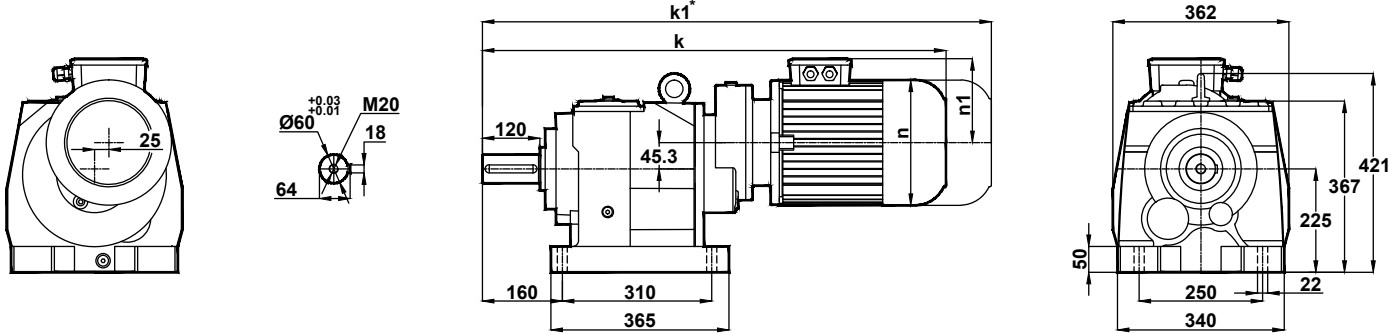


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

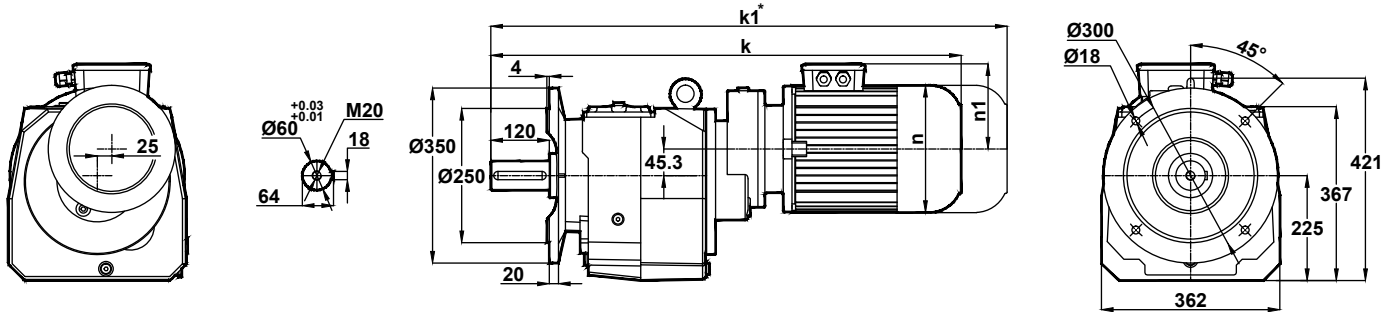


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR574

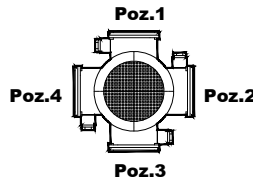


## NR574

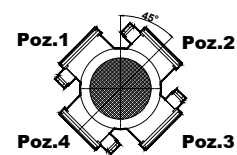


### Klemens Kutusu / Terminal Box / Klemmenkasten

| Motor Büyüklüğü / Motor Size / Motorbaugröße | 71  | 80  | 90S | 90L |
|--|-----|-----|-----|-----|
| k  | 723 | 751 | 780 | 805 |
| k1   | 843 | 871 | 905 | 930 |
| n  | 138 | 156 | 176 | 176 |
| n1   | 111 | 118 | 126 | 126 |

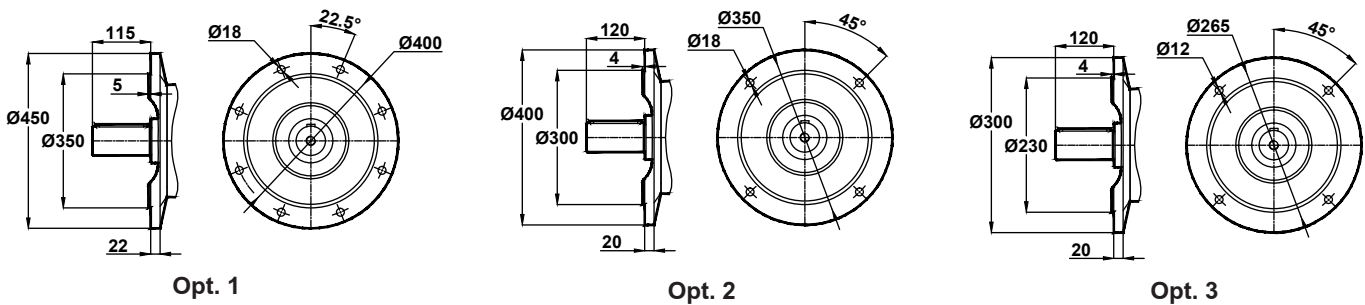


71

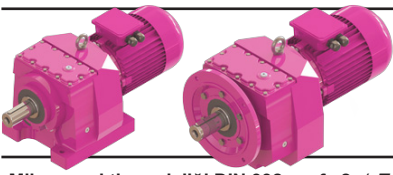


80-90

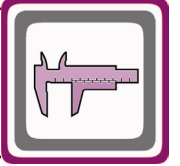
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

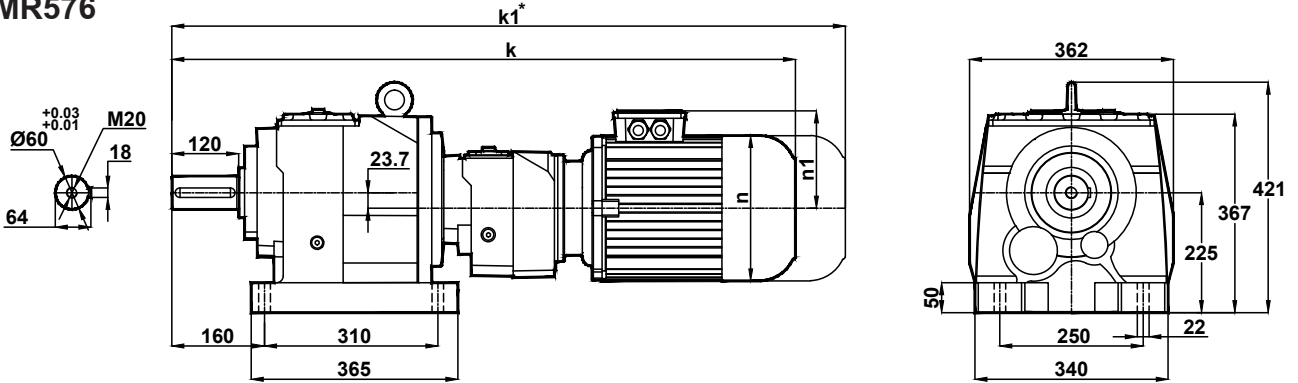


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

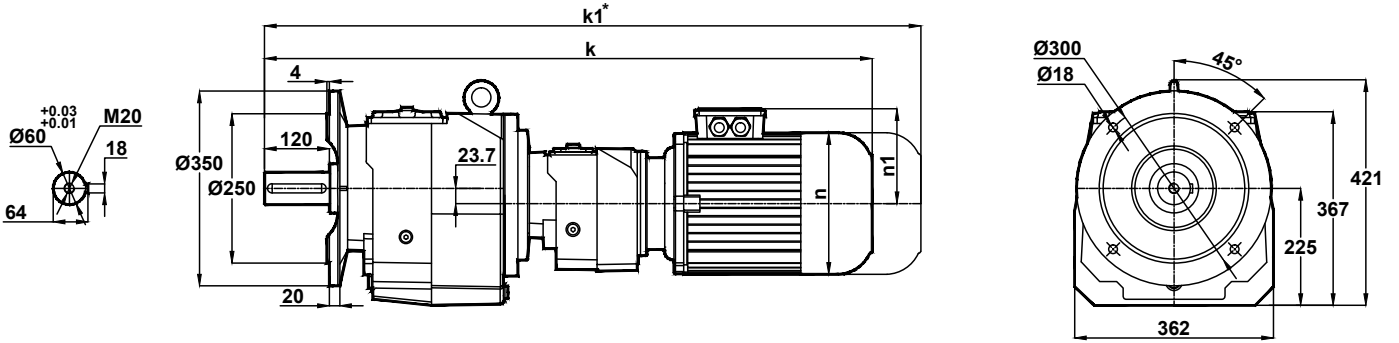


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR575 MR576

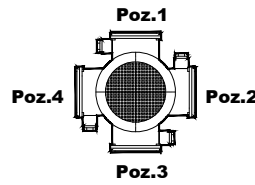


## NR575 NR576

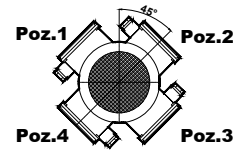


| Motor Büyüklüğü / Motor Size / Motorbaugroße | 63  | 71  |
|--|-----|-----|
| k  | 836 | 855 |
| k1   | 889 | 975 |
| n  | 121 | 138 |
| n1   | 97  | 111 |

Klemens Kutusu / Terminal Box / Klemmenkasten

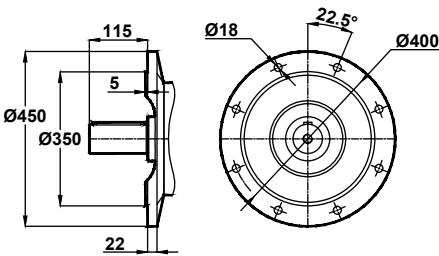


63

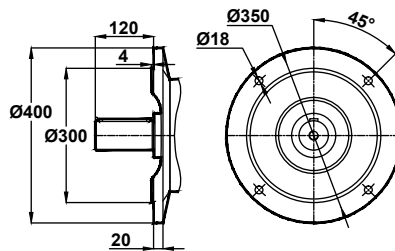


71

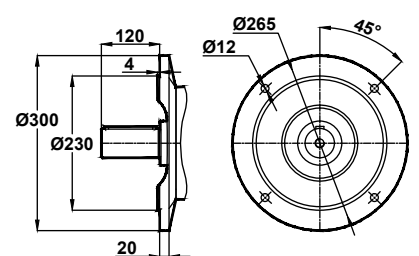
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



Opt. 2

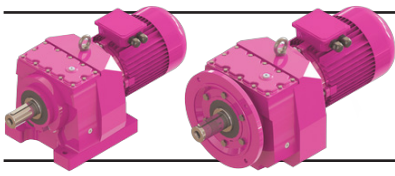


Opt. 3

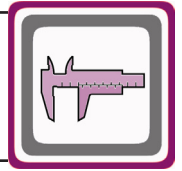
\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

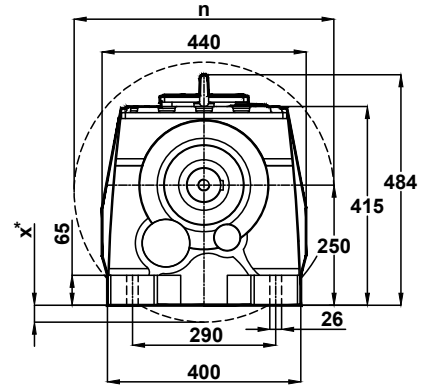
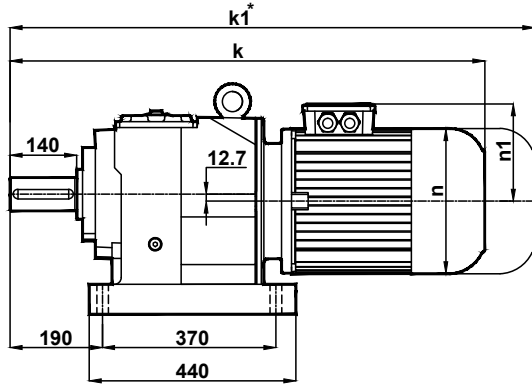
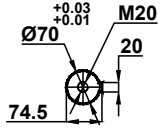


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

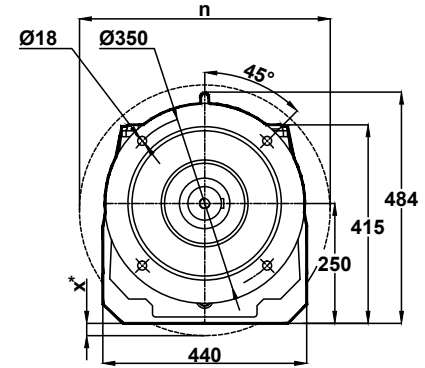
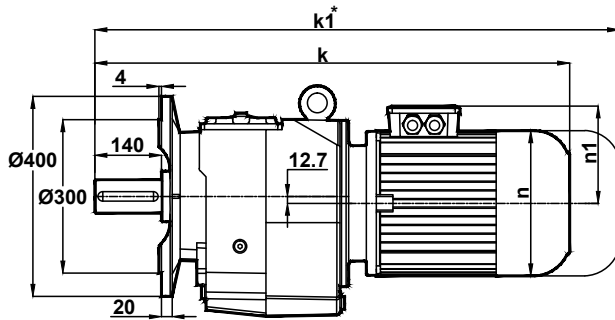
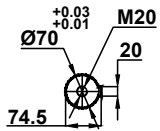


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR672 MR673

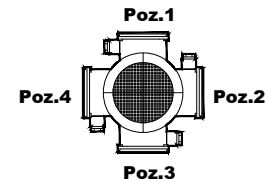


## NR672 NR673



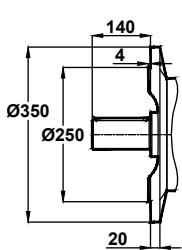
| Motor Büyüklüğü / Motor Size / Motorbaugröße |      |      |      |      |      |      |      |      |      |      |
|--|------|------|------|------|------|------|------|------|------|------|
|  | 112M | 132S | 132M | 160M | 160L | 180M | 180L | 200L | 225S | 225M |
| k  | 825  | 879  | 917  | 991  | 1035 | 1049 | 1087 | 1129 | 1155 | 1180 |
| k1   | 960  | 1024 | 1062 | 1161 | 1205 | 1219 | 1257 | 1329 | 1345 | 1370 |
| n  | 218  | 257  | 257  | 310  | 310  | 348  | 348  | 390  | 434  | 434  |
| n1   | 146  | 168  | 168  | 225  | 225  | 241  | 241  | 275  | 285  | 285  |
| x  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

Klemens Kutusu / Terminal Box / Klemmenkasten

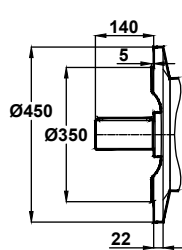
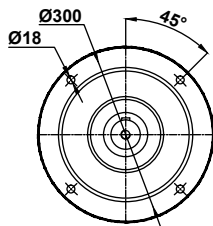


112-132-160-180-200-225

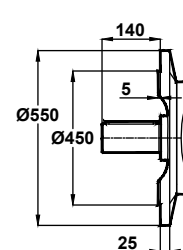
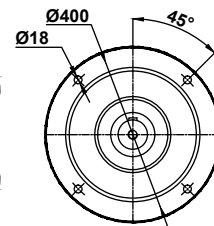
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



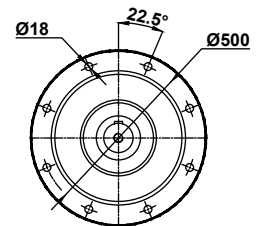
Opt. 1



Opt. 2



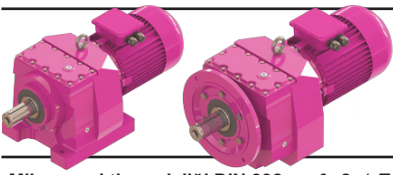
Opt. 3



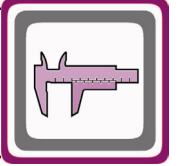
\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
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x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



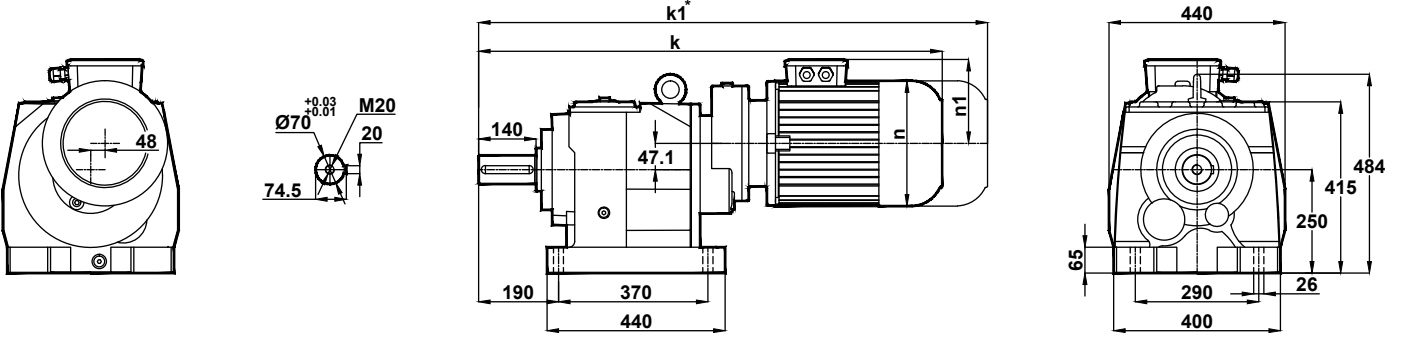


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

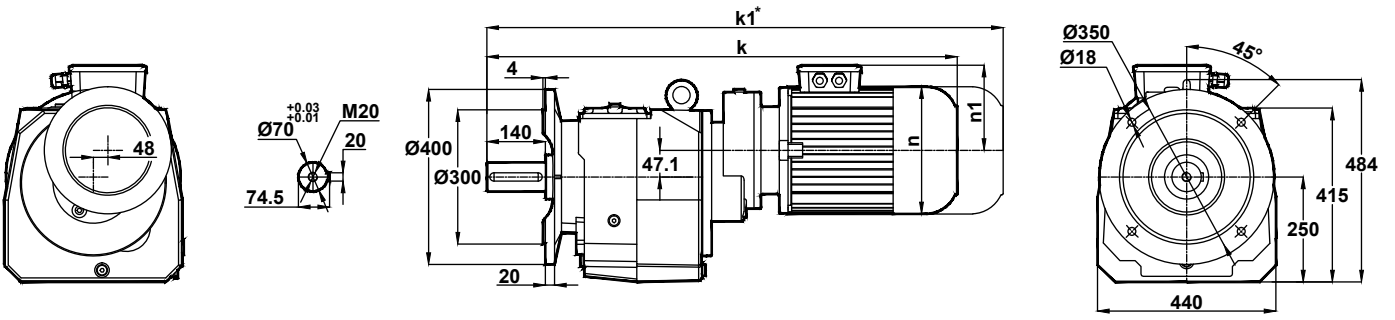


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

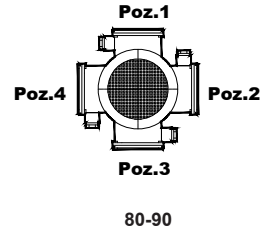
## MR674



## NR674

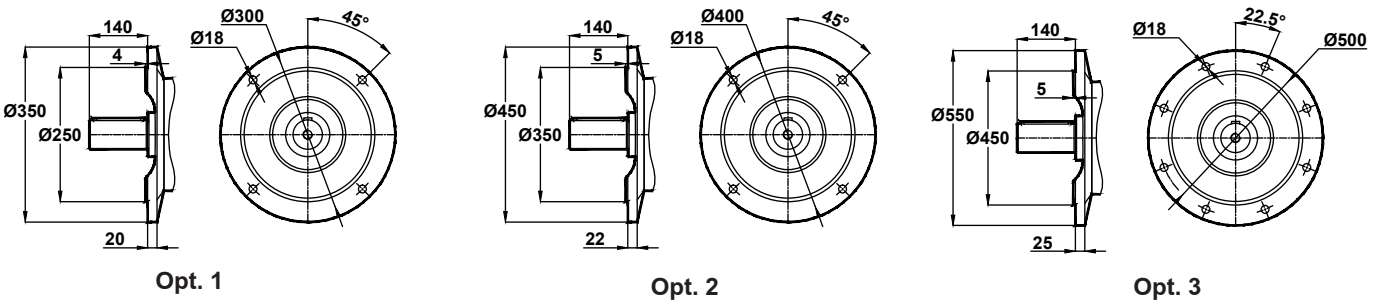


Klemens Kutusu / Terminal Box / Klemmenkasten

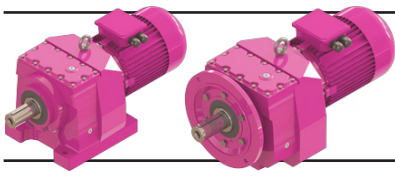


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |      |
|--|-----|-----|------|
|  | 80  | 90S | 90L  |
| k  | 827 | 855 | 880  |
| k1   | 947 | 980 | 1005 |
| n  | 156 | 176 | 176  |
| n1   | 118 | 126 | 126  |

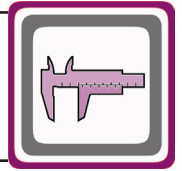
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

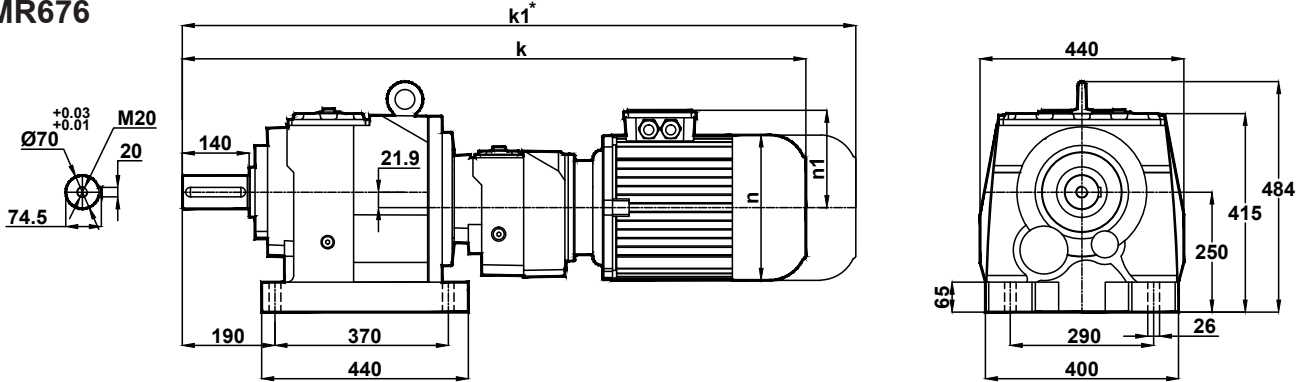


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

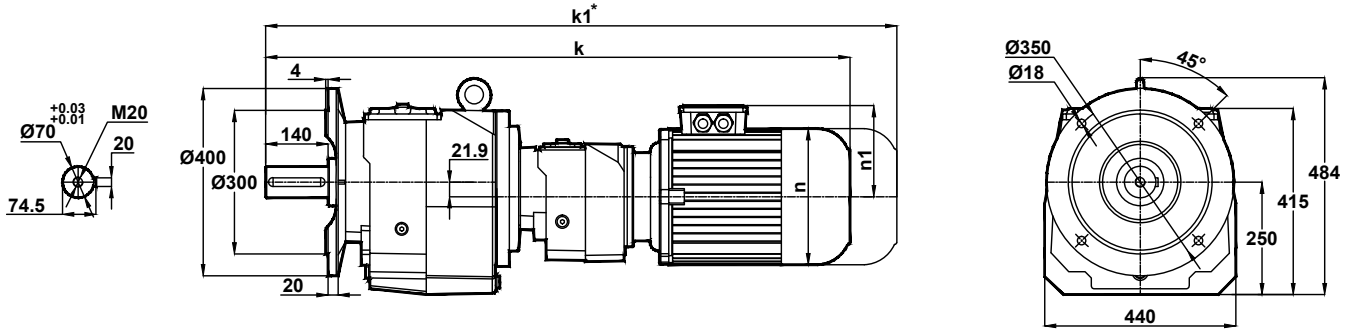


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR675 MR676

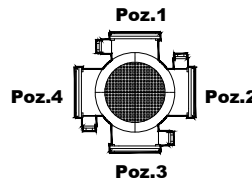


## NR675 NR676

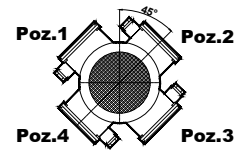


### Klemens Kutusu / Terminal Box / Klemmenkasten

| Motor Büyüklüğü / Motor Size / Motorbaugroße | 71   | 80   |
|--|------|------|
| k  | 944  | 972  |
| k1   | 1064 | 1092 |
| n  | 138  | 156  |
| n1   | 111  | 118  |

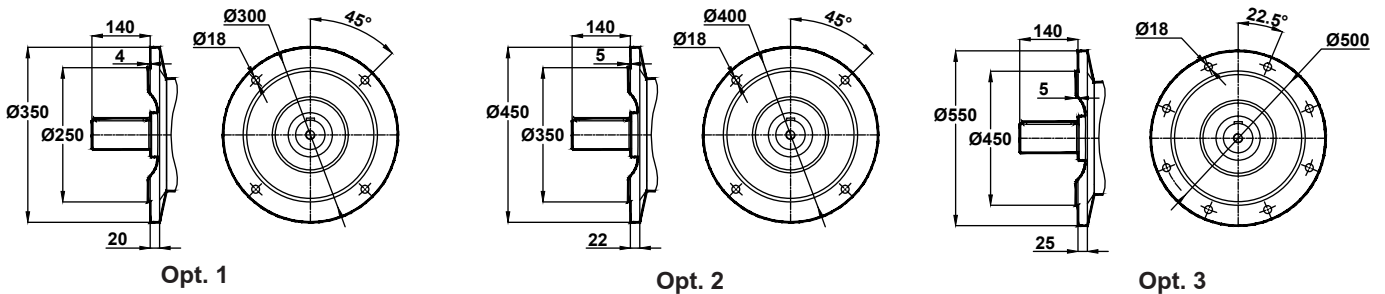


71

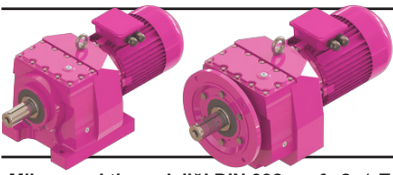


80

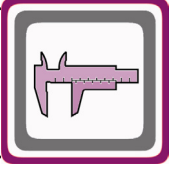
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

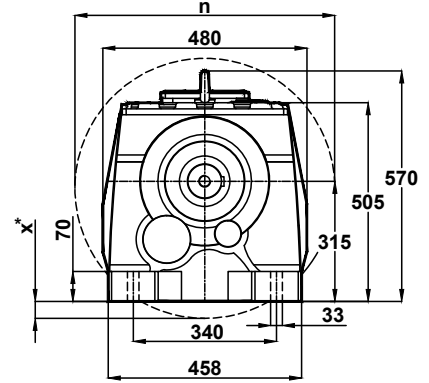
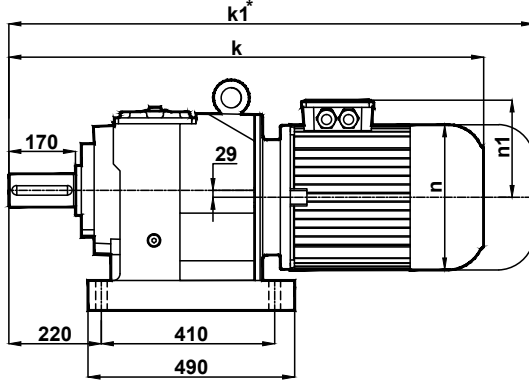
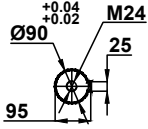


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

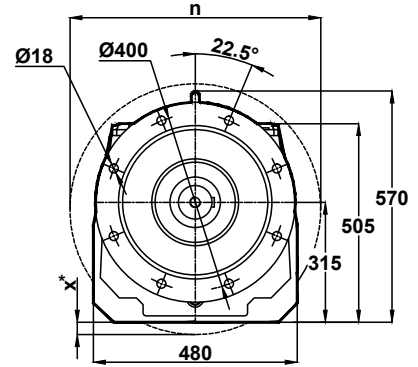
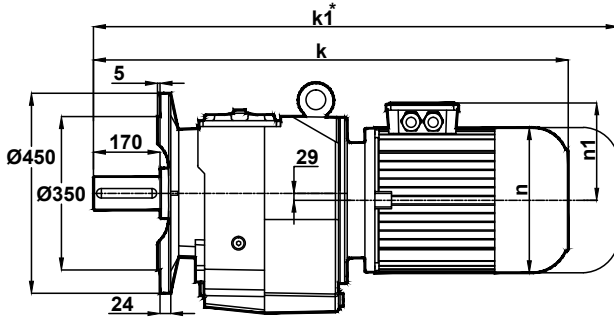
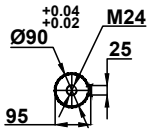


-Mil ucu çekirtme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR772 MR773

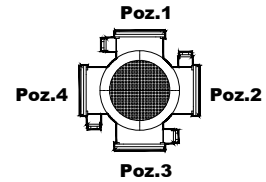


## NR772 NR773



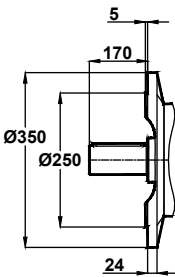
| Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |      |      |      |      |      |      |      |      |
|--|------|------|------|------|------|------|------|------|------|------|
|  | 132S | 132M | 160M | 160L | 180M | 180L | 200L | 225S | 225M | 250M |
| k  | 958  | 996  | 1072 | 1116 | 1133 | 1171 | 1210 | 1237 | 1262 | 1366 |
| k1   | 1103 | 1141 | 1242 | 1286 | 1303 | 1341 | 1410 | 1427 | 1452 | -    |
| n  | 257  | 257  | 310  | 310  | 348  | 348  | 390  | 434  | 434  | 480  |
| n1   | 168  | 168  | 225  | 225  | 241  | 241  | 275  | 285  | 285  | 322  |
| x  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

Klemens Kutusu / Terminal Box / Klemmenkasten

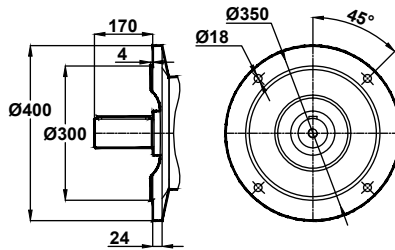
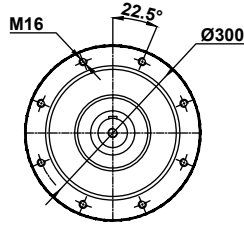


132-160-180-200-225-250

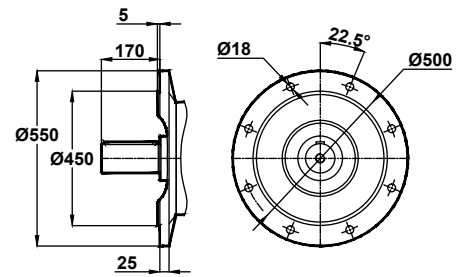
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



Opt. 2



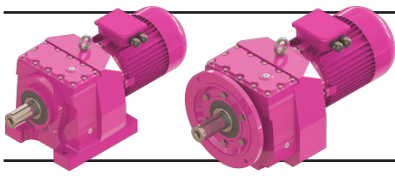
Opt. 3

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

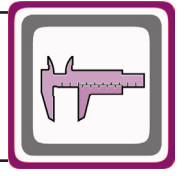
x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlussplatte



# Ölçü Sayfaları

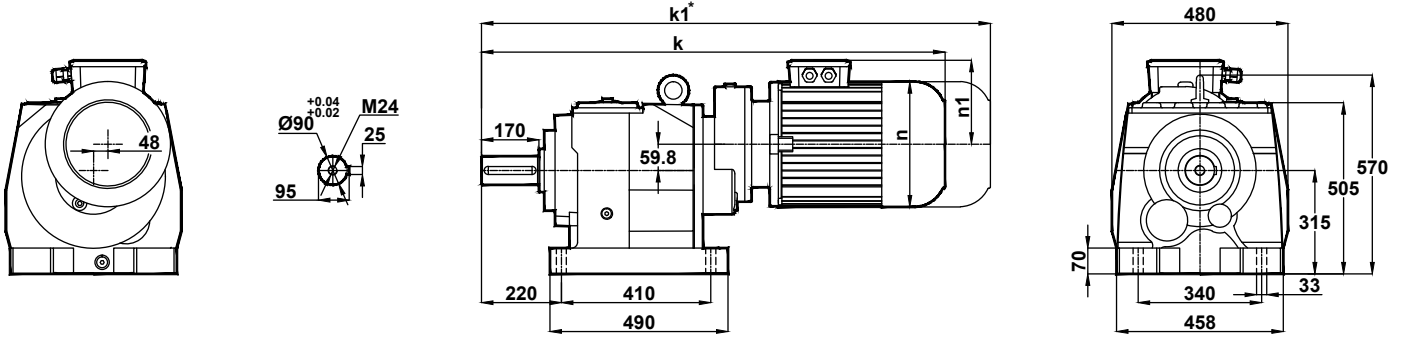
## Dimension Pages

### Abmessungsseiten

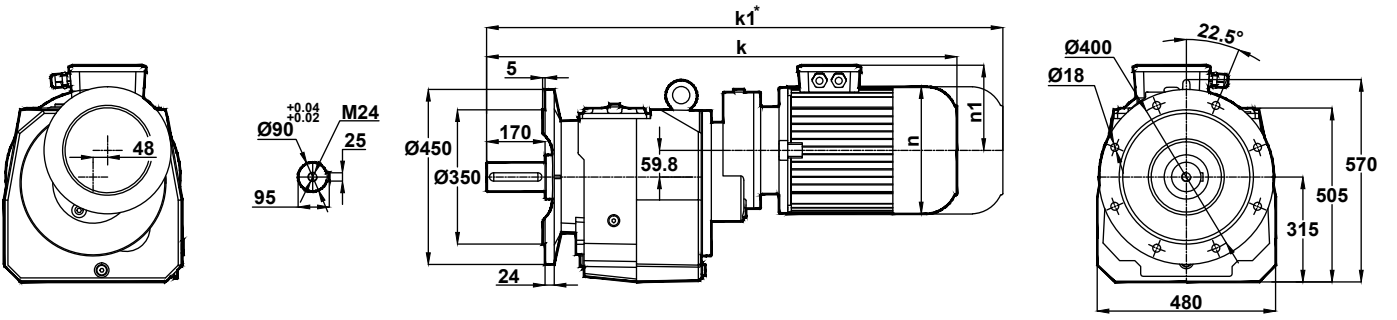


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

### MR774

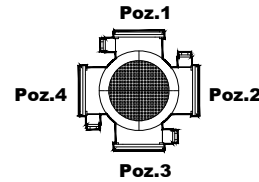


### NR774



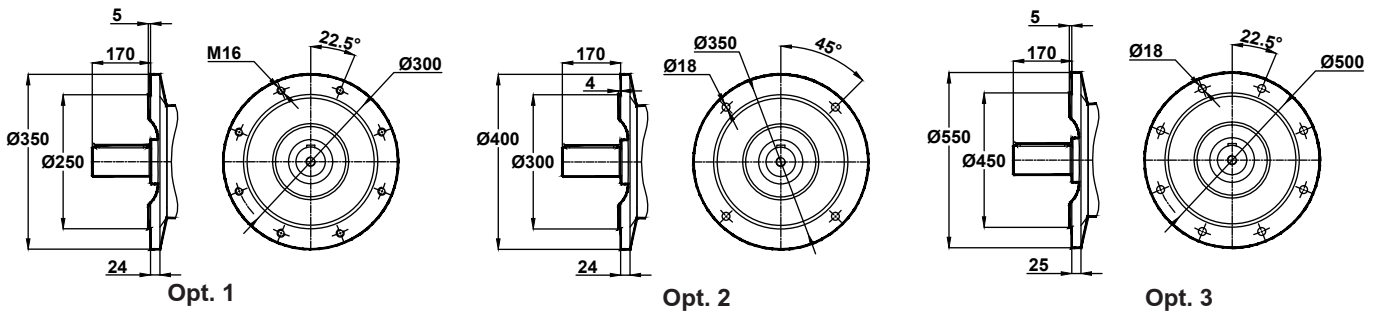
| Motor Büyüklüğü / Motor Size / Motorbaugroße | 80   | 90S  | 90L  | 100L |
|--|------|------|------|------|
| k  | 912  | 940  | 965  | 1003 |
| k1   | 1032 | 1065 | 1090 | 1138 |
| n  | 156  | 176  | 176  | 194  |
| n1   | 118  | 126  | 126  | 135  |

Klemens Kutusu / Terminal Box / Klemmenkasten

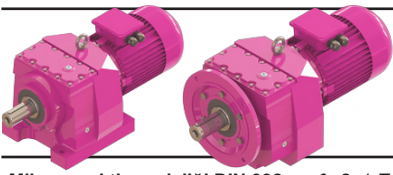


80-90-100

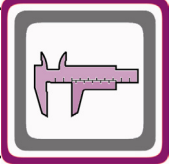
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

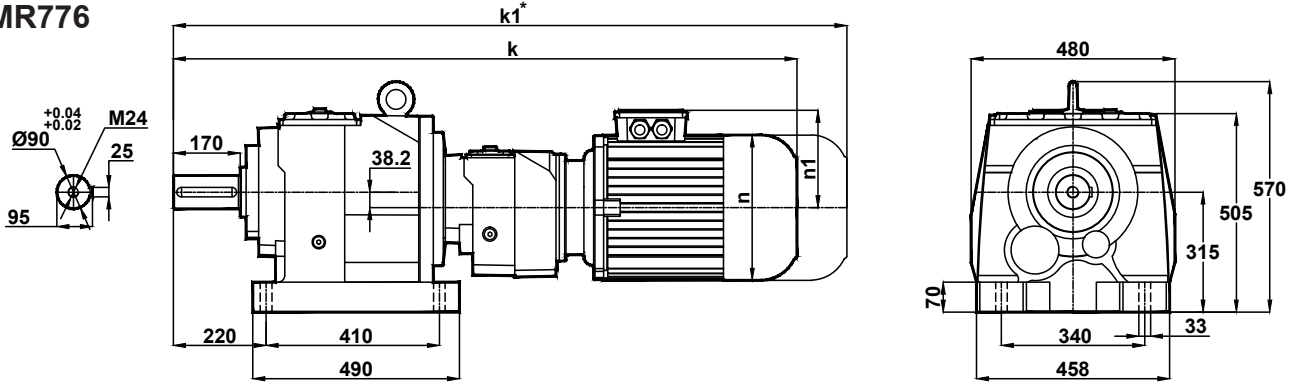


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

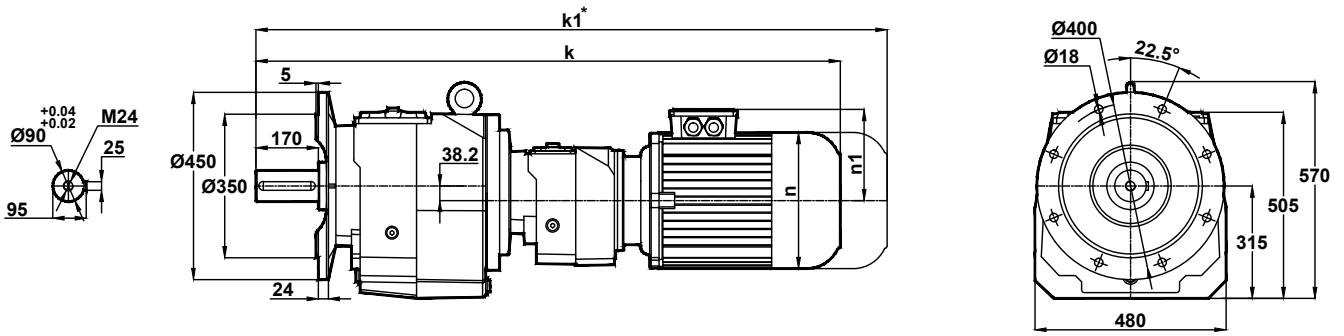


-Mil ucu çekirtme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR775 MR776

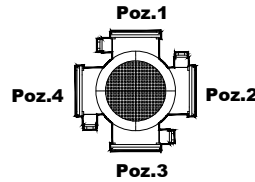


## NR775 NR776

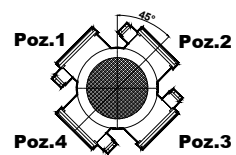


| Motor Büyüklüğü / Motor Size / Motorbaugroße | 71   | 80   | 90S  | 90L  |
|--|------|------|------|------|
| k  | 1032 | 1060 | 1090 | 1115 |
| k1   | 1152 | 1180 | 1215 | 1240 |
| n  | 138  | 156  | 176  | 176  |
| n1   | 111  | 118  | 126  | 126  |

### Klemens Kutusu / Terminal Box / Klemmenkasten

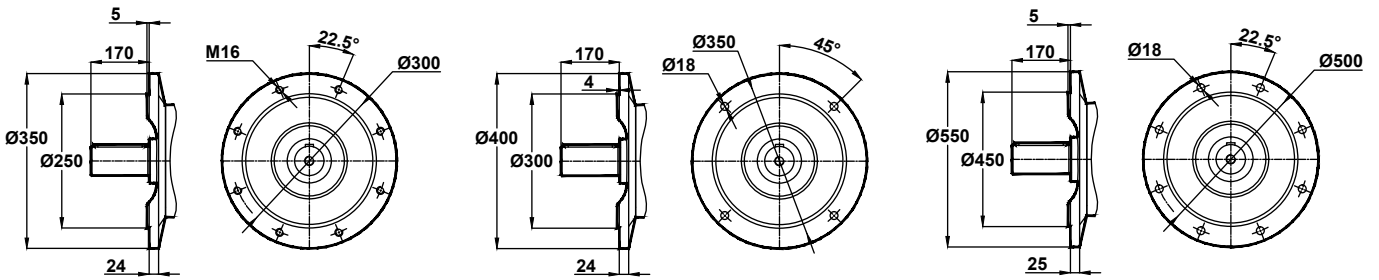


71



80-90

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

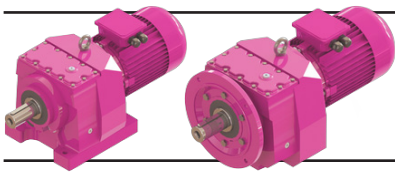
Opt. 2

Opt. 3

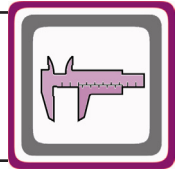
\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

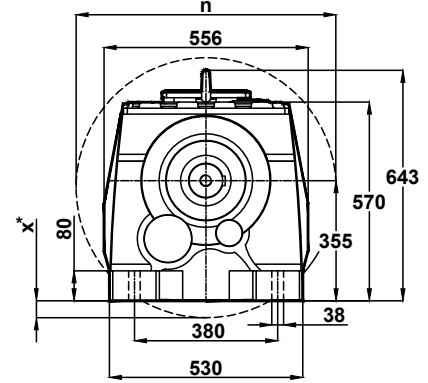
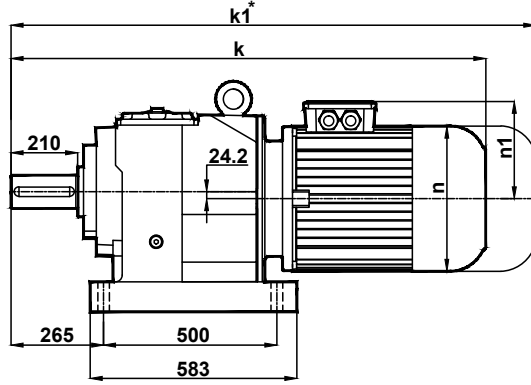
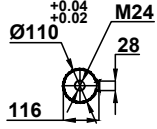


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

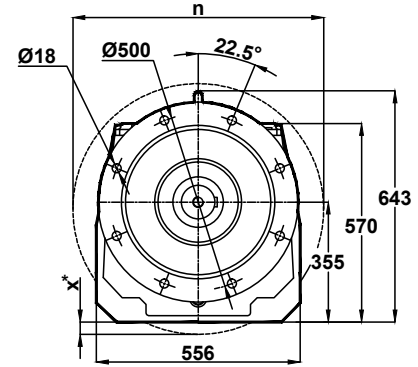
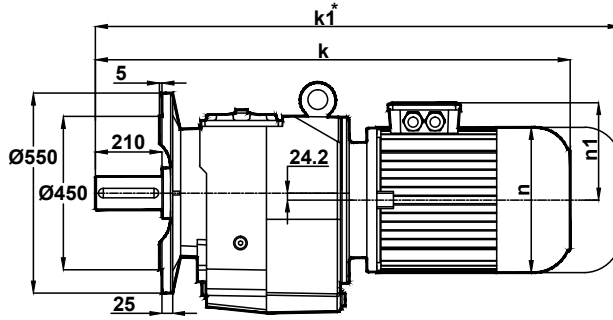
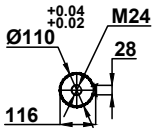


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR872 MR873

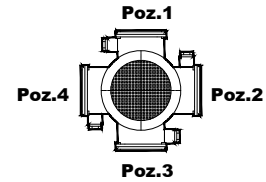


## NR872 NR873



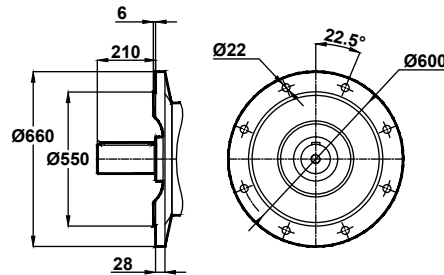
|    | Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |      |      |      |      |      |      |      |      |
|----|--|------|------|------|------|------|------|------|------|------|------|
|    | 132M   | 160M | 160L | 180M | 180L | 200L | 225S | 225M | 250M | 280S | 280M |
| k  | 1106   | 1181 | 1225 | 1242 | 1280 | 1319 | 1348 | 1373 | 1476 | 1537 | 1537 |
| k1 | 1251   | 1351 | 1395 | 1412 | 1450 | 1519 | 1538 | 1563 | -    | -    | -    |
| n  | 257  | 310  | 310  | 348  | 348  | 390  | 434  | 434  | 480  | 544  | 544  |
| n1 | 168  | 225  | 225  | 241  | 241  | 275  | 285  | 285  | 322  | 350  | 350  |
| x  | -  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

Klemens Kutusu / Terminal Box / Klemmenkasten



132-160-180-200-225-250-280

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



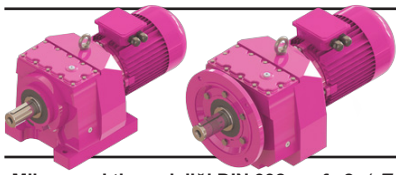
Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

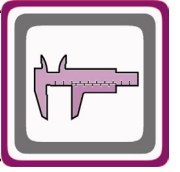
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

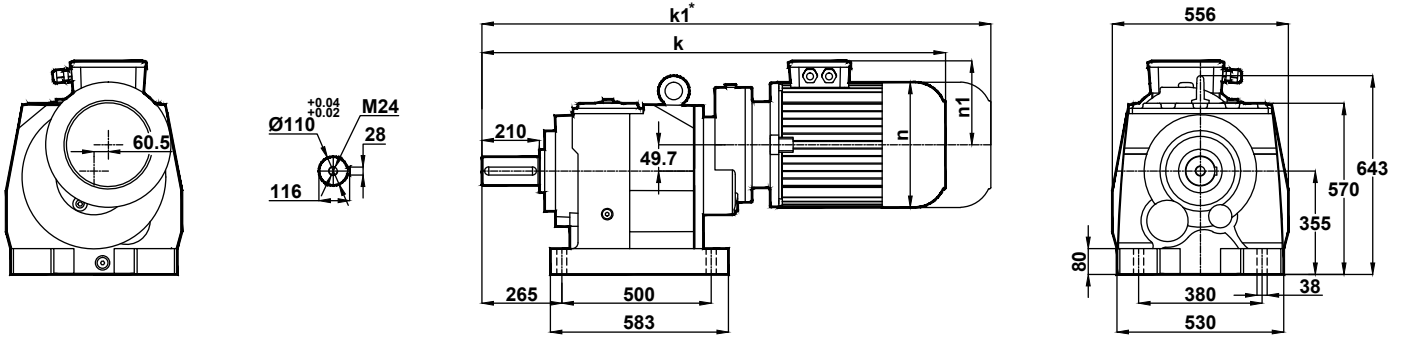


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

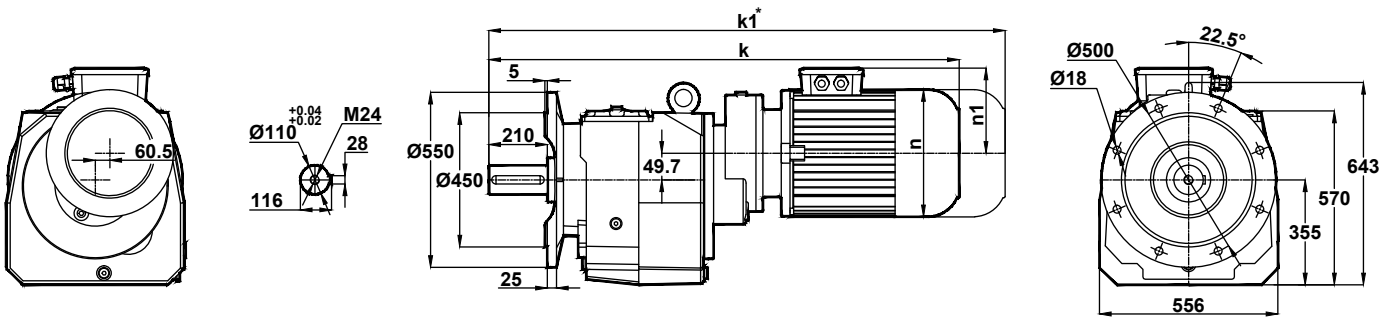


-Mil ucu çekirtme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR874

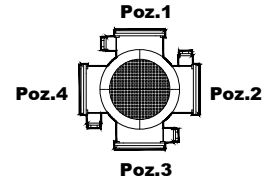


## NR874



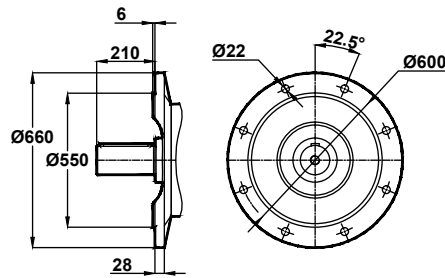
Klemens Kutusu / Terminal Box / Klemmenkasten

| Motor Büyüklüğü / Motor Size / Motorbaugroße | 100L | 112M | 132S | 132M |
|--|------|------|------|------|
| k  | 1134 | 1157 | 1211 | 1249 |
| k1   | 1269 | 1292 | 1356 | 1394 |
| n  | 194  | 218  | 257  | 257  |
| n1   | 135  | 146  | 168  | 168  |



100-112-132

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

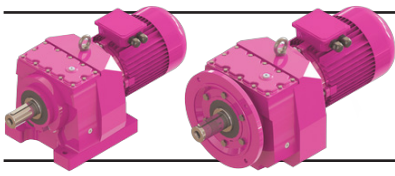


Opt. 1

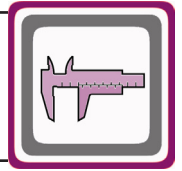
\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

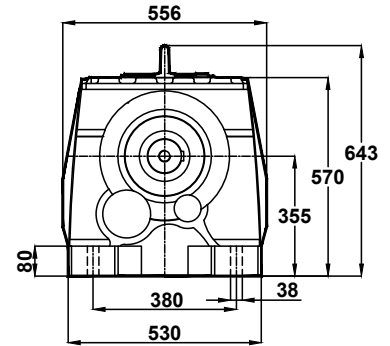
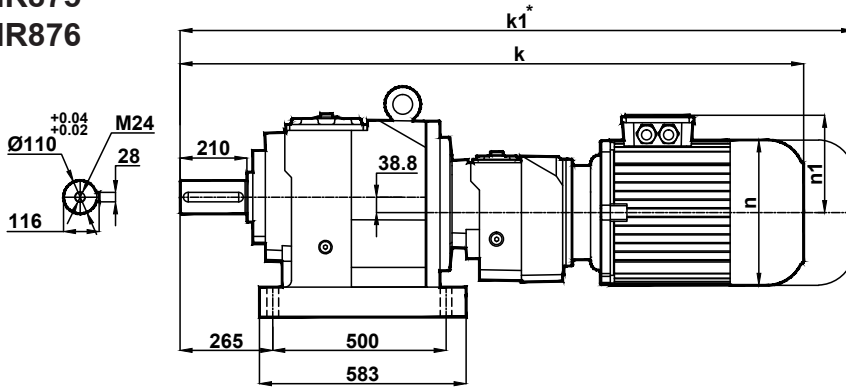


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

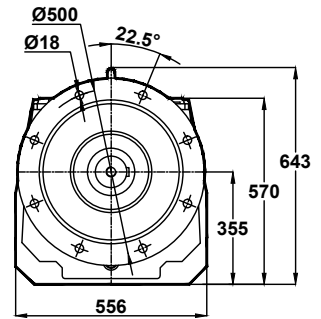
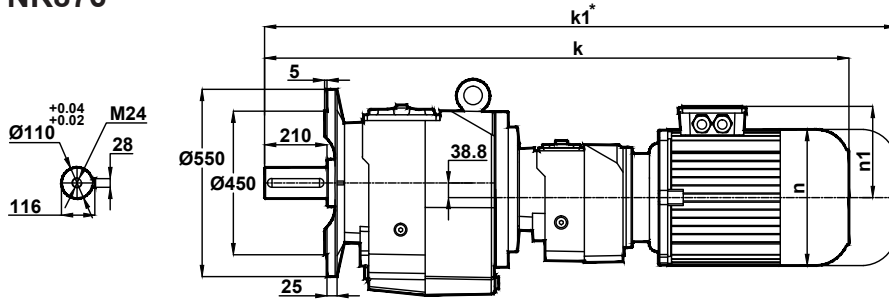


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR875 MR876

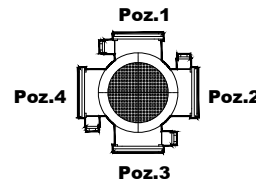


## NR875 NR876

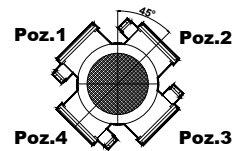


Klemens Kutusu / Terminal Box / Klemmenkasten

| Motor Büyüklüğü / Motor Size / Motorbaugroße | 71   | 80   | 90S  | 90L  | 100L |
|--|------|------|------|------|------|
| k  | 1149 | 1177 | 1207 | 1232 | 1272 |
| k1   | 1269 | 1297 | 1332 | 1357 | 1407 |
| n  | 138  | 156  | 176  | 176  | 194  |
| n1   | 111  | 118  | 126  | 126  | 135  |

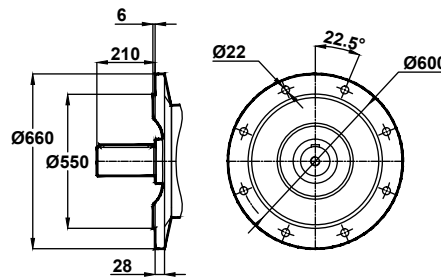


71-100



80-90

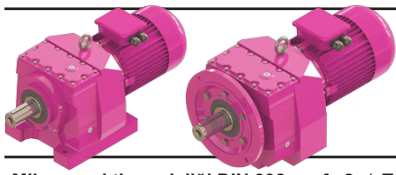
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



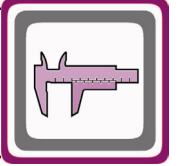
Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.



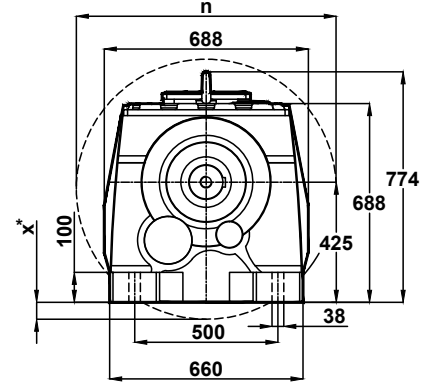
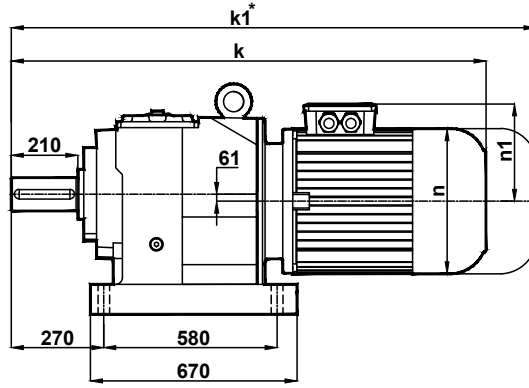
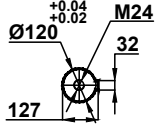


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

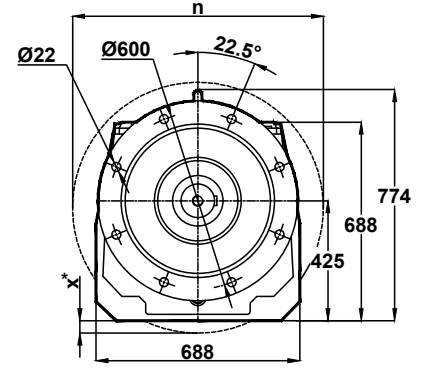
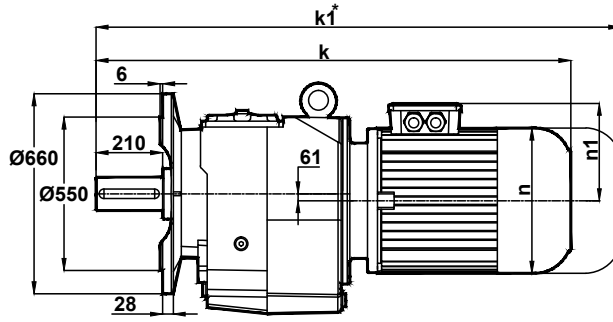
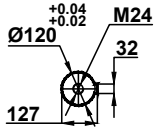


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MR972  
MR973

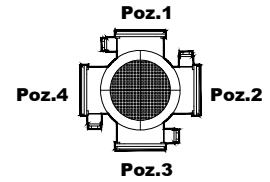


NR972  
NR973



| Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |      |      |      |      |      |      |      |      |      |      |
|--|------|------|------|------|------|------|------|------|------|------|------|------|
|  | 160M | 160L | 180M | 180L | 200L | 225S | 225M | 250M | 280S | 280M | 315S | 315M |
| k  | 1248 | 1292 | 1308 | 1346 | 1385 | 1403 | 1426 | 1529 | 1590 | 1590 | 1702 | 1754 |
| k1   | 1418 | 1462 | 1478 | 1516 | 1585 | 1593 | 1616 | -    | -    | -    | -    | -    |
| n  | 310  | 310  | 348  | 348  | 390  | 434  | 434  | 480  | 544  | 544  | 614  | 614  |
| n1   | 225  | 225  | 241  | 241  | 275  | 285  | 285  | 322  | 350  | 350  | 510  | 510  |
| x  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

Klemens Kutusu / Terminal Box / Klemmenkasten



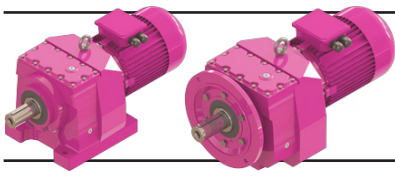
160-180-200-225-250-280-315

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

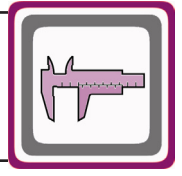
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

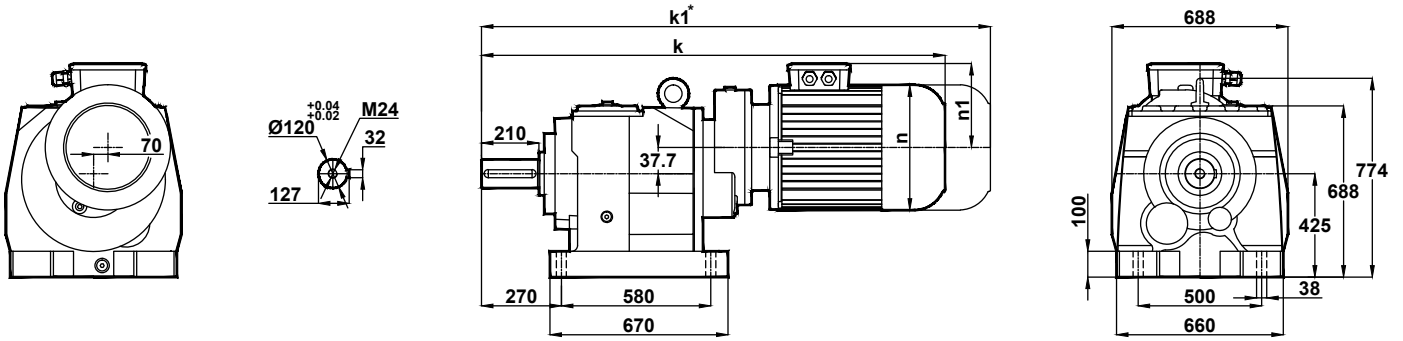


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

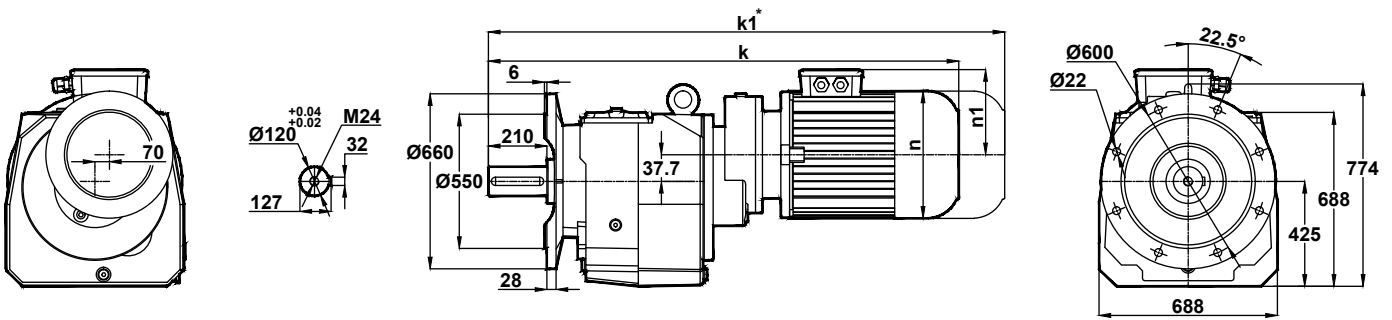


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MR974

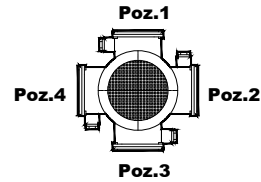


## NR974



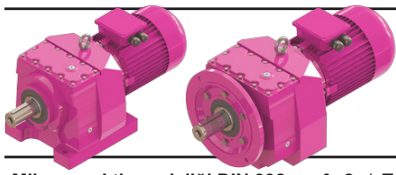
Klemens Kutusu / Terminal Box / Klemmenkasten

| Motor Büyüklüğü / Motor Size / Motorbaugroße | 100L | 112M | 132S | 132M |
|--|------|------|------|------|
| k  | 1234 | 1257 | 1311 | 1349 |
| k1   | 1369 | 1392 | 1456 | 1494 |
| n  | 194  | 218  | 257  | 257  |
| n1   | 135  | 146  | 168  | 168  |



100-112-132

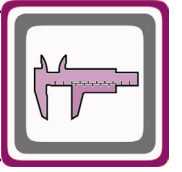
\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.



# Ölçü Sayfaları

## Dimension Pages

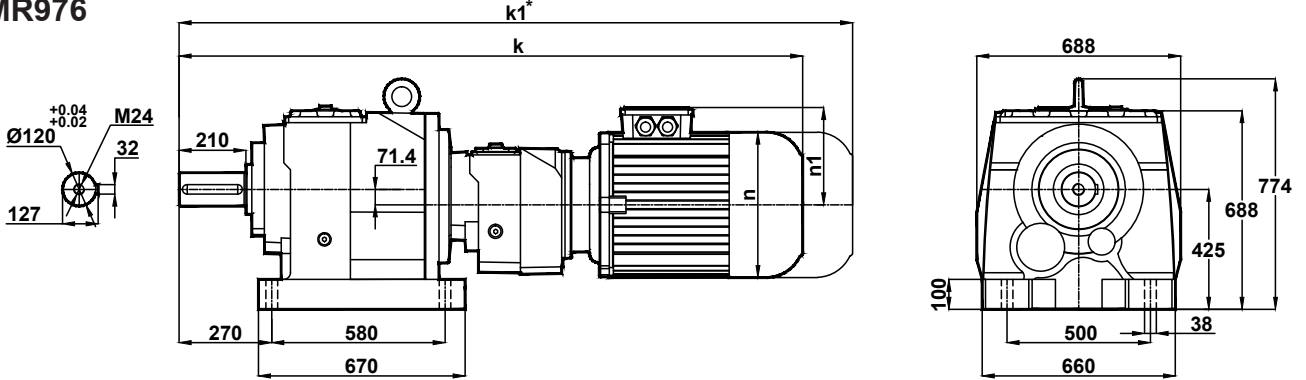
### Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

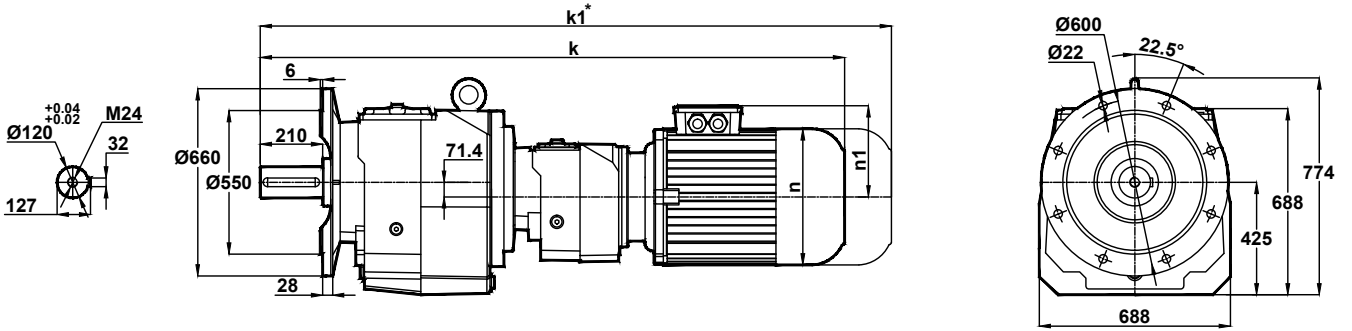
### MR975

### MR976



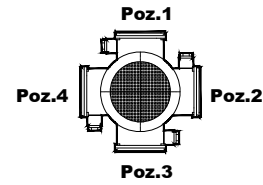
### NR975

### NR976



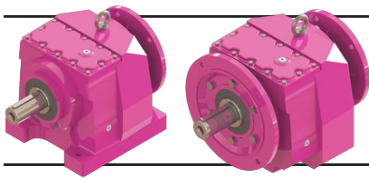
Klemens Kutusu / Terminal Box / Klemmenkasten

| Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |      |      |      |      |
|--|------|------|------|------|------|------|
|  | 80   | 90S  | 90L  | 100L | 112M | 132S |
| k  | 1305 | 1333 | 1358 | 1393 | 1416 | 1470 |
| k1   | 1425 | 1458 | 1483 | 1528 | 1551 | 1615 |
| n  | 156  | 176  | 176  | 194  | 218  | 257  |
| n1   | 118  | 126  | 126  | 135  | 146  | 168  |



80-90-100-112-132

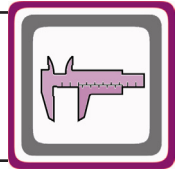
\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
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# Ölçü Sayfaları

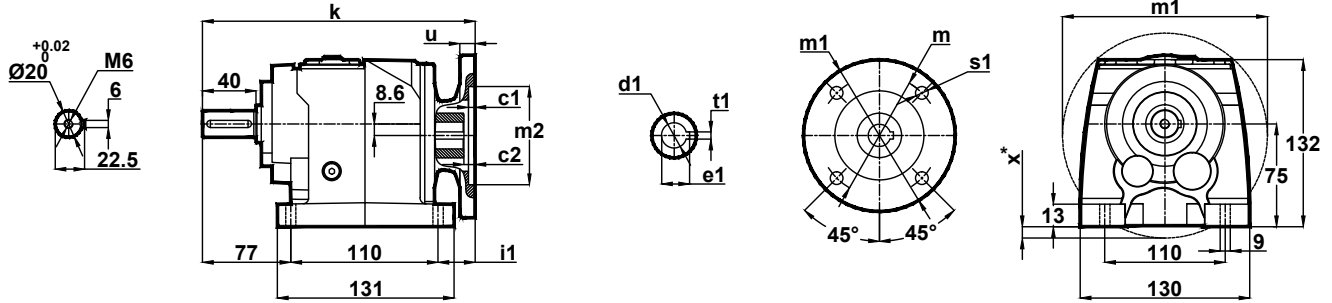
## Dimension Pages

### Abmessungsseiten

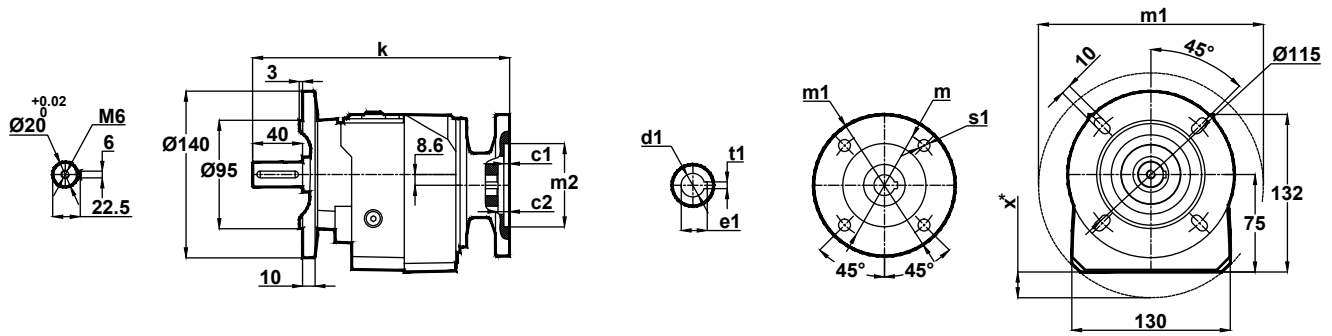


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

### MN002-A.. MN003-A..

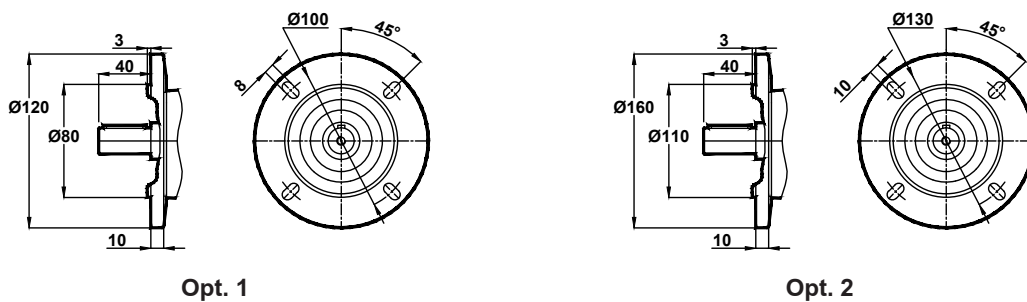


### NN002-A.. NN003-A..

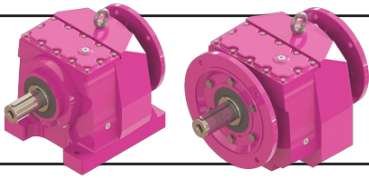


| IEC   | c1  | c2  | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x  |
|-------|-----|-----|----|-----|-----|-----|------|----|-----|----|----|------|----|
| 63/B5 | 3.5 | 5   | 10 | 115 | 140 | 95  | 28   | 10 | 214 | 11 | 4  | 12.8 | 4  |
| 71/B5 | 4   | 4.5 | 11 | 130 | 160 | 110 | 29.5 | 12 | 216 | 14 | 5  | 16.3 | 14 |
| 80/B5 | 4   | 5   | 13 | 165 | 200 | 130 | 44.5 | 12 | 231 | 19 | 6  | 21.8 | 34 |
| 90/B5 | 4   | 5   | 13 | 165 | 200 | 130 | 44.5 | 12 | 231 | 24 | 8  | 27.3 | 34 |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



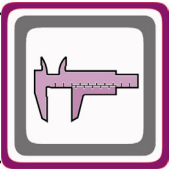
x: Motor flanş, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte



# Ölçü Sayfaları

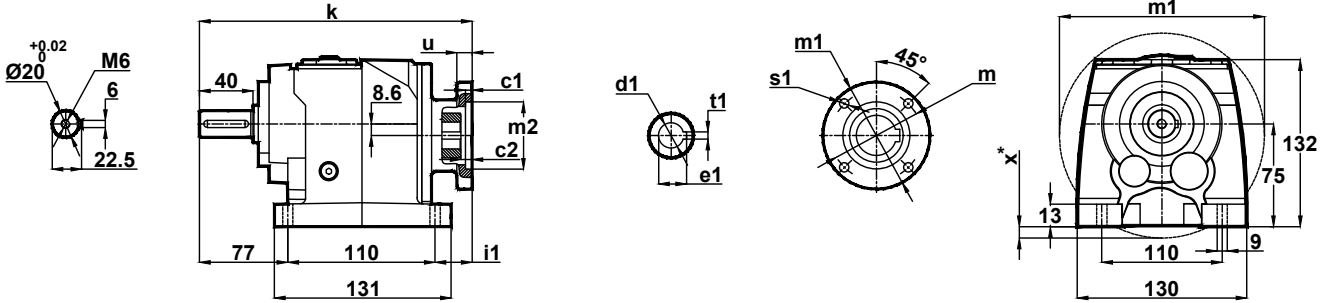
## Dimension Pages

### Abmessungsseiten

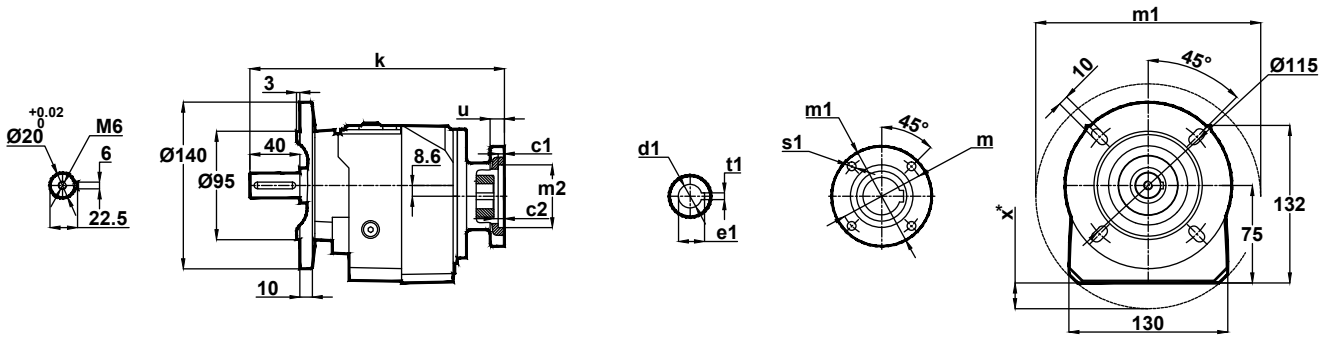


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MN002-B..**  
**MN003-B..**

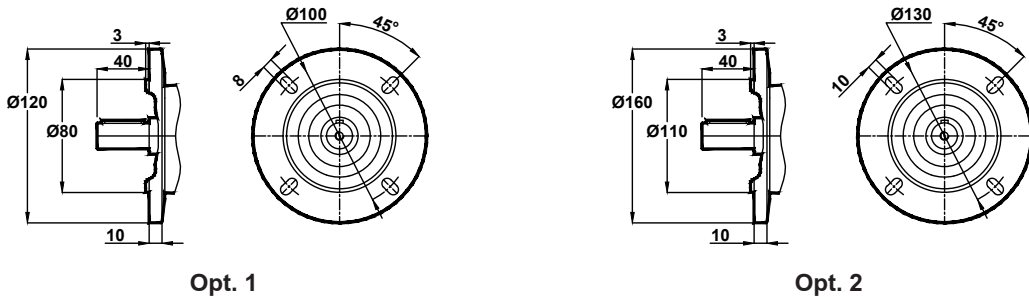


**NN002-B..**  
**NN003-B..**

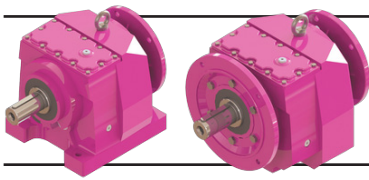


| IEC    | c1  | c2  | s1  | m   | m1  | m2 | i1   | u  | k   | d1 | t1 | e1   | x |
|--------|-----|-----|-----|-----|-----|----|------|----|-----|----|----|------|---|
| 63/B14 | 2.5 | 5   | 5.5 | 75  | 90  | 60 | 28   | 10 | 214 | 11 | 4  | 12.8 | - |
| 71/B14 | 3   | 4.5 | 7   | 85  | 105 | 70 | 29.5 | 10 | 216 | 14 | 5  | 16.3 | - |
| 80/B14 | 4   | 5   | 7   | 100 | 120 | 80 | 44.5 | 12 | 231 | 19 | 6  | 21.8 | - |
| 90/B14 | 4   | 5   | 9   | 115 | 140 | 95 | 44.5 | 12 | 231 | 24 | 8  | 27.3 | 4 |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



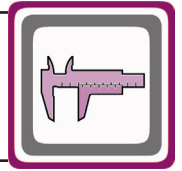
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte



# Ölçü Sayfaları

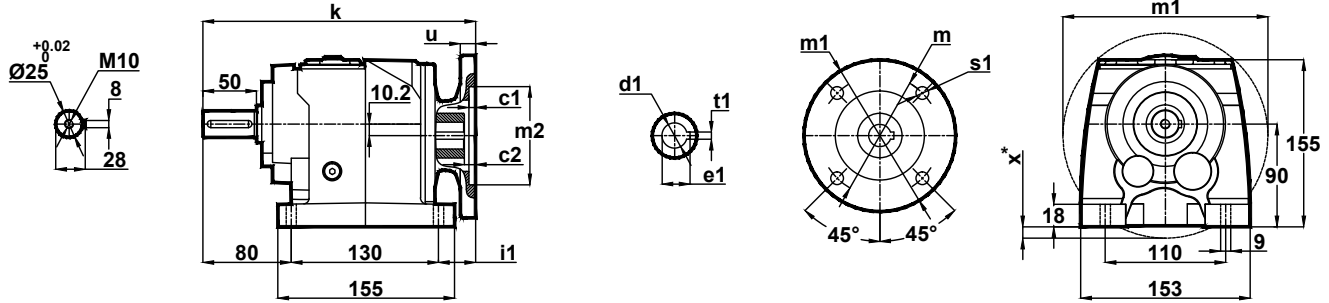
## Dimension Pages

### Abmessungsseiten

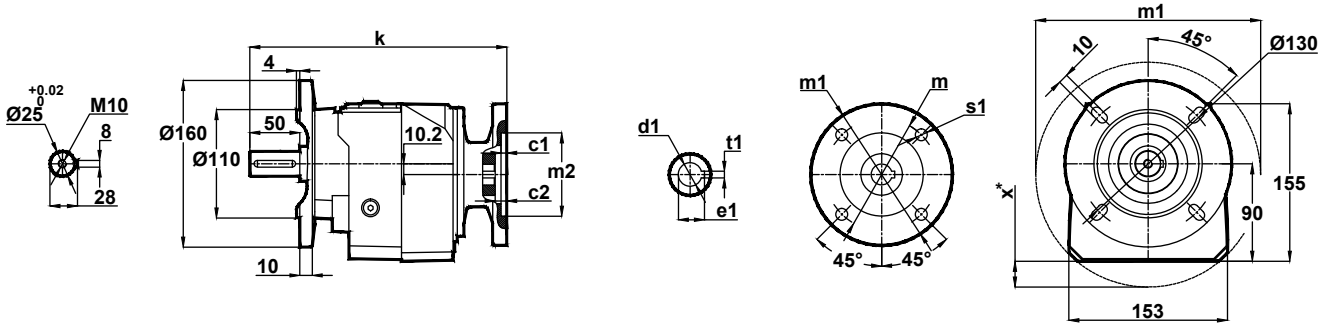


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MN102-A.. MN103-A..

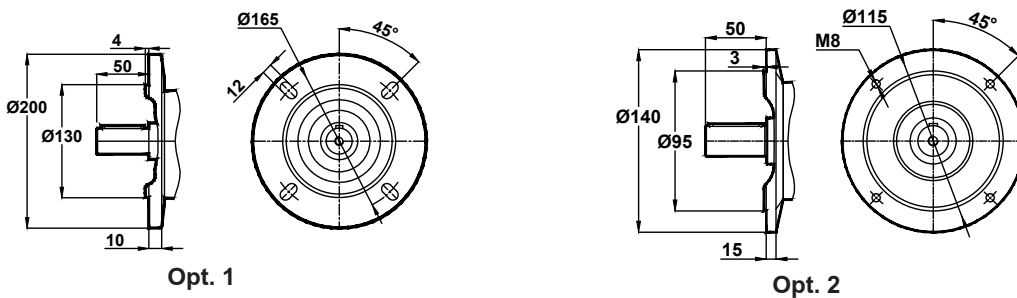


## NN102-A.. NN103-A..

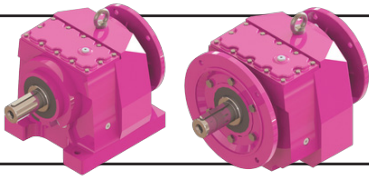


| IEC   | c1 | c2  | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x   |
|-------|----|-----|----|-----|-----|-----|------|----|-----|----|----|------|-----|
| 63/B5 | 4  | 7   | 10 | 115 | 140 | 95  | 28.5 | 12 | 240 | 11 | 4  | 12.8 | -   |
| 71/B5 | 4  | 4.5 | 12 | 130 | 160 | 110 | 28.5 | 12 | 240 | 14 | 5  | 16.3 | 0.5 |
| 80/B5 | 4  | 5   | 12 | 165 | 200 | 130 | 43.5 | 12 | 255 | 19 | 6  | 21.8 | 20  |
| 90/B5 | 4  | 5   | 12 | 165 | 200 | 130 | 43.5 | 12 | 255 | 24 | 8  | 27.3 | 20  |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



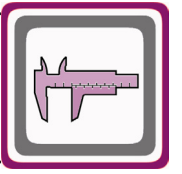
x: Motor flanş, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

## Dimension Pages

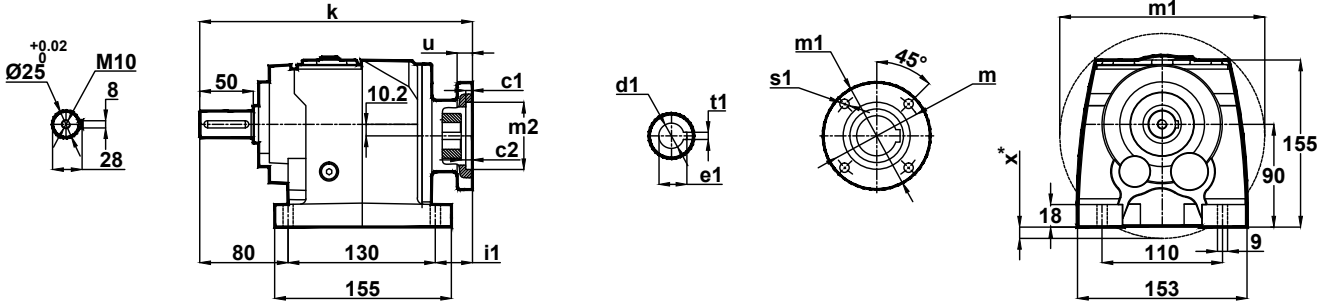
### Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

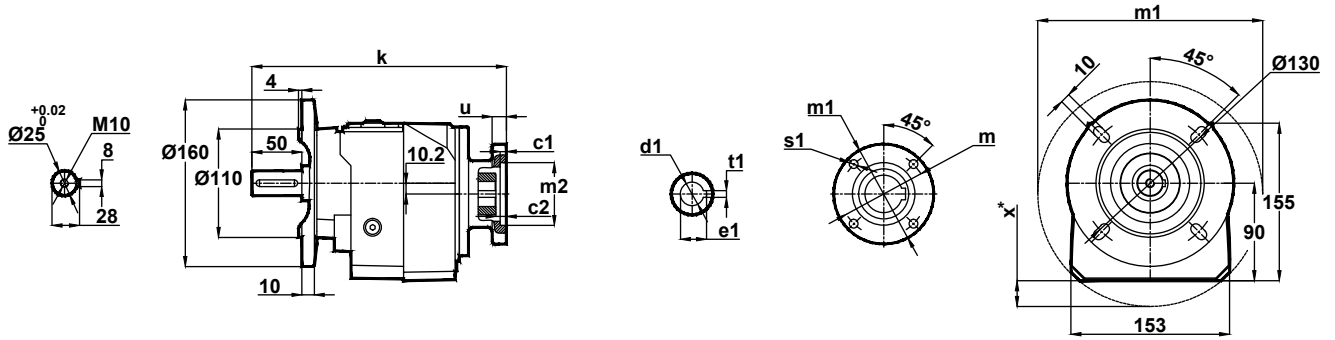
### MN102-B..

### MN103-B..



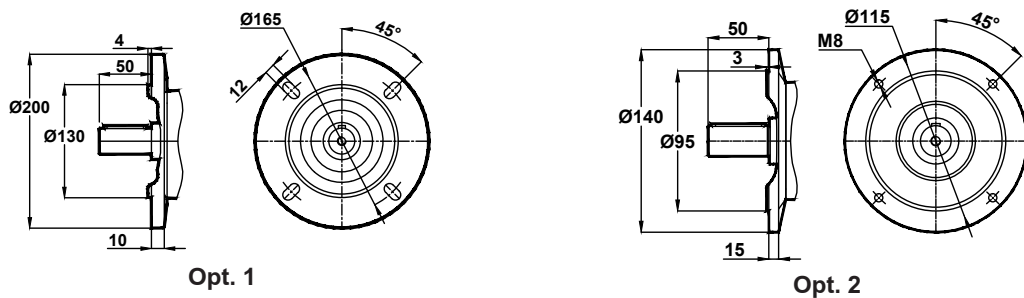
### NN102-B..

### NN103-B..

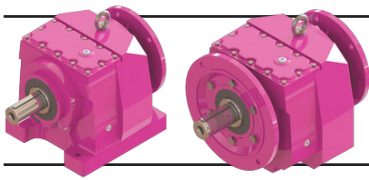


| IEC    | c1  | c2  | s1  | m   | m1  | m2 | i1   | u  | k   | d1 | t1 | e1   | x |
|--------|-----|-----|-----|-----|-----|----|------|----|-----|----|----|------|---|
| 63/B14 | 2.5 | 5   | 5.5 | 75  | 90  | 60 | 28.5 | 10 | 240 | 11 | 4  | 12.8 | - |
| 71/B14 | 3   | 4.5 | 7   | 85  | 105 | 70 | 28.5 | 10 | 240 | 14 | 5  | 16.3 | - |
| 80/B14 | 4   | 4.7 | 7   | 100 | 120 | 80 | 43.5 | 12 | 255 | 19 | 6  | 21.8 | - |
| 90/B14 | 4   | 4.7 | 9   | 115 | 140 | 95 | 43.5 | 12 | 255 | 24 | 8  | 27.3 | - |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



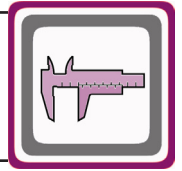
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte



# Ölçü Sayfaları

## Dimension Pages

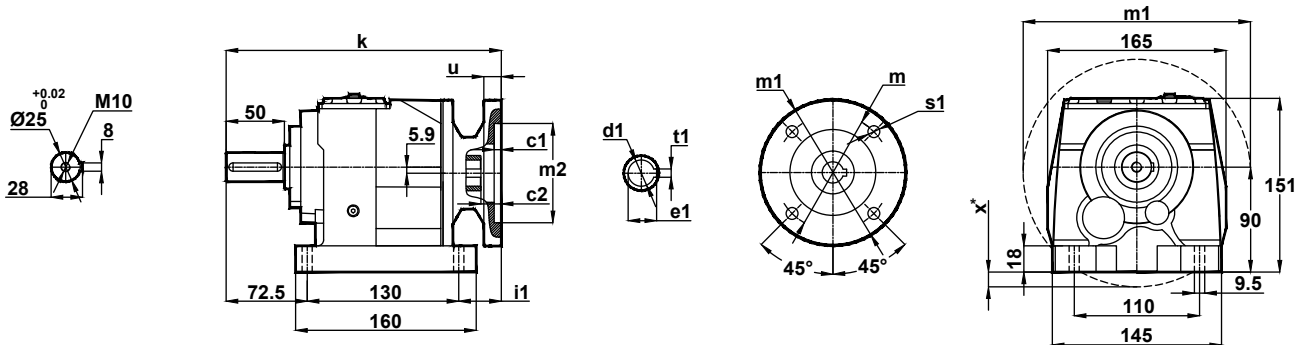
## Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

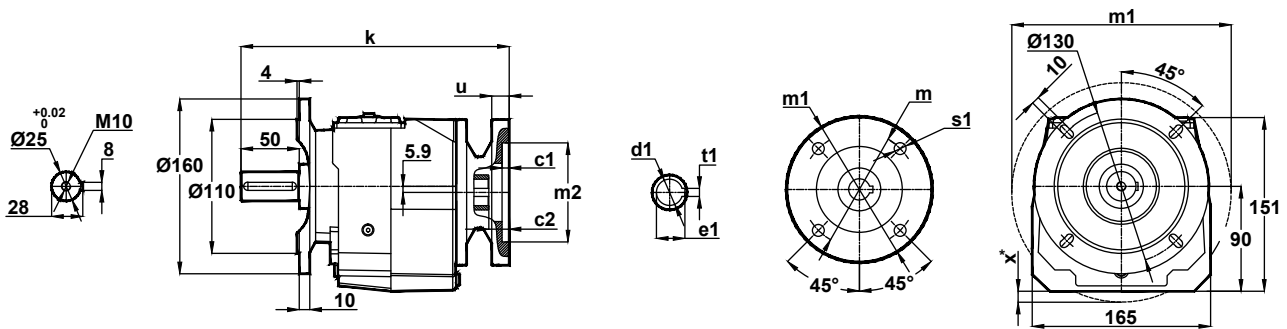
### MN172-A..

### MN173-A..



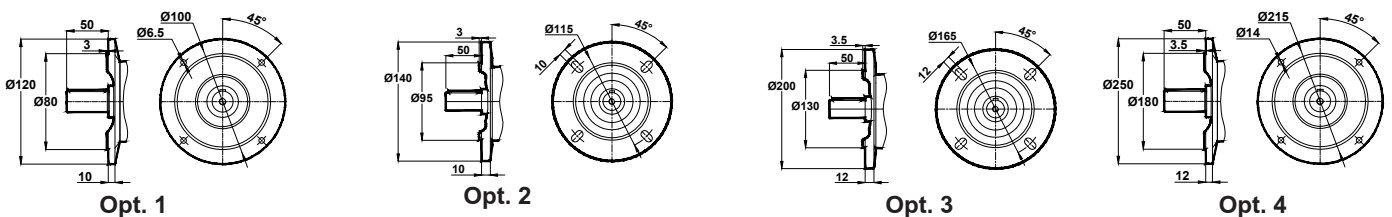
### NN172-A..

### NN173-A..



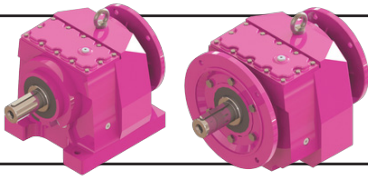
| IEC    | c1  | c2  | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x  |
|--------|-----|-----|----|-----|-----|-----|------|----|-----|----|----|------|----|
| 63/B5  | 3.5 | 5   | 10 | 115 | 140 | 95  | 38.5 | 10 | 241 | 11 | 4  | 12.8 | -  |
| 71/B5  | 4   | 4.5 | 11 | 130 | 160 | 110 | 40   | 12 | 243 | 14 | 5  | 16.3 | -  |
| 80/B5  | 4   | 5   | 13 | 165 | 200 | 130 | 55   | 12 | 258 | 19 | 6  | 21.8 | 16 |
| 90/B5  | 4   | 5   | 13 | 165 | 200 | 130 | 55   | 12 | 258 | 24 | 8  | 27.3 | 16 |
| 100/B5 | 4   | 5   | 15 | 215 | 250 | 180 | 66   | 12 | 269 | 28 | 8  | 31.3 | 41 |
| 112/B5 | 4   | 5   | 15 | 215 | 250 | 180 | 66   | 12 | 269 | 28 | 8  | 31.3 | 41 |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

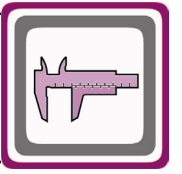


x: Motor flanş, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlußplatte



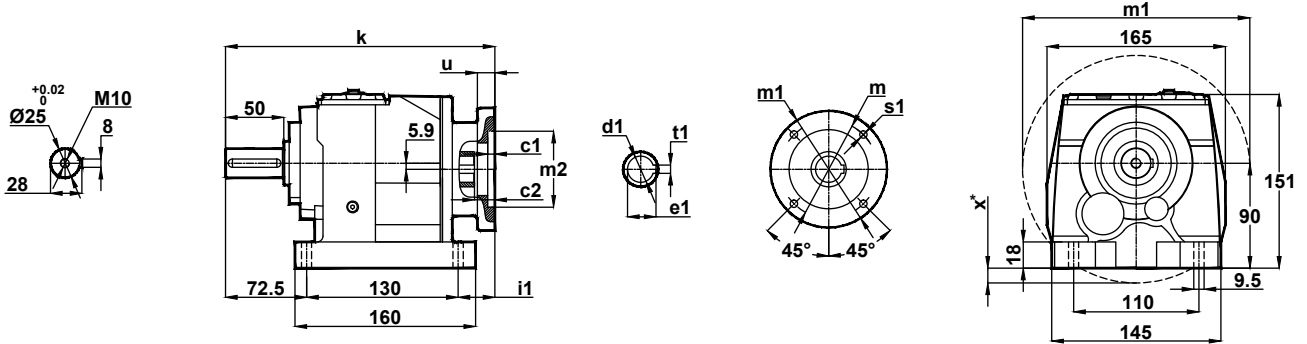


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

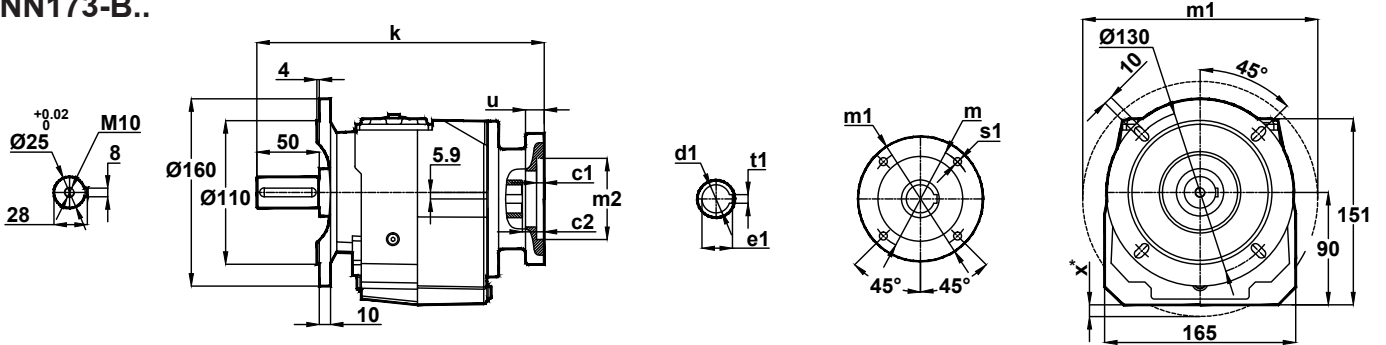


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MN172-B..  
MN173-B..**

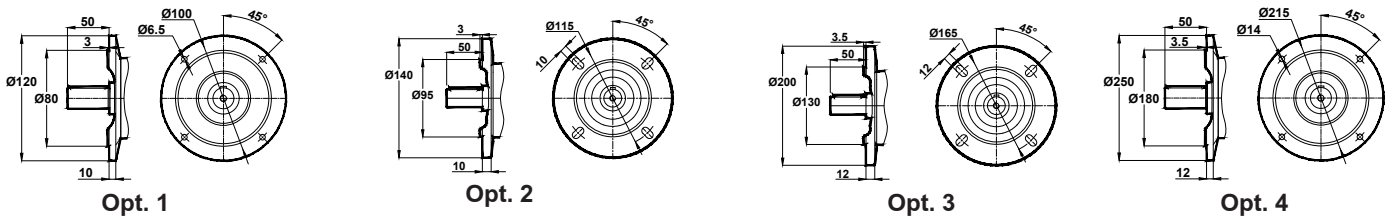


**NN172-B..  
NN173-B..**

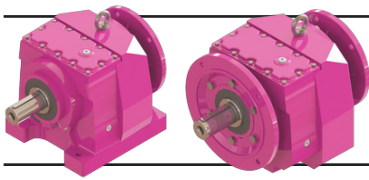


| IEC     | c1 | c2  | s1 | m   | m1  | m2  | i1 | u   | k   | d1 | t1 | e1   | x |
|---------|----|-----|----|-----|-----|-----|----|-----|-----|----|----|------|---|
| 71/B14  | 3  | 4.5 | 7  | 85  | 105 | 70  | 40 | 10  | 243 | 14 | 5  | 16.3 | - |
| 80/B14  | 4  | 5   | 7  | 100 | 120 | 80  | 55 | 120 | 258 | 19 | 6  | 21.8 | - |
| 90/B14  | 4  | 5   | 9  | 115 | 140 | 95  | 55 | 12  | 258 | 24 | 8  | 27.3 | - |
| 100/B14 | 4  | 5.5 | 9  | 130 | 160 | 110 | 66 | 12  | 269 | 28 | 8  | 31.3 | - |
| 112/B14 | 4  | 5.5 | 9  | 130 | 160 | 110 | 66 | 12  | 269 | 28 | 8  | 31.3 | - |

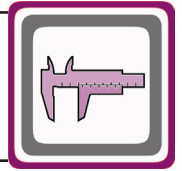
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower than foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlußplatte

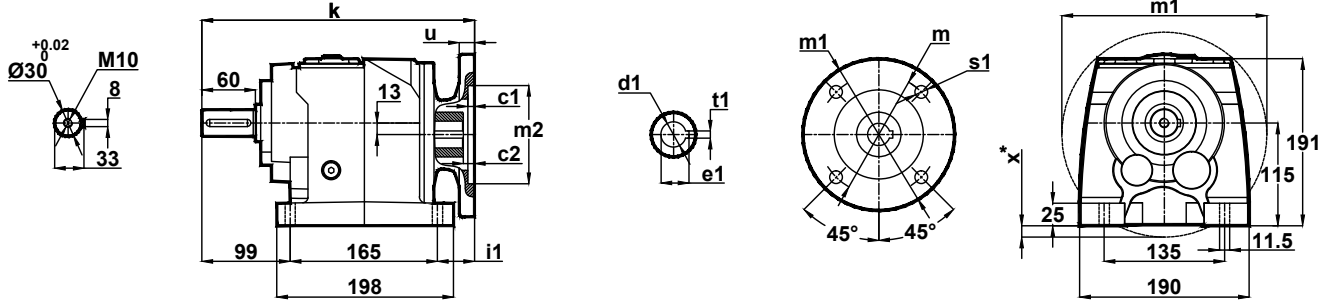


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

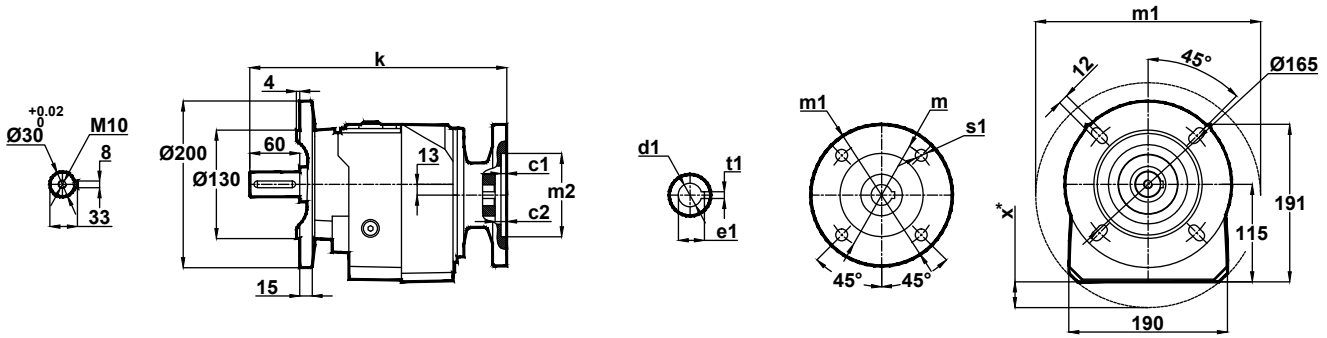


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MN202-A.. MN203-A..

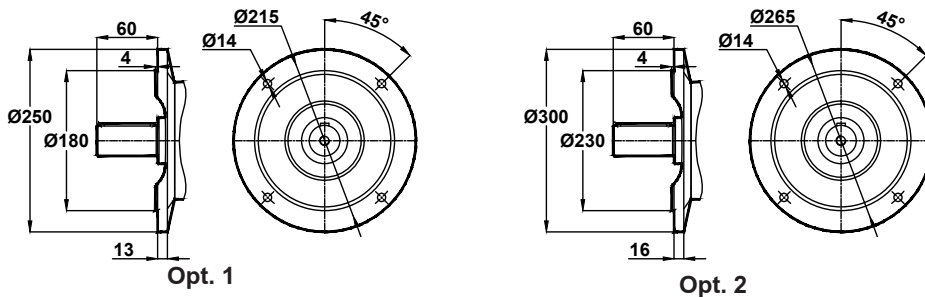


## NN202-A.. NN203-A..

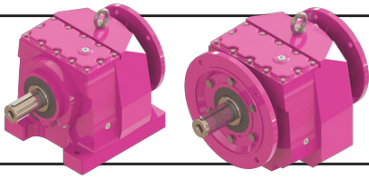


| IEC    | c1 | c2  | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x  |
|--------|----|-----|----|-----|-----|-----|------|----|-----|----|----|------|----|
| 63/B5  | 4  | 5   | 9  | 115 | 140 | 95  | 58.5 | 12 | 323 | 11 | 4  | 12.8 | -  |
| 71/B5  | 4  | 8.5 | 11 | 130 | 160 | 110 | 29.5 | 12 | 294 | 14 | 5  | 163  | -  |
| 80/B5  | 4  | 5   | 13 | 165 | 200 | 130 | 58.5 | 12 | 323 | 19 | 6  | 21.8 | -  |
| 90/B5  | 4  | 5   | 13 | 165 | 200 | 130 | 58.5 | 12 | 323 | 24 | 8  | 27.3 | -  |
| 100/B5 | 4  | 5.5 | 15 | 215 | 250 | 180 | 51.5 | 12 | 316 | 28 | 8  | 31.3 | 23 |
| 112/B5 | 4  | 5.5 | 15 | 215 | 250 | 180 | 51.5 | 12 | 316 | 28 | 8  | 31.3 | 23 |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



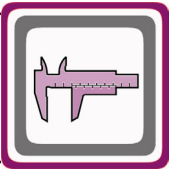
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte



# Ölçü Sayfaları

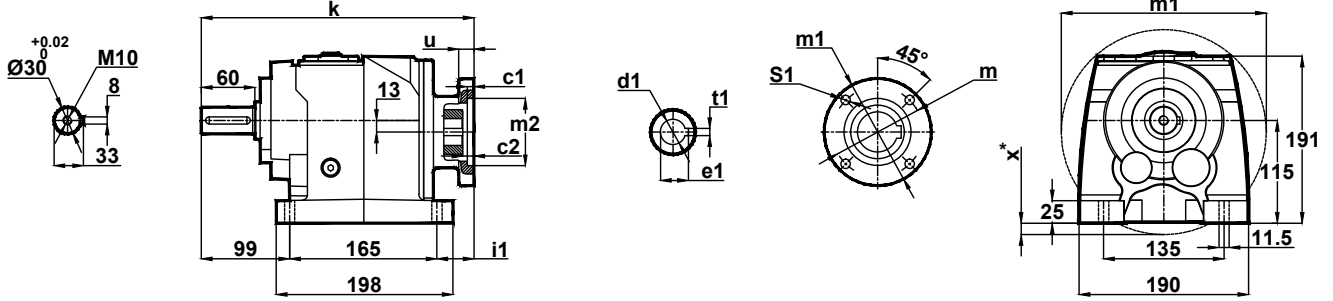
## Dimension Pages

### Abmessungsseiten

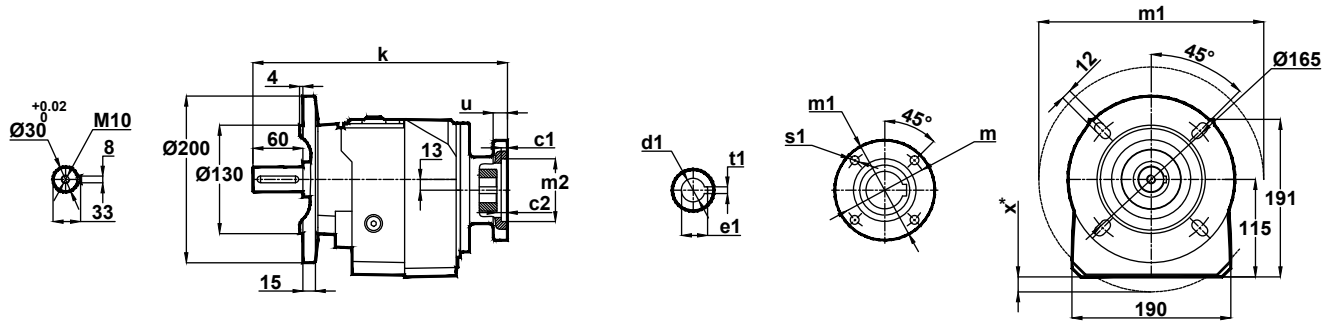


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MN202-B..**  
**MN203-B..**

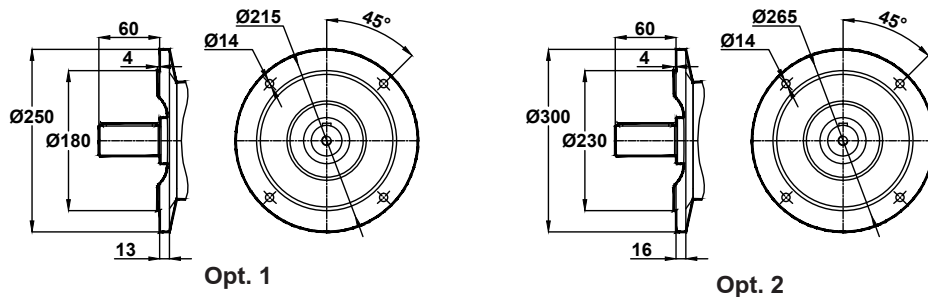


**NN202-B..**  
**NN203-B..**

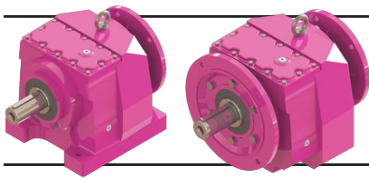


| IEC     | c1 | c2  | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x |
|---------|----|-----|----|-----|-----|-----|------|----|-----|----|----|------|---|
| 71/B14  | 3  | 8.5 | 7  | 85  | 105 | 70  | 29.5 | 10 | 294 | 14 | 5  | 16.3 | - |
| 80/B14  | 4  | 5   | 7  | 100 | 120 | 80  | 58.5 | 12 | 323 | 19 | 6  | 21.8 | - |
| 90/B14  | 4  | 5   | 9  | 115 | 140 | 95  | 58.5 | 12 | 323 | 24 | 8  | 27.3 | - |
| 100/B14 | 4  | 5.5 | 9  | 130 | 160 | 110 | 51.5 | 12 | 316 | 28 | 8  | 31.3 | - |
| 112/B14 | 4  | 5.5 | 9  | 130 | 160 | 110 | 51.5 | 12 | 316 | 28 | 8  | 31.3 | - |

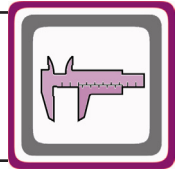
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte

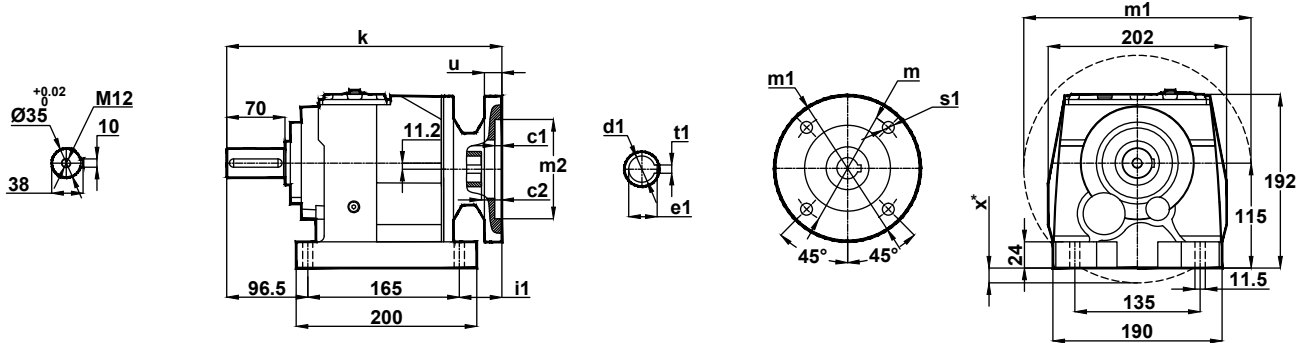


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

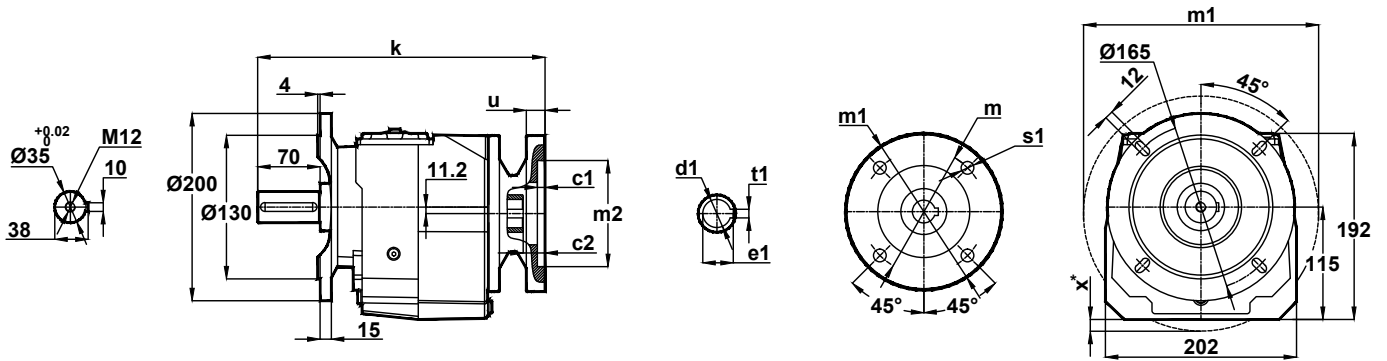


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MN272-A.. MN273-A..

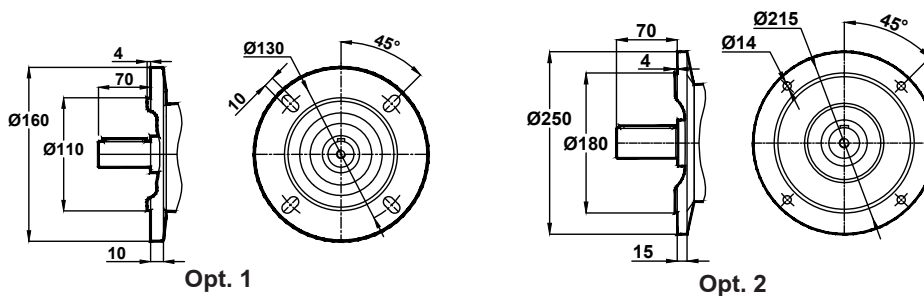


## NN272-A.. NN273-A..

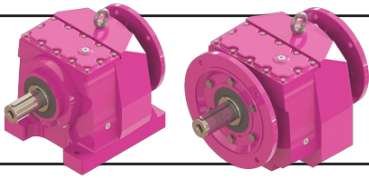


| IEC    | c1 | c2  | s1 | m   | m1  | m2  | i1 | u  | k   | d1 | t1 | e1   | x  |
|--------|----|-----|----|-----|-----|-----|----|----|-----|----|----|------|----|
| 63/B5  | 4  | 5   | 9  | 115 | 140 | 95  | 62 | 12 | 324 | 11 | 4  | 12.8 | -  |
| 71/B5  | 4  | 8.5 | 11 | 130 | 160 | 110 | 33 | 12 | 295 | 14 | 5  | 16.3 | -  |
| 80/B5  | 4  | 5   | 13 | 165 | 200 | 130 | 62 | 12 | 324 | 19 | 6  | 21.8 | -  |
| 90/B5  | 4  | 5   | 13 | 165 | 200 | 130 | 62 | 12 | 324 | 24 | 8  | 27.3 | -  |
| 100/B5 | 4  | 5.5 | 15 | 215 | 250 | 180 | 55 | 12 | 317 | 28 | 8  | 31.3 | 22 |
| 112/B5 | 4  | 5.5 | 15 | 215 | 250 | 180 | 55 | 12 | 317 | 28 | 8  | 31.3 | 22 |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



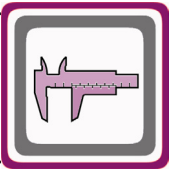
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte



# Ölçü Sayfaları

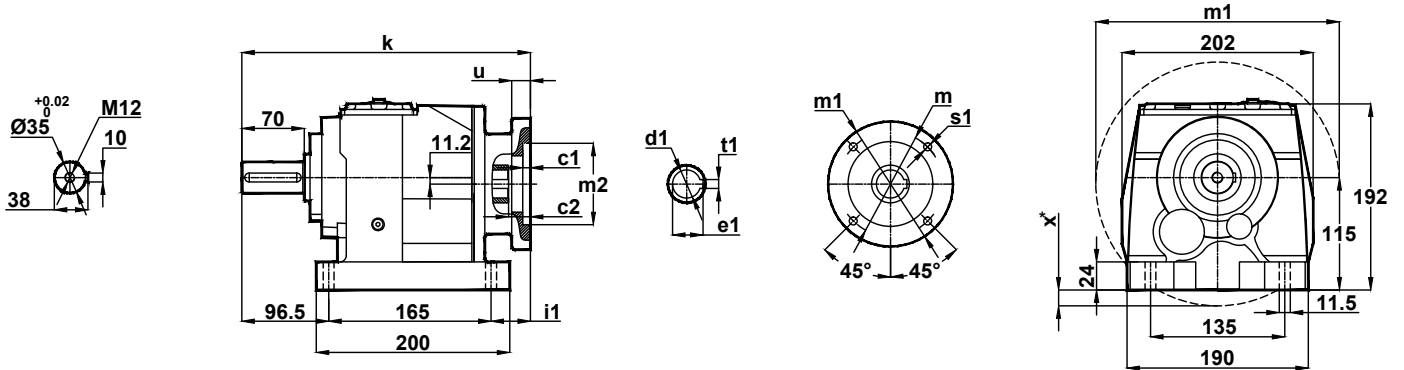
## Dimension Pages

### Abmessungsseiten

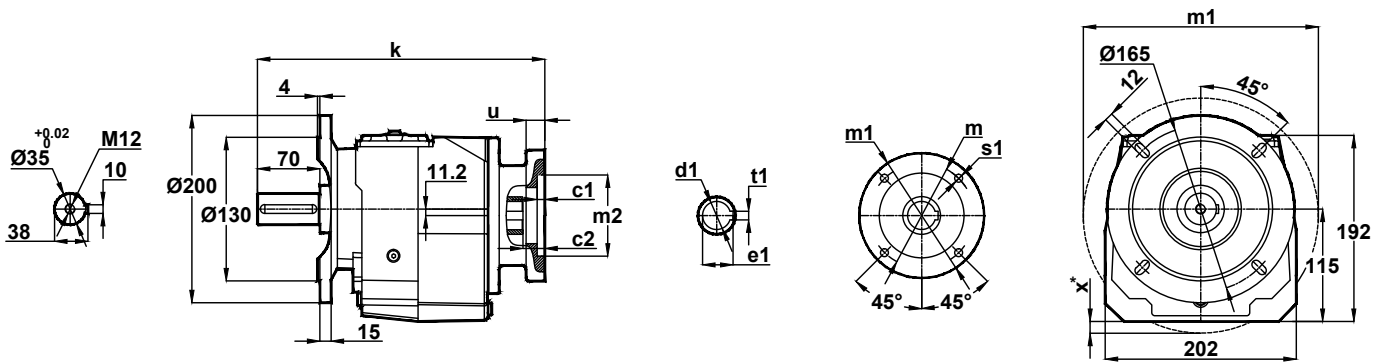


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MN272-B..  
MN273-B..

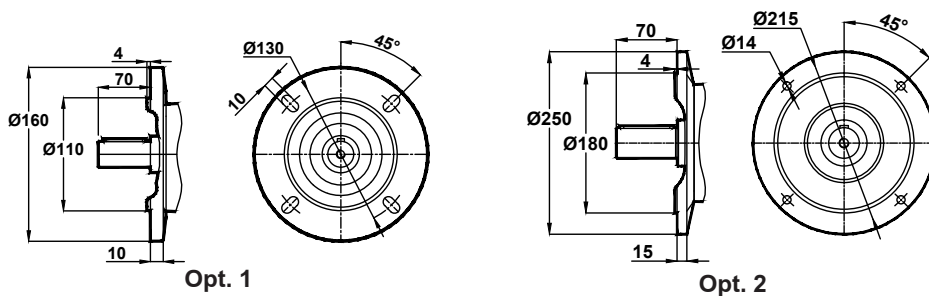


NN272-B..  
NN273-B..

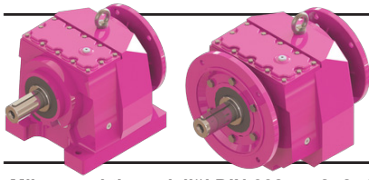


| IEC     | c1 | c2  | s1 | m   | m1  | m2  | i1 | u  | k   | d1 | t1 | e1   | x |
|---------|----|-----|----|-----|-----|-----|----|----|-----|----|----|------|---|
| 71/B14  | 3  | 8.5 | 7  | 85  | 105 | 70  | 33 | 10 | 295 | 14 | 5  | 16.3 | - |
| 80/B14  | 4  | 5   | 7  | 100 | 120 | 80  | 62 | 12 | 324 | 19 | 6  | 21.8 | - |
| 90/B14  | 4  | 5   | 9  | 115 | 140 | 95  | 62 | 12 | 324 | 24 | 8  | 27.3 | - |
| 100/B14 | 4  | 5.5 | 9  | 130 | 160 | 110 | 55 | 12 | 317 | 28 | 8  | 31.3 | - |
| 112/B14 | 4  | 5.5 | 9  | 130 | 160 | 110 | 55 | 12 | 317 | 28 | 8  | 31.3 | - |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower than foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

## Dimension Pages

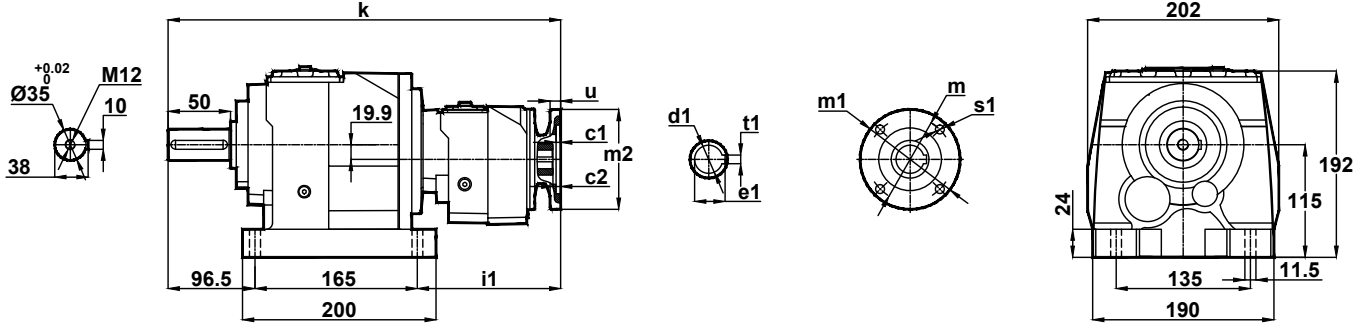
### Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

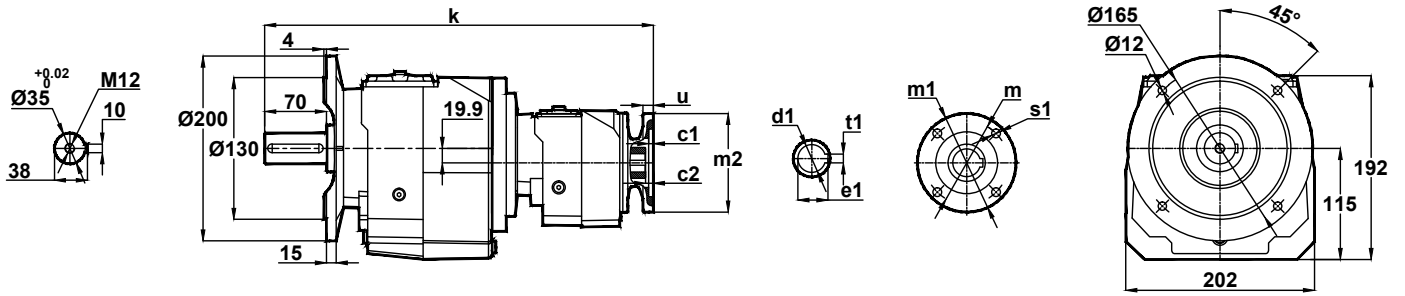
### MN275-A..

### MN276-A..



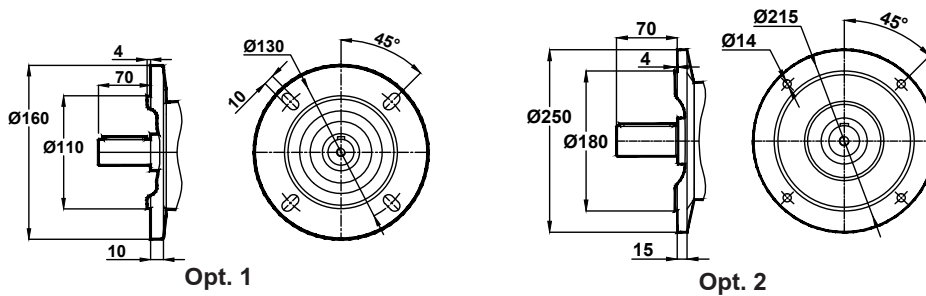
### NN275-A..

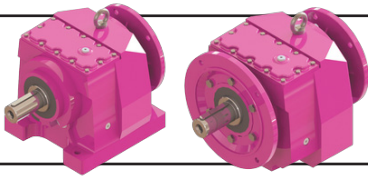
### NN276-A..



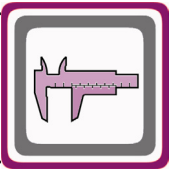
| IEC   | c1  | c2  | s1 | m   | m1  | m2  | i1    | u  | k   | d1 | t1 | e1   |
|-------|-----|-----|----|-----|-----|-----|-------|----|-----|----|----|------|
| 63/B5 | 3.5 | 5   | 10 | 115 | 140 | 95  | 177.5 | 10 | 439 | 11 | 4  | 12.8 |
| 71/B5 | 4   | 4.5 | 11 | 130 | 160 | 110 | 179   | 12 | 441 | 14 | 5  | 16.3 |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



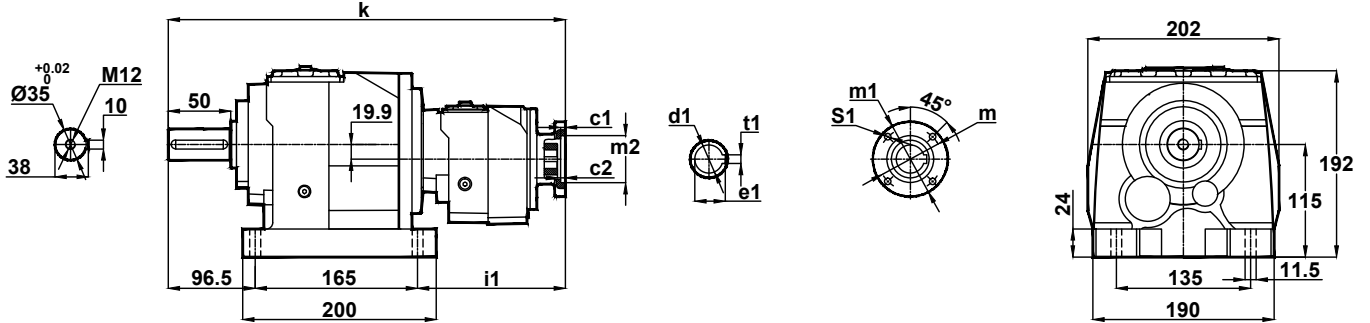


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

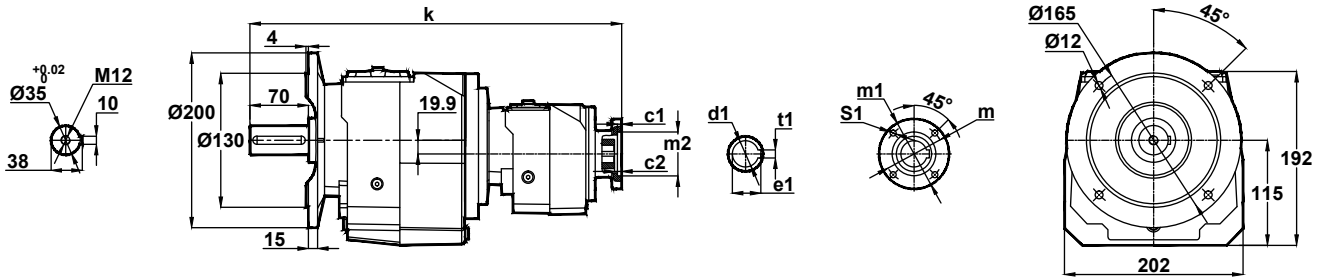


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MN275-B..  
MN276-B..**

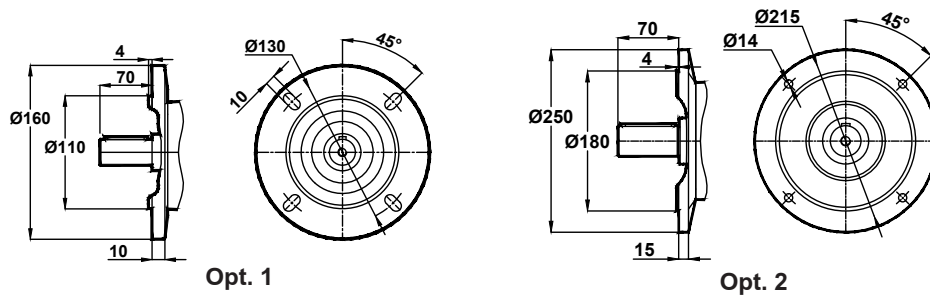


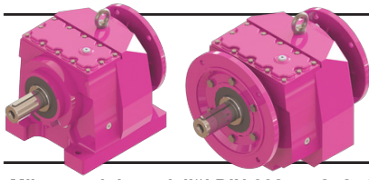
**NN275-B..  
NN276-B..**



| IEC    | c1  | c2  | s1  | m  | m1  | m2 | i1    | u  | k   | d1 | t1 | e1   |
|--------|-----|-----|-----|----|-----|----|-------|----|-----|----|----|------|
| 63/B14 | 2.5 | 5   | 5.5 | 75 | 90  | 60 | 177.5 | 10 | 439 | 11 | 4  | 12.8 |
| 71/B14 | 3   | 4.5 | 7   | 85 | 105 | 70 | 179   | 10 | 441 | 14 | 5  | 16.3 |

**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**

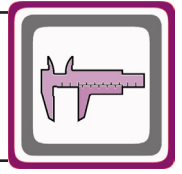




# Ölçü Sayfaları

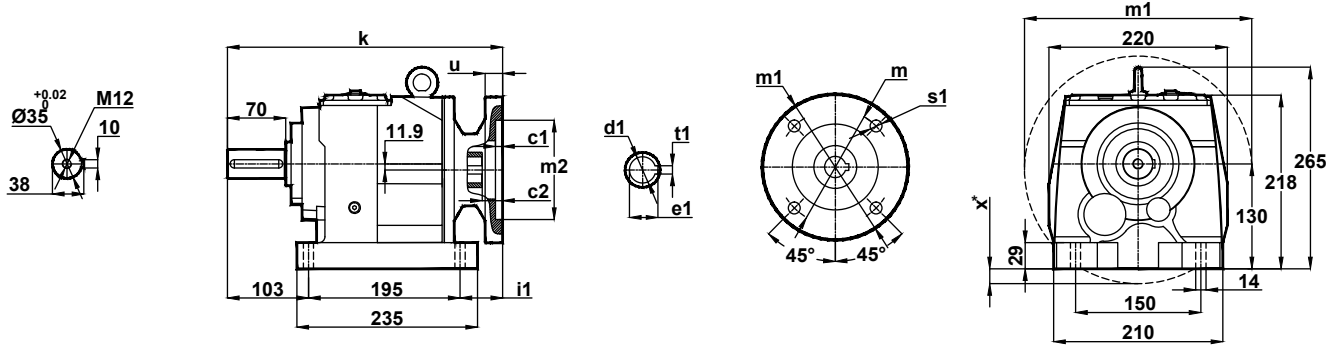
## Dimension Pages

### Abmessungsseiten

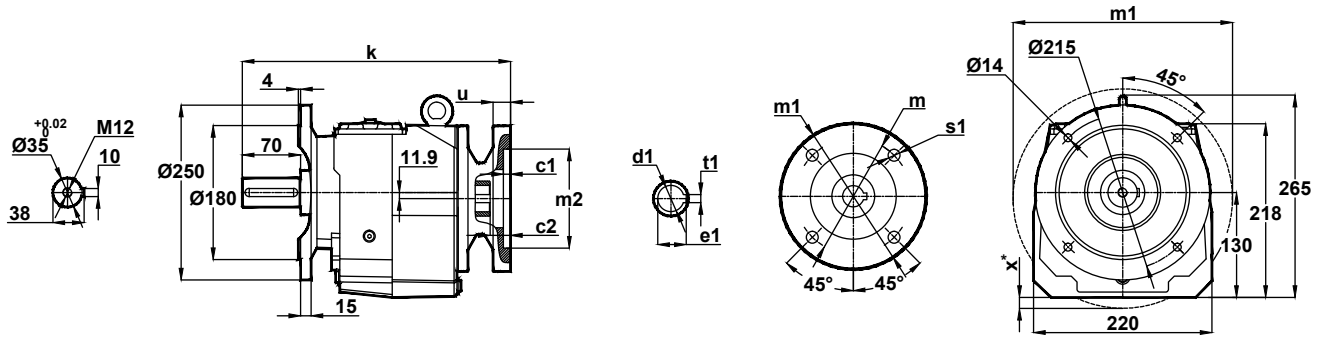


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

### MN282-A.. MN283-A..

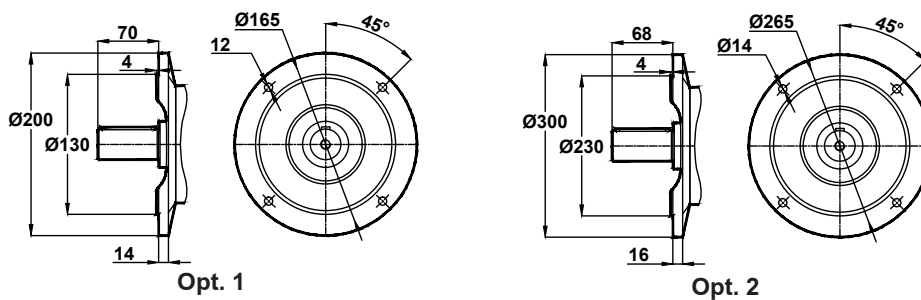


### NN282-A.. NN283-A..



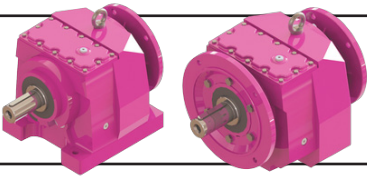
| IEC    | c1  | c2 | s1 | m   | m1  | m2  | i1 | u  | k   | d1 | t1 | e1   | x  |
|--------|-----|----|----|-----|-----|-----|----|----|-----|----|----|------|----|
| 71/B5  | 4   | 9  | 11 | 130 | 160 | 110 | 45 | 12 | 343 | 14 | 5  | 16.3 | -  |
| 80/B5  | 4   | 9  | 13 | 165 | 200 | 130 | 45 | 12 | 343 | 19 | 6  | 21.8 | -  |
| 90/B5  | 4   | 9  | 13 | 165 | 200 | 130 | 45 | 12 | 343 | 24 | 8  | 27.3 | -  |
| 100/B5 | 4.5 | 9  | 15 | 215 | 250 | 180 | 52 | 15 | 350 | 28 | 8  | 31.3 | 7  |
| 112/B5 | 4.5 | 9  | 15 | 215 | 250 | 180 | 52 | 15 | 350 | 28 | 8  | 31.3 | 7  |
| 132/B5 | 4.5 | 7  | 15 | 265 | 300 | 230 | 82 | 15 | 380 | 38 | 10 | 41.3 | 32 |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

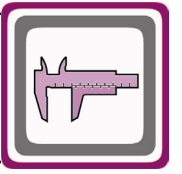


x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte



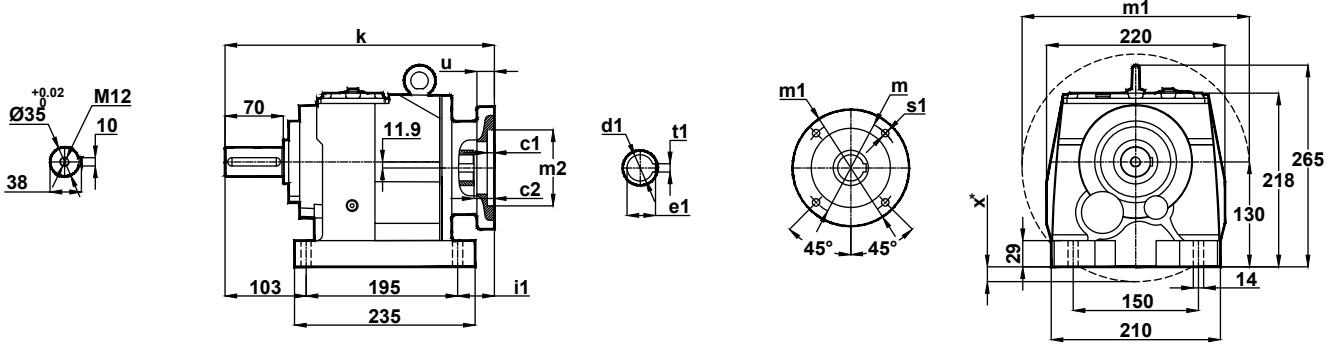


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

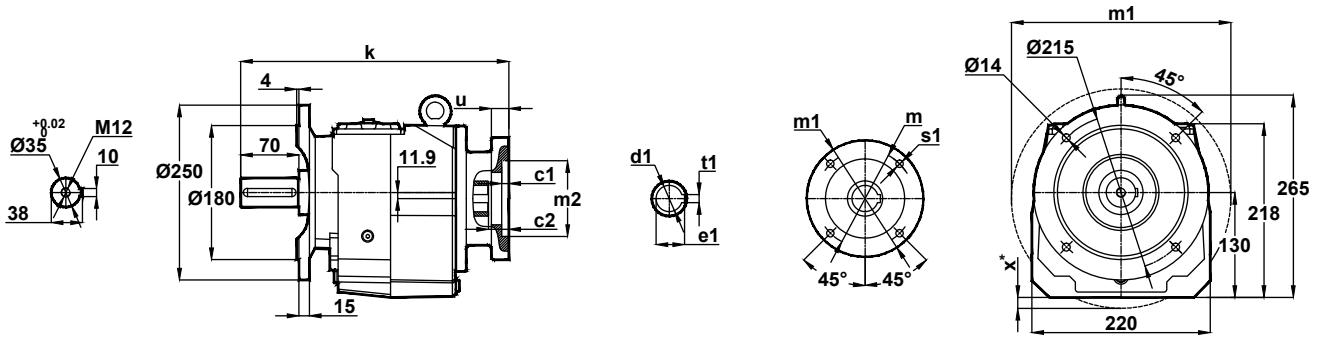


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MN282-B.. MN283-B..

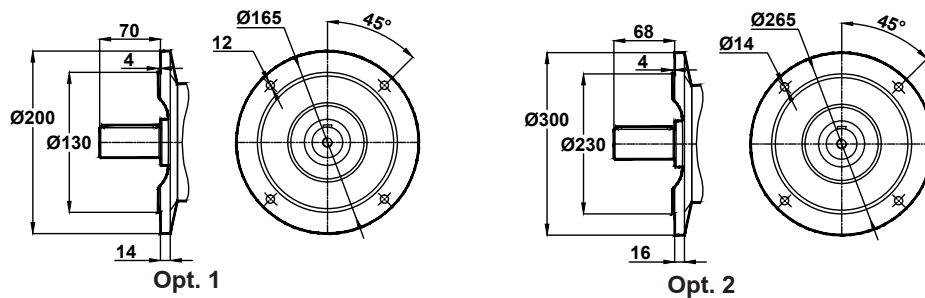


## NN282-B.. NN283-B..

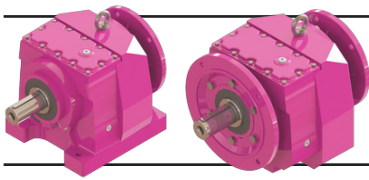


| IEC     | c1  | c2 | s1 | m   | m1  | m2  | i1 | u  | k   | d1 | t1 | e1   | x |
|---------|-----|----|----|-----|-----|-----|----|----|-----|----|----|------|---|
| 80/B14  | 4   | 9  | 7  | 100 | 120 | 80  | 45 | 12 | 343 | 19 | 6  | 21.8 | - |
| 90/B14  | 4   | 9  | 9  | 115 | 140 | 95  | 45 | 12 | 343 | 24 | 8  | 26.3 | - |
| 100/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 52 | 15 | 350 | 28 | 8  | 31.3 | - |
| 112/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 52 | 15 | 350 | 28 | 8  | 31.3 | - |
| 132/B14 | 4.5 | 7  | 11 | 165 | 200 | 130 | 82 | 15 | 380 | 38 | 10 | 41.3 | - |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



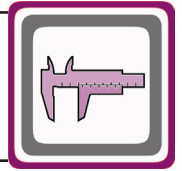
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower than foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

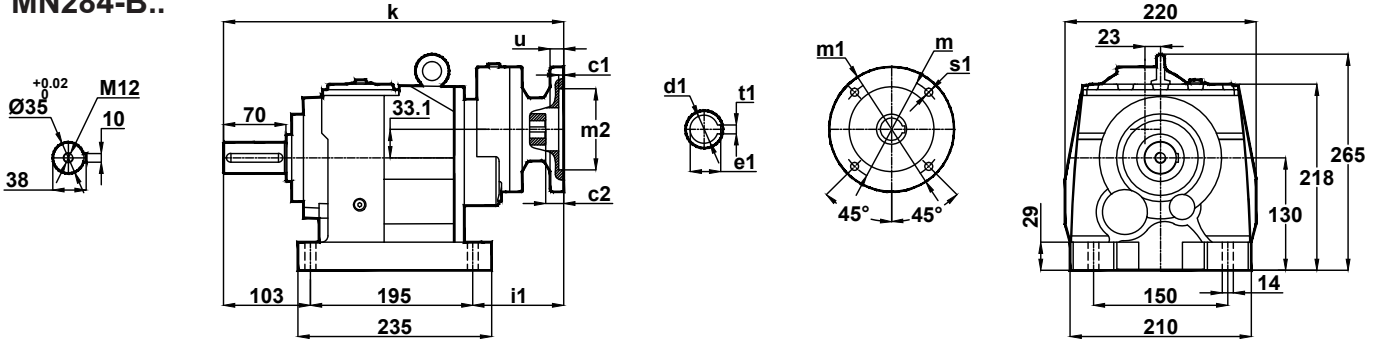
## Dimension Pages

### Abmessungsseiten

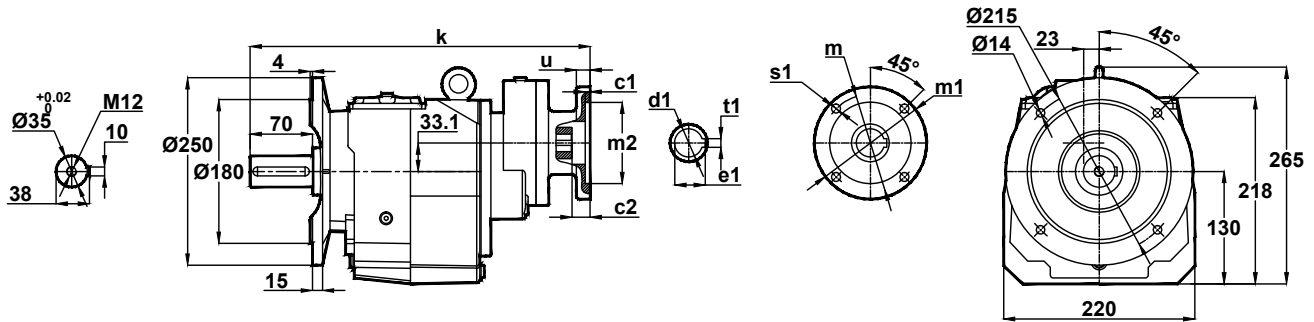


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

### MN284-A.. MN284-B..

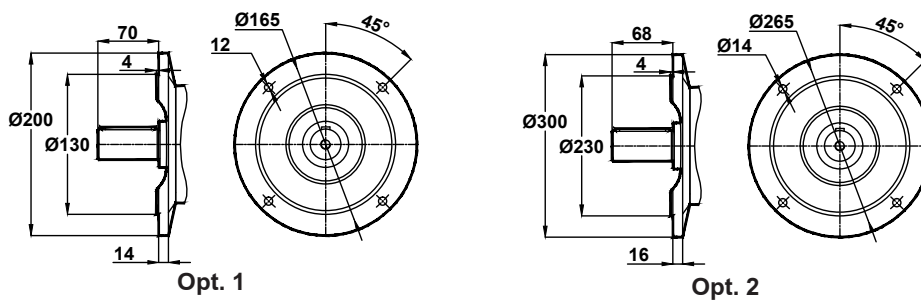


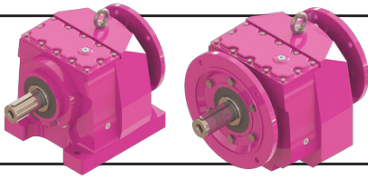
### NN284-A.. NN284-B..



| IEC    | c1  | c2  | s1 | m   | m1  | m2  | i1  | u  | k   | d1 | t1 | e1   |
|--------|-----|-----|----|-----|-----|-----|-----|----|-----|----|----|------|
| 63/B5  | 3.5 | 5   | 10 | 115 | 140 | 95  | 122 | 10 | 420 | 11 | 4  | 12.8 |
| 71/B5  | 4   | 4.5 | 11 | 130 | 160 | 110 | 93  | 12 | 391 | 14 | 5  | 16.3 |
| 71/B14 | 3   | 4.5 | 7  | 85  | 105 | 70  | 93  | 10 | 391 | 14 | 5  | 16.3 |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

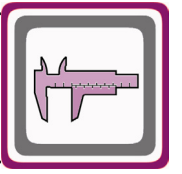




# Ölçü Sayfaları

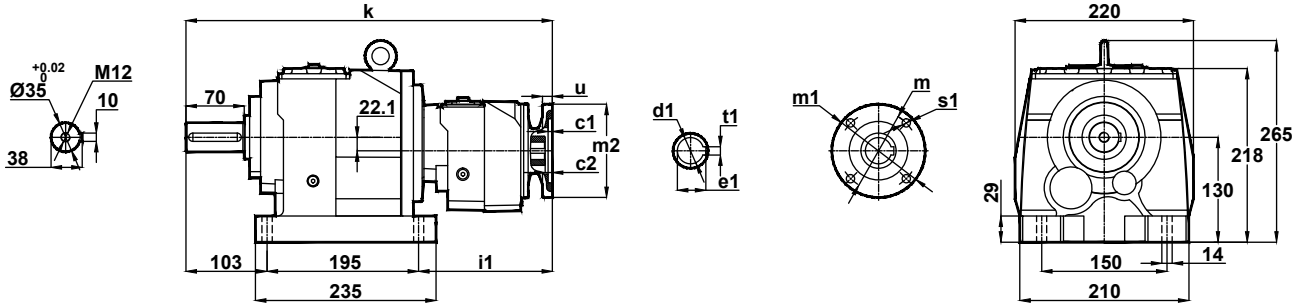
## Dimension Pages

### Abmessungsseiten

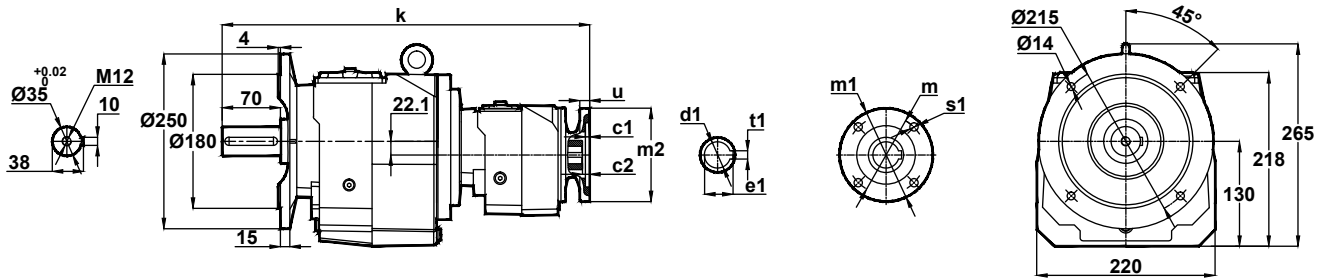


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MN285-A.. / B..**  
**MN286-A.. / B..**

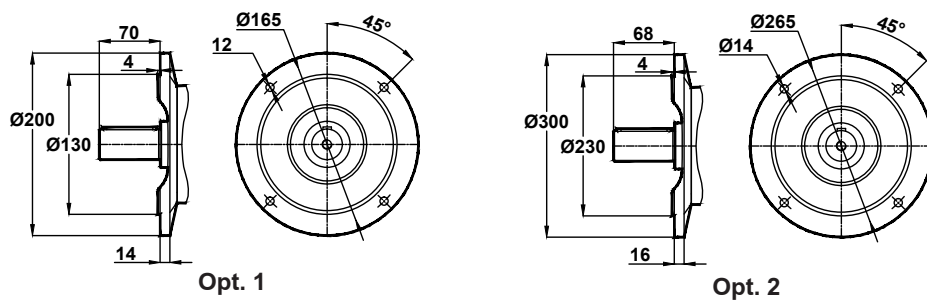


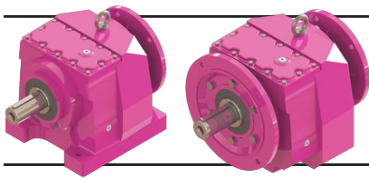
**NN285-A.. / B..**  
**NN286-A.. / B..**



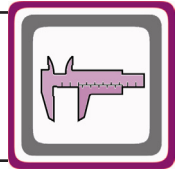
| IEC    | c1  | c2 | s1  | m   | m1  | m2 | i1  | u  | k   | d1 | t1 | e1   |
|--------|-----|----|-----|-----|-----|----|-----|----|-----|----|----|------|
| 63/B5  | 4   | 7  | 10  | 115 | 140 | 95 | 188 | 12 | 486 | 11 | 4  | 12.8 |
| 63/B14 | 2.5 | 5  | 5.5 | 75  | 90  | 60 | 188 | 10 | 486 | 11 | 4  | 12.8 |

**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



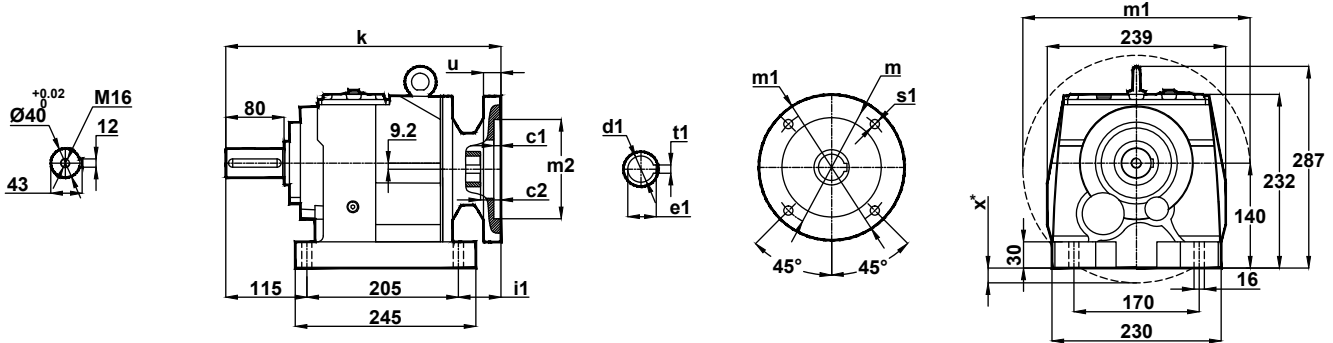


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

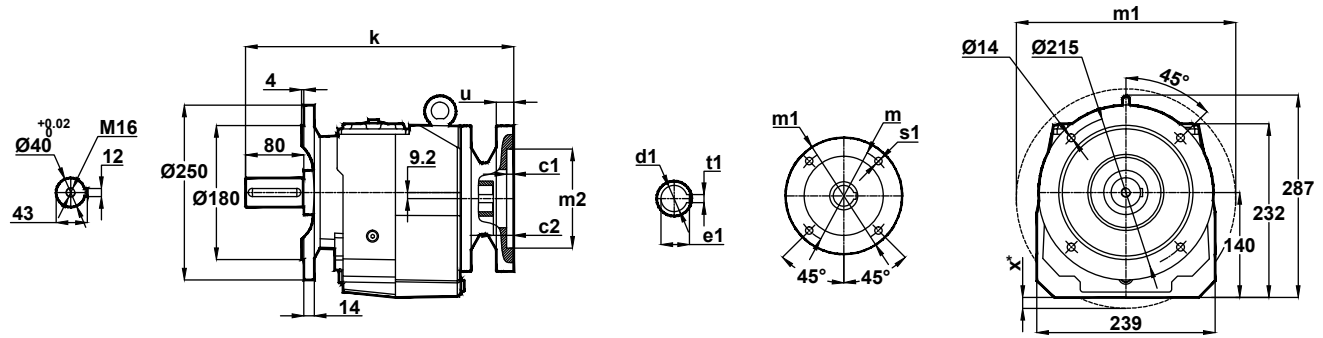


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MN372-A.. MN373-A..

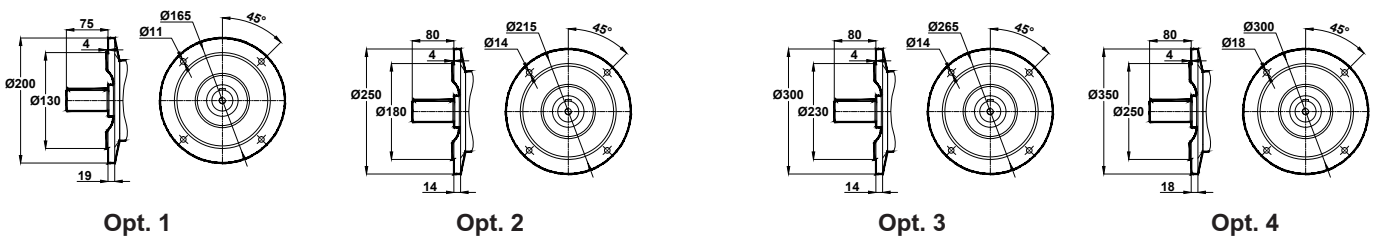


## NN372-A.. NN373-A..

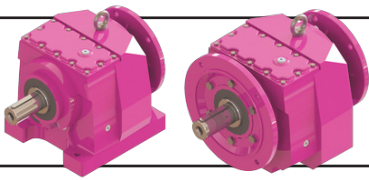


| IEC    | c1  | c2 | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x  |
|--------|-----|----|----|-----|-----|-----|------|----|-----|----|----|------|----|
| 71/B5  | 4   | 9  | 11 | 130 | 160 | 110 | 43.5 | 12 | 364 | 14 | 5  | 16.3 | -  |
| 80/B5  | 4   | 9  | 13 | 165 | 200 | 130 | 43.5 | 12 | 364 | 19 | 6  | 21.8 | -  |
| 90/B5  | 4   | 9  | 13 | 165 | 200 | 130 | 43.5 | 12 | 364 | 24 | 8  | 27.3 | -  |
| 100/B5 | 4.5 | 9  | 15 | 215 | 250 | 180 | 60.5 | 15 | 381 | 28 | 8  | 31.3 | -  |
| 112/B5 | 4.5 | 9  | 15 | 215 | 250 | 180 | 60.5 | 15 | 381 | 28 | 8  | 31.3 | -  |
| 132/B5 | 4.5 | 7  | 15 | 265 | 300 | 230 | 80.5 | 15 | 401 | 38 | 10 | 41.3 | 20 |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



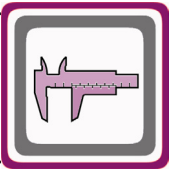
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower than foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte



# Ölçü Sayfaları

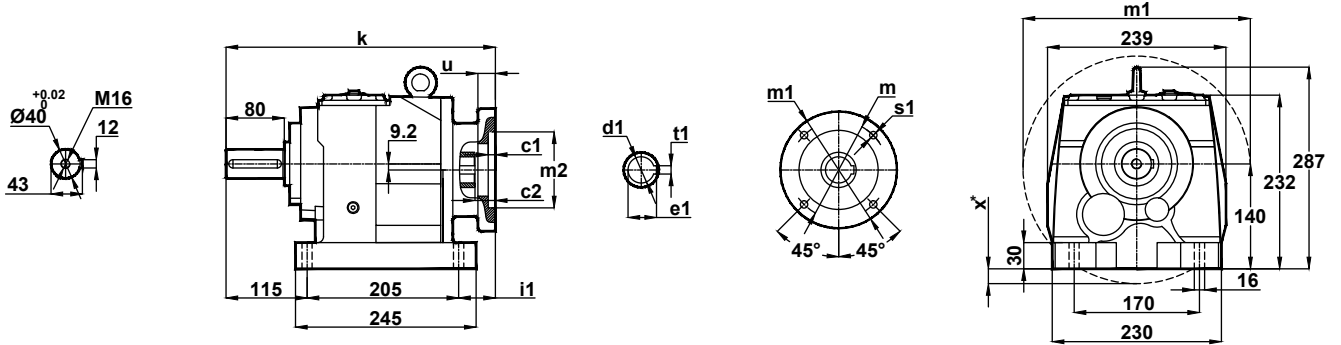
## Dimension Pages

### Abmessungsseiten

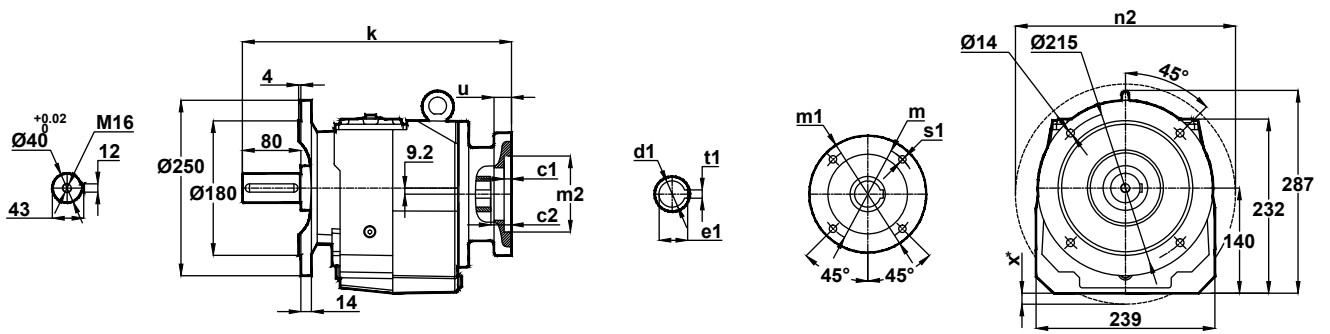


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MN372-B..**  
**MN373-B..**

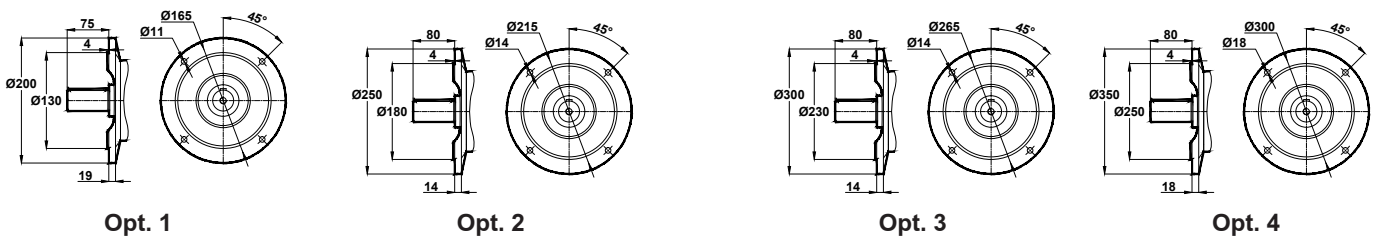


**NN372-B..**  
**NN373-B..**

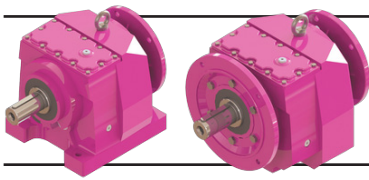


| IEC     | c1  | c2 | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x |
|---------|-----|----|----|-----|-----|-----|------|----|-----|----|----|------|---|
| 80/B14  | 4   | 9  | 7  | 100 | 120 | 80  | 43.5 | 12 | 364 | 19 | 6  | 21.8 | - |
| 90/B14  | 4   | 9  | 9  | 115 | 140 | 95  | 43.5 | 12 | 364 | 24 | 8  | 26.3 | - |
| 100/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 60.5 | 15 | 381 | 28 | 8  | 31.3 | - |
| 112/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 60.5 | 15 | 381 | 28 | 8  | 31.3 | - |
| 132/B14 | 4.5 | 9  | 11 | 165 | 200 | 130 | 80.5 | 15 | 401 | 38 | 10 | 41.3 | - |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



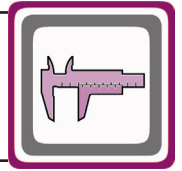
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower than foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

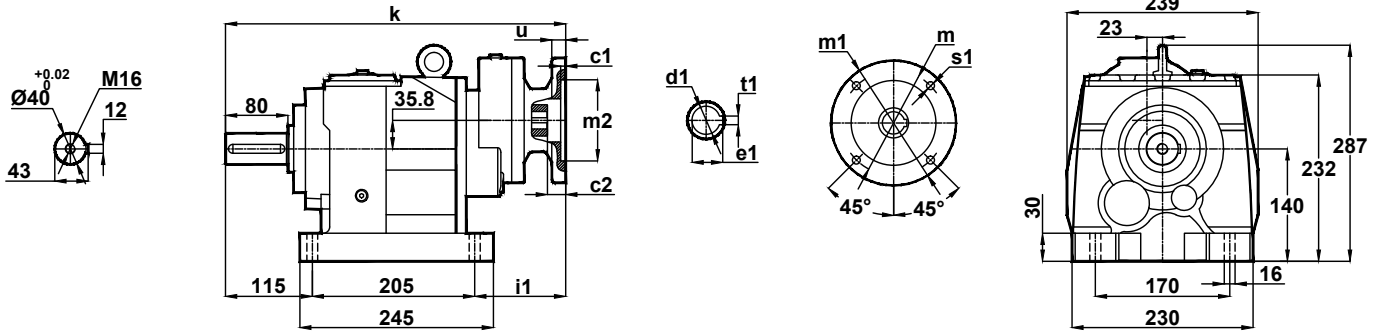
## Dimension Pages

### Abmessungsseiten

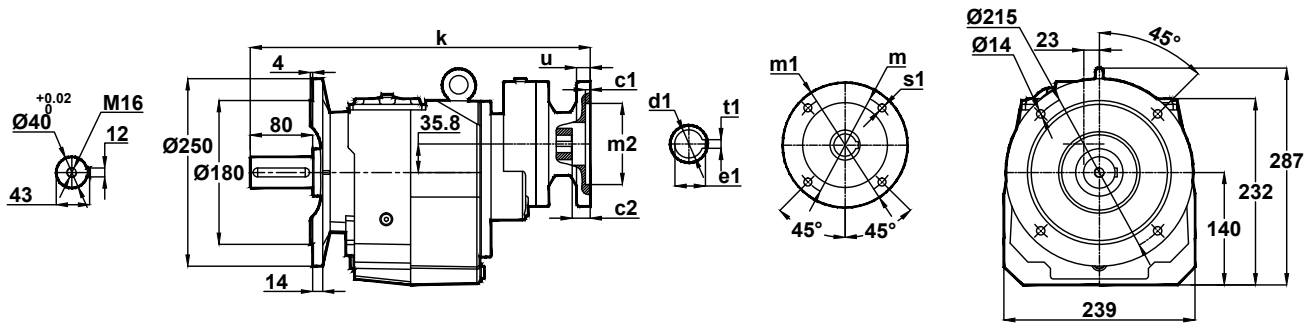


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

### MN374-A.. MN374-B..

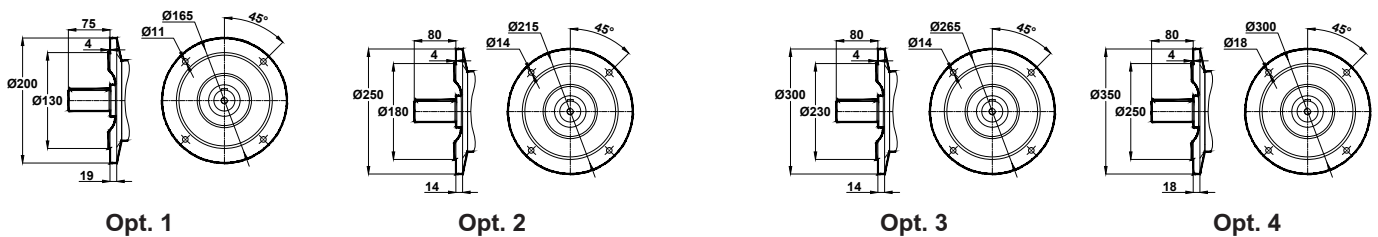


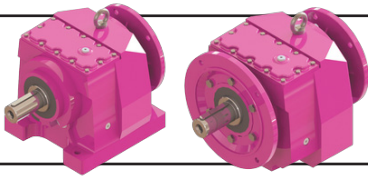
### NN374-A.. NN374-B..



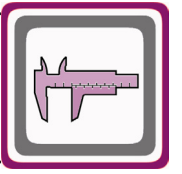
| IEC    | c1 | c2  | s1 | m   | m1  | m2  | i1    | u  | k   | d1 | t1 | e1   |
|--------|----|-----|----|-----|-----|-----|-------|----|-----|----|----|------|
| 63/B5  | 4  | 5   | 9  | 115 | 140 | 95  | 120.5 | 12 | 441 | 11 | 4  | 12.8 |
| 71/B5  | 4  | 8.5 | 11 | 130 | 160 | 110 | 91.5  | 12 | 412 | 14 | 5  | 16.3 |
| 80/B5  | 4  | 5   | 13 | 165 | 200 | 130 | 120.5 | 12 | 441 | 19 | 6  | 21.8 |
| 71/B14 | 3  | 8.5 | 7  | 85  | 105 | 70  | 91.5  | 10 | 412 | 14 | 5  | 16.3 |
| 80/B14 | 4  | 5   | 7  | 100 | 120 | 80  | 120.5 | 12 | 441 | 19 | 6  | 21.8 |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



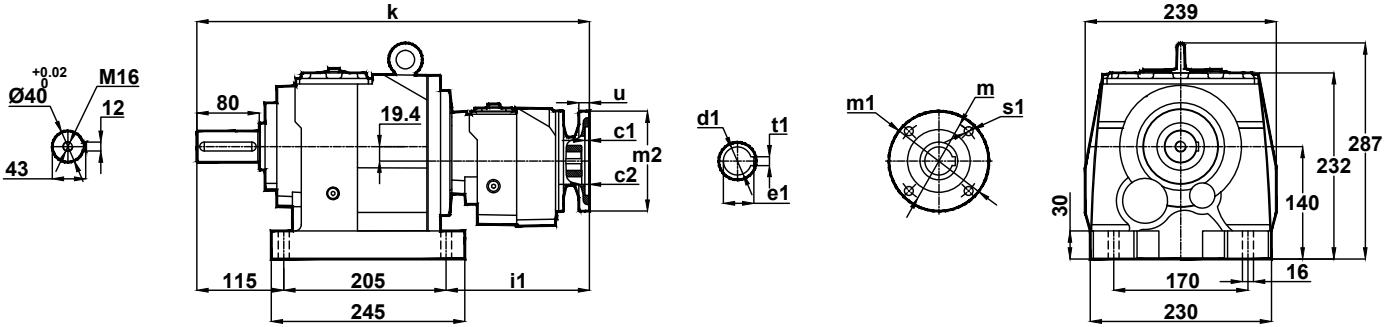


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

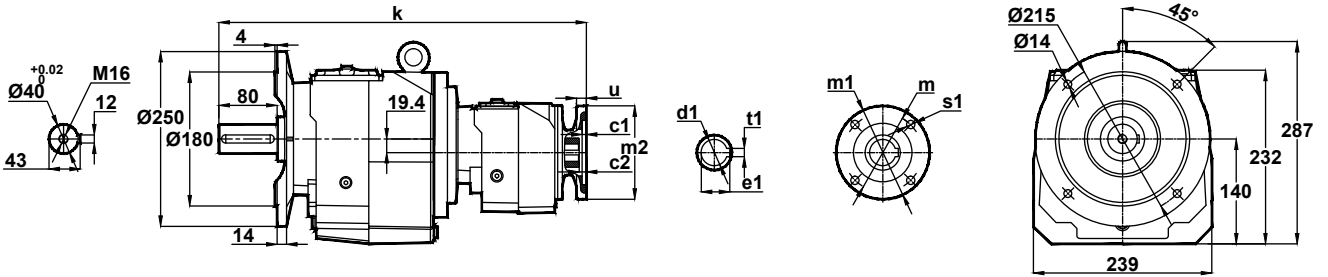


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MN375-A.. / B..**  
**MN376-A.. / B..**

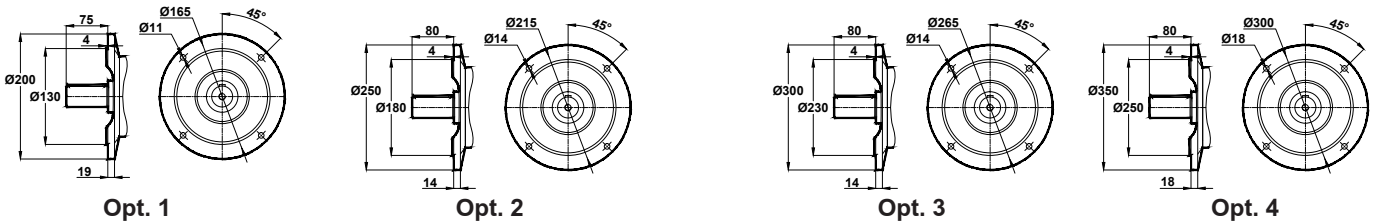


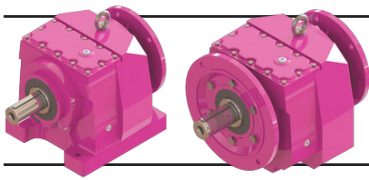
**NN375-A.. / B..**  
**NN376-A.. / B..**



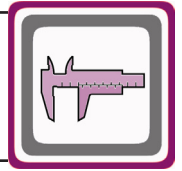
| IEC    | c1  | c2 | s1  | m   | m1  | m2 | i1    | u  | k   | d1 | t1 | e1   |
|--------|-----|----|-----|-----|-----|----|-------|----|-----|----|----|------|
| 63/B5  | 3.5 | 5  | 10  | 115 | 140 | 95 | 186.5 | 10 | 507 | 11 | 4  | 12.8 |
| 63/B14 | 2.5 | 5  | 5.5 | 75  | 90  | 60 | 186.5 | 10 | 507 | 11 | 4  | 12.8 |

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



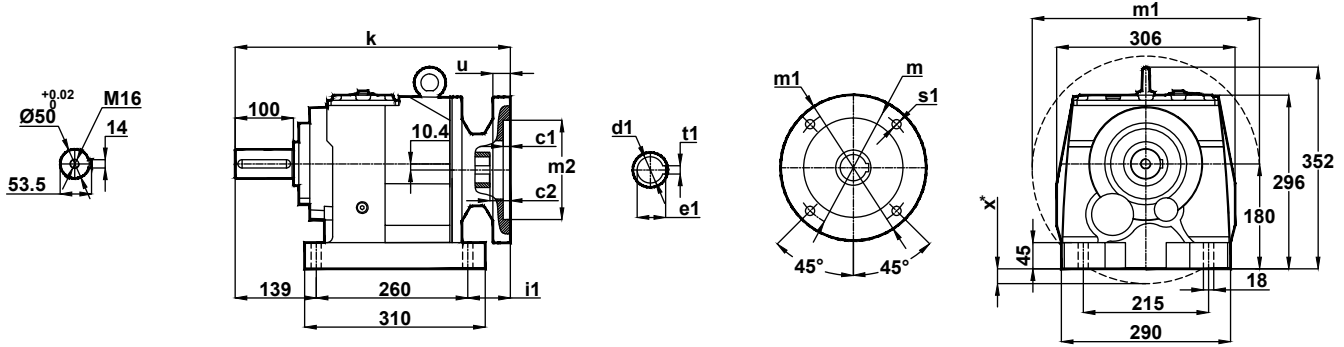


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

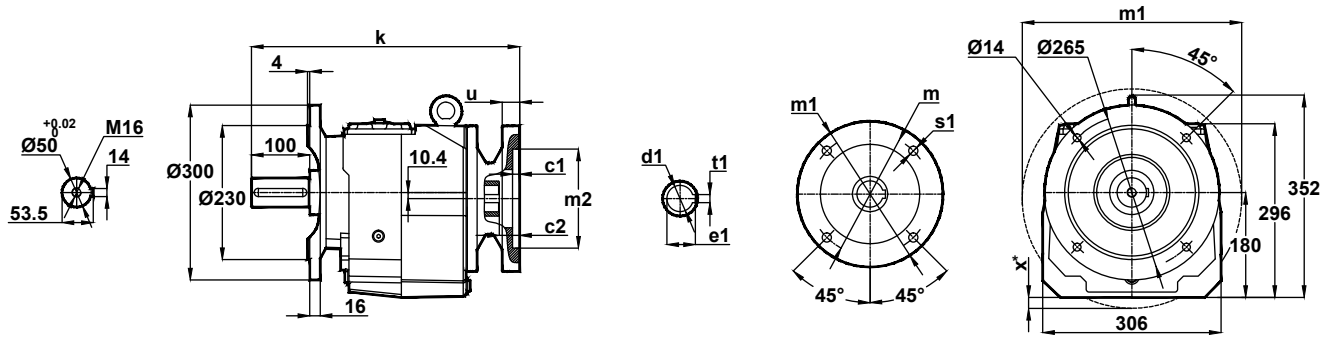


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MN472-A.. MN473-A..

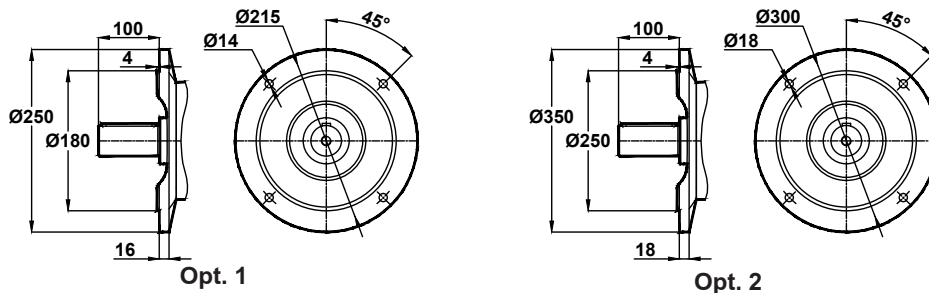


## NN472-A.. NN473-A..



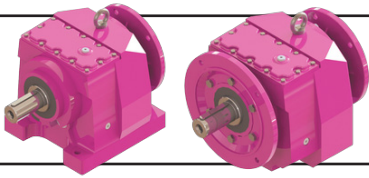
| IEC    | c1  | c2 | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x |
|--------|-----|----|----|-----|-----|-----|------|----|-----|----|----|------|---|
| 80/B5  | 4   | 5  | 12 | 165 | 200 | 130 | 27.5 | 12 | 427 | 19 | 6  | 21.8 | - |
| 90/B5  | 4   | 5  | 13 | 165 | 200 | 130 | 27.5 | 12 | 427 | 24 | 8  | 27.3 | - |
| 100/B5 | 4.5 | 9  | 15 | 215 | 250 | 180 | 46   | 15 | 445 | 28 | 8  | 31.3 | - |
| 112/B5 | 4.5 | 9  | 15 | 215 | 250 | 180 | 46   | 15 | 445 | 28 | 8  | 31.3 | - |
| 132/B5 | 4.5 | 6  | 15 | 265 | 300 | 230 | 64.5 | 15 | 464 | 38 | 10 | 41.3 | - |
| 160/B5 | 5.5 | 10 | 19 | 300 | 350 | 250 | 144  | 20 | 543 | 42 | 12 | 45.3 | 6 |
| 180/B5 | 5.5 | 10 | 19 | 300 | 350 | 250 | 144  | 20 | 543 | 48 | 14 | 51.8 | 6 |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte

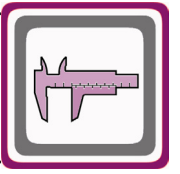




# Ölçü Sayfaları

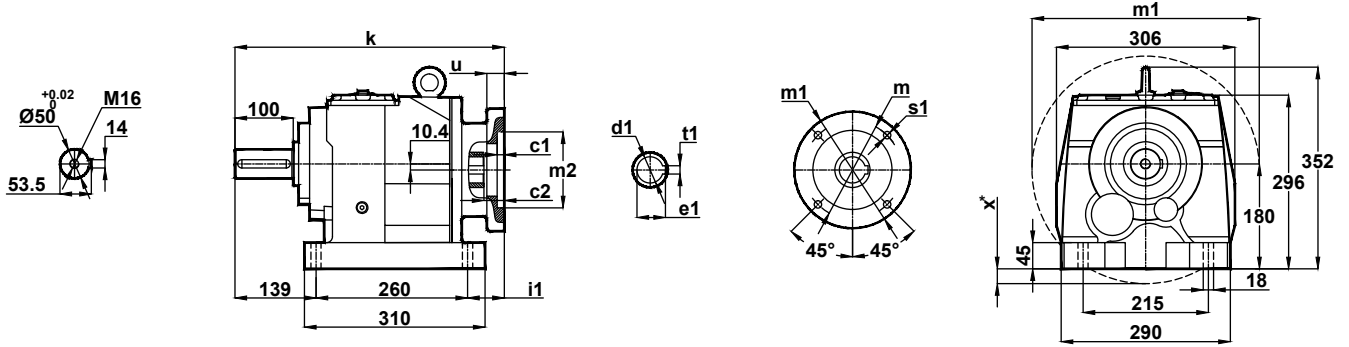
## Dimension Pages

### Abmessungsseiten

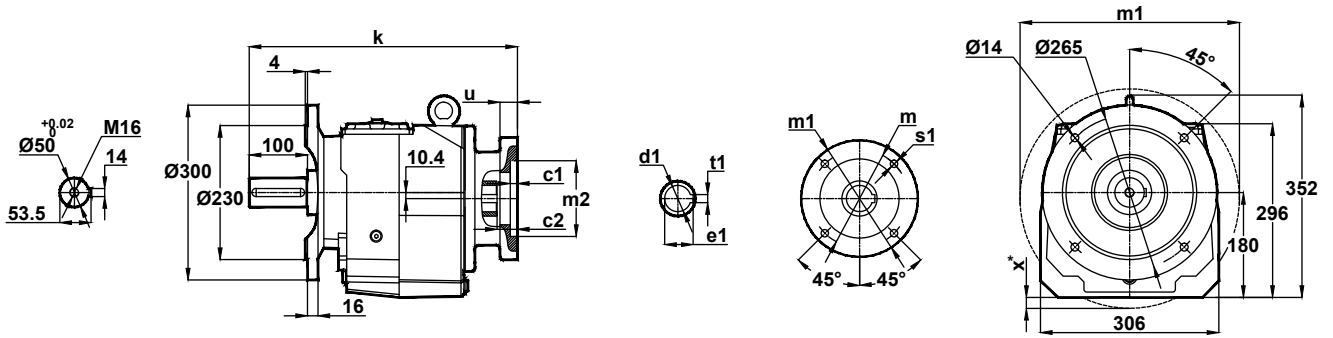


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MN472-B..**  
**MN473-B..**

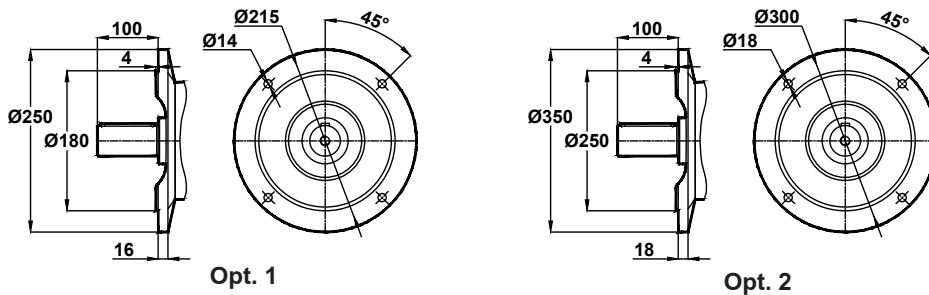


**NN472-B..**  
**NN473-B..**

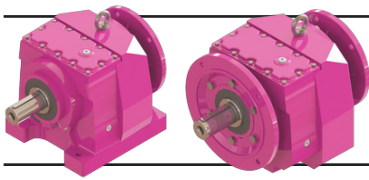


| IEC     | c1  | c2 | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x |
|---------|-----|----|----|-----|-----|-----|------|----|-----|----|----|------|---|
| 90/B14  | 4   | 5  | 9  | 115 | 140 | 95  | 27.5 | 12 | 427 | 24 | 8  | 27.3 | - |
| 100/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 46   | 15 | 445 | 28 | 8  | 31.3 | - |
| 112/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 46   | 15 | 445 | 28 | 8  | 31.3 | - |
| 132/B14 | 4.4 | 6  | 11 | 165 | 200 | 130 | 64.5 | 15 | 464 | 38 | 10 | 41.3 | - |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



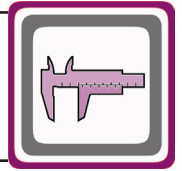
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

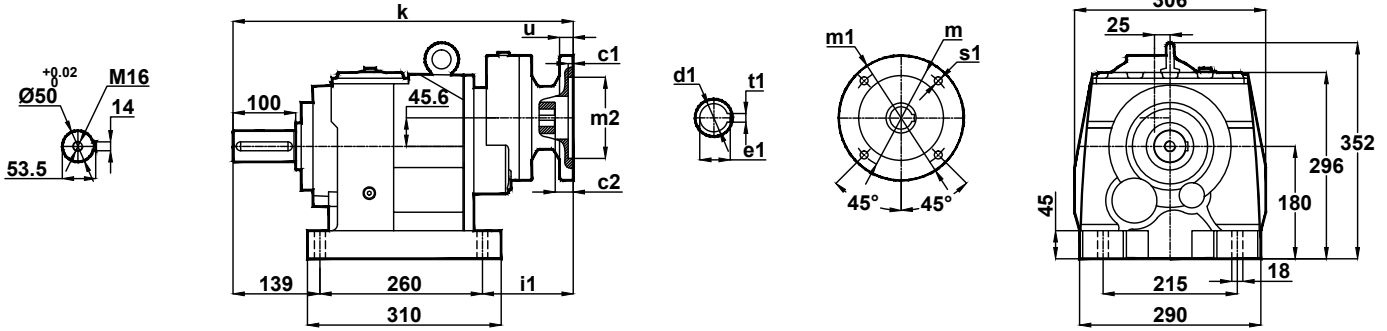
## Dimension Pages

### Abmessungsseiten

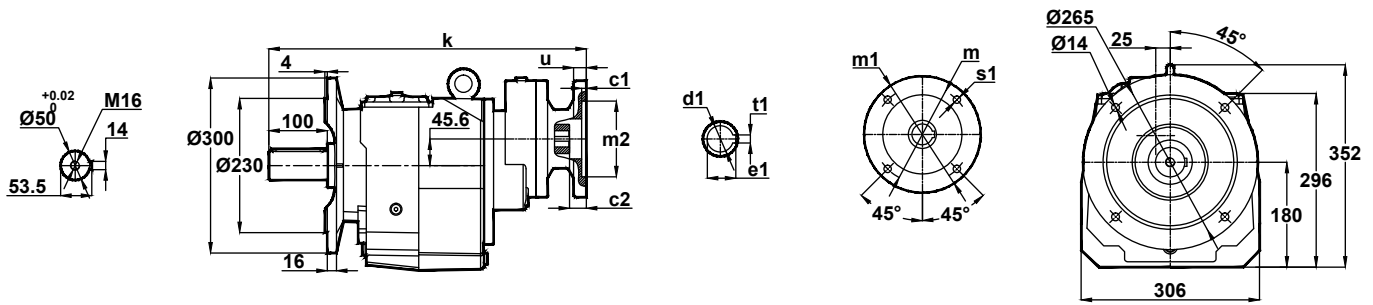


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

### MN474-A.. MN474-B..

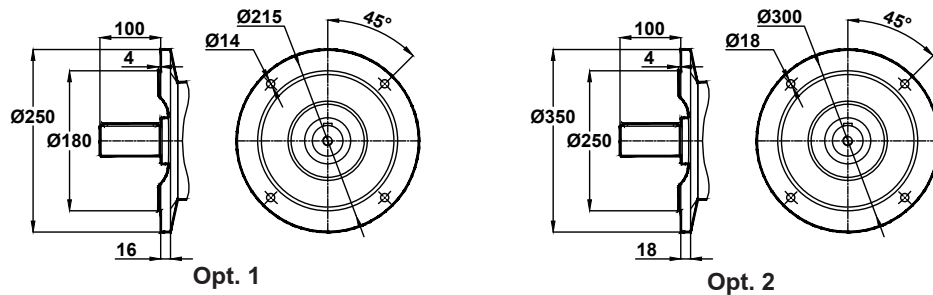


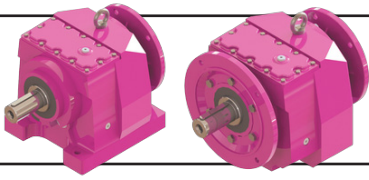
### NN474-A.. NN474-B..



| IEC    | c1 | c2 | s1 | m   | m1  | m2  | i1    | u  | k   | d1 | t1 | e1   |
|--------|----|----|----|-----|-----|-----|-------|----|-----|----|----|------|
| 71/B5  | 4  | 9  | 11 | 130 | 160 | 110 | 125.5 | 12 | 525 | 14 | 5  | 16.3 |
| 80/B5  | 4  | 9  | 13 | 165 | 200 | 130 | 125.5 | 12 | 525 | 19 | 6  | 21.8 |
| 80/B14 | 4  | 9  | 7  | 100 | 120 | 80  | 125.5 | 12 | 525 | 19 | 6  | 21.8 |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

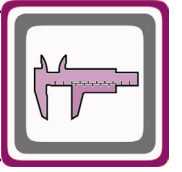




# Ölçü Sayfaları

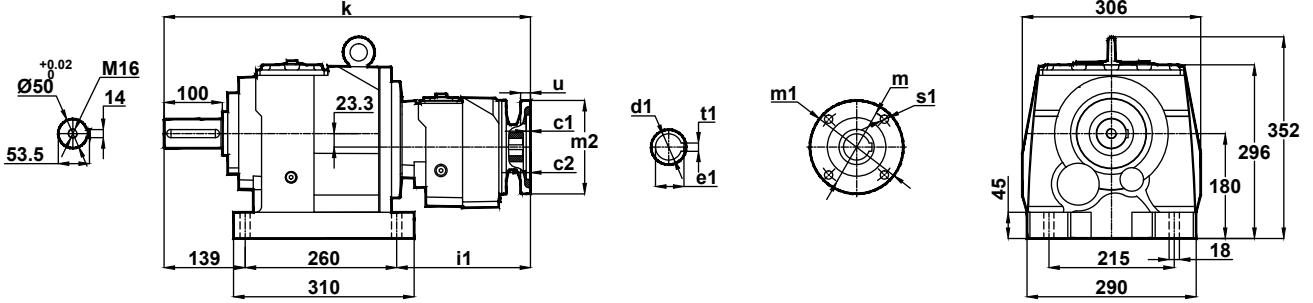
## Dimension Pages

### Abmessungsseiten

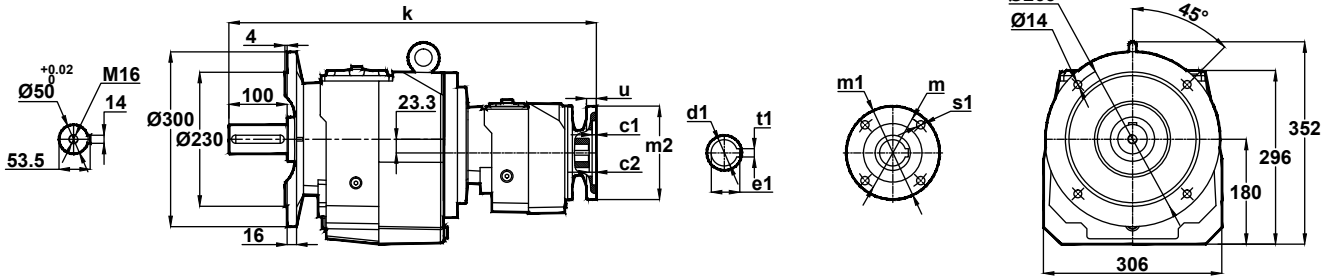


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MN475-A.. / B..**  
**MN476-A.. / B..**

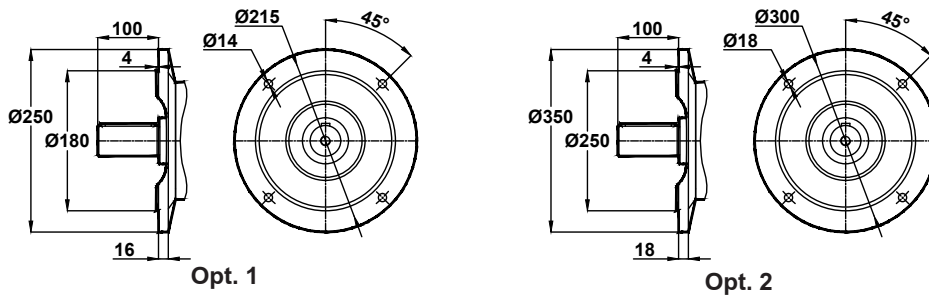


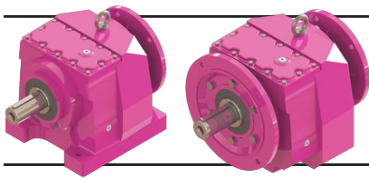
**NN475-A.. / B..**  
**NN476-A.. / B..**



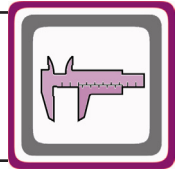
| IEC    | c1 | c2  | s1 | m   | m1  | m2  | i1    | u  | k   | d1 | t1 | e1   |
|--------|----|-----|----|-----|-----|-----|-------|----|-----|----|----|------|
| 63/B5  | 4  | 5   | 9  | 115 | 140 | 95  | 253.5 | 12 | 653 | 11 | 4  | 12.8 |
| 71/B5  | 4  | 8.5 | 11 | 130 | 160 | 110 | 224.5 | 12 | 624 | 14 | 5  | 16.3 |
| 71/B14 | 3  | 8.5 | 7  | 85  | 105 | 70  | 224.5 | 10 | 624 | 14 | 5  | 16.3 |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



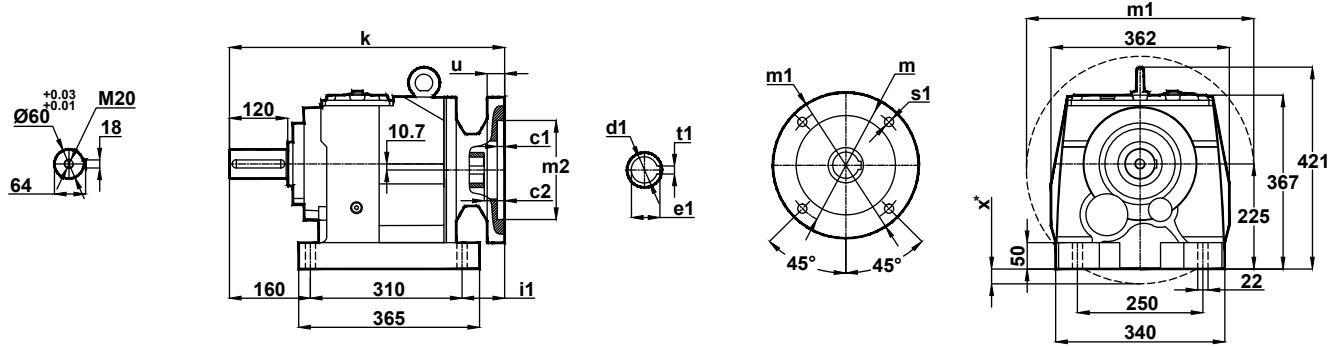


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

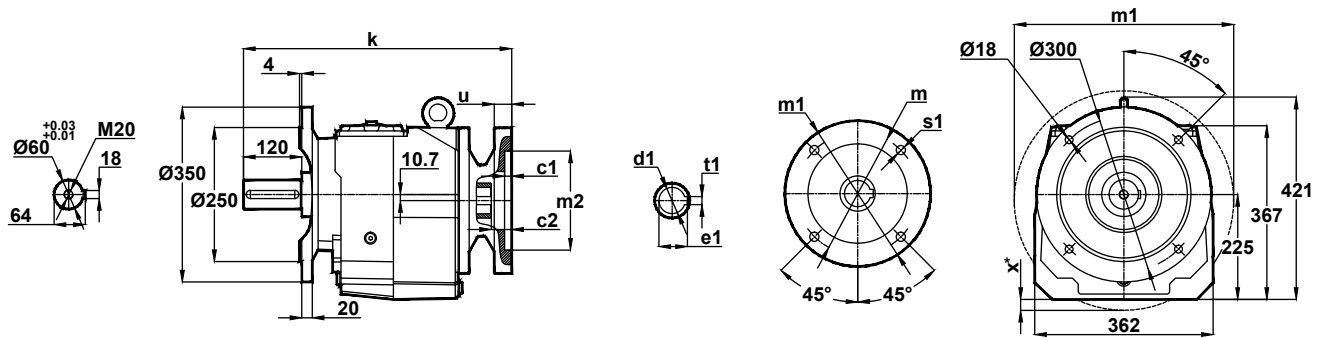


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MN572-A.. / B..  
MN573-A.. / B..**

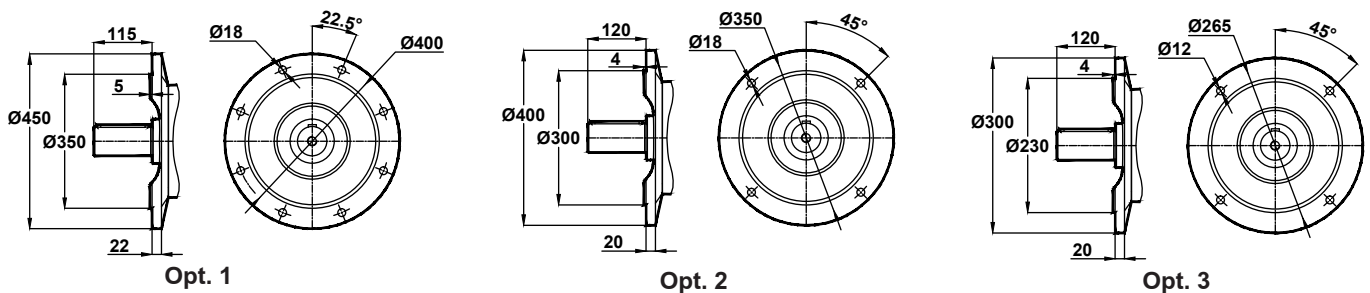


**NN572-A.. / B..  
NN573-A.. / B..**



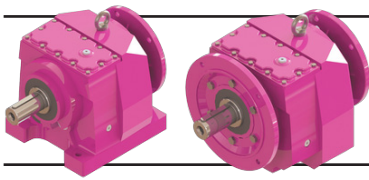
| IEC     | c1  | c2 | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x |
|---------|-----|----|----|-----|-----|-----|------|----|-----|----|----|------|---|
| 100/B5  | 4.5 | 20 | 15 | 215 | 250 | 180 | 33.5 | 15 | 507 | 28 | 8  | 31.3 | - |
| 112/B5  | 4.5 | 20 | 15 | 215 | 250 | 180 | 33.5 | 15 | 507 | 28 | 8  | 31.3 | - |
| 132/B5  | 4.5 | 9  | 15 | 265 | 300 | 230 | 54.5 | 15 | 528 | 38 | 10 | 41.3 | - |
| 160/B5  | 5.5 | 10 | 19 | 300 | 350 | 250 | 130  | 18 | 603 | 42 | 12 | 45.3 | - |
| 180/B5  | 5.5 | 10 | 19 | 300 | 350 | 250 | 130  | 18 | 603 | 48 | 14 | 51.8 | - |
| 200/B5  | 5.5 | 10 | 19 | 350 | 400 | 300 | 150  | 22 | 623 | 55 | 16 | 59.3 | - |
| 132/B14 | 4.5 | 9  | 11 | 165 | 200 | 130 | 54.5 | 15 | 528 | 38 | 10 | 41.3 | - |

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte

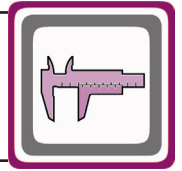




# Ölçü Sayfaları

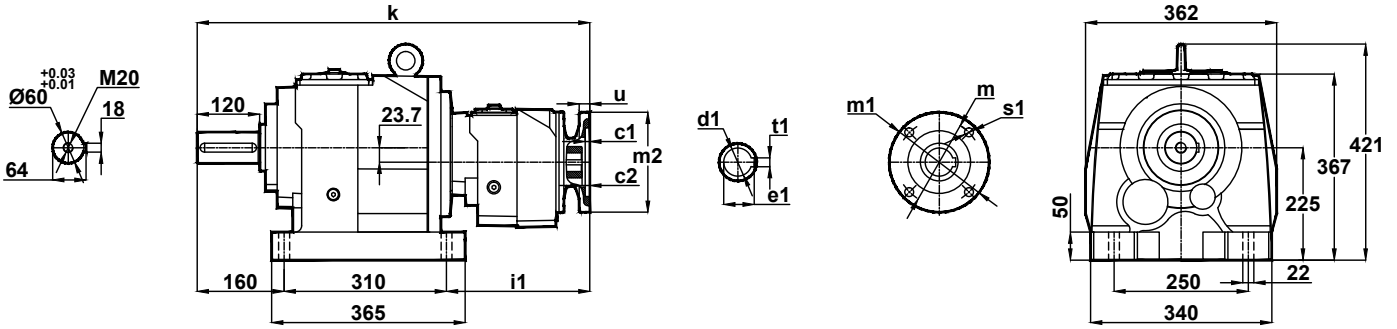
## Dimension Pages

### Abmessungsseiten

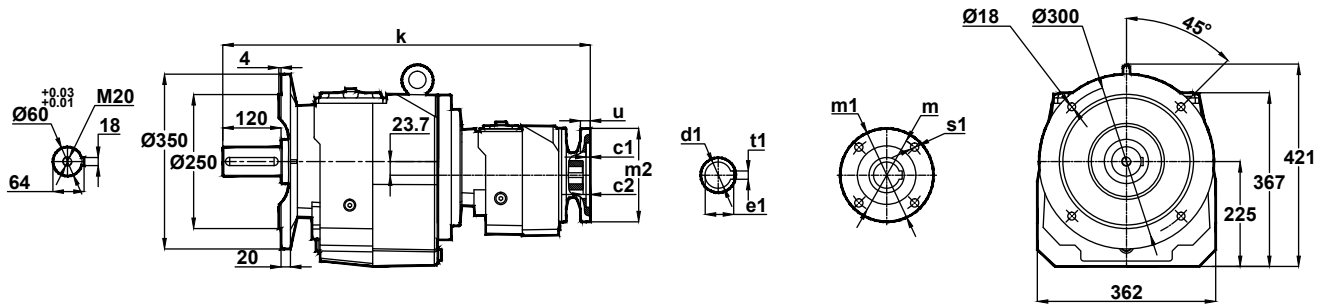


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MN575-A.. / B..**  
**MN576-A.. / B..**

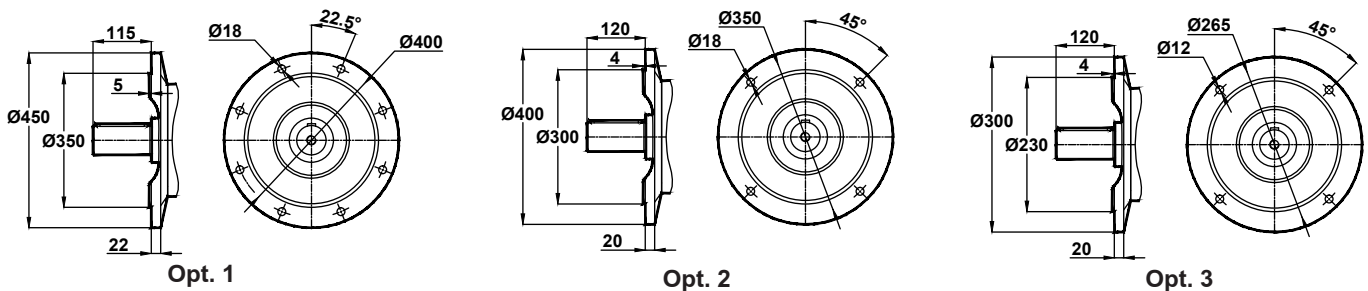


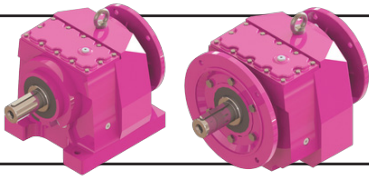
**NN575-A.. / B..**  
**NN576-A.. / B..**



| IEC    | c1 | c2  | s1 | m   | m1  | m2  | i1    | u  | k   | d1 | t1 | e1   |
|--------|----|-----|----|-----|-----|-----|-------|----|-----|----|----|------|
| 63/B5  | 4  | 5   | 9  | 115 | 140 | 95  | 246.5 | 12 | 717 | 11 | 4  | 12.8 |
| 71/B5  | 4  | 8.5 | 11 | 130 | 160 | 110 | 217.5 | 12 | 688 | 14 | 5  | 16.3 |
| 71/B14 | 3  | 8.5 | 7  | 85  | 105 | 70  | 217.5 | 10 | 688 | 14 | 5  | 16.3 |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

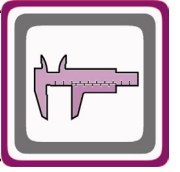




# Ölçü Sayfaları

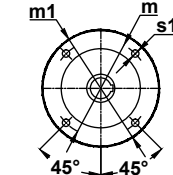
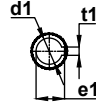
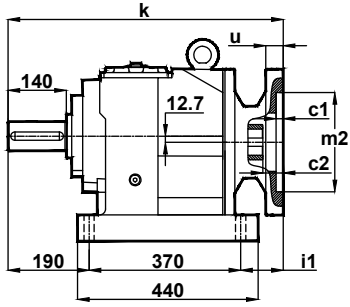
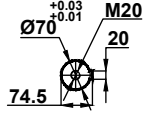
## Dimension Pages

### Abmessungsseiten

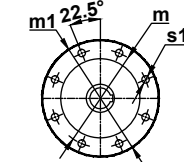


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

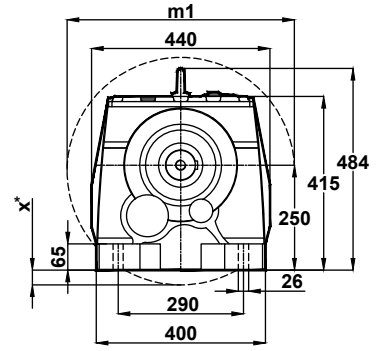
**MN672-A.. / B..**  
**MN673-A.. / B..**



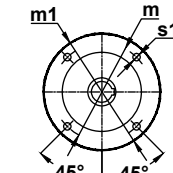
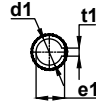
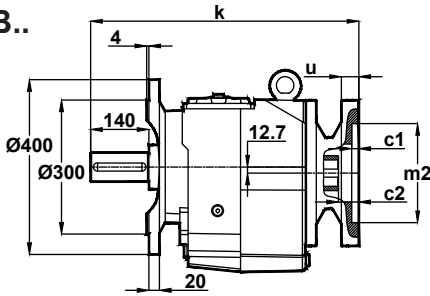
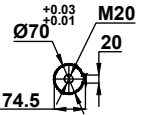
112 - 200 Tip / Type / Typ



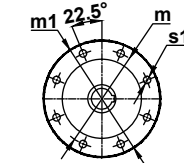
225 Tip / Type / Typ



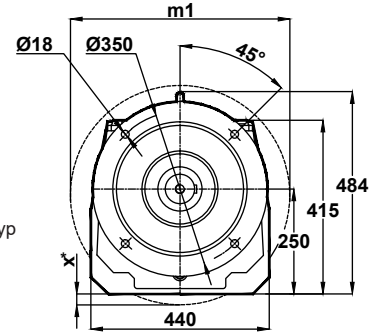
**NN672-A.. / B..**  
**NN673-A.. / B..**



112 - 200 Tip / Type / Typ

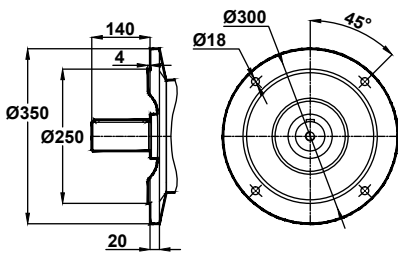


225 Tip / Type / Typ

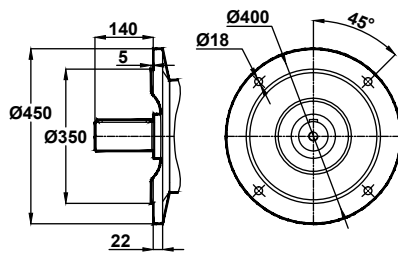


| IEC     | c1  | c2   | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x |
|---------|-----|------|----|-----|-----|-----|------|----|-----|----|----|------|---|
| 112/B5  | 4.5 | 14.5 | 15 | 215 | 250 | 180 | 7.5  | 15 | 568 | 28 | 8  | 31.3 | - |
| 132/B5  | 4.5 | 9    | 15 | 265 | 300 | 230 | 22.5 | 15 | 583 | 38 | 10 | 41.3 | - |
| 160/B5  | 5.5 | 10   | 19 | 300 | 350 | 250 | 97.5 | 20 | 658 | 42 | 12 | 45.3 | - |
| 180/B5  | 5.5 | 10   | 19 | 300 | 350 | 250 | 97.5 | 20 | 658 | 48 | 14 | 51.8 | - |
| 200/B5  | 5.5 | 10   | 19 | 350 | 400 | 300 | 118  | 22 | 678 | 55 | 16 | 59.3 | - |
| 225/B5  | 5.5 | 10   | 19 | 400 | 450 | 350 | 171  | 24 | 731 | 60 | 18 | 64.4 | - |
| 132/B14 | 4.5 | 9    | 15 | 165 | 200 | 130 | 22.5 | 15 | 583 | 38 | 10 | 41.3 | - |

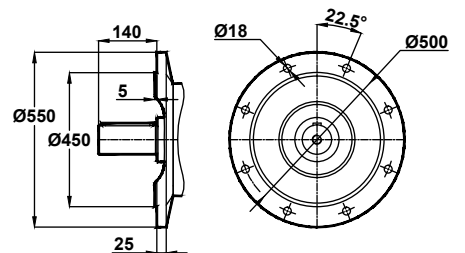
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

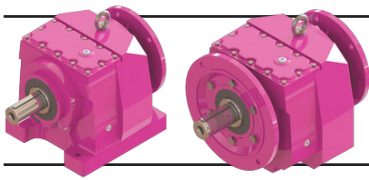


Opt. 2

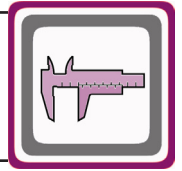


Opt. 3

x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower than foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte

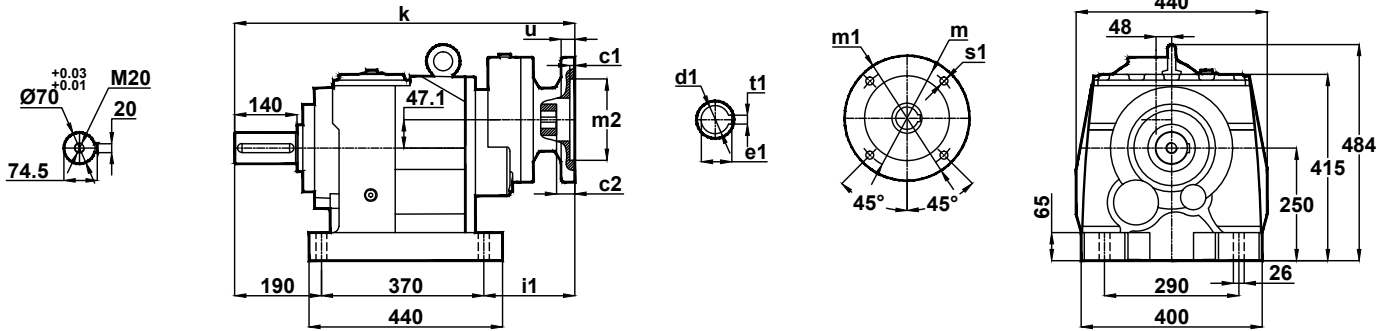


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

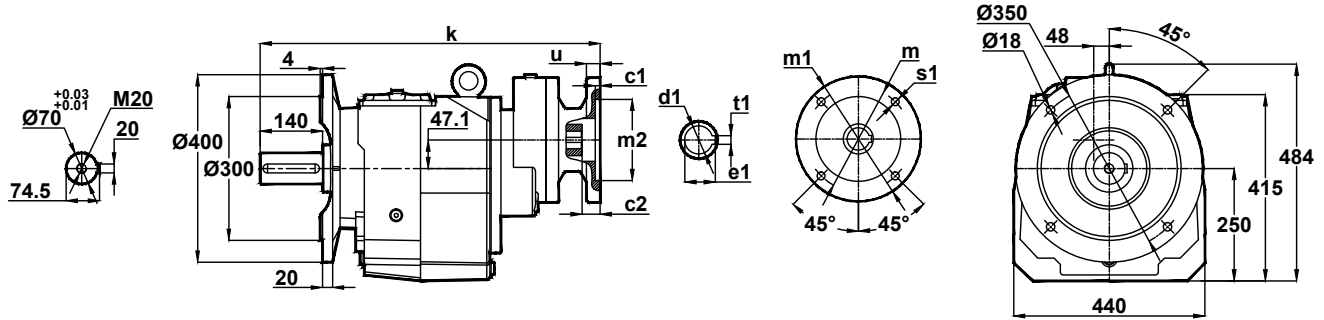


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MN674-A.. MN674-B..

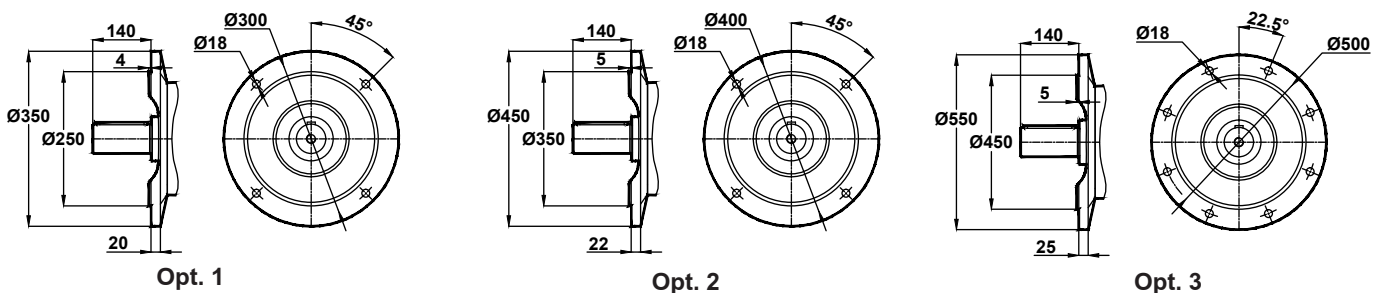


## NN674-A.. NN674-B..

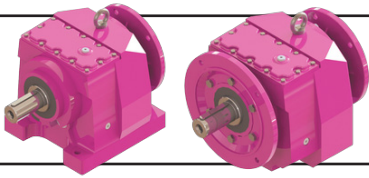


| IEC    | c1 | c2 | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   |
|--------|----|----|----|-----|-----|-----|------|----|-----|----|----|------|
| 80/B5  | 4  | 5  | 12 | 165 | 200 | 130 | 97.5 | 12 | 658 | 19 | 6  | 21.8 |
| 90/B5  | 4  | 5  | 13 | 165 | 200 | 130 | 97.5 | 12 | 658 | 24 | 8  | 27.3 |
| 90/B14 | 4  | 5  | 9  | 115 | 140 | 95  | 97.5 | 12 | 658 | 24 | 8  | 27.3 |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



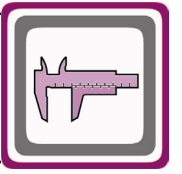




# Ölçü Sayfaları

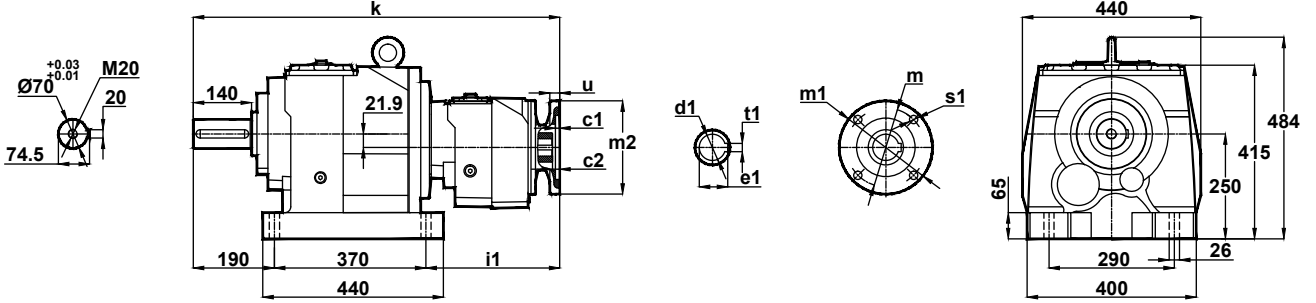
## Dimension Pages

### Abmessungsseiten

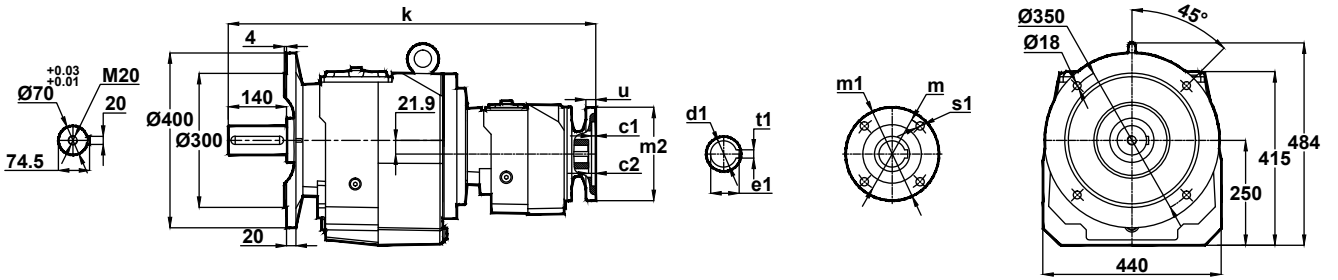


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MN675-A.. / B..**  
**MN676-A.. / B..**

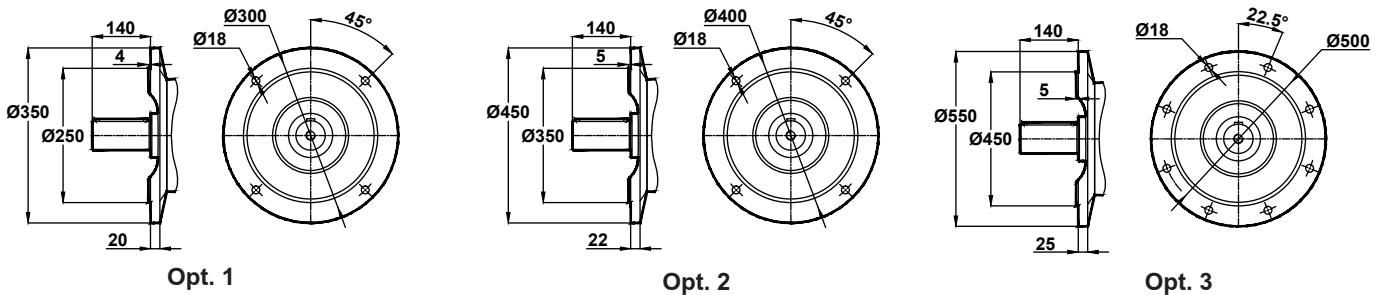


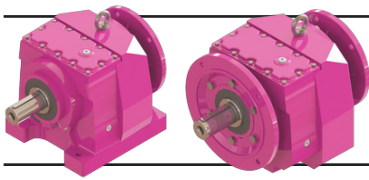
**NN675-A.. / B..**  
**NN676-A.. / B..**



| IEC    | c1 | c2 | s1 | m   | m1  | m2  | i1  | u  | k   | d1 | t1 | e1   |
|--------|----|----|----|-----|-----|-----|-----|----|-----|----|----|------|
| 71/B5  | 4  | 9  | 11 | 130 | 160 | 110 | 248 | 12 | 808 | 14 | 5  | 16.3 |
| 80/B5  | 4  | 9  | 13 | 165 | 200 | 130 | 248 | 12 | 808 | 19 | 6  | 21.8 |
| 80/B14 | 4  | 9  | 7  | 100 | 120 | 80  | 248 | 12 | 808 | 19 | 6  | 21.8 |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

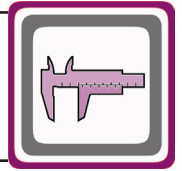




# Ölçü Sayfaları

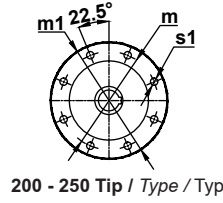
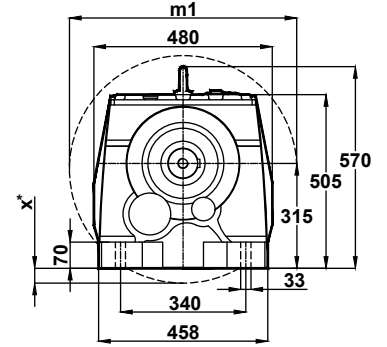
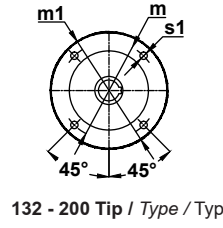
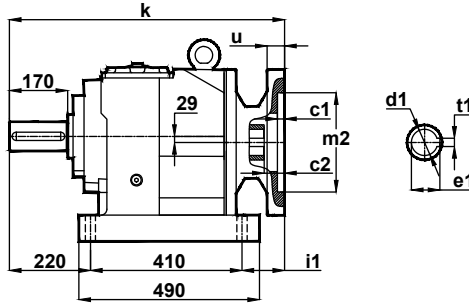
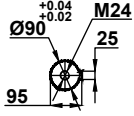
## Dimension Pages

## Abmessungsseiten

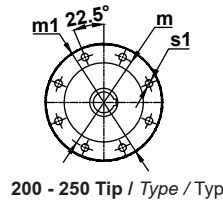
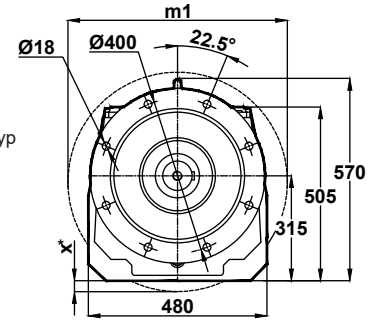
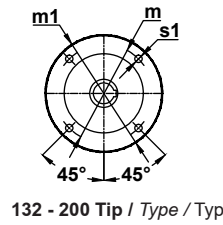
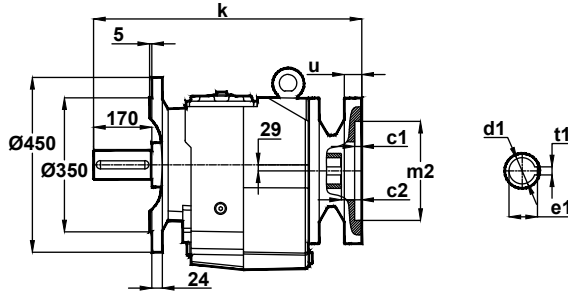
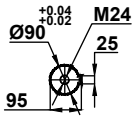


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

### MN772-A.. MN773-A..

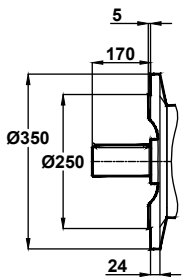


### NN772-A.. NN773-A..

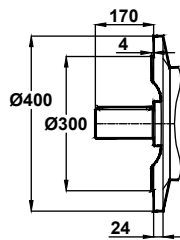
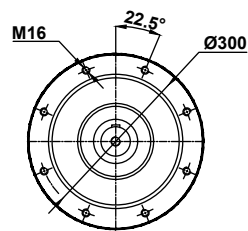


| IEC    | c1  | c2 | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x |
|--------|-----|----|----|-----|-----|-----|------|----|-----|----|----|------|---|
| 132/B5 | 4.5 | 15 | 15 | 265 | 300 | 230 | 37.5 | 15 | 668 | 38 | 10 | 41.3 | - |
| 160/B5 | 5.5 | 10 | 19 | 300 | 350 | 250 | 107  | 20 | 737 | 42 | 12 | 45.3 | - |
| 180/B5 | 5.5 | 10 | 19 | 300 | 350 | 250 | 107  | 20 | 737 | 43 | 14 | 51.8 | - |
| 200/B5 | 5.5 | 10 | 19 | 350 | 400 | 300 | 129  | 20 | 759 | 55 | 16 | 59.3 | - |
| 225/B5 | 5.5 | 10 | 19 | 400 | 450 | 350 | 182  | 24 | 812 | 60 | 18 | 64.4 | - |
| 250/B5 | 5.5 | 10 | 19 | 500 | 550 | 450 | 182  | 24 | 812 | 65 | 18 | 69.4 | - |

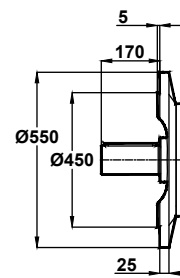
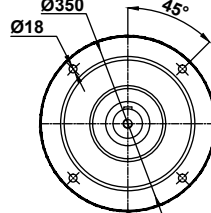
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



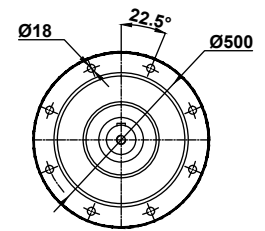
Opt. 1



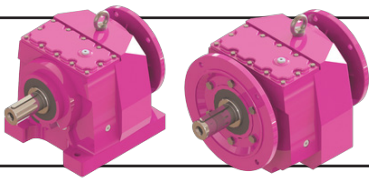
Opt. 2



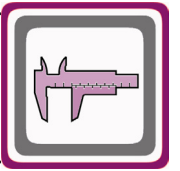
Opt. 3



x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte

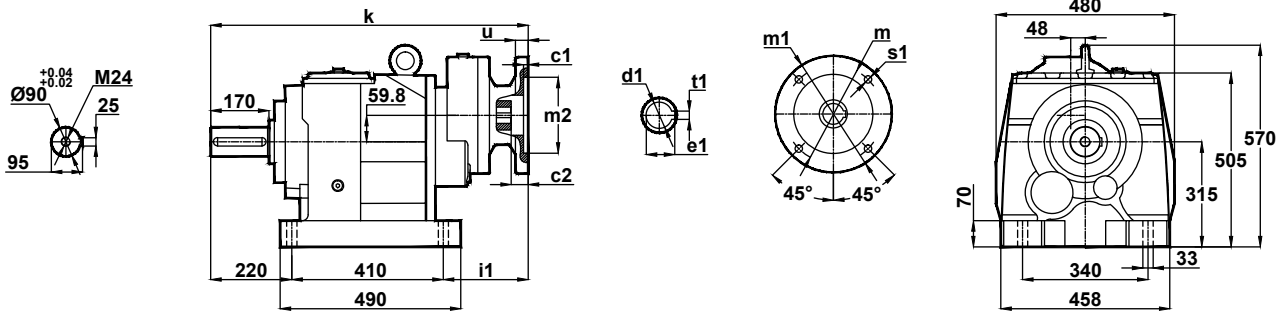


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

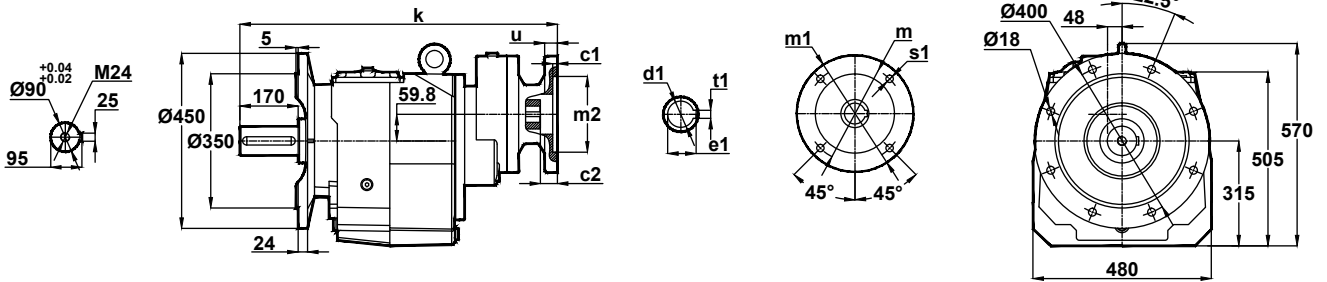


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MN774-A.. MN774-B..

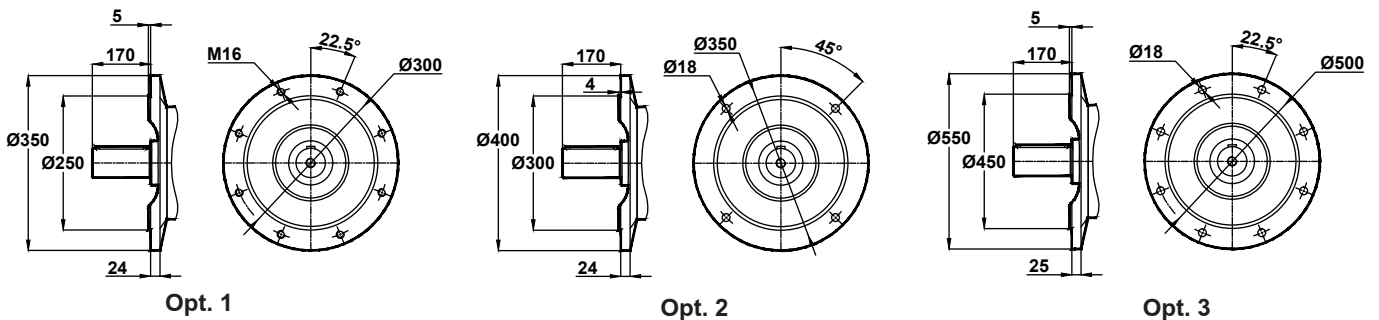


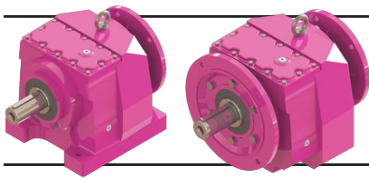
## NN774-A.. NN774-B..



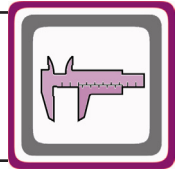
| IEC     | c1  | c2 | s1 | m   | m1  | m2  | i1    | u  | k   | d1 | t1 | e1   |
|---------|-----|----|----|-----|-----|-----|-------|----|-----|----|----|------|
| 80/B5   | 4   | 5  | 12 | 165 | 200 | 130 | 112.5 | 12 | 743 | 19 | 6  | 21.8 |
| 90/B5   | 4   | 5  | 13 | 165 | 200 | 130 | 112.5 | 12 | 743 | 24 | 8  | 27.3 |
| 100/B5  | 4.5 | 9  | 15 | 215 | 250 | 180 | 131   | 15 | 761 | 28 | 8  | 31.3 |
| 90/B14  | 4   | 5  | 9  | 115 | 140 | 95  | 112.5 | 12 | 743 | 24 | 8  | 27.3 |
| 100/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 131   | 15 | 761 | 28 | 8  | 31.3 |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



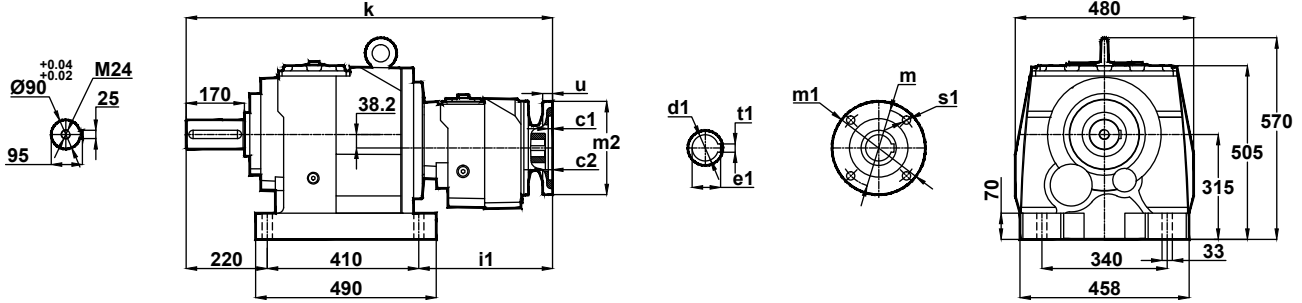


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

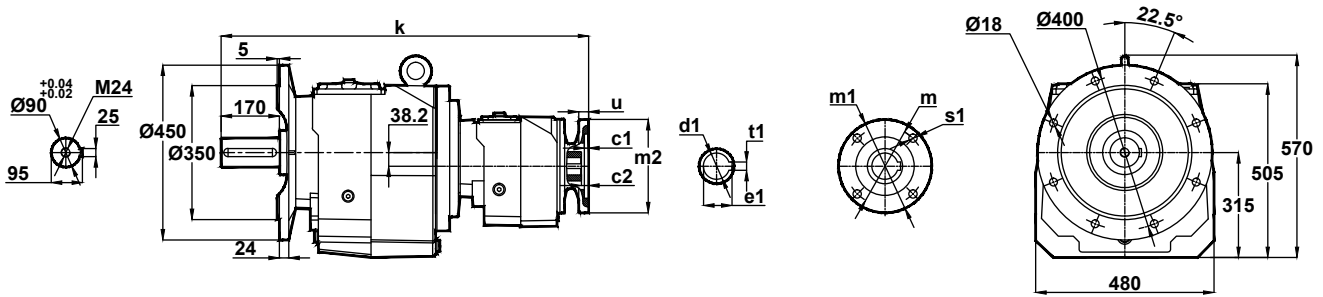


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MN775-A.. / B..**  
**MN776-A.. / B..**

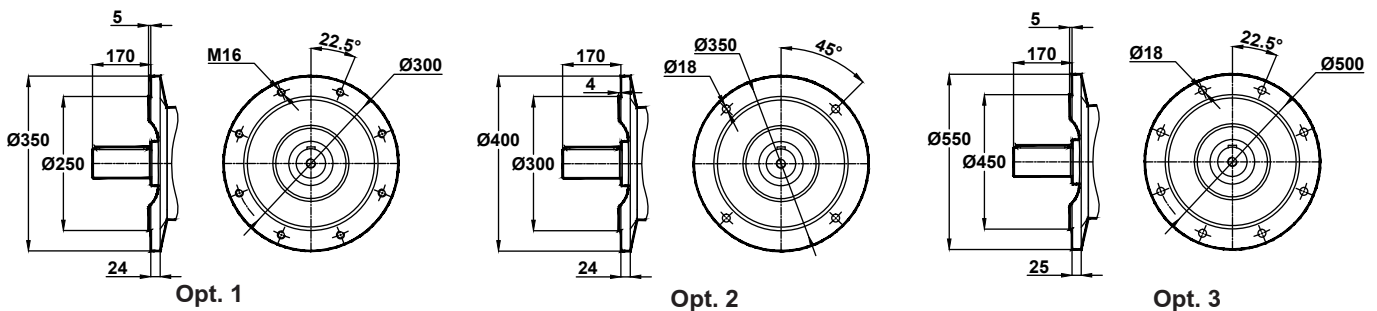


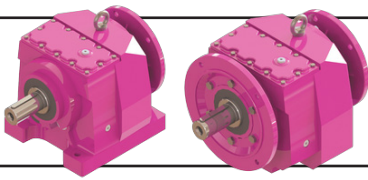
**NN775-A.. / B..**  
**NN776-A.. / B..**



| IEC    | c1 | c2 | s1 | m   | m1  | m2  | i1  | u  | k   | d1 | t1 | e1   |
|--------|----|----|----|-----|-----|-----|-----|----|-----|----|----|------|
| 71/B5  | 4  | 9  | 11 | 130 | 160 | 110 | 266 | 12 | 896 | 14 | 5  | 16.3 |
| 80/B5  | 4  | 9  | 13 | 165 | 200 | 130 | 266 | 12 | 869 | 19 | 6  | 21.8 |
| 90/B5  | 4  | 9  | 13 | 165 | 200 | 130 | 266 | 12 | 896 | 24 | 8  | 27.3 |
| 80/B14 | 4  | 9  | 7  | 100 | 120 | 80  | 266 | 12 | 896 | 19 | 6  | 21.8 |
| 90/B14 | 4  | 9  | 9  | 115 | 140 | 95  | 266 | 12 | 896 | 24 | 8  | 26.3 |

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

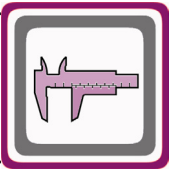




# Ölçü Sayfaları

## Dimension Pages

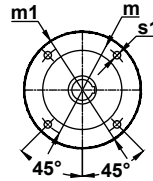
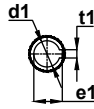
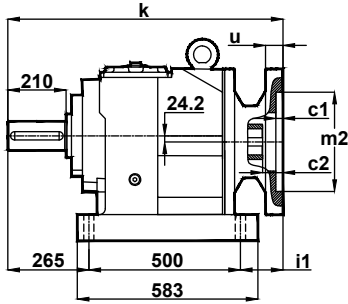
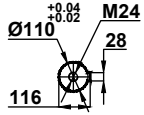
### Abmessungsseiten



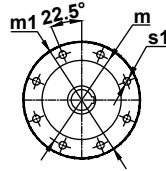
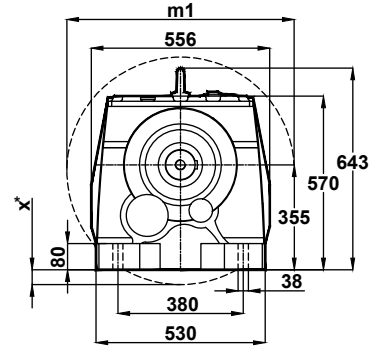
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

### MN872-A..

### MN873-A..



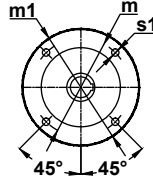
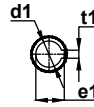
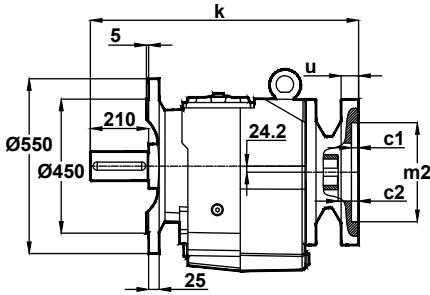
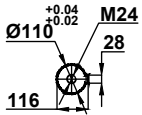
160 - 200 Tip / Type / Typ



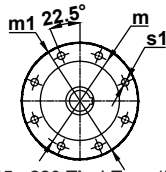
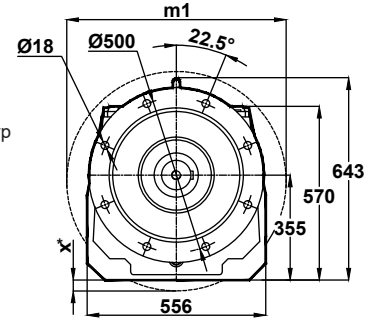
225 - 280 Tip / Type / Typ

### NN872-A..

### NN873-A..



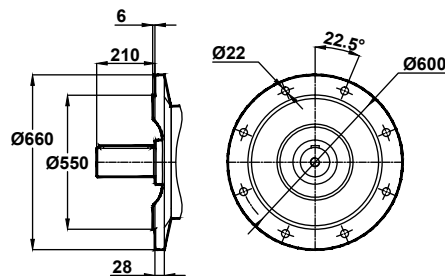
160 - 200 Tip / Type / Typ



225 - 280 Tip / Type / Typ

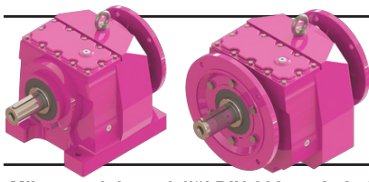
| IEC    | c1  | c2 | s1 | m   | m1  | m2  | i1  | u  | k   | d1 | t1 | e1   | x |
|--------|-----|----|----|-----|-----|-----|-----|----|-----|----|----|------|---|
| 160/B5 | 5.5 | 10 | 19 | 300 | 350 | 250 | 158 | 20 | 923 | 42 | 12 | 45.3 | - |
| 180/B5 | 5.5 | 10 | 19 | 300 | 350 | 250 | 158 | 20 | 923 | 48 | 14 | 51.8 | - |
| 200/B5 | 5.5 | 10 | 19 | 350 | 400 | 300 | 158 | 22 | 923 | 55 | 16 | 59.3 | - |
| 225/B5 | 5.5 | 10 | 19 | 400 | 450 | 350 | 158 | 24 | 923 | 60 | 18 | 64.4 | - |
| 250/B5 | 5.5 | 10 | 19 | 500 | 550 | 450 | 158 | 24 | 923 | 65 | 18 | 69.4 | - |
| 280/B5 | 5.5 | 10 | 19 | 500 | 550 | 450 | 158 | 24 | 923 | 75 | 20 | 79.9 | - |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

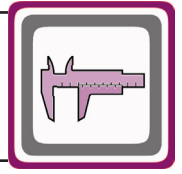


Opt. 1

x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower than foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlußplatte

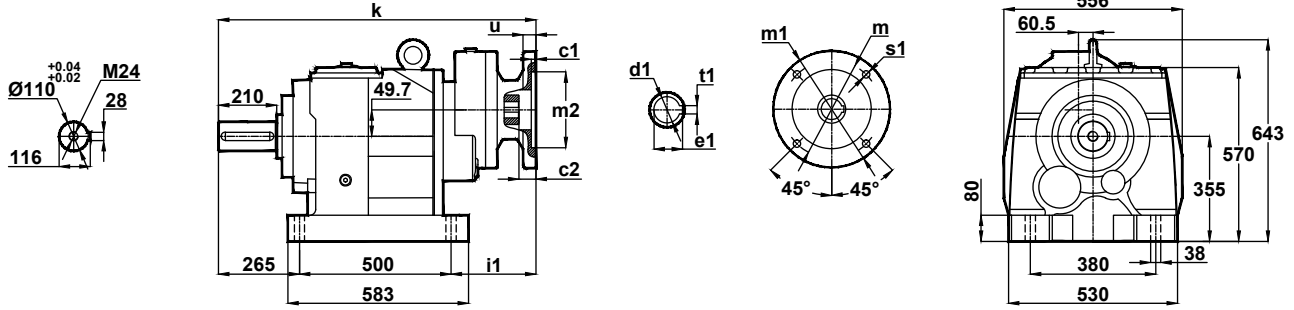


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

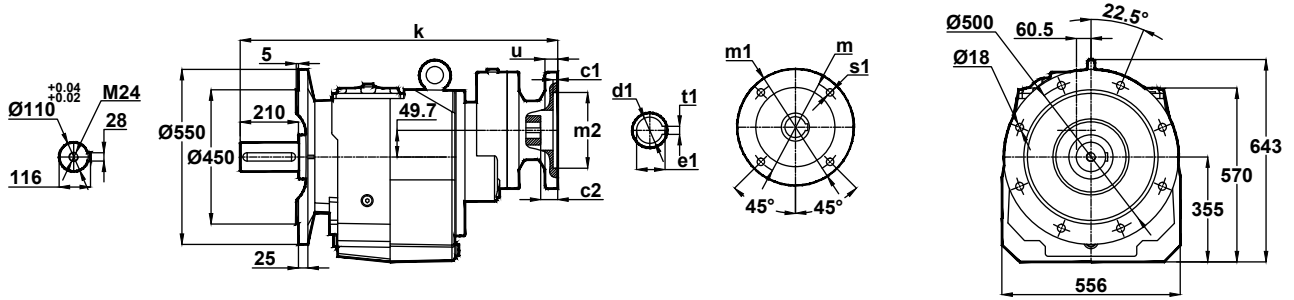


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MN874-A.. MN874-B..

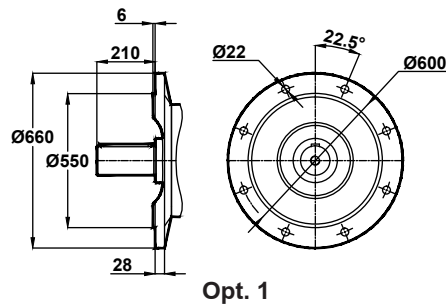


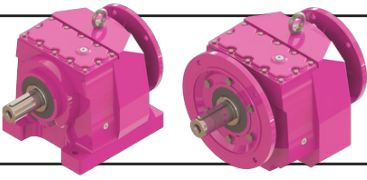
## NN874-A.. NN874-B..



| IEC     | c1  | c2 | s1 | m   | m1  | m2  | i1    | u  | k   | d1 | t1 | e1   |
|---------|-----|----|----|-----|-----|-----|-------|----|-----|----|----|------|
| 100/B5  | 4.5 | 20 | 15 | 215 | 250 | 180 | 130.5 | 15 | 896 | 28 | 8  | 31.3 |
| 112/B5  | 4.5 | 20 | 15 | 215 | 250 | 180 | 130.5 | 15 | 896 | 28 | 8  | 31.3 |
| 132/B5  | 4.5 | 9  | 15 | 265 | 300 | 230 | 151.5 | 15 | 917 | 38 | 10 | 41.3 |
| 132/B14 | 4.5 | 9  | 11 | 165 | 200 | 130 | 151.5 | 15 | 917 | 38 | 10 | 41.3 |

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

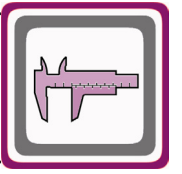




# Ölçü Sayfaları

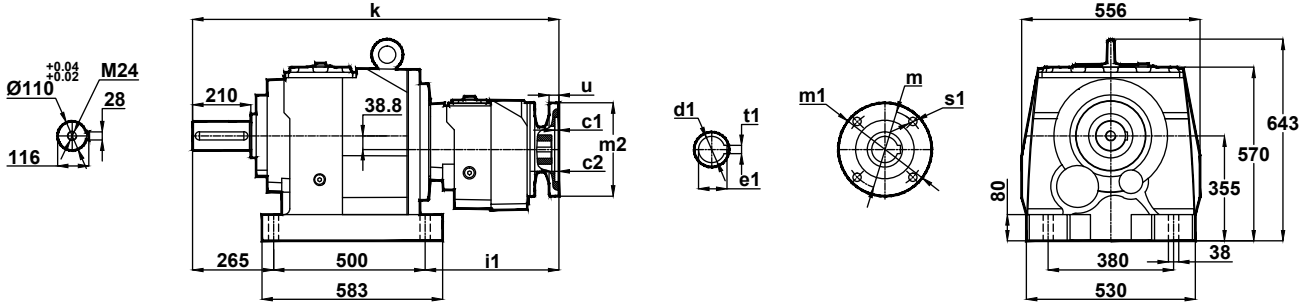
## Dimension Pages

### Abmessungsseiten

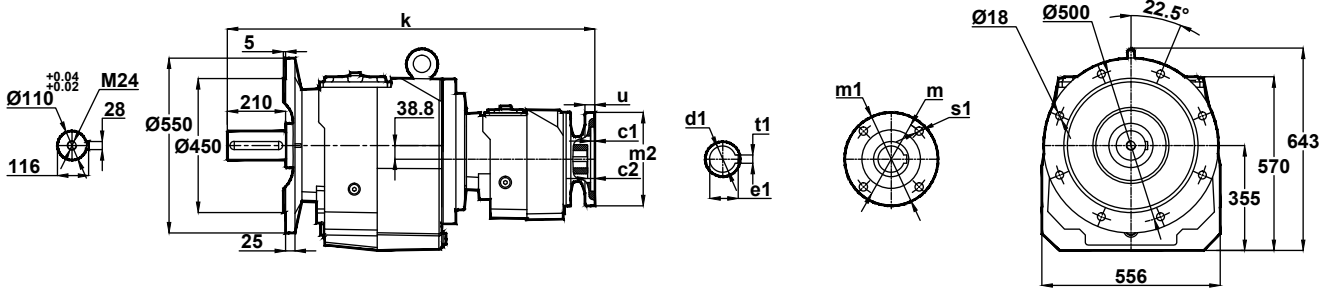


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MN875-A.. / B..**  
**MN876-A.. / B..**

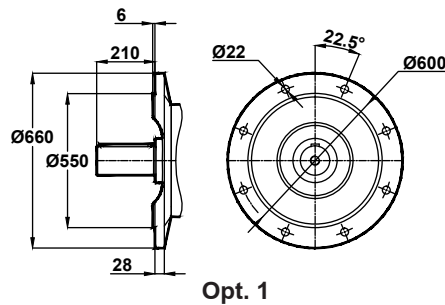


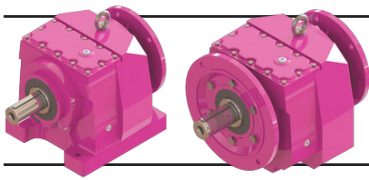
**NN875-A.. / B..**  
**NN876-A.. / B..**



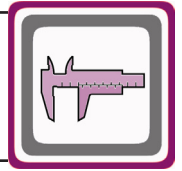
| IEC     | c1  | c2 | s1 | m   | m1  | m2  | i1  | u  | k    | d1 | t1 | e1   |
|---------|-----|----|----|-----|-----|-----|-----|----|------|----|----|------|
| 71/B5   | 4   | 9  | 11 | 130 | 160 | 110 | 248 | 12 | 1013 | 14 | 5  | 16.3 |
| 80/B5   | 4   | 9  | 13 | 165 | 200 | 130 | 248 | 12 | 1013 | 19 | 6  | 21.8 |
| 90/B5   | 4   | 9  | 13 | 165 | 200 | 130 | 248 | 12 | 1013 | 24 | 8  | 27.3 |
| 100/B5  | 4.5 | 9  | 15 | 215 | 250 | 180 | 265 | 15 | 1030 | 28 | 8  | 31.3 |
| 80/B14  | 4   | 9  | 7  | 100 | 120 | 80  | 248 | 12 | 1013 | 19 | 8  | 21.8 |
| 90/B14  | 4   | 9  | 9  | 115 | 140 | 95  | 248 | 12 | 1013 | 24 | 8  | 26.3 |
| 100/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 265 | 15 | 1030 | 28 | 8  | 31.3 |

**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



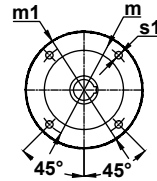
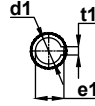
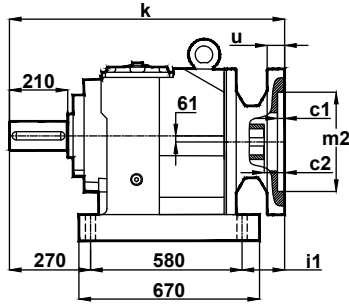
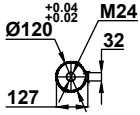


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

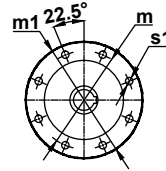
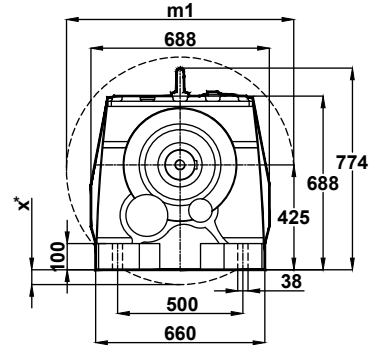


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MN972-A.. MN973-A..

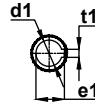
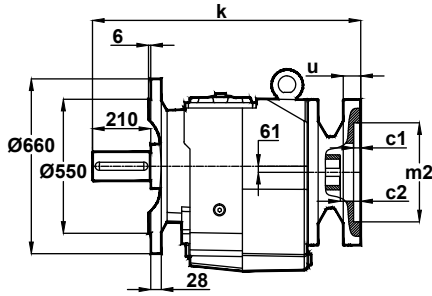
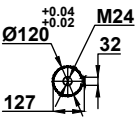


160 - 200 Tip / Type / Typ

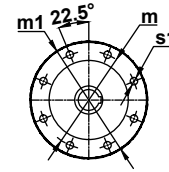
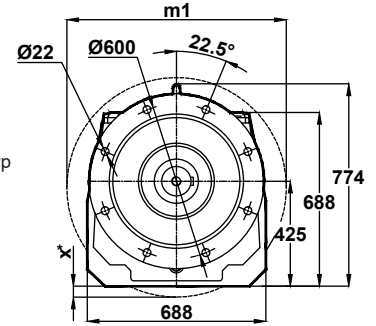


225 - 315 Tip / Type / Typ

## NN972-A.. NN973-A..



160 - 200 Tip / Type / Typ

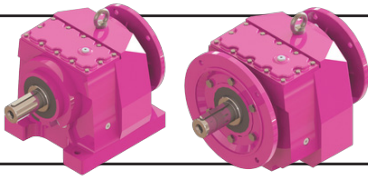


225 - 315 Tip / Type / Typ

| IEC    | c1  | c2 | s1 | m   | m1  | m2  | i1    | u  | k    | d1 | t1 | e1   | x |
|--------|-----|----|----|-----|-----|-----|-------|----|------|----|----|------|---|
| 160/B5 | 5.5 | 10 | 19 | 300 | 350 | 250 | 60.5  | 20 | 911  | 42 | 12 | 45.3 | - |
| 180/B5 | 5.5 | 10 | 19 | 300 | 350 | 250 | 60.5  | 20 | 911  | 48 | 14 | 51.8 | - |
| 200/B5 | 5.5 | 10 | 19 | 350 | 400 | 300 | 84.5  | 22 | 935  | 55 | 16 | 59.3 | - |
| 225/B5 | 5.5 | 10 | 19 | 400 | 450 | 350 | 126.5 | 24 | 977  | 60 | 18 | 64.4 | - |
| 250/B5 | 5.5 | 10 | 19 | 500 | 550 | 450 | 178.5 | 24 | 1029 | 65 | 18 | 69.4 | - |
| 280/B5 | 5.5 | 10 | 19 | 500 | 550 | 450 | 178.5 | 24 | 1029 | 75 | 20 | 79.9 | - |
| 315/B5 | 6.5 | 15 | 24 | 660 | 600 | 550 | 228.5 | 24 | 1079 | 85 | 22 | 90.4 | - |

x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte

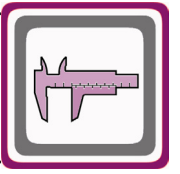




# Ölçü Sayfaları

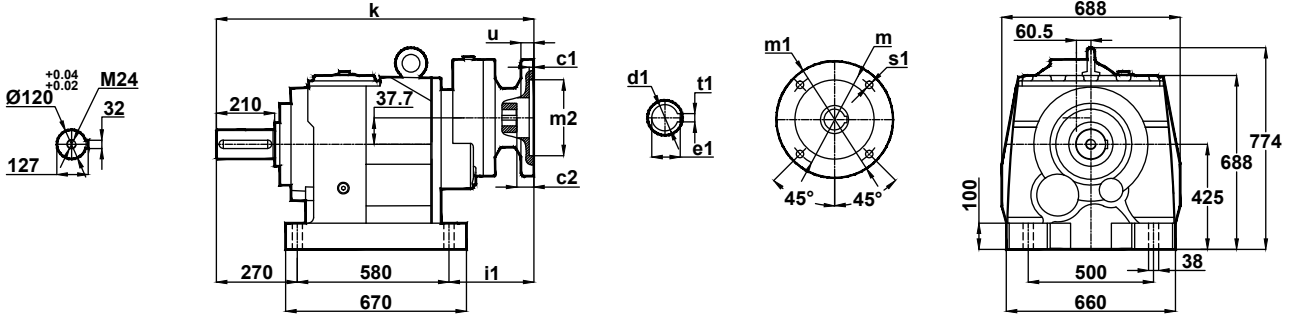
## Dimension Pages

### Abmessungsseiten

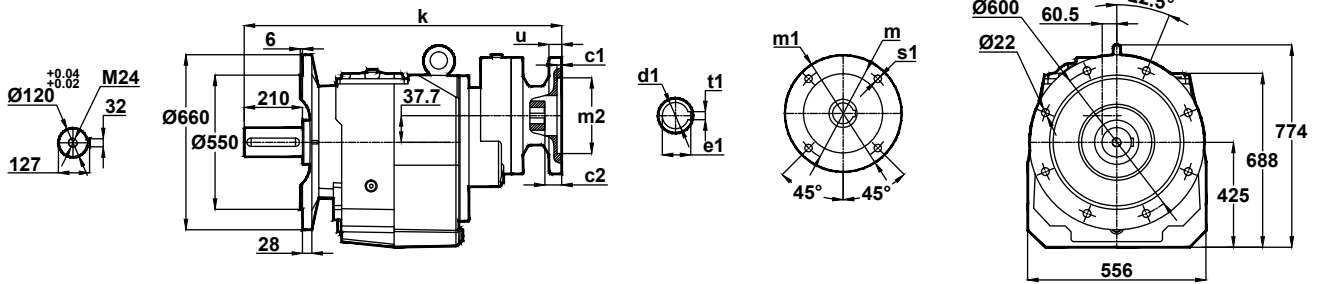


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

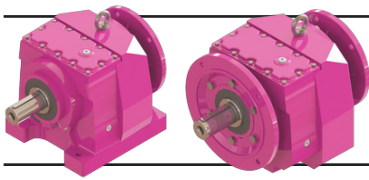
**MN974-A..**  
**MN974-B..**



**NN974-A..**  
**NN974-B..**



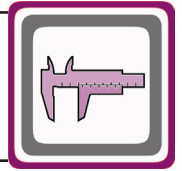
| IEC     | c1  | c2   | s1 | m   | m1  | m2  | i1  | u  | k    | d1 | t1 | e1   |
|---------|-----|------|----|-----|-----|-----|-----|----|------|----|----|------|
| 100/B5  | 4.5 | 14.5 | 15 | 215 | 250 | 180 | 149 | 15 | 1000 | 28 | 8  | 31.3 |
| 112/B5  | 4.5 | 14.5 | 15 | 215 | 250 | 180 | 149 | 15 | 1000 | 28 | 8  | 31.3 |
| 132/B5  | 4.5 | 9    | 15 | 265 | 300 | 230 | 164 | 15 | 1015 | 38 | 10 | 41.3 |
| 132/B14 | 4.5 | 9    | 15 | 165 | 200 | 130 | 164 | 15 | 1015 | 38 | 10 | 41.3 |



# Ölçü Sayfaları

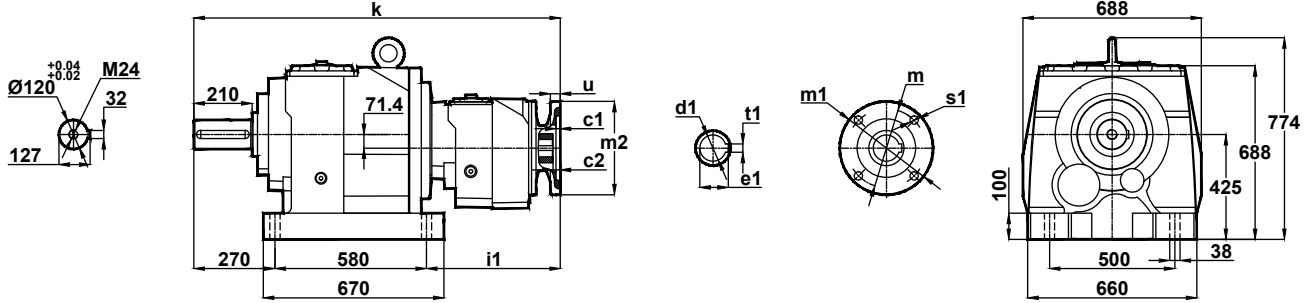
## Dimension Pages

### Abmessungsseiten

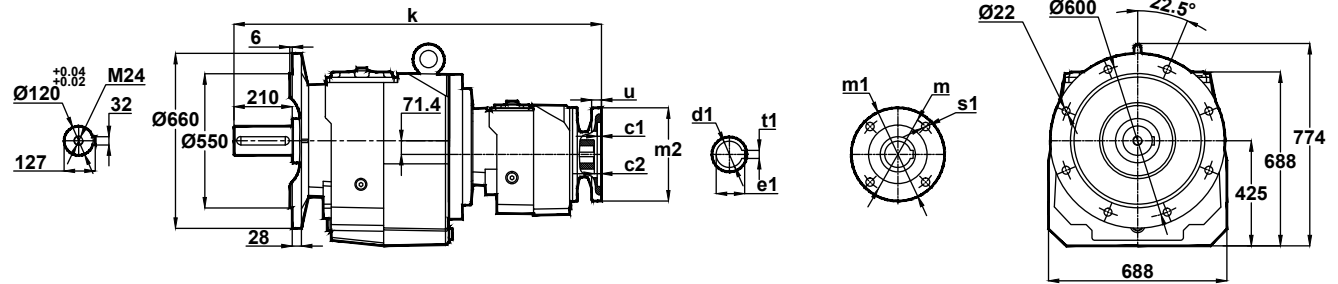


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MN975-A.. / B..**  
**MN976-A.. / B..**

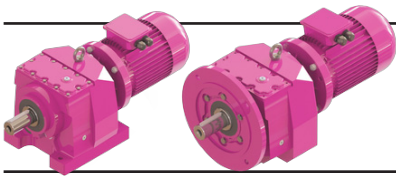


**NN975-A.. / B..**  
**NN976-A.. / B..**



| IEC     | c1  | c2 | s1 | m   | m1  | m2  | i1    | u  | k    | d1 | t1 | e1   |
|---------|-----|----|----|-----|-----|-----|-------|----|------|----|----|------|
| 80/B5   | 4   | 5  | 12 | 165 | 200 | 130 | 285   | 12 | 1136 | 19 | 6  | 12.8 |
| 90/B5   | 4   | 5  | 13 | 165 | 200 | 130 | 285   | 12 | 1136 | 24 | 8  | 27.3 |
| 100/B5  | 4.5 | 9  | 15 | 215 | 250 | 180 | 303.5 | 15 | 1154 | 28 | 8  | 31.3 |
| 112/B5  | 4.5 | 9  | 15 | 215 | 250 | 180 | 303.5 | 15 | 1154 | 28 | 8  | 31.3 |
| 132/B5  | 4.5 | 6  | 15 | 265 | 300 | 230 | 322   | 15 | 1173 | 38 | 10 | 41.3 |
| 90/B14  | 4   | 5  | 9  | 115 | 140 | 95  | 285   | 12 | 1136 | 24 | 8  | 27.3 |
| 100/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 303.5 | 15 | 1154 | 28 | 8  | 31.3 |
| 112/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 303.5 | 15 | 1154 | 28 | 8  | 31.3 |
| 132/B14 | 4.4 | 6  | 11 | 165 | 200 | 130 | 322   | 15 | 1173 | 38 | 10 | 41.3 |



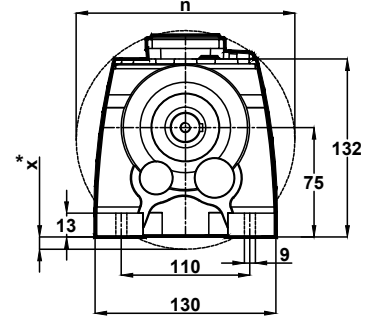
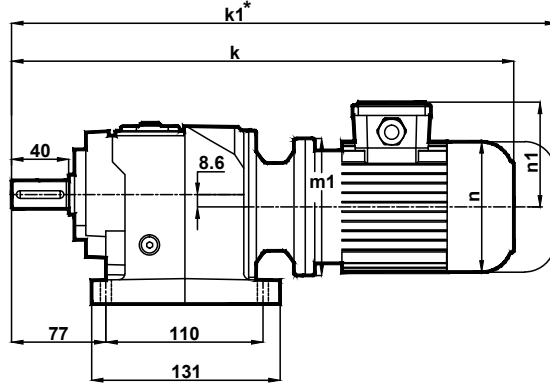
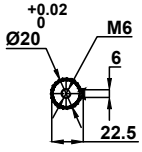


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

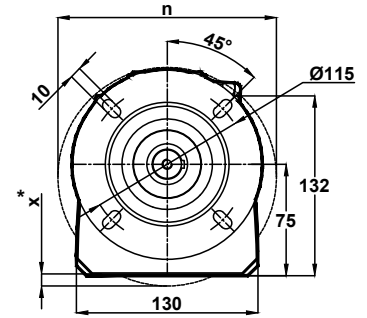
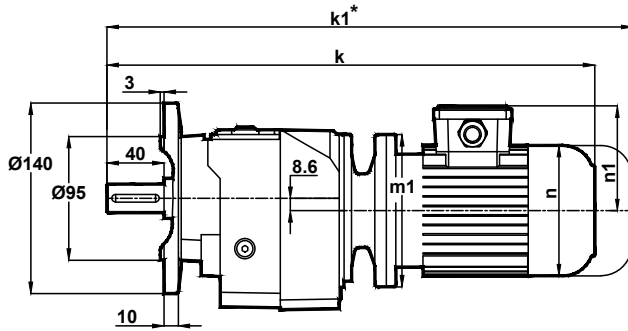
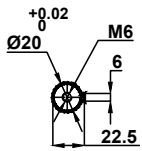


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MV002 MV003

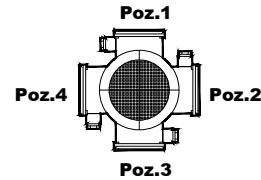


## NV002 NV003



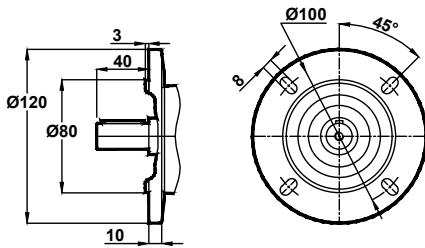
| Motor Büyüklüğü / Motor Size / Motorbaugroße |                 |                 |                 |                   |                   |
|--|-----------------|-----------------|-----------------|-------------------|-------------------|
| IEC  | 63/B5<br>63/B14 | 71/B5<br>71/B14 | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 |
| k  | 407             | 435             | 470             | 490               | 515               |
| k1   | 460             | 555             | 590             | 615               | 640               |
| n / n1                                       | 121 / 97        | 138 / 111       | 156 / 118       | 176 / 126         | 176 / 126         |
| m1 (B5)                                      | 140             | 160             | 200             | 200               | 200               |
| m1 (B14)                                     | 90              | 105             | 120             | 140               | 140               |
| x (B5)                                       | 4               | 14              | 34              | 34                | 34                |

Klemens Kutusu / Terminal Box / Klemmenkasten

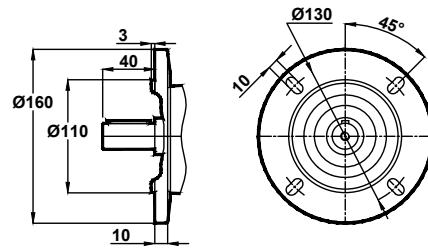


63-71-80-90

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



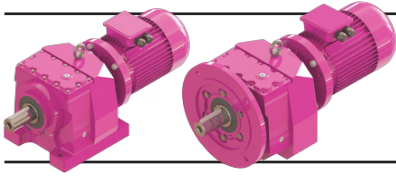
Opt. 2

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

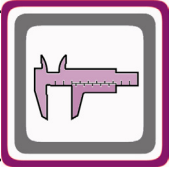
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

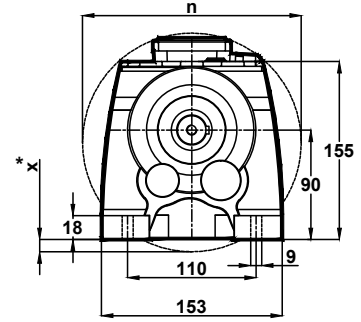
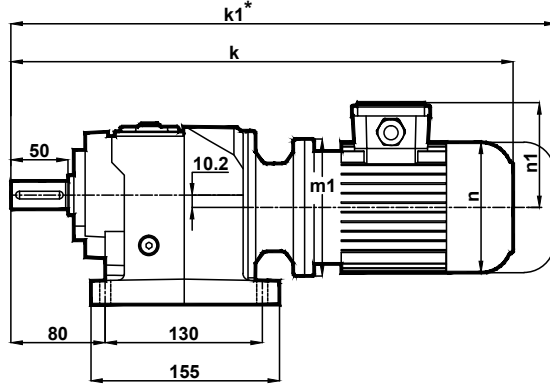
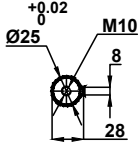


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

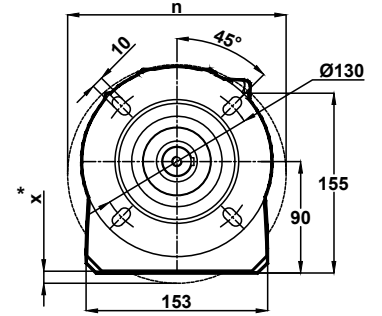
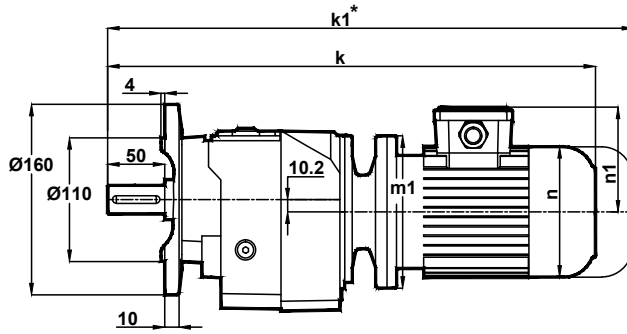
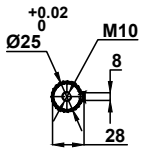


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MV102 MV103

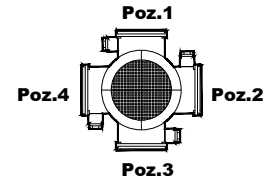


## NV102 NV103



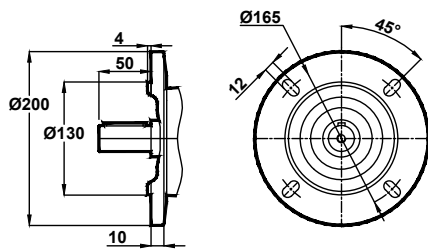
| Motor Büyüklüğü / Motor Size / Motorbaugroße |                 |                 |                 |                   |                   |
|--|-----------------|-----------------|-----------------|-------------------|-------------------|
| IEC  | 63/B5<br>63/B14 | 71/B5<br>71/B14 | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 |
| k  | 433             | 459             | 494             | 514               | 539               |
| k1   | 486             | 579             | 614             | 639               | 664               |
| n / n1                                       | 121 / 97        | 138 / 111       | 156 / 118       | 176 / 126         | 176 / 126         |
| m1 (B5)                                      | 140             | 160             | 200             | 200               | 200               |
| m1 (B14)                                     | 90              | 105             | 120             | 140               | 140               |
| x (B5)                                       | -               | 1               | 21              | 21                | 21                |

Klemens Kutusu / Terminal Box / Klemmenkasten

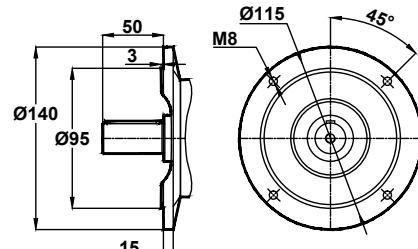


63-71-80-90

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



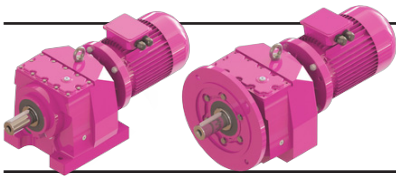
Opt. 2

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

## Dimension Pages

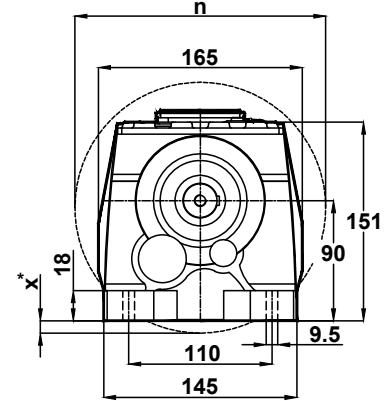
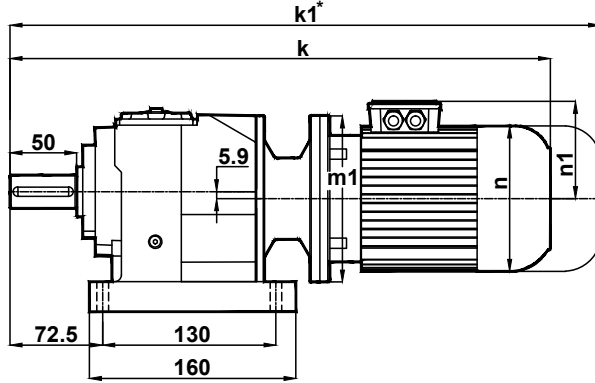
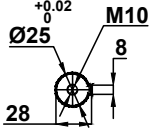
### Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

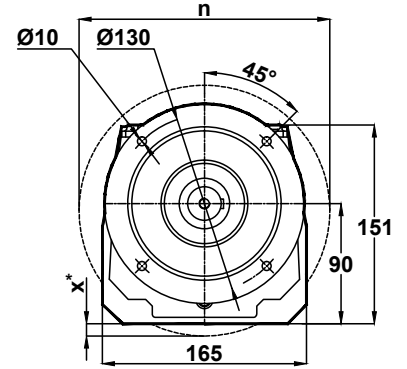
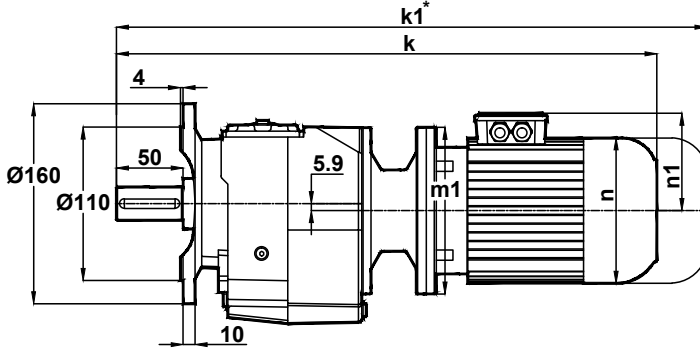
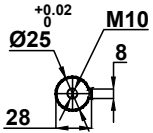
### MV172

### MV173



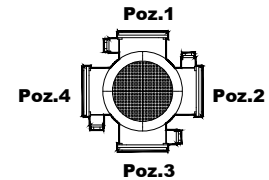
### NV172

### NV173



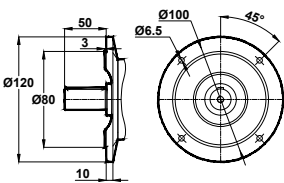
| Motor Büyüklüğü / Motor Size / Motorbaugröße |          |                 |                 |                   |                   |                     |                     |
|--|----------|-----------------|-----------------|-------------------|-------------------|---------------------|---------------------|
| IEC  | 63/B5    | 71/B5<br>71/B14 | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 | 112M/B5<br>112M/B14 |
| k  | 434      | 462             | 497             | 517               | 542               | 585                 | 605                 |
| k1   | 487      | 582             | 617             | 642               | 667               | 720                 | 740                 |
| n / n1                                       | 121 / 97 | 138 / 111       | 156 / 118       | 176 / 126         | 176 / 126         | 194 / 135           | 218 / 146           |
| m1 (B5)                                      | 140      | 160             | 200             | 200               | 200               | 250                 | 250                 |
| m1 (B14)                                     | -        | 105             | 120             | 140               | 140               | 160                 | 160                 |
| x (B5)                                       | -        | -               | 16              | 16                | 16                | 41                  | 41                  |

Klemens Kutusu / Terminal Box / Klemmenkasten

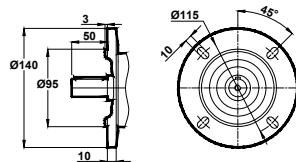


63-71-80-90-100-112

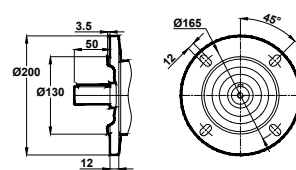
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



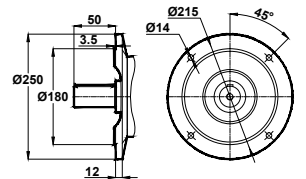
Opt. 1



Opt. 2



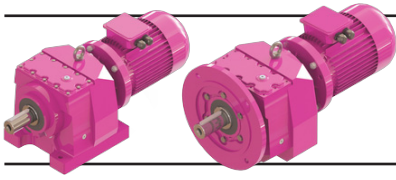
Opt. 3



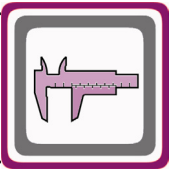
Opt. 4

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

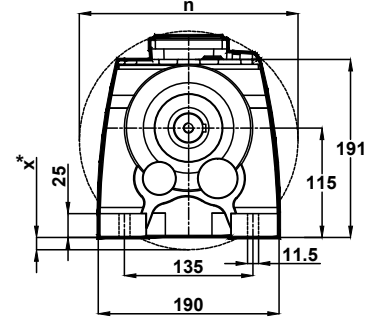
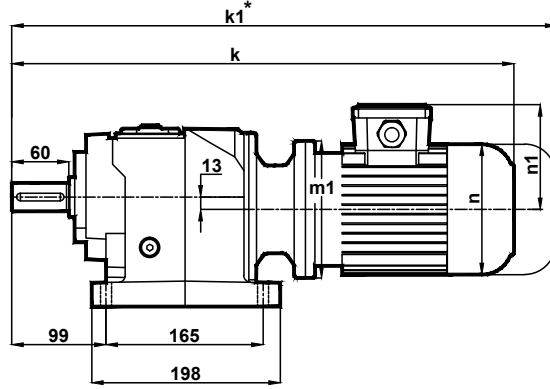
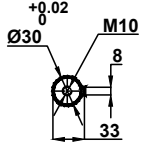


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

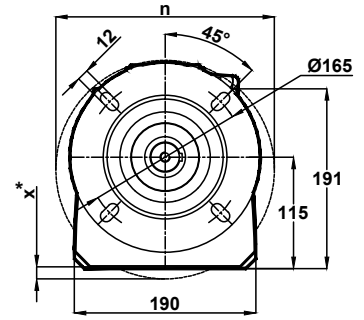
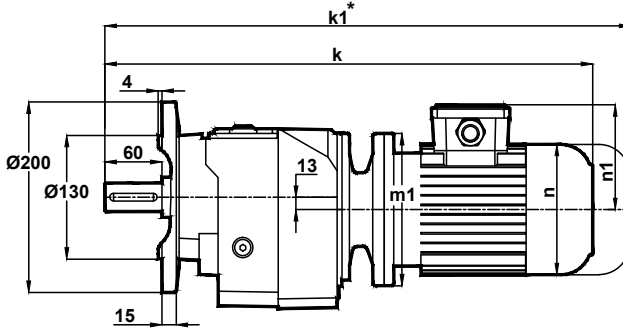
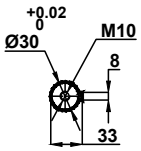


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MV202 MV203

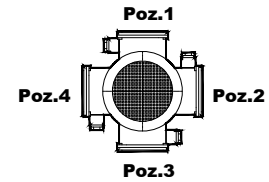


## NV202 NV203



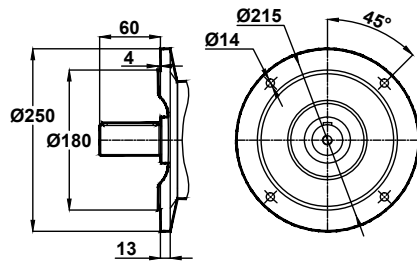
| Motor Büyüklüğü / Motor Size / Motorbaugroße |          |                 |                 |                   |                   |                     |                     |
|--|----------|-----------------|-----------------|-------------------|-------------------|---------------------|---------------------|
| IEC  | 63/B5    | 71/B5<br>71/B14 | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 | 112M/B5<br>112M/B14 |
| k  | 516      | 513             | 562             | 582               | 607               | 632                 | 652                 |
| k1   | 569      | 633             | 682             | 707               | 732               | 767                 | 787                 |
| n / n1                                       | 121 / 97 | 138 / 111       | 156 / 118       | 176 / 126         | 176 / 126         | 194 / 135           | 218 / 146           |
| m1 (B5)                                      | 140      | 160             | 200             | 200               | 200               | 250                 | 250                 |
| m1 (B14)                                     | -        | 105             | 120             | 140               | 140               | 160                 | 160                 |
| x (B5)                                       | -        | -               | -               | -                 | -                 | 23                  | 23                  |

Klemens Kutusu / Terminal Box / Klemmenkasten

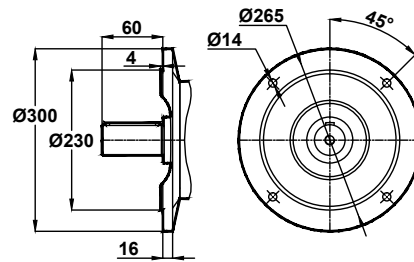


63-71-80-90-100-112

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



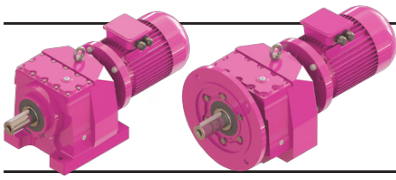
Opt. 2

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

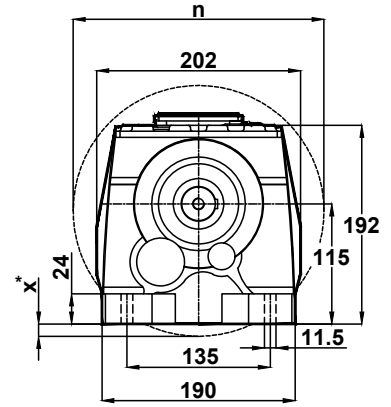
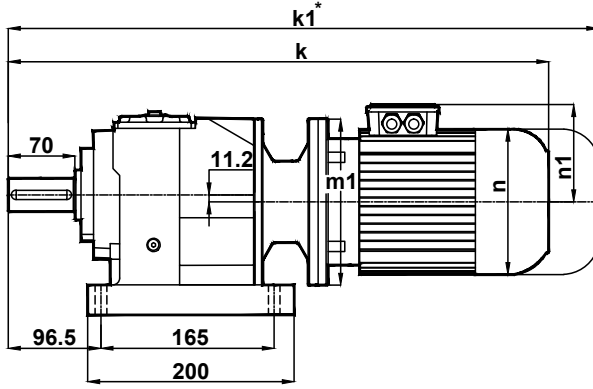
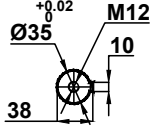


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

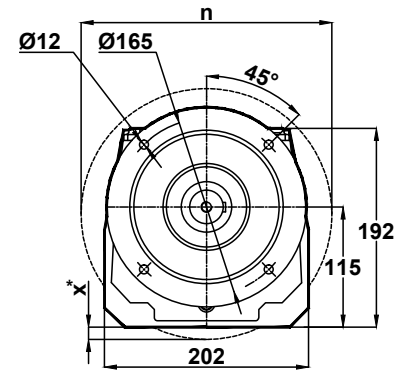
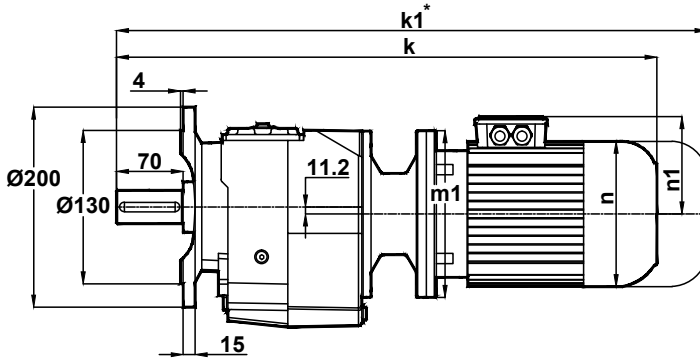
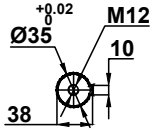


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MV272 MV273

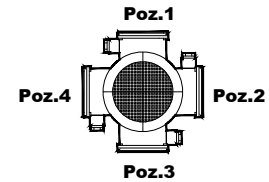


## NV272 NV273



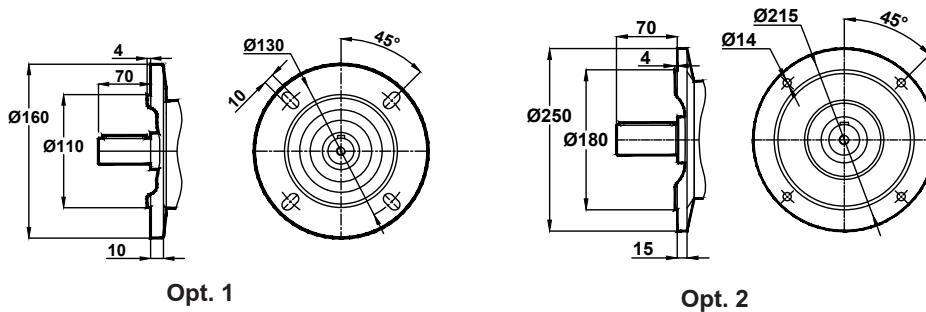
| Motor Büyüklüğü / Motor Size / Motorbaugroße |          |                 |                 |                   |                   |                     |                     |
|--|----------|-----------------|-----------------|-------------------|-------------------|---------------------|---------------------|
| IEC  | 63/B5    | 71/B5<br>71/B14 | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 | 112M/B5<br>112M/B14 |
| k  | 517      | 514             | 563             | 583               | 608               | 633                 | 653                 |
| k1   | 570      | 634             | 683             | 708               | 733               | 768                 | 788                 |
| n / n1                                       | 121 / 97 | 138 / 111       | 156 / 118       | 176 / 126         | 176 / 126         | 194 / 135           | 218 / 146           |
| m1 (B5)                                      | 140      | 160             | 200             | 200               | 200               | 250                 | 250                 |
| m1 (B14)                                     | -        | 105             | 120             | 140               | 140               | 160                 | 160                 |
| x (B5)                                       | -        | -               | -               | -                 | -                 | 22                  | 22                  |

Klemens Kutusu / Terminal Box / Klemmenkasten



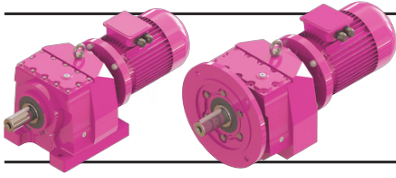
63-71-80-90-100-112

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

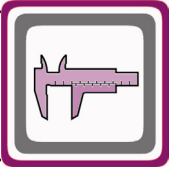


\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



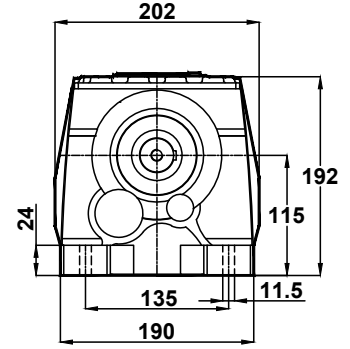
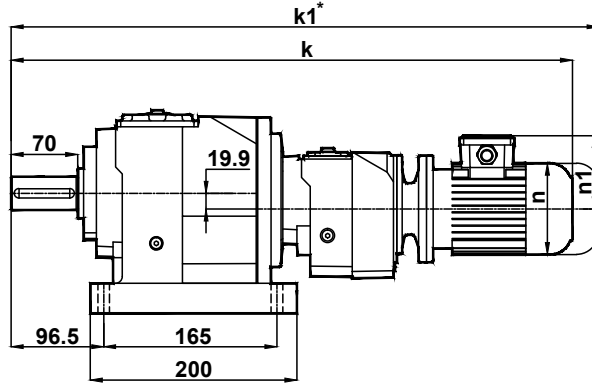
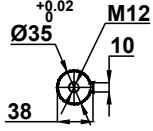


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

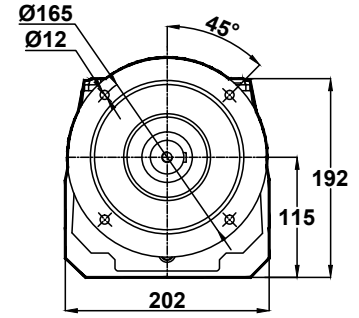
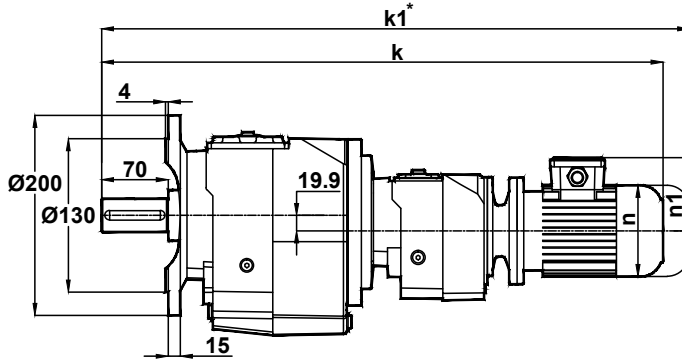
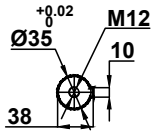


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MV275 MV276

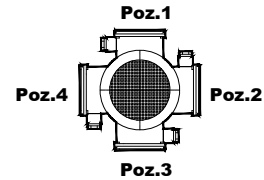


## NV275 NV276



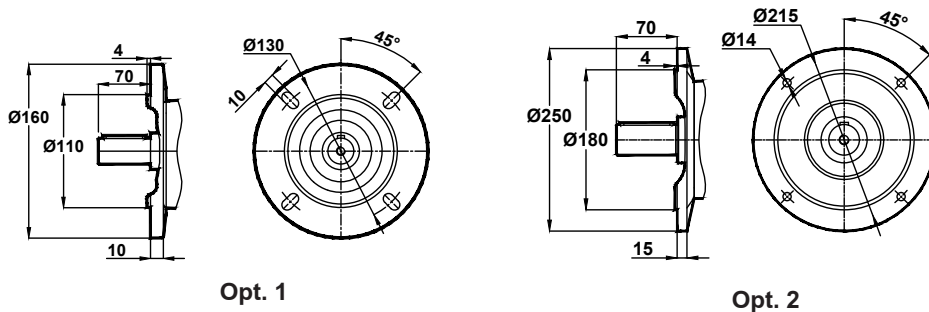
| Motor Büyüklüğü / Motor Size / Motorbaugroße |                 |                 |
|--|-----------------|-----------------|
| IEC  | 63/B5<br>63/B14 | 71/B5<br>71/B14 |
| k  | 632             | 660             |
| k1   | 685             | 780             |
| n / n1                                       | 121 / 97        | 138 / 111       |
| m1 (B5)                                      | 140             | 160             |
| m1 (B14)                                     | 90              | 105             |

Klemens Kutusu / Terminal Box / Klemmenkasten



63-71

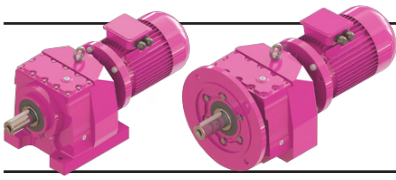
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

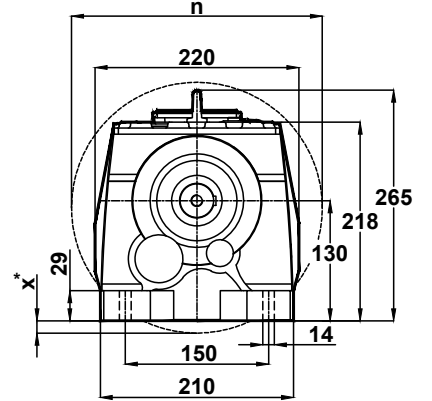
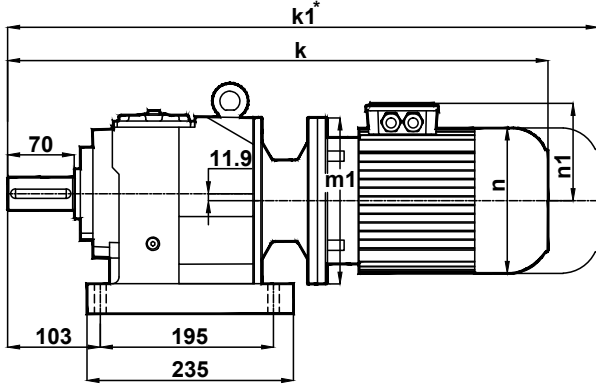
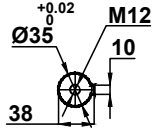


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

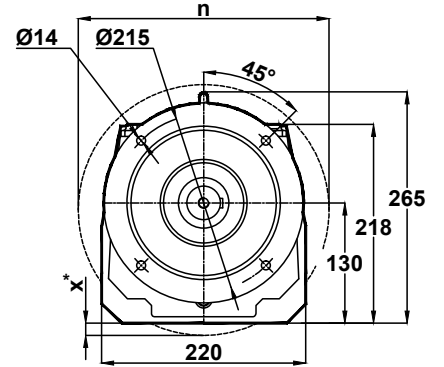
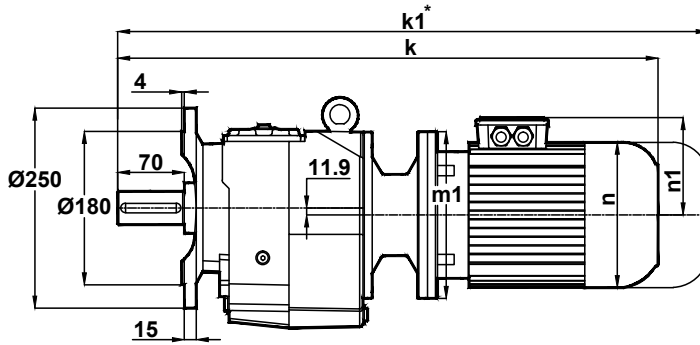
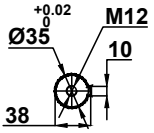


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MV282 MV283

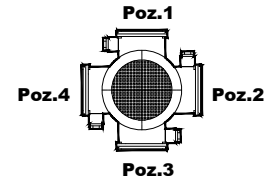


## NV282 NV283



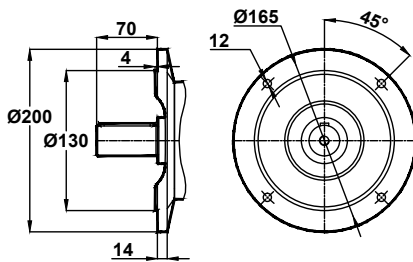
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                 |                   |                   |                     |                     |                     |                     |
|--|-----------|-----------------|-------------------|-------------------|---------------------|---------------------|---------------------|---------------------|
| IEC  | 71/B5     | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 | 112M/B5<br>112M/B14 | 132S/B5<br>132S/B14 | 132M/B5<br>132M/B14 |
| k  | 562       | 582             | 602               | 627               | 666                 | 686                 | 760                 | 798                 |
| k1   | 682       | 702             | 727               | 752               | 801                 | 821                 | 905                 | 943                 |
| n / n1                                       | 138 / 111 | 156 / 118       | 176 / 126         | 176 / 126         | 194 / 135           | 218 / 146           | 257 / 168           | 257 / 168           |
| m1 (B5)                                      | 160       | 200             | 200               | 200               | 250                 | 250                 | 300                 | 300                 |
| m1 (B14)                                     | -         | 120             | 140               | 140               | 160                 | 160                 | 200                 | 200                 |
| x (B5)                                       | -         | -               | -                 | -                 | 7                   | 7                   | 32                  | 32                  |

Klemens Kutusu / Terminal Box / Klemmenkasten

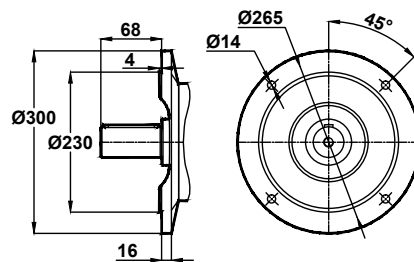


71-80-90-100-112-132

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

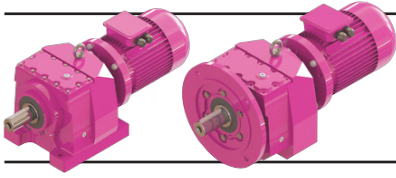


Opt. 1



Opt. 2

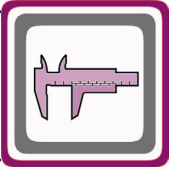
\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

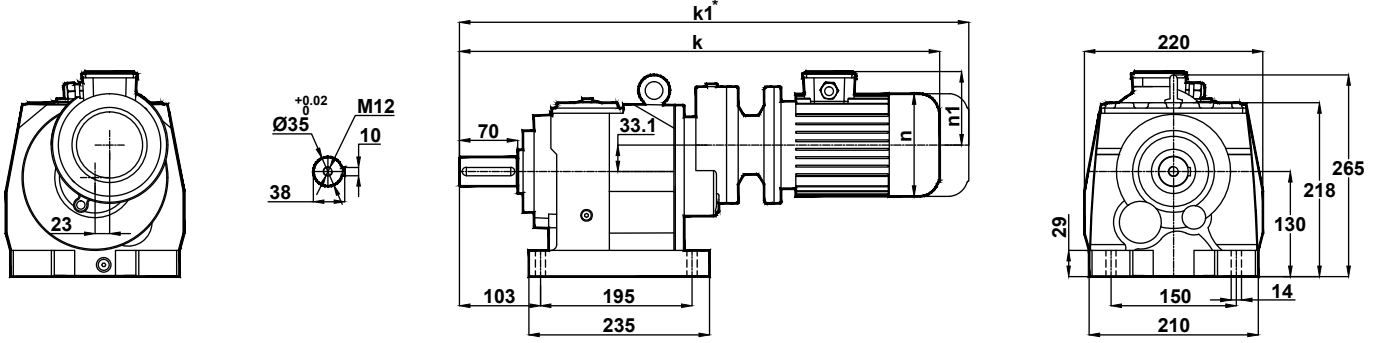
## Dimension Pages

### Abmessungsseiten

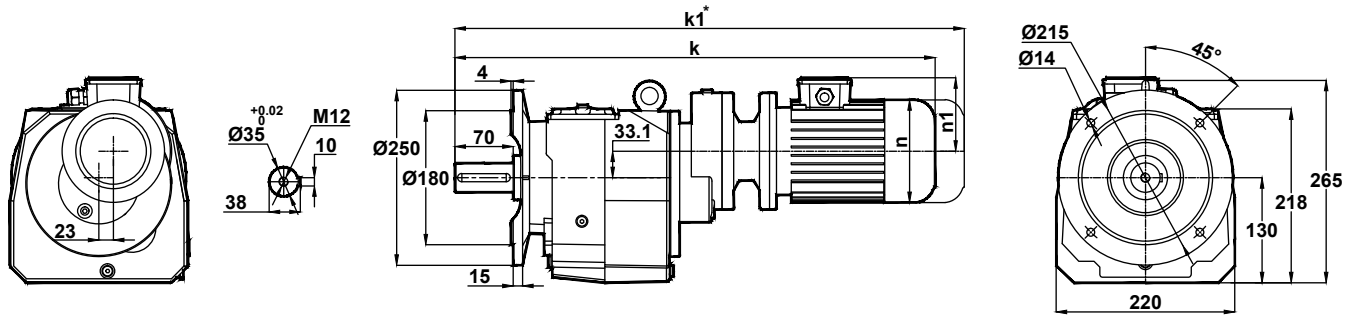


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

### MV284

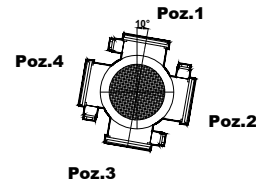


### NV284



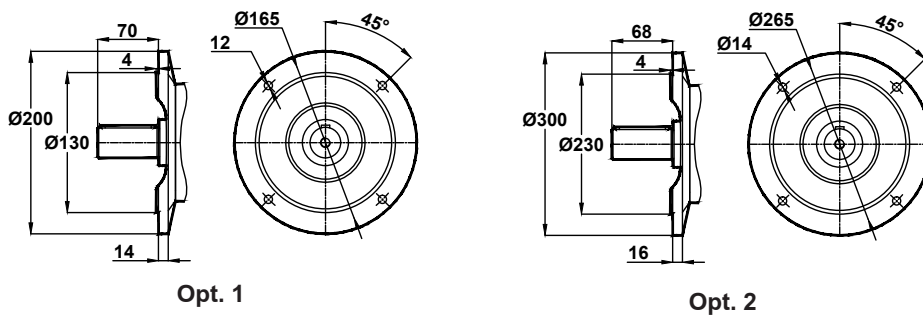
| Motor Büyüklüğü / Motor Size / Motorbaugroße |          |                 |
|--|----------|-----------------|
| IEC  | 63/B5    | 71/B5<br>71/B14 |
| k  | 613      | 610             |
| k1   | 666      | 730             |
| n / n1                                       | 121 / 97 | 138 / 111       |
| m1 (B5)                                      | 140      | 160             |
| m1 (B14)                                     | -        | 105             |

### Klemens Kutusu / Terminal Box / Klemmenkasten

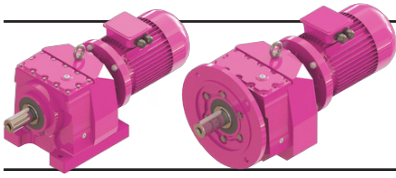


63-71

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

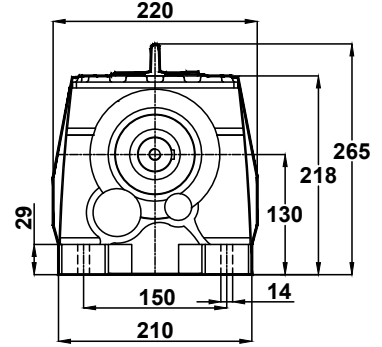
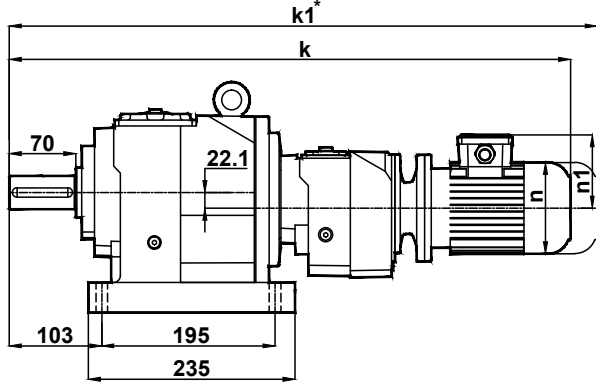
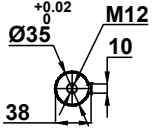


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

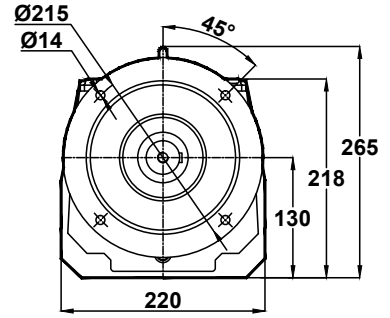
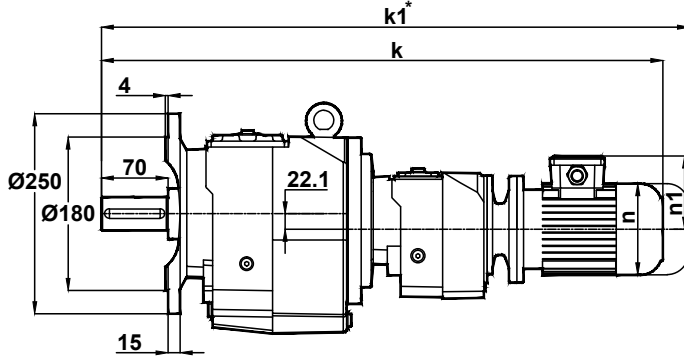
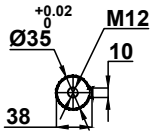


-Mil ucu çekirtme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MV285 MV286

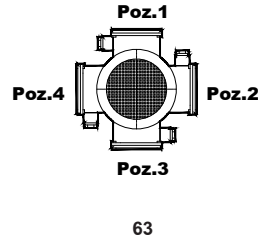


## NV285 NV286

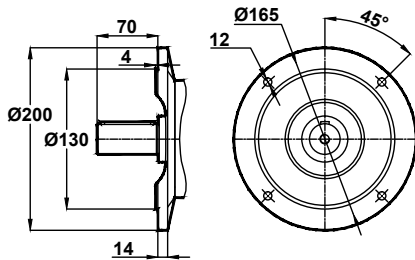


| Motor Büyüklüğü / Motor Size / Motorbaugröße |                 |
|--|-----------------|
| IEC  | 63/B5<br>63/B14 |
| k  | 679             |
| k1   | 732             |
| n / n1                                       | 121 / 97        |
| m1 (B5)                                      | 140             |
| m1 (B14)                                     | 90              |

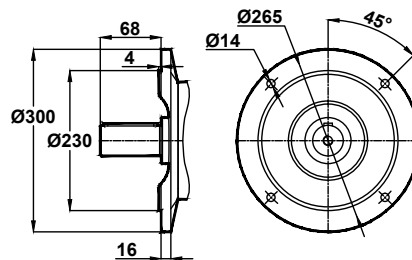
Klemens Kutusu / Terminal Box / Klemmenkasten



## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

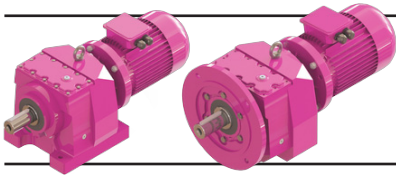


Opt. 1

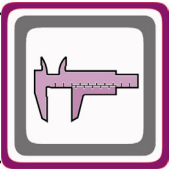


Opt. 2

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

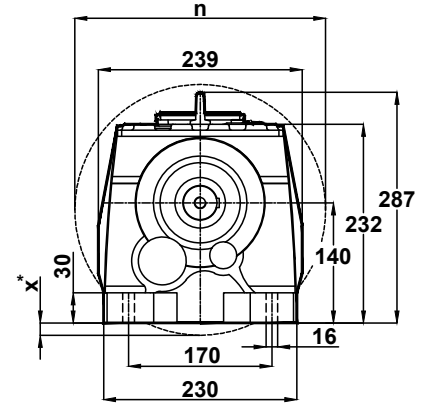
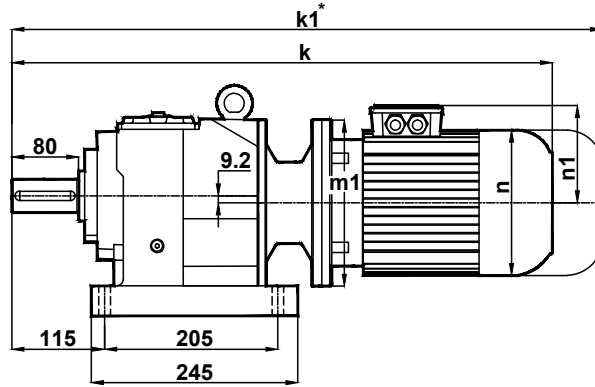
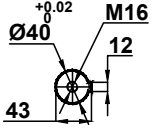


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

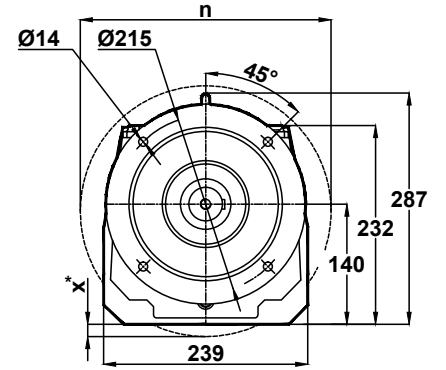
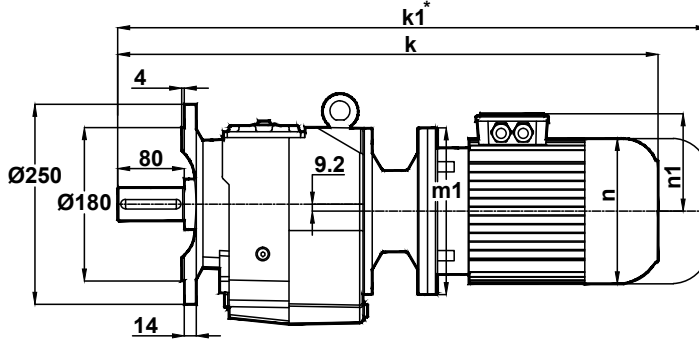
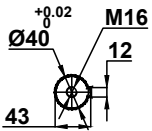


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MV372 MV373

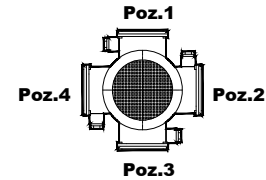


## NV372 NV373



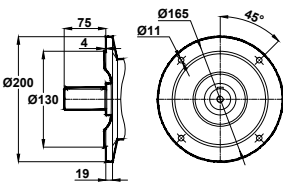
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                 |                   |                   |                     |                     |                     |                     |
|--|-----------|-----------------|-------------------|-------------------|---------------------|---------------------|---------------------|---------------------|
| IEC  | 71/B5     | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 | 112M/B5<br>112M/B14 | 132S/B5<br>132S/B14 | 132M/B5<br>132M/B14 |
| k  | 583       | 603             | 623               | 648               | 697                 | 717                 | 781                 | 819                 |
| k1   | 703       | 723             | 748               | 773               | 832                 | 852                 | 926                 | 964                 |
| n / n1                                       | 138 / 111 | 156 / 118       | 176 / 126         | 176 / 126         | 194 / 135           | 218 / 146           | 257 / 168           | 257 / 168           |
| m1 (B5)                                      | 160       | 200             | 200               | 200               | 250                 | 250                 | 300                 | 300                 |
| m1 (B14)                                     | -         | 120             | 140               | 140               | 160                 | 160                 | 200                 | 200                 |
| x (B5)                                       | -         | -               | -                 | -                 | -                   | -                   | 20                  | 20                  |

Klemens Kutusu / Terminal Box / Klemmenkasten

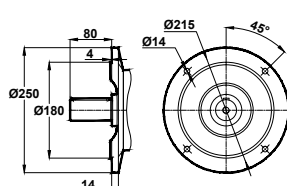


71-80-90-100-112-132

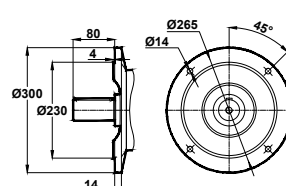
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



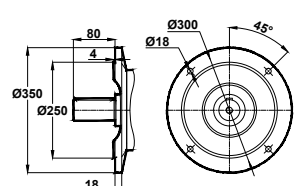
Opt. 1



Opt. 2



Opt. 3



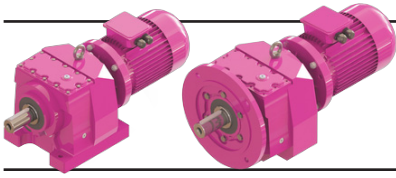
Opt. 4

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlussplatte



# Ölçü Sayfaları

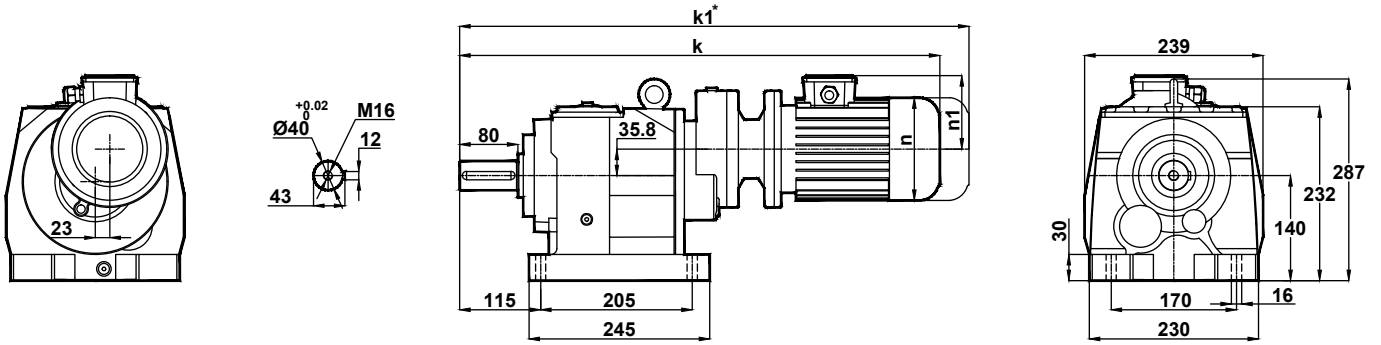
## Dimension Pages

## Abmessungsseiten

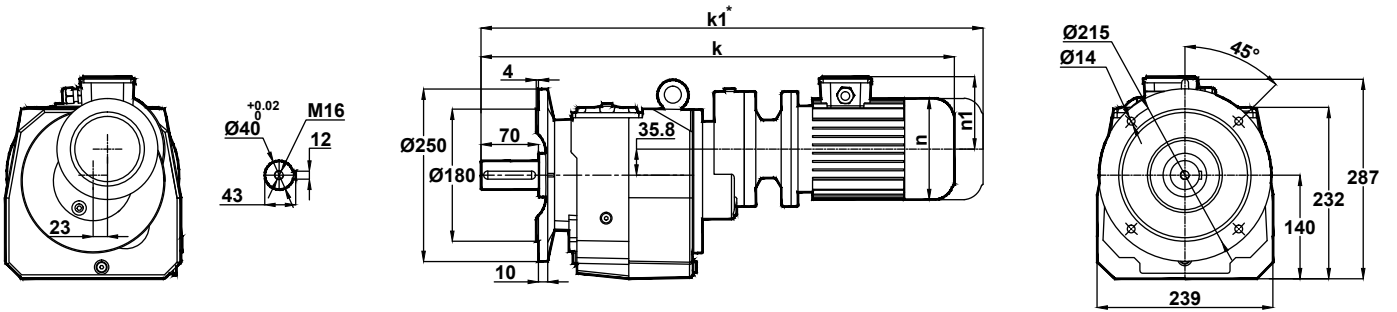


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

### MV374

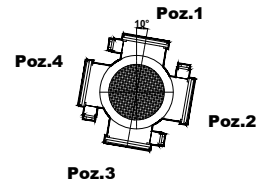


### NV374



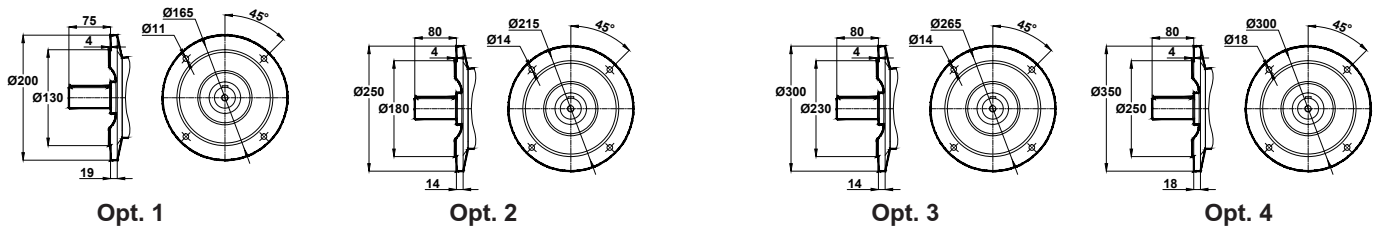
| Motor Büyüklüğü / Motor Size / Motorbaugroße | 63/B5    | 71/B5<br>71/B14 | 80/B5<br>80/B14 |
|--|----------|-----------------|-----------------|
| k  | 634      | 631             | 680             |
| k1   | 687      | 751             | 800             |
| n / n1                                       | 121 / 97 | 138 / 111       | 156 / 118       |
| m1 (B5)                                      | 140      | 160             | 200             |
| m1 (B14)                                     | -        | 105             | 120             |

Klemens Kutusu / Terminal Box / Klemmenkasten

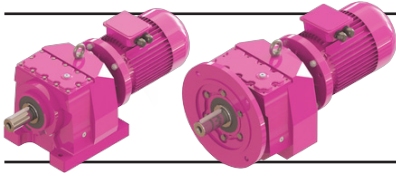


63-71-80

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



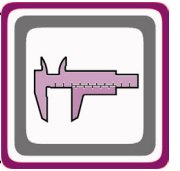
\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.



# Ölçü Sayfaları

## Dimension Pages

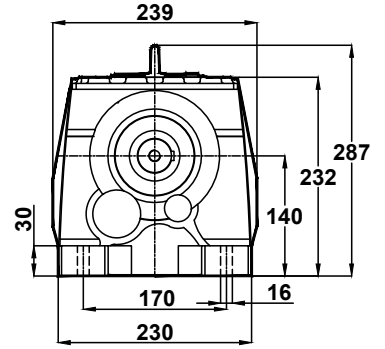
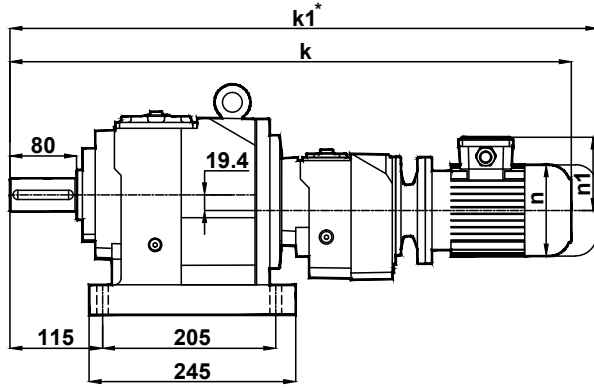
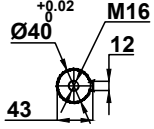
### Abmessungsseiten



-Mil ucu çekirtme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

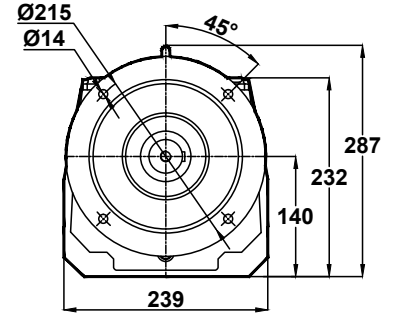
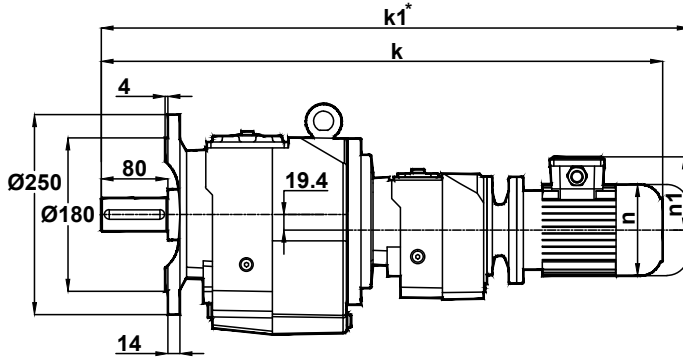
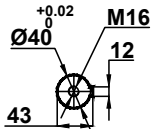
### MV375

### MV376



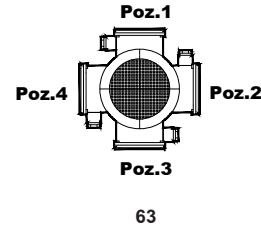
### NV375

### NV376

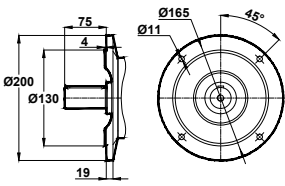


| Motor Büyüklüğü / Motor Size / Motorbaugroße |                 |
|--|-----------------|
| IEC  | 63/B5<br>63/B14 |
| k  | 700             |
| k1   | 753             |
| n / n1                                       | 121 / 97        |
| m1 (B5)                                      | 140             |
| m1 (B14)                                     | 90              |

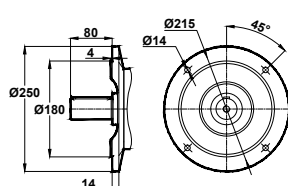
Klemens Kutusu / Terminal Box / Klemmenkasten



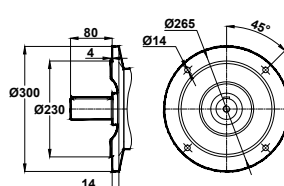
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



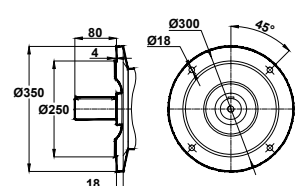
Opt. 1



Opt. 2

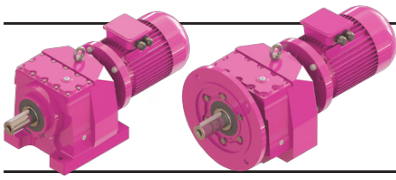


Opt. 3



Opt. 4

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.



# Ölçü Sayfaları

## Dimension Pages

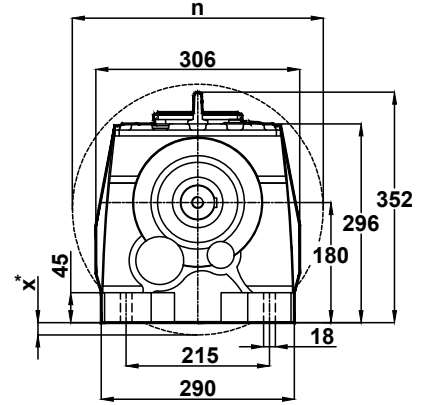
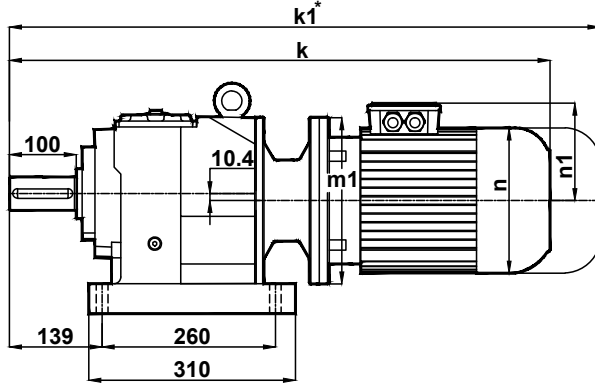
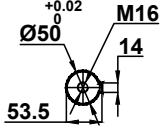
### Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

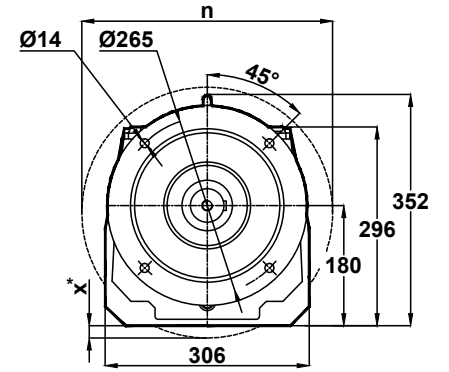
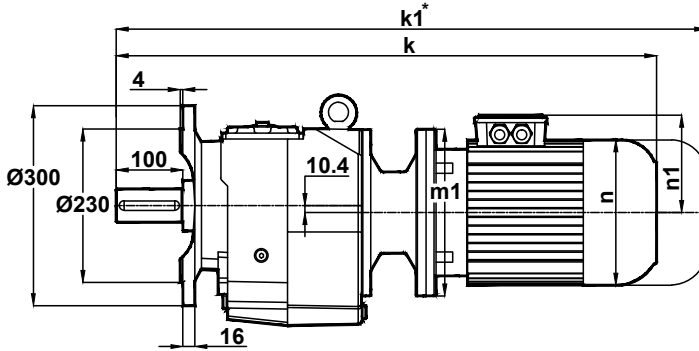
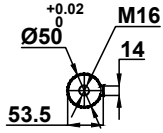
### MV472

### MV473



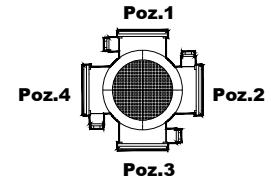
### NV472

### NV473



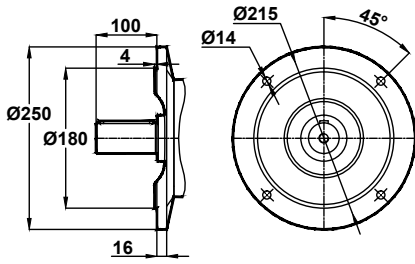
| Motor Büyüklüğü / Motor Size / Motorbaugröße |           |                   |                   |                     |                     |                     |                     |           |           |           |           |
|--|-----------|-------------------|-------------------|---------------------|---------------------|---------------------|---------------------|-----------|-----------|-----------|-----------|
| IEC  | 80/B5     | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 | 112M/B5<br>112M/B14 | 132S/B5<br>132S/B14 | 132M/B5<br>132M/B14 | 160M/B5   | 160L/B5   | 180M/B5   | 180L/B5   |
| k  | 666       | 686               | 711               | 761                 | 781                 | 844                 | 882                 | 1033      | 1077      | 1090      | 1128      |
| k1   | 786       | 811               | 836               | 896                 | 916                 | 989                 | 1027                | 1203      | 1247      | 1260      | 1298      |
| n / n1                                       | 156 / 118 | 176 / 126         | 176 / 126         | 194 / 135           | 218 / 146           | 257 / 168           | 257 / 168           | 310 / 225 | 310 / 225 | 348 / 241 | 348 / 241 |
| m1 (B5)                                      | 200       | 200               | 200               | 250                 | 250                 | 300                 | 300                 | 350       | 350       | 350       | 350       |
| m1 (B14)                                     | -         | 140               | 140               | 160                 | 160                 | 200                 | 200                 | -         | -         | -         | -         |
| x (B5)                                       | -         | -                 | -                 | -                   | -                   | -                   | -                   | 6         | 6         | 6         | 6         |

Klemens Kutusu / Terminal Box / Klemmenkasten

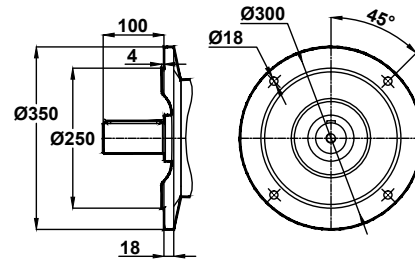


80-90-100-112-132-160-180

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

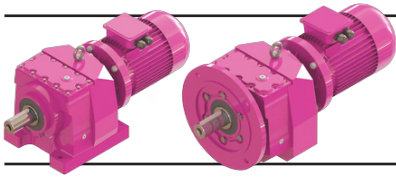


Opt. 2

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

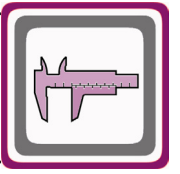




# Ölçü Sayfaları

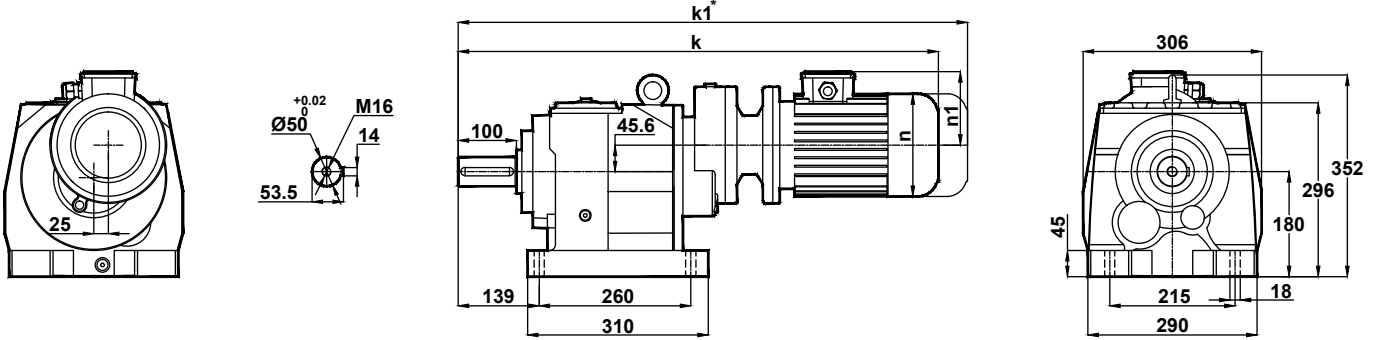
## Dimension Pages

### Abmessungsseiten

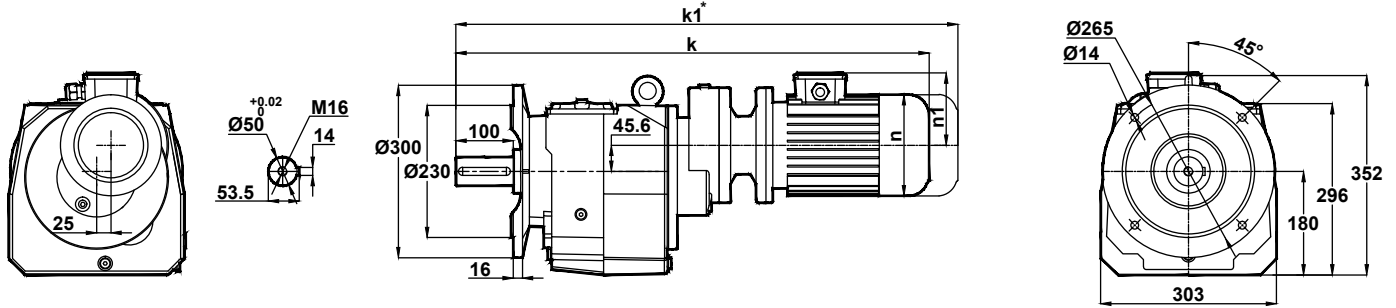


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

### MV474

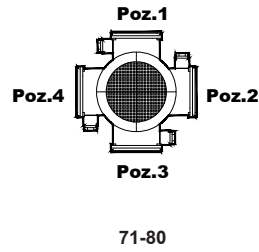


### NV474

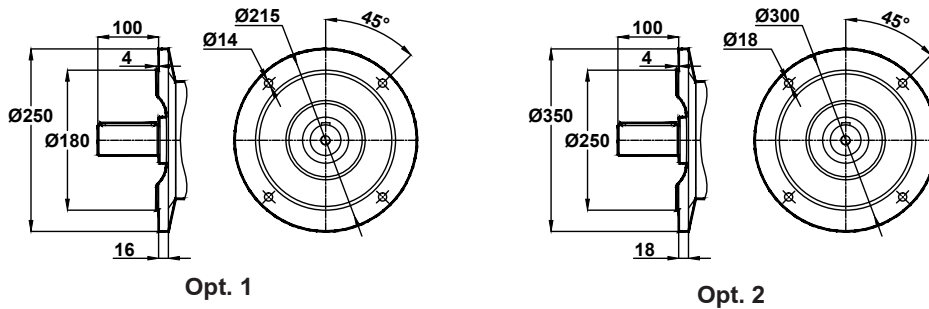


| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                 |
|--|-----------|-----------------|
| IEC  | 71/B5     | 80/B5<br>80/B14 |
| k  | 744       | 764             |
| k1   | 864       | 884             |
| n / n1                                       | 138 / 111 | 156 / 118       |
| m1 (B5)                                      | 160       | 200             |
| m1 (B14)                                     | -         | 120             |

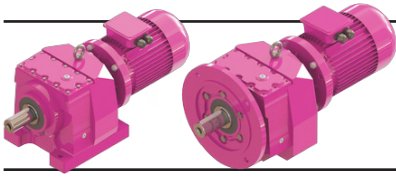
Klemens Kutusu / Terminal Box / Klemmenkasten



### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



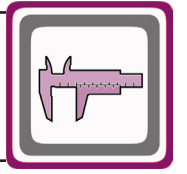
\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.



# Ölçü Sayfaları

## Dimension Pages

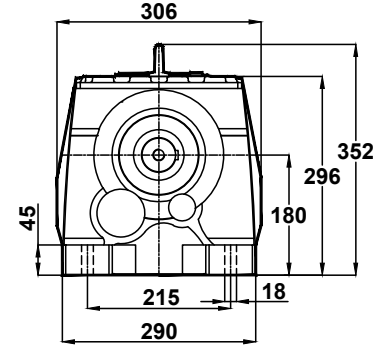
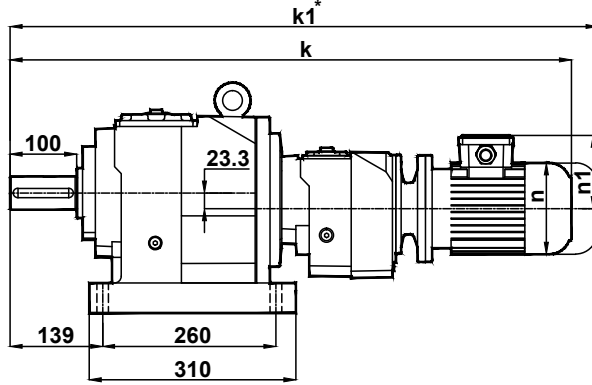
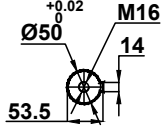
### Abmessungsseiten



-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

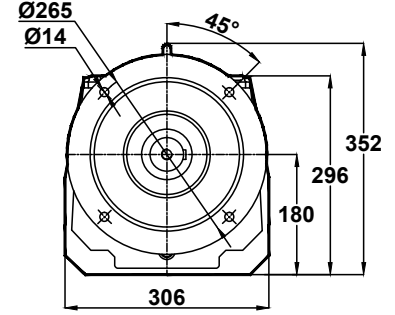
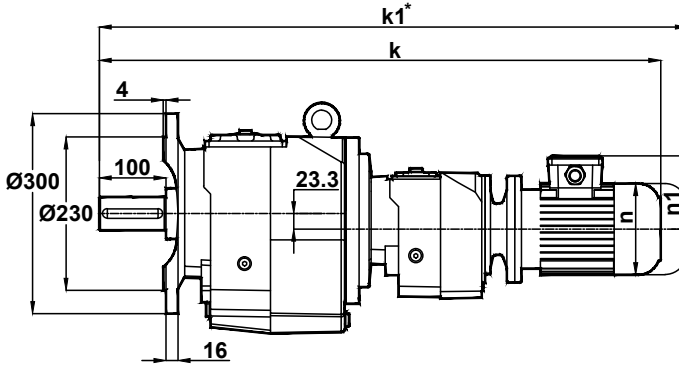
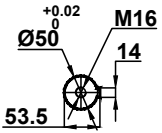
### MV475

### MV476



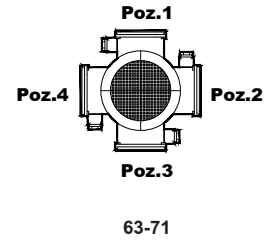
### NV475

### NV476

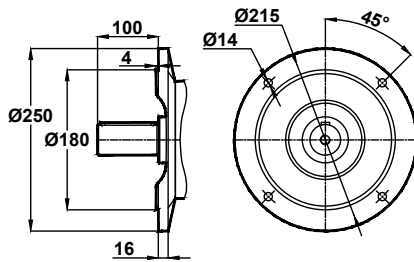


| Motor Büyüklüğü / Motor Size / Motorbaugroße |          |                 |
|--|----------|-----------------|
| IEC  | 63/B5    | 71/B5<br>71/B14 |
| k  | 846      | 843             |
| k1   | 899      | 963             |
| n / n1                                       | 121 / 97 | 138 / 111       |
| m1 (B5)                                      | 140      | 160             |
| m1 (B14)                                     | -        | 105             |

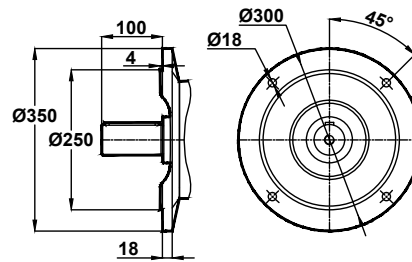
Klemens Kutusu / Terminal Box / Klemmenkasten



### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

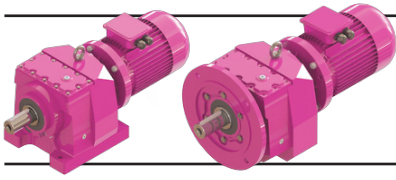


Opt. 1

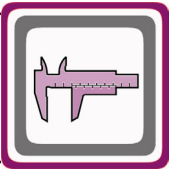


Opt. 2

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

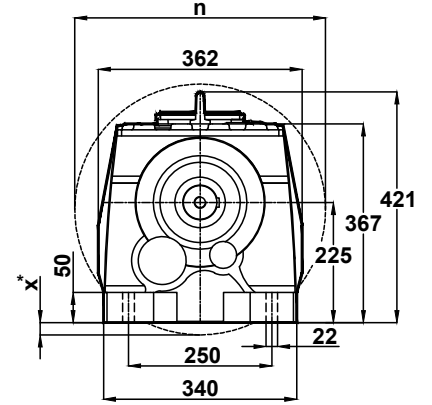
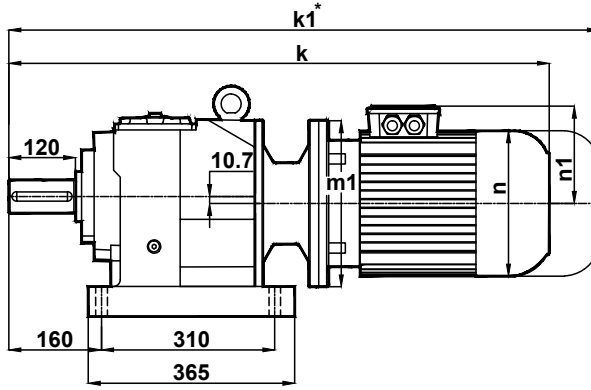
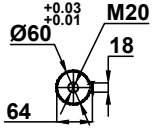


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

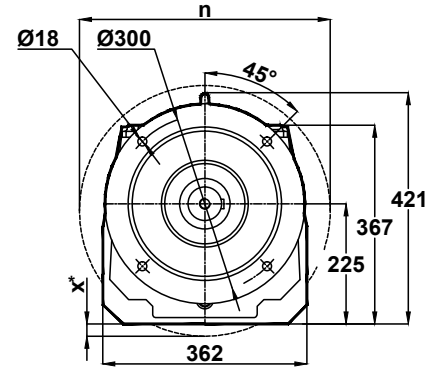
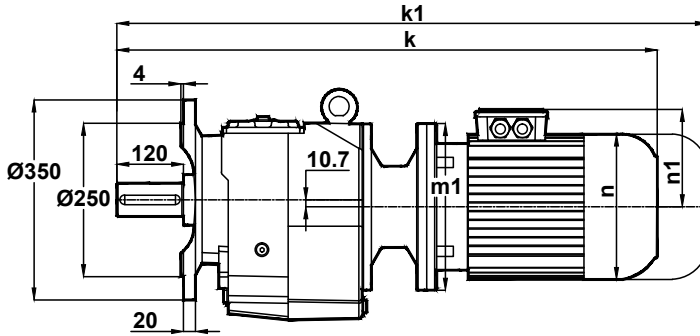
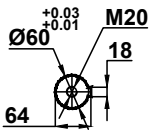


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MV572 MV573

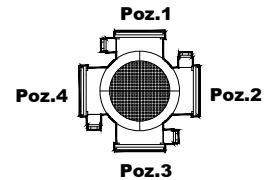


## NV572 NV573



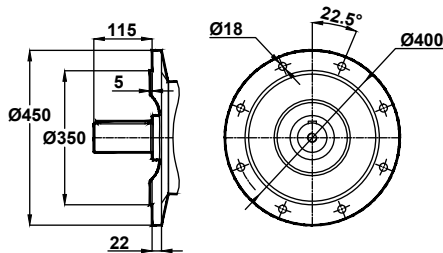
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |           |                     |                     |           |           |           |           |           |
|--|-----------|-----------|---------------------|---------------------|-----------|-----------|-----------|-----------|-----------|
| IEC  | 100L/B5   | 112M/B5   | 132S/B5<br>132S/B14 | 132M/B5<br>132M/B14 | 160M/B5   | 160L/B5   | 180M/B5   | 180L/B5   | 200L/B5   |
| k  | 823       | 843       | 908                 | 946                 | 1093      | 1137      | 1150      | 1188      | 1260      |
| k1   | 958       | 978       | 1053                | 1091                | 1263      | 1307      | 1320      | 1358      | 1460      |
| n / n1                                       | 194 / 135 | 218 / 146 | 257 / 168           | 257 / 168           | 310 / 225 | 310 / 225 | 348 / 241 | 348 / 241 | 390 / 275 |
| m1 (B5)                                      | 250       | 250       | 300                 | 300                 | 350       | 350       | 350       | 350       | 400       |
| m1 (B14)                                     | -         | -         | 200                 | 200                 | -         | -         | -         | -         | -         |
| x (B5)                                       | -         | -         | -                   | -                   | -         | -         | -         | -         | -         |

Klemens Kutusu / Terminal Box / Klemmenkasten

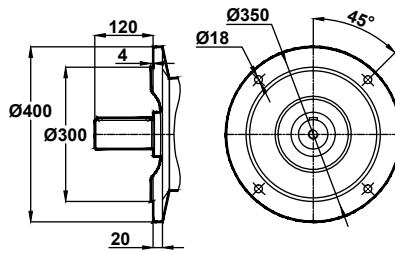


100-112-132-160-180-200

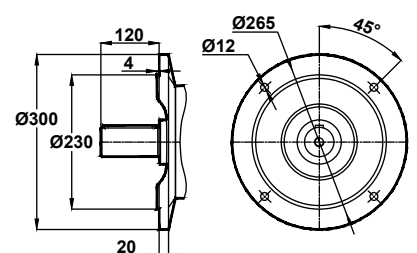
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



Opt. 2



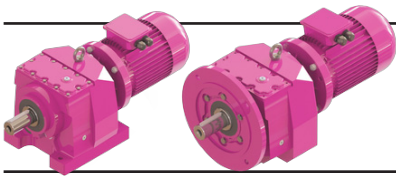
Opt. 3

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

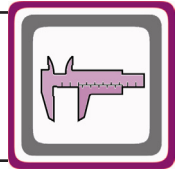
x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlussplatte



# Ölçü Sayfaları

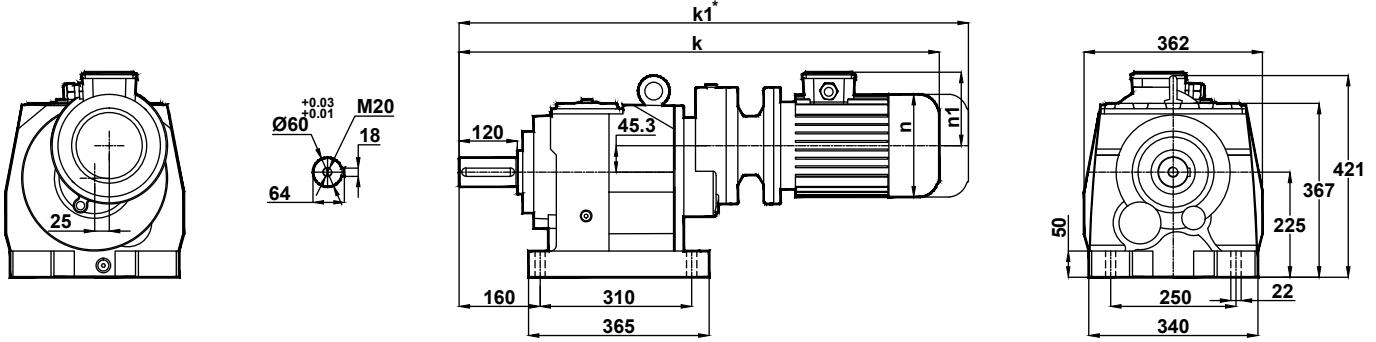
## Dimension Pages

### Abmessungsseiten

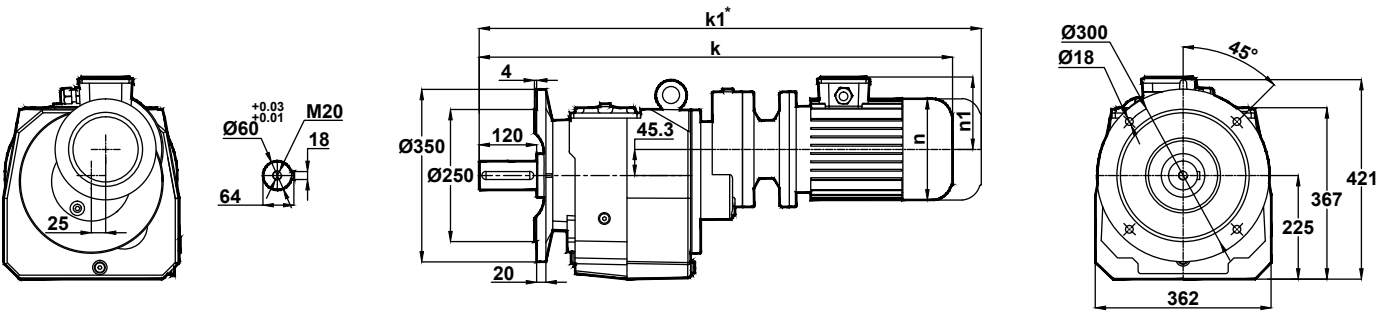


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

### MV574

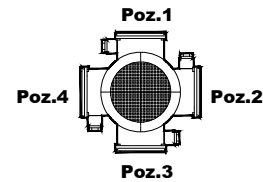


### NV574



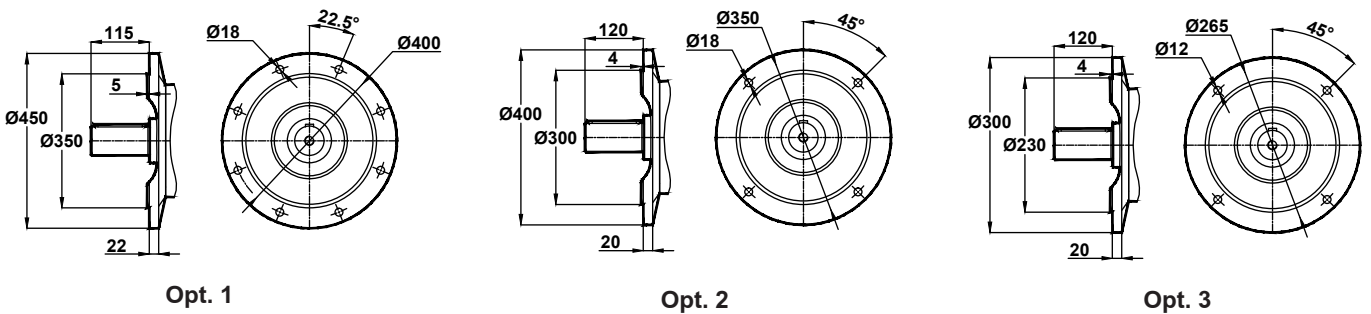
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                 |                   |                   |
|--|-----------|-----------------|-------------------|-------------------|
| IEC  | 71/B5     | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 |
| k  | 806       | 826             | 846               | 871               |
| k1   | 926       | 946             | 971               | 996               |
| n / n1                                       | 138 / 111 | 156 / 118       | 176 / 126         | 176 / 126         |
| m1 (B5)                                      | 160       | 200             | 200               | 200               |
| m1 (B14)                                     | -         | 120             | 140               | 140               |

Klemens Kutusu / Terminal Box / Klemmenkasten

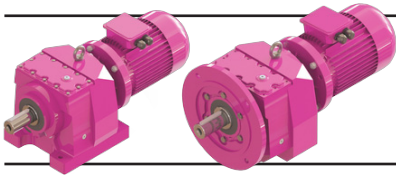


71-80-90

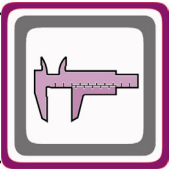
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

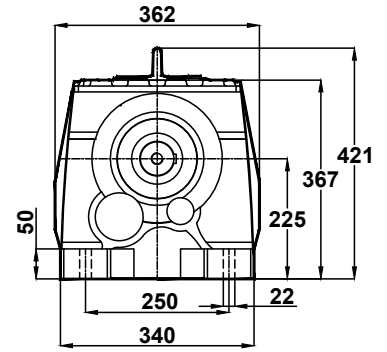
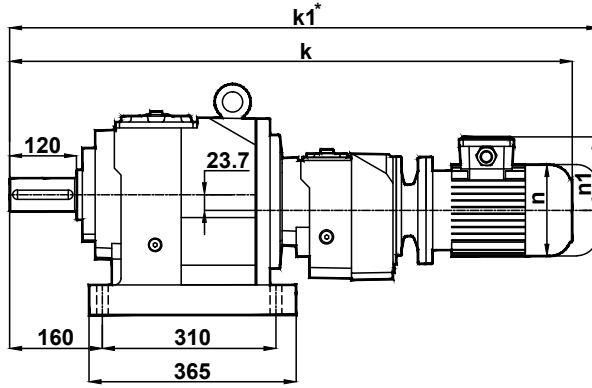
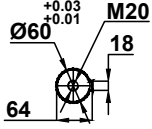


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

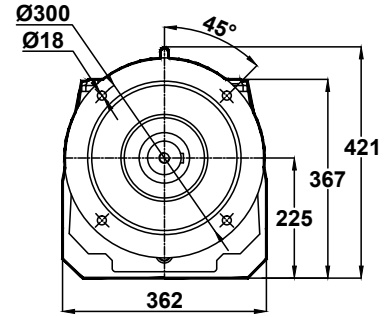
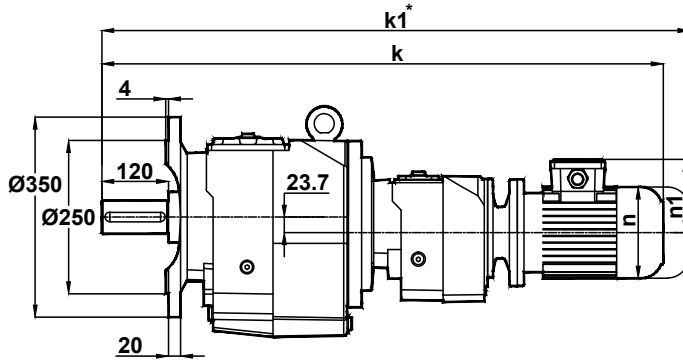
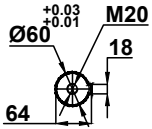


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MV575 MV576

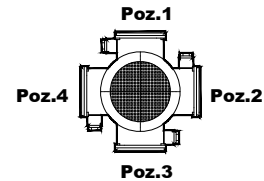


## NV575 NV576



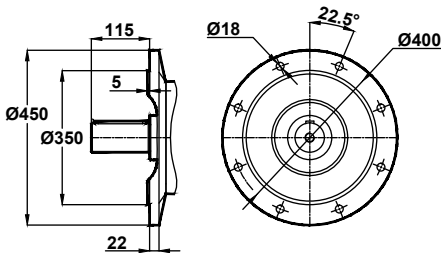
| Motor Büyüklüğü / Motor Size / Motorbaugroße |          |                 |
|--|----------|-----------------|
| IEC  | 63/B5    | 71/B5<br>71/B14 |
| k  | 910      | 907             |
| k1   | 963      | 1027            |
| n / n1                                       | 121 / 97 | 138 / 111       |
| m1 (B5)                                      | 140      | 160             |
| m1 (B14)                                     | -        | 105             |

Klemens Kutusu / Terminal Box / Klemmenkasten

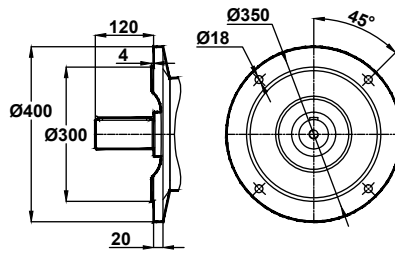


63-71

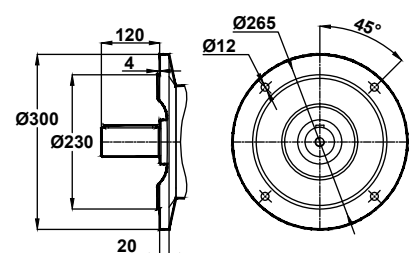
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



Opt. 2

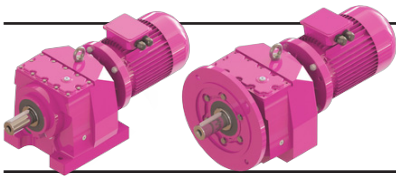


Opt. 3

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

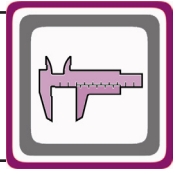
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.



# Ölçü Sayfaları

## Dimension Pages

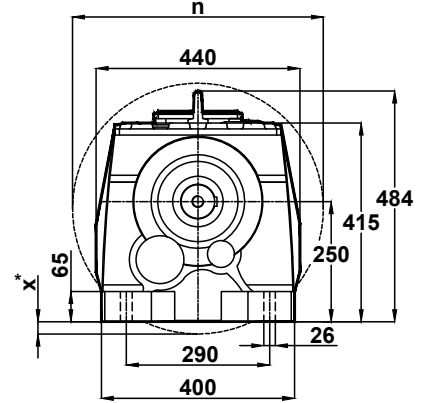
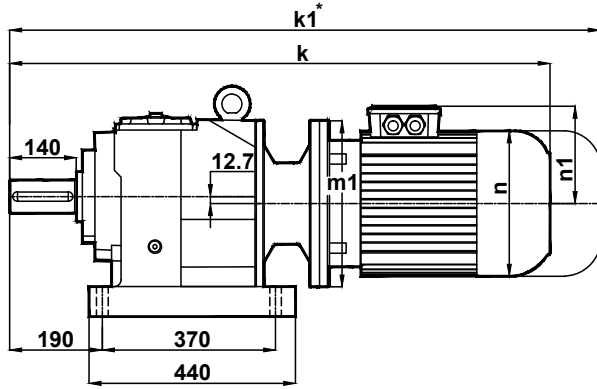
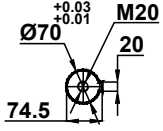
### Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

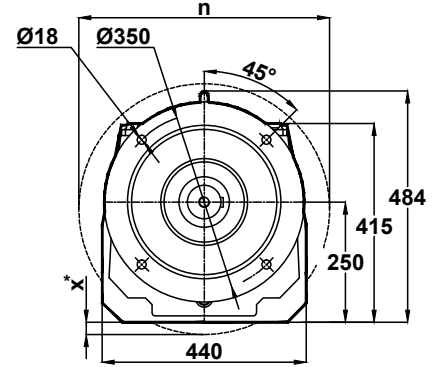
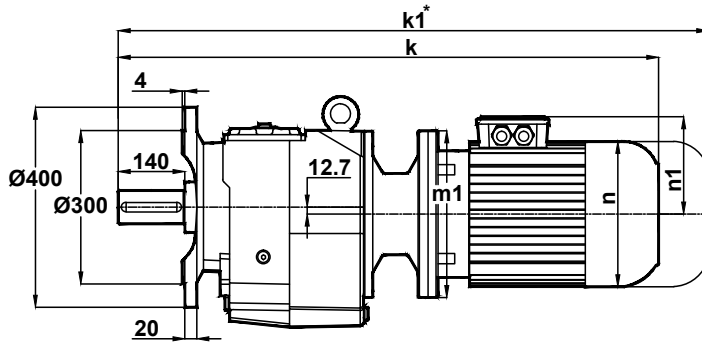
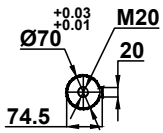
### MV672

### MV673



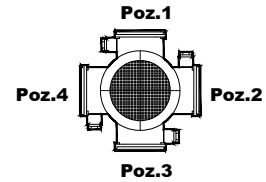
### NV672

### NV673



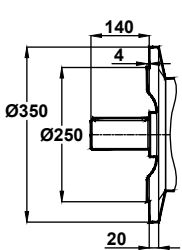
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                     |                     |           |           |           |           |           |           |           |
|--|-----------|---------------------|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| IEC  | 112M/B5   | 132S/B5<br>132S/B14 | 132M/B5<br>132M/B14 | 160M/B5   | 160L/B5   | 180M/B5   | 180L/B5   | 200L/B5   | 225S/B5   | 225M/B5   |
| k  | 904       | 963                 | 1001                | 1148      | 1192      | 1205      | 1243      | 1315      | 1386      | 1411      |
| k1   | 1039      | 1108                | 1146                | 1318      | 1362      | 1375      | 1413      | 1515      | 1576      | -         |
| n / n1                                       | 218 / 146 | 257 / 168           | 257 / 168           | 310 / 225 | 310 / 225 | 348 / 241 | 348 / 241 | 390 / 275 | 434 / 285 | 434 / 285 |
| m1 (B5)                                      | 250       | 300                 | 300                 | 350       | 350       | 350       | 350       | 400       | 450       | 450       |
| m1 (B14)                                     | -         | 200                 | 200                 | -         | -         | -         | -         | -         | -         | -         |
| x (B5)                                       | -         | -                   | -                   | -         | -         | -         | -         | -         | -         | -         |

Klemens Kutusu / Terminal Box / Klemmenkasten

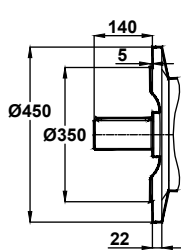
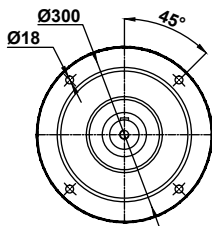


112-132-160-180-200-225

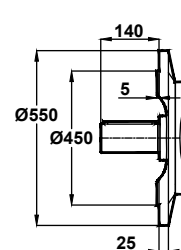
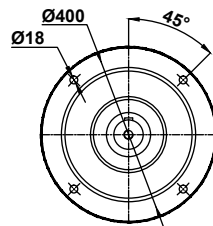
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



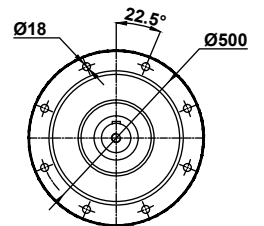
Opt. 1



Opt. 2

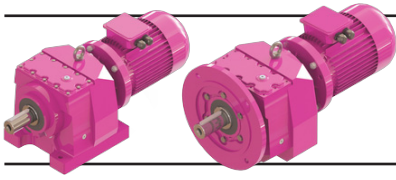


Opt. 3

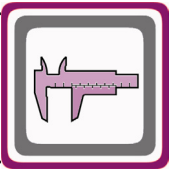


\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

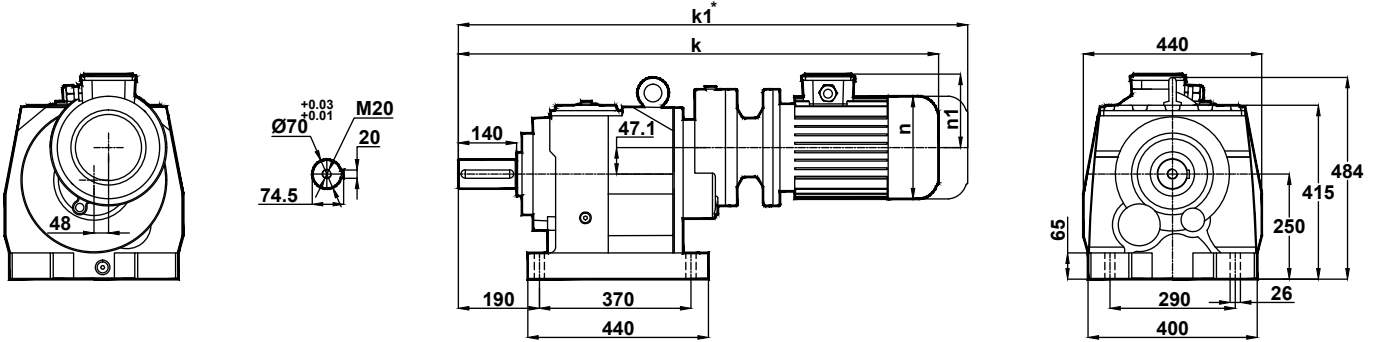


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

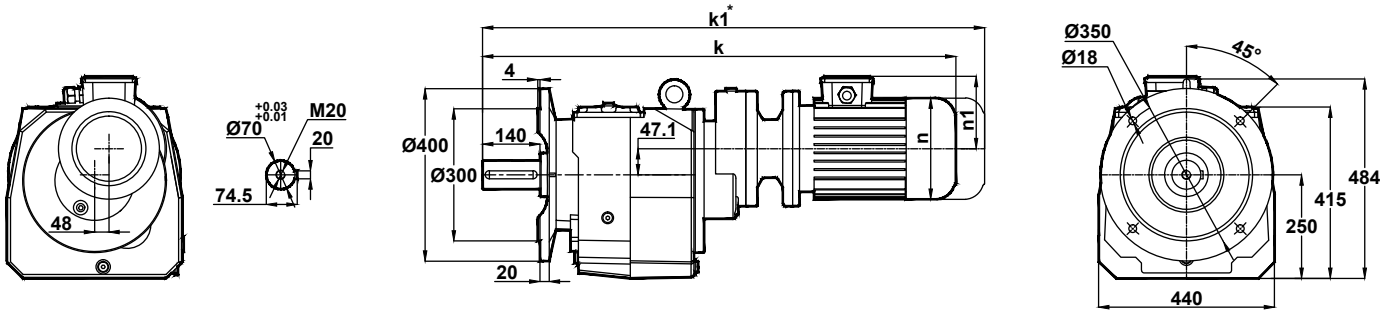


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MV674

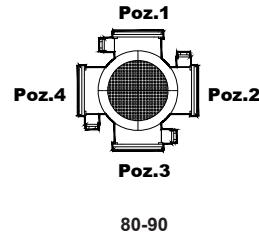


## NV674

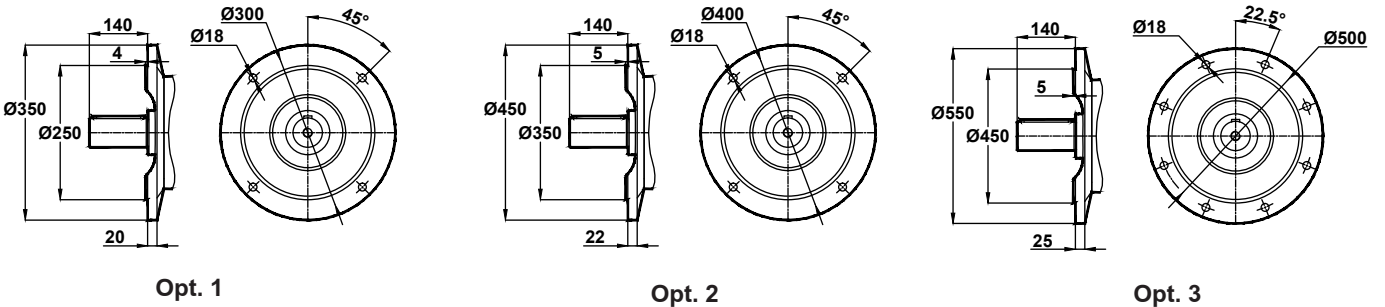


| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                   |                   |
|--|-----------|-------------------|-------------------|
| IEC  | 80/B5     | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 |
| k  | 897       | 917               | 942               |
| k1   | 1017      | 1042              | 1067              |
| n / n1                                       | 156 / 118 | 176 / 126         | 176 / 126         |
| m1 (B5)                                      | 200       | 200               | 200               |
| m1 (B14)                                     | -         | 140               | 140               |

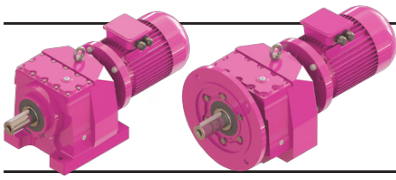
Klemens Kutusu / Terminal Box / Klemmenkasten



## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



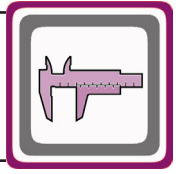
\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.



# Ölçü Sayfaları

## Dimension Pages

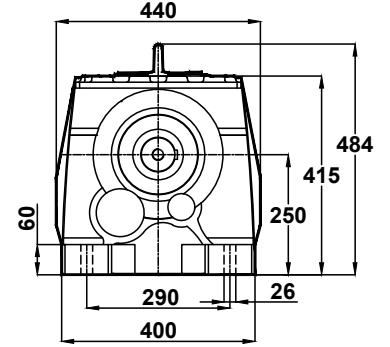
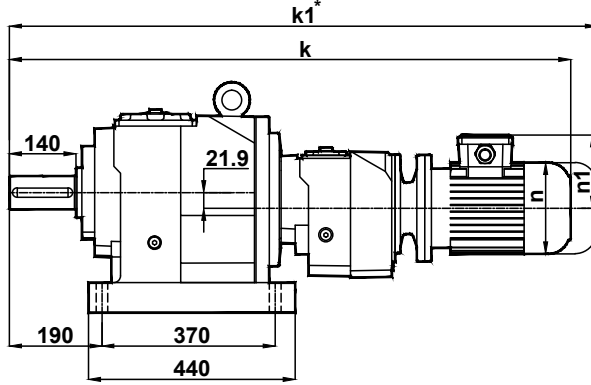
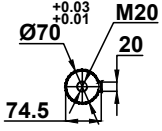
### Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

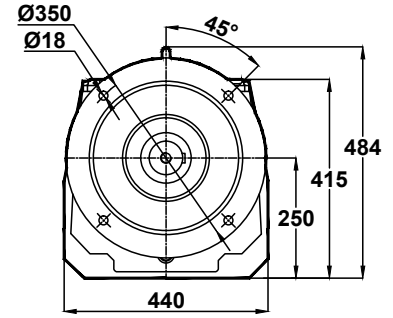
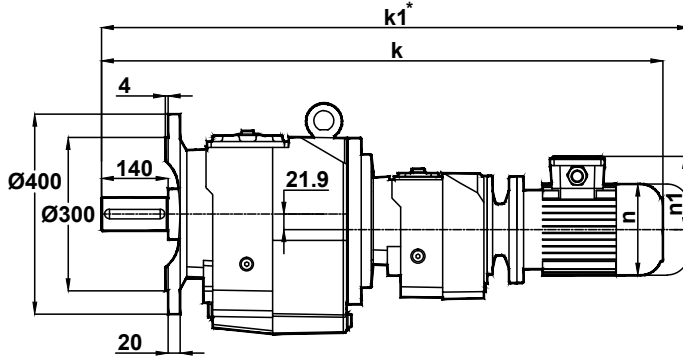
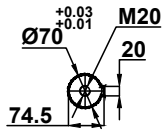
### MV675

### MV676



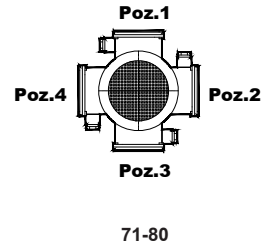
### NV675

### NV676

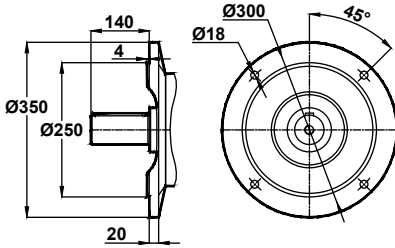


| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                 |
|--|-----------|-----------------|
| IEC  | 71/B5     | 80/B5<br>80/B14 |
| k  | 1027      | 1047            |
| k1   | 1147      | 1167            |
| n / n1                                       | 138 / 111 | 156 / 118       |
| m1 (B5)                                      | 160       | 200             |
| m1 (B14)                                     | -         | 120             |

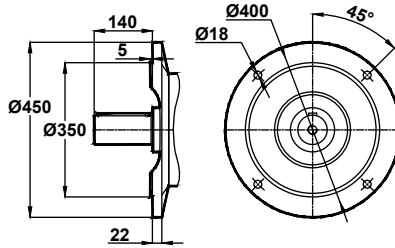
Klemens Kutusu / Terminal Box / Klemmenkasten



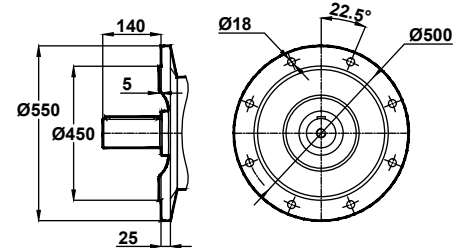
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



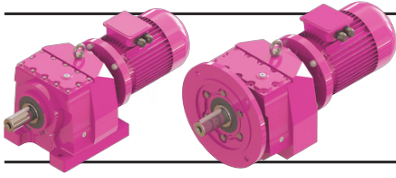
Opt. 2



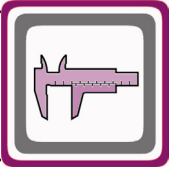
Opt. 3

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.



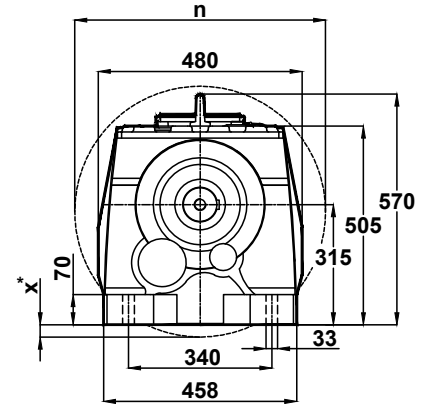
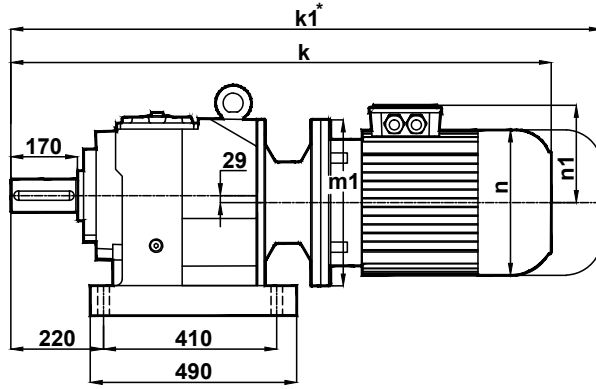
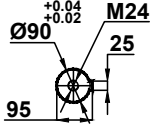


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

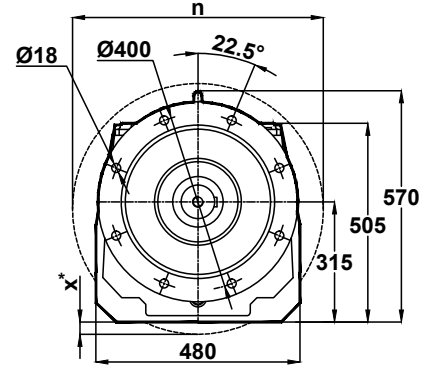
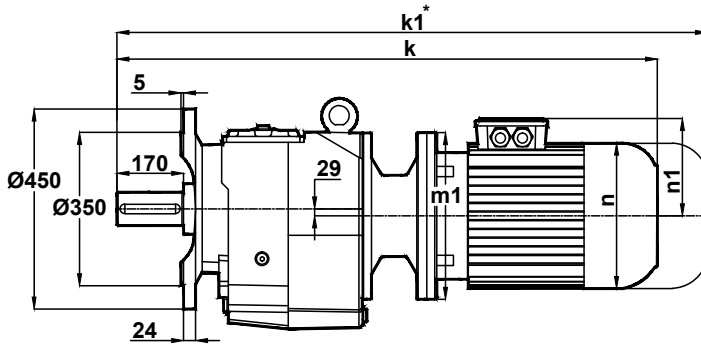
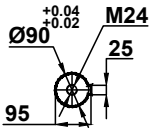


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MV772 MV773

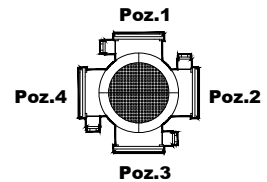


## NV772 NV773



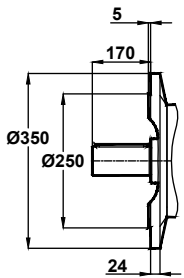
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |           |           |           |           |           |           |           |           |           |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| IEC  | 132S/B5   | 132M/B5   | 160M/B5   | 160L/B5   | 180M/B5   | 180L/B5   | 200L/B5   | 225S/B5   | 225M/B5   | 250M/B5   |
| k  | 1048      | 1086      | 1227      | 1271      | 1284      | 1322      | 1396      | 1467      | 1492      | 1568      |
| k1   | 1193      | 1231      | 1397      | 1441      | 1454      | 1492      | 1596      | 1657      | -         | -         |
| n / n1                                       | 257 / 168 | 257 / 168 | 310 / 225 | 310 / 225 | 348 / 241 | 348 / 241 | 434 / 285 | 434 / 285 | 434 / 285 | 480 / 322 |
| m1 (B5)                                      | 300       | 300       | 350       | 350       | 350       | 350       | 400       | 450       | 450       | 550       |
| m1 (B14)                                     | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| x (B5)                                       | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |

Klemens Kutusu / Terminal Box / Klemmenkasten

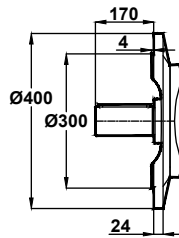
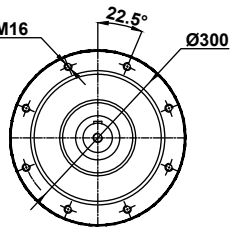


132-160-180-200-225-250

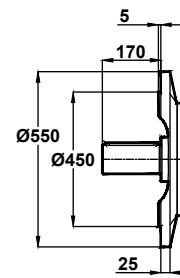
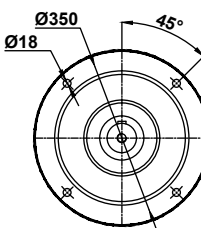
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



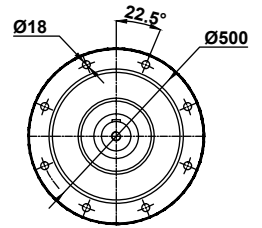
Opt. 1



Opt. 2



Opt. 3

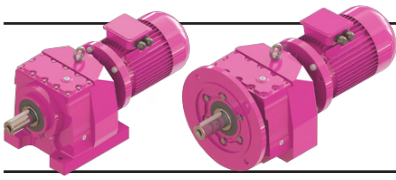


\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

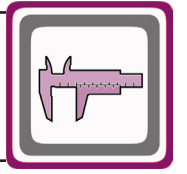
x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

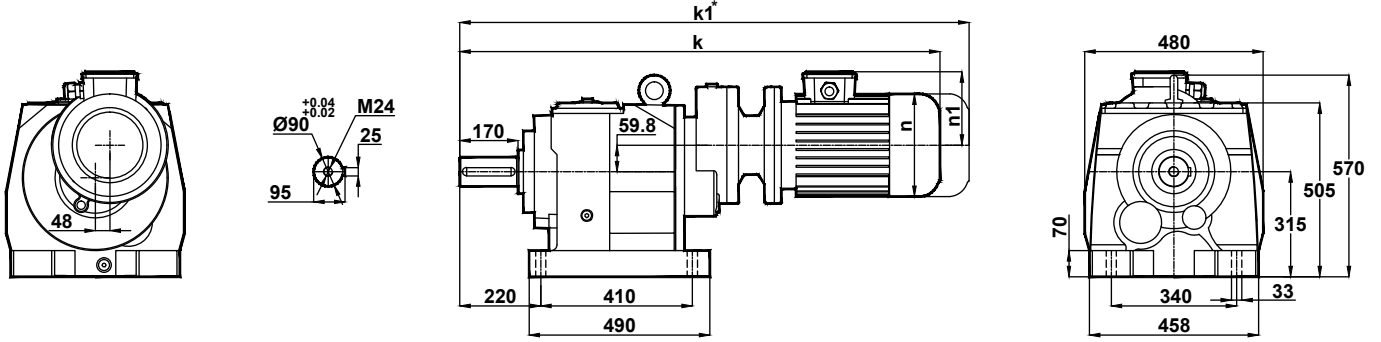
## Dimension Pages

### Abmessungsseiten

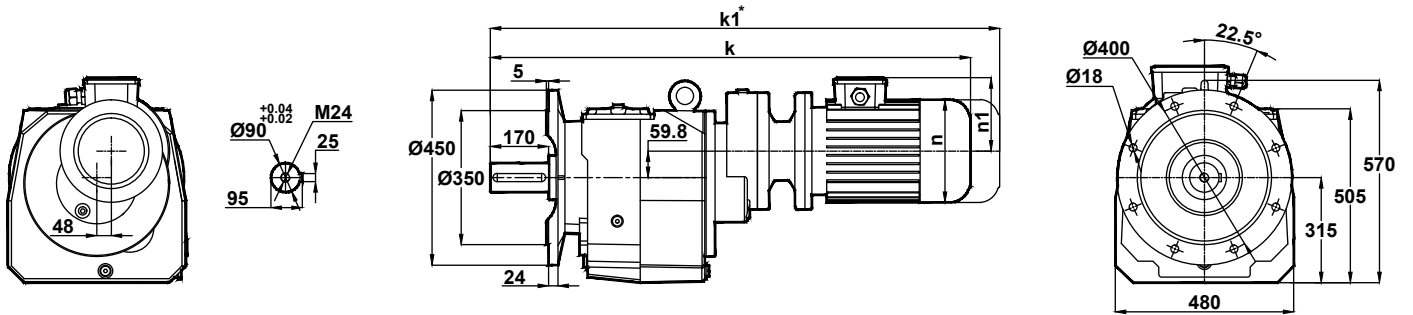


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

### MV774

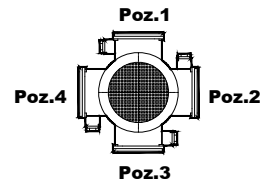


### NV774



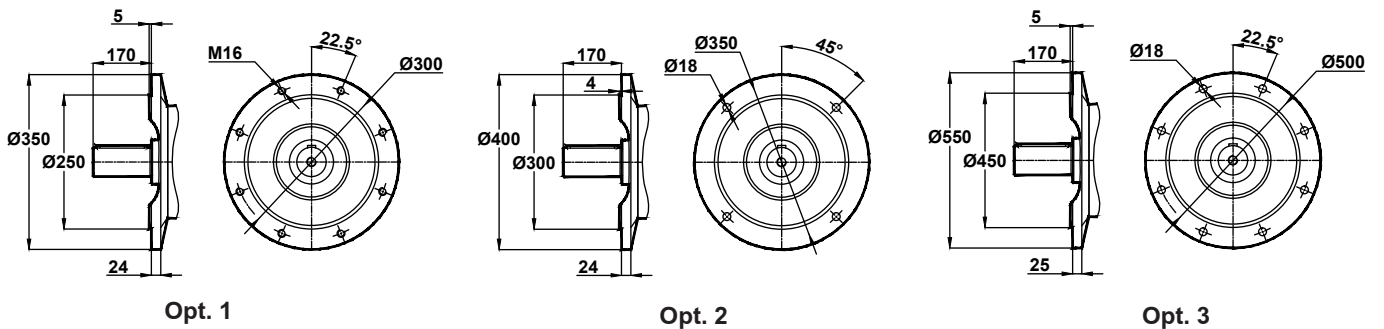
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                   |                   |                     |
|--|-----------|-------------------|-------------------|---------------------|
| IEC  | 80/B5     | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 |
| k  | 982       | 1002              | 1027              | 1077                |
| k1   | 1102      | 1127              | 1152              | 1212                |
| n / n1                                       | 156 / 118 | 176 / 126         | 176 / 126         | 194 / 135           |
| m1 (B5)                                      | 200       | 200               | 200               | 250                 |
| m1 (B14)                                     | -         | 140               | 140               | 160                 |

Klemens Kutusu / Terminal Box / Klemmenkasten

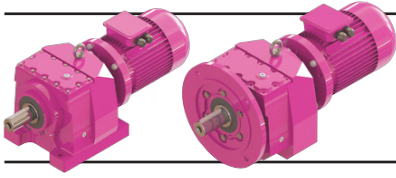


80-90-100

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



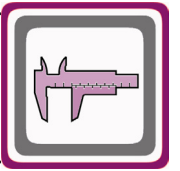
\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.



# Ölçü Sayfaları

## Dimension Pages

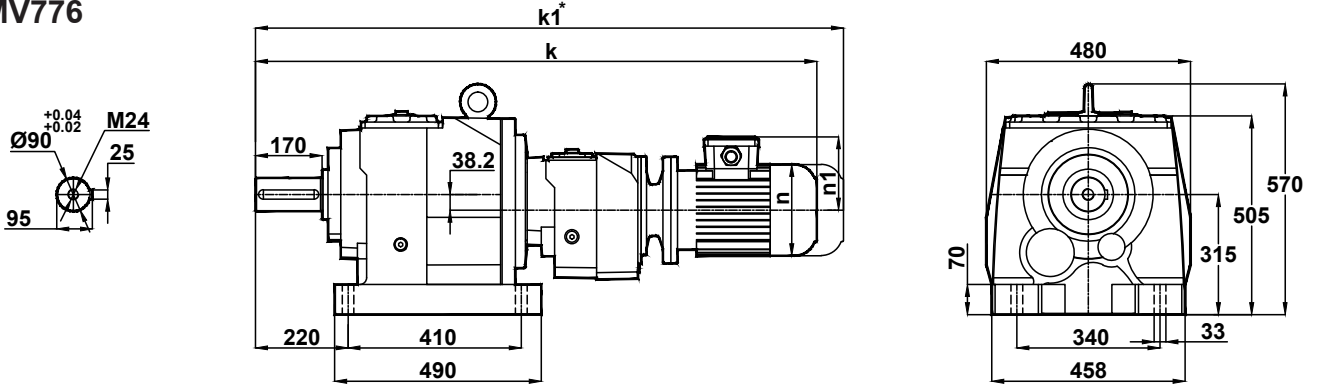
### Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

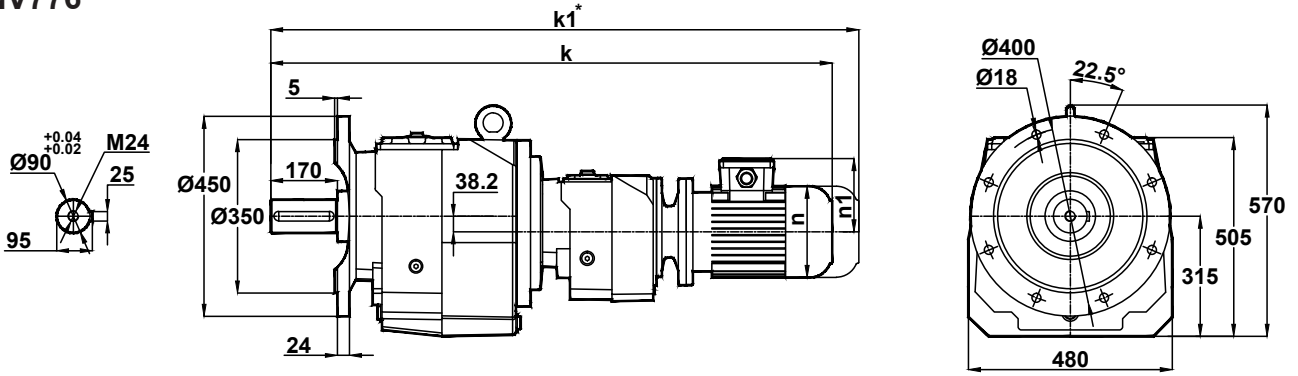
### MV775

### MV776



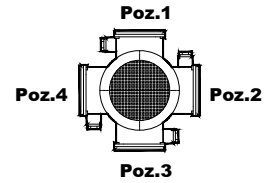
### NV775

### NV776



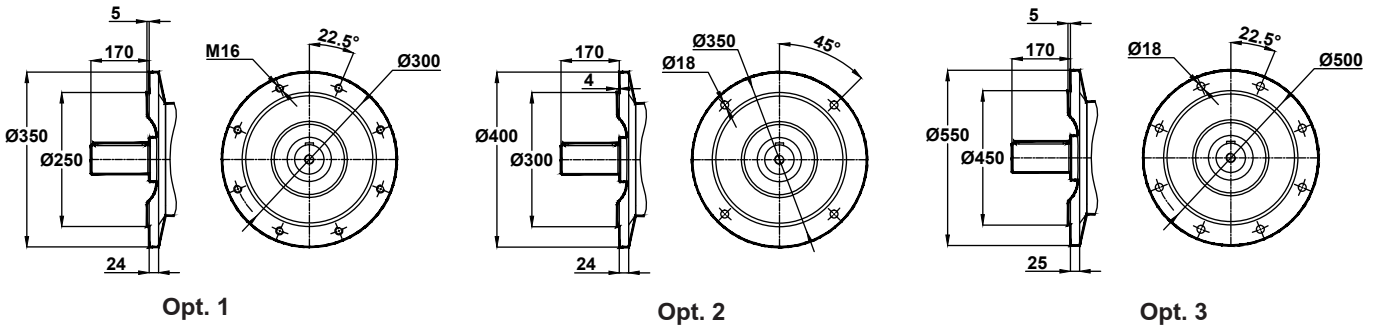
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                 |                   |                   |
|--|-----------|-----------------|-------------------|-------------------|
| IEC  | 71/B5     | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 |
| k  | 1115      | 1135            | 1155              | 1180              |
| k1   | 1235      | 1255            | 1280              | 1305              |
| n / n1                                       | 138 / 111 | 156 / 118       | 176 / 126         | 176 / 126         |
| m1 (B5)                                      | 160       | 200             | 200               | 200               |
| m1 (B14)                                     | -         | 120             | 140               | 140               |

Klemens Kutusu / Terminal Box / Klemmenkasten

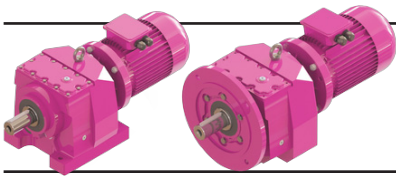


71-80-90

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.



# Ölçü Sayfaları

## Dimension Pages

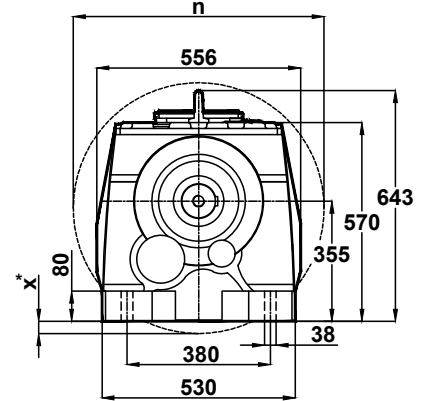
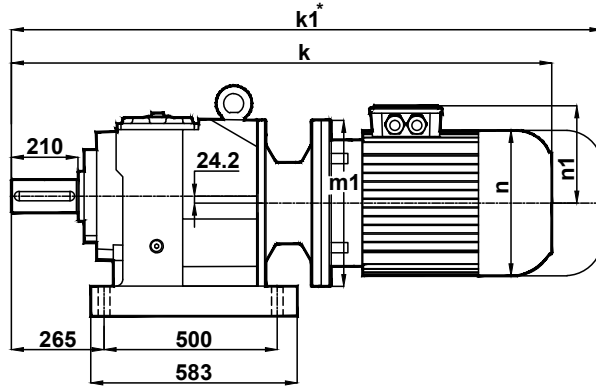
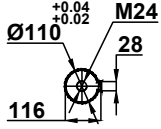
### Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

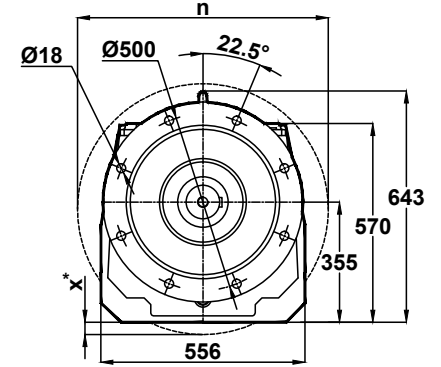
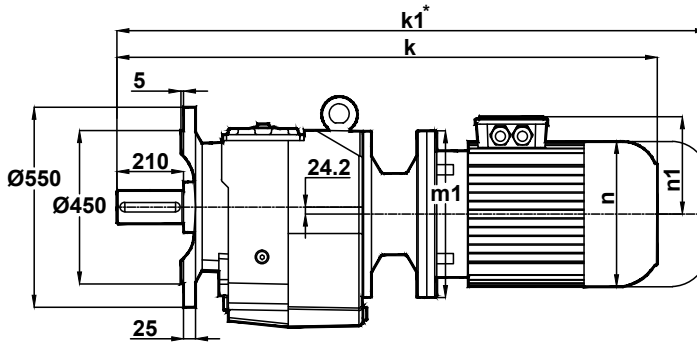
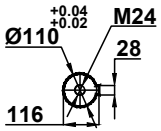
### MV872

### MV873



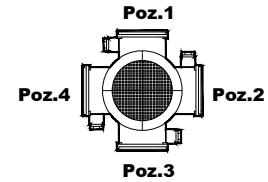
### NV872

### NV873



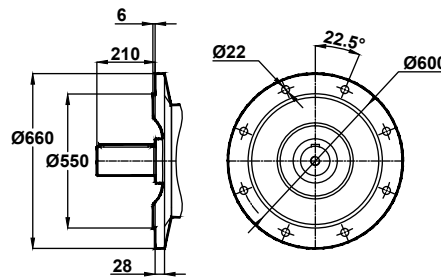
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |           |           |           |           |           |           |           |           |           |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| IEC  | 160M/B5   | 160L/B5   | 180M/B5   | 180L/B5   | 200L/B5   | 225S/B5   | 225M/B5   | 250M/B5   | 280S/B5   | 280M/B5   |
| k  | 1413      | 1457      | 1470      | 1508      | 1560      | 1578      | 1603      | 1679      | 1741      | 1740      |
| k1   | 1583      | 1627      | 1640      | 1678      | 1760      | 1768      | -         | -         | -         | -         |
| n / n1                                       | 310 / 225 | 310 / 225 | 348 / 241 | 348 / 241 | 390 / 275 | 434 / 285 | 434 / 285 | 480 / 322 | 544 / 350 | 544 / 350 |
| m1 (B5)                                      | 350       | 350       | 350       | 350       | 400       | 450       | 450       | 550       | 550       | 550       |
| m1 (B14)                                     | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| x (B5)                                       | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |

Klemens Kutusu / Terminal Box / Klemmenkasten



160-180-200-225-250-280

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



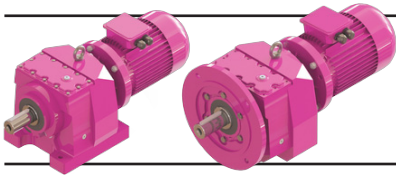
Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

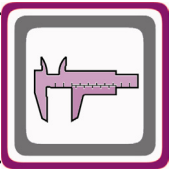
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

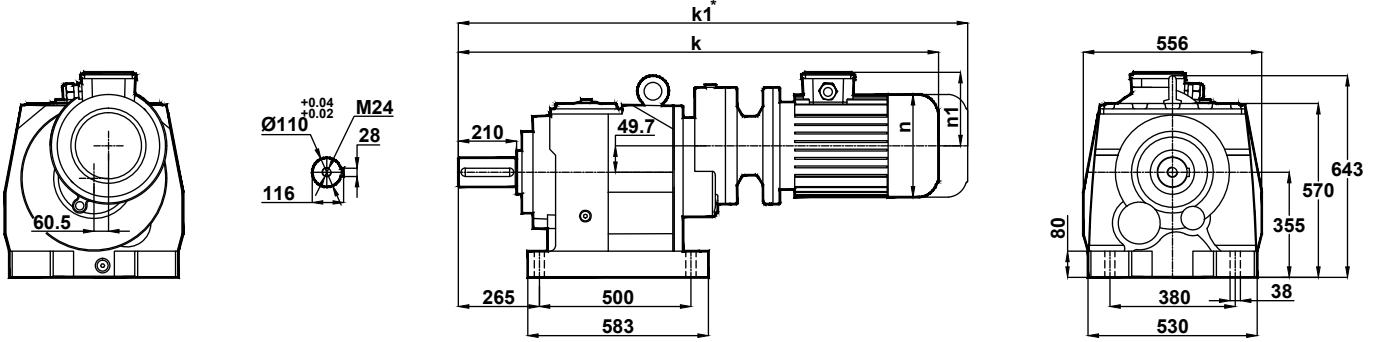


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

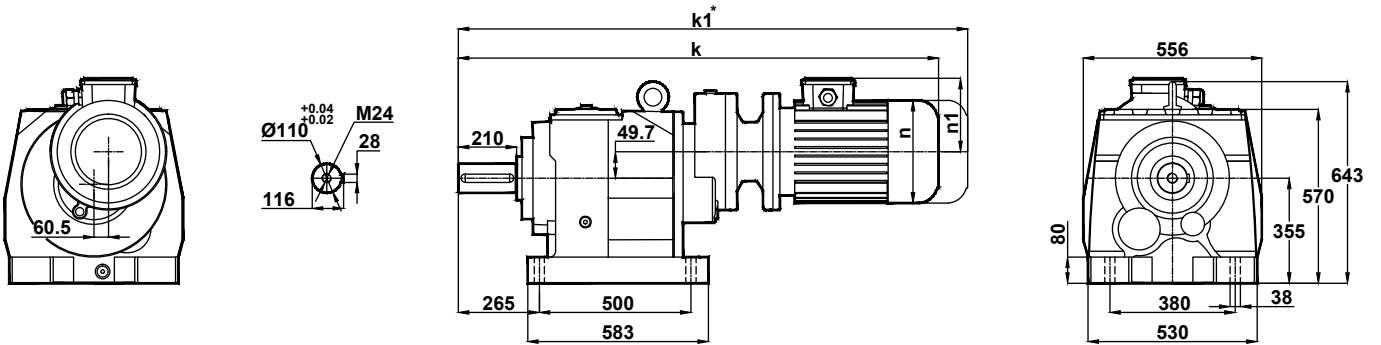


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MV874

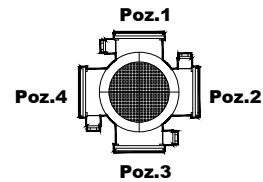


## NV874



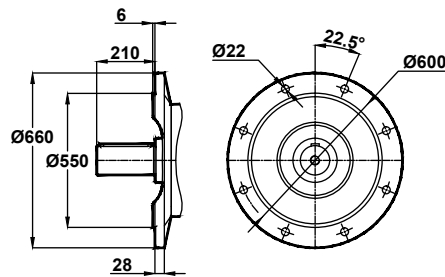
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |           |                     |                     |
|--|-----------|-----------|---------------------|---------------------|
| IEC  | 100L/B5   | 112M/B5   | 132S/B5<br>132S/B14 | 132M/B5<br>132M/B14 |
| k  | 1212      | 1232      | 1297                | 1335                |
| k1   | 1347      | 1367      | 1442                | 1480                |
| n / n1                                       | 194 / 135 | 218 / 146 | 257 / 168           | 257 / 168           |
| m1 (B5)                                      | 250       | 250       | 300                 | 300                 |
| m1 (B14)                                     | -         | -         | 200                 | 200                 |

Klemens Kutusu / Terminal Box / Klemmenkasten



100-112-132

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

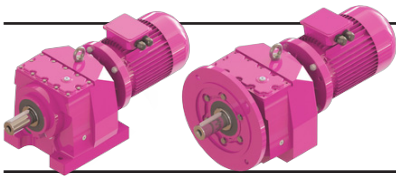


Opt. 1

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

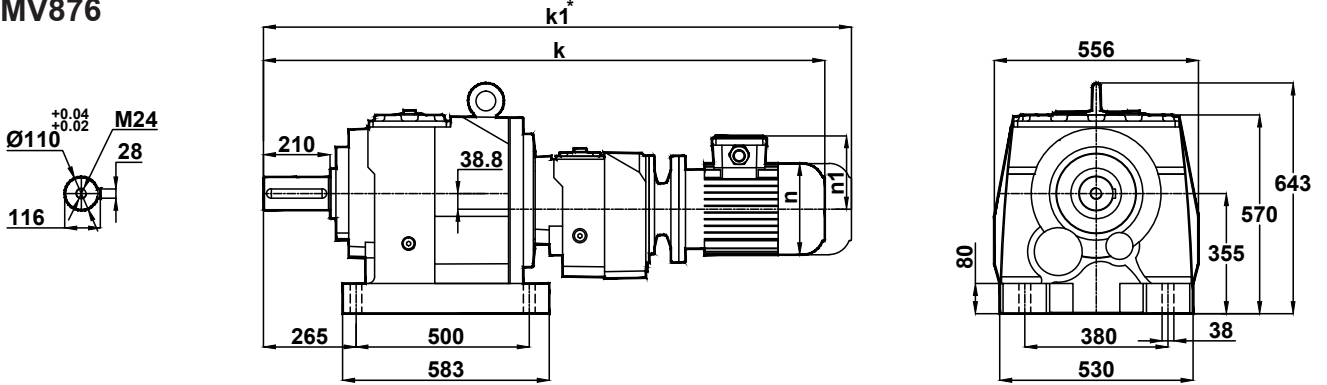


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

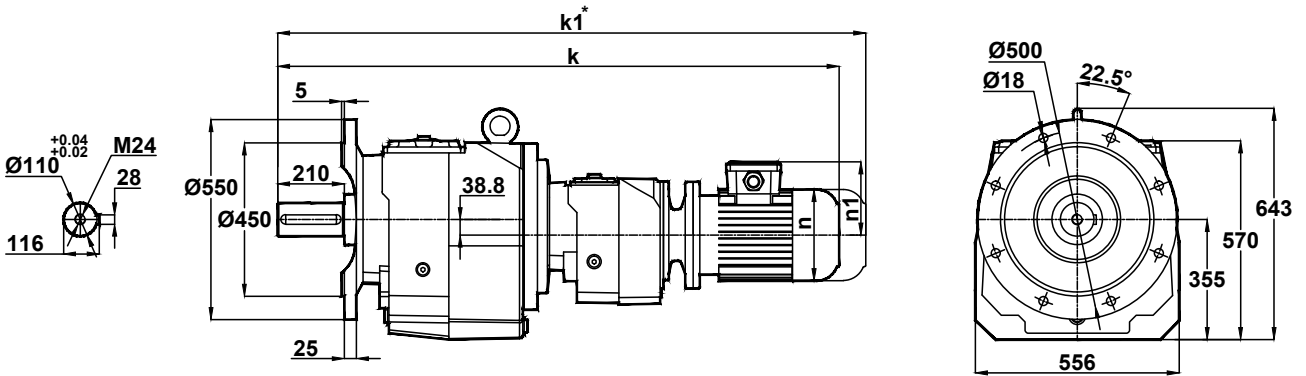


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MV875 MV876

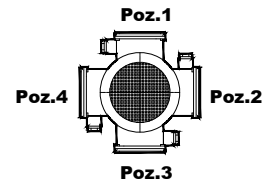


## NV875 NV876



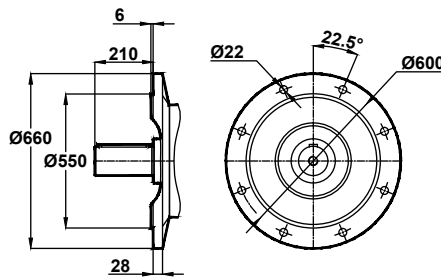
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                 |                   |                   |                     |
|--|-----------|-----------------|-------------------|-------------------|---------------------|
| IEC  | 71/B5     | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 |
| k  | 1232      | 1252            | 1272              | 1297              | 1346                |
| k1   | 1352      | 1372            | 1397              | 1422              | 1481                |
| n / n1                                       | 138 / 111 | 156 / 118       | 176 / 126         | 176 / 126         | 194 / 135           |
| m1 (B5)                                      | 160       | 200             | 200               | 200               | 250                 |
| m1 (B14)                                     | -         | 120             | 140               | 140               | 160                 |

Klemens Kutusu / Terminal Box / Klemmenkasten



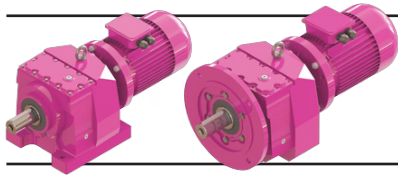
71-80-90-100

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

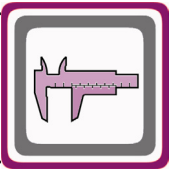


Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

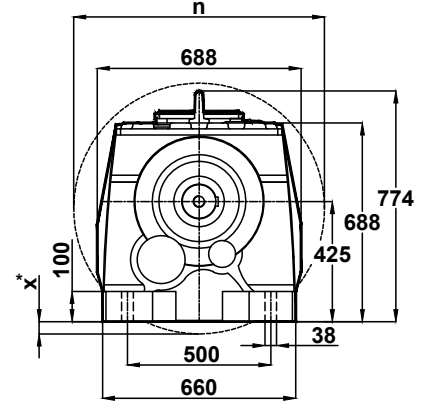
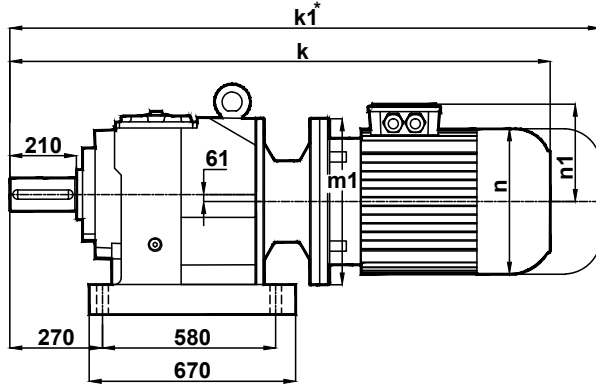
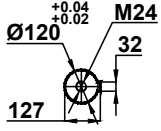


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

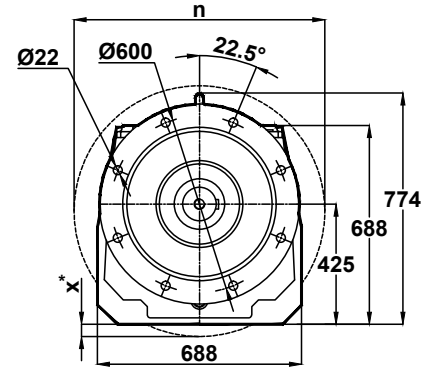
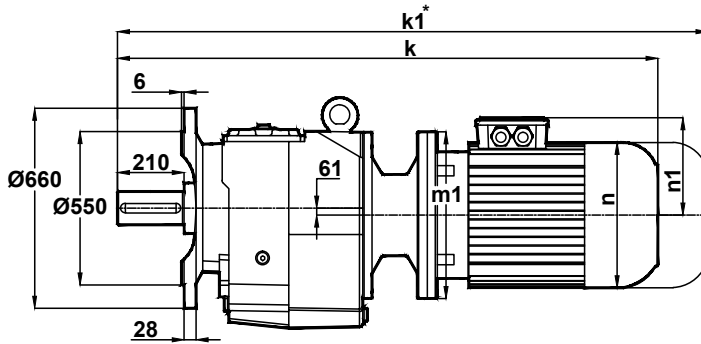
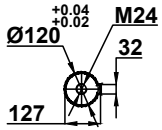


-Mil ucu çekirtme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MV972 MV973

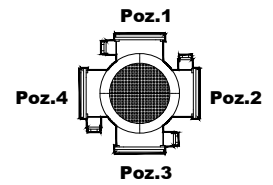


## NV972 NV973



| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |           |           |           |           |           |           |           |           |           |           |           |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| IEC  | 160M/B5   | 160L/B5   | 180M/B5   | 180L/B5   | 200L/B5   | 225S/B5   | 225M/B5   | 250M/B5   | 280S/B5   | 280M/B5   | 315S/4    | 315M/4    |
| k  | 1401      | 1445      | 1458      | 1496      | 1572      | 1632      | 1657      | 1785      | 1847      | 1847      | 2059      | 2059      |
| k1   | 1571      | 1615      | 1628      | 1666      | 1772      | 1822      | 1842      | -         | -         | -         | -         | -         |
| n / n1                                       | 310 / 225 | 310 / 225 | 348 / 241 | 348 / 241 | 390 / 275 | 434 / 285 | 434 / 285 | 480 / 322 | 544 / 350 | 544 / 350 | 614 / 510 | 614 / 510 |
| m1 (B5)                                      | 350       | 350       | 350       | 350       | 400       | 450       | 450       | 550       | 550       | 550       | 660       | 660       |
| m1 (B14)                                     | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| x (B5)                                       | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |

Klemens Kutusu / Terminal Box / Klemmenkasten



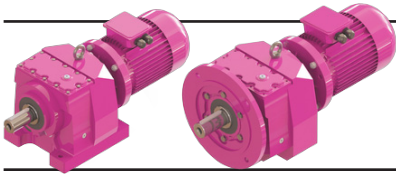
160-180-200-225-250-280-315

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

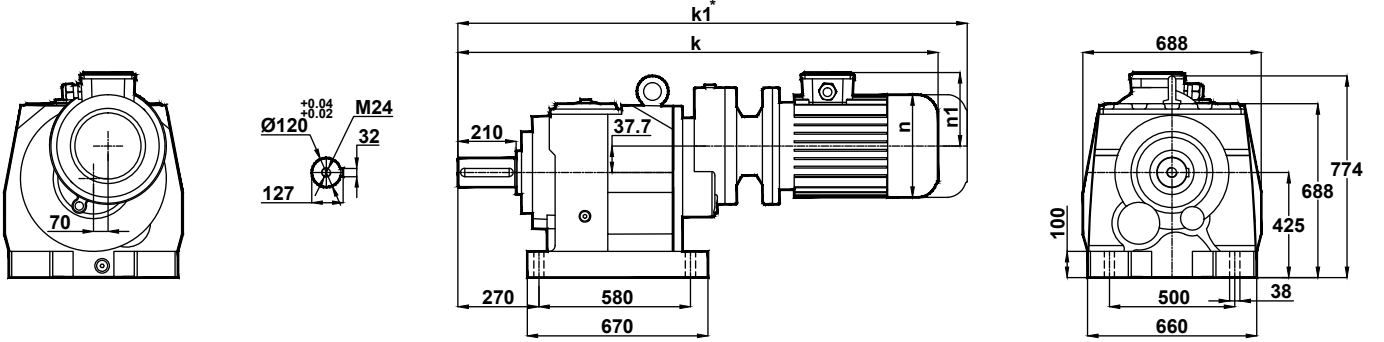
## Dimension Pages

### Abmessungsseiten

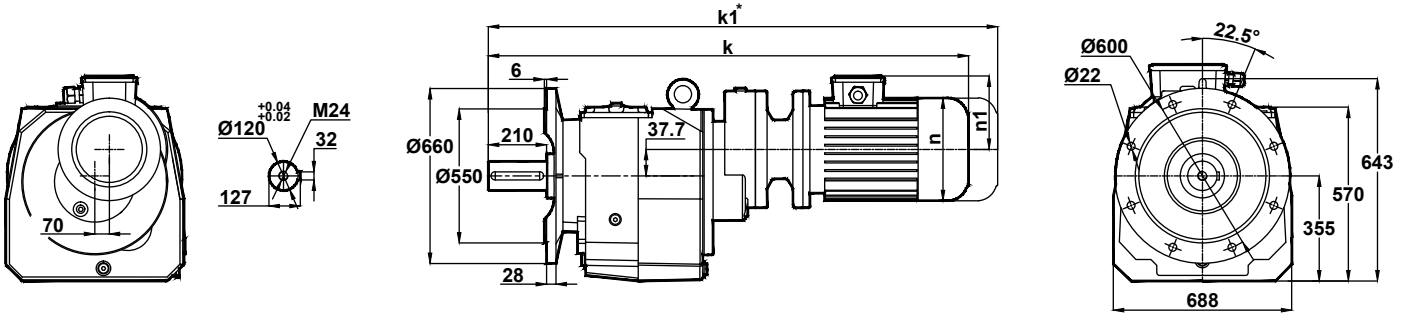


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

### MV974

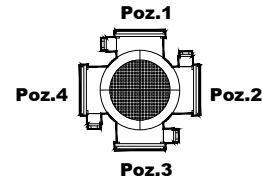


### NV974



| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |           |                     |                     |
|--|-----------|-----------|---------------------|---------------------|
| IEC  | 100L/B5   | 112M/B5   | 132S/B5<br>132S/B14 | 132M/B5<br>132M/B14 |
| k  | 1316      | 1336      | 1395                | 1433                |
| k1   | 1451      | 1471      | 1540                | 1578                |
| n / n1                                       | 194 / 135 | 218 / 146 | 257 / 168           | 257 / 168           |
| m1 (B5)                                      | 250       | 250       | 300                 | 300                 |
| m1 (B14)                                     | -         | -         | 200                 | 200                 |

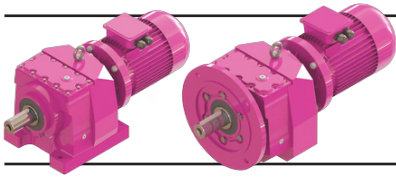
Klemens Kutusu / Terminal Box / Klemmenkasten



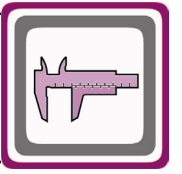
100-112-132

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.



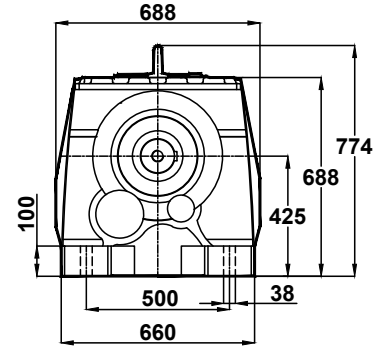
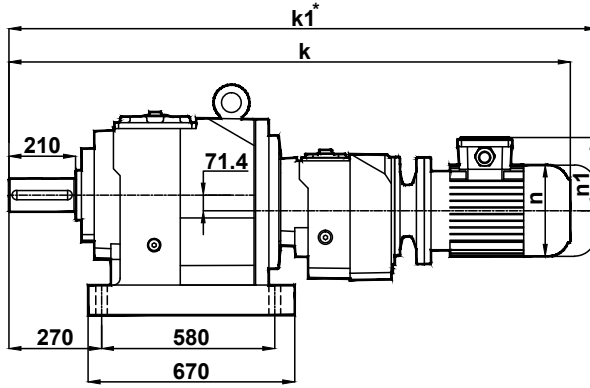
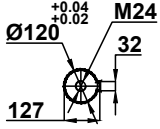


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

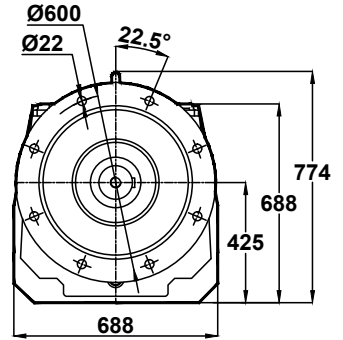
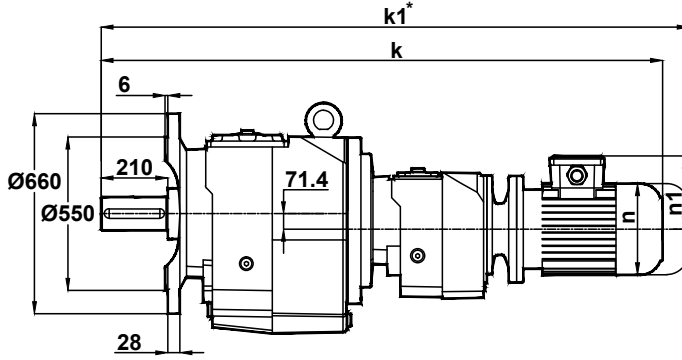
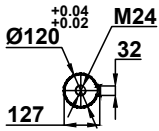


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MV975 MV976

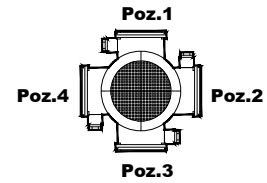


## NV975 NV976



| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                   |                   |                     |                     |                     |
|--|-----------|-------------------|-------------------|---------------------|---------------------|---------------------|
| IEC  | 80/B5     | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 | 112M/B5<br>112M/B14 | 132S/B5<br>132S/B14 |
| k  | 1375      | 1395              | 1420              | 1470                | 1490                | 1553                |
| k1   | 1495      | 1520              | 1545              | 1605                | 1625                | 1698                |
| n / n1                                       | 156 / 118 | 176 / 126         | 176 / 126         | 194 / 135           | 218 / 146           | 218 / 146           |
| m1 (B5)                                      | 200       | 200               | 200               | 250                 | 250                 | 300                 |
| m1 (B14)                                     | -         | 140               | 140               | 160                 | 160                 | 200                 |

Klemens Kutusu / Terminal Box / Klemmenkasten

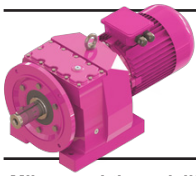


80-90-100-112-132

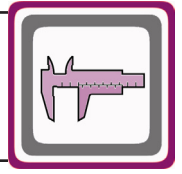
\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

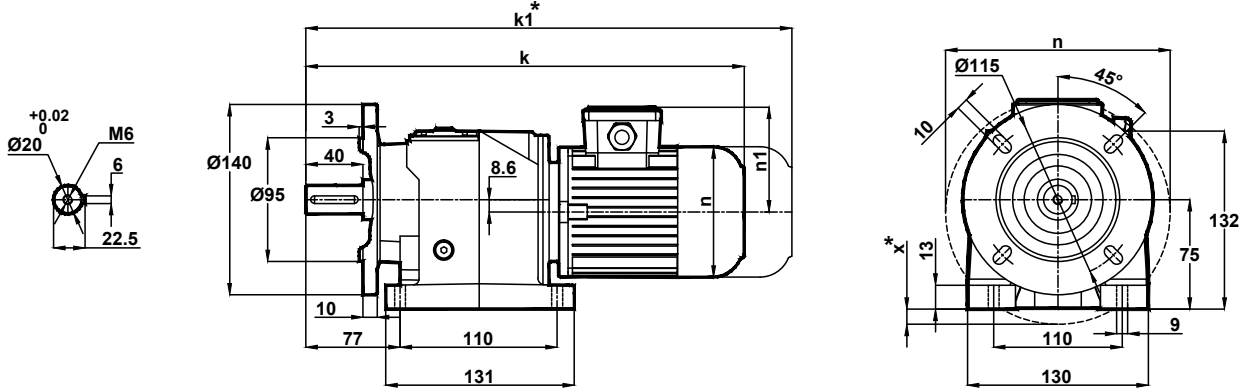


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



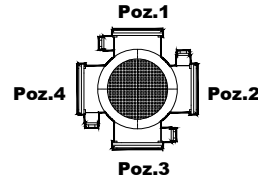
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MRF002**  
**MRF003**



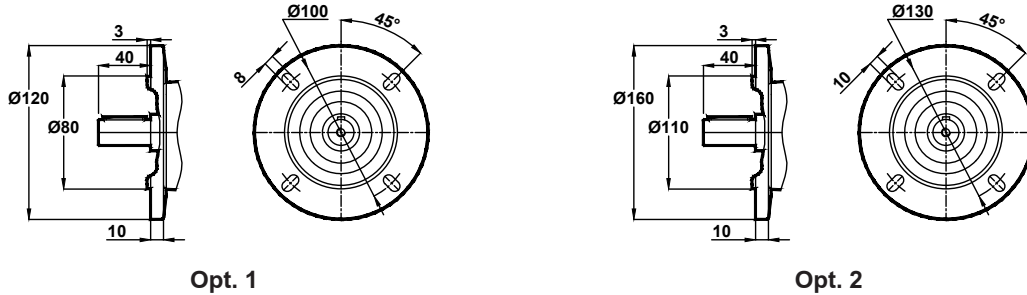
| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |     |     |
|--|-----|-----|-----|-----|-----|
|  | 63  | 71  | 80  | 90S | 90L |
| k  | 368 | 387 | 415 | 443 | 483 |
| k1   | 421 | 507 | 535 | 568 | 608 |
| n  | 121 | 138 | 156 | 176 | 176 |
| n1   | 97  | 111 | 118 | 126 | 126 |
| x  | -   | 5   | 14  | 24  | 24  |

Klemens Kutusu / Terminal Box / Klemmenkasten

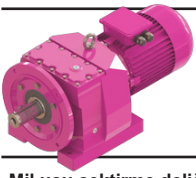


63-71-80-90

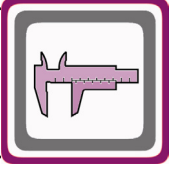
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

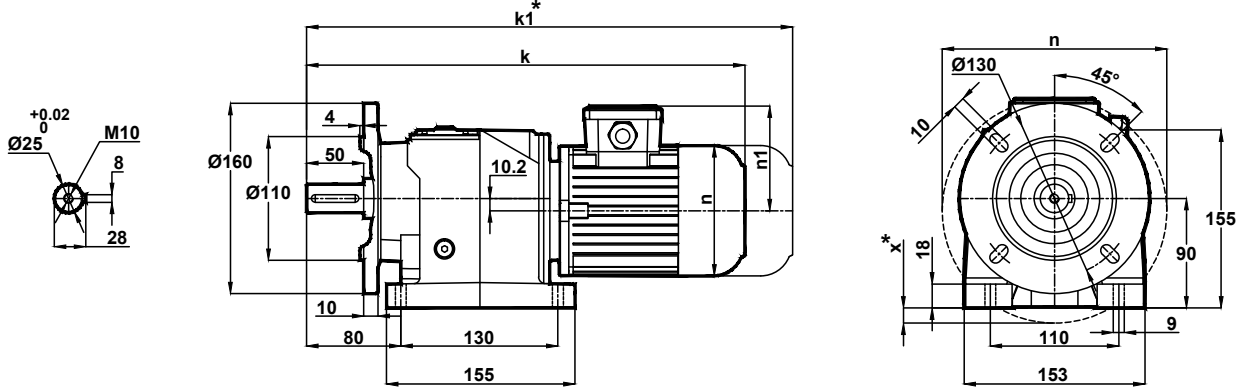


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



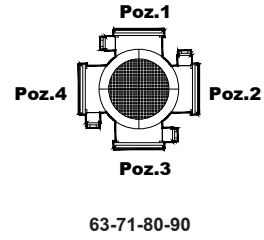
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MRF102**  
**MRF103**

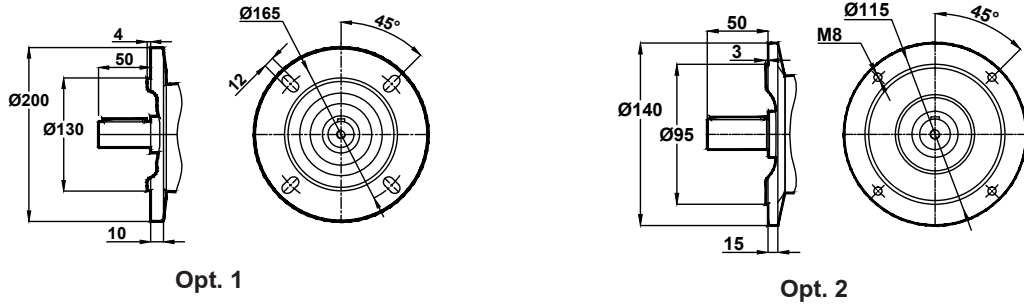


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |     |     |
|--|-----|-----|-----|-----|-----|
|  | 63  | 71  | 80  | 90S | 90L |
| k  | 394 | 413 | 442 | 471 | 596 |
| k1   | 447 | 533 | 562 | 596 | 633 |
| n  | 121 | 138 | 156 | 176 | 176 |
| n1   | 97  | 111 | 118 | 126 | 126 |
| x  | -   | -   | -   | 10  | 10  |

Klemens Kutusu / Terminal Box / Klemmenkasten



Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

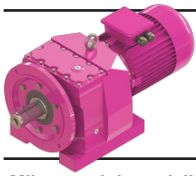


\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

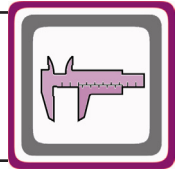
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

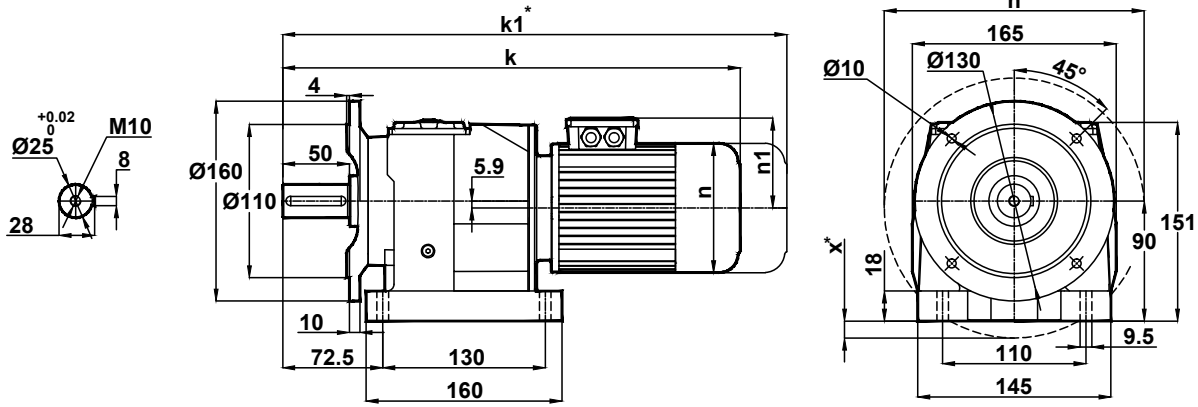


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



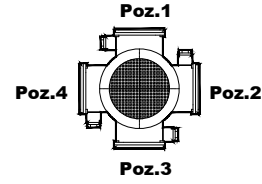
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MRF172**  
**MRF173**



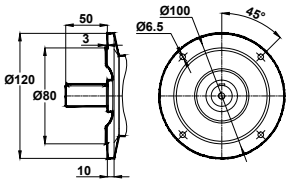
| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |     |     |      |      |
|--|-----|-----|-----|-----|-----|------|------|
|  | 63  | 71  | 80  | 90S | 90L | 100L | 112M |
| k  | 395 | 414 | 442 | 470 | 510 | 536  | 559  |
| k1   | 448 | 534 | 562 | 595 | 635 | 671  | 694  |
| n  | 121 | 138 | 156 | 176 | 176 | 194  | 218  |
| n1   | 97  | 111 | 118 | 126 | 126 | 135  | 146  |
| x  | -   | -   | -   | 6   | 6   | 16   | 28   |

Klemens Kutusu / Terminal Box / Klemmenkasten

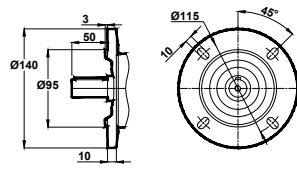


63-71-80-90-100-112

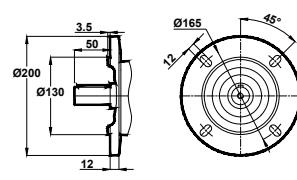
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



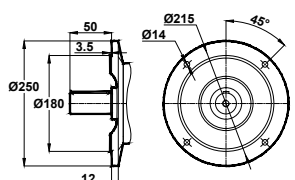
Opt. 1



Opt. 2

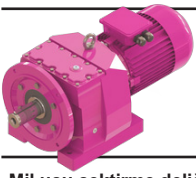


Opt. 3

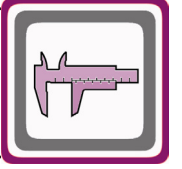


Opt. 4

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

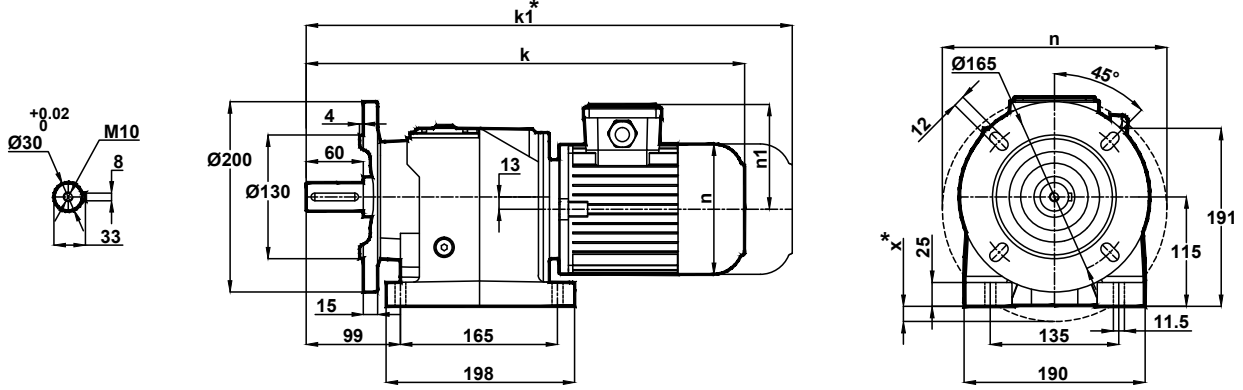


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



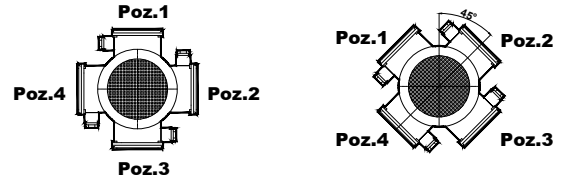
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MRF202 MRF203



| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |     |     |      |      |
|--|-----|-----|-----|-----|-----|------|------|
|  | 63  | 71  | 80  | 90S | 90L | 100L | 112M |
| k  | 442 | 461 | 489 | 517 | 542 | 583  | 606  |
| k1   | 495 | 581 | 609 | 642 | 667 | 718  | 741  |
| n  | 121 | 138 | 156 | 176 | 176 | 194  | 218  |
| n1   | 97  | 111 | 118 | 126 | 126 | 135  | 146  |
| x  | -   | -   | -   | -   | -   | -    | 10   |

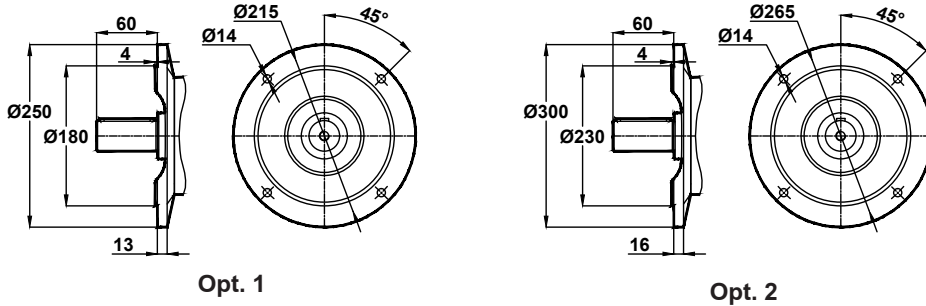
Klemens Kutusu / Terminal Box / Klemmenkasten



63-80-90-100-112

71

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

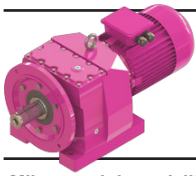
Opt. 2

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

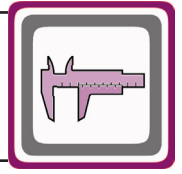
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

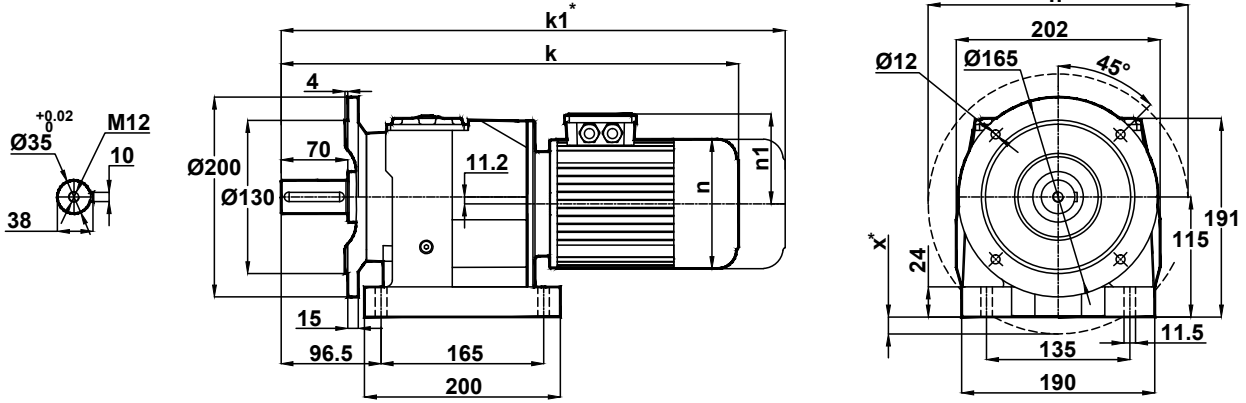


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



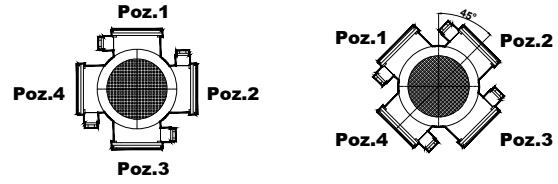
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MRF272**  
**MRF273**



| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |     |     |      |      |
|--|-----|-----|-----|-----|-----|------|------|
|  | 63  | 71  | 80  | 90S | 90L | 100L | 112M |
| k  | 443 | 462 | 490 | 518 | 543 | 584  | 607  |
| k1   | 496 | 582 | 610 | 643 | 668 | 719  | 742  |
| n  | 121 | 138 | 156 | 176 | 176 | 194  | 218  |
| n1   | 97  | 111 | 118 | 126 | 126 | 135  | 146  |
| x  | -   | -   | -   | -   | -   | -    | 9    |

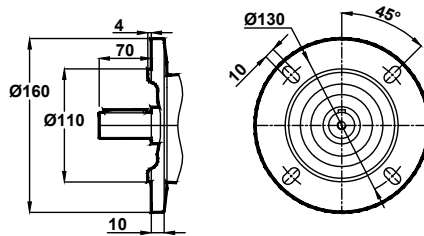
Klemens Kutusu / Terminal Box / Klemmenkasten



63-80-90-100-112

71

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



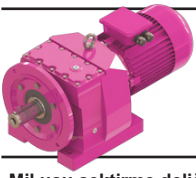
Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

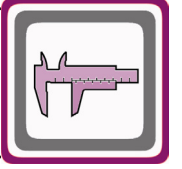
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

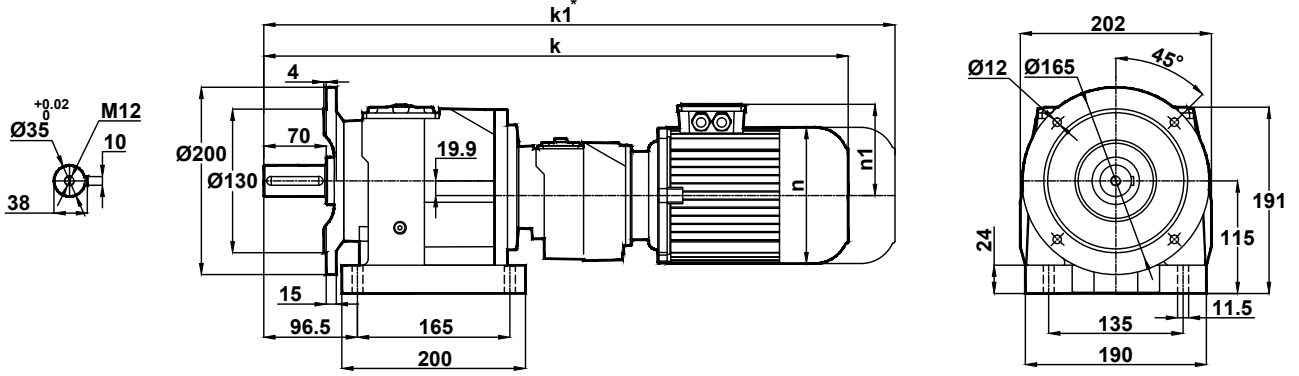


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



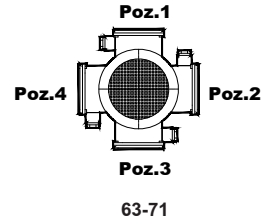
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MRF275**  
**MRF276**

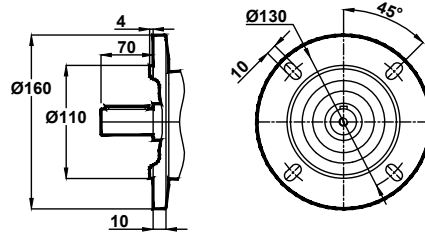


| Motor Büyüklüğü / Motor Size / Motorbaugroße | 63  | 71  |
|--|-----|-----|
| k  | 593 | 614 |
| k1   | 646 | 734 |
| n  | 121 | 138 |
| n1   | 97  | 111 |

Klemens Kutusu / Terminal Box / Klemmenkasten



Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

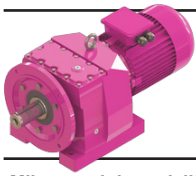


Opt. 1

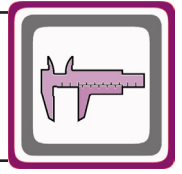
\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

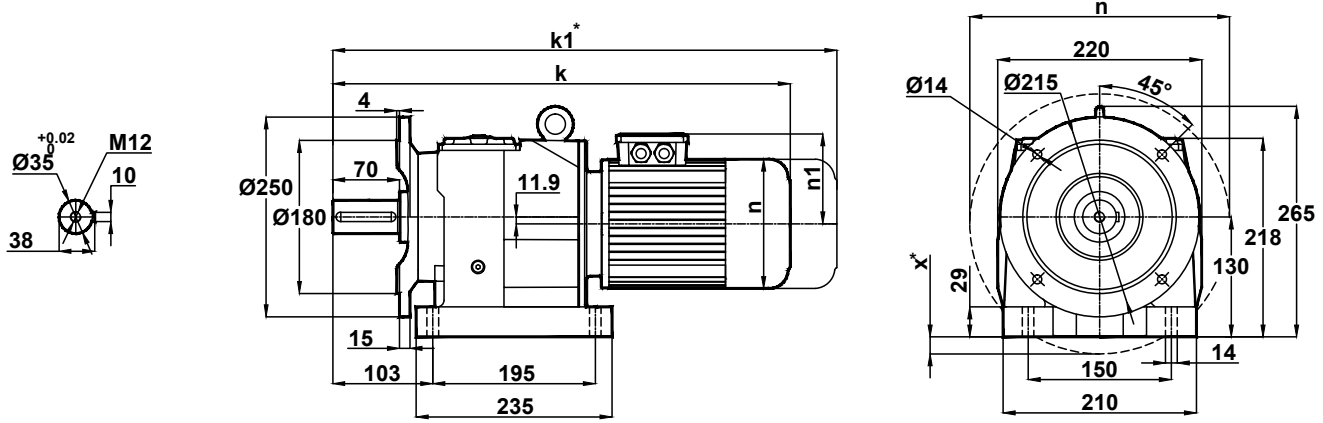


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



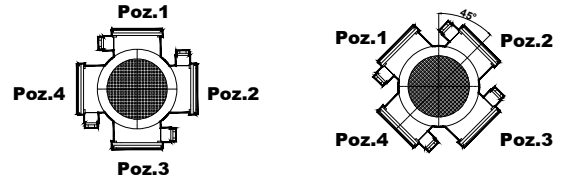
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MRF282 MRF283



| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |     |      |      |      |      |
|--|-----|-----|-----|-----|------|------|------|------|
|  | 71  | 80  | 90S | 90L | 100L | 112M | 132S | 132M |
| k  | 479 | 507 | 537 | 562 | 602  | 625  | 679  | 717  |
| k1   | 599 | 627 | 662 | 687 | 737  | 760  | 824  | 862  |
| n  | 138 | 156 | 176 | 176 | 194  | 218  | 257  | 257  |
| n1   | 111 | 118 | 126 | 126 | 135  | 146  | 168  | 168  |
| x  | -   | -   | -   | -   | -    | -    | -    | 14   |

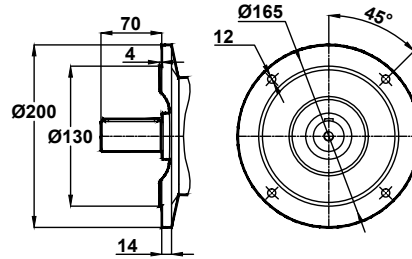
Klemens Kutusu / Terminal Box / Klemmenkasten



71-100-112-132

80-90

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

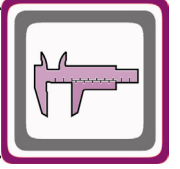
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



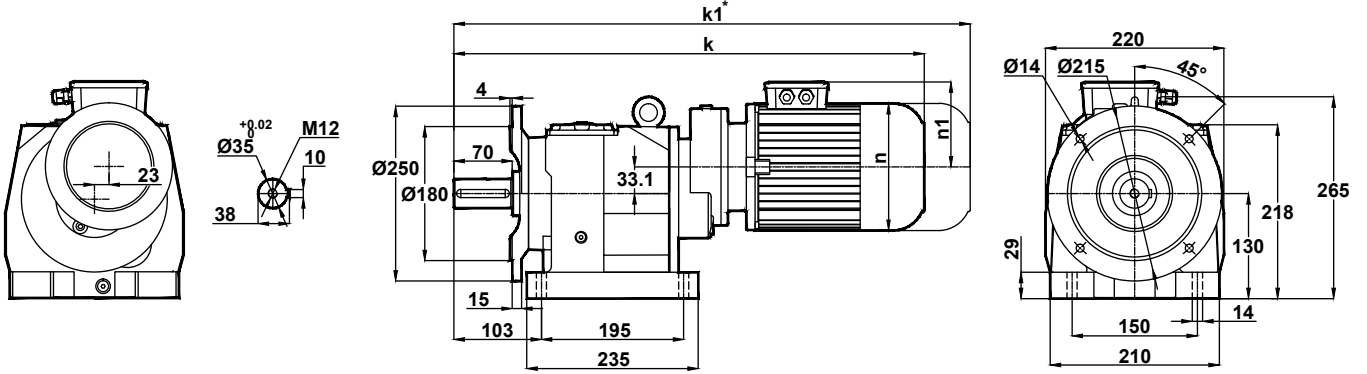


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



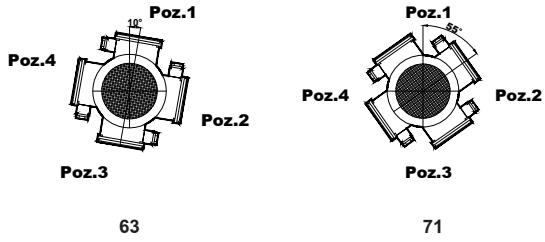
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MRF284

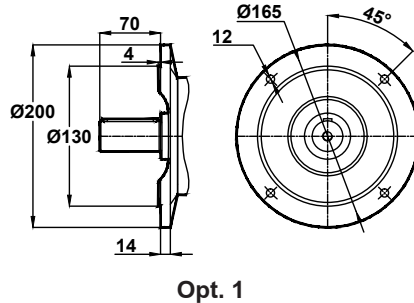


| Motor Büyüklüğü / Motor Size / Motorbaugroße | 63  | 71  |
|--|-----|-----|
| k  | 540 | 558 |
| k1   | 593 | 678 |
| n  | 121 | 138 |
| n1   | 97  | 111 |

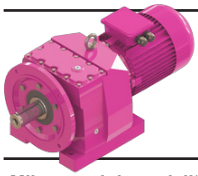
Klemens Kutusu / Terminal Box / Klemmenkasten



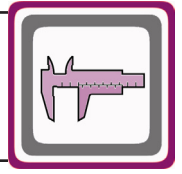
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

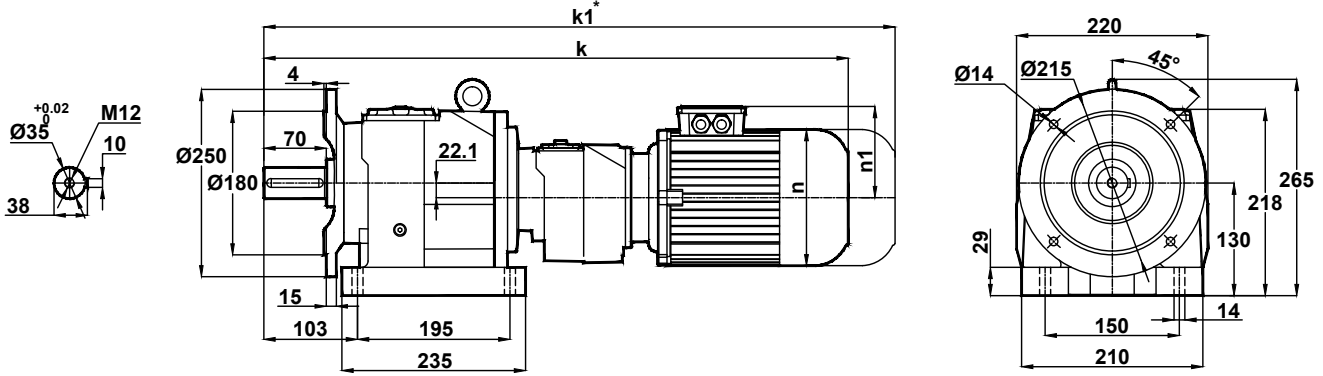


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



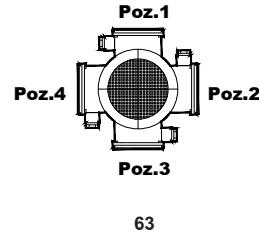
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MRF285**  
**MRF286**

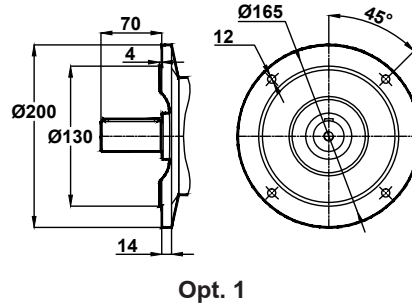


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |
|--|-----|
|  | 63  |
| k  | 641 |
| k1   | 694 |
| n  | 121 |
| n1   | 97  |

Klemens Kutusu / Terminal Box / Klemmenkasten

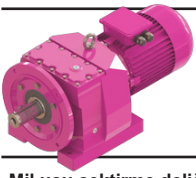


Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

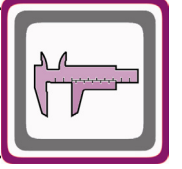


Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

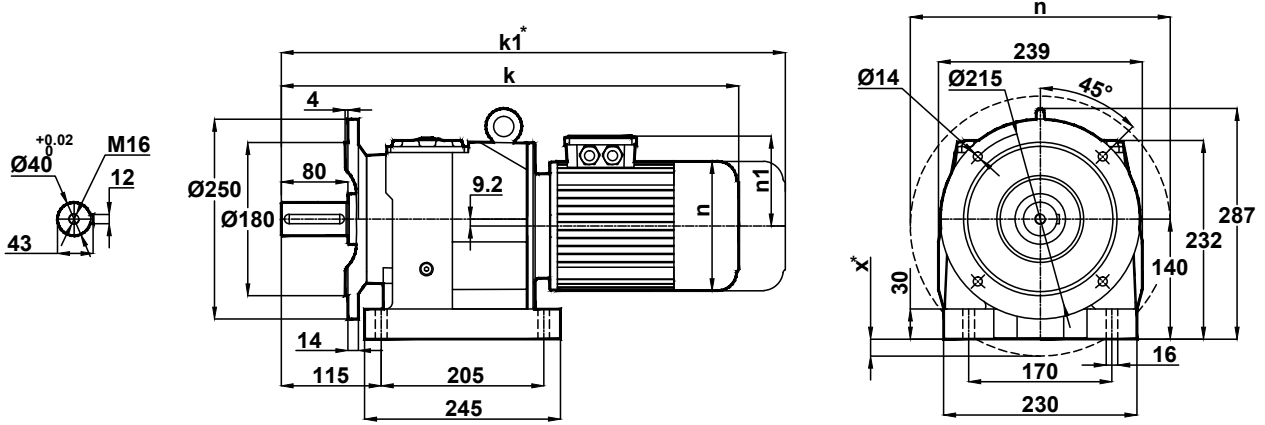


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



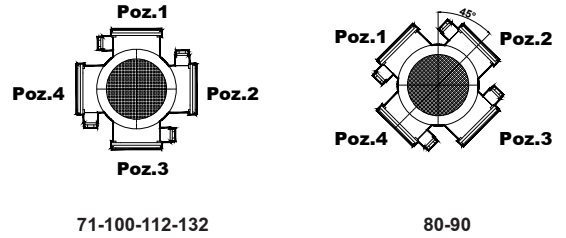
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MRF372**  
**MRF373**

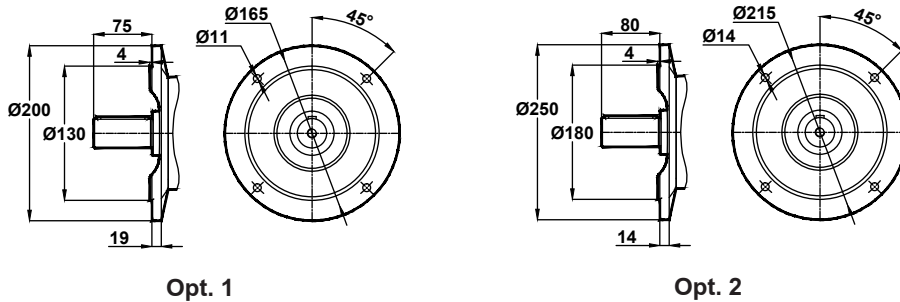


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |     |      |      |      |      |
|--|-----|-----|-----|-----|------|------|------|------|
|  | 71  | 80  | 90S | 90L | 100L | 112M | 132S | 132M |
| k  | 500 | 528 | 558 | 583 | 623  | 646  | 700  | 738  |
| k1   | 620 | 648 | 683 | 708 | 758  | 781  | 845  | 883  |
| n  | 138 | 156 | 176 | 176 | 194  | 218  | 257  | 257  |
| n1   | 111 | 118 | 126 | 126 | 135  | 146  | 168  | 168  |
| x  | -   | -   | -   | -   | -    | -    | 2    | 30   |

Klemens Kutusu / Terminal Box / Klemmenkasten



Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

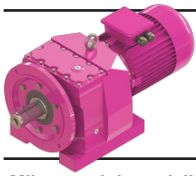


\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

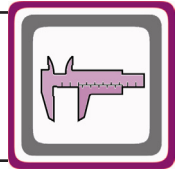
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

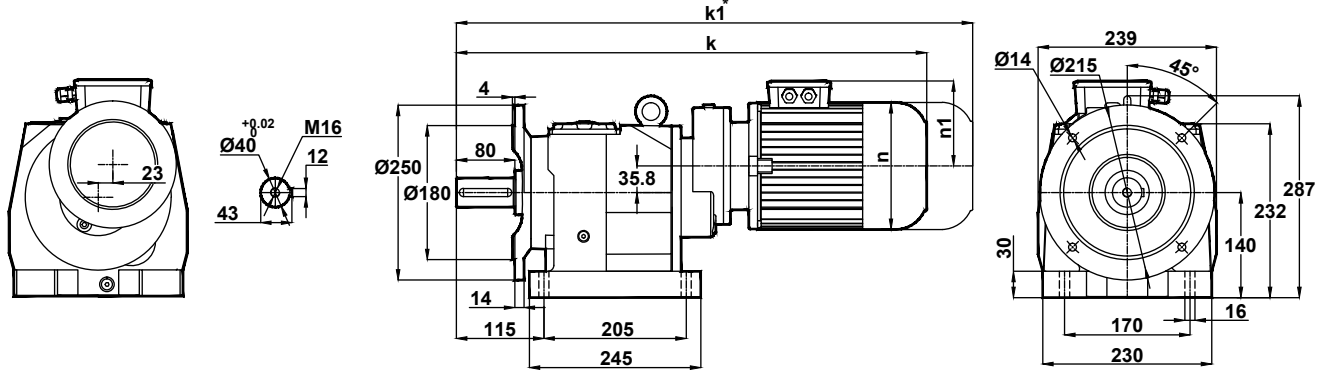


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



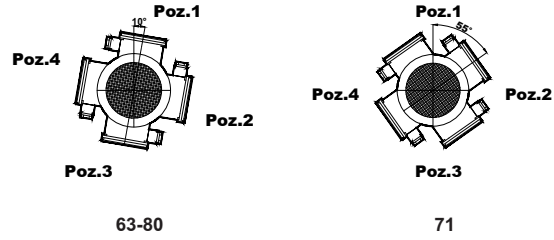
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MRF374

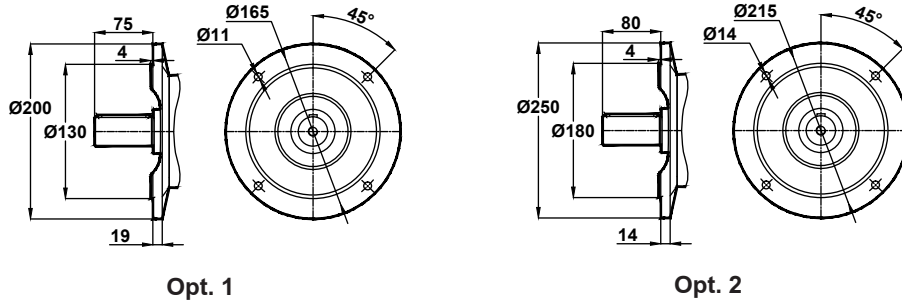


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |
|--|-----|-----|-----|
|  | 63  | 71  | 80  |
| k  | 561 | 579 | 608 |
| k1   | 614 | 699 | 728 |
| n  | 121 | 138 | 156 |
| n1   | 97  | 111 | 118 |

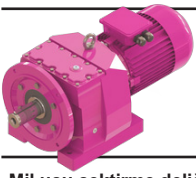
### Klemens Kutusu / Terminal Box / Klemmenkasten



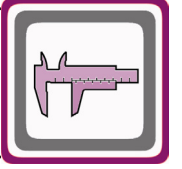
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

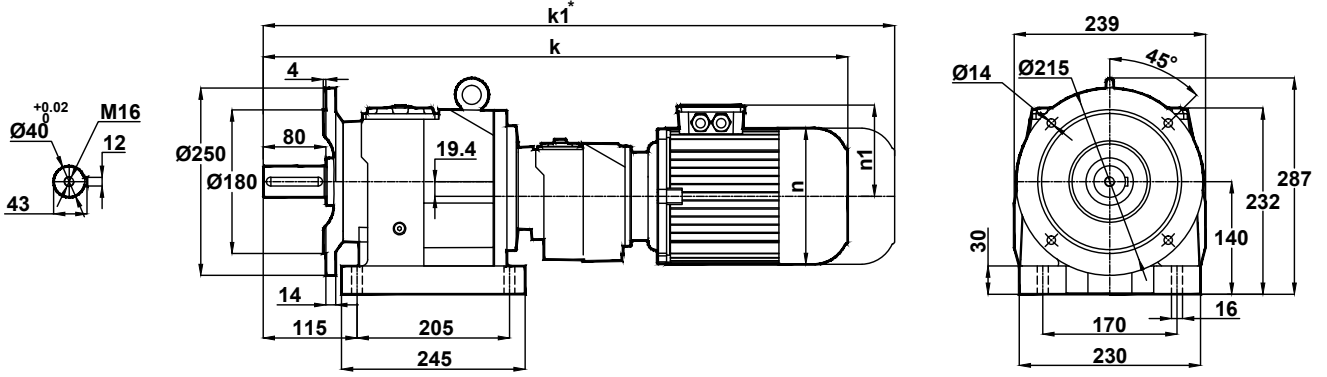


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



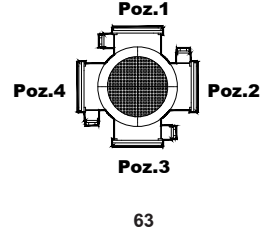
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MRF375**  
**MRF376**

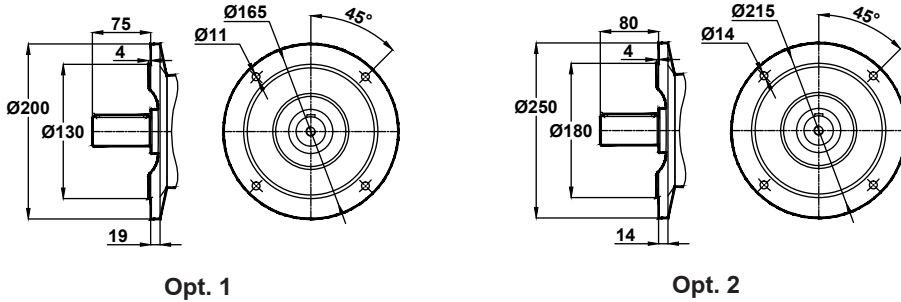


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |
|--|-----|
|  | 63  |
| k  | 662 |
| k1   | 715 |
| n  | 121 |
| n1   | 97  |

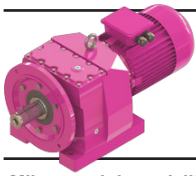
Klemens Kutusu / Terminal Box / Klemmenkasten



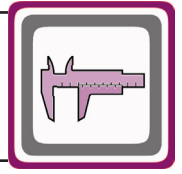
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

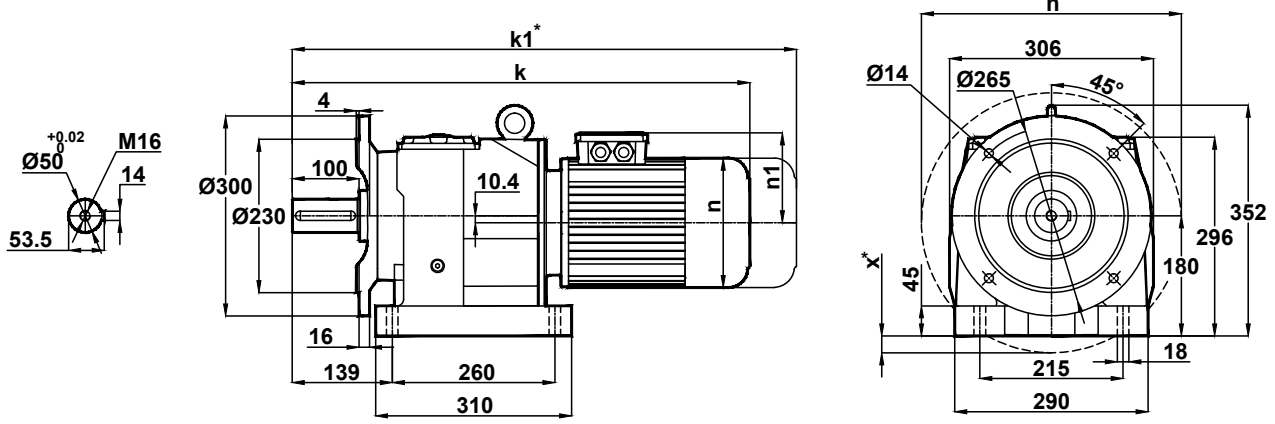


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



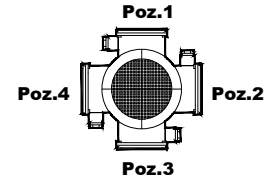
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MRF472**  
**MRF473**



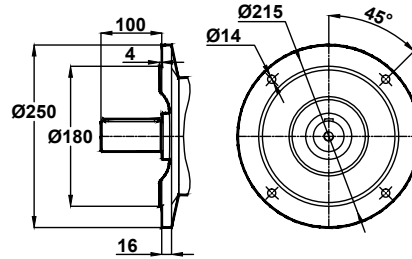
| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |      |      |      |      |      |      |      |      |
|--|-----|-----|-----|------|------|------|------|------|------|------|------|
|  | 80  | 90S | 90L | 100L | 112M | 132S | 132M | 160M | 160L | 180M | 180L |
| k  | 596 | 624 | 649 | 688  | 713  | 762  | 800  | 875  | 919  | 936  | 974  |
| k1   | 716 | 749 | 774 | 823  | 848  | 907  | 945  | 1045 | 1089 | 1106 | 1144 |
| n  | 156 | 176 | 176 | 194  | 218  | 257  | 257  | 310  | 310  | 348  | 348  |
| n1   | 118 | 126 | 126 | 135  | 146  | 168  | 168  | 225  | 225  | 241  | 241  |
| x  | -   | -   | -   | -    | -    | -    | -    | -    | -    | 11   | 11   |

Klemens Kutusu / Terminal Box / Klemmenkasten



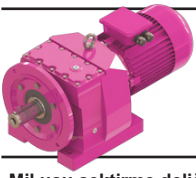
80-90-100-112-132-160-180

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

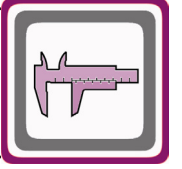


Opt. 1

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

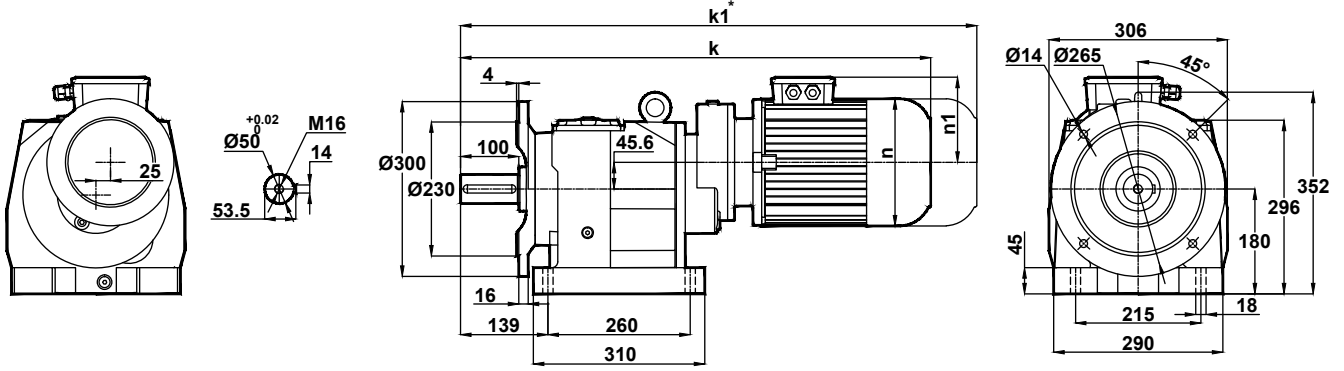


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



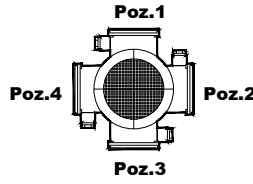
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MRF474

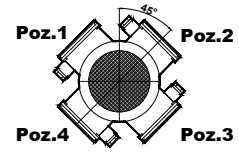


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |
|--|-----|-----|
|  | 71  | 80  |
| k  | 661 | 689 |
| k1   | 781 | 809 |
| n  | 138 | 156 |
| n1   | 111 | 118 |

Klemens Kutusu / Terminal Box / Klemmenkasten

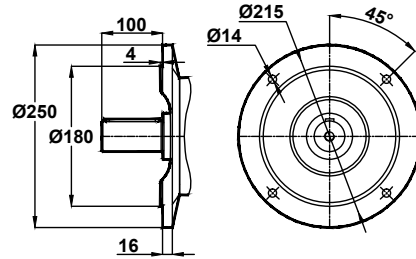


71



80

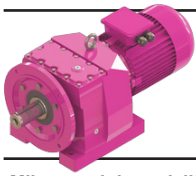
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



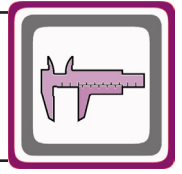
Opt. 1

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

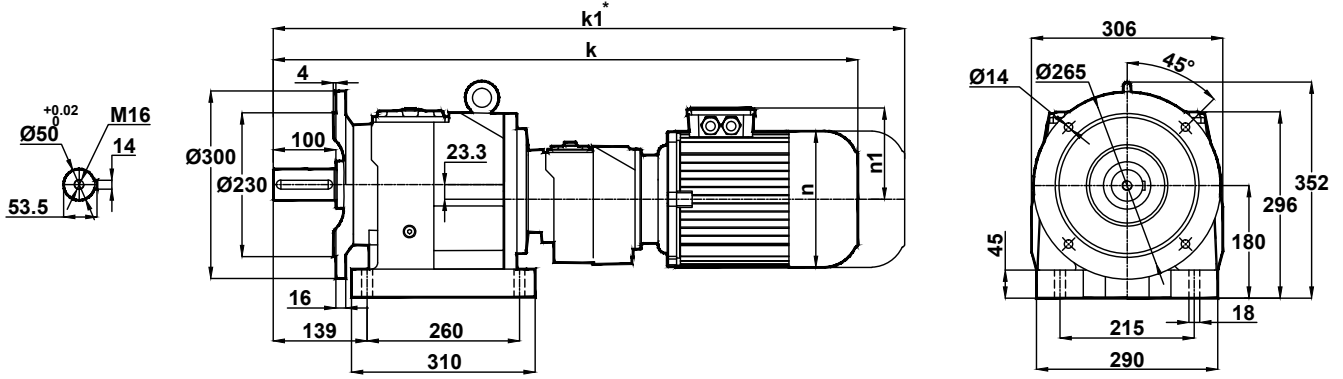


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



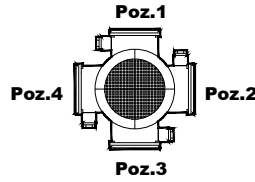
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MRF475**  
**MRF476**

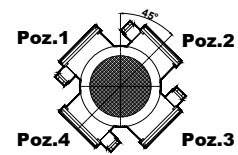


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |
|--|-----|-----|
|  | 63  | 71  |
| k  | 772 | 791 |
| k1   | 825 | 911 |
| n  | 121 | 138 |
| n1   | 97  | 111 |

Klemens Kutusu / Terminal Box / Klemmenkasten

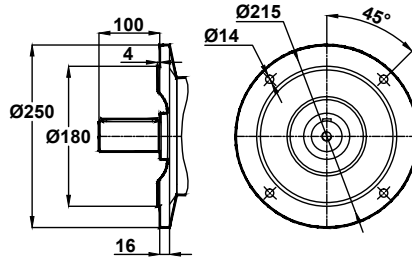


63



71

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

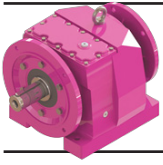


Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.





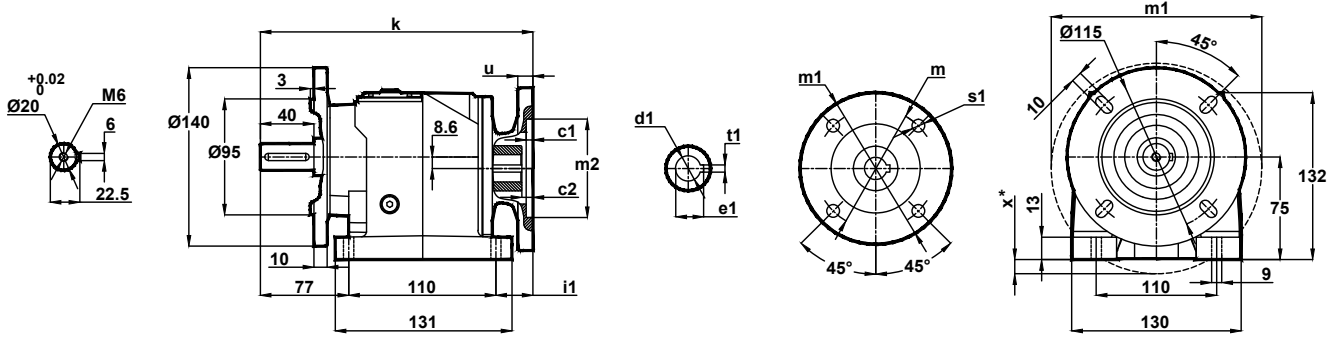


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



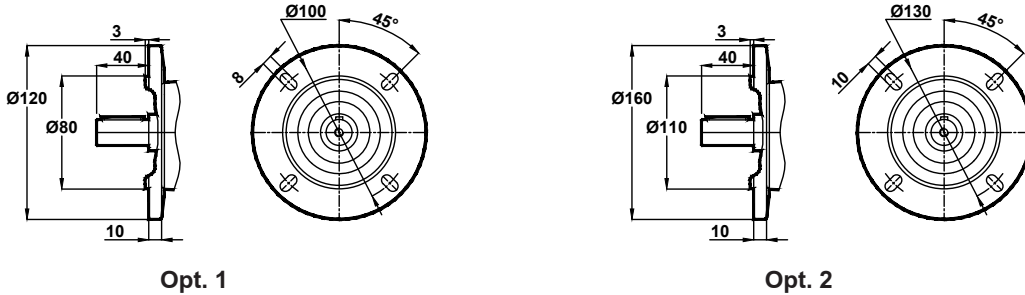
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MNF002-A..**  
**MNF003-A..**

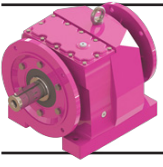


| IEC   | c1  | c2  | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x  |
|-------|-----|-----|----|-----|-----|-----|------|----|-----|----|----|------|----|
| 63/B5 | 3.5 | 5   | 10 | 115 | 140 | 95  | 28   | 10 | 214 | 11 | 4  | 12.8 | 4  |
| 71/B5 | 4   | 4.5 | 11 | 130 | 160 | 110 | 29.5 | 12 | 216 | 14 | 5  | 16.3 | 14 |
| 80/B5 | 4   | 5   | 13 | 165 | 200 | 130 | 44.5 | 12 | 231 | 19 | 6  | 21.8 | 34 |
| 90/B5 | 4   | 5   | 13 | 165 | 200 | 130 | 44.5 | 12 | 231 | 24 | 8  | 27.3 | 34 |

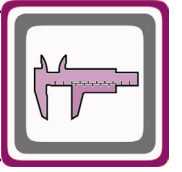
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

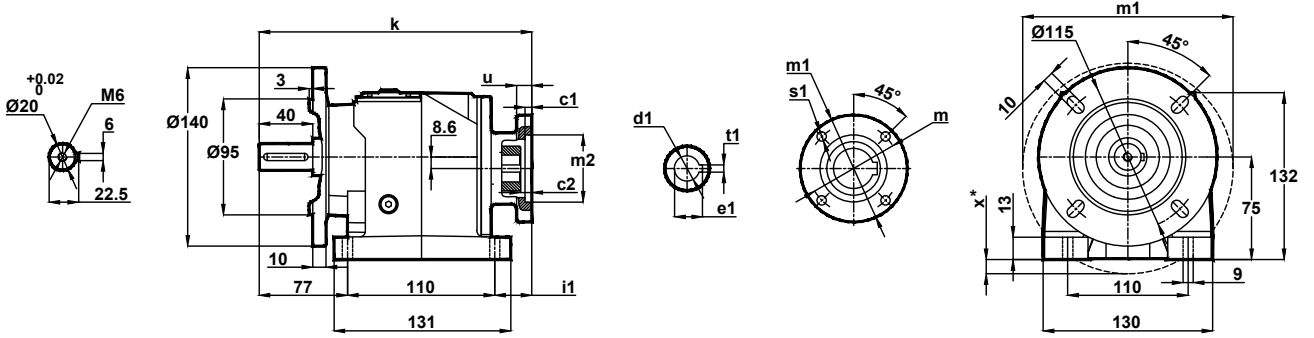


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



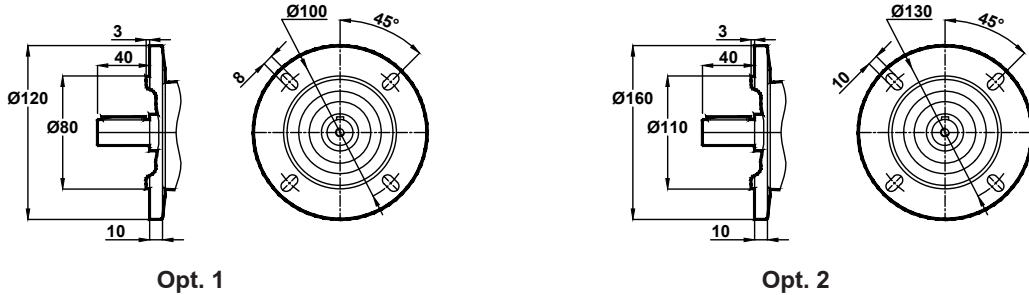
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MNF002-B..  
MNF003-B..

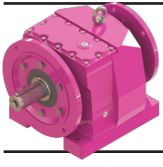


| IEC    | c1  | c2  | s1  | m   | m1  | m2 | i1   | u  | k   | d1 | t1 | e1   | x |
|--------|-----|-----|-----|-----|-----|----|------|----|-----|----|----|------|---|
| 63/B14 | 2.5 | 5   | 5.5 | 75  | 90  | 60 | 28   | 10 | 214 | 11 | 4  | 12.8 | - |
| 71/B14 | 3   | 4.5 | 7   | 85  | 105 | 70 | 29.5 | 10 | 216 | 14 | 5  | 16.3 | - |
| 80/B14 | 4   | 5   | 7   | 100 | 120 | 80 | 44.5 | 12 | 231 | 19 | 6  | 21.8 | - |
| 90/B14 | 4   | 5   | 9   | 115 | 140 | 95 | 44.5 | 12 | 231 | 24 | 8  | 27.3 | 4 |

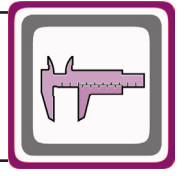
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

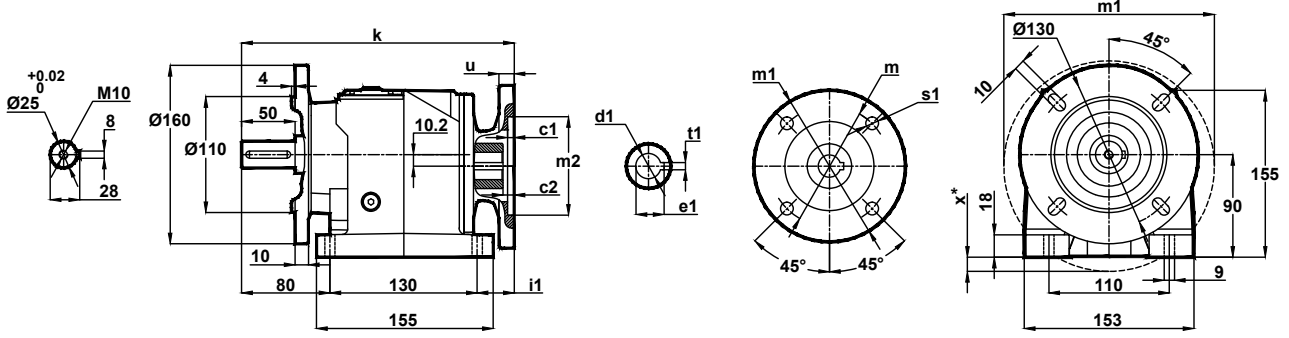


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



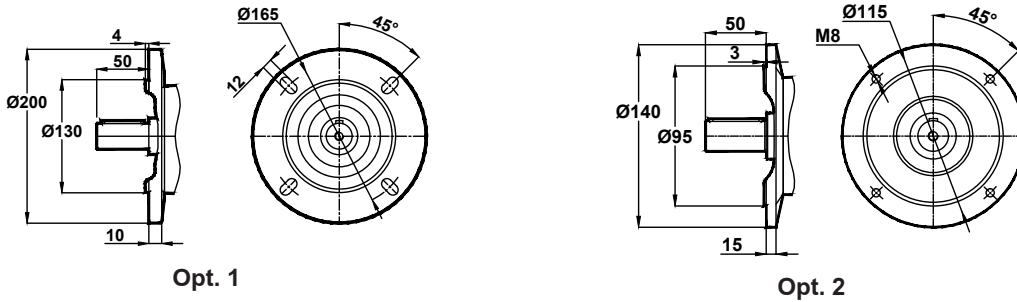
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MNF102-A..**  
**MNF103-A..**

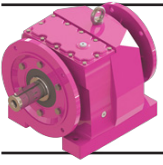


| IEC   | c1 | c2  | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x   |
|-------|----|-----|----|-----|-----|-----|------|----|-----|----|----|------|-----|
| 63/B5 | 4  | 7   | 10 | 115 | 140 | 95  | 28.5 | 12 | 240 | 11 | 4  | 12.8 | -   |
| 71/B5 | 4  | 4.5 | 12 | 130 | 160 | 110 | 28.5 | 12 | 240 | 14 | 5  | 16.3 | 0.5 |
| 80/B5 | 4  | 5   | 12 | 165 | 200 | 130 | 43.5 | 12 | 255 | 19 | 6  | 21.8 | 20  |
| 90/B5 | 4  | 5   | 12 | 165 | 200 | 130 | 43.5 | 12 | 255 | 24 | 8  | 27.3 | 20  |

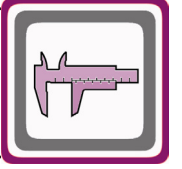
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlussplatte

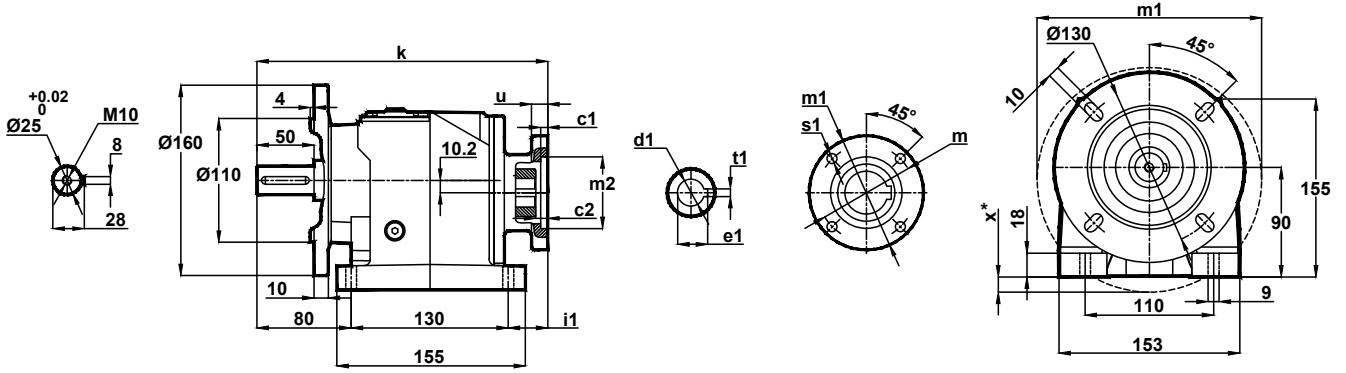


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



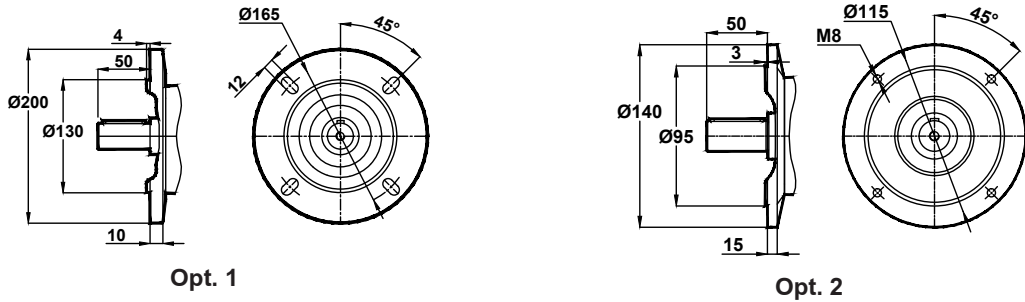
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MNF102-B..  
MNF103-B..

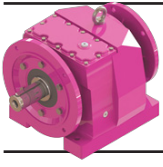


| IEC    | c1  | c2  | s1  | m   | m1  | m2 | i1   | u  | k   | d1 | t1 | e1   | x |
|--------|-----|-----|-----|-----|-----|----|------|----|-----|----|----|------|---|
| 63/B14 | 2.5 | 5   | 5.5 | 75  | 90  | 60 | 28.5 | 10 | 240 | 11 | 4  | 12.8 | - |
| 71/B14 | 3   | 4.5 | 7   | 85  | 105 | 70 | 28.5 | 10 | 240 | 14 | 5  | 16.3 | - |
| 80/B14 | 4   | 4.7 | 7   | 100 | 120 | 80 | 43.5 | 12 | 255 | 19 | 6  | 21.8 | - |
| 90/B14 | 4   | 4.7 | 9   | 115 | 140 | 95 | 43.5 | 12 | 255 | 24 | 8  | 27.3 | - |

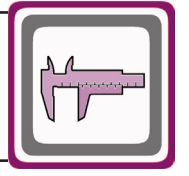
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

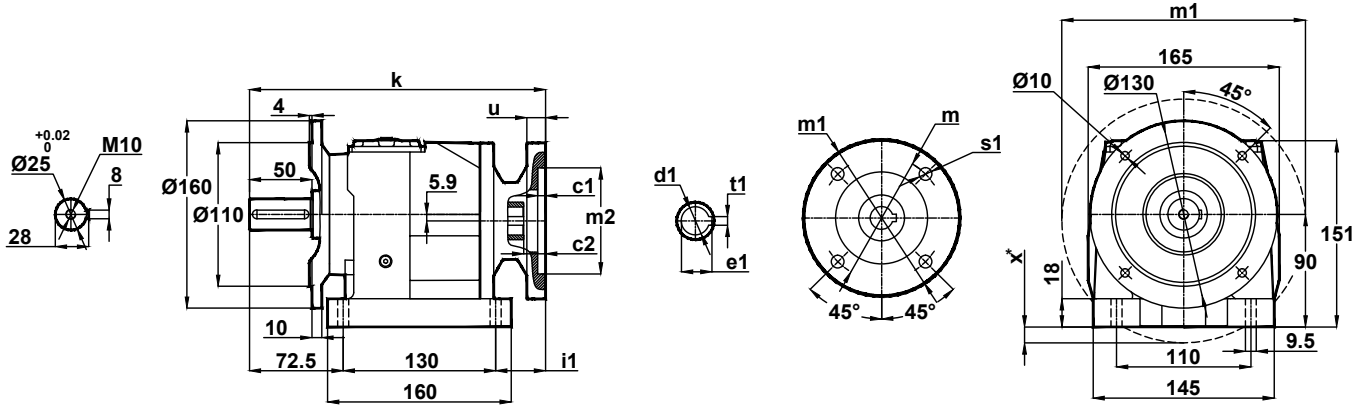


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



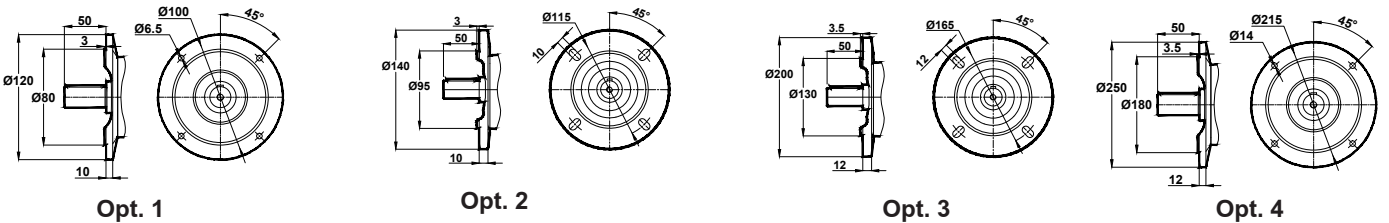
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MNF172-A..**  
**MNF173-A..**



| IEC    | c1  | c2  | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x  |
|--------|-----|-----|----|-----|-----|-----|------|----|-----|----|----|------|----|
| 63/B5  | 3.5 | 5   | 10 | 115 | 140 | 95  | 38.5 | 10 | 241 | 11 | 4  | 12.8 | -  |
| 71/B5  | 4   | 4.5 | 11 | 130 | 160 | 110 | 40   | 12 | 243 | 14 | 5  | 16.3 | -  |
| 80/B5  | 4   | 5   | 13 | 165 | 200 | 130 | 55   | 12 | 258 | 19 | 6  | 21.8 | 16 |
| 90/B5  | 4   | 5   | 13 | 165 | 200 | 130 | 55   | 12 | 258 | 24 | 8  | 27.3 | 16 |
| 100/B5 | 4   | 5   | 15 | 215 | 250 | 180 | 66   | 12 | 269 | 28 | 8  | 31.3 | 41 |
| 112/B5 | 4   | 5   | 15 | 215 | 250 | 180 | 66   | 12 | 269 | 28 | 8  | 31.3 | 41 |

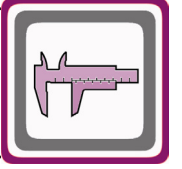
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

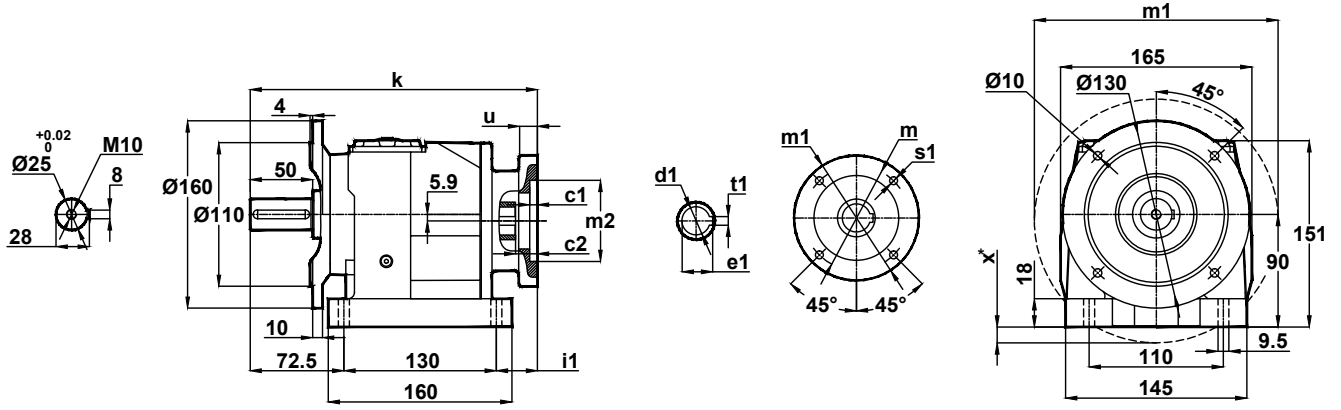


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



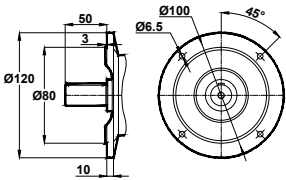
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MNF172-B..  
MNF173-B..

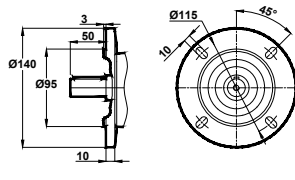


| IEC     | c1 | c2  | s1 | m   | m1  | m2  | i1 | u   | k   | d1 | t1 | e1   | x |
|---------|----|-----|----|-----|-----|-----|----|-----|-----|----|----|------|---|
| 71/B14  | 3  | 4.5 | 7  | 85  | 105 | 70  | 40 | 10  | 243 | 14 | 5  | 16.3 | - |
| 80/B14  | 4  | 5   | 7  | 100 | 120 | 80  | 55 | 120 | 258 | 19 | 6  | 21.8 | - |
| 90/B14  | 4  | 5   | 9  | 115 | 140 | 95  | 55 | 12  | 258 | 24 | 8  | 27.3 | - |
| 100/B14 | 4  | 5.5 | 9  | 130 | 160 | 110 | 66 | 12  | 269 | 28 | 8  | 31.3 | - |
| 112/B14 | 4  | 5.5 | 9  | 130 | 160 | 110 | 66 | 12  | 269 | 28 | 8  | 31.3 | - |

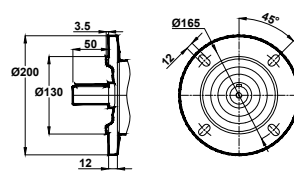
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



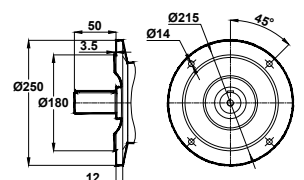
Opt. 1



Opt. 2

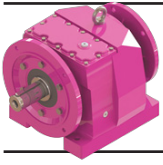


Opt. 3



Opt. 4

x: Motor ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlussplatte

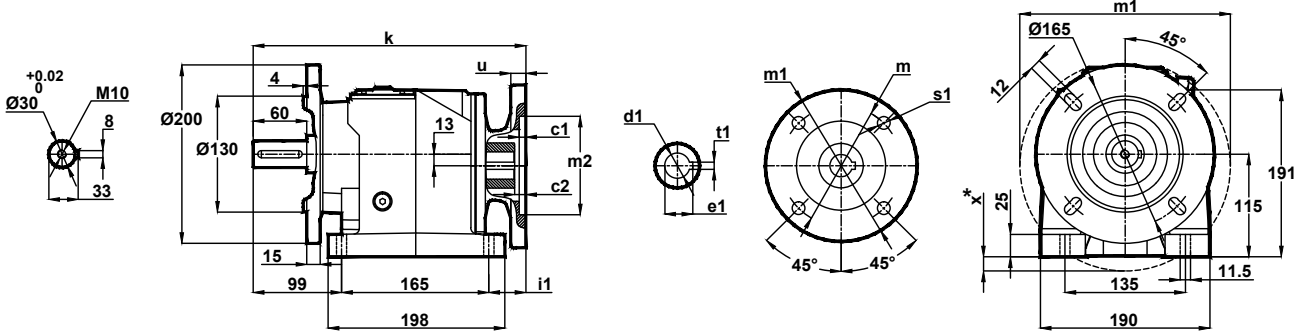


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



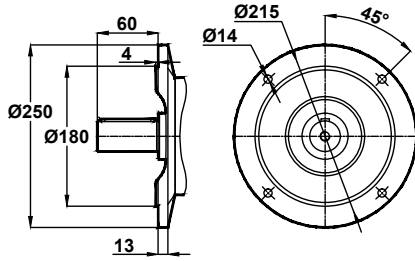
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MNF202-A..**  
**MNF203-A..**

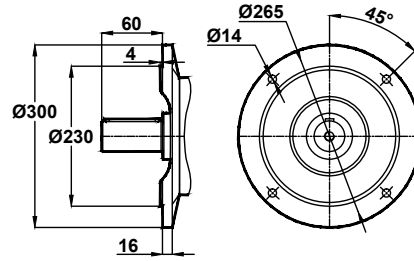


| IEC    | c1 | c2  | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x  |
|--------|----|-----|----|-----|-----|-----|------|----|-----|----|----|------|----|
| 63/B5  | 4  | 5   | 9  | 115 | 140 | 95  | 58.5 | 12 | 323 | 11 | 4  | 12.8 | -  |
| 71/B5  | 4  | 8.5 | 11 | 130 | 160 | 110 | 29.5 | 12 | 294 | 14 | 5  | 163  | -  |
| 80/B5  | 4  | 5   | 13 | 165 | 200 | 130 | 58.5 | 12 | 323 | 19 | 6  | 21.8 | -  |
| 90/B5  | 4  | 5   | 13 | 165 | 200 | 130 | 58.5 | 12 | 323 | 24 | 8  | 27.3 | -  |
| 100/B5 | 4  | 5.5 | 15 | 215 | 250 | 180 | 51.5 | 12 | 316 | 28 | 8  | 31.3 | 23 |
| 112/B5 | 4  | 5.5 | 15 | 215 | 250 | 180 | 51.5 | 12 | 316 | 28 | 8  | 31.3 | 23 |

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



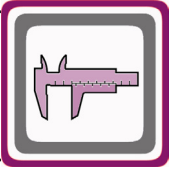
Opt. 2

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



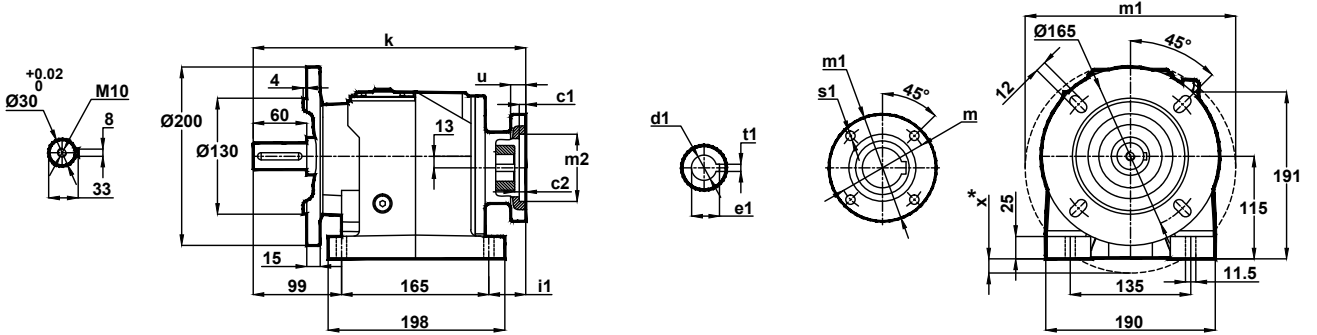


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



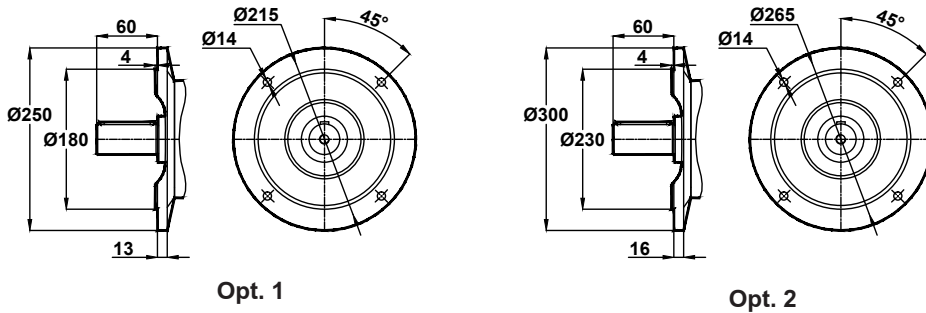
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MNF202-B..  
MNF203-B..

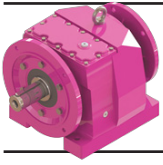


| IEC     | c1 | c2  | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x |
|---------|----|-----|----|-----|-----|-----|------|----|-----|----|----|------|---|
| 71/B14  | 3  | 8.5 | 7  | 85  | 105 | 70  | 29.5 | 10 | 294 | 14 | 5  | 16.3 | - |
| 80/B14  | 4  | 5   | 7  | 100 | 120 | 80  | 58.5 | 12 | 323 | 19 | 6  | 21.8 | - |
| 90/B14  | 4  | 5   | 9  | 115 | 140 | 95  | 58.5 | 12 | 323 | 24 | 8  | 27.3 | - |
| 100/B14 | 4  | 5.5 | 9  | 130 | 160 | 110 | 51.5 | 12 | 316 | 28 | 8  | 31.3 | - |
| 112/B14 | 4  | 5.5 | 9  | 130 | 160 | 110 | 51.5 | 12 | 316 | 28 | 8  | 31.3 | - |

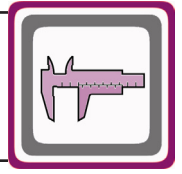
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

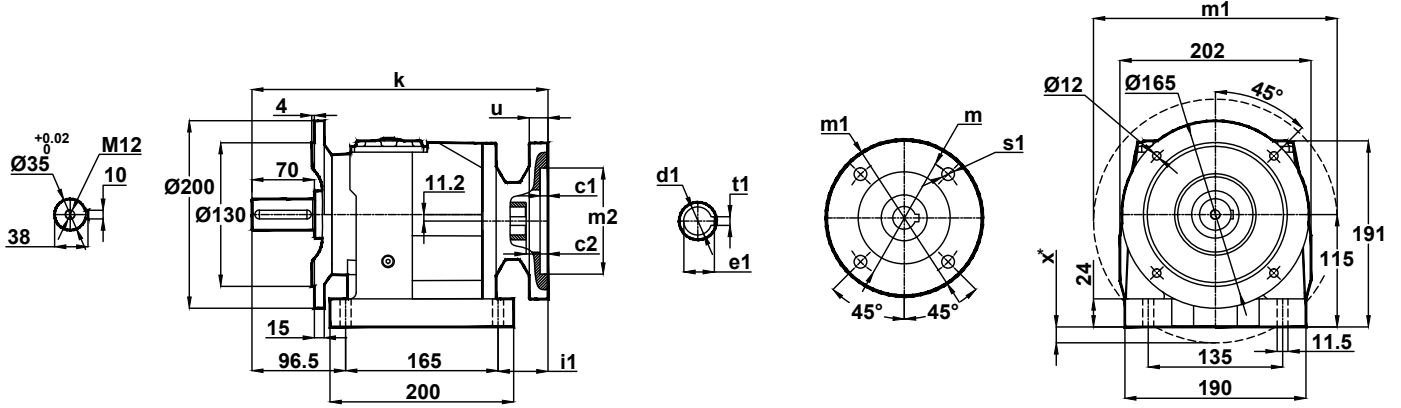


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



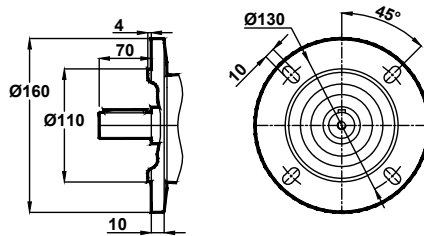
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MNF272-A..**  
**MNF273-A..**



| IEC    | c1 | c2  | s1 | m   | m1  | m2  | i1 | u  | k   | d1 | t1 | e1   | x  |
|--------|----|-----|----|-----|-----|-----|----|----|-----|----|----|------|----|
| 63/B5  | 4  | 5   | 9  | 115 | 140 | 95  | 62 | 12 | 324 | 11 | 4  | 12.8 | -  |
| 71/B5  | 4  | 8.5 | 11 | 130 | 160 | 110 | 33 | 12 | 295 | 14 | 5  | 16.3 | -  |
| 80/B5  | 4  | 5   | 13 | 165 | 200 | 130 | 62 | 12 | 324 | 19 | 6  | 21.8 | -  |
| 90/B5  | 4  | 5   | 13 | 165 | 200 | 130 | 62 | 12 | 324 | 24 | 8  | 27.3 | -  |
| 100/B5 | 4  | 5.5 | 15 | 215 | 250 | 180 | 55 | 12 | 317 | 28 | 8  | 31.3 | 22 |
| 112/B5 | 4  | 5.5 | 15 | 215 | 250 | 180 | 55 | 12 | 317 | 28 | 8  | 31.3 | 22 |

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

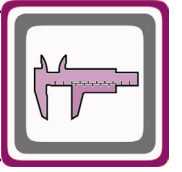


Opt. 1

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

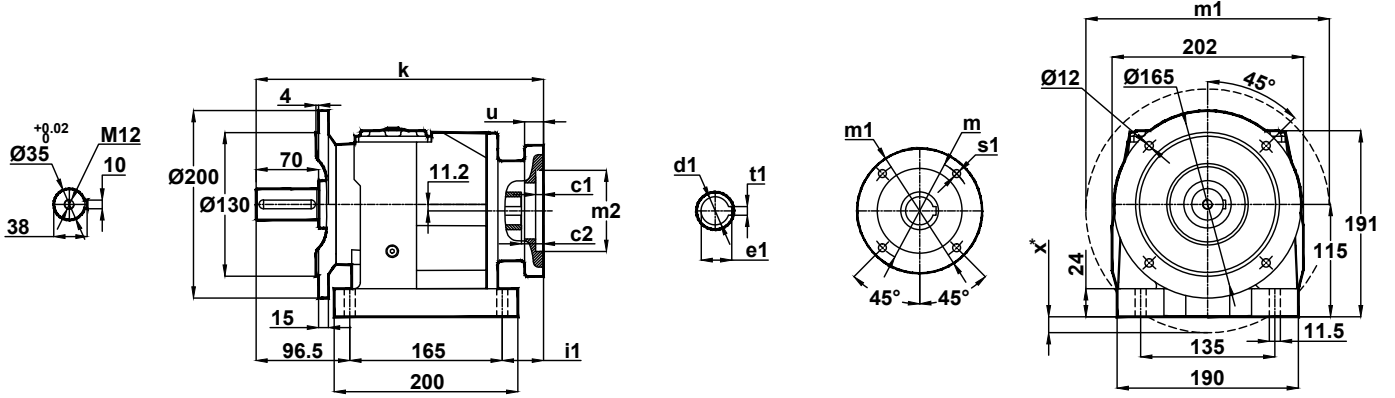


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



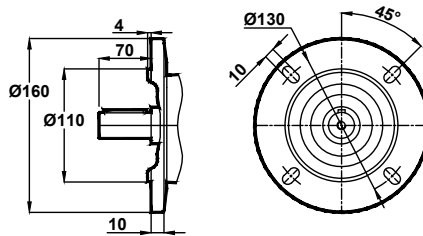
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MNF272-B..  
MNF273-B..



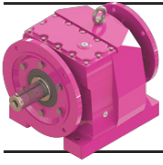
| IEC     | c1 | c2  | s1 | m   | m1  | m2  | i1 | u  | k   | d1 | t1 | e1   | x |
|---------|----|-----|----|-----|-----|-----|----|----|-----|----|----|------|---|
| 71/B14  | 3  | 8.5 | 7  | 85  | 105 | 70  | 33 | 10 | 295 | 14 | 5  | 16.3 | - |
| 80/B14  | 4  | 5   | 7  | 100 | 120 | 80  | 62 | 12 | 324 | 19 | 6  | 21.8 | - |
| 90/B14  | 4  | 5   | 9  | 115 | 140 | 95  | 62 | 12 | 324 | 24 | 8  | 27.3 | - |
| 100/B14 | 4  | 5.5 | 9  | 130 | 160 | 110 | 55 | 12 | 317 | 28 | 8  | 31.3 | - |
| 112/B14 | 4  | 5.5 | 9  | 130 | 160 | 110 | 55 | 12 | 317 | 28 | 8  | 31.3 | - |

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlussplatte

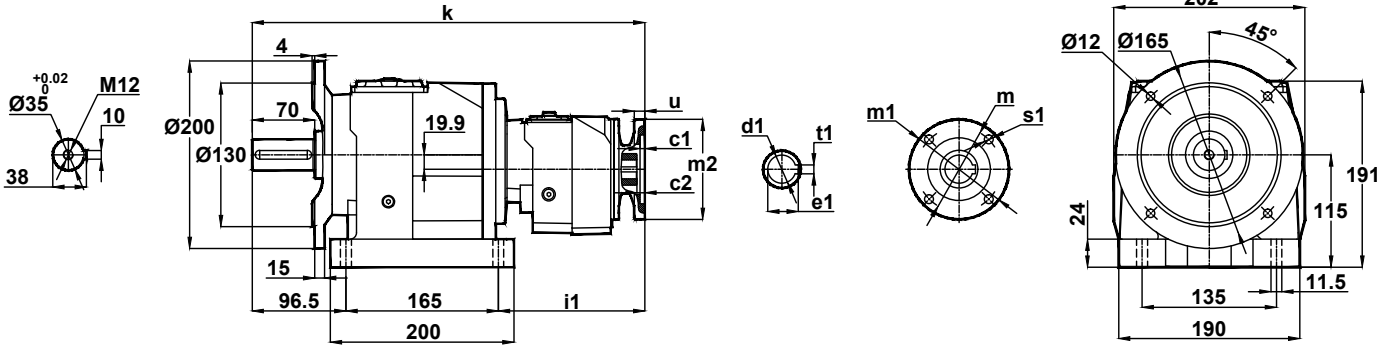


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



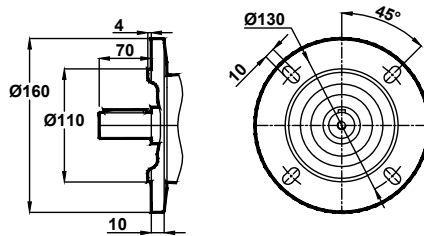
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MNF275-A..  
MNF276-A..

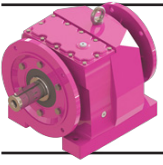


| IEC   | c1  | c2  | s1 | m   | m1  | m2  | i1    | u  | k   | d1 | t1 | e1   |
|-------|-----|-----|----|-----|-----|-----|-------|----|-----|----|----|------|
| 63/B5 | 3.5 | 5   | 10 | 115 | 140 | 95  | 177.5 | 10 | 439 | 11 | 4  | 12.8 |
| 71/B5 | 4   | 4.5 | 11 | 130 | 160 | 110 | 179   | 12 | 441 | 14 | 5  | 16.3 |

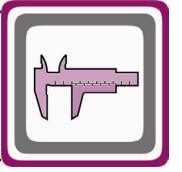
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

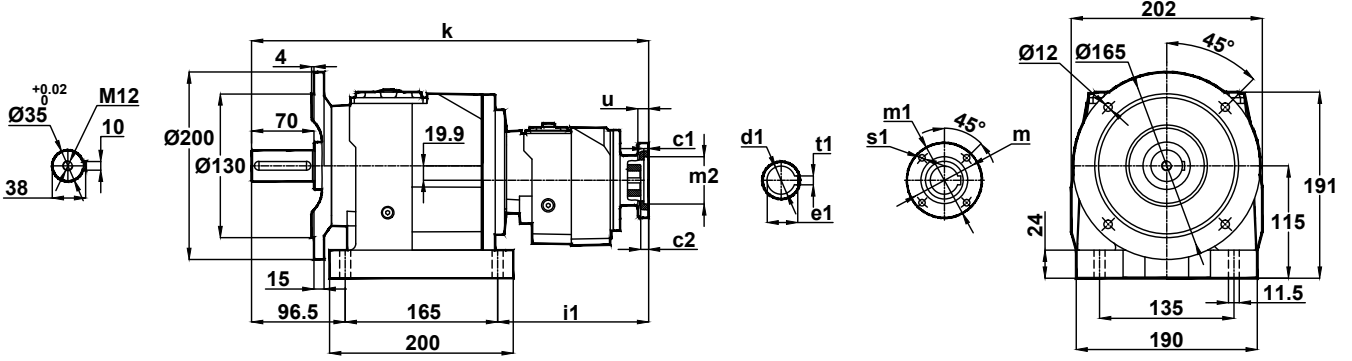


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



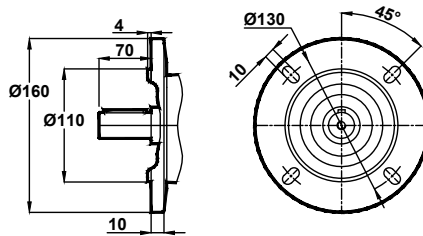
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MNF275-B..**  
**MNF276-B..**

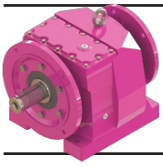


| IEC    | c1  | c2  | s1  | m  | m1  | m2 | i1    | u  | k   | d1 | t1 | e1   |
|--------|-----|-----|-----|----|-----|----|-------|----|-----|----|----|------|
| 63/B14 | 2.5 | 5   | 5.5 | 75 | 90  | 60 | 177.5 | 10 | 439 | 11 | 4  | 12.8 |
| 71/B14 | 3   | 4.5 | 7   | 85 | 105 | 70 | 179   | 10 | 441 | 14 | 5  | 16.3 |

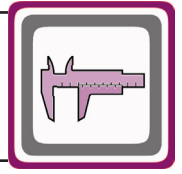
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



**Opt. 1**

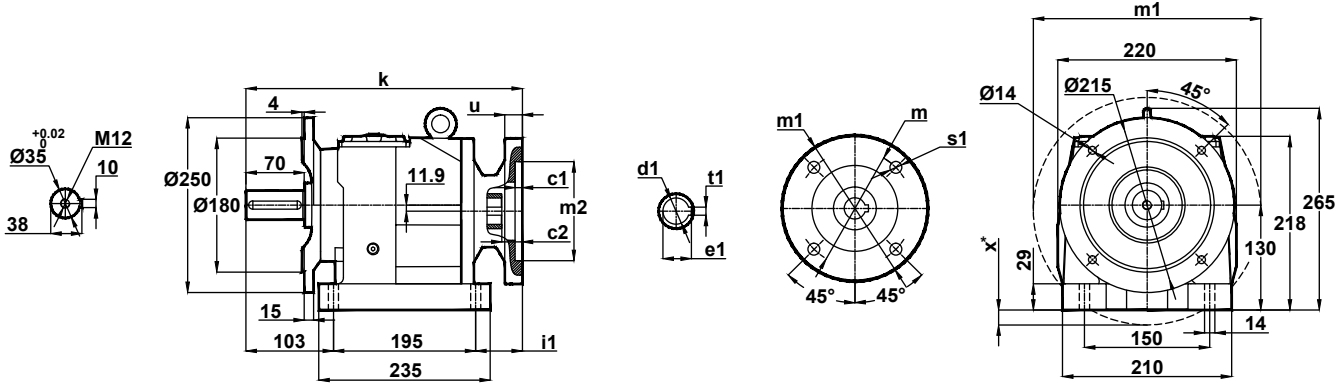


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



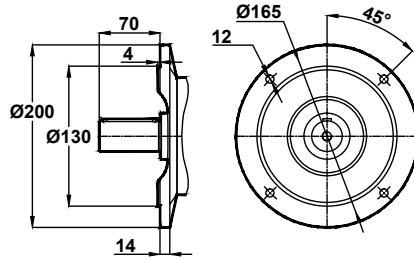
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MNF282-A..**  
**MNF283-A..**



| IEC    | c1  | c2 | s1 | m   | m1  | m2  | i1 | u  | k   | d1 | t1 | e1   | x  |
|--------|-----|----|----|-----|-----|-----|----|----|-----|----|----|------|----|
| 71/B5  | 4   | 9  | 11 | 130 | 160 | 110 | 45 | 12 | 343 | 14 | 5  | 16.3 | -  |
| 80/B5  | 4   | 9  | 13 | 165 | 200 | 130 | 45 | 12 | 343 | 19 | 6  | 21.8 | -  |
| 90/B5  | 4   | 9  | 13 | 165 | 200 | 130 | 45 | 12 | 343 | 24 | 8  | 27.3 | -  |
| 100/B5 | 4.5 | 9  | 15 | 215 | 250 | 180 | 52 | 15 | 350 | 28 | 8  | 31.3 | 7  |
| 112/B5 | 4.5 | 9  | 15 | 215 | 250 | 180 | 52 | 15 | 350 | 28 | 8  | 31.3 | 7  |
| 132/B5 | 4.5 | 7  | 15 | 265 | 300 | 230 | 82 | 15 | 380 | 38 | 10 | 41.3 | 32 |

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

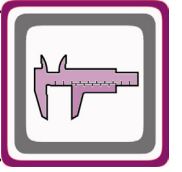


Opt. 1

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

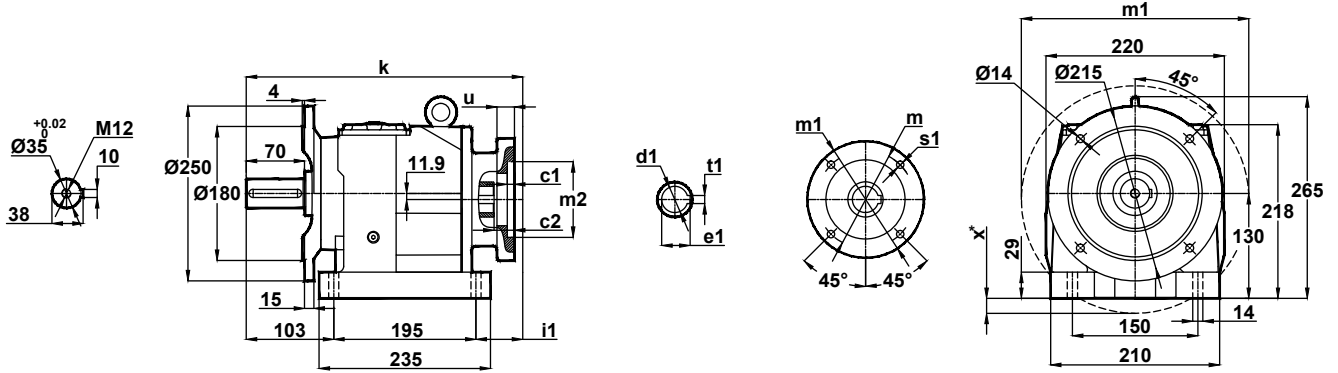


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



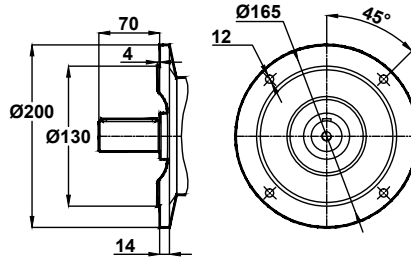
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MNF282-B..**  
**MNF283-B..**



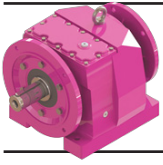
| IEC     | c1  | c2 | s1 | m   | m1  | m2  | i1 | u  | k   | d1 | t1 | e1   | x |
|---------|-----|----|----|-----|-----|-----|----|----|-----|----|----|------|---|
| 80/B14  | 4   | 9  | 7  | 100 | 120 | 80  | 45 | 12 | 343 | 19 | 6  | 21.8 | - |
| 90/B14  | 4   | 9  | 9  | 115 | 140 | 95  | 45 | 12 | 343 | 24 | 8  | 26.3 | - |
| 100/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 52 | 15 | 350 | 28 | 8  | 31.3 | - |
| 112/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 52 | 15 | 350 | 28 | 8  | 31.3 | - |
| 132/B14 | 4.5 | 7  | 11 | 165 | 200 | 130 | 82 | 15 | 380 | 38 | 10 | 41.3 | - |

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlussplatte

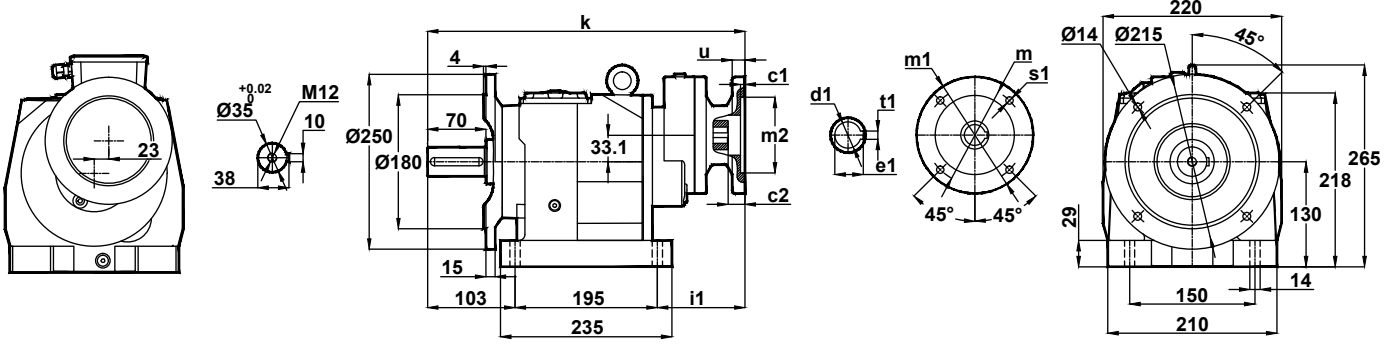


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



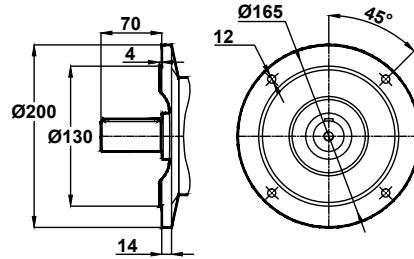
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MNF284-A..  
MNF284-B..



| IEC    | c1  | c2  | s1 | m   | m1  | m2  | i1  | u  | k   | d1 | t1 | e1   |
|--------|-----|-----|----|-----|-----|-----|-----|----|-----|----|----|------|
| 63/B5  | 3.5 | 5   | 10 | 115 | 140 | 95  | 122 | 10 | 420 | 11 | 4  | 12.8 |
| 71/B5  | 4   | 4.5 | 11 | 130 | 160 | 110 | 93  | 12 | 391 | 14 | 5  | 16.3 |
| 71/B14 | 3   | 4.5 | 7  | 85  | 105 | 70  | 93  | 10 | 391 | 14 | 5  | 16.3 |

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

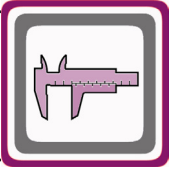


Opt. 1



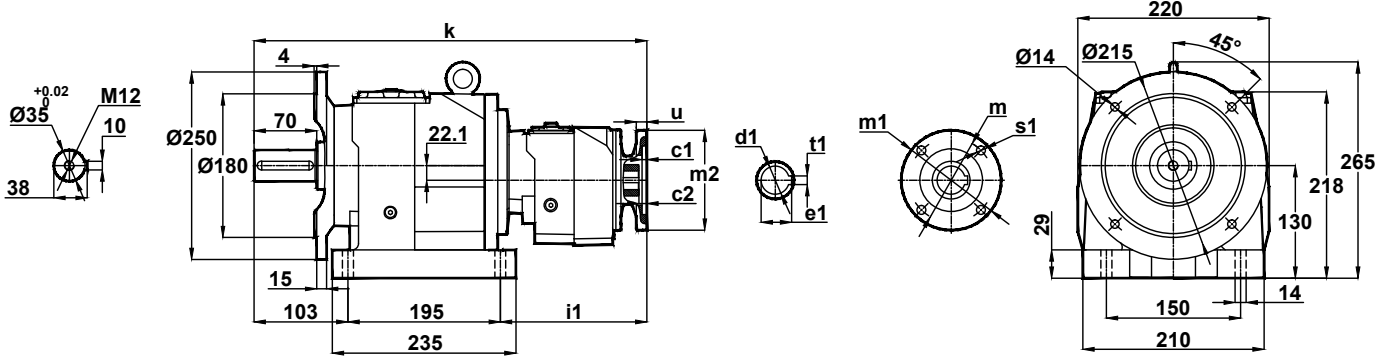


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



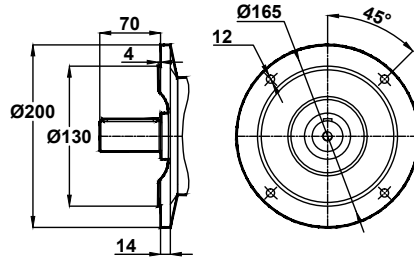
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MNF285-A.. / B..  
MNF286-A.. / B..

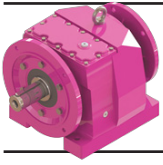


| IEC    | c1  | c2 | s1  | m   | m1  | m2 | i1  | u  | k   | d1 | t1 | e1   |
|--------|-----|----|-----|-----|-----|----|-----|----|-----|----|----|------|
| 63/B5  | 4   | 7  | 10  | 115 | 140 | 95 | 188 | 12 | 486 | 11 | 4  | 12.8 |
| 63/B14 | 2.5 | 5  | 5.5 | 75  | 90  | 60 | 188 | 10 | 486 | 11 | 4  | 12.8 |

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

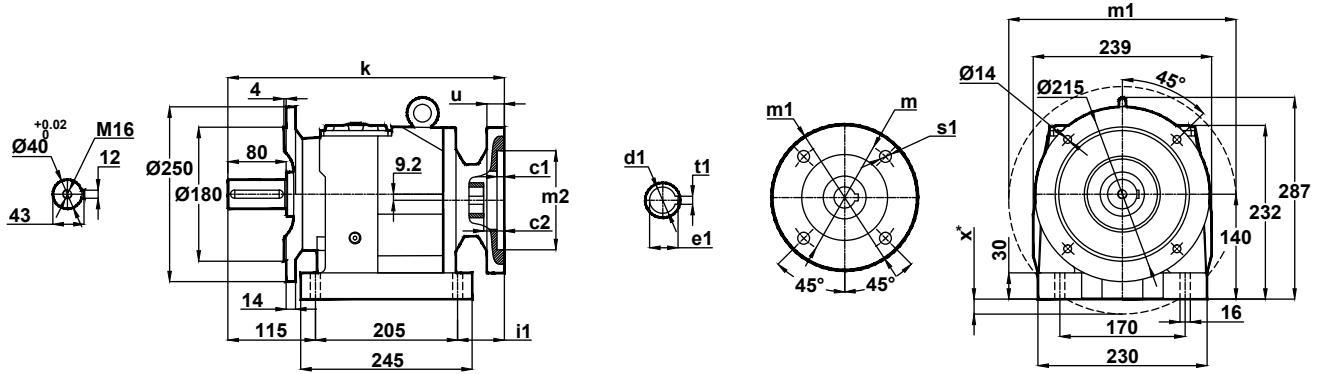


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



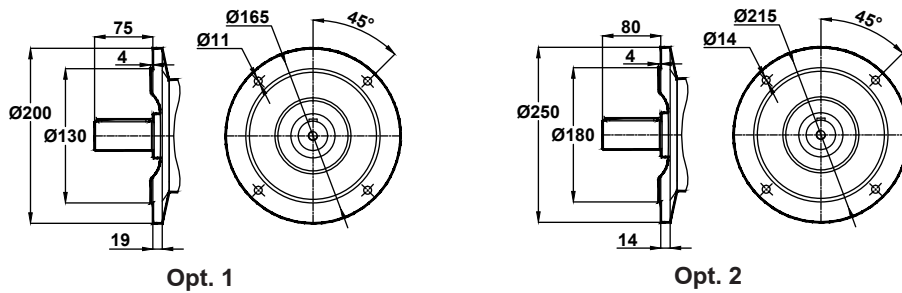
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MNF372-A..  
MNF373-A..



| IEC    | c1  | c2 | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x  |
|--------|-----|----|----|-----|-----|-----|------|----|-----|----|----|------|----|
| 71/B5  | 4   | 9  | 11 | 130 | 160 | 110 | 43.5 | 12 | 364 | 14 | 5  | 16.3 | -  |
| 80/B5  | 4   | 9  | 13 | 165 | 200 | 130 | 43.5 | 12 | 364 | 19 | 6  | 21.8 | -  |
| 90/B5  | 4   | 9  | 13 | 165 | 200 | 130 | 43.5 | 12 | 364 | 24 | 8  | 27.3 | -  |
| 100/B5 | 4.5 | 9  | 15 | 215 | 250 | 180 | 60.5 | 15 | 381 | 28 | 8  | 31.3 | -  |
| 112/B5 | 4.5 | 9  | 15 | 215 | 250 | 180 | 60.5 | 15 | 381 | 28 | 8  | 31.3 | -  |
| 132/B5 | 4.5 | 7  | 15 | 265 | 300 | 230 | 80.5 | 15 | 401 | 38 | 10 | 41.3 | 20 |

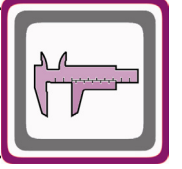
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlussplatte

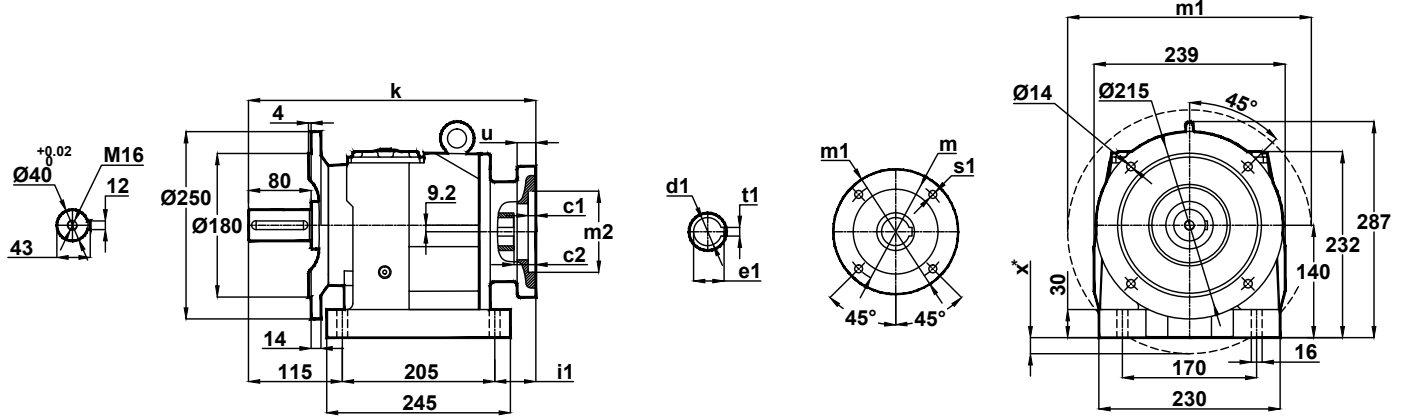


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



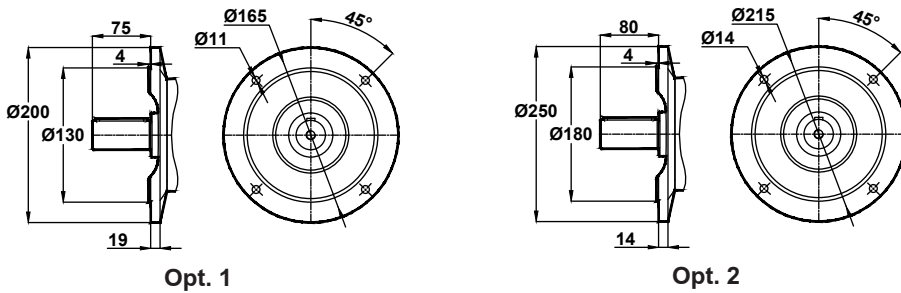
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MNF372-B..  
MNF373-B..

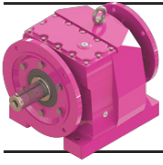


| IEC     | c1  | c2 | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x |
|---------|-----|----|----|-----|-----|-----|------|----|-----|----|----|------|---|
| 80/B14  | 4   | 9  | 7  | 100 | 120 | 80  | 43.5 | 12 | 364 | 19 | 6  | 21.8 | - |
| 90/B14  | 4   | 9  | 9  | 115 | 140 | 95  | 43.5 | 12 | 364 | 24 | 8  | 26.3 | - |
| 100/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 60.5 | 15 | 381 | 28 | 8  | 31.3 | - |
| 112/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 60.5 | 15 | 381 | 28 | 8  | 31.3 | - |
| 132/B14 | 4.5 | 9  | 11 | 165 | 200 | 130 | 80.5 | 15 | 401 | 38 | 10 | 41.3 | - |

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



x: Motor ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlussplatte

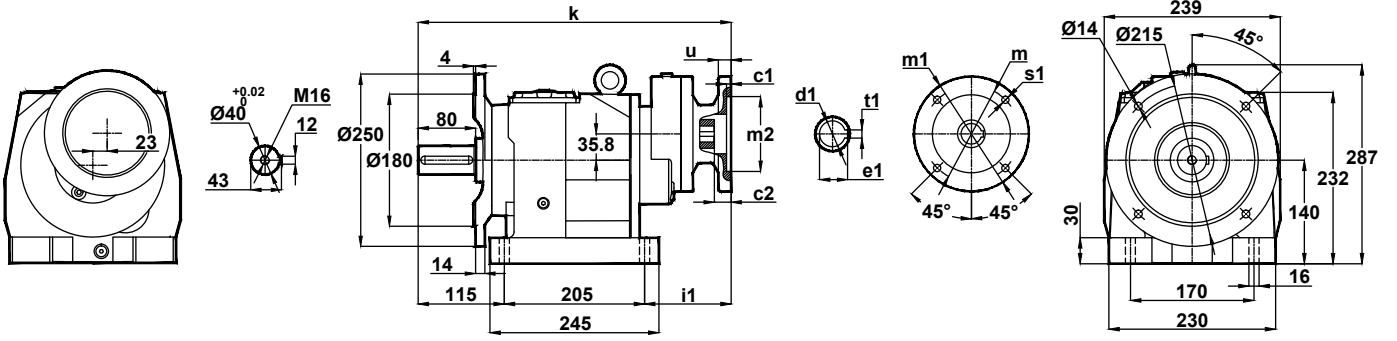


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



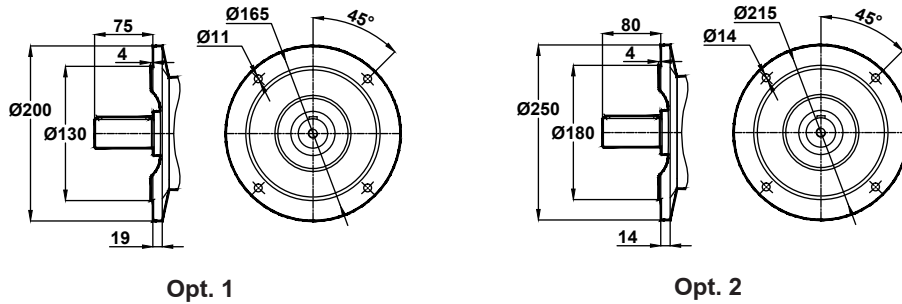
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

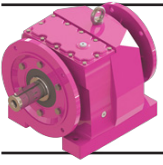
**MNF374-A..**  
**MNF374-B..**



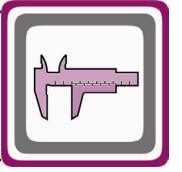
| IEC    | c1 | c2  | s1 | m   | m1  | m2  | i1    | u  | k   | d1 | t1 | e1   |
|--------|----|-----|----|-----|-----|-----|-------|----|-----|----|----|------|
| 63/B5  | 4  | 5   | 9  | 115 | 140 | 95  | 120.5 | 12 | 441 | 11 | 4  | 12.8 |
| 71/B5  | 4  | 8.5 | 11 | 130 | 160 | 110 | 91.5  | 12 | 412 | 14 | 5  | 16.3 |
| 80/B5  | 4  | 5   | 13 | 165 | 200 | 130 | 120.5 | 12 | 441 | 19 | 6  | 21.8 |
| 71/B14 | 3  | 8.5 | 7  | 85  | 105 | 70  | 91.5  | 10 | 412 | 14 | 5  | 16.3 |
| 80/B14 | 4  | 5   | 7  | 100 | 120 | 80  | 120.5 | 12 | 441 | 19 | 6  | 21.8 |

**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



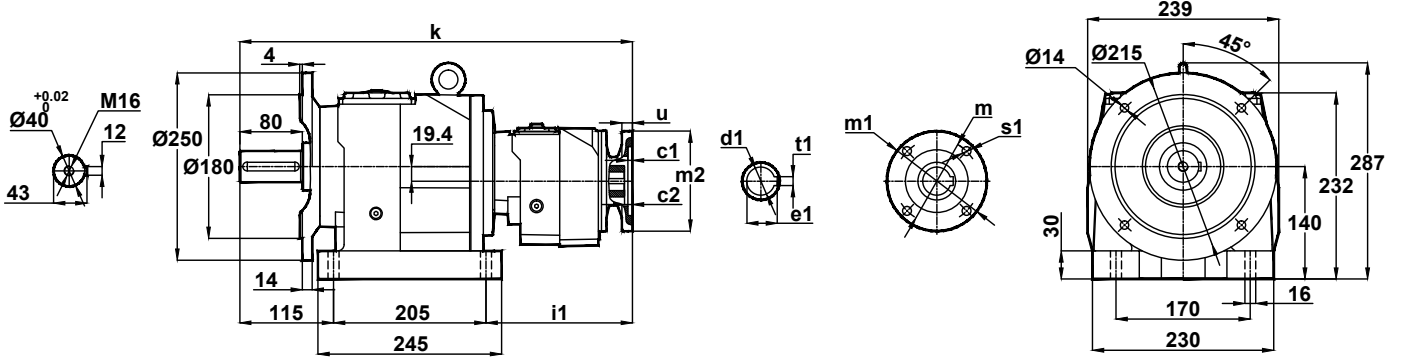


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



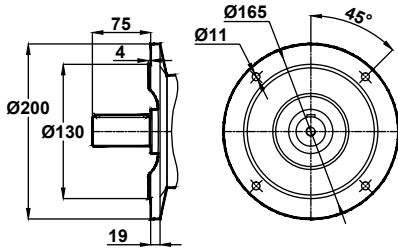
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MNF375-A.. / B..  
MNF376-A.. / B..

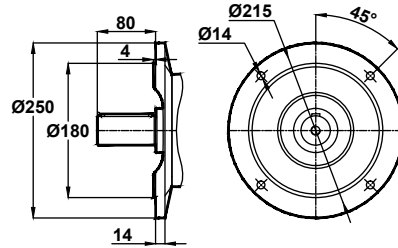


| IEC    | c1  | c2 | s1  | m   | m1  | m2 | i1    | u  | k   | d1 | t1 | e1   |
|--------|-----|----|-----|-----|-----|----|-------|----|-----|----|----|------|
| 63/B5  | 3.5 | 5  | 10  | 115 | 140 | 95 | 186.5 | 10 | 507 | 11 | 4  | 12.8 |
| 63/B14 | 2.5 | 5  | 5.5 | 75  | 90  | 60 | 186.5 | 10 | 507 | 11 | 4  | 12.8 |

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

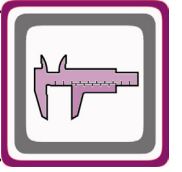


Opt. 2



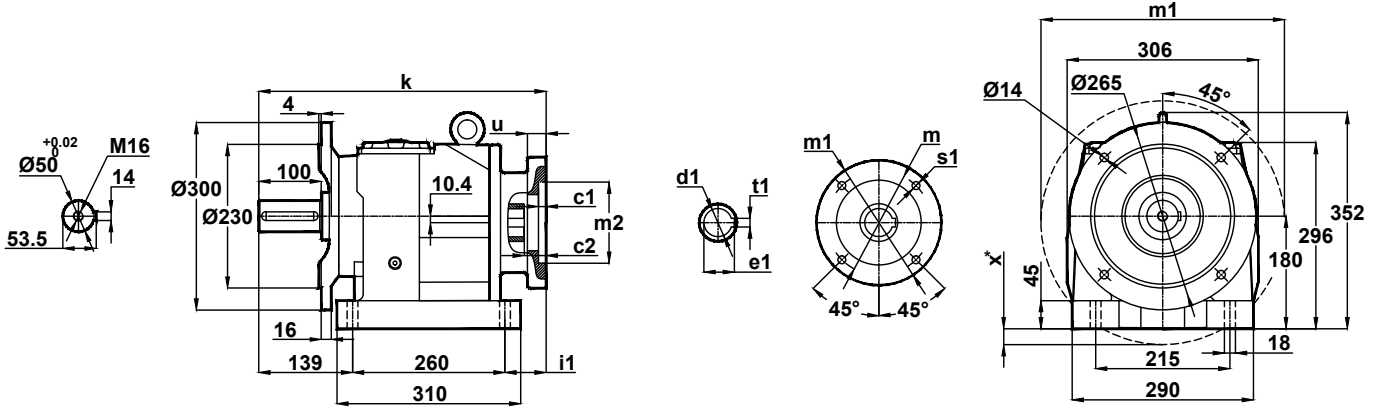


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



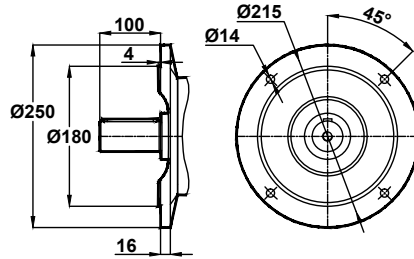
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MNF472-B..  
MNF473-B..



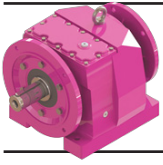
| IEC     | c1  | c2 | s1 | m   | m1  | m2  | i1   | u  | k   | d1 | t1 | e1   | x |
|---------|-----|----|----|-----|-----|-----|------|----|-----|----|----|------|---|
| 90/B14  | 4   | 5  | 9  | 115 | 140 | 95  | 27.5 | 12 | 427 | 24 | 8  | 27.3 | - |
| 100/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 46   | 15 | 445 | 28 | 8  | 31.3 | - |
| 112/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 46   | 15 | 445 | 28 | 8  | 31.3 | - |
| 132/B14 | 4.4 | 6  | 11 | 165 | 200 | 130 | 64.5 | 15 | 464 | 38 | 10 | 41.3 | - |

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wen motor ist niedriger den die Anschlußplatte

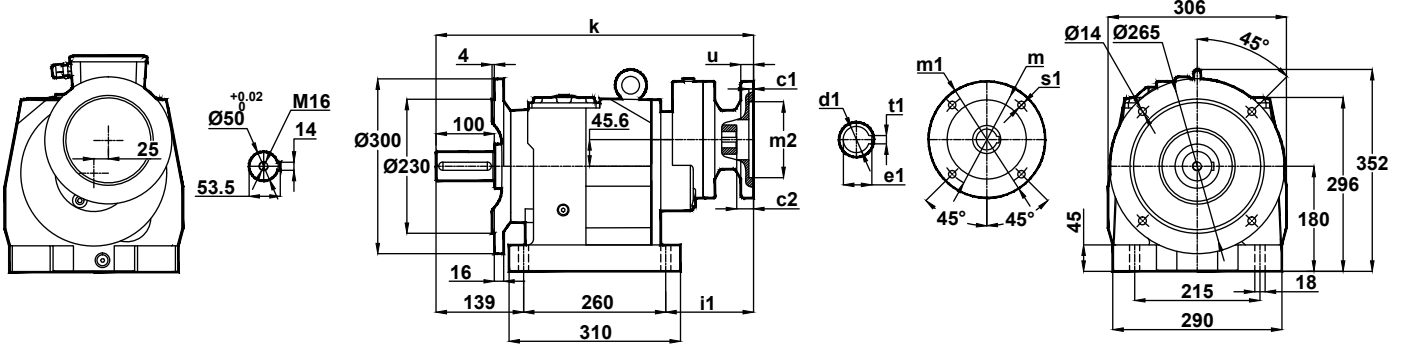


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



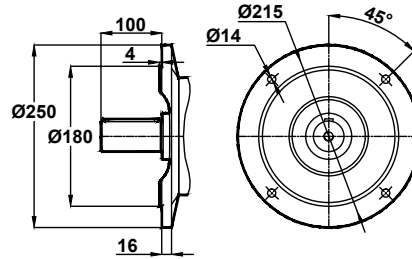
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MNF474-A..**  
**MNF474-B..**



| IEC    | c1 | c2 | s1 | m   | m1  | m2  | i1    | u  | k   | d1 | t1 | e1   |
|--------|----|----|----|-----|-----|-----|-------|----|-----|----|----|------|
| 71/B5  | 4  | 9  | 11 | 130 | 160 | 110 | 125.5 | 12 | 525 | 14 | 5  | 16.3 |
| 80/B5  | 4  | 9  | 13 | 165 | 200 | 130 | 125.5 | 12 | 525 | 19 | 6  | 21.8 |
| 80/B14 | 4  | 9  | 7  | 100 | 120 | 80  | 125.5 | 12 | 525 | 19 | 6  | 21.8 |

**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**

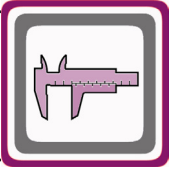


Opt. 1



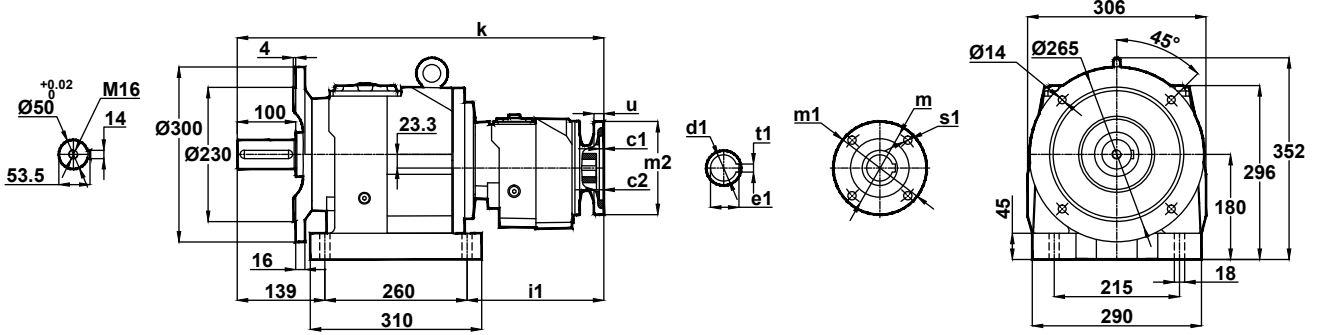


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



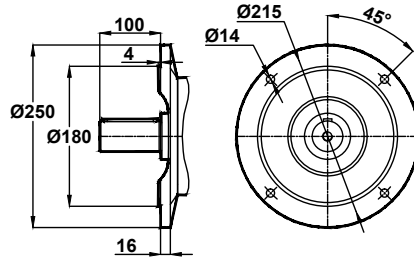
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MNF475-A.. / B..**  
**MNF476-A.. / B..**

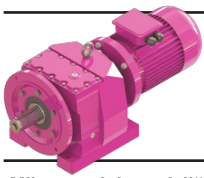


| IEC    | c1 | c2  | s1 | m   | m1  | m2  | i1    | u  | k   | d1 | t1 | e1   |
|--------|----|-----|----|-----|-----|-----|-------|----|-----|----|----|------|
| 63/B5  | 4  | 5   | 9  | 115 | 140 | 95  | 253.5 | 12 | 653 | 11 | 4  | 12.8 |
| 71/B5  | 4  | 8.5 | 11 | 130 | 160 | 110 | 224.5 | 12 | 624 | 14 | 5  | 16.3 |
| 71/B14 | 3  | 8.5 | 7  | 85  | 105 | 70  | 224.5 | 10 | 624 | 14 | 5  | 16.3 |

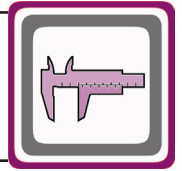
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

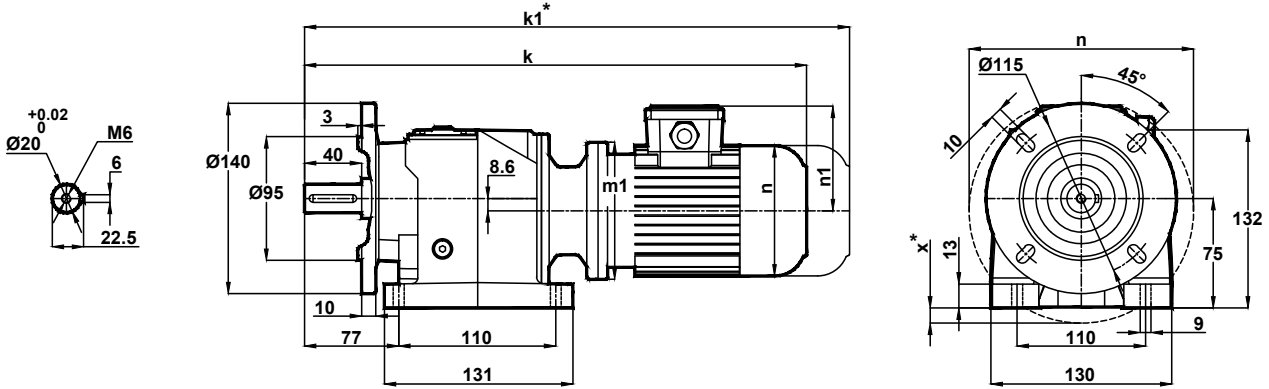


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



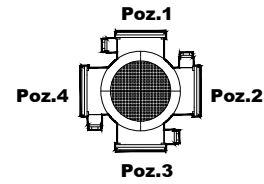
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MVF002**  
**MVF003**



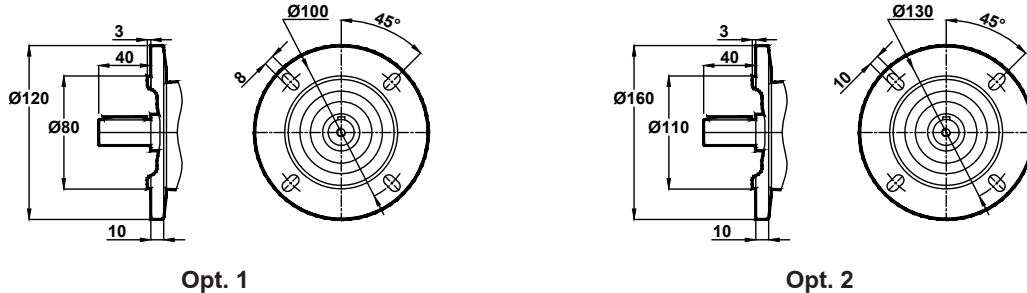
| Motor Büyüklüğü / Motor Size / Motorbaugroße |                 |                 |                 |                   |                   |
|--|-----------------|-----------------|-----------------|-------------------|-------------------|
| IEC  | 63/B5<br>63/B14 | 71/B5<br>71/B14 | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 |
| k  | 407             | 435             | 470             | 490               | 515               |
| k1   | 460             | 555             | 590             | 615               | 640               |
| n / n1                                       | 121 / 97        | 138 / 111       | 156 / 118       | 176 / 126         | 176 / 126         |
| m1 (B5)                                      | 140             | 160             | 200             | 200               | 200               |
| m1 (B14)                                     | 90              | 105             | 120             | 140               | 140               |
| x (B5)                                       | 4               | 14              | 34              | 34                | 34                |

Klemens Kutusu / Terminal Box / Klemmenkasten

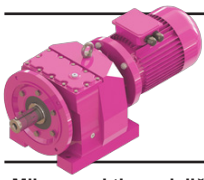


63-71-80-90

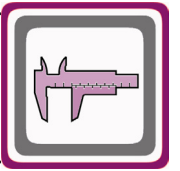
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

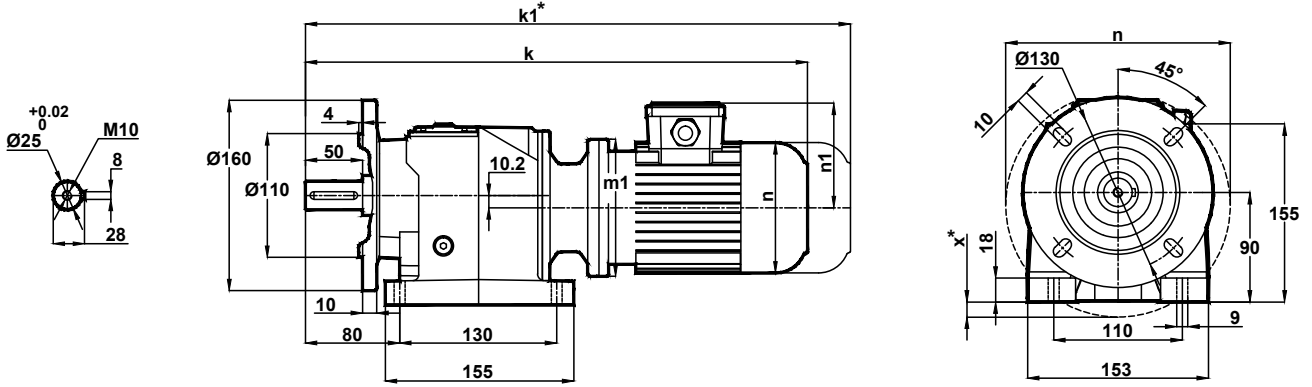


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



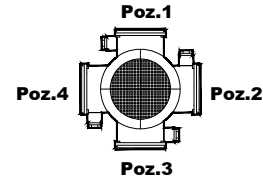
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MVF102  
MVF103



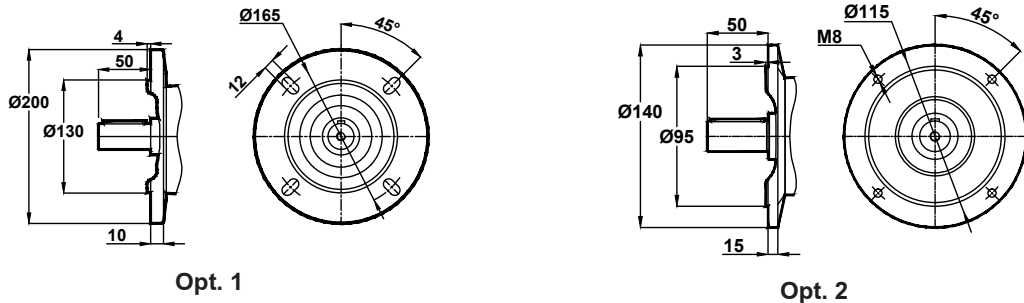
| Motor Büyüklüğü / Motor Size / Motorbaugroße |                 |                 |                 |                   |                   |
|--|-----------------|-----------------|-----------------|-------------------|-------------------|
| IEC  | 63/B5<br>63/B14 | 71/B5<br>71/B14 | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 |
| k  | 433             | 459             | 494             | 514               | 539               |
| k1   | 486             | 579             | 614             | 639               | 664               |
| n / n1                                       | 121 / 97        | 138 / 111       | 156 / 118       | 176 / 126         | 176 / 126         |
| m1 (B5)                                      | 140             | 160             | 200             | 200               | 200               |
| m1 (B14)                                     | 90              | 105             | 120             | 140               | 140               |
| x (B5)                                       | -               | 1               | 21              | 21                | 21                |

Klemens Kutusu / Terminal Box / Klemmenkasten



63-71-80-90

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

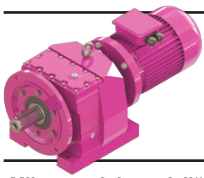


\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

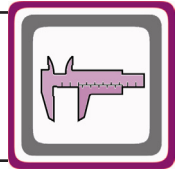
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

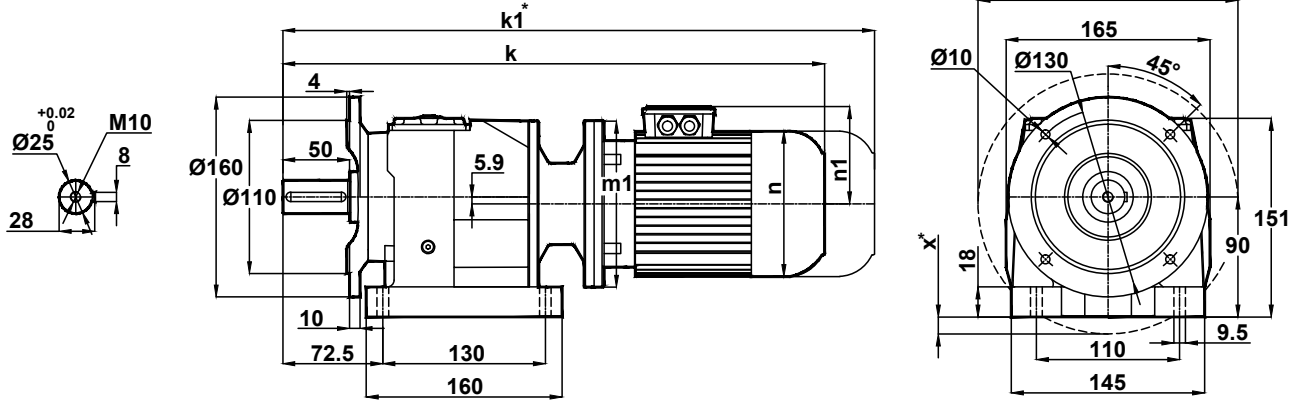


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



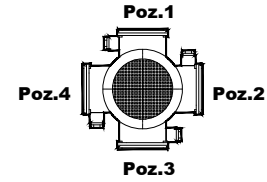
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MVF172 MVF173



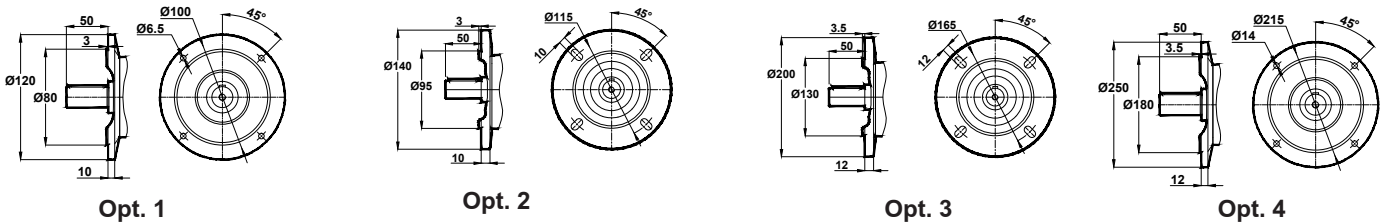
| Motor Büyüklüğü / Motor Size / Motorbaugroße |          |                 |                 |                   |                   |                     |                     |
|--|----------|-----------------|-----------------|-------------------|-------------------|---------------------|---------------------|
| IEC  | 63/B5    | 71/B5<br>71/B14 | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 | 112M/B5<br>112M/B14 |
| k  | 434      | 462             | 497             | 517               | 542               | 585                 | 605                 |
| k1   | 487      | 582             | 617             | 642               | 667               | 720                 | 740                 |
| n / n1                                       | 121 / 97 | 138 / 111       | 156 / 118       | 176 / 126         | 176 / 126         | 194 / 135           | 218 / 146           |
| m1 (B5)                                      | 140      | 160             | 200             | 200               | 200               | 250                 | 250                 |
| m1 (B14)                                     | -        | 105             | 120             | 140               | 140               | 160                 | 160                 |
| x (B5)                                       | -        | -               | 16              | 16                | 16                | 41                  | 41                  |

Klemens Kutusu / Terminal Box / Klemmenkasten

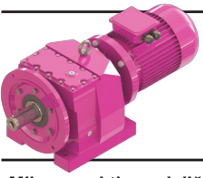


63-71-80-90-100-112

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



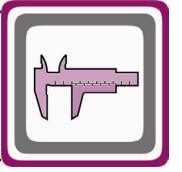
\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

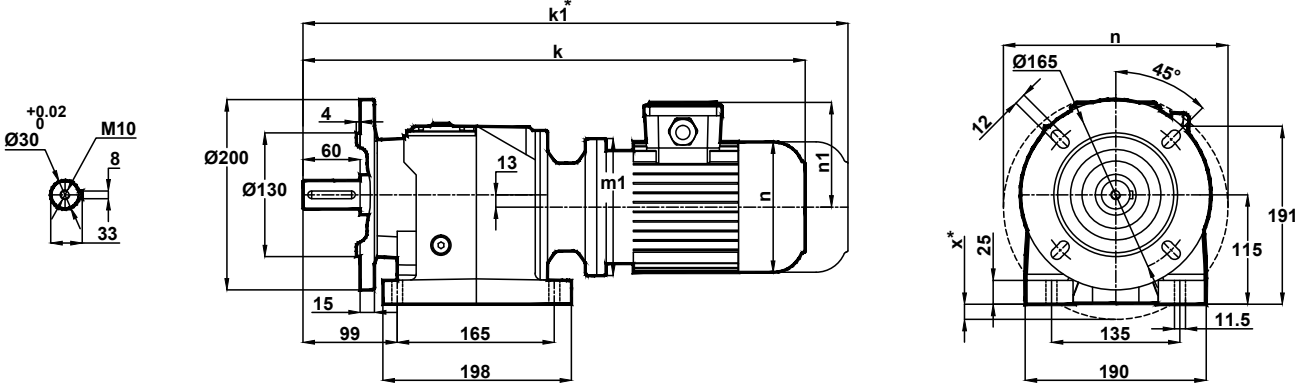
## Dimension Pages

### Abmessungsseiten



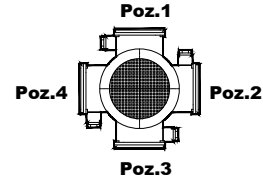
-Mil ucu çekirtme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MVF202  
MVF203



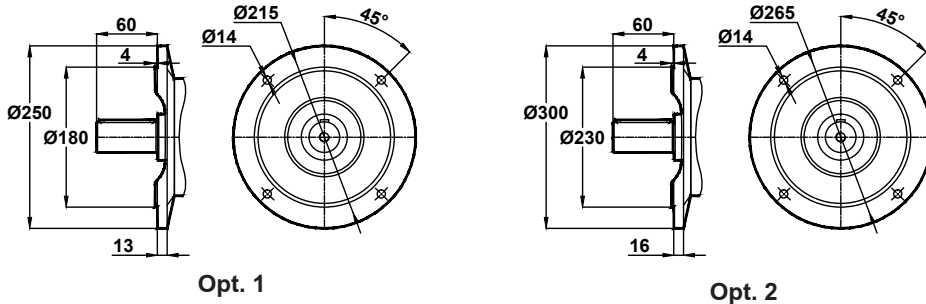
| Motor Büyüklüğü / Motor Size / Motorbaugroße |          |                 |                 |                   |                   |                     |                     |
|--|----------|-----------------|-----------------|-------------------|-------------------|---------------------|---------------------|
| IEC  | 63/B5    | 71/B5<br>71/B14 | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 | 112M/B5<br>112M/B14 |
| k  | 516      | 513             | 562             | 582               | 607               | 632                 | 652                 |
| k1   | 569      | 633             | 682             | 707               | 732               | 767                 | 787                 |
| n / n1                                       | 121 / 97 | 138 / 111       | 156 / 118       | 176 / 126         | 176 / 126         | 194 / 135           | 218 / 146           |
| m1 (B5)                                      | 140      | 160             | 200             | 200               | 200               | 250                 | 250                 |
| m1 (B14)                                     | -        | 105             | 120             | 140               | 140               | 160                 | 160                 |
| x (B5)                                       | -        | -               | -               | -                 | -                 | 23                  | 23                  |

Klemens Kutusu / Terminal Box / Klemmenkasten



63-71-80-90-100-112

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

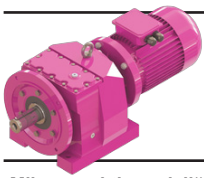
Opt. 2

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

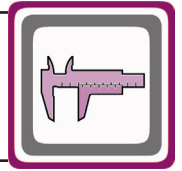
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlussplatte

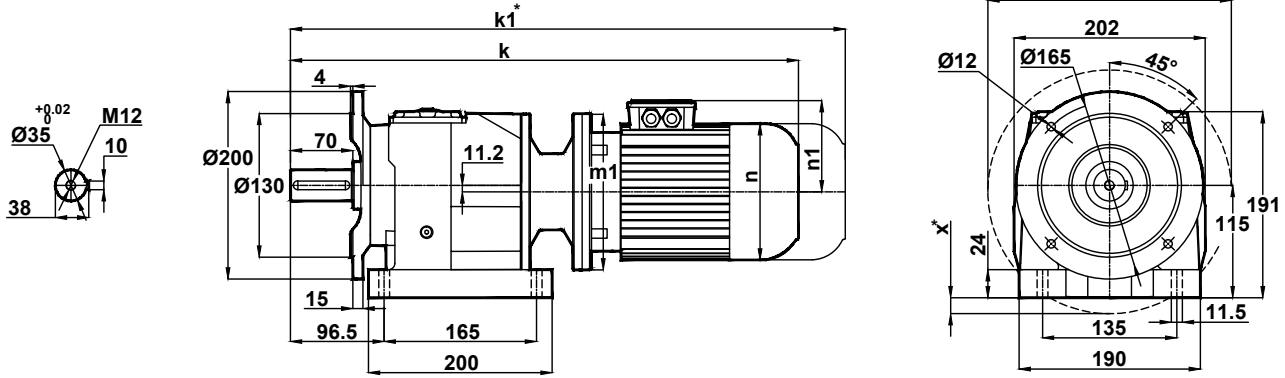


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



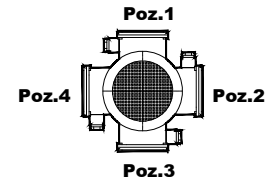
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MVF272  
MVF273



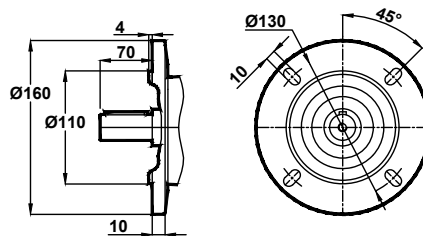
| Motor Büyüklüğü / Motor Size / Motorbaugroße |          |                 |                 |                   |                   |                     |                     |
|--|----------|-----------------|-----------------|-------------------|-------------------|---------------------|---------------------|
| IEC  | 63/B5    | 71/B5<br>71/B14 | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 | 112M/B5<br>112M/B14 |
| k  | 517      | 514             | 563             | 583               | 608               | 633                 | 653                 |
| k1   | 570      | 634             | 683             | 708               | 733               | 768                 | 788                 |
| n / n1                                       | 121 / 97 | 138 / 111       | 156 / 118       | 176 / 126         | 176 / 126         | 194 / 135           | 218 / 146           |
| m1 (B5)                                      | 140      | 160             | 200             | 200               | 200               | 250                 | 250                 |
| m1 (B14)                                     | -        | 105             | 120             | 140               | 140               | 160                 | 160                 |
| x (B5)                                       | -        | -               | -               | -                 | -                 | 22                  | 22                  |

Klemens Kutusu / Terminal Box / Klemmenkasten



63-71-80-90-100-112

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



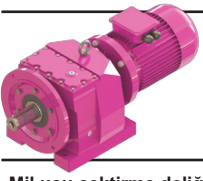
Opt. 1

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

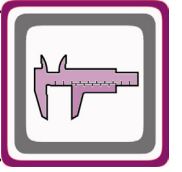
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

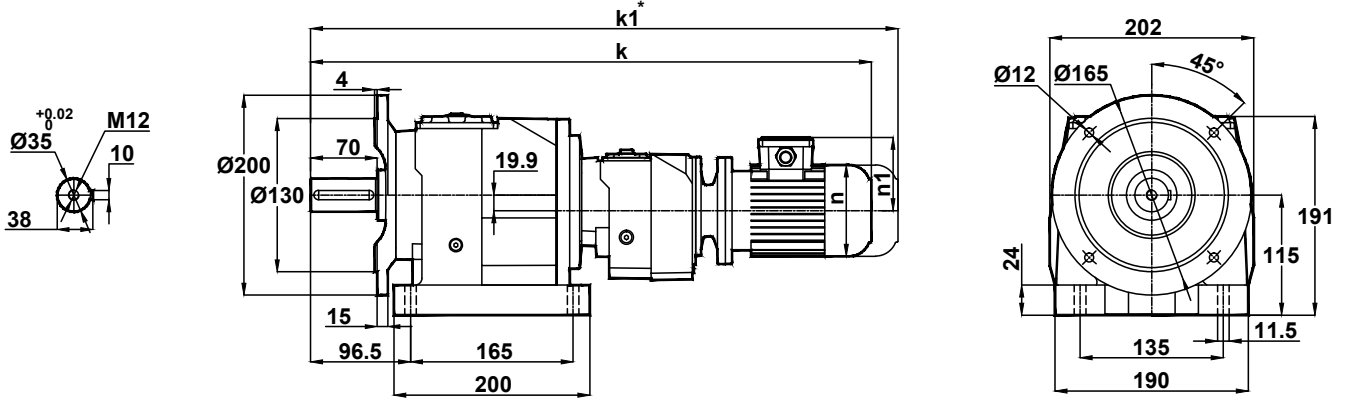


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



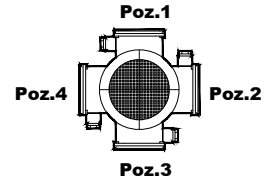
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MVF275  
MVF276



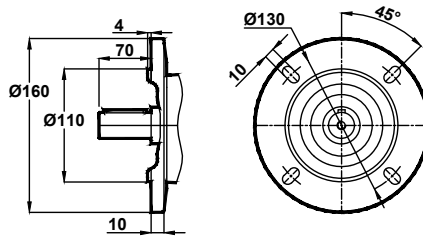
| Motor Büyüklüğü / Motor Size / Motorbaugroße |                 |                 |
|--|-----------------|-----------------|
| IEC  | 63/B5<br>63/B14 | 71/B5<br>71/B14 |
| k  | 632             | 660             |
| k1   | 685             | 780             |
| n / n1                                       | 121 / 97        | 138 / 111       |
| m1 (B5)                                      | 140             | 160             |
| m1 (B14)                                     | 90              | 105             |

Klemens Kutusu / Terminal Box / Klemmenkasten



63-71

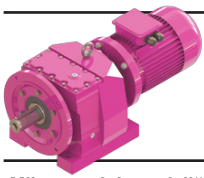
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



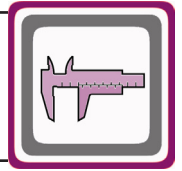
Opt. 1

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

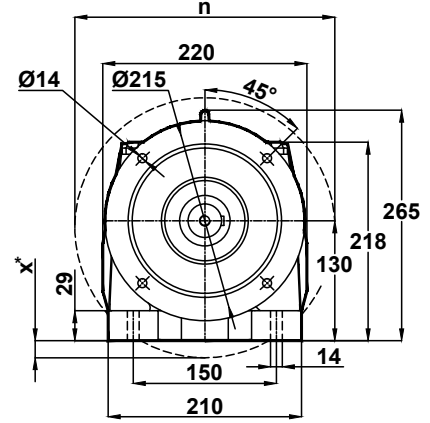
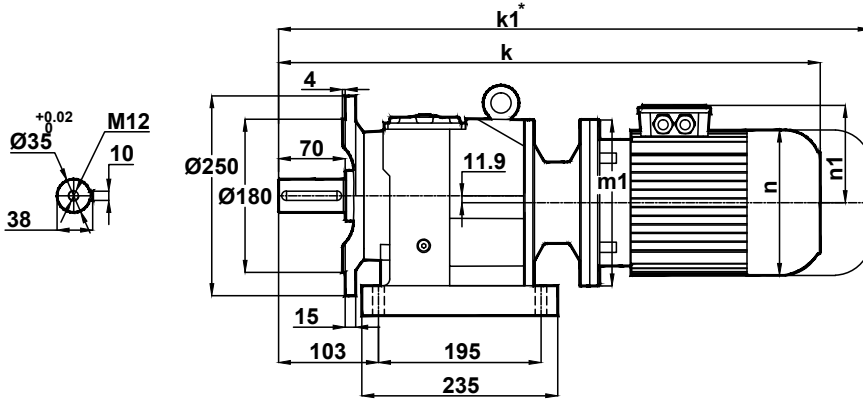


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



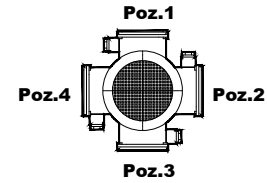
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MVF282 MVF283



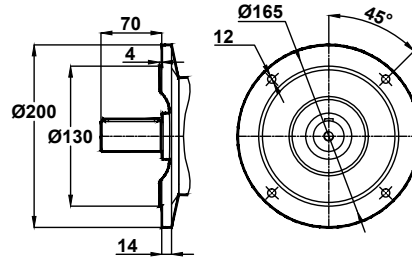
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                 |                   |                   |                     |                     |                     |                     |
|--|-----------|-----------------|-------------------|-------------------|---------------------|---------------------|---------------------|---------------------|
| IEC  | 71/B5     | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 | 112M/B5<br>112M/B14 | 132S/B5<br>132S/B14 | 132M/B5<br>132M/B14 |
| k  | 562       | 582             | 602               | 627               | 666                 | 686                 | 760                 | 798                 |
| k1   | 682       | 702             | 727               | 752               | 801                 | 821                 | 905                 | 943                 |
| n / n1                                       | 138 / 111 | 156 / 118       | 176 / 126         | 176 / 126         | 194 / 135           | 218 / 146           | 257 / 168           | 257 / 168           |
| m1 (B5)                                      | 160       | 200             | 200               | 200               | 250                 | 250                 | 300                 | 300                 |
| m1 (B14)                                     | -         | 120             | 140               | 140               | 160                 | 160                 | 200                 | 200                 |
| x (B5)                                       | -         | -               | -                 | -                 | 7                   | 7                   | 32                  | 32                  |

Klemens Kutusu / Terminal Box / Klemmenkasten



71-80-90-100-112-132

### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

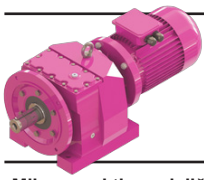
\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

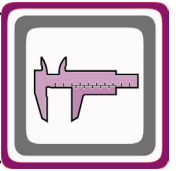
Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



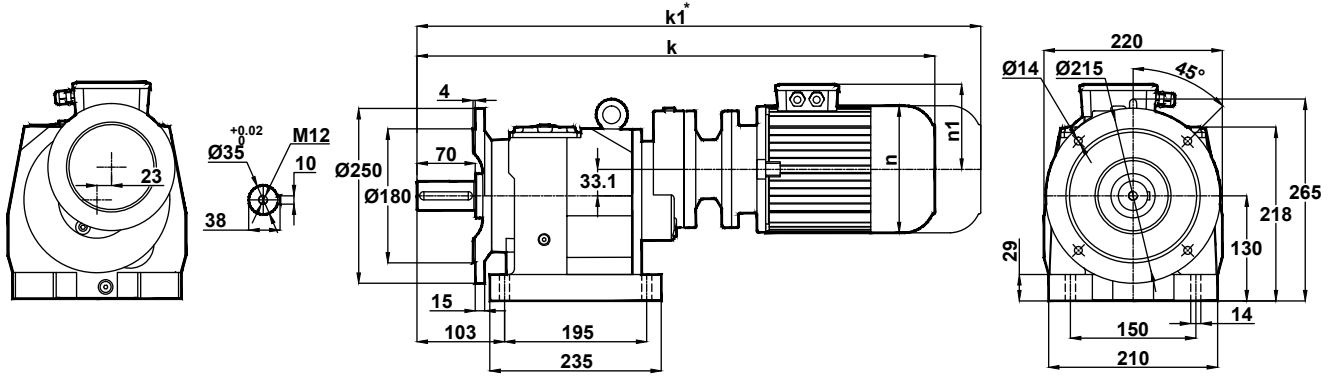


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



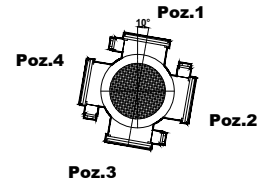
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MVF284



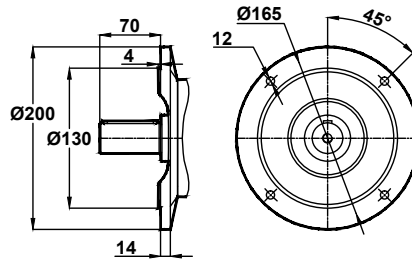
| Motor Büyüklüğü / Motor Size / Motorbaugroße |          |                 |
|--|----------|-----------------|
| IEC  | 63/B5    | 71/B5<br>71/B14 |
| k  | 613      | 610             |
| k1   | 666      | 730             |
| n / n1                                       | 121 / 97 | 138 / 111       |
| m1 (B5)                                      | 140      | 160             |
| m1 (B14)                                     | -        | 105             |

Klemens Kutusu / Terminal Box / Klemmenkasten



63-71

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



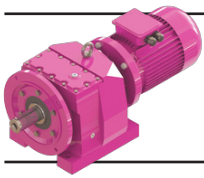
Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

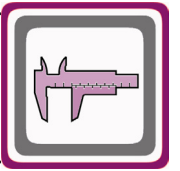
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.



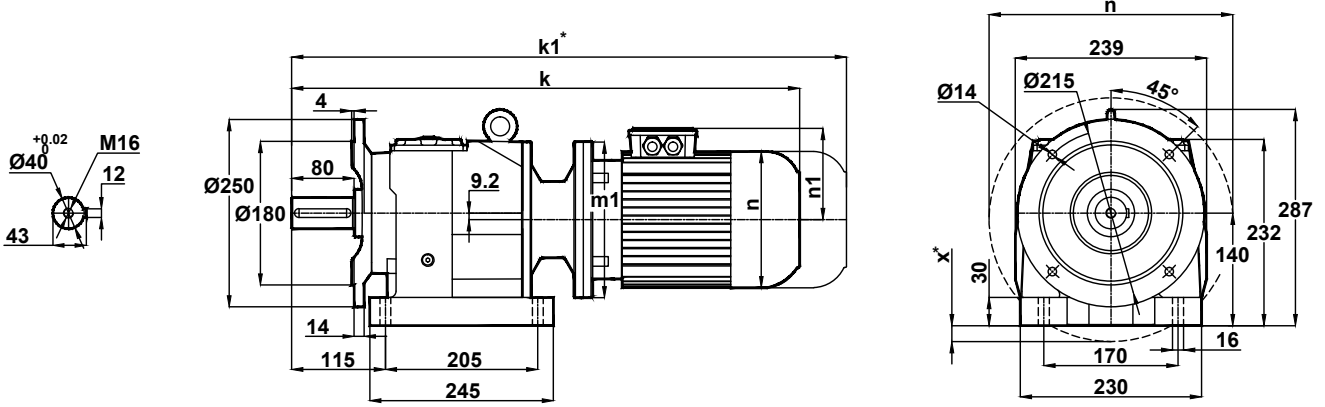


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



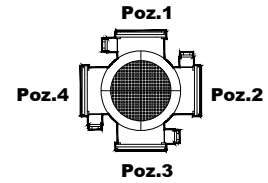
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MVF372  
MVF373



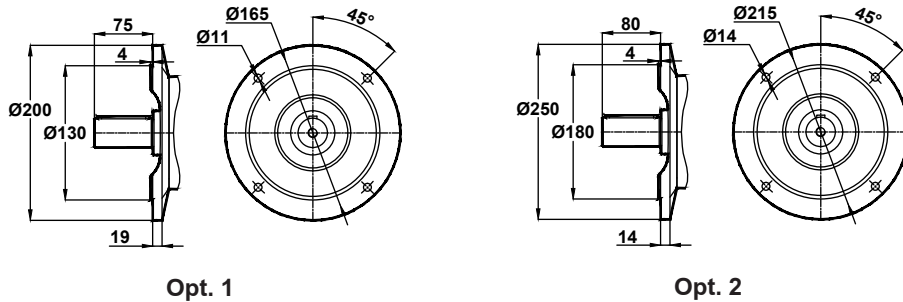
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                 |                   |                   |                     |                     |                     |                     |
|--|-----------|-----------------|-------------------|-------------------|---------------------|---------------------|---------------------|---------------------|
| IEC  | 71/B5     | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 | 112M/B5<br>112M/B14 | 132S/B5<br>132S/B14 | 132M/B5<br>132M/B14 |
| k  | 583       | 603             | 623               | 648               | 697                 | 717                 | 781                 | 819                 |
| k1   | 703       | 723             | 748               | 773               | 832                 | 852                 | 926                 | 964                 |
| n / n1                                       | 138 / 111 | 156 / 118       | 176 / 126         | 176 / 126         | 194 / 135           | 218 / 146           | 257 / 168           | 257 / 168           |
| m1 (B5)                                      | 160       | 200             | 200               | 200               | 250                 | 250                 | 300                 | 300                 |
| m1 (B14)                                     | -         | 120             | 140               | 140               | 160                 | 160                 | 200                 | 200                 |
| x (B5)                                       | -         | -               | -                 | -                 | -                   | -                   | 20                  | 20                  |

Klemens Kutusu / Terminal Box / Klemmenkasten



71-80-90-100-112-132

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

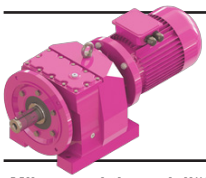


\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

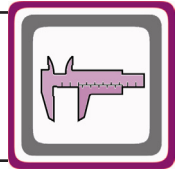
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

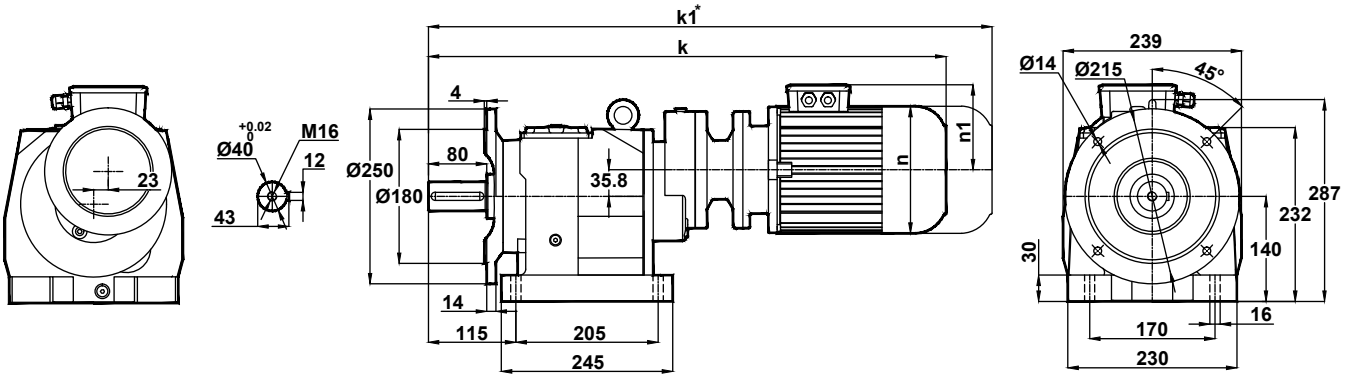


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



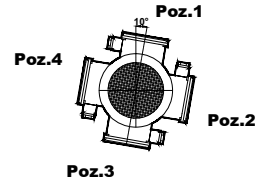
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MVF374



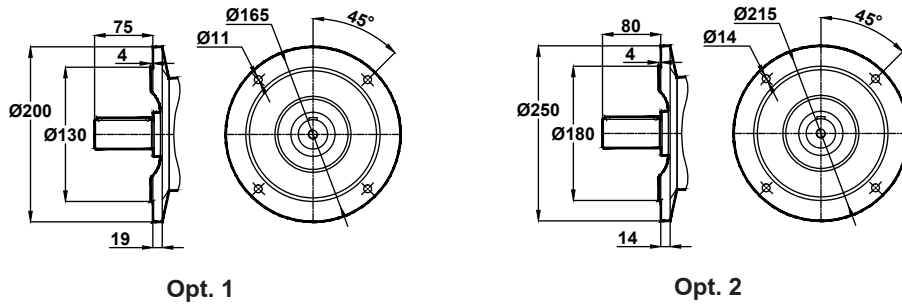
| Motor Büyüklüğü / Motor Size / Motorbaugroße |          |                 |                 |
|--|----------|-----------------|-----------------|
| IEC  | 63/B5    | 71/B5<br>71/B14 | 80/B5<br>80/B14 |
| k  | 634      | 631             | 680             |
| k1   | 687      | 751             | 800             |
| n / n1                                       | 121 / 97 | 138 / 111       | 156 / 118       |
| m1 (B5)                                      | 140      | 160             | 200             |
| m1 (B14)                                     | -        | 105             | 120             |

Klemens Kutusu / Terminal Box / Klemmenkasten

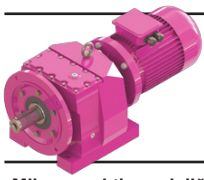


63-71-80

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



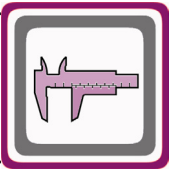
\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.



# Ölçü Sayfaları

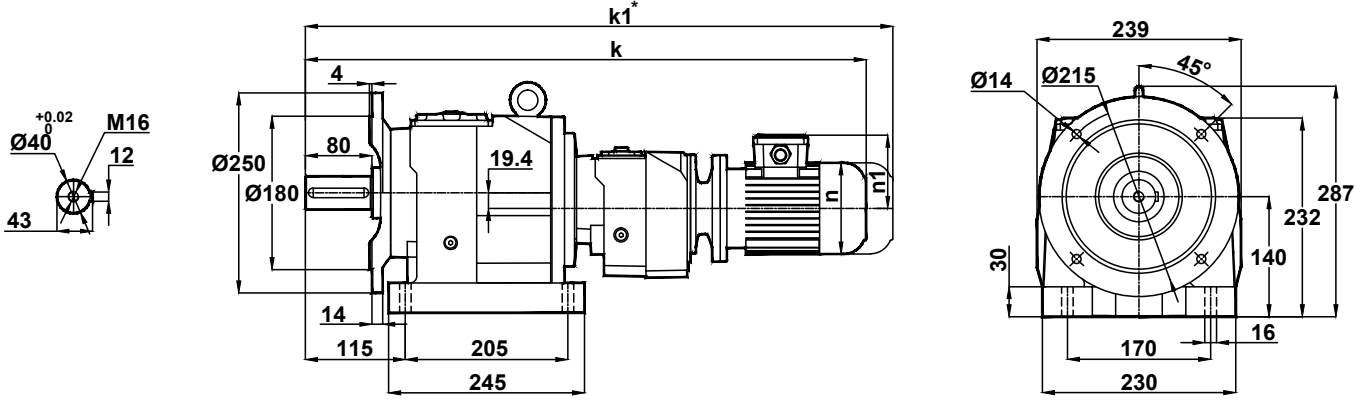
## Dimension Pages

### Abmessungenseiten



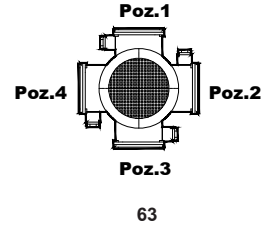
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

MVF375  
MVF376

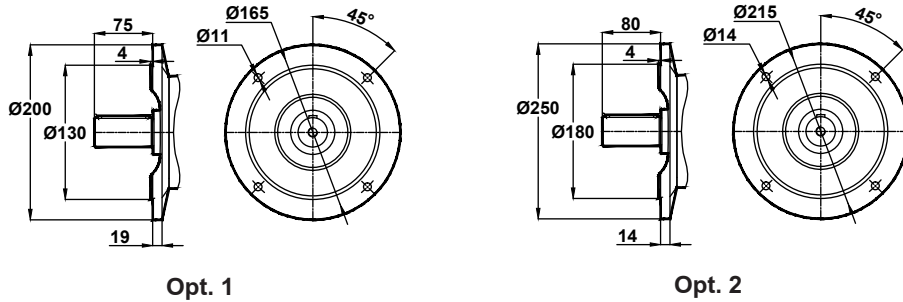


| Motor Büyüklüğü / Motor Size / Motorbaugroße |                 |
|--|-----------------|
| IEC  | 63/B5<br>63/B14 |
| k  | 700             |
| k1   | 753             |
| n / n1                                       | 121 / 97        |
| m1 (B5)                                      | 140             |
| m1 (B14)                                     | 90              |

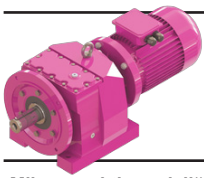
Klemens Kutusu / Terminal Box / Klemmenkasten



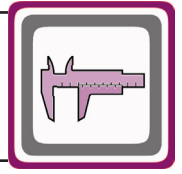
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

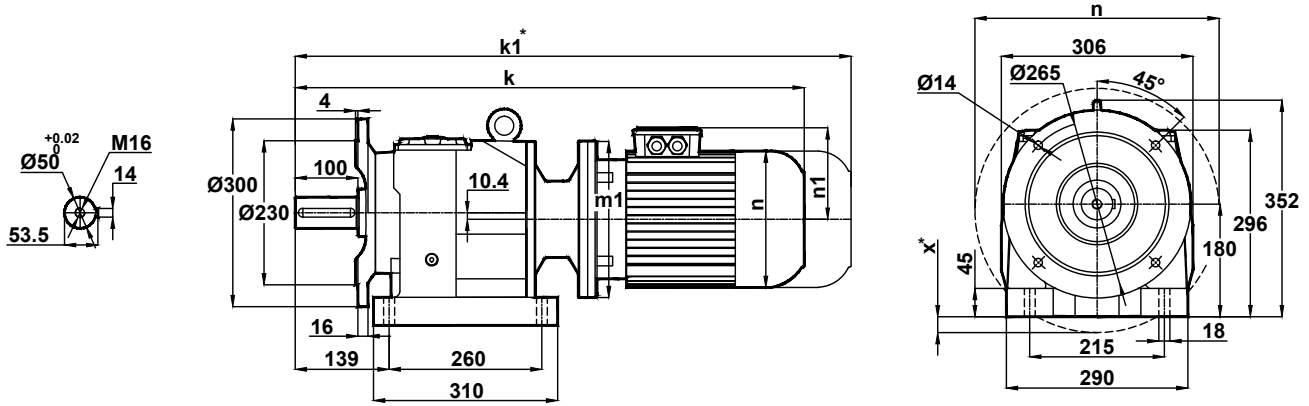


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



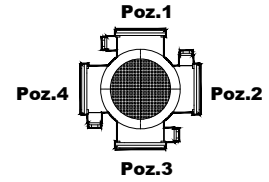
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MVF472 MVF473



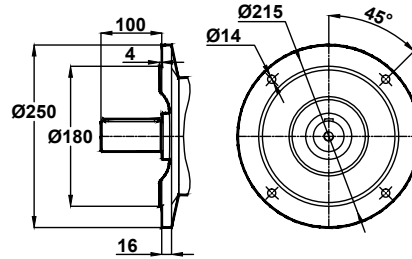
| Motor Büyüklüğü / Motor Size / Motorbaugröße |           |                   |                   |                     |                     |                     |                     |           |           |           |           |
|--|-----------|-------------------|-------------------|---------------------|---------------------|---------------------|---------------------|-----------|-----------|-----------|-----------|
| IEC  | 80/B5     | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 | 112M/B5<br>112M/B14 | 132S/B5<br>132S/B14 | 132M/B5<br>132M/B14 | 160M/B5   | 160L/B5   | 180M/B5   | 180L/B5   |
| k  | 666       | 686               | 711               | 761                 | 781                 | 844                 | 882                 | 1033      | 1077      | 1090      | 1128      |
| k1   | 786       | 811               | 836               | 896                 | 916                 | 989                 | 1027                | 1203      | 1247      | 1260      | 1298      |
| n / n1                                       | 156 / 118 | 176 / 126         | 176 / 126         | 194 / 135           | 218 / 146           | 257 / 168           | 257 / 168           | 310 / 225 | 310 / 225 | 348 / 241 | 348 / 241 |
| m1 (B5)                                      | 200       | 200               | 200               | 250                 | 250                 | 300                 | 300                 | 350       | 350       | 350       | 350       |
| m1 (B14)                                     | -         | 140               | 140               | 160                 | 160                 | 200                 | 200                 | -         | -         | -         | -         |
| x (B5)                                       | -         | -                 | -                 | -                   | -                   | -                   | -                   | 6         | 6         | 6         | 6         |

Klemens Kutusu / Terminal Box / Klemmenkasten



80-90-100-112-132-160-180

## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



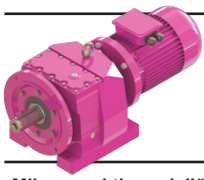
Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

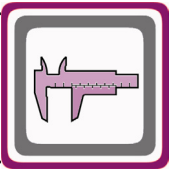
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

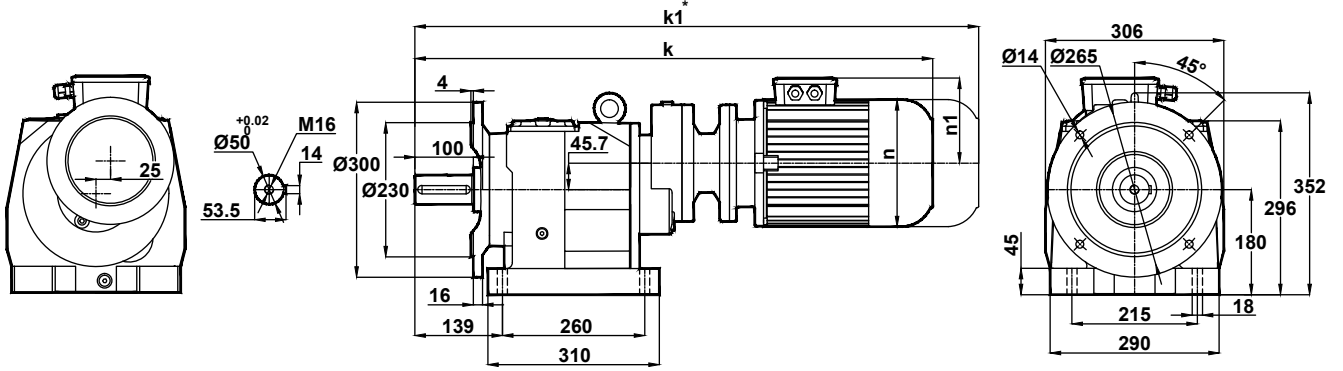
## Dimension Pages

### Abmessungsseiten



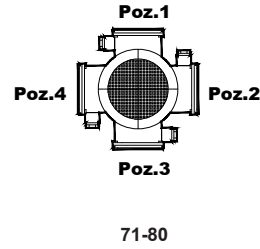
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MVF474

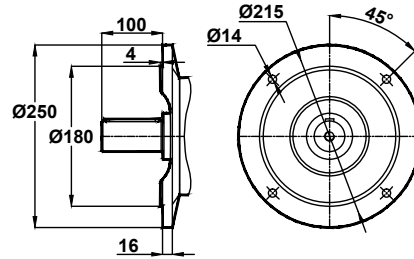


| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                 |
|--|-----------|-----------------|
| IEC  | 71/B5     | 80/B5<br>80/B14 |
| k  | 744       | 764             |
| k1   | 864       | 884             |
| n / n1                                       | 138 / 111 | 156 / 118       |
| m1 (B5)                                      | 160       | 200             |
| m1 (B14)                                     | -         | 120             |

Klemens Kutusu / Terminal Box / Klemmenkasten



## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

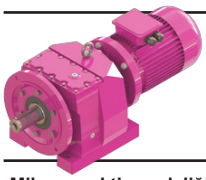


Opt. 1

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

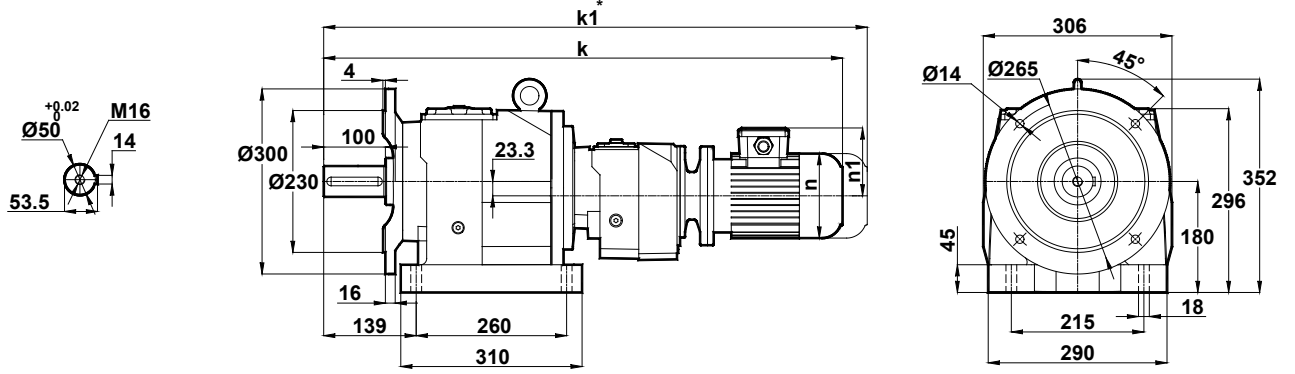


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



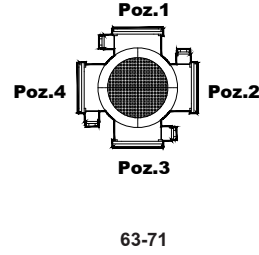
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## MVF475 MVF476

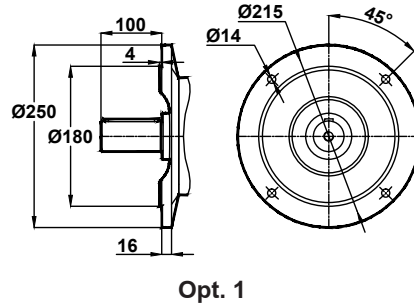


| Motor Büyüklüğü / Motor Size / Motorbaugröße |          |                 |
|--|----------|-----------------|
| IEC  | 63/B5    | 71/B5<br>71/B14 |
| k  | 846      | 843             |
| k1   | 899      | 963             |
| n / n1                                       | 121 / 97 | 138 / 111       |
| m1 (B5)                                      | 140      | 160             |
| m1 (B14)                                     | -        | 105             |

Klemens Kutusu / Terminal Box / Klemmenkasten



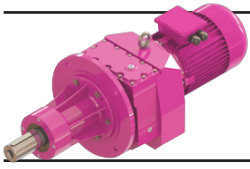
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



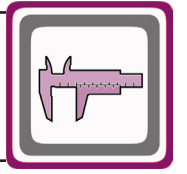
\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.





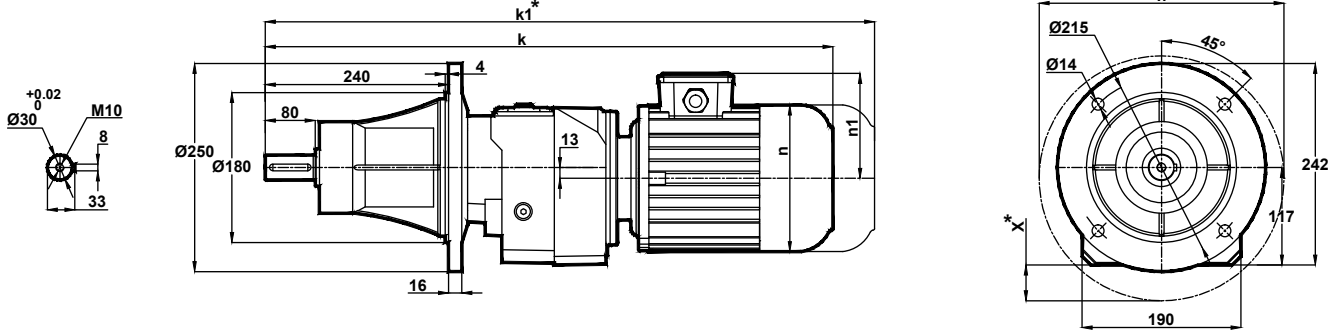


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



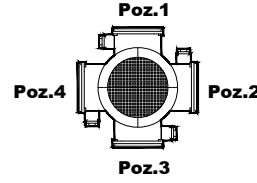
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NRB202 NRB203

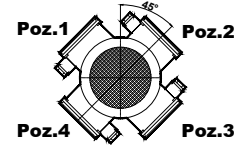


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |     |     |      |      |
|--|-----|-----|-----|-----|-----|------|------|
|  | 63  | 71  | 80  | 90S | 90L | 100L | 112M |
| k  | 622 | 640 | 668 | 696 | 721 | 762  | 785  |
| k1   | 675 | 760 | 788 | 821 | 846 | 897  | 920  |
| n  | 121 | 138 | 156 | 176 | 176 | 194  | 218  |
| n1   | 97  | 111 | 118 | 126 | 126 | 135  | 146  |
| x  | -   | -   | -   | -   | -   | -    | 10   |

Klemens Kutusu / Terminal Box / Klemmenkasten



63-80-90-100-112



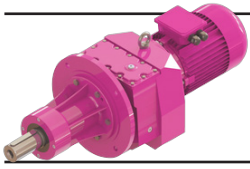
71

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

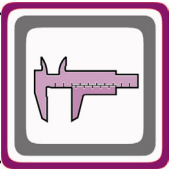
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

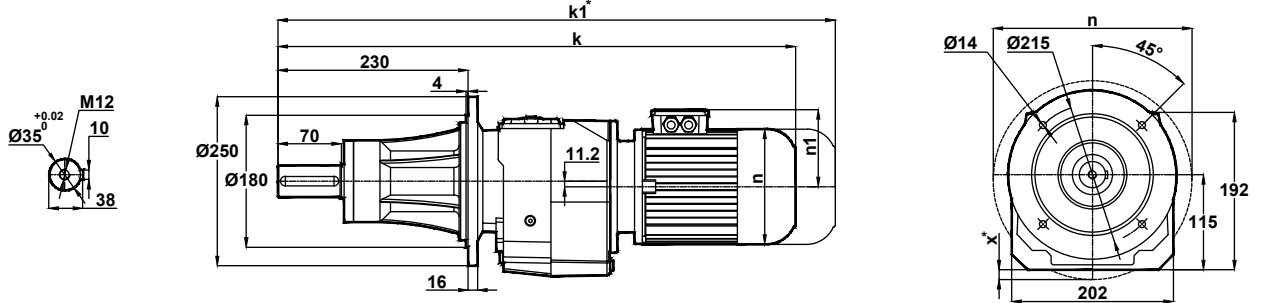


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



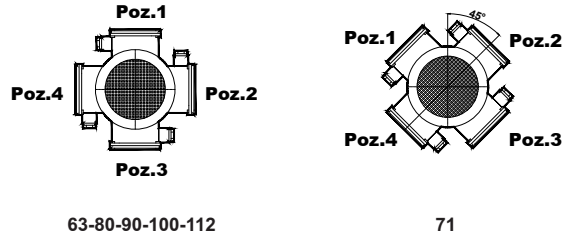
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NRB272 NRB273

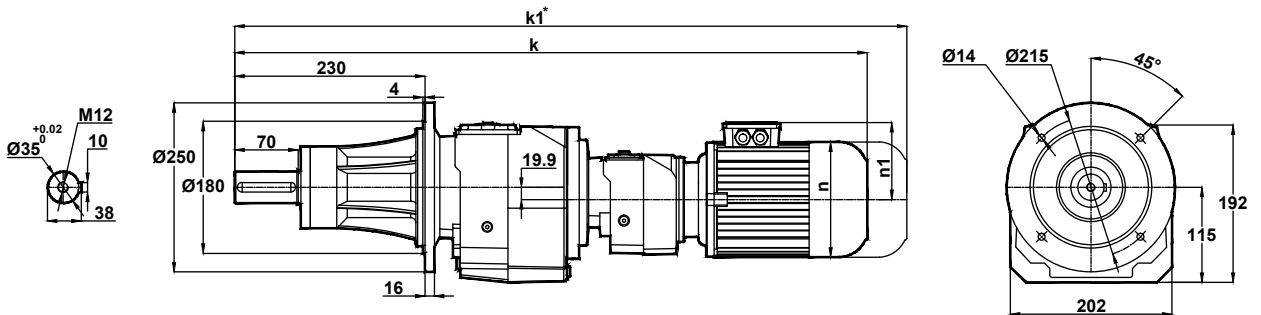


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |     |     |      |      |
|--|-----|-----|-----|-----|-----|------|------|
|  | 63  | 71  | 80  | 90S | 90L | 100L | 112M |
| k  | 603 | 622 | 650 | 678 | 703 | 744  | 767  |
| k1   | 656 | 742 | 770 | 803 | 828 | 879  | 902  |
| n  | 121 | 138 | 156 | 176 | 176 | 194  | 218  |
| n1   | 97  | 111 | 118 | 126 | 126 | 135  | 146  |
| x  | -   | -   | -   | -   | -   | -    | 9    |

Klemens Kutusu / Terminal Box / Klemmenkasten

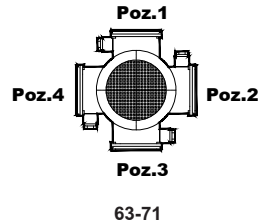


## NRB275 NRB276



| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |
|--|-----|-----|
|  | 63  | 71  |
| k  | 753 | 774 |
| k1   | 806 | 894 |
| n  | 121 | 138 |
| n1   | 97  | 111 |

Klemens Kutusu / Terminal Box / Klemmenkasten



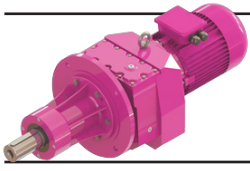
\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

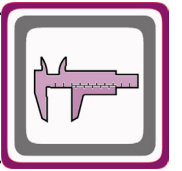
Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlussplatte



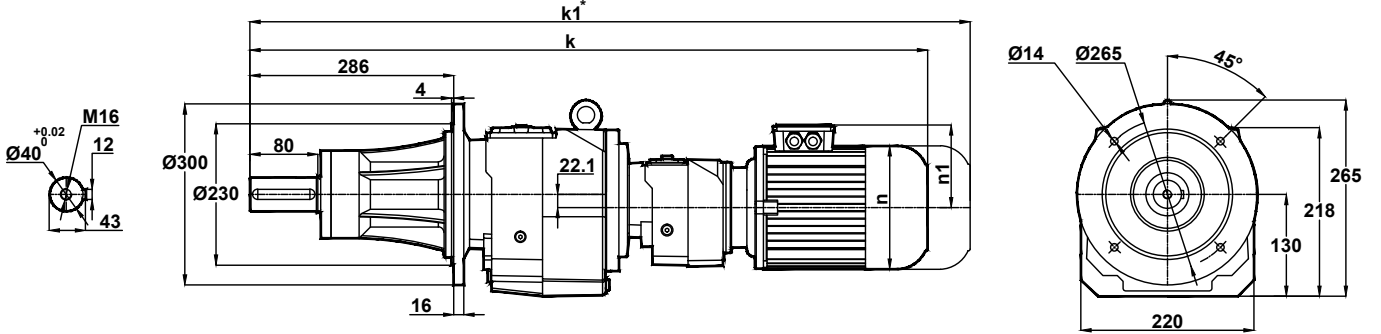


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



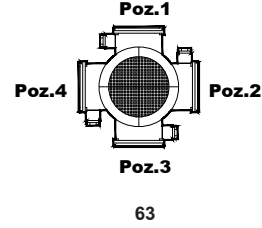
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**NRB285**  
**NRB286**

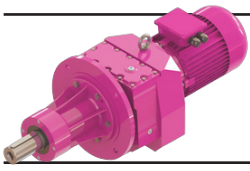


| Motor Büyüklüğü / Motor Size / Motorbaugröße |     |
|--|-----|
|  | 63  |
| k  | 857 |
| k1   | 910 |
| n  | 121 |
| n1   | 97  |

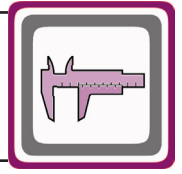
Klemens Kutusu / Terminal Box / Klemmenkasten



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

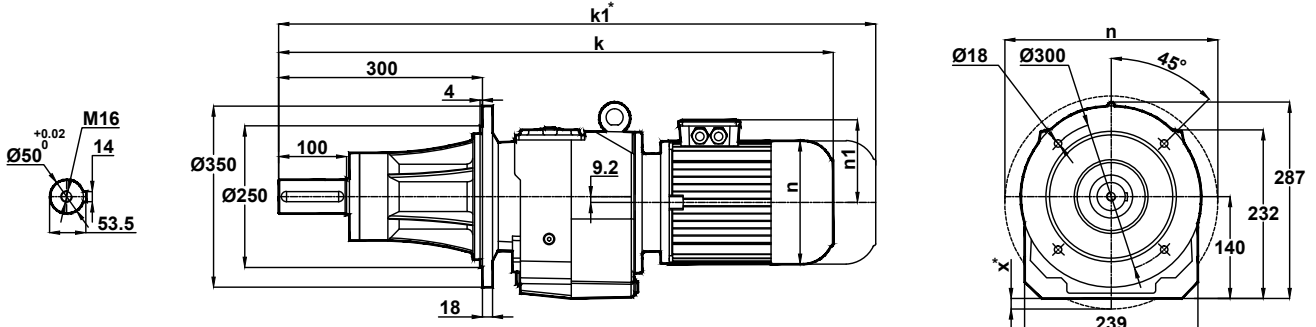


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



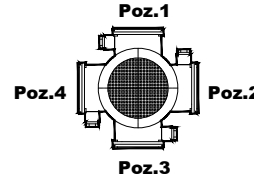
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NRB372 NRB373

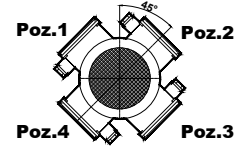


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |     |      |      |      |      |
|--|-----|-----|-----|-----|------|------|------|------|
|  | 71  | 80  | 90S | 90L | 100L | 112M | 132S | 132M |
| k  | 720 | 748 | 778 | 803 | 843  | 866  | 920  | 958  |
| k1   | 840 | 868 | 903 | 928 | 978  | 1001 | 1065 | 1103 |
| n  | 138 | 156 | 176 | 176 | 194  | 218  | 257  | 257  |
| n1   | 111 | 118 | 126 | 126 | 135  | 146  | 168  | 168  |
| x  | -   | -   | -   | -   | -    | -    | 2    | 30   |

Klemens Kutusu / Terminal Box / Klemmenkasten

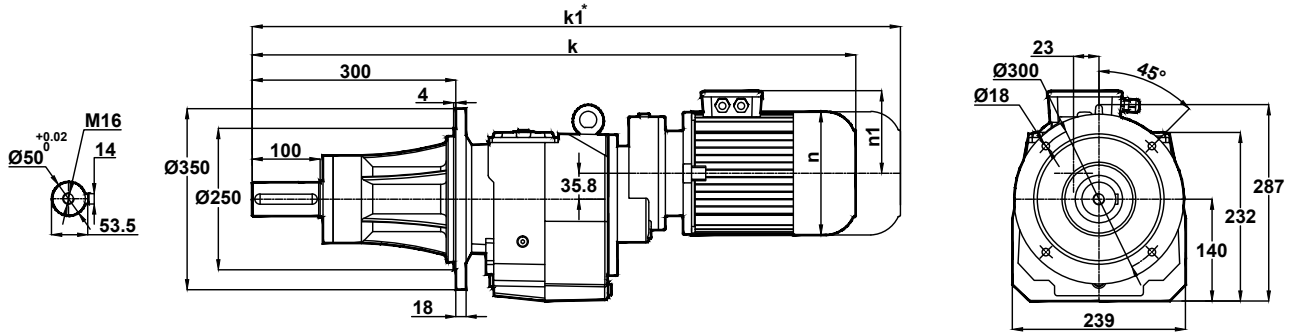


71-100-112-132



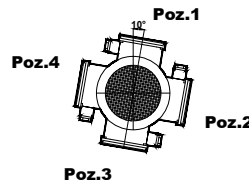
80-90

## NRB374

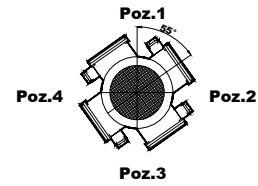


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |     |     |
|--|-----|-----|-----|
|  | 63  | 71  | 80  |
| k  | 781 | 799 | 828 |
| k1   | 834 | 919 | 948 |
| n  | 121 | 138 | 156 |
| n1   | 97  | 111 | 118 |

Klemens Kutusu / Terminal Box / Klemmenkasten



63-80



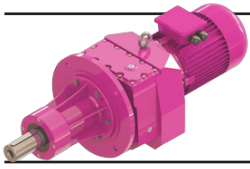
71

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

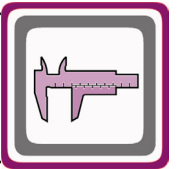
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

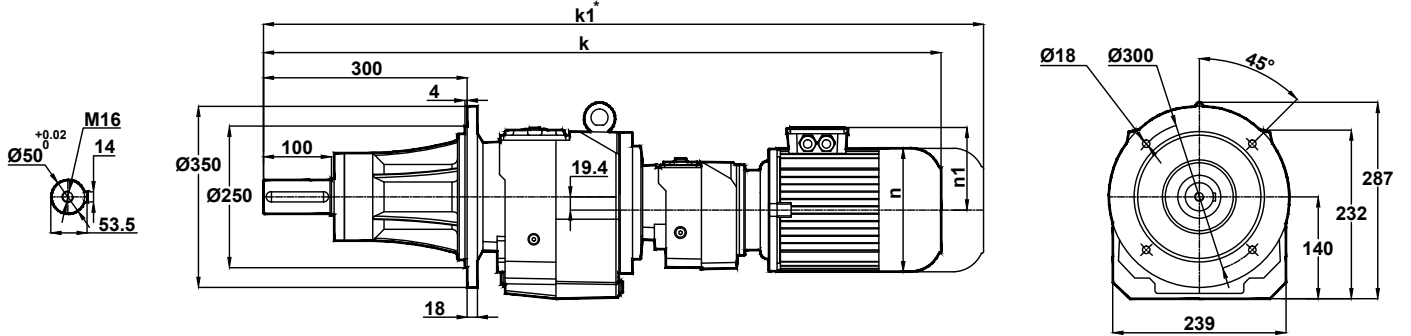


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



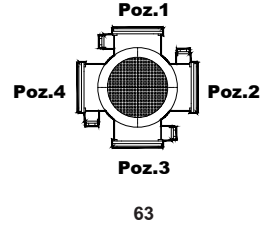
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**NRB375**  
**NRB376**

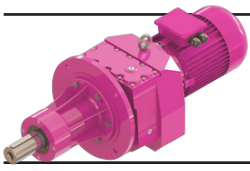


| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |
|--|-----|
|  | 63  |
| k  | 882 |
| k1   | 935 |
| n  | 121 |
| n1   | 97  |

Klemens Kutusu / Terminal Box / Klemmenkasten



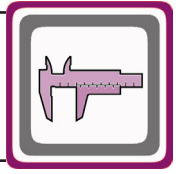
\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.



# Ölçü Sayfaları

## Dimension Pages

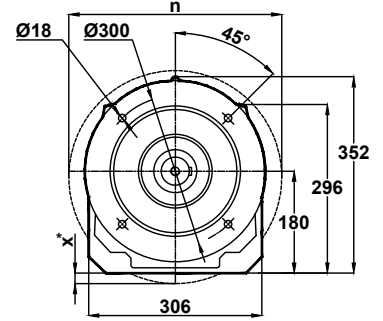
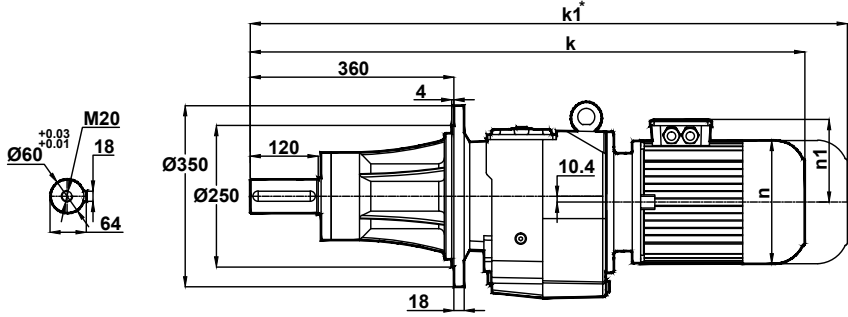
### Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

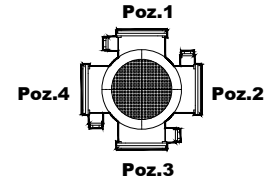
## NRB472

## NRB473



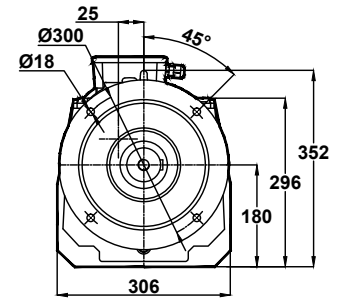
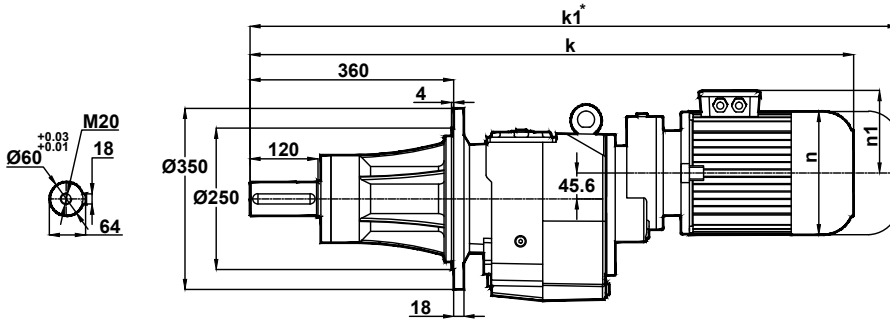
| Motor Büyüklüğü / Motor Size / Motorbaugroße |     |      |      |      |      |      |      |      |      |      |      |
|--|-----|------|------|------|------|------|------|------|------|------|------|
|  | 80  | 90S  | 90L  | 100L | 112M | 132S | 132M | 160M | 160L | 180M | 180L |
| k  | 856 | 884  | 909  | 947  | 973  | 1022 | 1060 | 1135 | 1179 | 1196 | 1234 |
| k1   | 976 | 1009 | 1034 | 1082 | 1108 | 1167 | 1205 | 1305 | 1349 | 1366 | 1404 |
| n  | 156 | 176  | 176  | 194  | 218  | 257  | 257  | 310  | 310  | 348  | 348  |
| n1   | 118 | 126  | 126  | 135  | 146  | 168  | 168  | 225  | 225  | 241  | 241  |
| x  | -   | -    | -    | -    | -    | -    | -    | -    | -    | 11   | 11   |

Klemens Kutusu / Terminal Box / Klemmenkasten

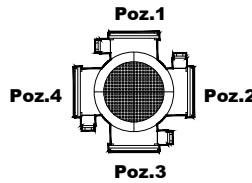


80-90-100-112-132-160-180

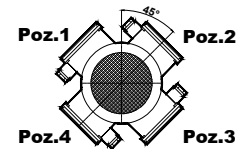
## NRB474



Klemens Kutusu / Terminal Box / Klemmenkasten



71

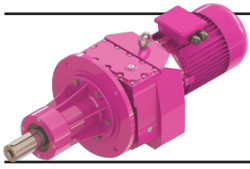


80

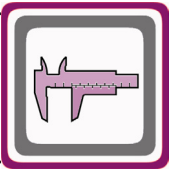
| Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |
|--|------|------|
|  | 71   | 80   |
| k  | 921  | 949  |
| k1   | 1041 | 1069 |
| n  | 138  | 156  |
| n1   | 111  | 118  |

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



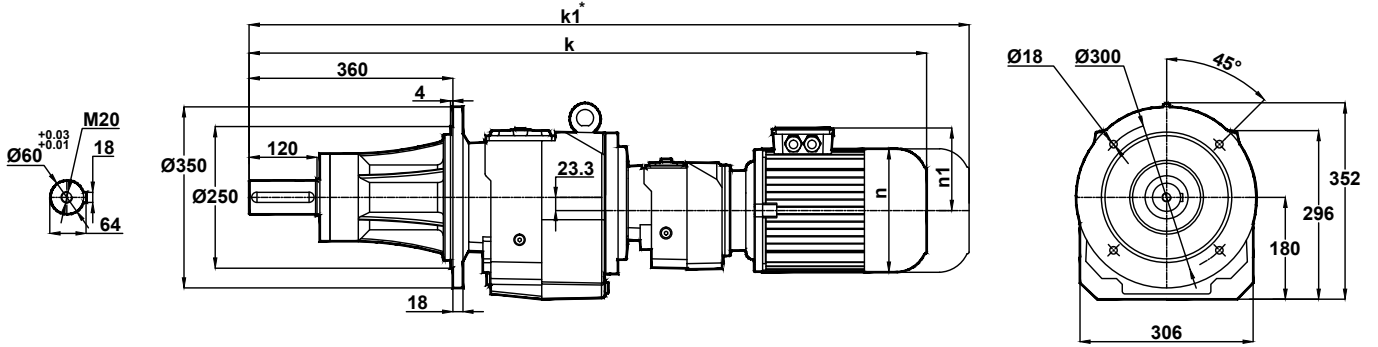


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



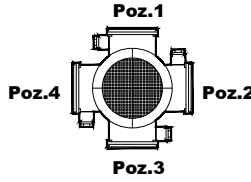
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NRB475 NRB476

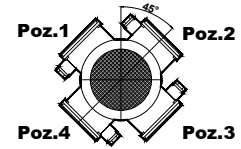


| Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |
|--|------|------|
|  | 63   | 71   |
| k  | 1032 | 1051 |
| k1   | 1085 | 1171 |
| n  | 121  | 138  |
| n1   | 97   | 111  |

Klemens Kutusu / Terminal Box / Klemmenkasten



63

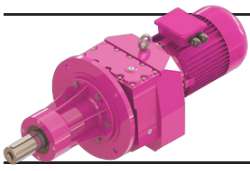


71

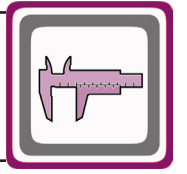
\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

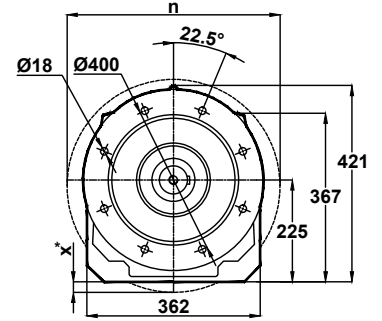
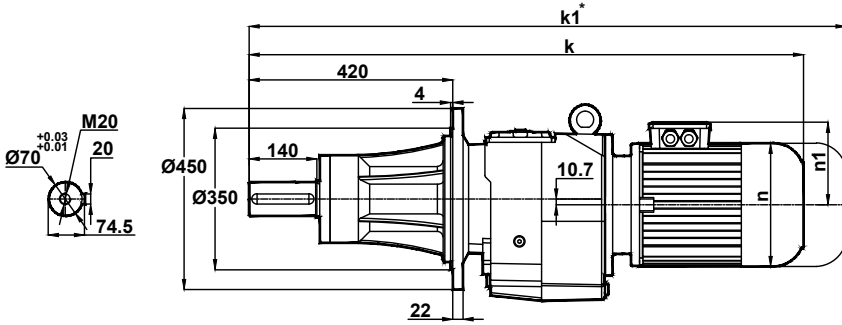


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



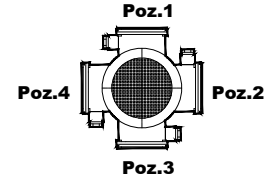
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## NRB572 NRB573



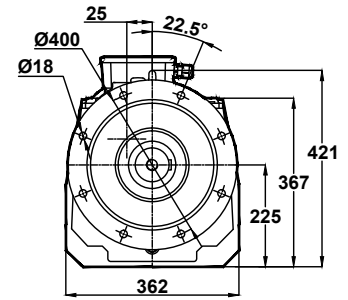
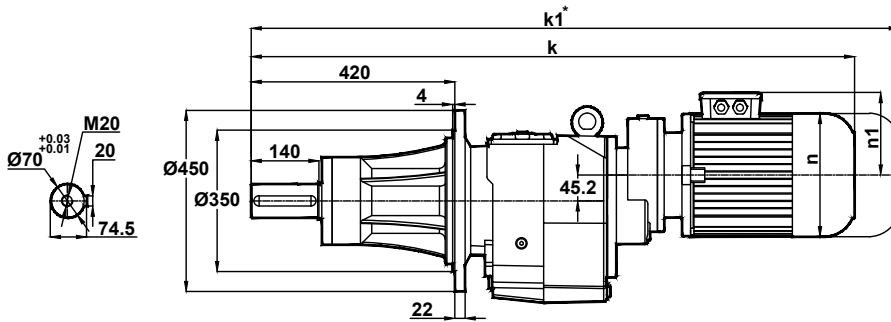
| Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |      |      |      |      |      |      |      |
|--|------|------|------|------|------|------|------|------|------|
|  | 100L | 112M | 132S | 132M | 160M | 160L | 180M | 180L | 200L |
| k  | 1065 | 1088 | 1142 | 1180 | 1255 | 1299 | 1315 | 1353 | 1392 |
| k1   | 1200 | 1223 | 1287 | 1325 | 1425 | 1469 | 1485 | 1523 | 1592 |
| n  | 194  | 218  | 257  | 257  | 310  | 310  | 348  | 348  | 390  |
| n1   | 135  | 146  | 168  | 168  | 225  | 225  | 241  | 241  | 275  |
| x  | -    | -    | -    | -    | -    | -    | -    | -    | -    |

Klemens Kutusu / Terminal Box / Klemmenkasten



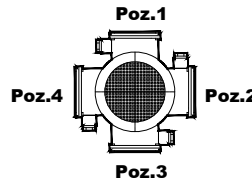
100-112-132-160-180-200

## NRB574

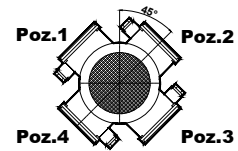


| Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |      |      |
|--|------|------|------|------|
|  | 71   | 80   | 90S  | 90L  |
| k  | 1043 | 1071 | 1100 | 1125 |
| k1   | 1163 | 1191 | 1225 | 1250 |
| n  | 138  | 156  | 176  | 176  |
| n1   | 111  | 118  | 126  | 126  |

Klemens Kutusu / Terminal Box / Klemmenkasten



71



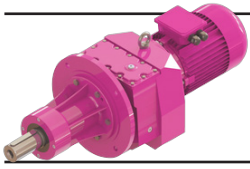
80-90

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

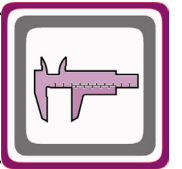
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

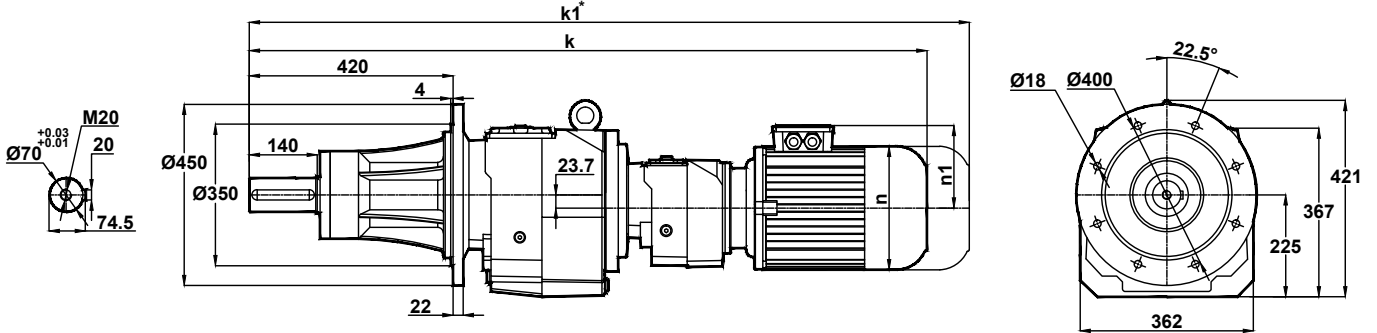


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



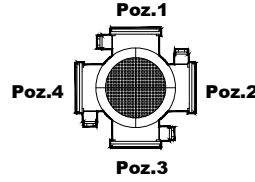
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**NRB575**  
**NRB576**

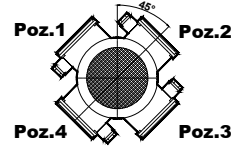


| Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |
|--|------|------|
|  | 63   | 71   |
| k  | 1156 | 1175 |
| k1   | 1209 | 1295 |
| n  | 121  | 138  |
| n1   | 97   | 111  |

Klemens Kutusu / Terminal Box / Klemmenkasten



63

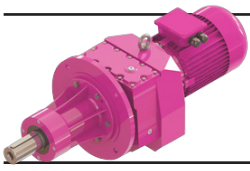


71

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

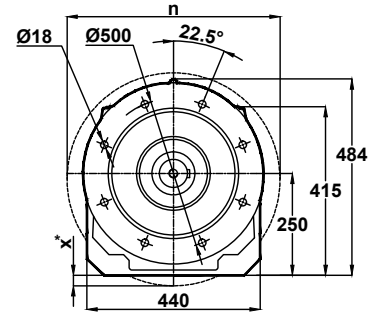
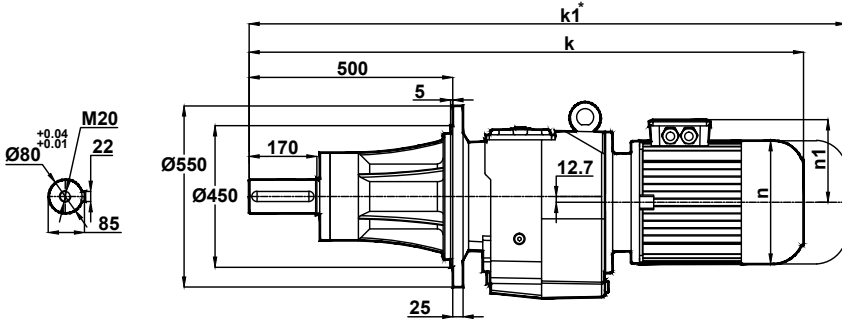


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



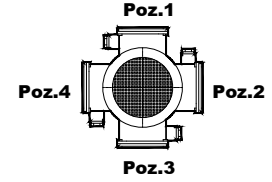
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NRB672 NRB673



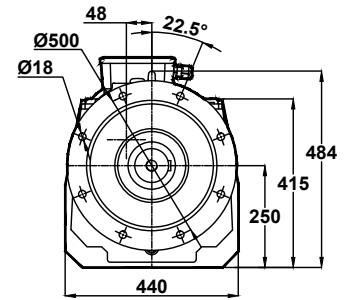
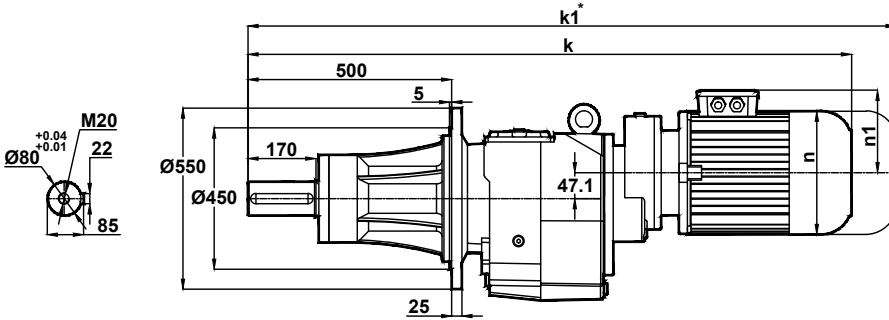
| Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |      |      |      |      |      |      |      |      |
|--|------|------|------|------|------|------|------|------|------|------|
|  | 112M | 132S | 132M | 160M | 160L | 180M | 180L | 200L | 225S | 225M |
| k  | 1185 | 1239 | 1277 | 1351 | 1395 | 1409 | 1447 | 1489 | 1515 | 1540 |
| k1   | 1320 | 1384 | 1422 | 1521 | 1565 | 1579 | 1617 | 1689 | 1705 | 1730 |
| n  | 218  | 257  | 257  | 310  | 310  | 348  | 348  | 390  | 434  | 434  |
| n1   | 146  | 168  | 168  | 225  | 225  | 241  | 241  | 275  | 285  | 285  |
| x  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

Klemens Kutusu / Terminal Box / Klemmenkasten

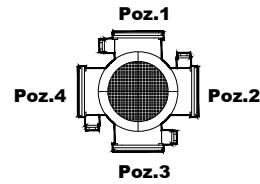


112-132-160-180-200-225

## NRB674



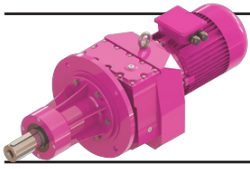
Klemens Kutusu / Terminal Box / Klemmenkasten



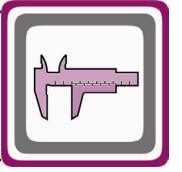
80-90

| Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |      |
|--|------|------|------|
|  | 80   | 90S  | 90L  |
| k  | 1187 | 1215 | 1240 |
| k1   | 1307 | 1340 | 1365 |
| n  | 156  | 176  | 176  |
| n1   | 118  | 126  | 126  |

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

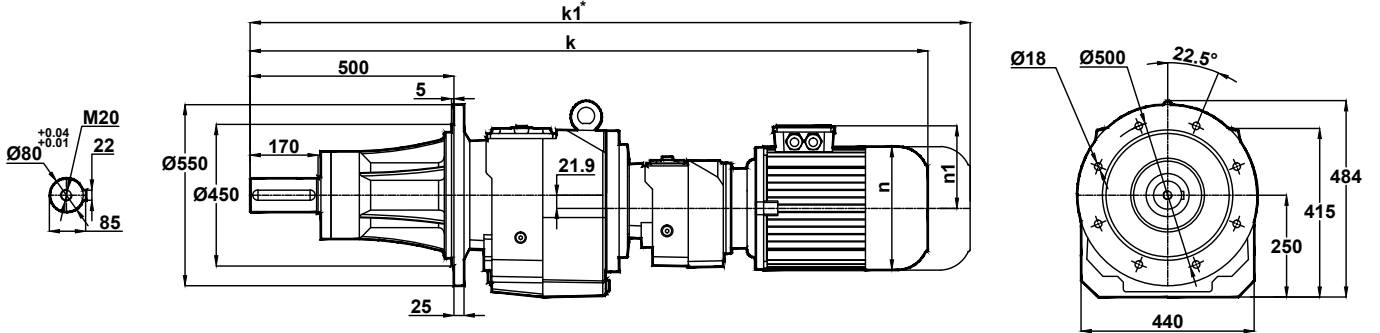


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



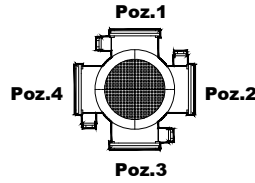
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**NRB675**  
**NRB676**

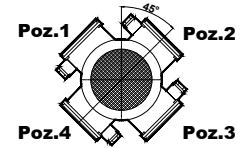


| Motor Büyüklüğü / Motor Size / Motorbaugroße | 71   | 80   |
|--|------|------|
| k  | 1304 | 1332 |
| k1   | 1424 | 1452 |
| n  | 138  | 156  |
| n1   | 111  | 118  |

Klemens Kutusu / Terminal Box / Klemmenkasten

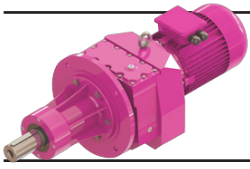


71

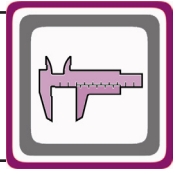


80

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

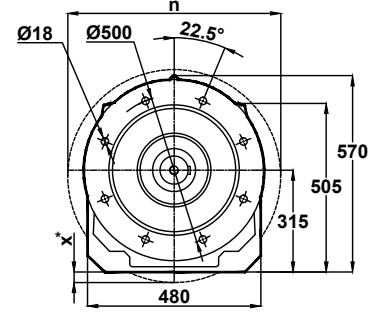
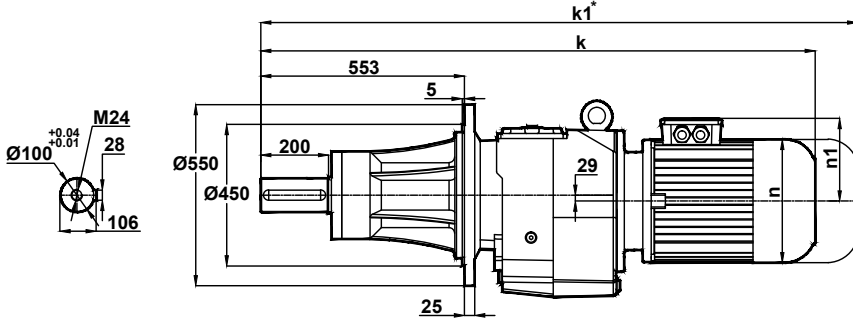


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



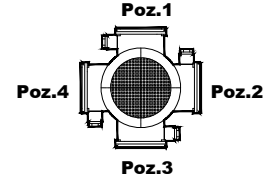
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## NRB772 NRB773



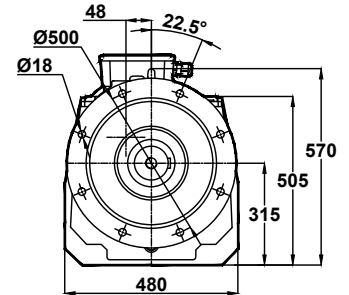
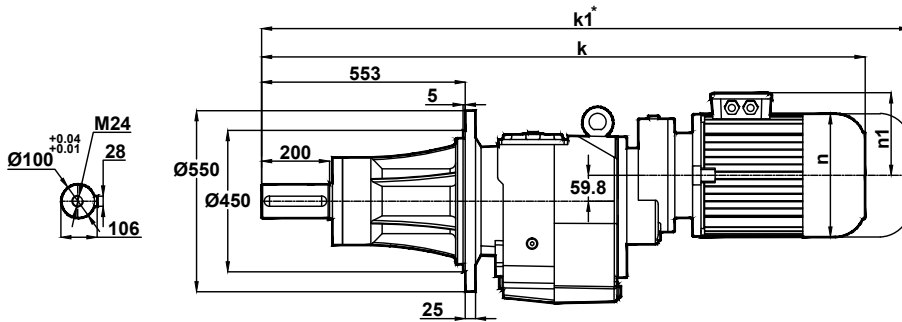
| Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |      |      |      |      |      |      |      |      |
|--|------|------|------|------|------|------|------|------|------|------|
|  | 132S | 132M | 160M | 160L | 180M | 180L | 200L | 225S | 225M | 250M |
| k  | 1341 | 1379 | 1455 | 1499 | 1516 | 1554 | 1593 | 1620 | 1645 | 1749 |
| k1   | 1486 | 1524 | 1625 | 1669 | 1686 | 1724 | 1793 | 1810 | 1835 | -    |
| n  | 257  | 257  | 310  | 310  | 348  | 348  | 390  | 434  | 434  | 480  |
| n1   | 168  | 168  | 225  | 225  | 241  | 241  | 275  | 285  | 285  | 322  |
| x  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

Klemens Kutusu / Terminal Box / Klemmenkasten



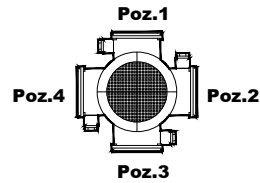
132-160-180-200-225-250

## NRB774



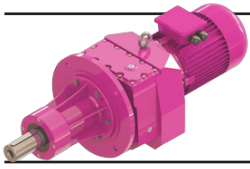
| Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |      |      |
|--|------|------|------|------|
|  | 80   | 90S  | 90L  | 100L |
| k  | 1295 | 1323 | 1348 | 1386 |
| k1   | 1415 | 1448 | 1473 | 1521 |
| n  | 156  | 176  | 176  | 194  |
| n1   | 118  | 126  | 126  | 135  |

Klemens Kutusu / Terminal Box / Klemmenkasten

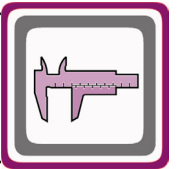


80-90-100

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

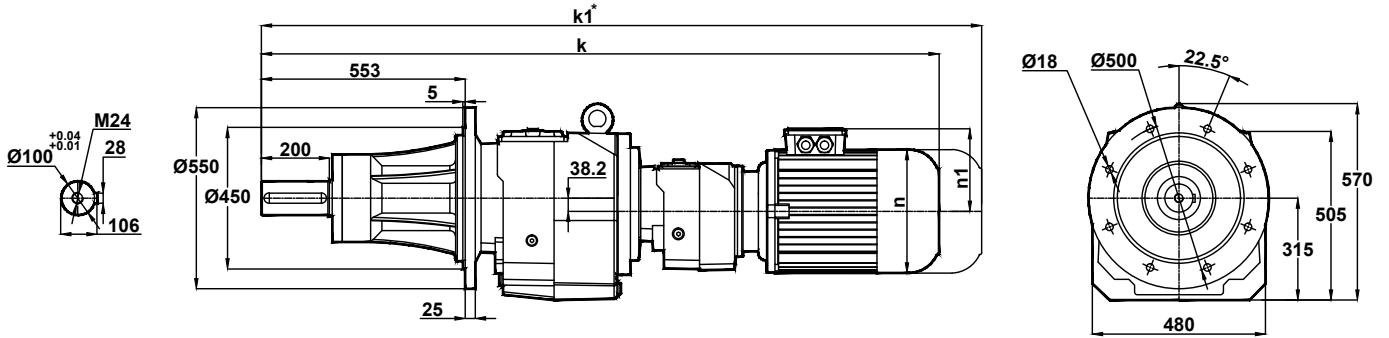


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



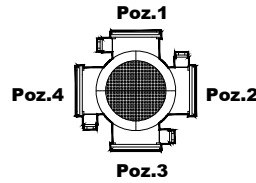
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

NRB775  
NRB776

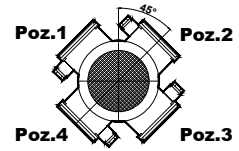


| Motor Büyüklüğü / Motor Size / Motorbaugroße | 71   | 80   | 90S  | 90L  |
|--|------|------|------|------|
| k  | 1415 | 1443 | 1473 | 1498 |
| k1   | 1535 | 1563 | 1598 | 1623 |
| n  | 138  | 156  | 176  | 176  |
| n1   | 111  | 118  | 126  | 126  |

Klemens Kutusu / Terminal Box / Klemmenkasten



71

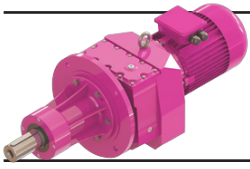


80-90

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

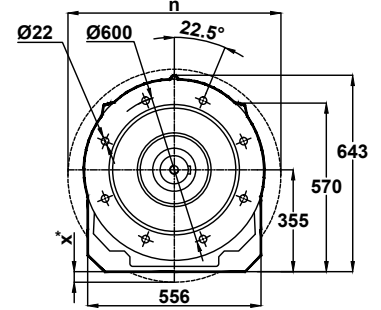
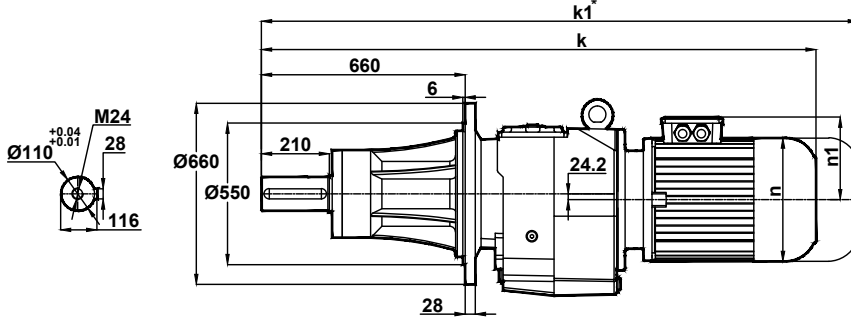


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



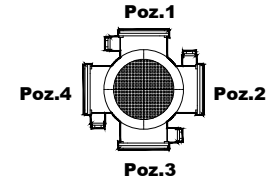
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NRB872 NRB873



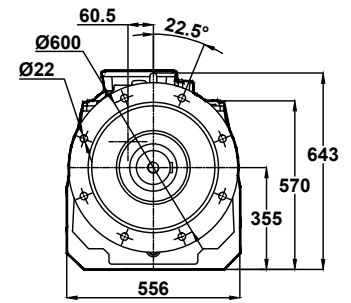
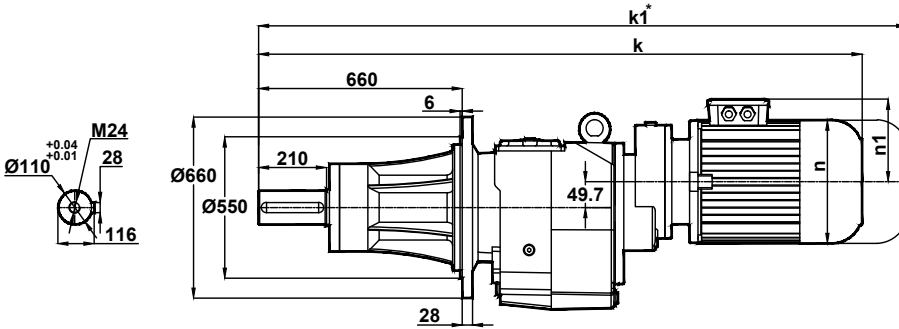
| Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |      |      |      |      |      |      |      |      |      |
|--|------|------|------|------|------|------|------|------|------|------|------|
|  | 132M | 160M | 160L | 180M | 180L | 200L | 225S | 225M | 250M | 280S | 280M |
| k  | 1556 | 1631 | 1675 | 1692 | 1730 | 1769 | 1798 | 1823 | 1926 | 1987 | 1987 |
| k1   | 1701 | 1801 | 1845 | 1862 | 1900 | 1969 | 1988 | 2013 | -    | -    | -    |
| n  | 257  | 310  | 310  | 348  | 348  | 390  | 434  | 434  | 480  | 544  | 544  |
| n1   | 168  | 225  | 225  | 241  | 241  | 275  | 285  | 285  | 322  | 350  | 350  |
| x  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

Klemens Kutusu / Terminal Box / Klemmenkasten

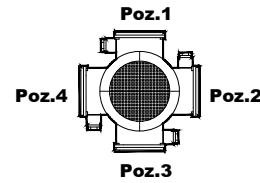


132-160-180-200-225-250-280

## NRB874



Klemens Kutusu / Terminal Box / Klemmenkasten

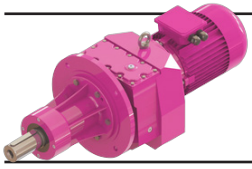


100-112-132

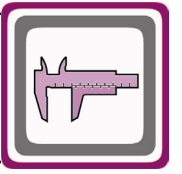
| Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |      |      |
|--|------|------|------|------|
|  | 100L | 112M | 132S | 132M |
| k  | 1584 | 1607 | 1661 | 1699 |
| k1   | 1719 | 1742 | 1806 | 1844 |
| n  | 194  | 218  | 257  | 257  |
| n1   | 135  | 146  | 168  | 168  |

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



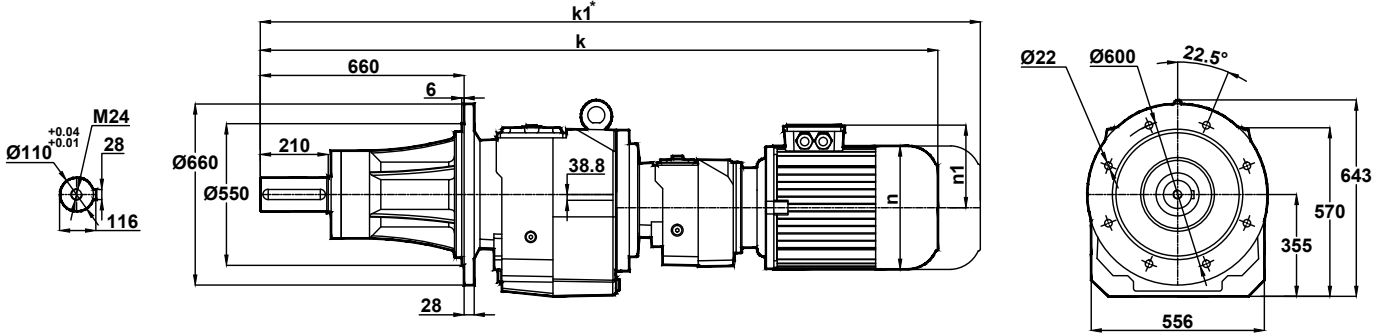


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



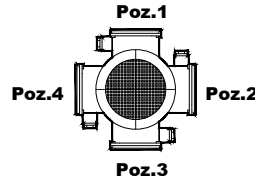
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**NRB875**  
**NRB876**

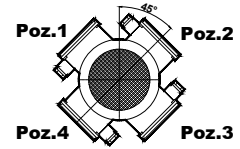


Klemens Kutusu / Terminal Box / Klemmenkasten

| Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |      |      |      |
|--|------|------|------|------|------|
|  | 71   | 80   | 90S  | 90L  | 100L |
| k  | 1599 | 1627 | 1657 | 1682 | 1722 |
| k1   | 1719 | 1747 | 1782 | 1807 | 1857 |
| n  | 138  | 156  | 176  | 176  | 194  |
| n1   | 111  | 118  | 126  | 126  | 135  |

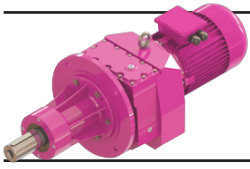


71-100

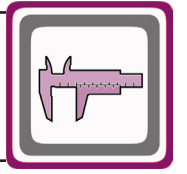


80-90

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

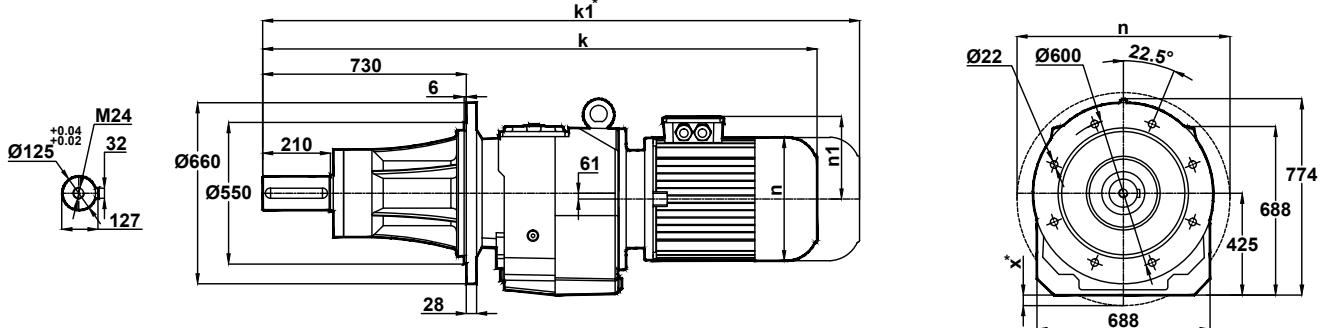


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



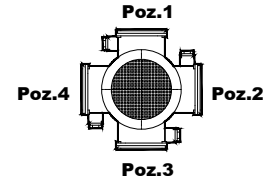
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NRB972 NRB973



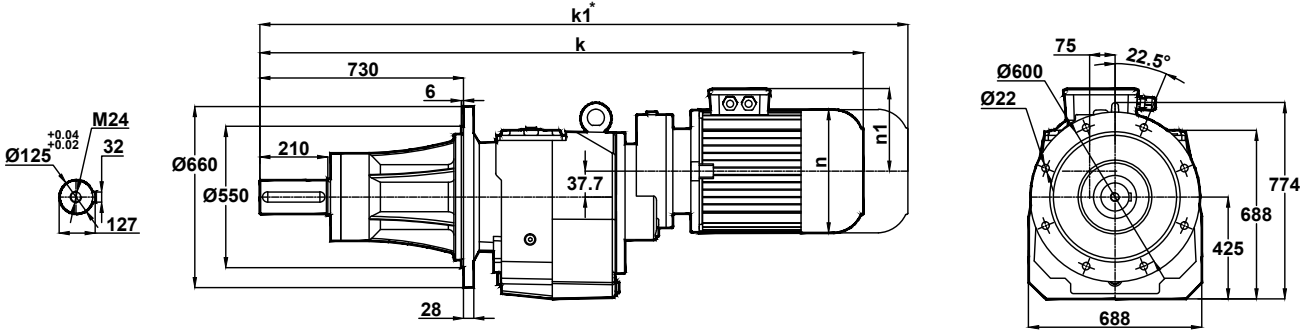
| Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |      |      |      |      |      |      |      |      |      |      |
|--|------|------|------|------|------|------|------|------|------|------|------|------|
|  | 160M | 160L | 180M | 180L | 200L | 225S | 225M | 250M | 280S | 280M | 315S | 315M |
| k  | 1768 | 1812 | 1828 | 1866 | 1905 | 1923 | 1946 | 2049 | 2110 | 2110 | 2222 | 2274 |
| k1   | 1938 | 1982 | 1998 | 2036 | 2105 | 2113 | 2136 | -    | -    | -    | -    | -    |
| n  | 310  | 310  | 348  | 348  | 390  | 434  | 434  | 480  | 544  | 544  | 614  | 614  |
| n1   | 225  | 225  | 241  | 241  | 275  | 285  | 285  | 322  | 350  | 350  | 510  | 510  |
| x  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |

Klemens Kutusu / Terminal Box / Klemmenkasten



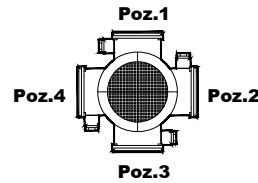
160-180-200-225-250-280-315

## NRB974



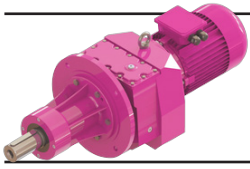
| Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |      |      |
|--|------|------|------|------|
|  | 100L | 112M | 132S | 132M |
| k  | 1754 | 1777 | 1831 | 1869 |
| k1   | 1889 | 1912 | 1976 | 2014 |
| n  | 194  | 218  | 257  | 257  |
| n1   | 135  | 146  | 168  | 168  |

Klemens Kutusu / Terminal Box / Klemmenkasten

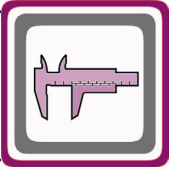


100-112-132

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

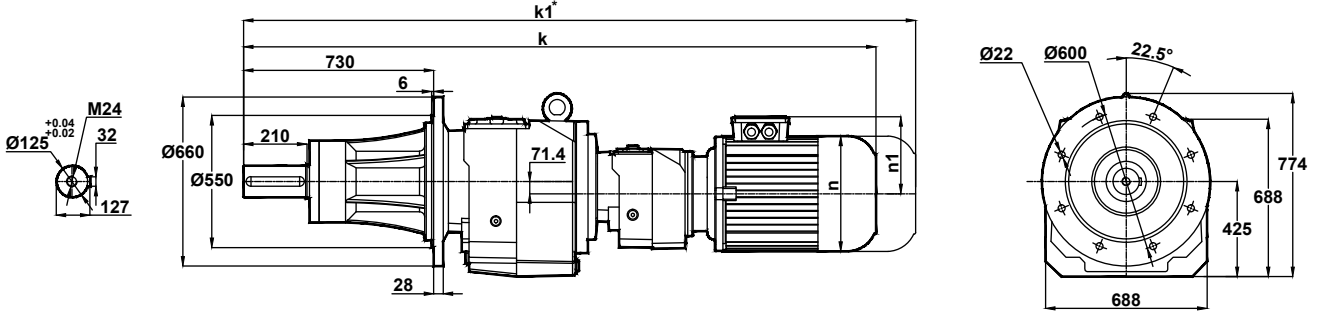


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



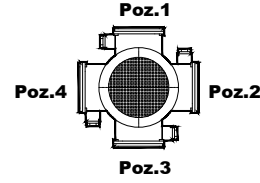
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**NRB975**  
**NRB976**



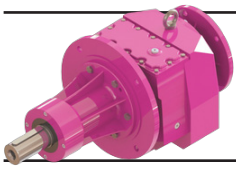
|    | Motor Büyüklüğü / Motor Size / Motorbaugroße |      |      |      |      |      |
|----|--|------|------|------|------|------|
|    | 80   | 90S  | 90L  | 100L | 112M | 132S |
| k  | 1824   | 1852 | 1877 | 1913 | 1936 | 1990 |
| k1 | 1944   | 1977 | 2002 | 2048 | 2071 | 2135 |
| n  | 156  | 176  | 176  | 194  | 218  | 257  |
| n1 | 118  | 126  | 126  | 135  | 146  | 168  |

Klemens Kutusu / Terminal Box / Klemmenkasten



80-90-100-112-132

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.



# Ölçü Sayfaları

## Dimension Pages

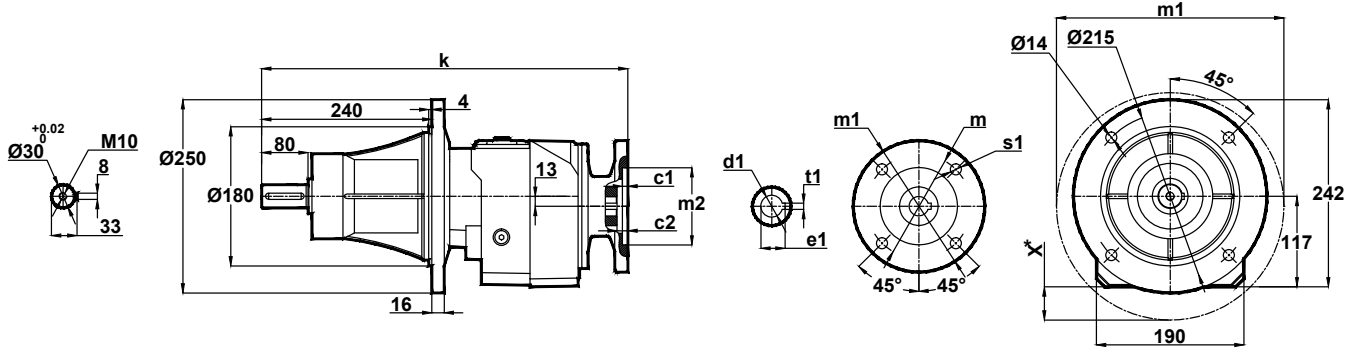
### Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NNB202-A..

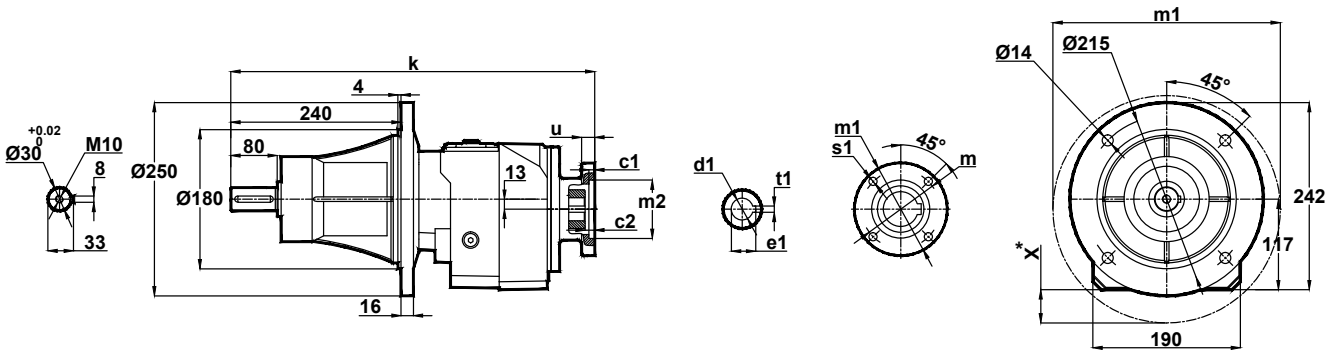
## NNB203-A..



| IEC    | c1 | c2  | s1 | m   | m1  | m2  | u  | k   | d1 | t1 | e1   | x  |
|--------|----|-----|----|-----|-----|-----|----|-----|----|----|------|----|
| 63/B5  | 4  | 5   | 9  | 115 | 140 | 95  | 12 | 503 | 11 | 4  | 12.8 | -  |
| 71/B5  | 4  | 8.5 | 11 | 130 | 160 | 110 | 12 | 474 | 14 | 5  | 163  | -  |
| 80/B5  | 4  | 5   | 13 | 165 | 200 | 130 | 12 | 503 | 19 | 6  | 21.8 | -  |
| 90/B5  | 4  | 5   | 13 | 165 | 200 | 130 | 12 | 503 | 24 | 8  | 27.3 | -  |
| 100/B5 | 4  | 5.5 | 15 | 215 | 250 | 180 | 12 | 496 | 28 | 8  | 31.3 | 23 |
| 112/B5 | 4  | 5.5 | 15 | 215 | 250 | 180 | 12 | 496 | 28 | 8  | 31.3 | 23 |

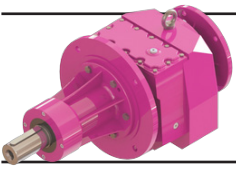
## NNB202-B..

## NNB203-B..



| IEC     | c1 | c2  | s1 | m   | m1  | m2  | u  | k   | d1 | t1 | e1   | x |
|---------|----|-----|----|-----|-----|-----|----|-----|----|----|------|---|
| 71/B14  | 3  | 8.5 | 7  | 85  | 105 | 70  | 10 | 474 | 14 | 5  | 16.3 | - |
| 80/B14  | 4  | 5   | 7  | 100 | 120 | 80  | 12 | 503 | 19 | 6  | 21.8 | - |
| 90/B14  | 4  | 5   | 9  | 115 | 140 | 95  | 12 | 503 | 24 | 8  | 27.3 | - |
| 100/B14 | 4  | 5.5 | 9  | 130 | 160 | 110 | 12 | 496 | 28 | 8  | 31.3 | - |
| 112/B14 | 4  | 5.5 | 9  | 130 | 160 | 110 | 12 | 496 | 28 | 8  | 31.3 | - |

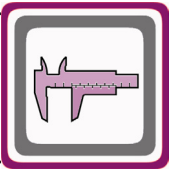
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

## Dimension Pages

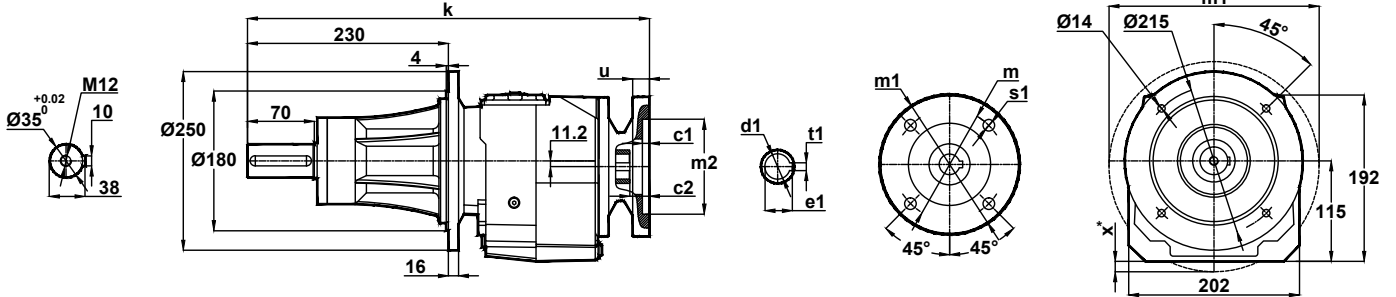
### Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NNB272-A..

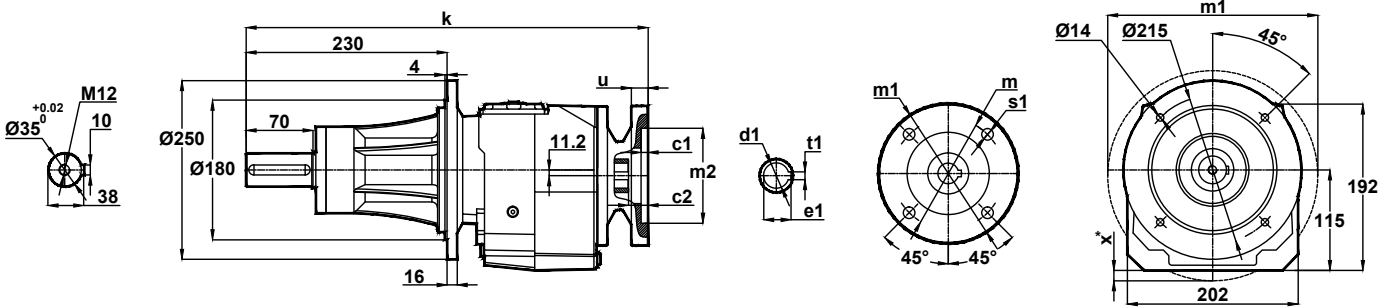
## NNB273-A..



| IEC    | c1 | c2  | s1 | m   | m1  | m2  | u  | k   | d1 | t1 | e1   | x  |
|--------|----|-----|----|-----|-----|-----|----|-----|----|----|------|----|
| 63/B5  | 4  | 5   | 9  | 115 | 140 | 95  | 12 | 484 | 11 | 4  | 12.8 | -  |
| 71/B5  | 4  | 8.5 | 11 | 130 | 160 | 110 | 12 | 455 | 14 | 5  | 16.3 | -  |
| 80/B5  | 4  | 5   | 13 | 165 | 200 | 130 | 12 | 484 | 19 | 6  | 21.8 | -  |
| 90/B5  | 4  | 5   | 13 | 165 | 200 | 130 | 12 | 484 | 24 | 8  | 27.3 | -  |
| 100/B5 | 4  | 5.5 | 15 | 215 | 250 | 180 | 12 | 477 | 28 | 8  | 31.3 | 22 |
| 112/B5 | 4  | 5.5 | 15 | 215 | 250 | 180 | 12 | 477 | 28 | 8  | 31.3 | 22 |

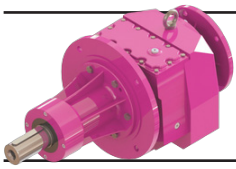
## NNB272-B..

## NNB273-B..



| IEC     | c1 | c2  | s1 | m   | m1  | m2  | u  | k   | d1 | t1 | e1   | x |
|---------|----|-----|----|-----|-----|-----|----|-----|----|----|------|---|
| 71/B14  | 3  | 8.5 | 7  | 85  | 105 | 70  | 10 | 455 | 14 | 5  | 16.3 | - |
| 80/B14  | 4  | 5   | 7  | 100 | 120 | 80  | 12 | 484 | 19 | 6  | 21.8 | - |
| 90/B14  | 4  | 5   | 9  | 115 | 140 | 95  | 12 | 484 | 24 | 8  | 27.3 | - |
| 100/B14 | 4  | 5.5 | 9  | 130 | 160 | 110 | 12 | 477 | 28 | 8  | 31.3 | - |
| 112/B14 | 4  | 5.5 | 9  | 130 | 160 | 110 | 12 | 477 | 28 | 8  | 31.3 | - |

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

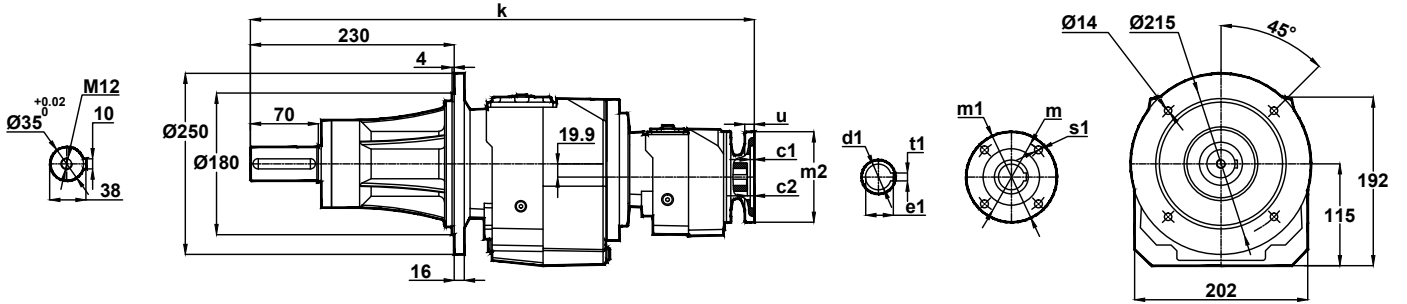


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



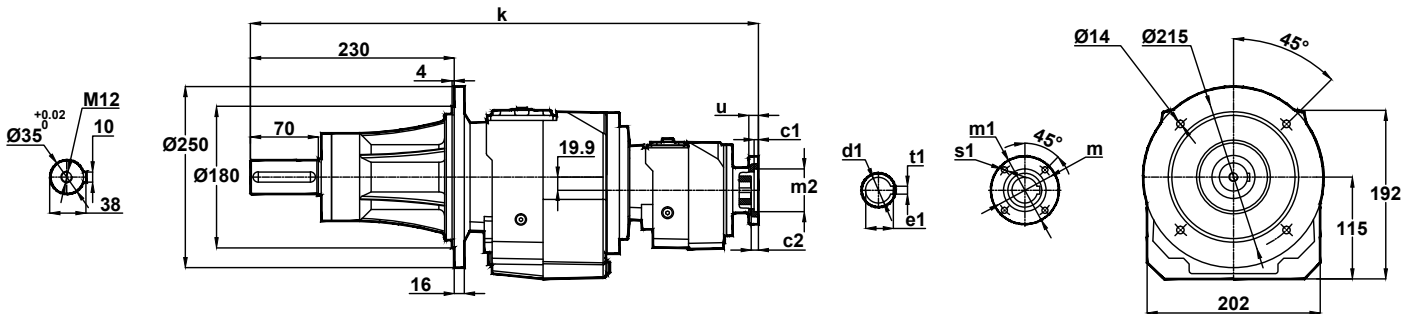
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NNB275-A.. NNB276-A..

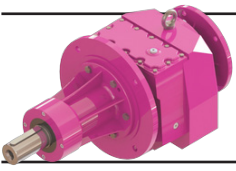


| IEC   | c1  | c2  | s1 | m   | m1  | m2  | u  | k   | d1 | t1 | e1   |
|-------|-----|-----|----|-----|-----|-----|----|-----|----|----|------|
| 63/B5 | 3.5 | 5   | 10 | 115 | 140 | 95  | 10 | 599 | 11 | 4  | 12.8 |
| 71/B5 | 4   | 4.5 | 11 | 130 | 160 | 110 | 12 | 601 | 14 | 5  | 16.3 |

## NNB275-B.. NNB276-B..



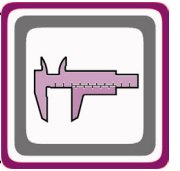
| IEC    | c1  | c2  | s1  | m  | m1  | m2 | u  | k   | d1 | t1 | e1   |
|--------|-----|-----|-----|----|-----|----|----|-----|----|----|------|
| 63/B14 | 2.5 | 5   | 5.5 | 75 | 90  | 60 | 10 | 599 | 11 | 4  | 12.8 |
| 71/B14 | 3   | 4.5 | 7   | 85 | 105 | 70 | 10 | 601 | 14 | 5  | 16.3 |



# Ölçü Sayfaları

## Dimension Pages

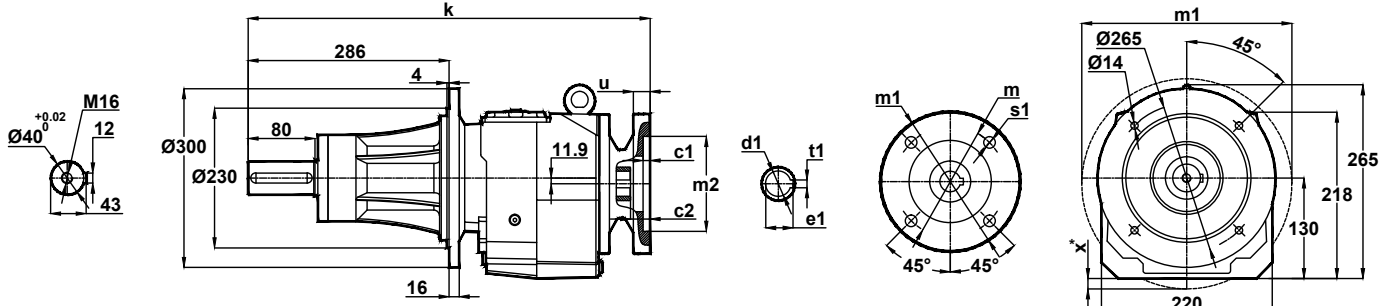
### Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NNB282-A..

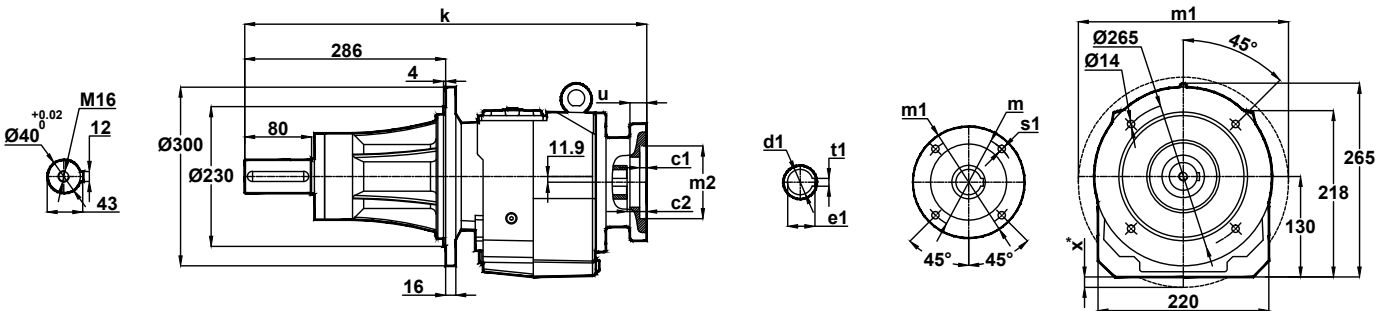
## NNB283-A..



| IEC    | c1  | c2 | s1 | m   | m1  | m2  | u  | k   | d1 | t1 | e1   | x  |
|--------|-----|----|----|-----|-----|-----|----|-----|----|----|------|----|
| 71/B5  | 4   | 9  | 11 | 130 | 160 | 110 | 12 | 559 | 14 | 5  | 16.3 | -  |
| 80/B5  | 4   | 9  | 13 | 165 | 200 | 130 | 12 | 559 | 19 | 6  | 21.8 | -  |
| 90/B5  | 4   | 9  | 13 | 165 | 200 | 130 | 12 | 559 | 24 | 8  | 27.3 | -  |
| 100/B5 | 4.5 | 9  | 15 | 215 | 250 | 180 | 15 | 566 | 28 | 8  | 31.3 | 7  |
| 112/B5 | 4.5 | 9  | 15 | 215 | 250 | 180 | 15 | 566 | 28 | 8  | 31.3 | 7  |
| 132/B5 | 4.5 | 7  | 15 | 265 | 300 | 230 | 15 | 596 | 38 | 10 | 41.3 | 32 |

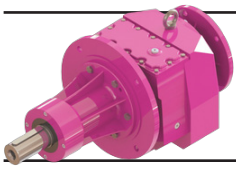
## NNB282-B..

## NNB283-B..



| IEC     | c1  | c2 | s1 | m   | m1  | m2  | u  | k   | d1 | t1 | e1   | x |
|---------|-----|----|----|-----|-----|-----|----|-----|----|----|------|---|
| 80/B14  | 4   | 9  | 7  | 100 | 120 | 80  | 12 | 559 | 19 | 6  | 21.8 | - |
| 90/B14  | 4   | 9  | 9  | 115 | 140 | 95  | 12 | 559 | 24 | 8  | 26.3 | - |
| 100/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 15 | 566 | 28 | 8  | 31.3 | - |
| 112/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 15 | 566 | 28 | 8  | 31.3 | - |
| 132/B14 | 4.5 | 7  | 11 | 165 | 200 | 130 | 15 | 596 | 38 | 10 | 41.3 | - |

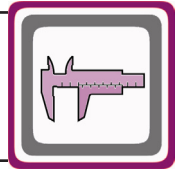
x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

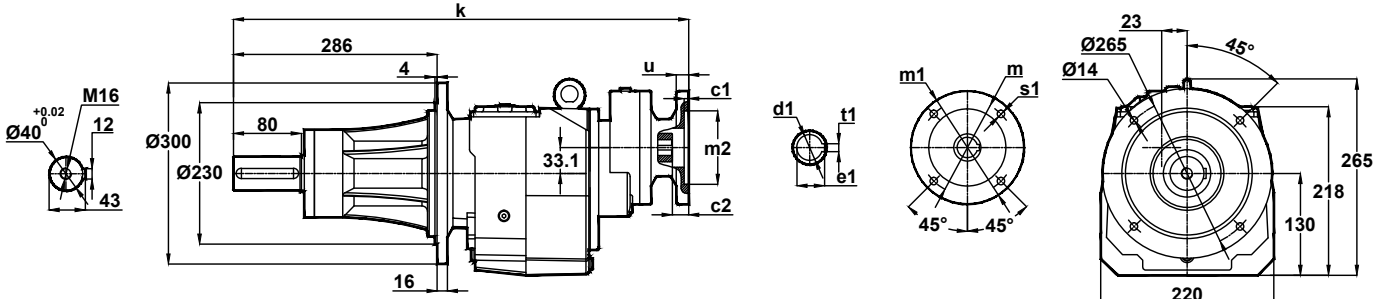
## Dimension Pages

### Abmessungsseiten



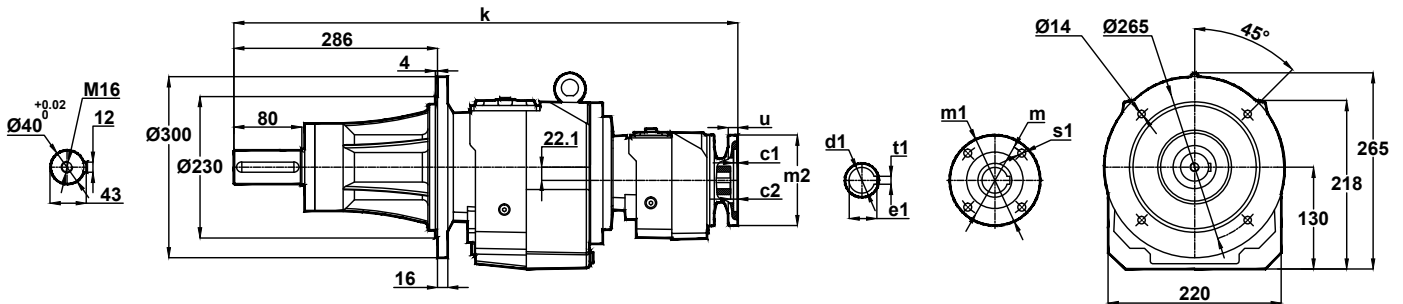
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**NNB284-A..**  
**NNB284-B..**



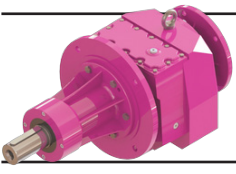
| IEC    | c1  | c2  | s1 | m   | m1  | m2  | u  | k   | d1 | t1 | e1   |
|--------|-----|-----|----|-----|-----|-----|----|-----|----|----|------|
| 63/B5  | 3.5 | 5   | 10 | 115 | 140 | 95  | 10 | 636 | 11 | 4  | 12.8 |
| 71/B5  | 4   | 4.5 | 11 | 130 | 160 | 110 | 12 | 607 | 14 | 5  | 16.3 |
| 71/B14 | 3   | 4.5 | 7  | 85  | 105 | 70  | 10 | 607 | 14 | 5  | 16.3 |

**NNB285-A.. / B..**  
**NNB286-A.. / B..**



| IEC    | c1  | c2 | s1  | m   | m1  | m2 | u  | k   | d1 | t1 | e1   |
|--------|-----|----|-----|-----|-----|----|----|-----|----|----|------|
| 63/B5  | 4   | 7  | 10  | 115 | 140 | 95 | 12 | 702 | 11 | 4  | 12.8 |
| 63/B14 | 2.5 | 5  | 5.5 | 75  | 90  | 60 | 10 | 702 | 11 | 4  | 12.8 |

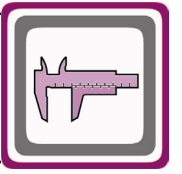




# Ölçü Sayfaları

## Dimension Pages

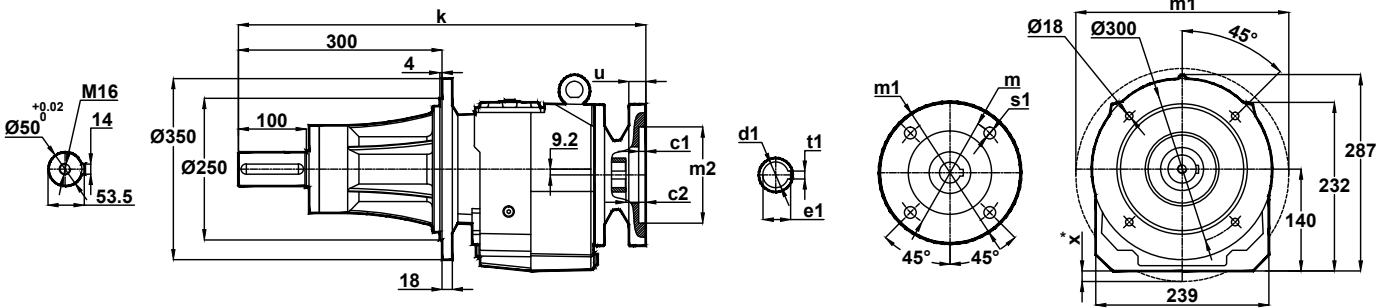
### Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NNB372-A..

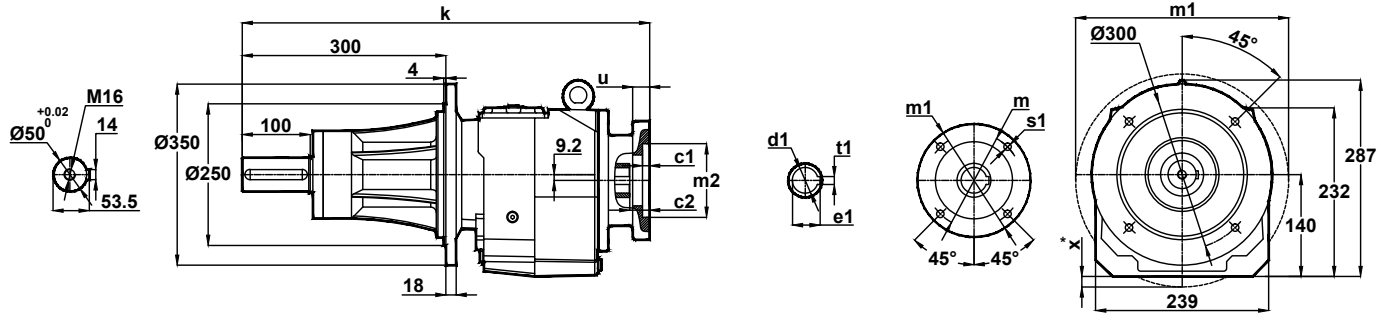
## NNB373-A..



| IEC    | c1  | c2 | s1 | m   | m1  | m2  | u  | k   | d1 | t1 | e1   | x  |
|--------|-----|----|----|-----|-----|-----|----|-----|----|----|------|----|
| 71/B5  | 4   | 9  | 11 | 130 | 160 | 110 | 12 | 584 | 14 | 5  | 16.3 | -  |
| 80/B5  | 4   | 9  | 13 | 165 | 200 | 130 | 12 | 584 | 19 | 6  | 21.8 | -  |
| 90/B5  | 4   | 9  | 13 | 165 | 200 | 130 | 12 | 584 | 24 | 8  | 27.3 | -  |
| 100/B5 | 4.5 | 9  | 15 | 215 | 250 | 180 | 15 | 601 | 28 | 8  | 31.3 | -  |
| 112/B5 | 4.5 | 9  | 15 | 215 | 250 | 180 | 15 | 601 | 28 | 8  | 31.3 | -  |
| 132/B5 | 4.5 | 7  | 15 | 265 | 300 | 230 | 15 | 621 | 38 | 10 | 41.3 | 20 |

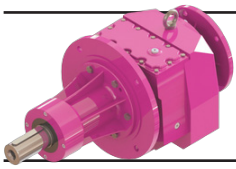
## NNB372-B..

## NNB373-B..



| IEC     | c1  | c2 | s1 | m   | m1  | m2  | u  | k   | d1 | t1 | e1   | x |
|---------|-----|----|----|-----|-----|-----|----|-----|----|----|------|---|
| 80/B14  | 4   | 9  | 7  | 100 | 120 | 80  | 12 | 584 | 19 | 6  | 21.8 | - |
| 90/B14  | 4   | 9  | 9  | 115 | 140 | 95  | 12 | 584 | 24 | 8  | 26.3 | - |
| 100/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 15 | 601 | 28 | 8  | 31.3 | - |
| 112/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 15 | 601 | 28 | 8  | 31.3 | - |
| 132/B14 | 4.5 | 9  | 11 | 165 | 200 | 130 | 15 | 621 | 38 | 10 | 41.3 | - |

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

## Dimension Pages

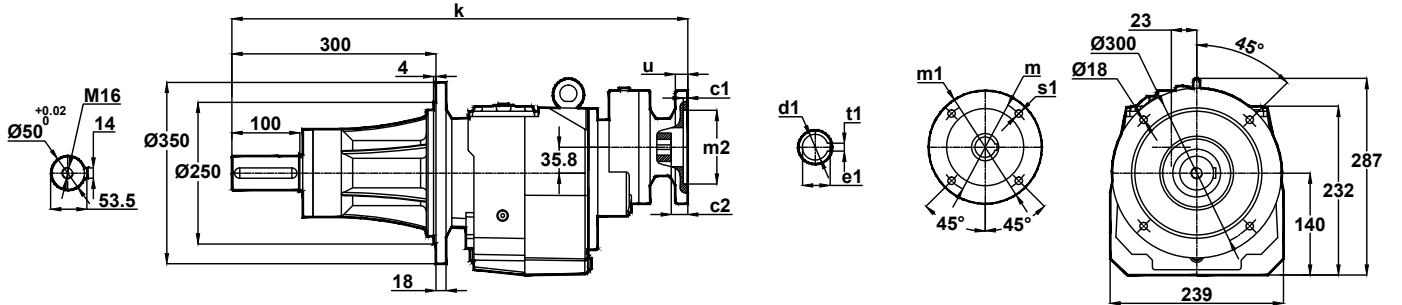
### Abmessungsseiten



-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NNB374-A..

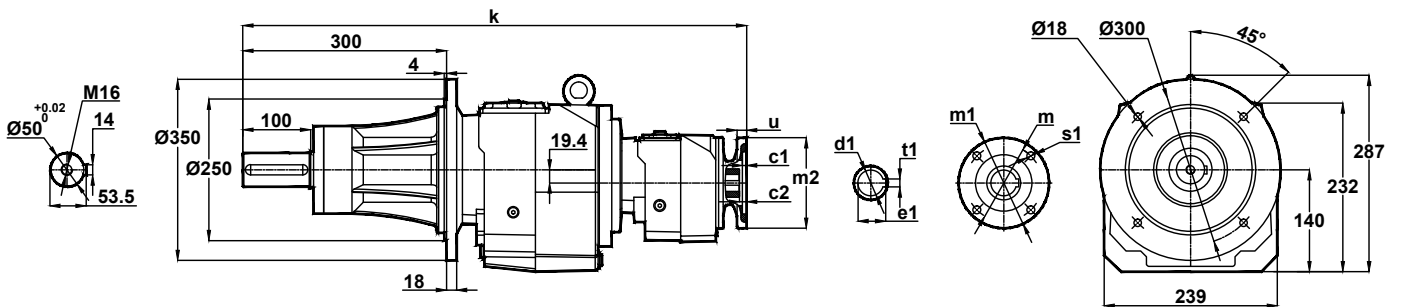
## NNB374-B..



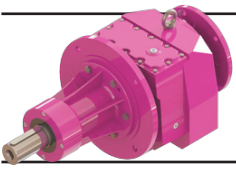
| IEC    | c1 | c2  | s1 | m   | m1  | m2  | u  | k   | d1 | t1 | e1   |
|--------|----|-----|----|-----|-----|-----|----|-----|----|----|------|
| 63/B5  | 4  | 5   | 9  | 115 | 140 | 95  | 12 | 661 | 11 | 4  | 12.8 |
| 71/B5  | 4  | 8.5 | 11 | 130 | 160 | 110 | 12 | 632 | 14 | 5  | 16.3 |
| 80/B5  | 4  | 5   | 13 | 165 | 200 | 130 | 12 | 661 | 19 | 6  | 21.8 |
| 71/B14 | 3  | 8.5 | 7  | 85  | 105 | 70  | 10 | 632 | 14 | 5  | 16.3 |
| 80/B14 | 4  | 5   | 7  | 100 | 120 | 80  | 12 | 661 | 19 | 6  | 21.8 |

## NNB375-A.. / B..

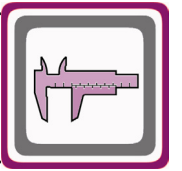
## NNB376-A.. / B..



| IEC    | c1  | c2 | s1  | m   | m1  | m2 | u  | k   | d1 | t1 | e1   |
|--------|-----|----|-----|-----|-----|----|----|-----|----|----|------|
| 63/B5  | 3.5 | 5  | 10  | 115 | 140 | 95 | 10 | 727 | 11 | 4  | 12.8 |
| 63/B14 | 2.5 | 5  | 5.5 | 75  | 90  | 60 | 10 | 727 | 11 | 4  | 12.8 |

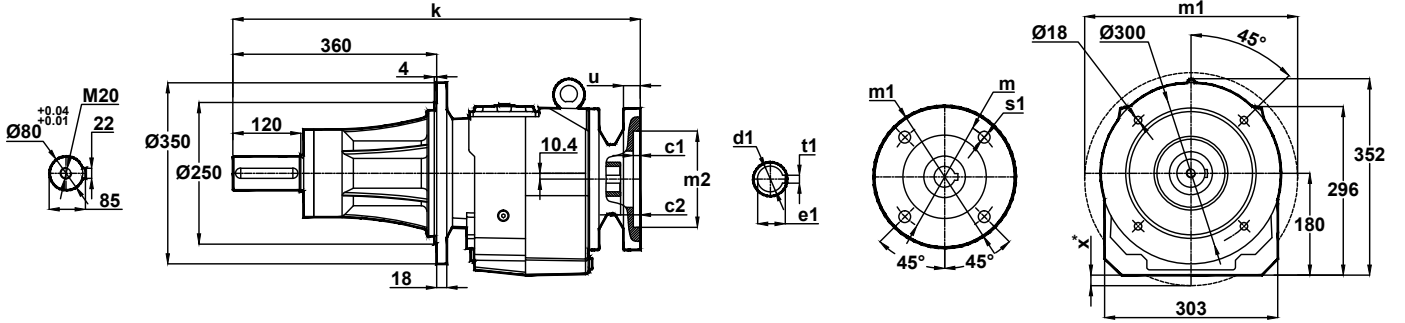


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



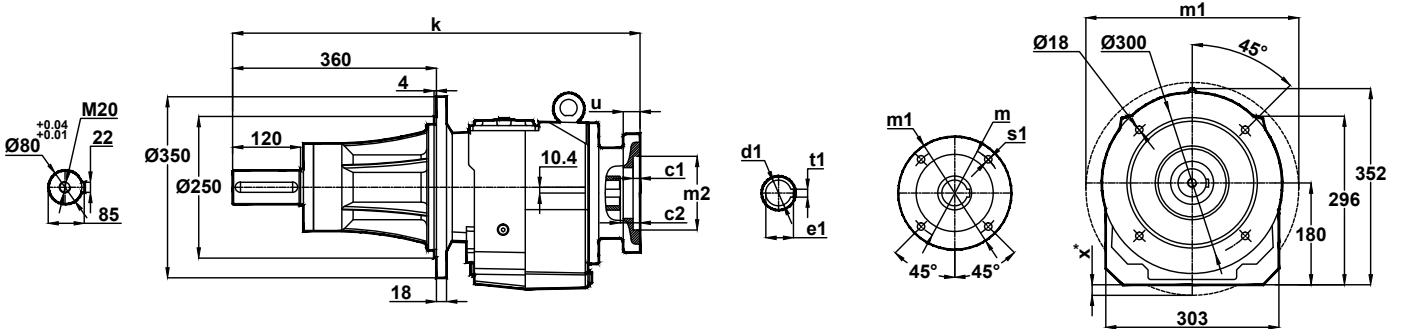
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NNB472-A.. NNB473-A..



| IEC    | c1  | c2 | s1 | m   | m1  | m2  | u  | k   | d1 | t1 | e1   | x |
|--------|-----|----|----|-----|-----|-----|----|-----|----|----|------|---|
| 80/B5  | 4   | 5  | 12 | 165 | 200 | 130 | 12 | 687 | 19 | 6  | 21.8 | - |
| 90/B5  | 4   | 5  | 13 | 165 | 200 | 130 | 12 | 687 | 24 | 8  | 27.3 | - |
| 100/B5 | 4.5 | 9  | 15 | 215 | 250 | 180 | 15 | 705 | 28 | 8  | 31.3 | - |
| 112/B5 | 4.5 | 9  | 15 | 215 | 250 | 180 | 15 | 705 | 28 | 8  | 31.3 | - |
| 132/B5 | 4.5 | 6  | 15 | 265 | 300 | 230 | 15 | 724 | 38 | 10 | 41.3 | - |
| 160/B5 | 5.5 | 10 | 19 | 300 | 350 | 250 | 20 | 803 | 42 | 12 | 45.3 | 6 |
| 180/B5 | 5.5 | 10 | 19 | 300 | 350 | 250 | 20 | 803 | 48 | 14 | 51.8 | 6 |

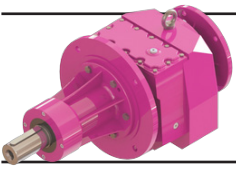
## NNB472-B.. NNB473-B..



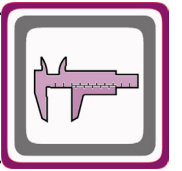
| IEC     | c1  | c2 | s1 | m   | m1  | m2  | u  | k   | d1 | t1 | e1   | x |
|---------|-----|----|----|-----|-----|-----|----|-----|----|----|------|---|
| 90/B14  | 4   | 5  | 9  | 115 | 140 | 95  | 12 | 687 | 24 | 8  | 27.3 | - |
| 100/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 15 | 705 | 28 | 8  | 31.3 | - |
| 112/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 15 | 705 | 28 | 8  | 31.3 | - |
| 132/B14 | 4.4 | 6  | 11 | 165 | 200 | 130 | 15 | 724 | 38 | 10 | 41.3 | - |

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



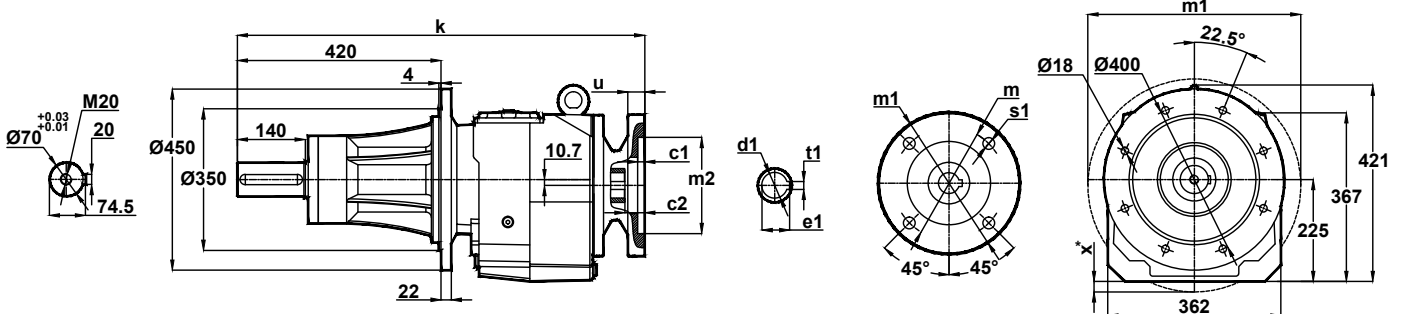


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



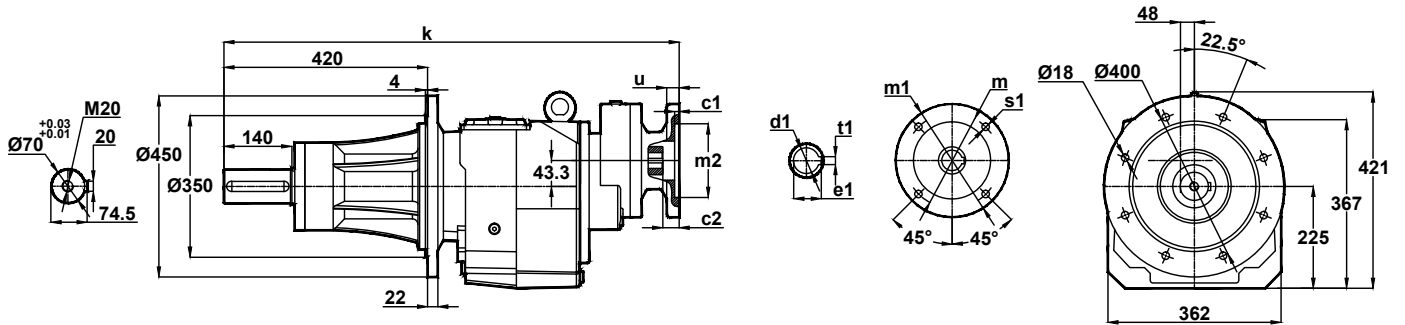
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**NNB572-A.. / B..  
NNB573-A.. / B..**



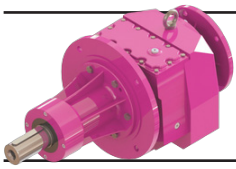
| IEC     | c1  | c2 | s1 | m   | m1  | m2  | u  | k   | d1 | t1 | e1   | x |
|---------|-----|----|----|-----|-----|-----|----|-----|----|----|------|---|
| 100/B5  | 4.5 | 20 | 15 | 215 | 250 | 180 | 15 | 827 | 28 | 8  | 31.3 | - |
| 112/B5  | 4.5 | 20 | 15 | 215 | 250 | 180 | 15 | 827 | 28 | 8  | 31.3 | - |
| 132/B5  | 4.5 | 9  | 15 | 265 | 300 | 230 | 15 | 848 | 38 | 10 | 41.3 | - |
| 160/B5  | 5.5 | 10 | 19 | 300 | 350 | 250 | 18 | 923 | 42 | 12 | 45.3 | - |
| 180/B5  | 5.5 | 10 | 19 | 300 | 350 | 250 | 18 | 923 | 48 | 14 | 51.8 | - |
| 200/B5  | 5.5 | 10 | 19 | 350 | 400 | 300 | 22 | 843 | 55 | 16 | 59.3 | - |
| 132/B14 | 4.5 | 9  | 11 | 165 | 200 | 130 | 15 | 848 | 38 | 10 | 41.3 | - |

**NNB574-A..  
NNB574-B..**



| IEC    | c1 | c2 | s1 | m   | m1  | m2  | u  | k   | d1 | t1 | e1   |
|--------|----|----|----|-----|-----|-----|----|-----|----|----|------|
| 71/B5  | 4  | 9  | 11 | 130 | 160 | 110 | 12 | 670 | 14 | 5  | 16.3 |
| 80/B5  | 4  | 9  | 13 | 165 | 200 | 130 | 12 | 670 | 14 | 6  | 21.8 |
| 90/B5  | 4  | 9  | 13 | 165 | 200 | 130 | 12 | 670 | 19 | 8  | 27.3 |
| 80/B14 | 4  | 9  | 7  | 100 | 120 | 80  | 12 | 670 | 19 | 6  | 21.8 |
| 90/B14 | 4  | 9  | 9  | 115 | 140 | 95  | 12 | 670 | 24 | 8  | 26.3 |

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

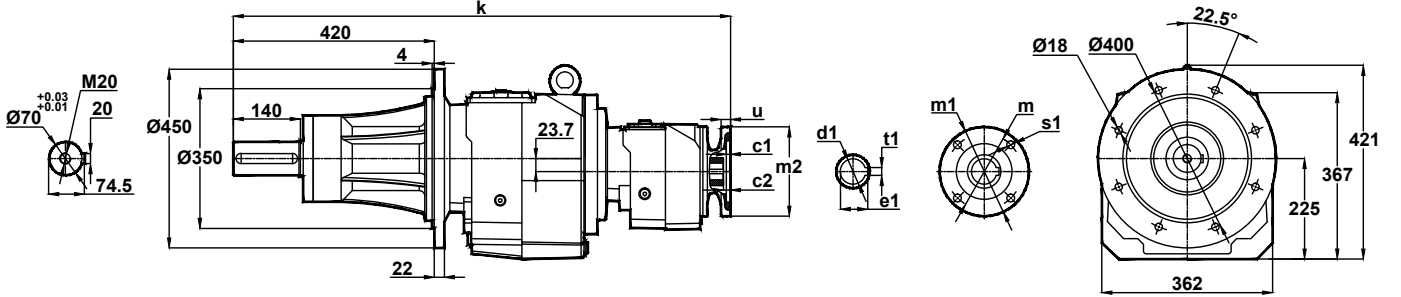


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

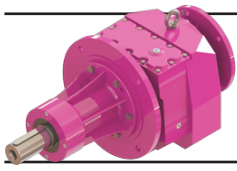


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

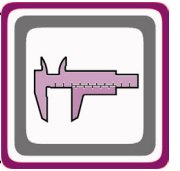
**NNB575-A.. / B..**  
**NNB576-B.. / B..**



| IEC    | c1 | c2  | s1 | m   | m1  | m2  | u  | k   | d1 | t1 | e1   |
|--------|----|-----|----|-----|-----|-----|----|-----|----|----|------|
| 63/B5  | 4  | 5   | 9  | 115 | 140 | 95  | 12 | 800 | 11 | 4  | 12.8 |
| 71/B5  | 4  | 8.5 | 11 | 130 | 160 | 110 | 12 | 771 | 14 | 5  | 16.3 |
| 71/B14 | 3  | 8.5 | 7  | 85  | 105 | 70  | 10 | 771 | 14 | 5  | 16.3 |

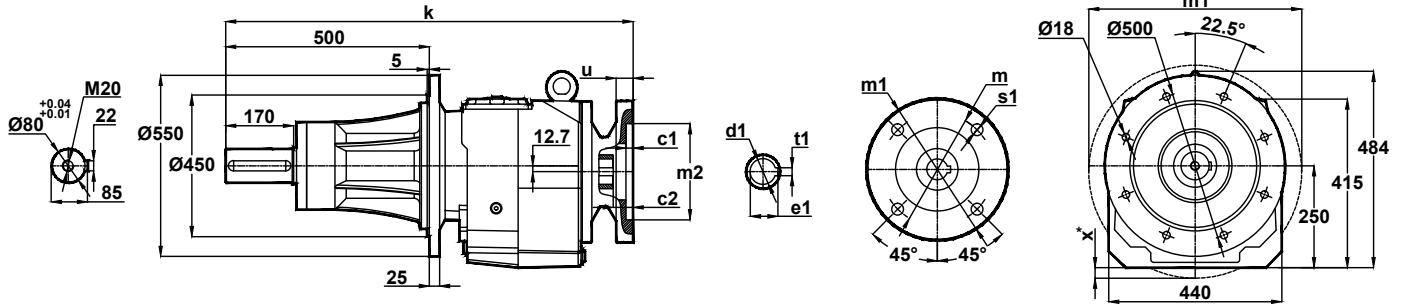


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



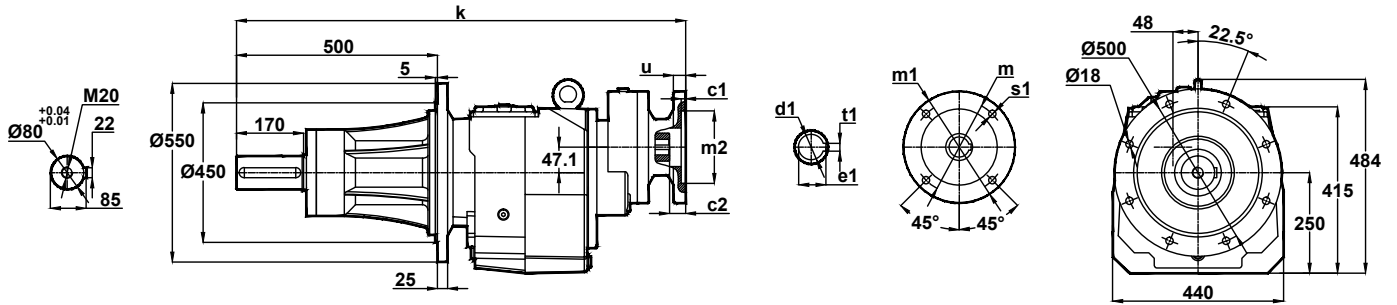
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**NNB672-A.. / B..  
NNB673-A.. / B..**



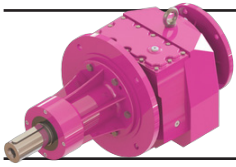
| IEC     | c1  | c2   | s1 | m   | m1  | m2  | u  | k    | d1 | t1 | e1   | x |
|---------|-----|------|----|-----|-----|-----|----|------|----|----|------|---|
| 112/B5  | 4.5 | 14.5 | 15 | 215 | 250 | 180 | 15 | 928  | 28 | 8  | 31.3 | - |
| 132/B5  | 4.5 | 9    | 15 | 265 | 300 | 230 | 15 | 943  | 38 | 10 | 41.3 | - |
| 160/B5  | 5.5 | 10   | 19 | 300 | 350 | 250 | 20 | 1018 | 42 | 12 | 45.3 | - |
| 180/B5  | 5.5 | 10   | 19 | 300 | 350 | 250 | 20 | 1018 | 48 | 14 | 51.8 | - |
| 200/B5  | 5.5 | 10   | 19 | 350 | 400 | 300 | 22 | 1038 | 55 | 16 | 59.3 | - |
| 225/B5  | 5.5 | 10   | 19 | 400 | 450 | 350 | 24 | 1091 | 60 | 18 | 64.4 | - |
| 132/B14 | 4.5 | 9    | 15 | 165 | 200 | 130 | 15 | 943  | 38 | 10 | 41.3 | - |

**NNB674-A..  
NNB674-B..**



| IEC    | c1 | c2 | s1 | m   | m1  | m2  | u  | k    | d1 | t1 | e1   |
|--------|----|----|----|-----|-----|-----|----|------|----|----|------|
| 80/B5  | 4  | 5  | 12 | 165 | 200 | 130 | 12 | 1018 | 19 | 6  | 21.8 |
| 90/B5  | 4  | 5  | 13 | 165 | 200 | 130 | 12 | 1018 | 24 | 8  | 27.3 |
| 90/B14 | 4  | 5  | 9  | 115 | 140 | 95  | 12 | 1018 | 24 | 8  | 27.3 |

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

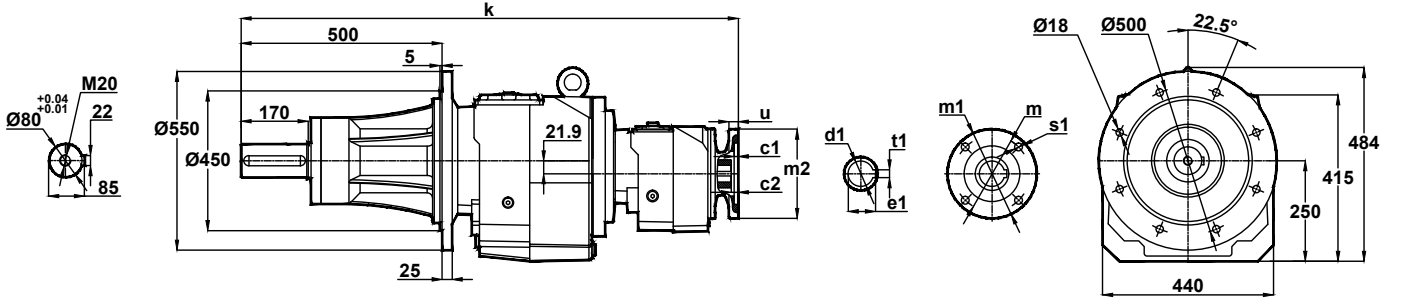


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



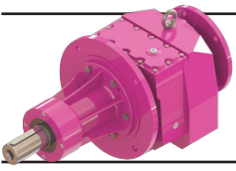
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**NNB675-A.. / B..**  
**NNB676-B.. / B..**



| IEC    | c1 | c2 | s1 | m   | m1  | m2  | u  | k    | d1 | t1 | e1   |
|--------|----|----|----|-----|-----|-----|----|------|----|----|------|
| 71/B5  | 4  | 9  | 11 | 130 | 160 | 110 | 12 | 1168 | 14 | 5  | 16.3 |
| 80/B5  | 4  | 9  | 13 | 165 | 200 | 130 | 12 | 1168 | 19 | 6  | 21.8 |
| 80/B14 | 4  | 9  | 7  | 100 | 120 | 80  | 12 | 1168 | 19 | 6  | 21.8 |

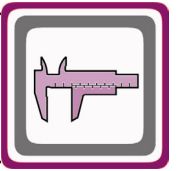




# Ölçü Sayfaları

## Dimension Pages

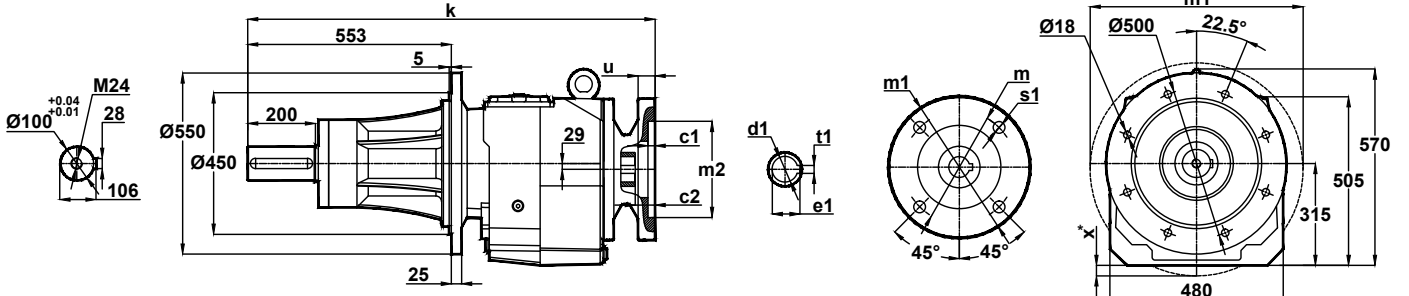
### Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NNB772-A..

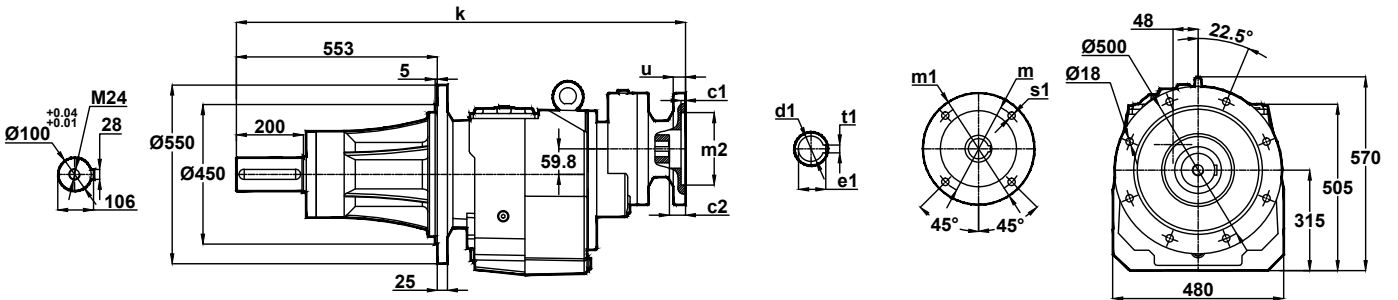
## NNB773-A..



| IEC    | c1  | c2 | s1 | m   | m1  | m2  | u  | k    | d1 | t1 | e1   | x |
|--------|-----|----|----|-----|-----|-----|----|------|----|----|------|---|
| 132/B5 | 4.5 | 15 | 15 | 265 | 300 | 230 | 15 | 1051 | 38 | 10 | 41.3 | - |
| 160/B5 | 5.5 | 10 | 19 | 300 | 350 | 250 | 20 | 1120 | 42 | 12 | 45.3 | - |
| 180/B5 | 5.5 | 10 | 19 | 300 | 350 | 250 | 20 | 1120 | 43 | 14 | 51.8 | - |
| 200/B5 | 5.5 | 10 | 19 | 350 | 400 | 300 | 20 | 1142 | 55 | 16 | 59.3 | - |
| 225/B5 | 5.5 | 10 | 19 | 400 | 450 | 350 | 24 | 1195 | 60 | 18 | 64.4 | - |
| 250/B5 | 5.5 | 10 | 19 | 500 | 550 | 450 | 24 | 1195 | 65 | 18 | 69.4 | - |

## NNB774-A..

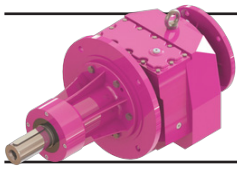
## NNB774-B..



| IEC     | c1  | c2 | s1 | m   | m1  | m2  | u  | k    | d1 | t1 | e1   |
|---------|-----|----|----|-----|-----|-----|----|------|----|----|------|
| 80/B5   | 4   | 5  | 12 | 165 | 200 | 130 | 12 | 1126 | 19 | 6  | 21.8 |
| 90/B5   | 4   | 5  | 13 | 165 | 200 | 130 | 12 | 1126 | 24 | 8  | 27.3 |
| 100/B5  | 4.5 | 9  | 15 | 215 | 250 | 180 | 15 | 1144 | 28 | 8  | 31.3 |
| 90/B14  | 4   | 5  | 9  | 115 | 140 | 95  | 12 | 1126 | 24 | 8  | 27.3 |
| 100/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 15 | 1144 | 28 | 8  | 31.3 |

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

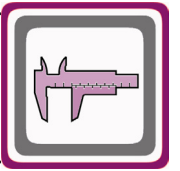




# Ölçü Sayfaları

## Dimension Pages

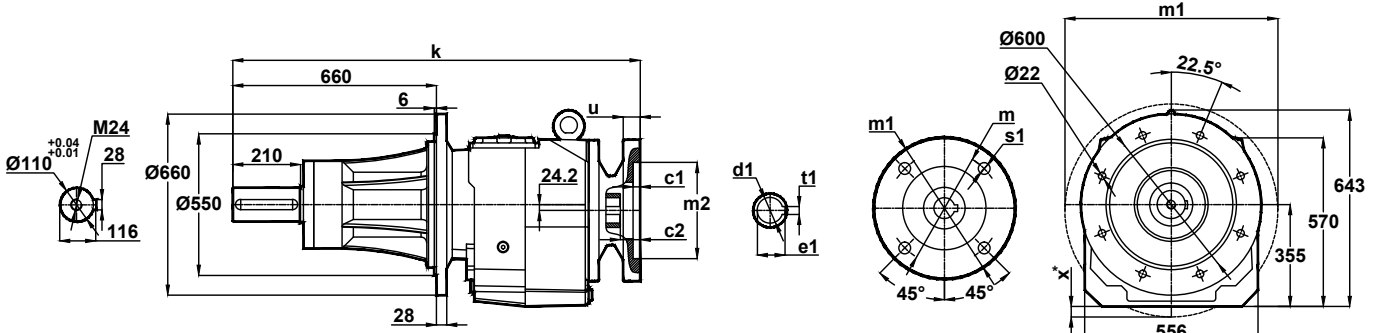
### Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

### NNB872-A..

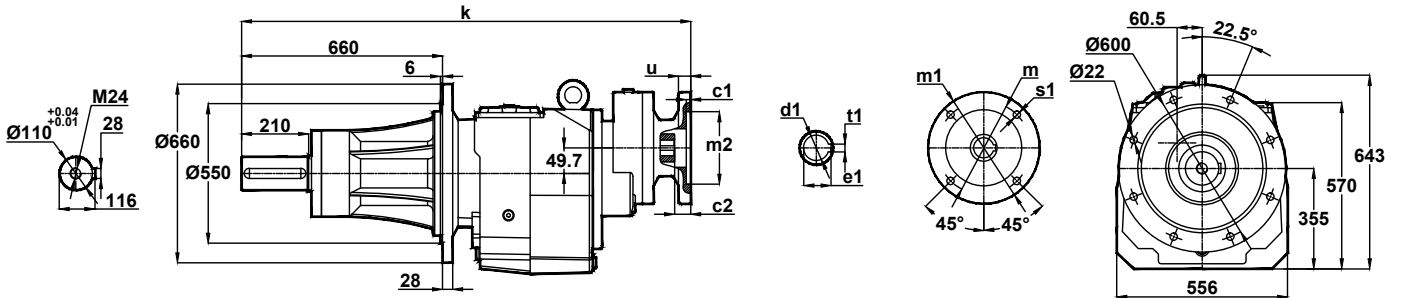
### NNB873-A..



| IEC    | c1  | c2 | s1 | m   | m1  | m2  | u  | k    | d1 | t1 | e1   | x |
|--------|-----|----|----|-----|-----|-----|----|------|----|----|------|---|
| 160/B5 | 5.5 | 10 | 19 | 300 | 350 | 250 | 20 | 1373 | 42 | 12 | 45.3 | - |
| 180/B5 | 5.5 | 10 | 19 | 300 | 350 | 250 | 20 | 1373 | 48 | 14 | 51.8 | - |
| 200/B5 | 5.5 | 10 | 19 | 350 | 400 | 300 | 22 | 1373 | 55 | 16 | 59.3 | - |
| 225/B5 | 5.5 | 10 | 19 | 400 | 450 | 350 | 24 | 1373 | 60 | 18 | 64.4 | - |
| 250/B5 | 5.5 | 10 | 19 | 500 | 550 | 450 | 24 | 1373 | 65 | 18 | 69.4 | - |
| 280/B5 | 5.5 | 10 | 19 | 500 | 550 | 450 | 24 | 1373 | 75 | 20 | 79.9 | - |

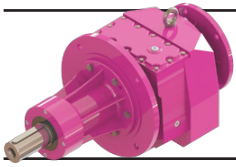
### NNB874-A..

### NNB874-B..



| IEC     | c1  | c2 | s1 | m   | m1  | m2  | u  | k    | d1 | t1 | e1   |
|---------|-----|----|----|-----|-----|-----|----|------|----|----|------|
| 100/B5  | 4.5 | 20 | 15 | 215 | 250 | 180 | 15 | 1346 | 28 | 8  | 31.3 |
| 112/B5  | 4.5 | 20 | 15 | 215 | 250 | 180 | 15 | 1346 | 28 | 8  | 31.3 |
| 132/B5  | 4.5 | 9  | 15 | 265 | 300 | 230 | 15 | 1367 | 38 | 10 | 41.3 |
| 132/B14 | 4.5 | 9  | 11 | 165 | 200 | 130 | 15 | 1367 | 38 | 10 | 41.3 |

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wen motor ist nidriger den die Anschlußplatte

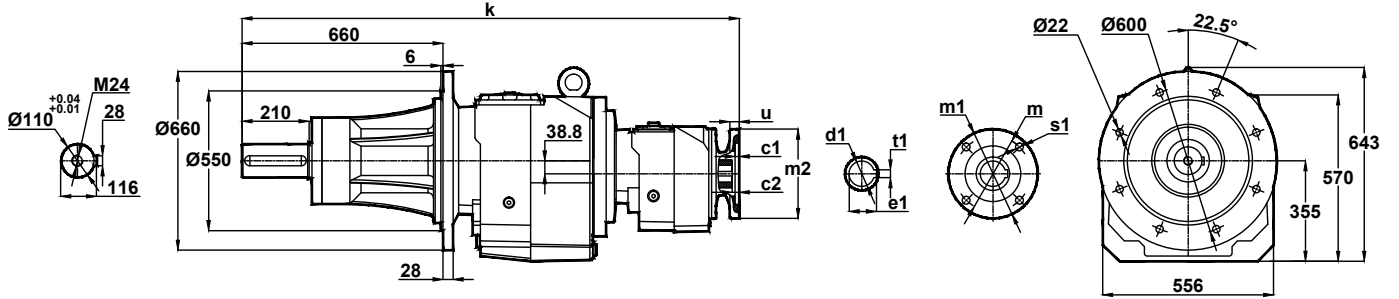


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

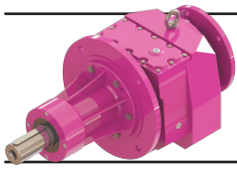


-Mil ucu çekirtme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

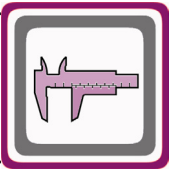
**NNB875-A.. / B..**  
**NNB876-B.. / B..**



| IEC     | c1  | c2 | s1 | m   | m1  | m2  | u  | k    | d1 | t1 | e1   |
|---------|-----|----|----|-----|-----|-----|----|------|----|----|------|
| 71/B5   | 4   | 9  | 11 | 130 | 160 | 110 | 12 | 1463 | 14 | 5  | 16.3 |
| 80/B5   | 4   | 9  | 13 | 165 | 200 | 130 | 12 | 1463 | 19 | 6  | 21.8 |
| 90/B5   | 4   | 9  | 13 | 165 | 200 | 130 | 12 | 1463 | 24 | 8  | 27.3 |
| 100/B5  | 4.5 | 9  | 15 | 215 | 250 | 180 | 15 | 1480 | 28 | 8  | 31.3 |
| 80/B14  | 4   | 9  | 7  | 100 | 120 | 80  | 12 | 1463 | 19 | 8  | 21.8 |
| 90/B14  | 4   | 9  | 9  | 115 | 140 | 95  | 12 | 1463 | 24 | 8  | 26.3 |
| 100/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 15 | 1480 | 28 | 8  | 31.3 |

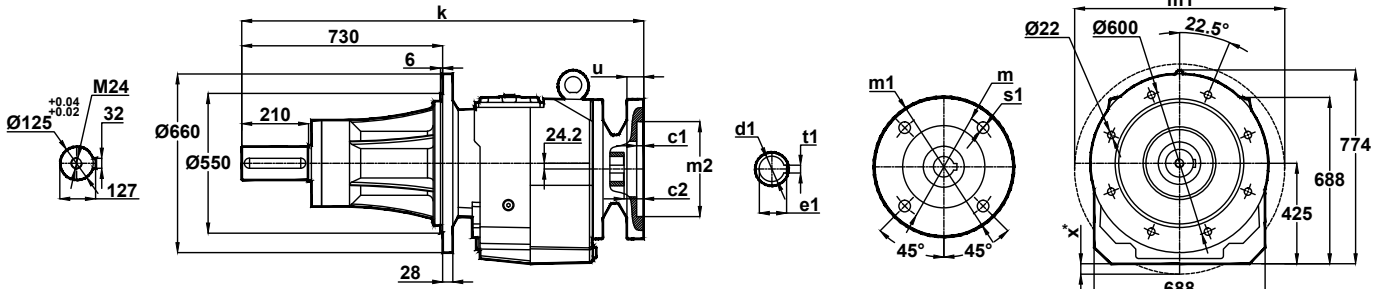


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



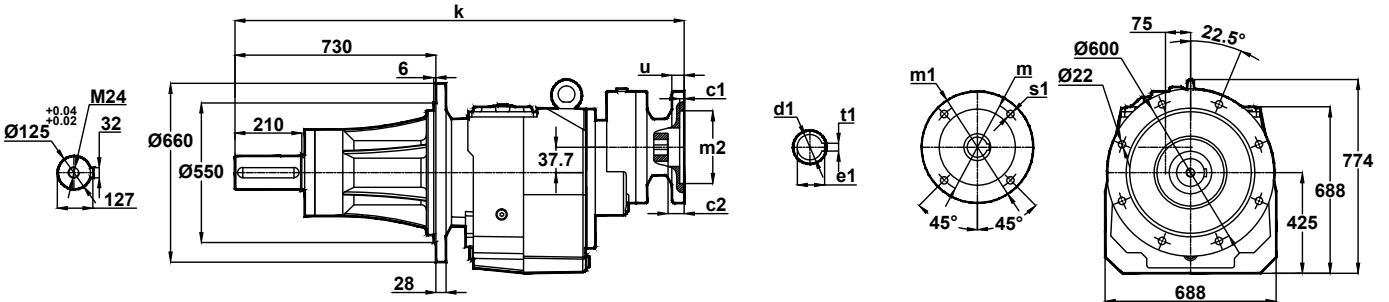
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NNB972-A.. NNB973-A..



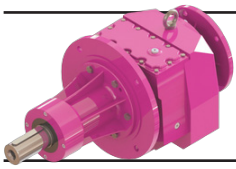
| IEC    | c1  | c2 | s1 | m   | m1  | m2  | u  | k    | d1 | t1 | e1   | x |
|--------|-----|----|----|-----|-----|-----|----|------|----|----|------|---|
| 160/B5 | 5.5 | 10 | 19 | 300 | 350 | 250 | 20 | 1431 | 42 | 12 | 45.3 | - |
| 180/B5 | 5.5 | 10 | 19 | 300 | 350 | 250 | 20 | 1431 | 48 | 14 | 51.8 | - |
| 200/B5 | 5.5 | 10 | 19 | 350 | 400 | 300 | 22 | 1455 | 55 | 16 | 59.3 | - |
| 225/B5 | 5.5 | 10 | 19 | 400 | 450 | 350 | 24 | 1497 | 60 | 18 | 64.4 | - |
| 250/B5 | 5.5 | 10 | 19 | 500 | 550 | 450 | 24 | 1549 | 65 | 18 | 69.4 | - |
| 280/B5 | 5.5 | 10 | 19 | 500 | 550 | 450 | 24 | 1549 | 75 | 20 | 79.9 | - |
| 315/B5 | 6.5 | 15 | 24 | 660 | 600 | 550 | 24 | 1599 | 85 | 22 | 90.4 | - |

## NNB974-A.. NNB974-B..



| IEC     | c1  | c2   | s1 | m   | m1  | m2  | u  | k    | d1 | t1 | e1   |
|---------|-----|------|----|-----|-----|-----|----|------|----|----|------|
| 100/B5  | 4.5 | 14.5 | 15 | 215 | 250 | 180 | 15 | 1519 | 28 | 8  | 31.3 |
| 112/B5  | 4.5 | 14.5 | 15 | 215 | 250 | 180 | 15 | 1519 | 28 | 8  | 31.3 |
| 132/B5  | 4.5 | 9    | 15 | 265 | 300 | 230 | 15 | 1534 | 38 | 10 | 41.3 |
| 132/B14 | 4.5 | 9    | 15 | 165 | 200 | 130 | 15 | 1534 | 38 | 10 | 41.3 |

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

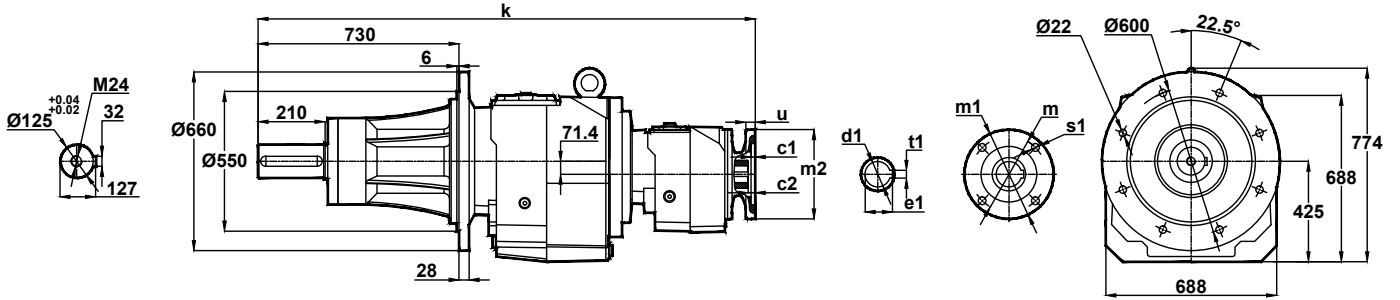


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



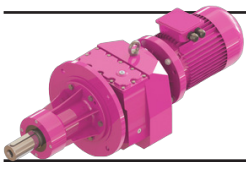
-Mil ucu çekirtme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**NNB975-A.. / B..  
NNB976-B.. / B..**



| IEC     | c1  | c2 | s1 | m   | m1  | m2  | u  | k    | d1 | t1 | e1   |
|---------|-----|----|----|-----|-----|-----|----|------|----|----|------|
| 80/B5   | 4   | 5  | 12 | 165 | 200 | 130 | 12 | 1655 | 19 | 6  | 12.8 |
| 90/B5   | 4   | 5  | 13 | 165 | 200 | 130 | 12 | 1655 | 24 | 8  | 27.3 |
| 100/B5  | 4.5 | 9  | 15 | 215 | 250 | 180 | 15 | 1674 | 28 | 8  | 31.3 |
| 112/B5  | 4.5 | 9  | 15 | 215 | 250 | 180 | 15 | 1674 | 28 | 8  | 31.3 |
| 132/B5  | 4.5 | 6  | 15 | 265 | 300 | 230 | 15 | 1692 | 38 | 10 | 41.3 |
| 90/B14  | 4   | 5  | 9  | 115 | 140 | 95  | 12 | 1655 | 24 | 8  | 27.3 |
| 100/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 15 | 1674 | 28 | 8  | 31.3 |
| 112/B14 | 4   | 9  | 9  | 130 | 160 | 110 | 15 | 1674 | 28 | 8  | 31.3 |
| 132/B14 | 4.4 | 6  | 11 | 165 | 200 | 130 | 15 | 1692 | 38 | 10 | 41.3 |



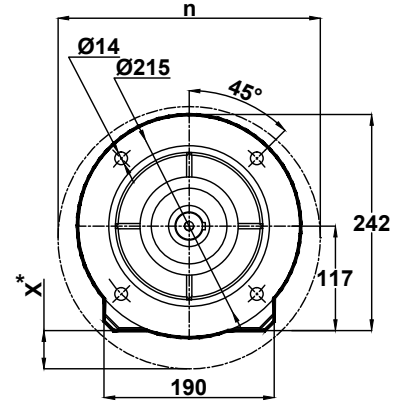
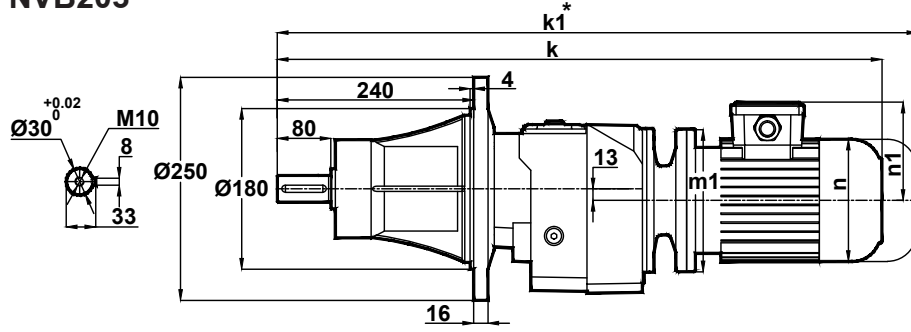


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



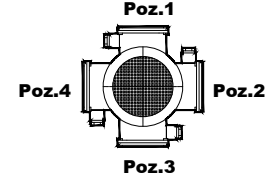
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NVB202 NVB203



| Motor Büyüklüğü / Motor Size / Motorbaugroße |          |                 |                 |                   |                   |                     |                     |
|--|----------|-----------------|-----------------|-------------------|-------------------|---------------------|---------------------|
| IEC  | 63/B5    | 71/B5<br>71/B14 | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 | 112M/B5<br>112M/B14 |
| k  | 696      | 693             | 742             | 962               | 787               | 812                 | 832                 |
| k1   | 749      | 813             | 862             | 887               | 912               | 947                 | 967                 |
| n / n1                                       | 121 / 97 | 138 / 111       | 156 / 118       | 176 / 126         | 176 / 126         | 194 / 135           | 218 / 146           |
| m1 (B5)                                      | 140      | 160             | 200             | 200               | 200               | 250                 | 250                 |
| m1 (B14)                                     | -        | 105             | 120             | 140               | 140               | 160                 | 160                 |
| x (B5)                                       | -        | -               | -               | -                 | -                 | 23                  | 23                  |

Klemens Kutusu / Terminal Box / Klemmenkasten



63-71-80-90-100-112

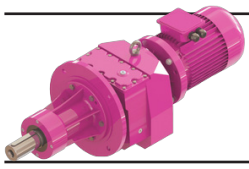
\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

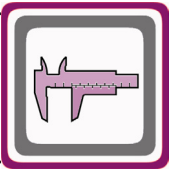
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



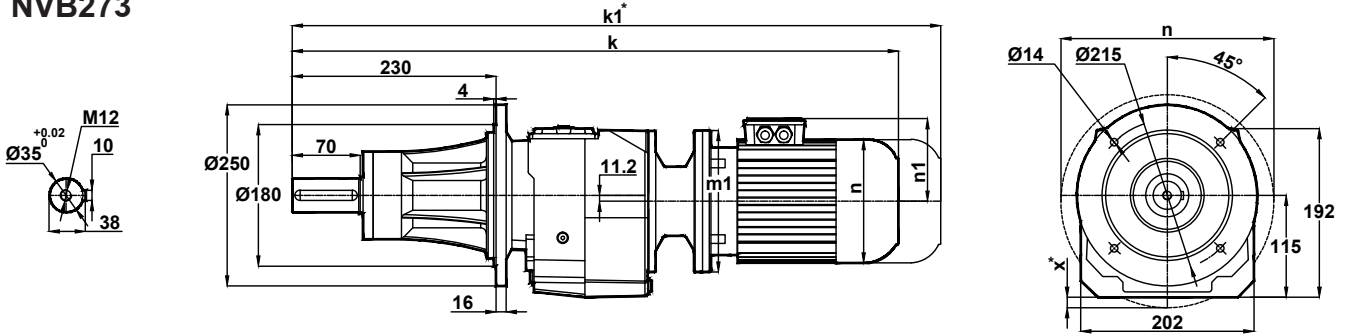


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



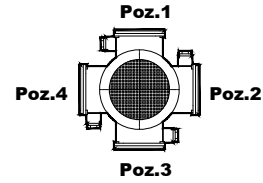
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NVB272 NVB273



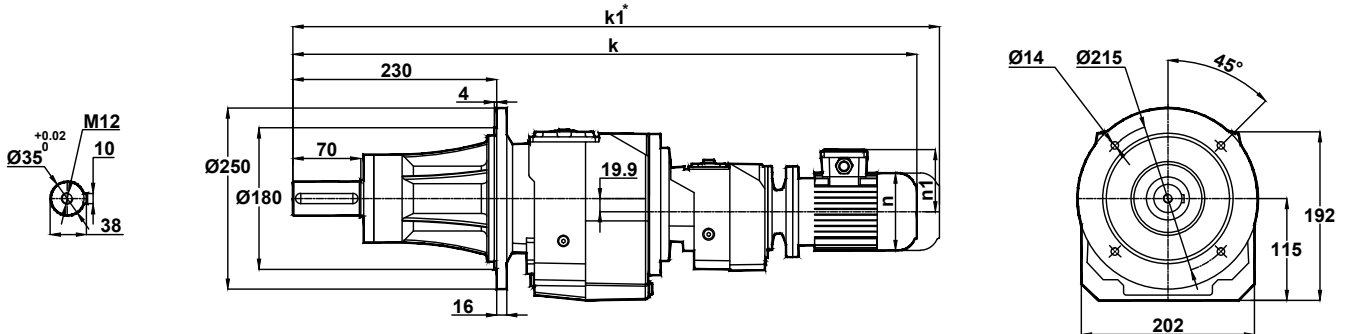
| Motor Büyüklüğü / Motor Size / Motorbaugroße |                 |                 |                 |                   |                   |
|--|-----------------|-----------------|-----------------|-------------------|-------------------|
| IEC  | 63/B5<br>63/B14 | 71/B5<br>71/B14 | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 |
| k  | 677             | 674             | 723             | 743               | 768               |
| k1   | 730             | 794             | 843             | 868               | 893               |
| n / n1                                       | 121 / 97        | 138 / 111       | 156 / 118       | 176 / 126         | 176 / 126         |
| m1 (B5)                                      | 140             | 160             | 200             | 200               | 200               |
| m1 (B14)                                     | 90              | 105             | 120             | 140               | 140               |
| x (B5)                                       | -               | 1               | 21              | 21                | 21                |

Klemens Kutusu / Terminal Box / Klemmenkasten



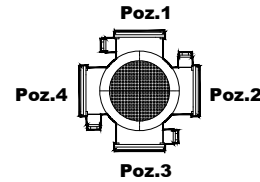
63-71-80-90

## NVB275 NVB276



| Motor Büyüklüğü / Motor Size / Motorbaugroße |                 |                 |
|--|-----------------|-----------------|
| IEC  | 63/B5<br>63/B14 | 71/B5<br>71/B14 |
| k  | 792             | 820             |
| k1   | 845             | 940             |
| n / n1                                       | 121 / 97        | 138 / 111       |
| m1 (B5)                                      | 140             | 160             |
| m1 (B14)                                     | 90              | 105             |

Klemens Kutusu / Terminal Box / Klemmenkasten



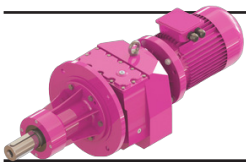
63-71

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

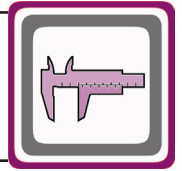
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.

Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

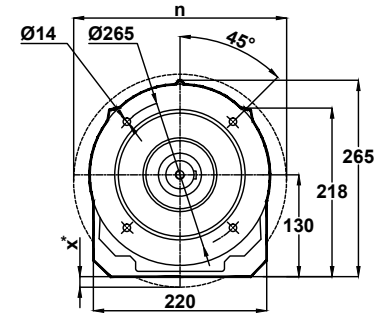
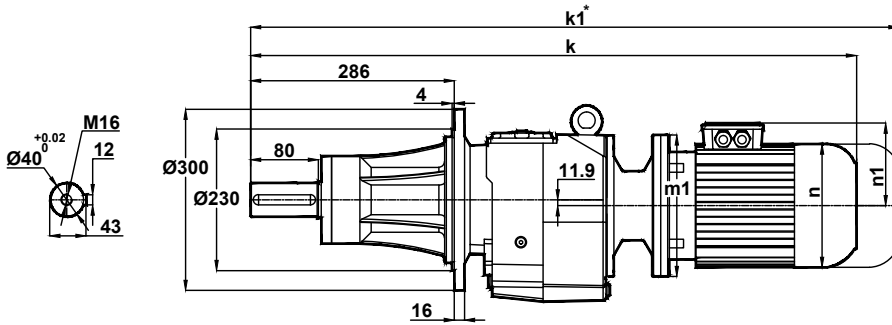


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



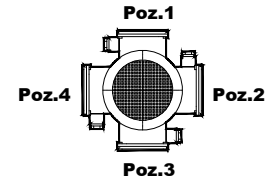
-Mil ucu çekirte deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NVB282 NVB283



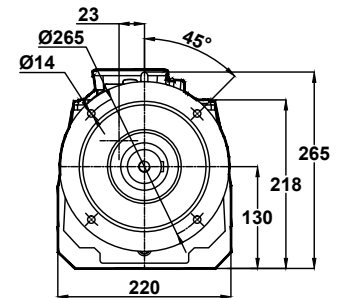
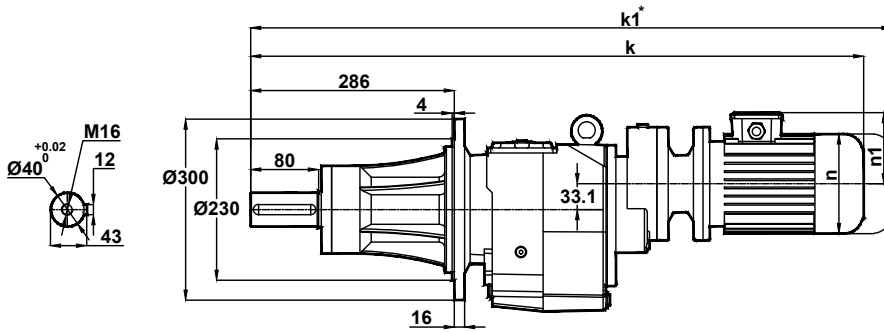
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                 |                   |                   |                     |                     |                     |                     |
|--|-----------|-----------------|-------------------|-------------------|---------------------|---------------------|---------------------|---------------------|
| IEC  | 71/B5     | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 | 112M/B5<br>112M/B14 | 132S/B5<br>132S/B14 | 132M/B5<br>132M/B14 |
| k  | 778       | 798             | 818               | 843               | 882                 | 902                 | 976                 | 1014                |
| k1   | 898       | 918             | 943               | 968               | 1017                | 1037                | 1121                | 1159                |
| n / n1                                       | 138 / 111 | 156 / 118       | 176 / 126         | 176 / 126         | 194 / 135           | 218 / 146           | 257 / 168           | 257 / 168           |
| m1 (B5)                                      | 160       | 200             | 200               | 200               | 250                 | 250                 | 300                 | 300                 |
| m1 (B14)                                     | -         | 120             | 140               | 140               | 160                 | 160                 | 200                 | 200                 |
| x (B5)                                       | -         | -               | -                 | -                 | 7                   | 7                   | 32                  | 32                  |

Klemens Kutusu / Terminal Box / Klemmenkasten



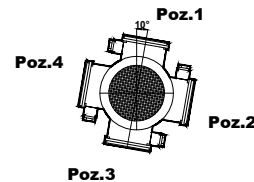
71-80-90-100-112-132

## NVB284



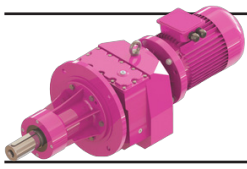
| Motor Büyüklüğü / Motor Size / Motorbaugroße |          |                 |
|--|----------|-----------------|
| IEC  | 63/B5    | 71/B5<br>71/B14 |
| k  | 829      | 826             |
| k1   | 882      | 946             |
| n / n1                                       | 121 / 97 | 138 / 111       |
| m1 (B5)                                      | 140      | 160             |
| m1 (B14)                                     | -        | 105             |

Klemens Kutusu / Terminal Box / Klemmenkasten

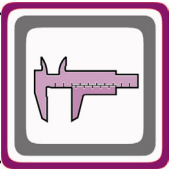


63-71

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

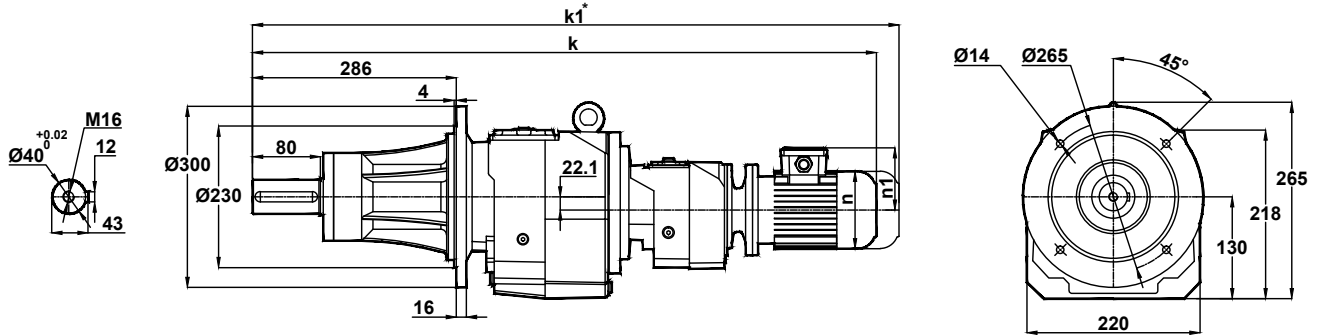


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



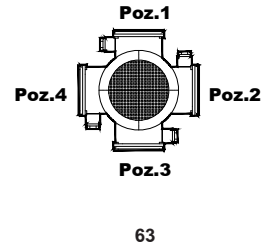
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NVB285 NVB286

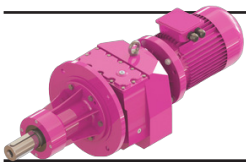


| Motor Büyüklüğü / Motor Size / Motorbaugroße |                 |
|--|-----------------|
| IEC  | 63/B5<br>63/B14 |
| k  | 895             |
| k1   | 948             |
| n / n1                                       | 121 / 97        |
| m1 (B5)                                      | 140             |
| m1 (B14)                                     | 90              |

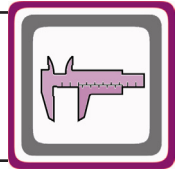
Klemens Kutusu / Terminal Box / Klemmenkasten



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

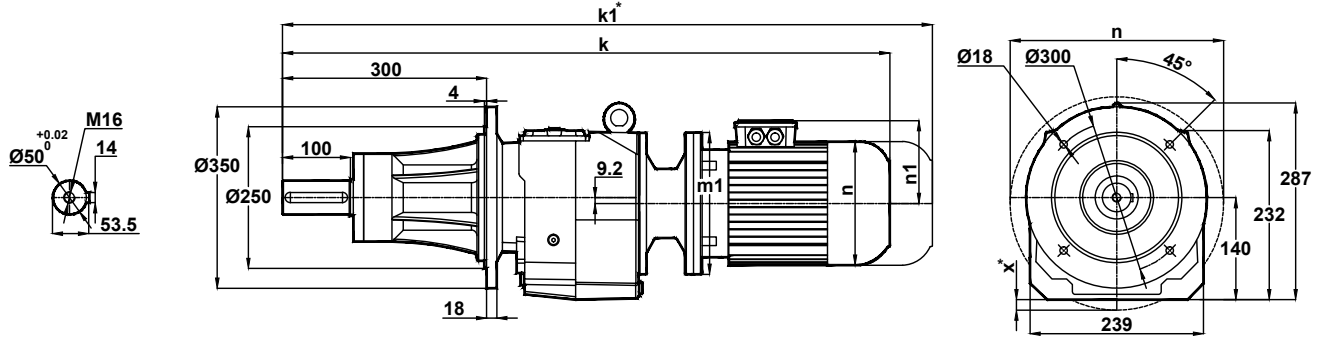


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



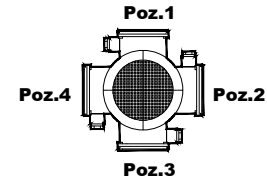
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NVB372 NVB373



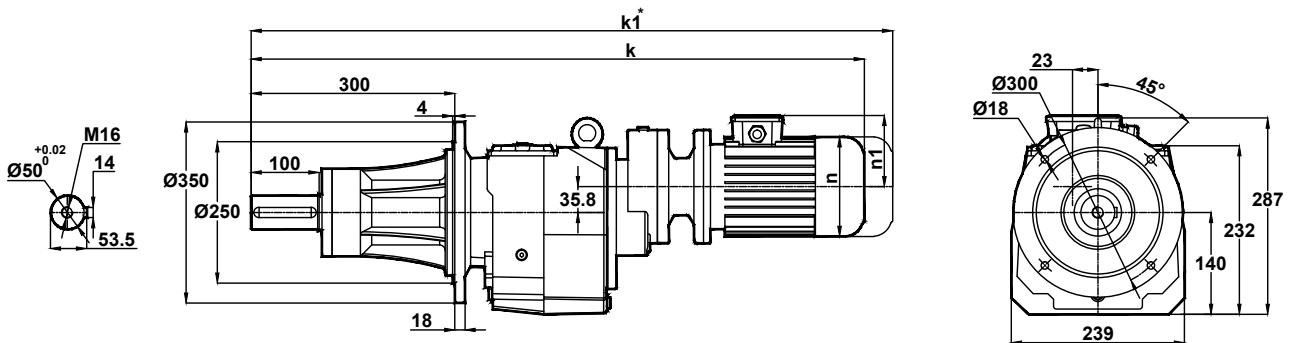
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                 |                   |                   |                     |                     |                     |                     |
|--|-----------|-----------------|-------------------|-------------------|---------------------|---------------------|---------------------|---------------------|
| IEC  | 71/B5     | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 | 112M/B5<br>112M/B14 | 132S/B5<br>132S/B14 | 132M/B5<br>132M/B14 |
| k  | 803       | 823             | 843               | 868               | 917                 | 937                 | 1001                | 1039                |
| k1   | 923       | 943             | 968               | 993               | 1052                | 1072                | 1146                | 1184                |
| n / n1                                       | 138 / 111 | 156 / 118       | 176 / 126         | 176 / 126         | 194 / 135           | 218 / 146           | 257 / 168           | 257 / 168           |
| m1 (B5)                                      | 160       | 200             | 200               | 200               | 250                 | 250                 | 300                 | 300                 |
| m1 (B14)                                     | -         | 120             | 140               | 140               | 160                 | 160                 | 200                 | 200                 |
| x (B5)                                       | -         | -               | -                 | -                 | -                   | -                   | 20                  | 20                  |

Klemens Kutusu / Terminal Box / Klemmenkasten



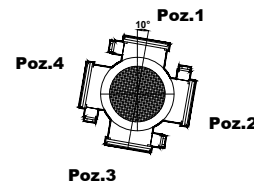
71-80-90-100-112-132

## NVB374



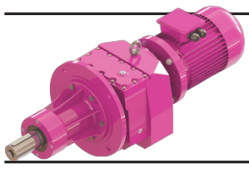
| Motor Büyüklüğü / Motor Size / Motorbaugroße |          |                 |                 |
|--|----------|-----------------|-----------------|
| IEC  | 63/B5    | 71/B5<br>71/B14 | 80/B5<br>80/B14 |
| k  | 854      | 851             | 900             |
| k1   | 907      | 971             | 1020            |
| n / n1                                       | 121 / 97 | 138 / 111       | 156 / 118       |
| m1 (B5)                                      | 140      | 160             | 200             |
| m1 (B14)                                     | -        | 105             | 120             |

Klemens Kutusu / Terminal Box / Klemmenkasten

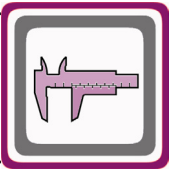


63-71-80

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

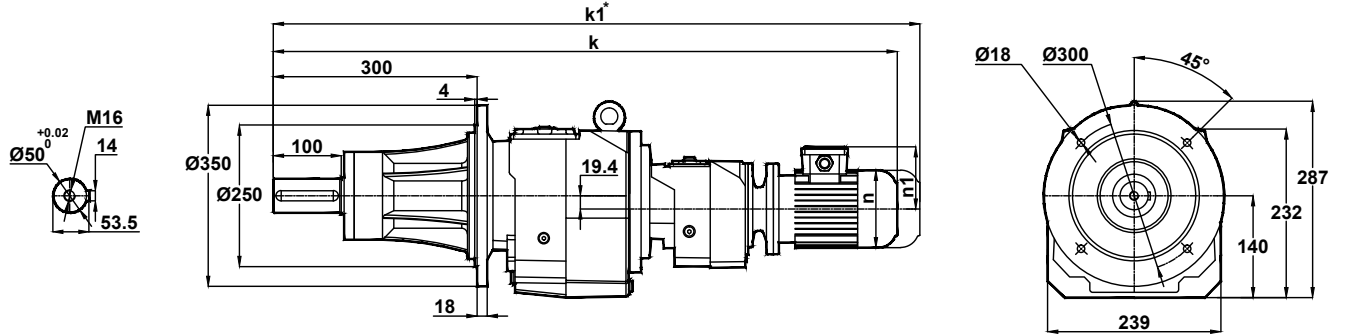


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



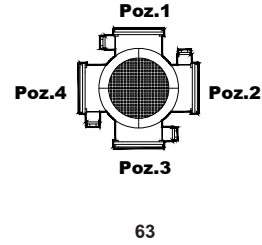
-Mil ucu çekirtme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NVB375 NVB376

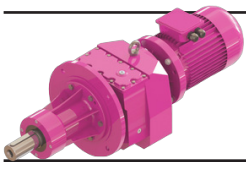


| Motor Büyüklüğü / Motor Size / Motorbaugroße |                 |
|--|-----------------|
| IEC  | 63/B5<br>63/B14 |
| k  | 1033            |
| k1   | 1086            |
| n / n1                                       | 121 / 97        |
| m1 (B5)                                      | 140             |
| m1 (B14)                                     | 90              |

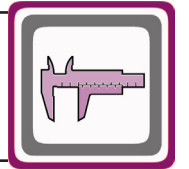
Klemens Kutusu / Terminal Box / Klemmenkasten



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

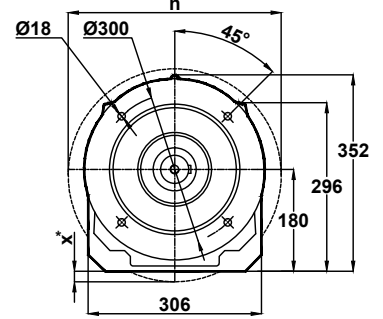
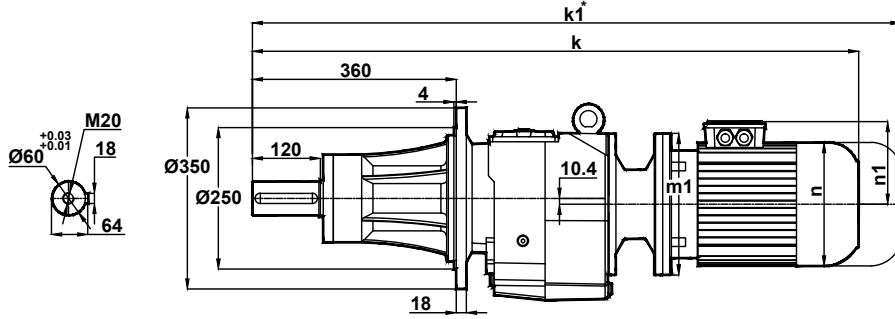


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



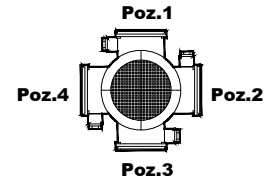
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NVB472 NVB473



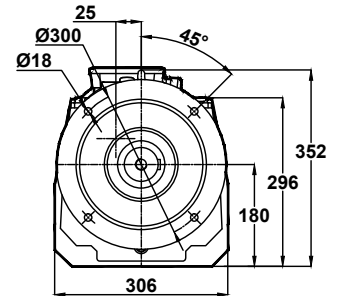
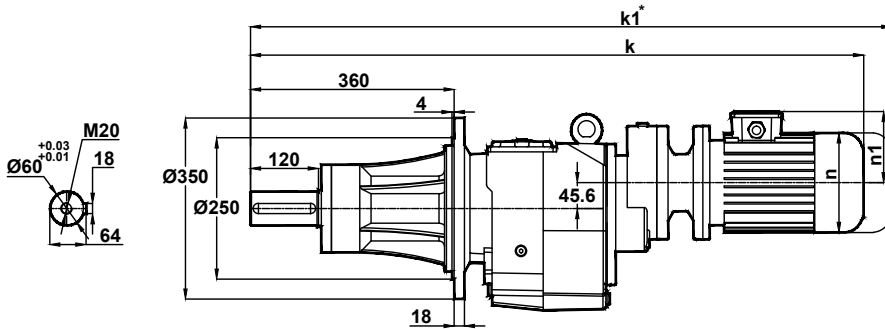
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                   |                   |                     |                     |                     |                     |           |           |           |           |
|--|-----------|-------------------|-------------------|---------------------|---------------------|---------------------|---------------------|-----------|-----------|-----------|-----------|
| IEC  | 80/B5     | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 | 112M/B5<br>112M/B14 | 132S/B5<br>132S/B14 | 132M/B5<br>132M/B14 | 160M/B5   | 160L/B5   | 180M/B5   | 180L/B5   |
| k  | 926       | 946               | 971               | 1021                | 1041                | 1104                | 1142                | 1293      | 1337      | 1350      | 1388      |
| k1   | 1046      | 1071              | 1096              | 1156                | 1176                | 1249                | 1287                | 1463      | 1507      | 1520      | 1558      |
| n / n1                                       | 156 / 118 | 176 / 126         | 176 / 126         | 194 / 135           | 218 / 146           | 257 / 168           | 257 / 168           | 310 / 225 | 310 / 225 | 348 / 241 | 348 / 241 |
| m1 (B5)                                      | 200       | 200               | 200               | 250                 | 250                 | 300                 | 300                 | 350       | 350       | 350       | 350       |
| m1 (B14)                                     | -         | 140               | 140               | 160                 | 160                 | 200                 | 200                 | -         | -         | -         | -         |
| x (B5)                                       | -         | -                 | -                 | -                   | -                   | -                   | -                   | 6         | 6         | 6         | 6         |

Klemens Kutusu / Terminal Box / Klemmenkasten



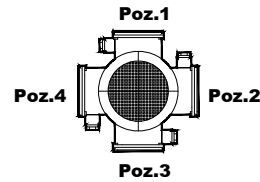
80-90-100-112-132-160-180

## NVB474



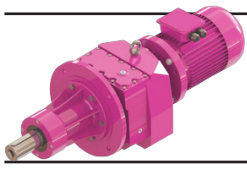
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                 |
|--|-----------|-----------------|
| IEC  | 71/B5     | 80/B5<br>80/B14 |
| k  | 1004      | 1024            |
| k1   | 1124      | 1144            |
| n / n1                                       | 138 / 111 | 156 / 118       |
| m1 (B5)                                      | 160       | 200             |
| m1 (B14)                                     | -         | 120             |

Klemens Kutusu / Terminal Box / Klemmenkasten

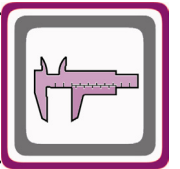


71-80

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

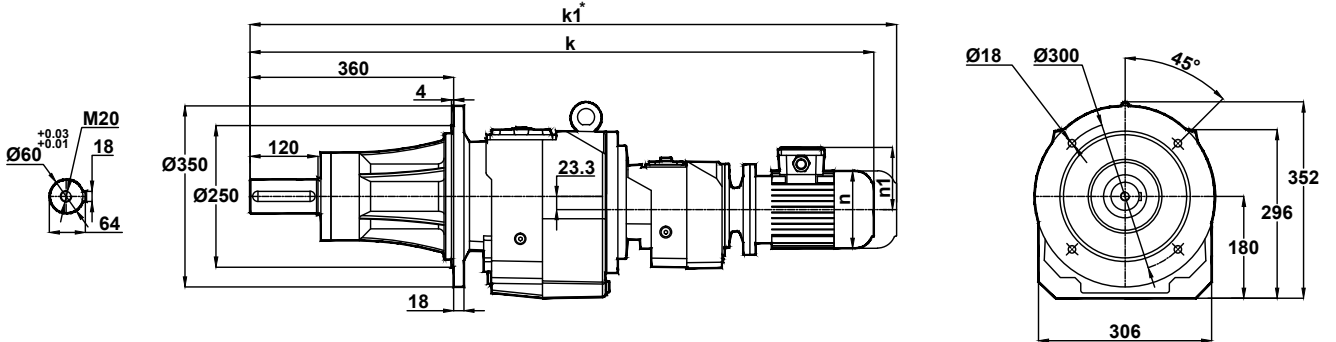


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



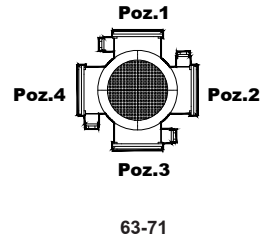
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**NVB475**  
**NVB476**

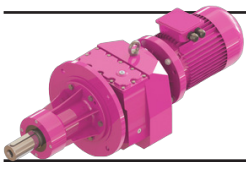


| Motor Büyüklüğü / Motor Size / Motorbaugroße |          |                 |
|--|----------|-----------------|
| IEC  | 63/B5    | 71/B5<br>71/B14 |
| k  | 1106     | 1103            |
| k1   | 1159     | 1223            |
| n / n1                                       | 121 / 97 | 138 / 111       |
| m1 (B5)                                      | 140      | 160             |
| m1 (B14)                                     | -        | 105             |

Klemens Kutusu / Terminal Box / Klemmenkasten



\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

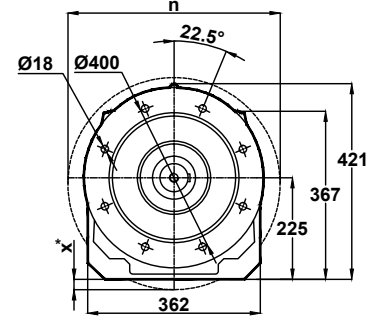
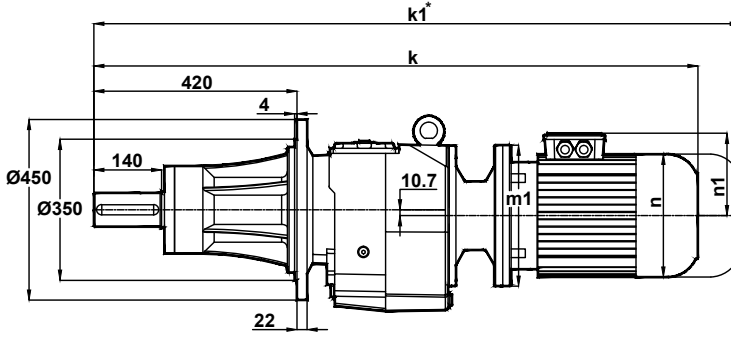
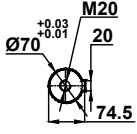


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



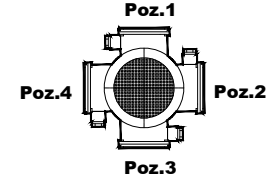
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NVB572 NVB573



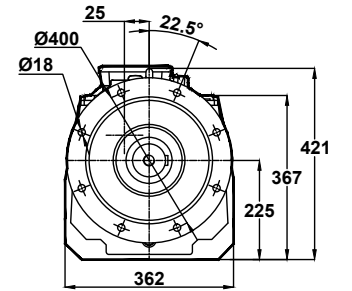
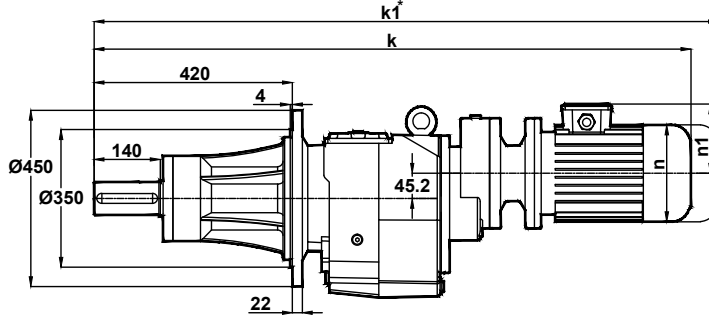
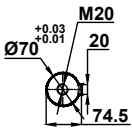
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |           |                     |                     |           |           |           |           |           |
|--|-----------|-----------|---------------------|---------------------|-----------|-----------|-----------|-----------|-----------|
| IEC  | 100L/B5   | 112M/B5   | 132S/B5<br>132S/B14 | 132M/B5<br>132M/B14 | 160M/B5   | 160L/B5   | 180M/B5   | 180L/B5   | 200L/B5   |
| k  | 1143      | 1163      | 1228                | 1266                | 1413      | 1457      | 1470      | 1508      | 1580      |
| k1   | 1278      | 1298      | 1373                | 1411                | 1583      | 1627      | 1640      | 1678      | 1780      |
| n / n1                                       | 194 / 135 | 218 / 146 | 257 / 168           | 257 / 168           | 310 / 225 | 310 / 225 | 348 / 241 | 348 / 241 | 390 / 275 |
| m1 (B5)                                      | 250       | 250       | 300                 | 300                 | 350       | 350       | 350       | 350       | 400       |
| m1 (B14)                                     | -         | -         | 200                 | 200                 | -         | -         | -         | -         | -         |
| x (B5)                                       | -         | -         | -                   | -                   | -         | -         | -         | -         | -         |

Klemens Kutusu / Terminal Box / Klemmenkasten



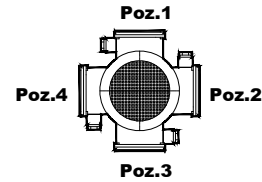
100-112-132-160-180-200

## NVB574



| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                 |                   |                   |
|--|-----------|-----------------|-------------------|-------------------|
| IEC  | 71/B5     | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 |
| k  | 1126      | 1146            | 1166              | 1191              |
| k1   | 1246      | 1266            | 1291              | 1316              |
| n / n1                                       | 138 / 111 | 156 / 118       | 176 / 126         | 176 / 126         |
| m1 (B5)                                      | 160       | 200             | 200               | 200               |
| m1 (B14)                                     | -         | 120             | 140               | 140               |

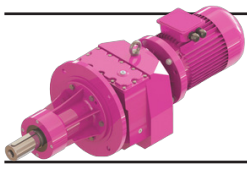
Klemens Kutusu / Terminal Box / Klemmenkasten



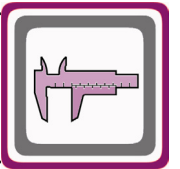
71-80-90

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



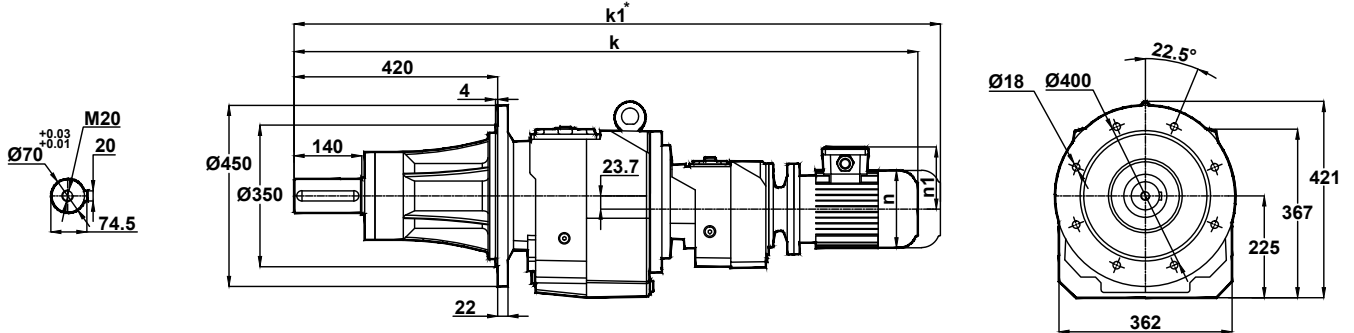


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



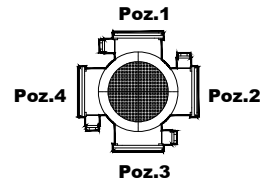
-Mil ucu çekirtme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**NVB575**  
**NVB576**



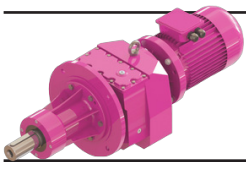
| Motor Büyüklüğü / Motor Size / Motorbaugroße |          |                 |
|--|----------|-----------------|
| IEC  | 63/B5    | 71/B5<br>71/B14 |
| k  | 1230     | 1227            |
| k1   | 1283     | 1347            |
| n / n1                                       | 121 / 97 | 138 / 111       |
| m1 (B5)                                      | 140      | 160             |
| m1 (B14)                                     | -        | 105             |

Klemens Kutusu / Terminal Box / Klemmenkasten

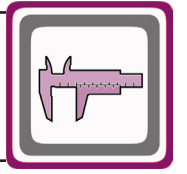


63-71

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

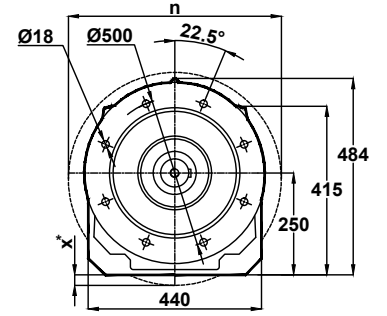
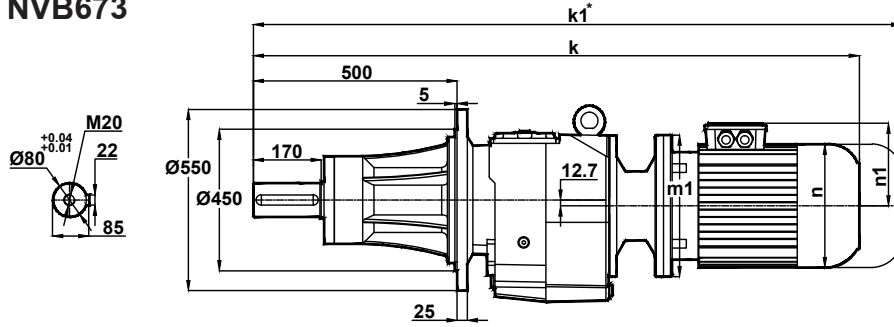


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



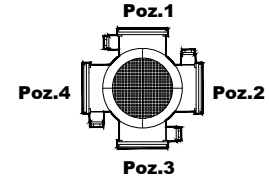
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NVB672 NVB673



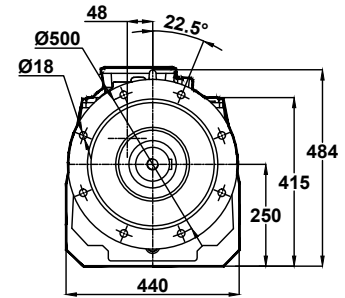
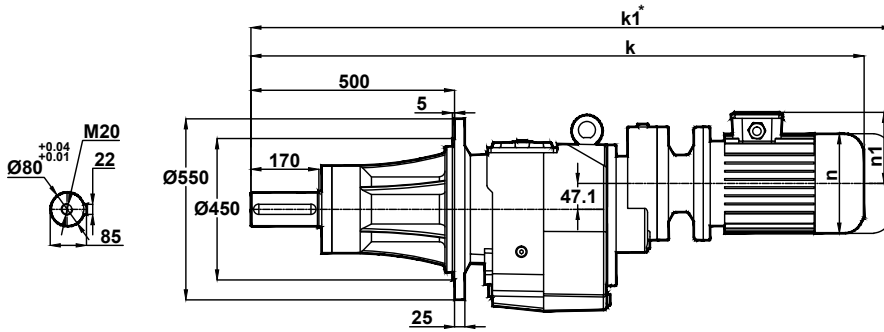
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                     |                     |           |           |           |           |           |           |           |
|--|-----------|---------------------|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| IEC  | 112M/B5   | 132S/B5<br>132S/B14 | 132M/B5<br>132M/B14 | 160M/B5   | 160L/B5   | 180M/B5   | 180L/B5   | 200L/B5   | 225S/B5   | 225M/B5   |
| k  | 1264      | 1323                | 1361                | 1508      | 1552      | 1565      | 1705      | 1779      | 1850      | 1875      |
| k1   | 1399      | 1468                | 1506                | 1678      | 1722      | 1735      | 1875      | 1979      | 2040      | 2065      |
| n / n1                                       | 218 / 146 | 257 / 168           | 257 / 168           | 310 / 225 | 310 / 225 | 348 / 241 | 348 / 241 | 390 / 275 | 434 / 285 | 434 / 285 |
| m1 (B5)                                      | 250       | 300                 | 300                 | 350       | 350       | 350       | 350       | 400       | 450       | 450       |
| m1 (B14)                                     | -         | 200                 | 200                 | -         | -         | -         | -         | -         | -         | -         |
| x (B5)                                       | -         | -                   | -                   | -         | -         | -         | -         | -         | -         | -         |

Klemens Kutusu / Terminal Box / Klemmenkasten



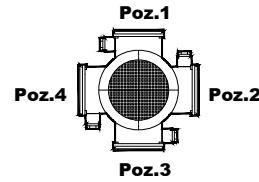
112-132-160-180-200-225

## NVB674



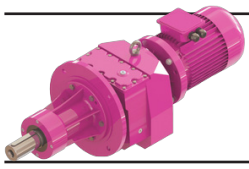
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                   |                   |
|--|-----------|-------------------|-------------------|
| IEC  | 80/B5     | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 |
| k  | 1257      | 1277              | 1302              |
| k1   | 1377      | 1402              | 1427              |
| n / n1                                       | 156 / 118 | 176 / 126         | 176 / 126         |
| m1 (B5)                                      | 200       | 200               | 200               |
| m1 (B14)                                     | -         | 140               | 140               |

Klemens Kutusu / Terminal Box / Klemmenkasten

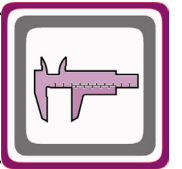


80-90

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

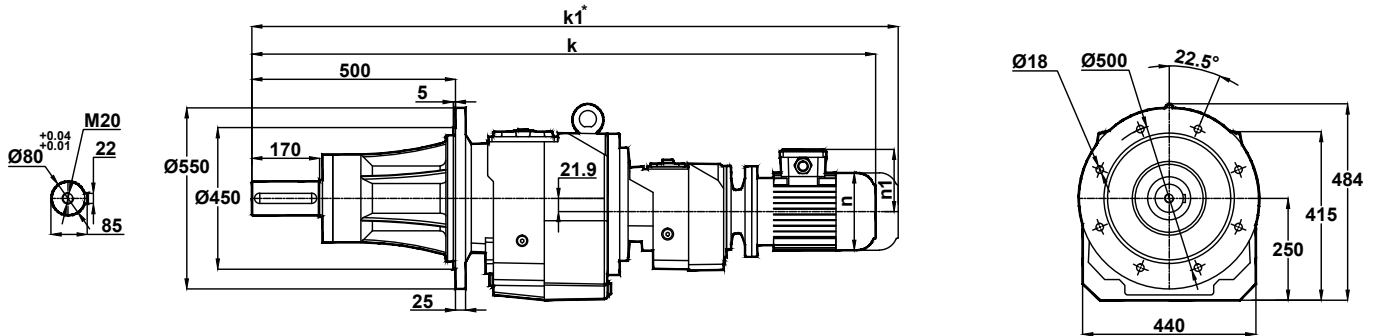


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



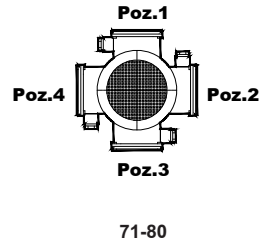
-Mil ucu çekirtme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**NVB675**  
**NVB676**

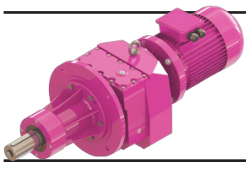


| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                 |
|--|-----------|-----------------|
| IEC  | 71/B5     | 80/B5<br>80/B14 |
| k  | 1387      | 1407            |
| k1   | 1507      | 1527            |
| n / n1                                       | 138 / 111 | 156 / 118       |
| m1 (B5)                                      | 160       | 200             |
| m1 (B14)                                     | -         | 120             |

Klemens Kutusu / Terminal Box / Klemmenkasten



\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

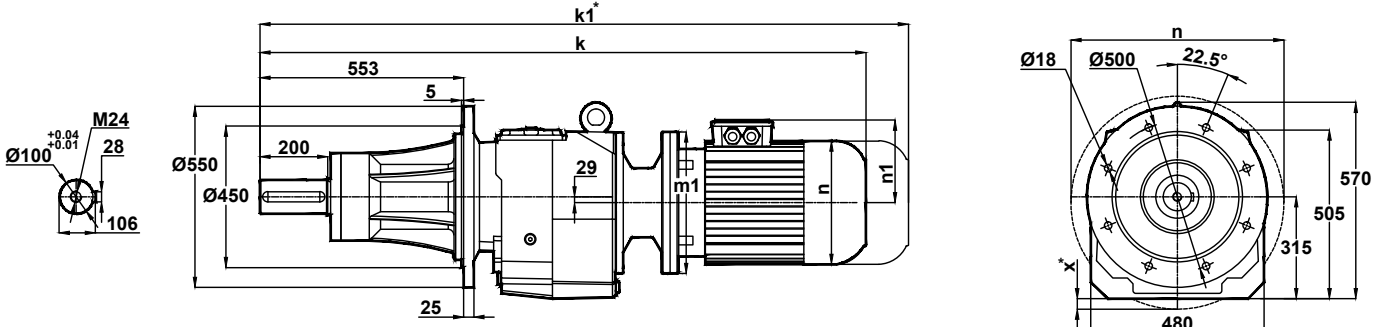


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



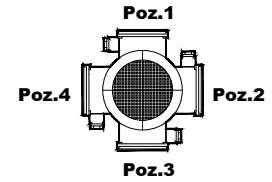
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NVB772 NVB773



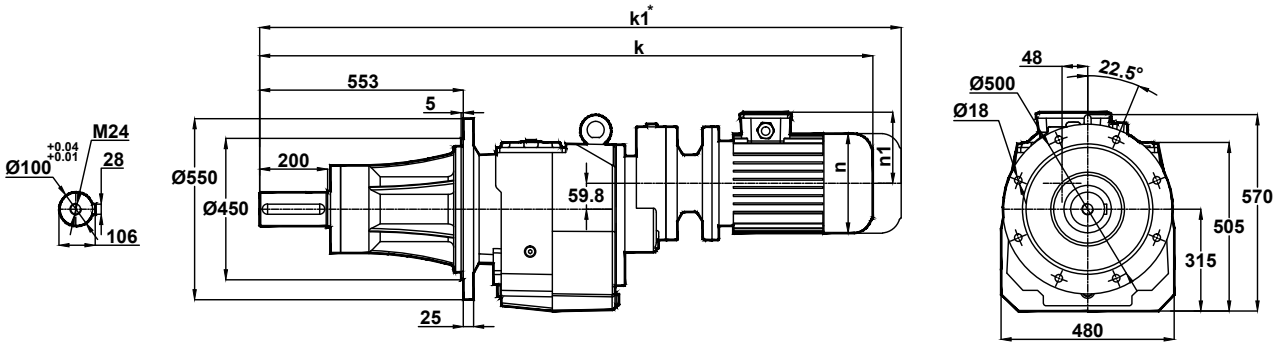
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |           |           |           |           |           |           |           |           |           |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| IEC  | 132S/B5   | 132M/B5   | 160M/B5   | 160L/B5   | 180M/B5   | 180L/B5   | 200L/B5   | 225S/B5   | 225M/B5   | 250M/B5   |
| k  | 1431      | 1469      | 1610      | 1654      | 1667      | 1705      | 1779      | 1850      | 1875      | 1951      |
| k1   | 1576      | 1614      | 1780      | 1824      | 1837      | 1875      | 1979      | 2040      | 2065      | -         |
| n / n1                                       | 257 / 168 | 257 / 168 | 310 / 225 | 310 / 225 | 348 / 241 | 348 / 241 | 434 / 285 | 434 / 285 | 434 / 285 | 480 / 322 |
| m1 (B5)                                      | 300       | 300       | 350       | 350       | 350       | 350       | 400       | 450       | 450       | 550       |
| m1 (B14)                                     | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| x (B5)                                       | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |

Klemens Kutusu / Terminal Box / Klemmenkasten



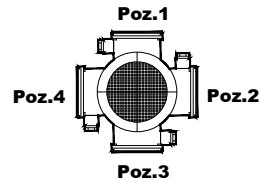
132-160-180-200-225-250

## NVB774



| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                   |                   |                     |
|--|-----------|-------------------|-------------------|---------------------|
| IEC  | 80/B5     | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 |
| k  | 1365      | 1385              | 1410              | 1460                |
| k1   | 1485      | 1510              | 1535              | 1595                |
| n / n1                                       | 156 / 118 | 176 / 126         | 176 / 126         | 194 / 135           |
| m1 (B5)                                      | 200       | 200               | 200               | 250                 |
| m1 (B14)                                     | -         | 140               | 140               | 160                 |

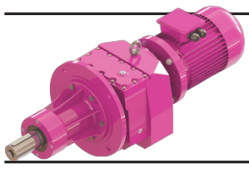
Klemens Kutusu / Terminal Box / Klemmenkasten



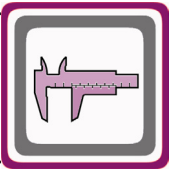
80-90-100

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

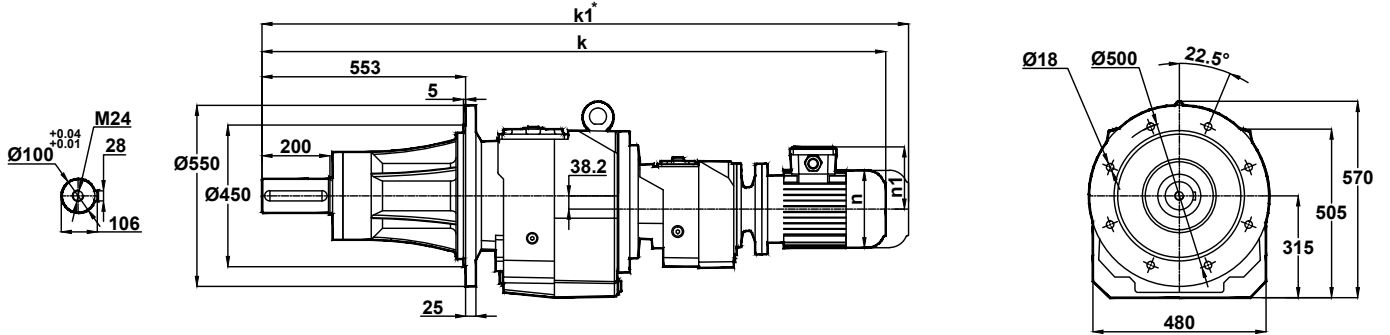


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



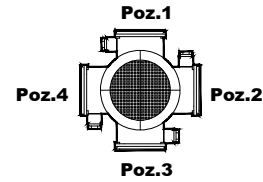
-Mil ucu çekirtme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**NVB775  
NVB776**



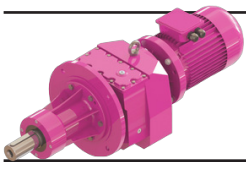
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                 |                   |                   |
|--|-----------|-----------------|-------------------|-------------------|
| IEC  | 71/B5     | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 |
| k  | 1498      | 1518            | 1538              | 1563              |
| k1   | 1618      | 1638            | 1663              | 1688              |
| n / n1                                       | 138 / 111 | 156 / 118       | 176 / 126         | 176 / 126         |
| m1 (B5)                                      | 160       | 200             | 200               | 200               |
| m1 (B14)                                     | -         | 120             | 140               | 140               |

Klemens Kutusu / Terminal Box / Klemmenkasten



71-80-90

\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension "k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße "k1" ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

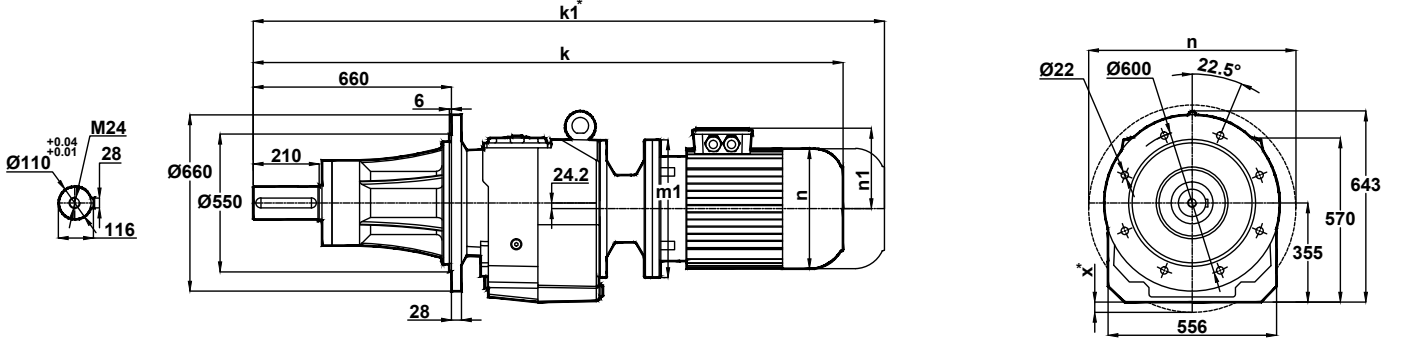


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



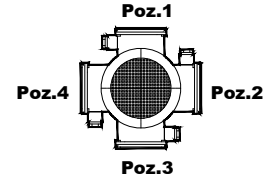
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NVB872 NVB873



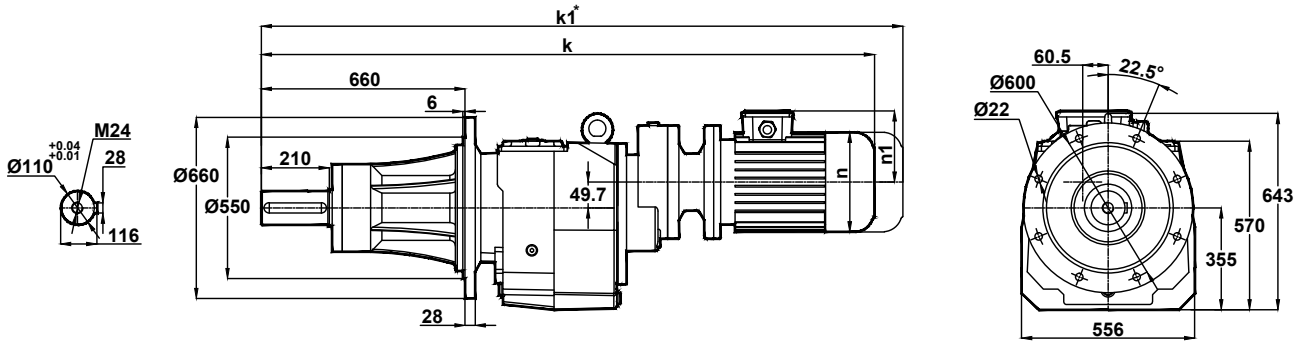
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |           |           |           |           |           |           |           |           |           |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| IEC  | 160M/B5   | 160L/B5   | 180M/B5   | 180L/B5   | 200L/B5   | 225S/B5   | 225M/B5   | 250M/B5   | 280S/B5   | 280M/B5   |
| k  | 1863      | 1907      | 1920      | 1958      | 2010      | 2028      | 2053      | 2129      | 2191      | 2191      |
| k1   | 2033      | 2077      | 2090      | 2128      | 2210      | 2218      | 2243      | -         | -         | -         |
| n / n1                                       | 310 / 225 | 310 / 225 | 348 / 241 | 348 / 241 | 390 / 275 | 434 / 285 | 434 / 285 | 480 / 322 | 544 / 350 | 544 / 350 |
| m1 (B5)                                      | 350       | 350       | 350       | 350       | 400       | 450       | 450       | 550       | 550       | 550       |
| m1 (B14)                                     | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| x (B5)                                       | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |

Klemens Kutusu / Terminal Box / Klemmenkasten



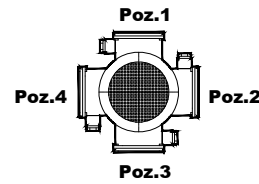
160-180-200-225-250-280

## NVB874



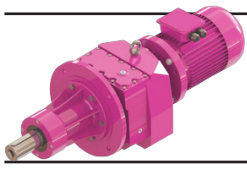
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |           |                     |                     |
|--|-----------|-----------|---------------------|---------------------|
| IEC  | 100L/B5   | 112M/B5   | 132S/B5<br>132S/B14 | 132M/B5<br>132M/B14 |
| k  | 1662      | 1682      | 1747                | 1785                |
| k1   | 1797      | 1817      | 1892                | 1930                |
| n / n1                                       | 194 / 135 | 218 / 146 | 257 / 168           | 257 / 168           |
| m1 (B5)                                      | 250       | 250       | 300                 | 300                 |
| m1 (B14)                                     | -         | -         | 200                 | 200                 |

Klemens Kutusu / Terminal Box / Klemmenkasten

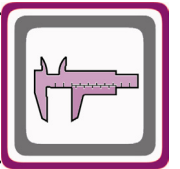


100-112-132

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte

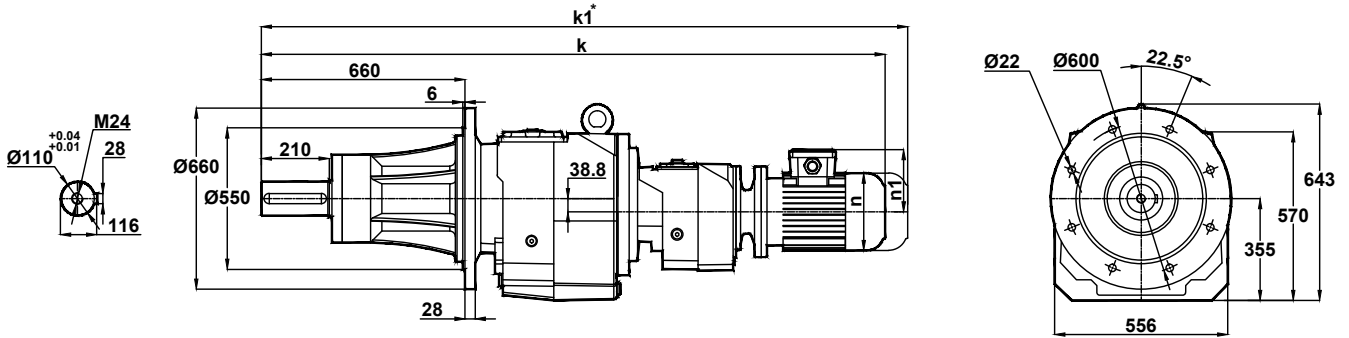


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



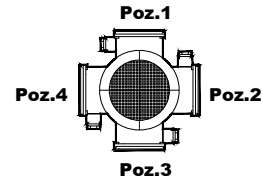
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NVB875 NVB876



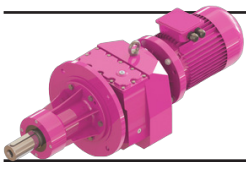
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                 |                   |                   |                     |
|--|-----------|-----------------|-------------------|-------------------|---------------------|
| IEC  | 71/B5     | 80/B5<br>80/B14 | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 |
| k  | 1682      | 1702            | 1722              | 1747              | 1796                |
| k1   | 1802      | 1822            | 1847              | 1872              | 1931                |
| n / n1                                       | 138 / 111 | 156 / 118       | 176 / 126         | 176 / 126         | 194 / 135           |
| m1 (B5)                                      | 160       | 200             | 200               | 200               | 250                 |
| m1 (B14)                                     | -         | 120             | 140               | 140               | 160                 |

Klemens Kutusu / Terminal Box / Klemmenkasten



71-80-90-100

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

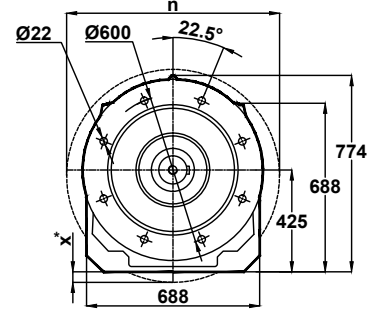
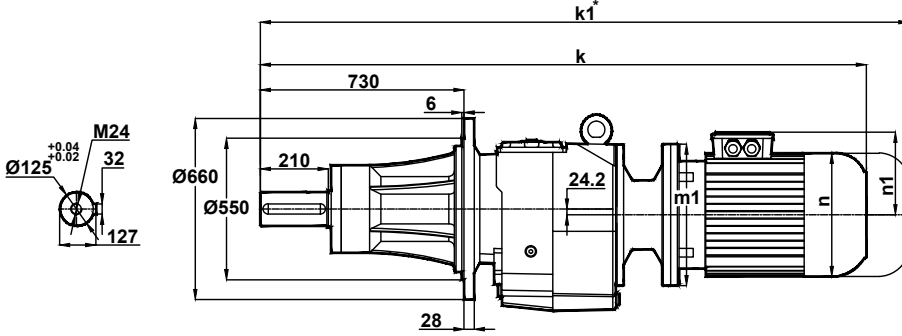


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



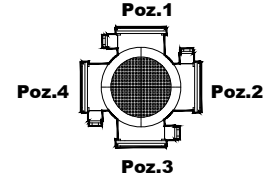
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NVB972 NVB973



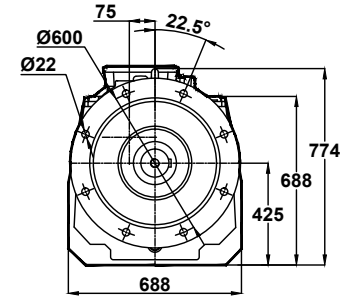
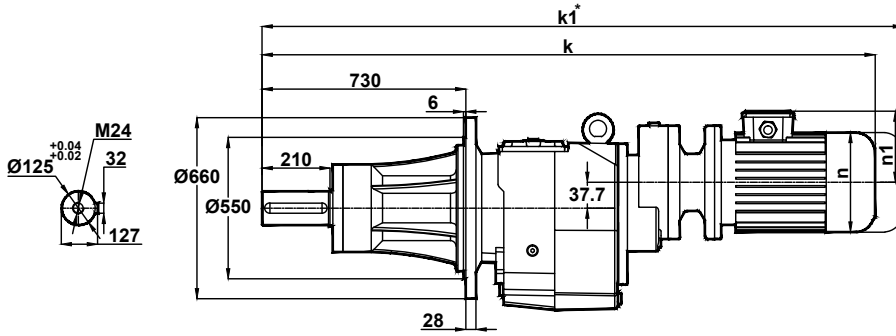
| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |           |           |           |           |           |           |           |           |           |           |           |
|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| IEC  | 160M/B5   | 160L/B5   | 180M/B5   | 180L/B5   | 200L/B5   | 225S/B5   | 225M/B5   | 250M/B5   | 280S/B5   | 280M/B5   | 315S/4    | 315M/4    |
| k  | 1921      | 1965      | 1978      | 2016      | 2092      | 2152      | 2177      | 2305      | 2367      | 2367      | 2579      | 2579      |
| k1   | 2091      | 2135      | 2148      | 2186      | 2292      | 2342      | 2367      | -         | -         | -         | -         | -         |
| n / n1                                       | 310 / 225 | 310 / 225 | 348 / 241 | 348 / 241 | 390 / 275 | 434 / 285 | 434 / 285 | 480 / 322 | 544 / 350 | 544 / 350 | 614 / 510 | 614 / 510 |
| m1 (B5)                                      | 350       | 350       | 350       | 350       | 400       | 450       | 450       | 550       | 550       | 550       | 660       | 660       |
| m1 (B14)                                     | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |
| x (B5)                                       | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         | -         |

Klemens Kutusu / Terminal Box / Klemmenkasten



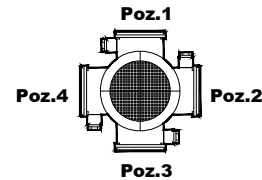
160-180-200-225-250-280-315

## NVB974



| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |           |                     |                     |
|--|-----------|-----------|---------------------|---------------------|
| IEC  | 100L/B5   | 112M/B5   | 132S/B5<br>132S/B14 | 132M/B5<br>132M/B14 |
| k  | 1835      | 1855      | 1914                | 1952                |
| k1   | 1970      | 1990      | 2059                | 2097                |
| n / n1                                       | 194 / 135 | 218 / 146 | 257 / 168           | 257 / 168           |
| m1 (B5)                                      | 250       | 250       | 300                 | 300                 |
| m1 (B14)                                     | -         | -         | 200                 | 200                 |

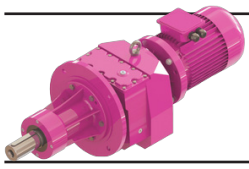
Klemens Kutusu / Terminal Box / Klemmenkasten



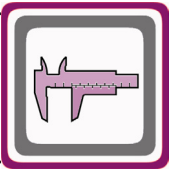
100-112-132

\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.  
Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.  
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



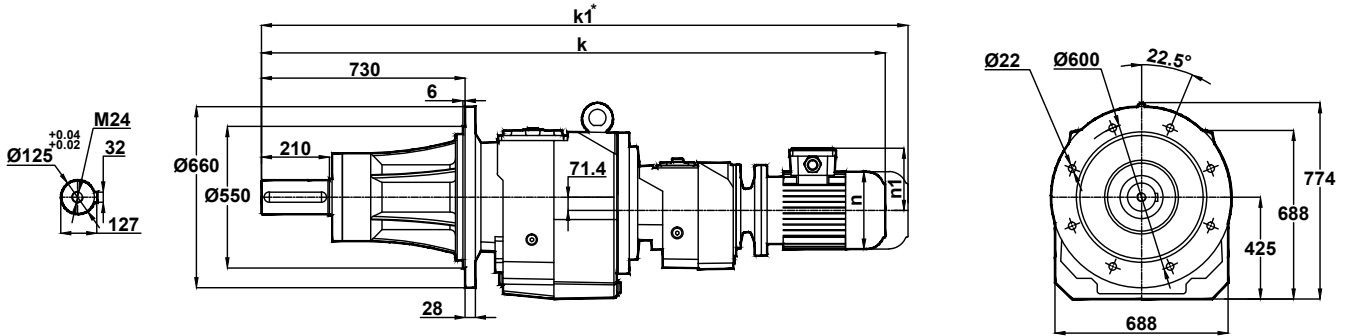


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



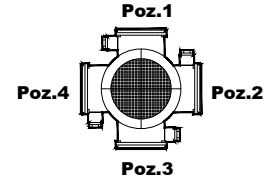
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

## NVB975 NVB976



| Motor Büyüklüğü / Motor Size / Motorbaugroße |           |                   |                   |                     |                     |                     |
|--|-----------|-------------------|-------------------|---------------------|---------------------|---------------------|
| IEC  | 80/B5     | 90S/B5<br>90S/B14 | 90L/B5<br>90L/B14 | 100L/B5<br>100L/B14 | 112M/B5<br>112M/B14 | 132S/B5<br>132S/B14 |
| k  | 1894      | 1914              | 1939              | 1990                | 2010                | 2072                |
| k1   | 2014      | 2039              | 2064              | 2125                | 2145                | 2217                |
| n / n1                                       | 156 / 118 | 176 / 126         | 176 / 126         | 194 / 135           | 218 / 146           | 218 / 146           |
| m1 (B5)                                      | 200       | 200               | 200               | 250                 | 250                 | 300                 |
| m1 (B14)                                     | -         | 140               | 140               | 160                 | 160                 | 200                 |

Klemens Kutusu / Terminal Box / Klemmenkasten

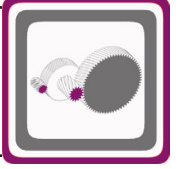
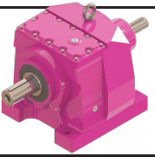


80-90-100-112-132

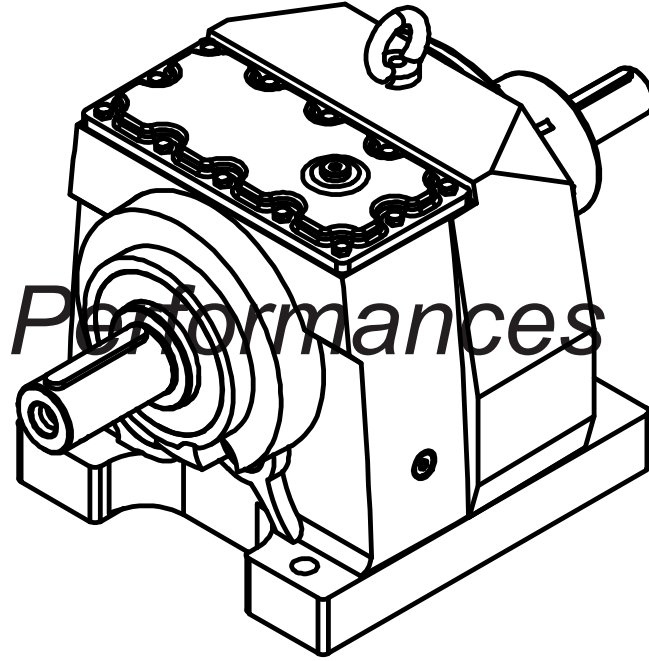
\* " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

Dimension " k1 " is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooled, other types are fan cooled.  
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen sind mit Ventilator gekühlt.

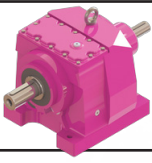




# Güç ve Devir Tabloları



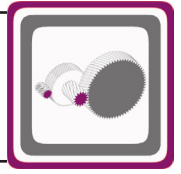
## Leistung und Drehzahlübersicht



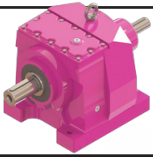
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



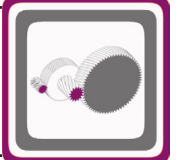
| Anma Momenti<br><i>Nominal Torques</i><br>Nenn-drehmomente<br>Ma [Nm]<br>(n1=1400rpm) | Çevrim Oranı<br><i>Ratio</i><br>Übersetzung<br>i | Çıkış Devri<br><i>Output Speeds</i><br>Abtriebs-drehzahlen<br>n2 [r.p.m]<br>(n1=1400rpm) | Tipi<br><i>Type</i><br>Typ | Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)<br><i>Pe= Nominal Power [kW] (For Service Factor fs=1,0)</i><br>Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) |         |        |        |        |        | Güv. Rad.Yük Çıkış<br><i>Per.O.Loads (Output)</i> | Güv.Rad.Yük Giriş<br><i>Per.O.Loads (Input)</i> | Ağırlık<br><i>Weight</i><br>Gewicht<br>[kg] | Ölçü Sayfası<br><i>Dim. Page</i><br>Maße Seite | Fiyat Kodu<br><i>Price Ref.</i><br>Preis No. |
|---|--|--|----------------------------|---|---------|--------|--------|--------|--------|---|---|---|--|--|
|   |  |  |                            | Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]   |         |        |        |        |        |   |   |   |  |  |
|   |  |  |                            | n1=2800   | n1=1400 | n1=900 | n1=750 | n1=450 | n1=350 | Fqam [N]<br>(n1=1400rpm)                          | Fqem [N]<br>(n1=1400rpm)                        |   |  |  |
|   |  |  |                            | 53  | 3,62    | 387    | MT002  | 3,52   | 2,23   | 1,68  | 1,49  | 1,06  | 0,87   | 380  |
| 55  | 3,90   | 359  | NT002                      | 3,42  | 2,15    | 1,61   | 1,43   | 1,02   | 0,81   | 371   | -   | 12  |  | NT001  |
| 58  | 4,56   | 307  |                            | 3,07  | 1,94    | 1,45   | 1,30   | 0,89   | 0,69   | 389   | -   |   |  |  |
| 64  | 5,57   | 251  |                            | 2,78  | 1,75    | 1,31   | 1,16   | 0,73   | 0,57   | 591   | -   |   |  |  |
| 66  | 6,00   | 233  |                            | 2,63  | 1,68    | 1,25   | 1,11   | 0,68   | 0,53   | 597   | -   |   |  |  |
| 69  | 6,91   | 203  |                            | 2,38  | 1,53    | 1,14   | 0,98   | 0,59   | 0,46   | 712   | -   |   |  |  |
| 71  | 7,45   | 188  |                            | 2,29  | 1,46    | 1,09   | 0,91   | 0,55   | 0,42   | 724   | -   |   |  |  |
| 72  | 7,84   | 179  |                            | 2,21  | 1,40    | 1,03   | 0,86   | 0,52   | 0,40   | 795   | -   |   |  |  |
| 74  | 8,45   | 166  |                            | 2,09  | 1,34    | 0,96   | 0,80   | 0,48   | 0,37   | 811   | -   |   |  |  |
| 74  | 8,70   | 161  |                            | 2,07  | 1,31    | 0,93   | 0,78   | 0,47   | 0,36   | 781   | -   |   |  |  |
| 78  | 9,87   | 142  |                            | 1,89  | 1,21    | 0,82   | 0,68   | 0,41   | 0,32   | 853   | -   |   |  |  |
| 65  | 11,14  | 126  |                            | 1,46  | 0,90    | 0,70   | 0,61   | 0,37   | 0,29   | 1275  | -   |   |  |  |
| 80  | 13,61  | 103  | MT003                      | 1,39  | 0,92    | 0,61   | 0,51   | 0,30   | 0,24   | 601   | 435   | 12  | 330  | MT002  |
| 82  | 14,67  | 95   | NT003                      | 1,33  | 0,87    | 0,56   | 0,47   | 0,28   | 0,22   | 617   | 438   | 13  |  | NT002  |
| 82  | 16,89  | 83   |                            | 1,38  | 0,76    | 0,49   | 0,41   | 0,25   | 0,19   | 859   | 562   |   |  |  |
| 82  | 18,20  | 77   |                            | 1,33  | 0,70    | 0,45   | 0,38   | 0,23   | 0,18   | 937   | 571   |   |  |  |
| 82  | 19,17  | 73   |                            | 1,29  | 0,67    | 0,43   | 0,36   | 0,22   | 0,17   | 1054  | 599   |   |  |  |
| 82  | 20,66  | 68   |                            | 1,23  | 0,62    | 0,39   | 0,33   | 0,20   | 0,16   | 1136  | 607   |   |  |  |
| 82  | 21,26  | 66   |                            | 1,20  | 0,61    | 0,38   | 0,33   | 0,20   | 0,15   | 1107  | 587   |   |  |  |
| 82  | 24,13  | 58   |                            | 1,06  | 0,53    | 0,34   | 0,29   | 0,17   | 0,13   | 1313  | 621   |   |  |  |
| 82  | 28,38  | 49   |                            | 0,90  | 0,45    | 0,29   | 0,24   | 0,15   | 0,11   | 1508  | 660   |   |  |  |
| 82  | 32,02  | 44   |                            | 0,74  | 0,40    | 0,26   | 0,22   | 0,13   | 0,10   | 1689  | 684   |   |  |  |
| 82  | 40,04  | 35   |                            | 0,65  | 0,32    | 0,21   | 0,17   | 0,11   | 0,08   | 1959  | 680   |   |  |  |
| 82  | 45,18  | 31   |                            | 0,58  | 0,29    | 0,19   | 0,16   | 0,09   | 0,07   | 2159  | 702   |   |  |  |
| 70  | 3,94   | 355  | MT102                      | 4,22  | 2,70    | 1,99   | 1,76   | 1,25   | 1,07   | 1058  | -   | 13  | 331  | MT003  |
| 75  | 4,57   | 306  | NT102                      | 3,98  | 2,50    | 1,83   | 1,70   | 1,19   | 1,01   | 1103  | -   | 14  |  | NT003  |
| 80  | 5,01   | 279  |                            | 3,62  | 2,43    | 1,76   | 1,55   | 1,13   | 0,96   | 1120  | -   |   |  |  |
| 80  | 5,47   | 256  |                            | 3,60  | 2,23    | 1,71   | 1,50   | 1,08   | 0,91   | 1168  | -   |   |  |  |
| 85  | 6,48   | 216  |                            | 3,28  | 2,00    | 1,52   | 1,33   | 0,95   | 0,77   | 1233  | -   |   |  |  |
| 90  | 6,93   | 202  |                            | 3,07  | 1,98    | 1,42   | 1,30   | 0,93   | 0,72   | 1242  | -   |   |  |  |
| 90  | 8,01   | 175  |                            | 2,66  | 1,72    | 1,29   | 1,13   | 0,80   | 0,67   | 1391  | 553   |   |  |  |
| 95  | 9,29   | 151  |                            | 2,46  | 1,57    | 1,17   | 1,06   | 0,75   | 0,58   | 1459  | 564   |   |  |  |
| 100   | 10,18  | 137  |                            | 2,24  | 1,50    | 1,11   | 0,97   | 0,68   | 0,53   | 1492  | 550   |   |  |  |
| 100   | 11,12  | 126  |                            | 2,20  | 1,38    | 1,07   | 0,93   | 0,62   | 0,49   | 1554  | 633   |   |  |  |
| 105   | 13,15  | 106  |                            | 1,97  | 1,23    | 0,94   | 0,85   | 0,53   | 0,41   | 1648  | 631   |   |  |  |
| 110   | 14,08  | 99   |                            | 1,85  | 1,20    | 0,91   | 0,79   | 0,49   | 0,38   | 1671  | 569   |   |  |  |
| 115   | 15,95  | 88   |                            | 1,73  | 1,11    | 0,84   | 0,73   | 0,44   | 0,34   | 1740  | 509   |   |  |  |
| 110   | 17,33  | 81   | MT103                      | 1,52  | 0,99    | 0,76   | 0,68   | 0,41   | 0,32   | 1764  | 830   | 14  | 331  | MT004  |
| 120   | 20,51  | 68   | NT103                      | 1,36  | 0,91    | 0,69   | 0,57   | 0,35   | 0,27   | 1842  | 817   | 15  |  | NT004  |
| 120   | 21,96  | 64   |                            | 1,34  | 0,85    | 0,64   | 0,54   | 0,32   | 0,25   | 1903  | 825   |   |  |  |
| 130   | 24,86  | 56   |                            | 1,25  | 0,82    | 0,57   | 0,48   | 0,29   | 0,22   | 1951  | 804   |   |  |  |
| 140   | 29,40  | 48   |                            | 1,16  | 0,75    | 0,48   | 0,40   | 0,24   | 0,19   | 2139  | 937   |   |  |  |
| 140   | 32,25  | 43   |                            | 1,06  | 0,68    | 0,44   | 0,37   | 0,22   | 0,17   | 2231  | 948   |   |  |  |
| 140   | 35,21  | 40   |                            | 1,02  | 0,62    | 0,40   | 0,34   | 0,20   | 0,16   | 2322  | 956   |   |  |  |
| 140   | 41,66  | 34   |                            | 0,90  | 0,53    | 0,34   | 0,29   | 0,17   | 0,13   | 2503  | 966   |   |  |  |
| 140   | 44,60  | 31   |                            | 0,88  | 0,50    | 0,32   | 0,27   | 0,16   | 0,12   | 2579  | 970   |   |  |  |
| 140   | 50,51  | 28   |                            | 0,81  | 0,44    | 0,28   | 0,24   | 0,14   | 0,11   | 2723  | 974   |   |  |  |
| 110   | 3,38   | 414  | MT172                      | 7,57  | 4,92    | 3,90   | 3,37   | 2,46   | 2,03   | 609   | -   | 15  | 332  | MT005  |
| 120   | 4,09   | 343  | NT172                      | 7,38  | 4,45    | 3,59   | 3,19   | 2,28   | 1,87   | 591   | -   | 16  |  | NT005  |
| 130   | 4,78   | 293  |                            | 6,94  | 4,12    | 3,48   | 3,07   | 2,05   | 1,60   | 772   | -   |   |  |  |
| 135   | 5,78   | 242  |                            | 6,28  | 3,55    | 3,22   | 2,83   | 1,70   | 1,33   | 888   | -   |   |  |  |
| 145   | 6,60   | 212  |                            | 5,73  | 3,34    | 2,97   | 2,48   | 1,49   | 1,16   | 856   | -   |   |  |  |
| 160   | 7,60   | 184  |                            | 5,38  | 3,21    | 2,58   | 2,15   | 1,30   | 1,01   | 746   | -   |   |  |  |
| 165   | 8,94   | 157  |                            | 4,75  | 2,81    | 2,20   | 1,83   | 1,10   | 0,86   | 861   | -   |   |  |  |
| 170   | 9,53   | 147  |                            | 4,62  | 2,72    | 2,06   | 1,72   | 1,03   | 0,81   | 852   | -   |   |  |  |
| 180   | 11,08  | 126  |                            | 3,98  | 2,48    | 1,78   | 1,48   | 0,89   | 0,69   | 1257  | -   |   |  |  |
| 190   | 12,66  | 111  |                            | 3,60  | 2,29    | 1,56   | 1,30   | 0,78   | 0,61   | 1284  | -   |   |  |  |



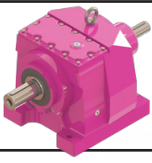
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



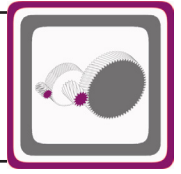
| Anma Momenti<br>Nominal Torques<br>Nenn-drehmomente<br>Ma [Nm]<br>(n1=1400rpm) | Çevrim Oranı<br>Ratio<br>Übersetzung<br>i | Çıkış Devri<br>Output Speeds<br>Abtriebs-drehzahlen<br>n2 [r.p.m]<br>(n1=1400rpm) | Tipi<br>Type<br>Typ | Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)<br>Pe= Nominal Power [kW] (For Service Factor fs=1,0)<br>Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) |         |        |        |        |        | Güv. Rad.Yük Çıkış<br>Per.O.Loads (Output) | Güv.Rad.Yük Giriş<br>Per.O.Loads (Input) | Ağırlık<br>Weight<br>Gewicht<br>[kg] | Ölçü Sayfası<br>Dim. Page<br>Maße Seite | Fiyat Kodu<br>Price Ref.<br>Preis No. |
|--|---|---|---------------------|--|---------|--------|--------|--------|--------|--|--|--------------------------------------|---|---------------------------------------|
|  |   |   |                     | Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]  |         |        |        |        |        |  |  |                                      |   |                                       |
|  |   |   |                     | n1=2800  | n1=1400 | n1=900 | n1=750 | n1=450 | n1=350 |  |  |                                      |   |                                       |
|  |   |   |                     |  |         |        |        |        |        |  |  |                                      |   |                                       |
| 195  | 14,57                                     | 96  | MT172               | 3,24   | 2,05    | 1,35   | 1,13   | 0,68   | 0,53   | 1415                                       | -  | 15                                   | 332                                     | MT005                                 |
| 200  | 17,14                                     | 82  | NT172               | 2,85   | 1,79    | 1,15   | 0,96   | 0,58   | 0,45   | 1591                                       | -  | 16                                   |   | NT005                                 |
| 200  | 18,28                                     | 77  |                     | 2,76   | 1,68    | 1,08   | 0,90   | 0,54   | 0,42   | 1698                                       | -  |                                      |   |                                       |
| 200  | 20,92                                     | 67  |                     | 2,48   | 1,47    | 0,95   | 0,79   | 0,47   | 0,37   | 1930                                       | -  |                                      |   |                                       |
| 200  | 26,10                                     | 54  | MT173               | 1,48   | 1,19    | 0,77   | 0,64   | 0,39   | 0,30   | 2857                                       | 827                                      | 16                                   | 332                                     | MT006                                 |
| 200  | 30,26                                     | 46  | NT173               | 1,33   | 1,03    | 0,67   | 0,56   | 0,33   | 0,26   | 3057                                       | 847                                      | 17                                   |   | NT006                                 |
| 200  | 36,24                                     | 39  |                     | 1,24   | 0,86    | 0,56   | 0,42   | 0,28   | 0,22   | 3314                                       | 873                                      |                                      |   |                                       |
| 200  | 42,87                                     | 33  |                     | 1,13   | 0,73    | 0,47   | 0,39   | 0,24   | 0,18   | 3568                                       | 888                                      |                                      |   |                                       |
| 200  | 45,90                                     | 31  |                     | 1,16   | 0,69    | 0,44   | 0,37   | 0,22   | 0,17   | 3675                                       | 894                                      |                                      |   |                                       |
| 200  | 49,81                                     | 28  |                     | 1,10   | 0,63    | 0,41   | 0,34   | 0,20   | 0,16   | 3807                                       | 989                                      |                                      |   |                                       |
| 200  | 57,76                                     | 24  |                     | 0,98   | 0,55    | 0,35   | 0,29   | 0,18   | 0,14   | 4055                                       | 999                                      |                                      |   |                                       |
| 200  | 69,16                                     | 20  |                     | 0,91   | 0,46    | 0,30   | 0,25   | 0,15   | 0,12   | 4373                                       | 1013                                     |                                      |   |                                       |
| 200  | 81,82                                     | 17  |                     | 0,77   | 0,39    | 0,25   | 0,21   | 0,13   | 0,10   | 4689                                       | 1021                                     |                                      |   |                                       |
| 200  | 87,60                                     | 16  |                     | 0,72   | 0,36    | 0,23   | 0,20   | 0,12   | 0,09   | 4822                                       | 1024                                     |                                      |   |                                       |
| 200  | 99,21                                     | 14  |                     | 0,64   | 0,32    | 0,21   | 0,17   | 0,10   | 0,08   | 5072                                       | 1027                                     |                                      |   |                                       |
| 125  | 3,50                                      | 400   | MT202               | 8,62   | 5,41    | 4,19   | 3,61   | 2,59   | 2,24   | 2285                                       | -  | 20                                   | 333                                     | MT007                                 |
| 145  | 4,20                                      | 333   | NT202               | 8,27   | 5,24    | 3,85   | 3,40   | 2,46   | 2,10   | 2128                                       | -  | 22                                   |   | NT007                                 |
| 150  | 4,50                                      | 311   |                     | 8,05   | 5,05    | 3,80   | 3,35   | 2,40   | 2,04   | 2140                                       | -  |                                      |   |                                       |
| 160  | 5,08                                      | 276   |                     | 7,45   | 4,79    | 3,57   | 3,22   | 2,28   | 1,93   | 2131                                       | -  |                                      |   |                                       |
| 175  | 5,80                                      | 241   |                     | 7,05   | 4,59    | 3,38   | 3,04   | 2,17   | 1,82   | 2039                                       | -  |                                      |   |                                       |
| 185  | 7,04                                      | 199   |                     | 6,23   | 3,99    | 2,99   | 2,67   | 1,92   | 1,52   | 2954                                       | 657                                      |                                      |   |                                       |
| 200  | 8,40                                      | 167   |                     | 5,59   | 3,62    | 2,69   | 2,39   | 1,64   | 1,28   | 3055                                       | 670                                      |                                      |   |                                       |
| 210  | 10,07                                     | 139   |                     | 4,97   | 3,18    | 2,39   | 2,12   | 1,37   | 1,07   | 3297                                       | 770                                      |                                      |   |                                       |
| 215  | 10,81                                     | 130   |                     | 4,77   | 3,03    | 2,27   | 2,01   | 1,28   | 0,99   | 3374                                       | 776                                      |                                      |   |                                       |
| 225  | 12,18                                     | 115   |                     | 4,49   | 2,82    | 2,10   | 1,85   | 1,14   | 0,88   | 3486                                       | 775                                      |                                      |   |                                       |
| 235  | 13,92                                     | 101   |                     | 4,05   | 2,58    | 1,95   | 1,65   | 0,99   | 0,77   | 3650                                       | 778                                      |                                      |   |                                       |
| 240  | 14,86                                     | 94  |                     | 3,89   | 2,47    | 1,86   | 1,55   | 0,93   | 0,72   | 3734                                       | 768                                      |                                      |   |                                       |
| 245  | 16,03                                     | 87  |                     | 3,71   | 2,34    | 1,72   | 1,44   | 0,87   | 0,67   | 3852                                       | 780                                      |                                      |   |                                       |
| 260  | 18,85                                     | 74  |                     | 3,32   | 2,11    | 1,47   | 1,22   | 0,74   | 0,57   | 4038                                       | 714                                      |                                      |   |                                       |
| 260  | 20,10                                     | 70  |                     | 3,19   | 1,98    | 1,38   | 1,15   | 0,69   | 0,54   | 4240                                       | 773                                      |                                      |   |                                       |
| 280  | 23,01                                     | 61  |                     | 2,92   | 1,87    | 1,20   | 1,00   | 0,60   | 0,47   | 4271                                       | 608                                      |                                      |   |                                       |
| 270  | 23,23                                     | 60  | MT203               | 2,79   | 1,81    | 1,21   | 1,01   | 0,61   | 0,47   | 3431                                       | 1163                                     | 21                                   | 333                                     | MT008                                 |
| 275  | 24,77                                     | 57  | NT203               | 2,68   | 1,73    | 1,14   | 0,95   | 0,57   | 0,44   | 3525                                       | 1162                                     | 23                                   |   | NT008                                 |
| 280  | 28,35                                     | 49  |                     | 2,46   | 1,54    | 0,99   | 0,83   | 0,50   | 0,39   | 3876                                       | 1172                                     |                                      |   |                                       |
| 280  | 36,02                                     | 39  |                     | 1,93   | 1,21    | 0,78   | 0,65   | 0,39   | 0,31   | 5354                                       | 1504                                     |                                      |   |                                       |
| 280  | 41,16                                     | 34  |                     | 1,77   | 1,06    | 0,69   | 0,57   | 0,34   | 0,27   | 5657                                       | 1519                                     |                                      |   |                                       |
| 280  | 43,94                                     | 32  |                     | 1,69   | 0,99    | 0,64   | 0,54   | 0,32   | 0,25   | 5810                                       | 1526                                     |                                      |   |                                       |
| 280  | 47,39                                     | 30  |                     | 1,61   | 0,92    | 0,60   | 0,50   | 0,30   | 0,26   | 5992                                       | 1533                                     |                                      |   |                                       |
| 280  | 55,74                                     | 25  |                     | 1,43   | 0,79    | 0,51   | 0,42   | 0,26   | 0,22   | 6397                                       | 1547                                     |                                      |   |                                       |
| 280  | 59,43                                     | 24  |                     | 1,37   | 0,74    | 0,48   | 0,40   | 0,27   | 0,21   | 6563                                       | 1552                                     |                                      |   |                                       |
| 280  | 68,03                                     | 21  |                     | 1,27   | 0,65    | 0,42   | 0,35   | 0,23   | 0,18   | 6926                                       | 1561                                     |                                      |   |                                       |
| 195  | 3,16                                      | 443   | MT272               | 14,73  | 9,31    | 6,93   | 6,17   | 4,41   | 3,74   | 620  | -  | 25                                   | 334                                     | MT009                                 |
| 205  | 3,69                                      | 380   | NT272               | 13,45  | 8,40    | 6,34   | 5,62   | 3,98   | 3,41   | 659  | -  | 27                                   |   | NT009                                 |
| 230  | 4,53                                      | 309   |                     | 11,97  | 7,69    | 5,60   | 5,04   | 3,57   | 3,04   | 924  | -  |                                      |   |                                       |
| 265  | 5,28                                      | 265   |                     | 11,13  | 7,60    | 5,55   | 5,01   | 3,34   | 2,82   | 543  | -  |                                      |   |                                       |
| 330  | 6,21                                      | 225   |                     | 13,60  | 8,05    | 5,90   | 5,38   | 3,56   | 2,77   | -  | -  |                                      |   |                                       |
| 360  | 8,71                                      | 161   |                     | 9,88   | 6,27    | 4,49   | 4,17   | 2,54   | 1,98   | 550  | -  |                                      |   |                                       |
| 375  | 10,16                                     | 138   |                     | 8,77   | 5,60    | 4,14   | 3,62   | 2,18   | 1,69   | 646  | -  |                                      |   |                                       |
| 390  | 11,95                                     | 117   |                     | 7,85   | 4,96    | 3,69   | 3,08   | 1,85   | 1,44   | 779  | -  |                                      |   |                                       |
| 410  | 14,21                                     | 99  |                     | 6,93   | 4,39    | 3,11   | 2,59   | 1,56   | 1,21   | 878  | -  |                                      |   |                                       |
| 425  | 16,07                                     | 87  |                     | 6,42   | 4,03    | 2,75   | 2,30   | 1,38   | 1,07   | 951  | -  |                                      |   |                                       |
| 445  | 18,33                                     | 76  |                     | 5,80   | 3,71    | 2,42   | 2,02   | 1,21   | 0,94   | 977  | -  |                                      |   |                                       |
| 450  | 21,43                                     | 65  |                     | 5,18   | 3,21    | 2,07   | 1,72   | 1,04   | 0,81   | 1341                                       | -  |                                      |   |                                       |
| 450  | 25,89                                     | 54  |                     | 4,59   | 2,66    | 1,71   | 1,43   | 0,86   | 0,67   | 1914                                       | -  |                                      |   |                                       |
| 435  | 19,00                                     | 74  | MT273               | 5,41   | 3,54    | 2,36   | 1,97   | 1,19   | 0,93   | 288  | 326                                      | 26                                   | 334                                     | MT010                                 |
| 435  | 25,55                                     | 55  | NT273               | 4,02   | 2,63    | 1,76   | 1,47   | 0,88   | 0,69   | 2121                                       | 1297                                     | 28                                   |   | NT010                                 |



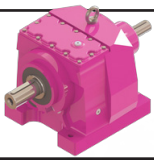
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



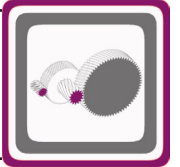
| Anma Momenti<br><i>Nominal Torques</i><br>Nenn-drehmomente<br>Ma [Nm]<br>(n1=1400rpm) | Çevrim Oranı<br><i>Ratio</i><br>Übersetzung<br>i | Çıkış Devri<br><i>Output Speeds</i><br>Abtriebs-drehzahlen<br>n2 [r.p.m]<br>(n1=1400rpm) | Tipi<br><i>Type</i><br>Typ | Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)<br><i>Pe= Nominal Power [kW] (For Service Factor fs=1,0)</i><br>Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) |         |        |        |        |        | Güv. Rad.Yük Çıkış<br><i>Per.O.Loads (Output)</i><br>Zul.Querkräfte (Abtrieb)<br>Fqam [N]<br>(n1=1400rpm) | Güv.Rad.Yük Giriş<br><i>Per.O.Loads (Input)</i><br>Zul.Querkräfte (Antrieb)<br>Fqem [N]<br>(n1=1400rpm) | Ağırlık<br><i>Weight</i><br>Gewicht<br>[kg] | Ölçü Sayfası<br><i>Dim. Page</i><br>Maße Seite | Fiyat Kodu<br><i>Price Ref.</i><br>Preis No. |
|---|--|--|----------------------------|---|---------|--------|--------|--------|--------|---|---|---|--|--|
|   |  |  |                            | Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]   |         |        |        |        |        |   |   |   |  |  |
|   |  |  |                            | n1=2800   | n1=1400 | n1=900 | n1=750 | n1=450 | n1=350 |   |   |   |  |  |
|   |  |  |                            |   |         |        |        |        |        |   |   |   |  |  |
| 450   | 30,48  | 46   | MT273                      | 3,58  | 2,28    | 1,47   | 1,23   | 0,74   | 0,58   | 2438  | 1325  | 26  | 334  | MT010  |
| 450   | 36,55  | 38   | NT273                      | 3,16  | 1,91    | 1,23   | 1,03   | 0,62   | 0,48   | 3055  | 1364  | 28  |  | NT010  |
| 450   | 42,41  | 33   |                            | 2,90  | 1,65    | 1,06   | 0,89   | 0,53   | 0,42   | 3590  | 1501  |   |  |  |
| 450   | 50,59  | 28   |                            | 2,59  | 1,38    | 0,89   | 0,75   | 0,45   | 0,35   | 4259  | 1529  |   |  |  |
| 450   | 60,66  | 23   |                            | 2,30  | 1,16    | 0,75   | 0,62   | 0,38   | 0,29   | 4990  | 1553  |   |  |  |
| 450   | 73,35  | 19   |                            | 1,91  | 0,96    | 0,62   | 0,52   | 0,31   | 0,27   | 5804  | 1574  |   |  |  |
| 450   | 83,83  | 17   |                            | 1,67  | 0,84    | 0,54   | 0,45   | 0,27   | 0,24   | 6408  | 1586  |   |  |  |
| 450   | 96,52  | 15   |                            | 1,46  | 0,73    | 0,47   | 0,39   | 0,26   | 0,21   | 6700  | 1597  |   |  |  |
| 450   | 113,52   | 12   |                            | 1,24  | 0,62    | 0,40   | 0,34   | 0,22   | 0,17   | 6700  | 1608  |   |  |  |
| 450   | 121,03   | 12   |                            | 1,17  | 0,59    | 0,38   | 0,32   | 0,21   | 0,16   | 6700  | 1612  |   |  |  |
| 450   | 138,55   | 10   |                            | 1,02  | 0,51    | 0,33   | 0,28   | 0,18   | 0,14   | 6700  | 1619  |   |  |  |
| 450   | 149,02   | 9,4  | MT275                      | 0,99  | 0,49    | 0,32   | 0,27   | 0,18   | 0,14   | 6700  | 694   | 39  | 335  | MT011  |
| 450   | 180,21   | 7,8  | NT275                      | 0,82  | 0,41    | 0,26   | 0,24   | 0,15   | 0,11   | 6700  | 727   | 41  |  | NT011  |
| 450   | 205,95   | 6,8  |                            | 0,72  | 0,36    | 0,26   | 0,21   | 0,13   | 0,10   | 6700  | 746   |   |  |  |
| 450   | 215,91   | 6,5  |                            | 0,68  | 0,34    | 0,24   | 0,20   | 0,12   | 0,09   | 6700  | 753   |   |  |  |
| 450   | 252,20   | 5,6  |                            | 0,59  | 0,29    | 0,21   | 0,17   | 0,10   | 0,08   | 6700  | 797   |   |  |  |
| 450   | 332,52   | 4,2  |                            | 0,49  | 0,25    | 0,18   | 0,15   | 0,09   | 0,07   | 6700  | 799   |   |  |  |
| 450   | 358,33   | 3,9  |                            | 0,46  | 0,23    | 0,16   | 0,14   | 0,08   | 0,06   | 6700  | 804   |   |  |  |
| 450   | 418,57   | 3,3  |                            | 0,39  | 0,20    | 0,14   | 0,12   | 0,07   | 0,05   | 6700  | 816   |   |  |  |
| 450   | 499,32   | 2,8  |                            | 0,33  | 0,16    | 0,12   | 0,10   | 0,06   | 0,05   | 6700  | 826   |   |  |  |
| 450   | 598,70   | 2,3  |                            | 0,28  | 0,14    | 0,10   | 0,08   | 0,05   | 0,04   | 6700  | 836   |   |  |  |
| 450   | 724,01   | 1,9  |                            | 0,25  | 0,11    | 0,08   | 0,07   | 0,04   | 0,03   | 6700  | 841   |   |  |  |
| 450   | 827,44   | 1,7  |                            | 0,22  | 0,10    | 0,07   | 0,06   | 0,04   | 0,03   | 6700  | 846   |   |  |  |
| 450   | 952,64   | 1,5  |                            | 0,19  | 0,09    | 0,06   | 0,05   | 0,03   | 0,02   | 6700  | 851   |   |  |  |
| 450   | 1120,49  | 1,2  |                            | 0,16  | 0,07    | 0,05   | 0,04   | 0,03   | 0,02   | 6700  | 853   |   |  |  |
| 450   | 1194,61  | 1,2  |                            | 0,15  | 0,07    | 0,05   | 0,04   | 0,02   | 0,02   | 6700  | 853   |   |  |  |
| 450   | 1463,49  | 0,96   | MT276                      | 0,13  | 0,06    | 0,04   | 0,03   | 0,02   | 0,02   | 6700  | 869   | 40  | 335  | MT012  |
| 450   | 1769,80  | 0,79   | NT276                      | 0,11  | 0,05    | 0,03   | 0,03   | 0,02   | 0,01   | 6700  | 858   | 42  |  | NT012  |
| 450   | 2022,63  | 0,69   |                            | 0,09  | 0,04    | 0,03   | 0,02   | 0,01   | 0,01   | 6700  | 862   |   |  |  |
| 450   | 2328,68  | 0,60   |                            | 0,08  | 0,04    | 0,03   | 0,02   | 0,01   | 0,01   | 6700  | 864   |   |  |  |
| 450   | 2738,97  | 0,51   |                            | 0,07  | 0,03    | 0,02   | 0,02   | 0,01   | 0,01   | 6700  | 858   |   |  |  |
| 450   | 2920,17  | 0,48   |                            | 0,06  | 0,03    | 0,02   | 0,02   | 0,01   | 0,01   | 6700  | 864   |   |  |  |
| 220   | 3,15   | 444  | MT282                      | 16,25   | 10,56   | 7,74   | 6,72   | 4,98   | 4,24   | 2357  | -   | 37  | 336  | MT013  |
| 240   | 3,64   | 385  | NT282                      | 15,74   | 9,99    | 7,51   | 6,72   | 4,58   | 3,99   | 2305  | -   | 39  |  | NT013  |
| 260   | 4,20   | 333  |                            | 15,06   | 9,37    | 7,44   | 6,40   | 4,55   | 3,82   | 2266  | -   |   |  |  |
| 280   | 4,62   | 303  |                            | 15,02   | 9,18    | 7,40   | 6,35   | 4,36   | 3,64   | 2125  | -   |   |  |  |
| 320   | 5,35   | 262  |                            | 14,67   | 9,07    | 7,31   | 6,25   | 4,32   | 3,72   | 1757  | -   |   |  |  |
| 360   | 6,25   | 224  |                            | 14,02   | 8,74    | 6,58   | 5,88   | 4,17   | 3,55   | 1430  | -   |   |  |  |
| 370   | 7,21   | 194  |                            | 12,15   | 7,79    | 5,83   | 5,21   | 3,75   | 3,13   | 2610  | -   |   |  |  |
| 390   | 8,33   | 168  |                            | 10,90   | 7,11    | 5,29   | 4,71   | 3,31   | 2,76   | 2710  | -   |   |  |  |
| 400   | 9,61   | 146  |                            | 9,75  | 6,32    | 4,69   | 4,16   | 2,97   | 2,39   | 2985  | 160   |   |  |  |
| 410   | 10,57  | 132  |                            | 9,16  | 5,90    | 4,36   | 3,87   | 2,79   | 2,18   | 3124  | 215   |   |  |  |
| 420   | 12,24  | 114  |                            | 8,42  | 5,22    | 3,93   | 3,48   | 2,41   | 1,88   | 3448  | 347   |   |  |  |
| 440   | 14,31  | 98   |                            | 7,43  | 4,69    | 3,57   | 3,15   | 2,07   | 1,61   | 3669  | 359   |   |  |  |
| 470   | 16,91  | 83   |                            | 6,65  | 4,25    | 3,14   | 2,77   | 1,75   | 1,36   | 3804  | 267   |   |  |  |
| 480   | 19,06  | 73   |                            | 6,07  | 3,85    | 2,90   | 2,59   | 1,56   | 1,21   | 4101  | 310   |   |  |  |
| 500   | 21,66  | 65   |                            | 5,63  | 3,54    | 2,64   | 2,28   | 1,37   | 1,07   | 4294  | 252   |   |  |  |
| 530   | 25,23  | 55   |                            | 5,08  | 3,22    | 2,35   | 1,96   | 1,18   | 0,92   | 4457  | 122   |   |  |  |
| 560   | 30,37  | 46   |                            | 4,43  | 2,83    | 1,95   | 1,63   | 0,98   | 0,76   | 4802  | -   |   |  |  |
| 270   | 18,33  | 76   | MT283                      | 3,52  | 2,28    | 1,80   | 1,64   | 1,18   | 1,03   | 6936  | 1848  | 38  | 336  | MT014  |
| 290   | 20,25  | 69   | NT283                      | 3,34  | 2,22    | 1,73   | 1,57   | 1,14   | 0,97   | 7197  | 1837  | 40  |  | NT014  |
| 320   | 23,63  | 59   |                            | 3,13  | 2,10    | 1,57   | 1,41   | 1,04   | 0,88   | 7612  | 1822  |   |  |  |
| 340   | 27,80  | 50   |                            | 2,78  | 1,90    | 1,44   | 1,30   | 0,94   | 0,81   | 5730  | 1821  |   |  |  |
| 480   | 30,82  | 45   |                            | 3,69  | 2,41    | 1,85   | 1,63   | 0,98   | 0,76   | 5615  | 1883  |   |  |  |
| 515   | 35,98  | 39   |                            | 3,34  | 2,22    | 1,67   | 1,39   | 0,84   | 0,66   | 5876  | 1886  |   |  |  |
| 550   | 41,96  | 33   |                            | 3,16  | 2,03    | 1,43   | 1,20   | 0,72   | 0,56   | 6155  | 1893  |   |  |  |
| 570   | 46,37  | 30   |                            | 2,93  | 1,91    | 1,30   | 1,08   | 0,65   | 0,51   | 6358  | 1896  |   |  |  |



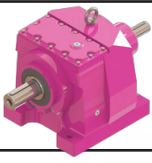
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



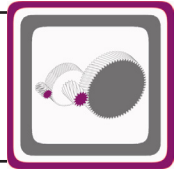
| Anma Momenti<br><i>Nominal Torques</i><br>Nenn-drehmomente<br>Ma [Nm]<br>(n1=1400rpm) | Çevrim Oranı<br><i>Ratio</i><br>Übersetzung<br>i | Çıkış Devri<br><i>Output Speeds</i><br>Abtriebs-drehzahlen<br>n2 [r.p.m]<br>(n1=1400rpm) | Tipi<br><i>Type</i><br>Typ | Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)<br><i>Pe= Nominal Power [kW] (For Service Factor fs=1,0)</i><br>Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) |         |        |        |        |        | Güv. Rad.Yük Çıkış<br><i>Per.O.Loads (Output)</i><br>Zul.Querkräfte (Abtrieb)<br>Fqam [N]<br>(n1=1400rpm) | Güv.Rad.Yük Giriş<br><i>Per.O.Loads (Input)</i><br>Zul.Querkräfte (Antrieb)<br>Fqem [N]<br>(n1=1400rpm) | Ağırlık<br><i>Weight</i><br>Gewicht<br>[kg] | Ölçü Sayfası<br><i>Dim. Page</i><br>Maße Seite | Fiyat Kodu<br><i>Price Ref.</i><br>Preis No. |
|---|--|--|----------------------------|---|---------|--------|--------|--------|--------|---|---|---|--|--|
|   |  |  |                            | Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]   |         |        |        |        |        |   |   |   |  |  |
|   |  |  |                            | n1=2800   | n1=1400 | n1=900 | n1=750 | n1=450 | n1=350 |   |   |   |  |  |
|   |  |  |                            |   |         |        |        |        |        |   |   |   |  |  |
| 600   | 54,12  | 26   | MT283                      | 2,63  | 1,73    | 1,11   | 0,93   | 0,56   | 0,44   | 6694  | 1900  | 38  | 336  | MT014  |
| 600   | 63,65  | 22   | NT283                      | 2,39  | 1,47    | 0,95   | 0,79   | 0,48   | 0,37   | 7195  | 1920  | 40  |  | NT014  |
| 600   | 75,68  | 18   |                            | 2,18  | 1,24    | 0,80   | 0,67   | 0,40   | 0,31   | 7758  | 1939  |   |  |  |
| 600   | 85,60  | 16   |                            | 2,01  | 1,10    | 0,71   | 0,59   | 0,36   | 0,28   | 8180  | 1950  |   |  |  |
| 600   | 97,62  | 14   |                            | 1,86  | 0,97    | 0,62   | 0,52   | 0,31   | 0,27   | 8649  | 1961  |   |  |  |
| 600   | 114,14   | 12   |                            | 1,65  | 0,83    | 0,54   | 0,45   | 0,27   | 0,23   | 9150  | 1972  |   |  |  |
| 600   | 137,91   | 10   |                            | 1,37  | 0,69    | 0,45   | 0,37   | 0,25   | 0,19   | 9150  | 1982  |   |  |  |
| 600   | 158,52   | 8,8  | MT284                      | 1,21  | 0,60    | 0,39   | 0,32   | 0,22   | 0,17   | 9150  | 1602  | 39  | 337  | MT015  |
| 600   | 175,17   | 8,0  | NT284                      | 1,09  | 0,55    | 0,35   | 0,29   | 0,20   | 0,15   | 9150  | 1625  | 41  |  | NT015  |
| 600   | 204,44   | 6,8  |                            | 0,94  | 0,47    | 0,30   | 0,25   | 0,17   | 0,13   | 9150  | 1656  |   |  |  |
| 600   | 240,47   | 5,8  |                            | 0,80  | 0,40    | 0,26   | 0,24   | 0,14   | 0,11   | 9150  | 1684  |   |  |  |
| 600   | 285,89   | 4,9  |                            | 0,67  | 0,34    | 0,24   | 0,20   | 0,12   | 0,09   | 9150  | 1709  |   |  |  |
| 600   | 323,39   | 4,3  |                            | 0,60  | 0,30    | 0,21   | 0,18   | 0,11   | 0,08   | 9150  | 1725  |   |  |  |
| 600   | 368,77   | 3,8  |                            | 0,52  | 0,26    | 0,19   | 0,16   | 0,09   | 0,07   | 9150  | 1739  |   |  |  |
| 600   | 431,18   | 3,2  |                            | 0,50  | 0,25    | 0,18   | 0,15   | 0,09   | 0,07   | 9150  | 1800  |   |  |  |
| 600   | 376,94   | 3,7  | MT285                      | 0,52  | 0,26    | 0,19   | 0,16   | 0,09   | 0,07   | 9150  | 1066  | 58  | 338  | MT016  |
| 600   | 443,37   | 3,2  | NT285                      | 0,50  | 0,25    | 0,18   | 0,15   | 0,09   | 0,07   | 9150  | 1082  | 60  |  | NT016  |
| 600   | 491,50   | 2,8  |                            | 0,45  | 0,22    | 0,16   | 0,13   | 0,08   | 0,06   | 9150  | 1091  |   |  |  |
| 600   | 573,81   | 2,4  |                            | 0,38  | 0,19    | 0,14   | 0,11   | 0,07   | 0,05   | 9150  | 1102  |   |  |  |
| 600   | 669,25   | 2,1  |                            | 0,33  | 0,16    | 0,12   | 0,10   | 0,06   | 0,05   | 9150  | 1112  |   |  |  |
| 600   | 739,53   | 1,9  |                            | 0,30  | 0,15    | 0,11   | 0,09   | 0,05   | 0,04   | 9150  | 1117  |   |  |  |
| 600   | 863,11   | 1,6  |                            | 0,25  | 0,13    | 0,09   | 0,08   | 0,05   | 0,04   | 9150  | 1125  |   |  |  |
| 600   | 1015,21  | 1,4  |                            | 0,24  | 0,11    | 0,08   | 0,06   | 0,04   | 0,03   | 9150  | 1132  |   |  |  |
| 600   | 1206,98  | 1,2  |                            | 0,20  | 0,09    | 0,07   | 0,05   | 0,03   | 0,03   | 9150  | 1138  |   |  |  |
| 600   | 1365,28  | 1,0  |                            | 0,18  | 0,08    | 0,06   | 0,05   | 0,03   | 0,02   | 9150  | 1142  |   |  |  |
| 600   | 1817,07  | 0,77   | MT286                      | 0,14  | 0,06    | 0,04   | 0,04   | 0,02   | 0,02   | 9150  | 1149  | 59  | 338  | MT017  |
| 600   | 2119,30  | 0,66   | NT286                      | 0,12  | 0,05    | 0,04   | 0,03   | 0,02   | 0,01   | 9150  | 1152  | 61  |  | NT017  |
| 600   | 2341,83  | 0,60   |                            | 0,11  | 0,05    | 0,03   | 0,03   | 0,02   | 0,01   | 9150  | 1154  |   |  |  |
| 600   | 2733,17  | 0,51   |                            | 0,09  | 0,04    | 0,03   | 0,02   | 0,01   | 0,01   | 9150  | 1156  |   |  |  |
| 600   | 3214,82  | 0,44   |                            | 0,08  | 0,04    | 0,03   | 0,02   | 0,01   | 0,01   | 9150  | 1158  |   |  |  |
| 385   | 3,28   | 427  | MT372                      | 27,93   | 17,70   | 13,20  | 11,76  | 8,35   | 7,08   | 975   | -   | 45  | 339  | MT018  |
| 410   | 3,74   | 374  | NT372                      | 26,10   | 16,54   | 12,49  | 11,07  | 7,91   | 6,67   | 879   | -   | 48  |  | NT018  |
| 445   | 4,29   | 326  |                            | 24,53   | 15,67   | 11,69  | 10,33  | 7,41   | 6,26   | 633   | -   |   |  |  |
| 475   | 4,96   | 282  |                            | 22,77   | 14,49   | 10,82  | 9,61   | 6,87   | 5,81   | 518   | -   |   |  |  |
| 510   | 5,23   | 268  |                            | 23,03   | 14,75   | 11,00  | 9,80   | 6,93   | 5,91   | 1064  | -   |   |  |  |
| 530   | 5,97   | 235  |                            | 21,21   | 13,45   | 10,14  | 9,01   | 6,41   | 5,25   | 1160  | -   |   |  |  |
| 560   | 6,84   | 205  |                            | 18,95   | 12,40   | 9,28   | 8,22   | 5,88   | 4,58   | 1131  | -   |   |  |  |
| 560   | 8,25   | 170  |                            | 16,10   | 10,29   | 7,70   | 6,82   | 4,88   | 3,80   | 2471  | -   |   |  |  |
| 590   | 9,41   | 149  |                            | 14,76   | 9,51    | 7,07   | 6,24   | 4,28   | 3,33   | 2511  | -   |   |  |  |
| 620   | 10,80  | 130  |                            | 13,73   | 8,72    | 6,44   | 5,75   | 3,73   | 2,91   | 2594  | -   |   |  |  |
| 650   | 12,48  | 112  |                            | 12,38   | 7,93    | 5,94   | 5,25   | 3,24   | 2,52   | 2731  | -   |   |  |  |
| 670   | 13,53  | 103  |                            | 11,86   | 7,53    | 5,58   | 4,96   | 2,98   | 2,32   | 2772  | -   |   |  |  |
| 710   | 16,20  | 86   |                            | 10,48   | 6,68    | 4,97   | 4,15   | 2,49   | 1,94   | 2965  | -   |   |  |  |
| 740   | 18,45  | 76   |                            | 9,71  | 6,12    | 4,37   | 3,65   | 2,19   | 1,71   | 3118  | -   |   |  |  |
| 770   | 20,62  | 68   |                            | 8,99  | 5,70    | 3,91   | 3,26   | 1,96   | 1,53   | 3205  | -   |   |  |  |
| 805   | 23,33  | 60   |                            | 8,22  | 5,27    | 3,46   | 2,89   | 1,74   | 1,35   | 3300  | -   |   |  |  |
| 650   | 18,68  | 75   | MT373                      | 8,33  | 5,35    | 3,99   | 3,55   | 2,19   | 1,71   | 5079  | 1113  | 47  | 339  | MT019  |
| 650   | 20,64  | 68   | NT373                      | 7,55  | 4,85    | 3,71   | 3,30   | 1,99   | 1,55   | 5333  | 1278  | 50  |  | NT019  |
| 650   | 21,65  | 65   |                            | 7,20  | 4,62    | 3,58   | 3,14   | 1,90   | 1,48   | 5601  | 1576  |   |  |  |
| 710   | 25,27  | 55   |                            | 6,54  | 4,33    | 3,23   | 2,70   | 1,63   | 1,27   | 5809  | 1571  |   |  |  |
| 750   | 29,47  | 47   |                            | 5,92  | 3,92    | 2,77   | 2,31   | 1,39   | 1,09   | 6105  | 1590  |   |  |  |
| 780   | 35,25  | 40   |                            | 5,23  | 3,42    | 2,32   | 1,94   | 1,17   | 0,91   | 6536  | 1756  |   |  |  |
| 820   | 41,16  | 34   |                            | 4,67  | 3,09    | 1,99   | 1,67   | 1,00   | 0,78   | 6887  | 1771  |   |  |  |
| 820   | 48,00  | 29   |                            | 4,11  | 2,65    | 1,71   | 1,43   | 0,86   | 0,67   | 7400  | 1810  |   |  |  |
| 820   | 53,04  | 26   |                            | 3,95  | 2,40    | 1,55   | 1,29   | 0,78   | 0,61   | 7747  | 1830  |   |  |  |
| 820   | 61,91  | 23   |                            | 3,40  | 2,06    | 1,33   | 1,11   | 0,67   | 0,52   | 8307  | 1856  |   |  |  |



# Motorsuz Güç Devir Sayfaları

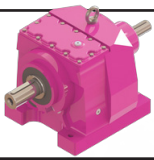
## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



| Anma Momenti<br><i>Nominal Torques</i><br>Nenn-drehmomente<br>Ma [Nm]<br>(n1=1400rpm) | Çevrim Oranı<br><i>Ratio</i><br>Übersetzung<br>i | Çıkış Devri<br><i>Output Speeds</i><br>Abtriebs-drehzahlen<br>n2 [r.p.m]<br>(n1=1400rpm) | Tipi<br><i>Type</i><br>Typ | Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)<br><i>Pe= Nominal Power [kW] (For Service Factor fs=1,0)</i><br>Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) |              |        |        |        |        | Güv. Rad.Yük Çıkış<br><i>Per.O.Loads (Output)</i><br>Zul.Querkräfte (Abtrieb)<br>Fqam [N]<br>(n1=1400rpm) | Güv.Rad.Yük Giriş<br><i>Per.O.Loads (Input)</i><br>Zul.Querkräfte (Antrieb)<br>Fqem [N]<br>(n1=1400rpm) | Ağırlık<br><i>Weight</i><br>Gewicht<br>[kg] | Ölçü Sayfası<br><i>Dim. Page</i><br>Maße Seite | Fiyat Kodu<br><i>Price Ref.</i><br>Preis No. |
|---|--|--|----------------------------|---|--------------|--------|--------|--------|--------|---|---|---|--|--|
|   |  |  |                            | Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]   |              |        |        |        |        |   |   |   |  |  |
|   |  |  |                            | n1=2800   | n1=1400      | n1=900 | n1=750 | n1=450 | n1=350 |   |   |   |  |  |
|   |  |  |                            |   |              |        |        |        |        |   |   |   |  |  |
| <b>820</b>  | 72,81  | 19   | <b>MT373</b>               | 3,04  | <b>1,76</b>  | 1,13   | 0,95   | 0,57   | 0,44   | 8927  | 1881  | 47  | 339  | MT019  |
| <b>820</b>  | 86,57  | 16   | <b>NT373</b>               | 2,73  | <b>1,48</b>  | 0,96   | 0,80   | 0,48   | 0,37   | 9627  | 1902  | 50  |  | NT019  |
| <b>820</b>  | 97,92  | 14   |                            | 2,52  | <b>1,31</b>  | 0,85   | 0,71   | 0,43   | 0,33   | 10150   | 1916  |   |  |  |
| <b>820</b>  | 111,67   | 13   |                            | 2,30  | <b>1,16</b>  | 0,75   | 0,62   | 0,37   | 0,29   | 10732   | 1928  |   |  |  |
| <b>820</b>  | 138,72   | 10   |                            | 1,86  | <b>0,93</b>  | 0,60   | 0,50   | 0,30   | 0,26   | 11600   | 1945  |   |  |  |
| <b>820</b>  | 157,76   | 8,9  |                            | 1,64  | <b>0,82</b>  | 0,53   | 0,44   | 0,27   | 0,23   | 11600   | 1954  |   |  |  |
| <b>820</b>  | 181,34   | 7,7  | <b>MT374</b>               | 1,44  | <b>0,72</b>  | 0,46   | 0,39   | 0,26   | 0,20   | 11600   | 757   | 57  | 340  | MT020  |
| <b>820</b>  | 200,38   | 7,0  | <b>NT374</b>               | 1,31  | <b>0,65</b>  | 0,42   | 0,35   | 0,23   | 0,18   | 11600   | 897   | 60  |  | NT020  |
| <b>820</b>  | 233,86   | 6,0  |                            | 1,12  | <b>0,56</b>  | 0,36   | 0,30   | 0,20   | 0,16   | 11600   | 1620  |   |  |  |
| <b>820</b>  | 275,08   | 5,1  |                            | 0,95  | <b>0,48</b>  | 0,31   | 0,26   | 0,17   | 0,13   | 11600   | 1653  |   |  |  |
| <b>820</b>  | 327,04   | 4,3  |                            | 0,80  | <b>0,40</b>  | 0,26   | 0,24   | 0,14   | 0,11   | 11600   | 1683  |   |  |  |
| <b>820</b>  | 369,93   | 3,8  |                            | 0,71  | <b>0,36</b>  | 0,25   | 0,21   | 0,13   | 0,10   | 11600   | 1702  |   |  |  |
| <b>820</b>  | 421,85   | 3,3  |                            | 0,62  | <b>0,31</b>  | 0,22   | 0,19   | 0,11   | 0,09   | 11600   | 1719  |   |  |  |
| <b>820</b>  | 524,07   | 2,7  |                            | 0,50  | <b>0,25</b>  | 0,18   | 0,15   | 0,09   | 0,07   | 11600   | 1743  |   |  |  |
| <b>820</b>  | 488,82   | 2,9  | <b>MT375</b>               | 0,55  | <b>0,28</b>  | 0,20   | 0,16   | 0,10   | 0,08   | 11600   | 1090  | 63  | 341  | MT021  |
| <b>820</b>  | 533,70   | 2,6  | <b>NT375</b>               | 0,51  | <b>0,25</b>  | 0,18   | 0,15   | 0,09   | 0,07   | 11600   | 1093  | 66  |  | NT021  |
| <b>820</b>  | 631,45   | 2,2  |                            | 0,47  | <b>0,24</b>  | 0,17   | 0,14   | 0,08   | 0,07   | 11600   | 1097  |   |  |  |
| <b>820</b>  | 676,02   | 2,1  |                            | 0,44  | <b>0,22</b>  | 0,16   | 0,13   | 0,08   | 0,06   | 11600   | 1099  |   |  |  |
| <b>820</b>  | 765,58   | 1,8  |                            | 0,39  | <b>0,20</b>  | 0,14   | 0,12   | 0,07   | 0,05   | 11600   | 1101  |   |  |  |
| <b>820</b>  | 845,97   | 1,7  |                            | 0,36  | <b>0,18</b>  | 0,13   | 0,11   | 0,06   | 0,05   | 11600   | 1107  |   |  |  |
| <b>820</b>  | 987,33   | 1,4  |                            | 0,30  | <b>0,15</b>  | 0,11   | 0,09   | 0,05   | 0,04   | 11600   | 1116  |   |  |  |
| <b>820</b>  | 1161,33  | 1,2  |                            | 0,26  | <b>0,13</b>  | 0,09   | 0,08   | 0,05   | 0,04   | 11600   | 1124  |   |  |  |
| <b>820</b>  | 1380,71  | 1,0  |                            | 0,24  | <b>0,11</b>  | 0,08   | 0,06   | 0,04   | 0,03   | 11600   | 1132  |   |  |  |
| <b>820</b>  | 1561,78  | 0,90   |                            | 0,21  | <b>0,10</b>  | 0,07   | 0,06   | 0,03   | 0,03   | 11600   | 1136  |   |  |  |
| <b>820</b>  | 1690,05  | 0,83   | <b>MT376</b>               | 0,20  | <b>0,09</b>  | 0,06   | 0,05   | 0,03   | 0,03   | 11600   | 1146  | 65  | 341  | MT022  |
| <b>820</b>  | 1999,59  | 0,70   | <b>NT376</b>               | 0,17  | <b>0,08</b>  | 0,05   | 0,05   | 0,03   | 0,02   | 11600   | 1147  | 68  |  | NT022  |
| <b>820</b>  | 2140,73  | 0,65   |                            | 0,16  | <b>0,07</b>  | 0,05   | 0,04   | 0,03   | 0,02   | 11600   | 1148  |   |  |  |
| <b>820</b>  | 2424,34  | 0,58   |                            | 0,14  | <b>0,06</b>  | 0,05   | 0,04   | 0,02   | 0,02   | 11600   | 1148  |   |  |  |
| <b>820</b>  | 2678,89  | 0,52   |                            | 0,13  | <b>0,06</b>  | 0,04   | 0,03   | 0,02   | 0,02   | 11600   | 1150  |   |  |  |
| <b>820</b>  | 3126,56  | 0,45   |                            | 0,11  | <b>0,05</b>  | 0,04   | 0,03   | 0,02   | 0,01   | 11600   | 1153  |   |  |  |
| <b>820</b>  | 3677,53  | 0,38   |                            | 0,09  | <b>0,04</b>  | 0,03   | 0,02   | 0,01   | 0,01   | 11600   | 1156  |   |  |  |
| <b>820</b>  | 4372,24  | 0,32   |                            | 0,08  | <b>0,04</b>  | 0,03   | 0,02   | 0,01   | 0,01   | 11600   | 1158  |   |  |  |
| <b>820</b>  | 4945,64  | 0,28   |                            | 0,07  | <b>0,03</b>  | 0,02   | 0,02   | 0,01   | 0,01   | 11600   | 1160  |   |  |  |
| <b>590</b>  | 3,27   | 429  | <b>MT472</b>               | -   | <b>27,21</b> | 20,52  | 18,11  | 13,00  | 11,06  | 5240  | -   | 76  | 342  | MT023  |
| <b>650</b>  | 3,83   | 365  | <b>MT473</b>               | 39,94   | <b>25,56</b> | 19,02  | 16,93  | 12,11  | 10,23  | 5434  | -   | 80  |  | NT023  |
| <b>710</b>  | 4,54   | 309  |                            | 37,12   | <b>23,63</b> | 17,60  | 15,58  | 11,22  | 9,50   | 5672  | -   |   |  |  |
| <b>800</b>  | 4,89   | 287  |                            | 39,93   | <b>24,68</b> | 18,11  | 16,11  | 11,30  | 9,50   | 5567  | -   |   |  |  |
| <b>925</b>  | 5,66   | 247  |                            | -   | <b>24,70</b> | 18,51  | 16,31  | 11,46  | 9,61   | 5876  | -   |   |  |  |
| <b>985</b>  | 6,65   | 211  |                            | 36,28   | <b>22,43</b> | 16,52  | 14,52  | 10,22  | 8,56   | 6172  | -   |   |  |  |
| <b>1020</b>   | 7,87   | 178  |                            | 32,05   | <b>19,67</b> | 14,48  | 12,81  | 9,02   | 7,54   | 6595  | -   |   |  |  |
| <b>1025</b>   | 8,47   | 165  |                            | 29,71   | <b>18,32</b> | 13,49  | 11,88  | 8,37   | 6,99   | 6822  | -   |   |  |  |
| <b>1050</b>   | 9,53   | 147  |                            | 27,23   | <b>16,70</b> | 12,41  | 10,95  | 7,68   | 6,22   | 7144  | -   |   |  |  |
| <b>1100</b>   | 10,79  | 130  |                            | 25,06   | <b>15,47</b> | 11,38  | 10,03  | 7,04   | 5,50   | 7430  | -   |   |  |  |
| <b>1165</b>   | 12,05  | 116  |                            | 23,66   | <b>14,65</b> | 10,78  | 9,50   | 6,31   | 4,91   | 7798  | -   |   |  |  |
| <b>1205</b>   | 13,56  | 103  |                            | 21,83   | <b>13,48</b> | 9,92   | 8,76   | 5,61   | 4,37   | 8130  | -   |   |  |  |
| <b>1250</b>   | 15,35  | 91   |                            | 19,99   | <b>12,37</b> | 9,09   | 8,01   | 4,96   | 3,87   | 8491  | -   |   |  |  |
| <b>1295</b>   | 17,25  | 81   |                            | 18,44   | <b>11,42</b> | 8,39   | 7,35   | 4,42   | 3,44   | 8840  | -   |   |  |  |
| <b>1450</b>   | 18,72  | 75   |                            | 19,72   | <b>11,77</b> | 8,11   | 6,77   | 4,07   | 3,17   | 8737  | -   |   |  |  |
| <b>1455</b>   | 22,15  | 63   |                            | 16,97   | <b>10,00</b> | 6,87   | 5,73   | 3,45   | 2,68   | 9470  | -   |   |  |  |
| <b>1550</b>   | 18,04  | 78   | <b>MT473</b>               | 13,47   | <b>13,14</b> | 8,49   | 7,09   | 4,27   | 3,33   | 8072  | -   | 78  | 342  | MT024  |
| <b>1550</b>   | 21,74  | 64   | <b>NT473</b>               | 12,60   | <b>10,93</b> | 7,06   | 5,89   | 3,56   | 2,77   | 8893  | -   | 82  |  | NT024  |
| <b>1550</b>   | 25,67  | 55   |                            | 13,63   | <b>9,24</b>  | 5,97   | 4,99   | 3,01   | 2,34   | 9884  | 565   |   |  |  |
| <b>1550</b>   | 30,93  | 45   |                            | 12,32   | <b>7,69</b>  | 4,97   | 4,15   | 2,50   | 1,95   | 10807   | 996   |   |  |  |
| <b>1550</b>   | 37,45  | 37   |                            | 10,20   | <b>6,37</b>  | 4,11   | 3,43   | 2,07   | 1,61   | 11817   | 1362  |   |  |  |
| <b>1550</b>   | 42,75  | 33   |                            | 9,35  | <b>5,59</b>  | 3,61   | 3,02   | 1,82   | 1,42   | 12553   | 1563  |   |  |  |

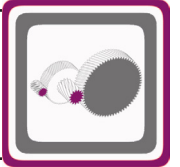




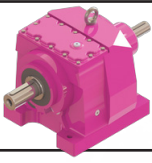
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



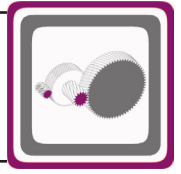
| Anma Momenti<br>Nominal Torques<br>Nenn-drehmomente<br>Ma [Nm]<br>(n1=1400rpm) | Çevrim Oranı<br>Ratio<br>Übersetzung<br>i | Çıkış Devri<br>Output Speeds<br>Abtriebs-drehzahlen<br>n2 [r.p.m]<br>(n1=1400rpm) | Tipi<br>Type<br>Typ | Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)<br>Pe= Nominal Power [kW] (For Service Factor fs=1,0)<br>Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) |         |        |        |        |        | Güv. Rad.Yük Çıkış<br>Per.O.Loads (Output)<br>Zul.Querkräfte (Abtrieb)<br>Fqam [N]<br>(n1=1400rpm) | Güv.Rad.Yük Giriş<br>Per.O.Loads (Input)<br>Zul.Querkräfte (Antrieb)<br>Fqem [N]<br>(n1=1400rpm) | Ağırlık<br>Weight<br>Gewicht<br>[kg] | Ölçü Sayfası<br>Dim. Page<br>Maße Seite | Fiyat Kodu<br>Price Ref.<br>Preis No. |
|--|---|---|---------------------|--|---------|--------|--------|--------|--------|--|--|--------------------------------------|---|---------------------------------------|
|  |   |   |                     | Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]  |         |        |        |        |        |  |  |                                      |   |                                       |
|  |   |   |                     | n1=2800  | n1=1400 | n1=900 | n1=750 | n1=450 | n1=350 |  |  |                                      |   |                                       |
|  |   |   |                     |  |         |        |        |        |        |  |  |                                      |   |                                       |
| 1550   | 49,05                                     | 29  | MT473               | 8,54   | 4,88    | 3,15   | 2,63   | 1,59   | 1,24   | 13354  | 1614   | 78                                   | 342                                     | MT024                                 |
| 1550   | 55,82                                     | 25  | NT473               | 7,75   | 4,29    | 2,77   | 2,31   | 1,39   | 1,09   | 14141  | 1848   | 82                                   |   | NT024                                 |
| 1550   | 63,70                                     | 22  |                     | 7,00   | 3,77    | 2,43   | 2,03   | 1,22   | 0,95   | 14982  | 1886   |                                      |   |                                       |
| 1550   | 73,09                                     | 19  |                     | 6,52   | 3,29    | 2,13   | 1,77   | 1,07   | 0,83   | 15600  | 1920   |                                      |   |                                       |
| 1550   | 84,46                                     | 17  |                     | 5,67   | 2,86    | 1,84   | 1,54   | 0,93   | 0,72   | 15600  | 1952   |                                      |   |                                       |
| 1550   | 86,52                                     | 16  |                     | 5,53   | 2,79    | 1,80   | 1,50   | 0,90   | 0,70   | 15600  | 1959   |                                      |   |                                       |
| 1550   | 91,58                                     | 15  |                     | 5,23   | 2,63    | 1,70   | 1,42   | 0,85   | 0,67   | 15600  | 1970   |                                      |   |                                       |
| 1550   | 109,64                                    | 13  |                     | 4,38   | 2,21    | 1,42   | 1,19   | 0,72   | 0,56   | 15600  | 2000   |                                      |   |                                       |
| 1550   | 124,85                                    | 11  |                     | 3,86   | 1,94    | 1,25   | 1,05   | 0,63   | 0,49   | 15600  | 2019   |                                      |   |                                       |
| 1550   | 139,54                                    | 10  |                     | 3,46   | 1,74    | 1,12   | 0,94   | 0,56   | 0,44   | 15600  | 2036   |                                      |   |                                       |
| 1550   | 157,90                                    | 8,9   |                     | 3,06   | 1,54    | 0,99   | 0,83   | 0,50   | 0,39   | 15600  | 2049   |                                      |   |                                       |
| 1550   | 194,05                                    | 7,2   |                     | 2,51   | 1,26    | 0,81   | 0,68   | 0,41   | 0,32   | 15600  | 2068   |                                      |   |                                       |
| 1550   | 219,00                                    | 6,4   |                     | 2,22   | 1,12    | 0,72   | 0,60   | 0,36   | 0,28   | 15600  | 2077   |                                      |   |                                       |
| 1550   | 229,46                                    | 6,1   | MT474               | 2,15   | 1,07    | 0,69   | 0,57   | 0,34   | 0,27   | 15600  | 1490   | 72                                   | 343                                     | MT025                                 |
| 1550   | 259,55                                    | 5,4   | NT474               | 1,90   | 0,95    | 0,61   | 0,51   | 0,31   | 0,26   | 15600  | 1500   | 76                                   |   | NT025                                 |
| 1550   | 295,98                                    | 4,7   |                     | 1,67   | 0,83    | 0,54   | 0,45   | 0,27   | 0,23   | 15600  | 1509   |                                      |   |                                       |
| 1550   | 346,07                                    | 4,0   |                     | 1,43   | 0,71    | 0,46   | 0,38   | 0,26   | 0,20   | 15600  | 1518   |                                      |   |                                       |
| 1550   | 418,16                                    | 3,3   |                     | 1,19   | 0,59    | 0,38   | 0,32   | 0,21   | 0,16   | 15600  | 1527   |                                      |   |                                       |
| 1550   | 442,61                                    | 3,2   |                     | 1,12   | 0,56    | 0,36   | 0,30   | 0,20   | 0,16   | 15600  | 1539   |                                      |   |                                       |
| 1550   | 529,93                                    | 2,6   |                     | 0,94   | 0,47    | 0,30   | 0,25   | 0,17   | 0,13   | 15600  | 1573   |                                      |   |                                       |
| 1550   | 603,46                                    | 2,3   |                     | 0,82   | 0,41    | 0,26   | 0,25   | 0,15   | 0,11   | 15600  | 1594   |                                      |   |                                       |
| 1550   | 674,46                                    | 2,1   |                     | 0,74   | 0,37    | 0,26   | 0,22   | 0,13   | 0,10   | 15600  | 1610   |                                      |   |                                       |
| 1550   | 726,85                                    | 1,9   | MT475               | 0,70   | 0,35    | 0,25   | 0,21   | 0,12   | 0,10   | 15600  | 1772   | 88                                   | 344                                     | MT026                                 |
| 1550   | 871,52                                    | 1,6   | NT475               | 0,58   | 0,29    | 0,21   | 0,17   | 0,10   | 0,08   | 15600  | 1778   | 92                                   |   | NT026                                 |
| 1550   | 934,94                                    | 1,5   |                     | 0,54   | 0,27    | 0,19   | 0,16   | 0,10   | 0,08   | 15600  | 1779   |                                      |   |                                       |
| 1550   | 1053,93                                   | 1,3   |                     | 0,54   | 0,27    | 0,19   | 0,16   | 0,10   | 0,07   | 15600  | 1783   |                                      |   |                                       |
| 1550   | 1204,49                                   | 1,2   |                     | 0,47   | 0,23    | 0,17   | 0,14   | 0,08   | 0,07   | 15600  | 1785   |                                      |   |                                       |
| 1550   | 1285,79                                   | 1,1   |                     | 0,44   | 0,22    | 0,16   | 0,13   | 0,08   | 0,06   | 15600  | 1787   |                                      |   |                                       |
| 1550   | 1386,75                                   | 1,0   |                     | 0,41   | 0,20    | 0,15   | 0,12   | 0,07   | 0,06   | 15600  | 1788   |                                      |   |                                       |
| 1550   | 1631,08                                   | 0,86  |                     | 0,35   | 0,17    | 0,12   | 0,10   | 0,06   | 0,05   | 15600  | 1791   |                                      |   |                                       |
| 1550   | 1738,98                                   | 0,81  |                     | 0,33   | 0,16    | 0,12   | 0,10   | 0,06   | 0,05   | 15600  | 1792   |                                      |   |                                       |
| 1550   | 1990,76                                   | 0,70  |                     | 0,29   | 0,14    | 0,10   | 0,09   | 0,05   | 0,04   | 15600  | 1793   |                                      |   |                                       |
| 1550   | 2107,15                                   | 0,66  |                     | 0,27   | 0,13    | 0,10   | 0,08   | 0,05   | 0,04   | 15600  | 1796   |                                      |   |                                       |
| 1550   | 2522,85                                   | 0,55  |                     | 0,25   | 0,11    | 0,08   | 0,07   | 0,04   | 0,03   | 15600  | 1804   |                                      |   |                                       |
| 1550   | 3115,96                                   | 0,45  | MT476               | 0,21   | 0,09    | 0,07   | 0,06   | 0,03   | 0,03   | 15600  | 1822   | 90                                   | 344                                     | MT027                                 |
| 1550   | 3561,10                                   | 0,39  | NT476               | 0,18   | 0,08    | 0,06   | 0,05   | 0,03   | 0,02   | 15600  | 1823   | 94                                   |   | NT027                                 |
| 1550   | 3801,48                                   | 0,37  |                     | 0,17   | 0,08    | 0,05   | 0,05   | 0,03   | 0,02   | 15600  | 1824   |                                      |   |                                       |
| 1550   | 4099,95                                   | 0,34  |                     | 0,16   | 0,07    | 0,05   | 0,04   | 0,03   | 0,02   | 15600  | 1824   |                                      |   |                                       |
| 1550   | 4822,33                                   | 0,29  |                     | 0,13   | 0,06    | 0,04   | 0,04   | 0,02   | 0,02   | 15600  | 1825   |                                      |   |                                       |
| 1550   | 5141,34                                   | 0,27  |                     | 0,13   | 0,06    | 0,04   | 0,03   | 0,02   | 0,02   | 15600  | 1825   |                                      |   |                                       |
| 1550   | 5885,71                                   | 0,24  |                     | 0,11   | 0,05    | 0,04   | 0,03   | 0,02   | 0,01   | 15600  | 1826   |                                      |   |                                       |
| 1550   | 6229,83                                   | 0,22  |                     | 0,10   | 0,05    | 0,03   | 0,03   | 0,02   | 0,01   | 15600  | 1827   |                                      |   |                                       |
| 1550   | 7458,85                                   | 0,19  |                     | 0,09   | 0,04    | 0,03   | 0,02   | 0,01   | 0,01   | 15600  | 1830   |                                      |   |                                       |
| 1830   | 4,37                                      | 321   | MT572               | -  | 63,03   | 46,86  | 41,51  | 29,46  | 26,09  | 7626   | -  | 109                                  | 345                                     | MT053                                 |
| 1910   | 4,95                                      | 283   | NT572               | -  | 58,14   | 43,38  | 38,32  | 27,22  | 23,05  | 7727   | -  | 119                                  |   | NT053                                 |
| 1980   | 5,63                                      | 249   |                     | -  | 53,05   | 39,56  | 35,03  | 24,83  | 20,29  | 8090   | -  |                                      |   |                                       |
| 2080   | 6,43                                      | 218   |                     | -  | 48,78   | 36,29  | 32,05  | 22,79  | 17,76  | 8505   | -  |                                      |   |                                       |
| 2180   | 7,41                                      | 189   |                     | -  | 44,43   | 32,99  | 29,17  | 19,81  | 15,43  | 8933   | -  |                                      |   |                                       |
| 2160   | 8,34                                      | 168   |                     | -  | 39,13   | 28,85  | 25,34  | 17,60  | 13,71  | 9439   | -  |                                      |   |                                       |
| 2200   | 9,48                                      | 148   |                     | -  | 35,08   | 25,81  | 22,73  | 15,49  | 12,07  | 10015  | -  |                                      |   |                                       |
| 2250   | 10,85                                     | 129   |                     | -  | 31,40   | 23,13  | 20,42  | 13,56  | 10,56  | 10605  | -  |                                      |   |                                       |
| 2320   | 12,50                                     | 112   |                     | -  | 28,14   | 20,73  | 18,21  | 11,78  | 9,18   | 11248  | -  |                                      |   |                                       |
| 2390   | 14,54                                     | 96  |                     | 40,34  | 24,96   | 18,39  | 16,18  | 10,14  | 7,90   | 11965  | -  |                                      |   |                                       |
| 2460   | 17,07                                     | 82  |                     | 35,40  | 21,87   | 16,11  | 14,20  | 8,63   | 6,72   | 12809  | -  |                                      |   |                                       |
| 2520   | 19,15                                     | 73  |                     | 32,37  | 19,99   | 14,73  | 12,80  | 7,70   | 6,00   | 13383  | -  |                                      |   |                                       |
| 2650   | 23,02                                     | 61  |                     | 28,26  | 17,50   | 12,77  | 10,65  | 6,41   | 4,99   | 14468  | -  |                                      |   |                                       |
| 2750   | 27,00                                     | 52  |                     | 25,04  | 15,51   | 10,90  | 9,10   | 5,47   | 4,26   | 15633  | -  |                                      |   |                                       |



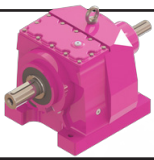
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



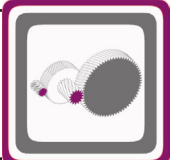
| Anma Momenti<br><i>Nominal Torques</i><br>Nenn-drehmomente<br>Ma [Nm]<br>(n1=1400rpm) | Çevrim Oranı<br><i>Ratio</i><br>Übersetzung<br>i | Çıkış Devri<br><i>Output Speeds</i><br>Abtriebs-drehzahlen<br>n2 [r.p.m]<br>(n1=1400rpm) | Tipi<br><i>Type</i><br>Typ | Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)<br><i>Pe= Nominal Power [kW] (For Service Factor fs=1,0)</i><br>Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) |              |        |        |        |        | Güv. Rad.Yük Çıkış<br><i>Per.O.Loads (Output)</i> | Güv.Rad.Yük Giriş<br><i>Per.O.Loads (Input)</i> | Ağırlık<br><i>Weight</i><br>Gewicht<br>[kg] | Ölçü Sayfası<br><i>Dim. Page</i><br>Maße Seite | Fiyat Kodu<br><i>Price Ref.</i><br>Preis No. |
|---|--|--|----------------------------|---|--------------|--------|--------|--------|--------|---|---|---|--|--|
|   |  |  |                            | Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]   |              |        |        |        |        |   |   |   |  |  |
|   |  |  |                            | n1=2800   | n1=1400      | n1=900 | n1=750 | n1=450 | n1=350 | Fqam [N]<br>(n1=1400rpm)                          | Fqem [N]<br>(n1=1400rpm)                        |   |  |  |
|   |  |  |                            |   |              |        |        |        |        |   |   |   |  |  |
| <b>2390</b>   | 22,64  | 62   | <b>MT573</b>               | 25,70   | <b>16,07</b> | 11,92  | 10,52  | 6,52   | 5,08   | 14923   | 578   | 111   | 345  | MT054  |
| <b>2520</b>   | 26,54  | 53   | <b>NT573</b>               | 23,12   | <b>14,52</b> | 10,75  | 9,32   | 5,62   | 4,38   | 15734   | 647   | 121   |  | NT054  |
| <b>2650</b>   | 31,38  | 45   |                            | 20,66   | <b>12,94</b> | 9,46   | 7,90   | 4,76   | 3,71   | 16788   | 710   |   |  |  |
| <b>2750</b>   | 35,31  | 40   |                            | 19,09   | <b>11,96</b> | 8,43   | 7,04   | 4,24   | 3,31   | 17736   | 704   |   |  |  |
| <b>2860</b>   | 39,98  | 35   |                            | 17,57   | <b>11,00</b> | 7,45   | 6,22   | 3,75   | 2,92   | 18777   | 668   |   |  |  |
| <b>3000</b>   | 48,74  | 29   |                            | 15,38   | <b>9,48</b>  | 6,12   | 5,11   | 3,08   | 2,40   | 19500   | 2669  |   |  |  |
| <b>3000</b>   | 54,74  | 26   |                            | 13,81   | <b>8,45</b>  | 5,45   | 4,55   | 2,74   | 2,14   | 19500   | 3008  |   |  |  |
| <b>3000</b>   | 64,72  | 22   |                            | 12,30   | <b>7,15</b>  | 4,62   | 3,85   | 2,32   | 1,81   | 19500   | 3078  |   |  |  |
| <b>3000</b>   | 72,81  | 19   |                            | 11,34   | <b>6,37</b>  | 4,11   | 3,43   | 2,07   | 1,61   | 19500   | 3121  |   |  |  |
| <b>3000</b>   | 82,45  | 17   |                            | 10,44   | <b>5,63</b>  | 3,64   | 3,04   | 1,83   | 1,43   | 19500   | 3161  |   |  |  |
| <b>3000</b>   | 100,53   | 14   |                            | 9,13  | <b>4,63</b>  | 2,99   | 2,49   | 1,50   | 1,17   | 19500   | 3213  |   |  |  |
| <b>3000</b>   | 118,95   | 12   |                            | 7,78  | <b>3,92</b>  | 2,53   | 2,11   | 1,27   | 0,99   | 19500   | 3250  |   |  |  |
| <b>3000</b>   | 134,45   | 10   |                            | 6,90  | <b>3,48</b>  | 2,24   | 1,87   | 1,13   | 0,88   | 19500   | 3274  |   |  |  |
| <b>3000</b>   | 153,61   | 9,1  |                            | 6,06  | <b>3,05</b>  | 1,97   | 1,64   | 0,99   | 0,77   | 19500   | 3296  |   |  |  |
| <b>3000</b>   | 167,32   | 8,4  |                            | 5,57  | <b>2,81</b>  | 1,81   | 1,51   | 0,91   | 0,71   | 19500   | 3311  |   |  |  |
| <b>3000</b>   | 194,15   | 7,2  | <b>MT574</b>               | 4,91  | <b>2,46</b>  | 1,58   | 1,32   | 0,79   | 0,61   | 19500   | 1627  | 128   | 346  | MT055  |
| <b>3000</b>   | 221,40   | 6,3  | <b>NT574</b>               | 4,32  | <b>2,16</b>  | 1,39   | 1,16   | 0,69   | 0,54   | 19500   | 1649  | 138   |  | NT055  |
| <b>3000</b>   | 258,87   | 5,4  |                            | 3,69  | <b>1,85</b>  | 1,19   | 0,99   | 0,59   | 0,46   | 19500   | 1673  |   |  |  |
| <b>3000</b>   | 291,25   | 4,8  |                            | 3,29  | <b>1,64</b>  | 1,06   | 0,88   | 0,53   | 0,41   | 19500   | 1738  |   |  |  |
| <b>3000</b>   | 301,59   | 4,6  |                            | 3,17  | <b>1,59</b>  | 1,02   | 0,85   | 0,51   | 0,40   | 19500   | 1852  |   |  |  |
| <b>3000</b>   | 343,91   | 4,1  |                            | 2,78  | <b>1,39</b>  | 0,90   | 0,75   | 0,45   | 0,35   | 19500   | 1867  |   |  |  |
| <b>3000</b>   | 402,12   | 3,5  |                            | 2,38  | <b>1,19</b>  | 0,77   | 0,64   | 0,38   | 0,30   | 19500   | 1882  |   |  |  |
| <b>3000</b>   | 485,89   | 2,9  |                            | 1,98  | <b>0,99</b>  | 0,64   | 0,53   | 0,32   | 0,27   | 19500   | 1897  |   |  |  |
| <b>3000</b>   | 574,90   | 2,4  |                            | 1,67  | <b>0,84</b>  | 0,54   | 0,45   | 0,27   | 0,23   | 19500   | 1953  |   |  |  |
| <b>3000</b>   | 620,62   | 2,3  | <b>MT575</b>               | 1,59  | <b>0,79</b>  | 0,51   | 0,43   | 0,26   | 0,22   | 19500   | 1535  | 132   | 347  | MT056  |
| <b>3000</b>   | 698,26   | 2,0  | <b>NT575</b>               | 1,41  | <b>0,71</b>  | 0,45   | 0,38   | 0,25   | 0,20   | 19500   | 1570  | 142   |  | NT056  |
| <b>3000</b>   | 790,68   | 1,8  |                            | 1,25  | <b>0,62</b>  | 0,40   | 0,33   | 0,22   | 0,17   | 19500   | 1601  |   |  |  |
| <b>3000</b>   | 964,05   | 1,5  |                            | 1,02  | <b>0,51</b>  | 0,33   | 0,27   | 0,18   | 0,14   | 19500   | 1645  |   |  |  |
| <b>3000</b>   | 1140,65  | 1,2  |                            | 0,87  | <b>0,43</b>  | 0,28   | 0,26   | 0,15   | 0,12   | 19500   | 1676  |   |  |  |
| <b>3000</b>   | 1259,61  | 1,1  |                            | 0,79  | <b>0,39</b>  | 0,25   | 0,23   | 0,14   | 0,11   | 19500   | 1691  |   |  |  |
| <b>3000</b>   | 1489,14  | 0,94   |                            | 0,67  | <b>0,33</b>  | 0,24   | 0,20   | 0,12   | 0,09   | 19500   | 1715  |   |  |  |
| <b>3000</b>   | 1675,43  | 0,84   |                            | 0,59  | <b>0,30</b>  | 0,21   | 0,18   | 0,11   | 0,08   | 19500   | 1729  |   |  |  |
| <b>3000</b>   | 1897,20  | 0,74   |                            | 0,52  | <b>0,26</b>  | 0,19   | 0,16   | 0,09   | 0,07   | 19500   | 1742  |   |  |  |
| <b>3000</b>   | 2313,18  | 0,61   |                            | 0,48  | <b>0,24</b>  | 0,17   | 0,14   | 0,09   | 0,07   | 19500   | 1760  |   |  |  |
| <b>3000</b>   | 2736,94  | 0,51   |                            | 0,40  | <b>0,20</b>  | 0,14   | 0,12   | 0,07   | 0,06   | 19500   | 1773  |   |  |  |
| <b>3000</b>   | 2850,22  | 0,49   | <b>MT576</b>               | 0,39  | <b>0,20</b>  | 0,14   | 0,12   | 0,07   | 0,05   | 19500   | 1776  | 134   | 347  | MT057  |
| <b>3000</b>   | 3372,36  | 0,42   | <b>NT576</b>               | 0,33  | <b>0,17</b>  | 0,12   | 0,10   | 0,06   | 0,05   | 19500   | 1786  | 144   |  | NT057  |
| <b>3000</b>   | 4402,68  | 0,32   |                            | 0,26  | <b>0,13</b>  | 0,09   | 0,08   | 0,05   | 0,04   | 19500   | 1800  |   |  |  |
| <b>3000</b>   | 4953,44  | 0,28   |                            | 0,25  | <b>0,11</b>  | 0,08   | 0,07   | 0,04   | 0,03   | 19500   | 1804  |   |  |  |
| <b>3000</b>   | 6838,96  | 0,20   |                            | 0,18  | <b>0,08</b>  | 0,06   | 0,05   | 0,03   | 0,02   | 19500   | 1815  |   |  |  |
| <b>3000</b>   | 8091,82  | 0,17   |                            | 0,16  | <b>0,07</b>  | 0,05   | 0,04   | 0,02   | 0,02   | 19500   | 1819  |   |  |  |
| <b>2150</b>   | 3,29   | 425  | <b>MT672</b>               | -   | <b>97,98</b> | 72,26  | 63,72  | 44,87  | 37,72  | 8475  | -   | 171   | 348  | MT058  |
| <b>2400</b>   | 3,79   | 370  | <b>NT672</b>               | -   | <b>95,28</b> | 70,12  | 61,93  | 43,47  | 36,58  | 8443  | -   | 181   |  | NT058  |
| <b>2670</b>   | 4,37   | 320  |                            | -   | <b>91,93</b> | 67,70  | 59,83  | 42,05  | 35,29  | 8444  | -   |   |  |  |
| <b>2700</b>   | 4,53   | 309  |                            | -   | <b>89,55</b> | 66,08  | 58,17  | 40,94  | 34,41  | 8537  | -   |   |  |  |
| <b>2920</b>   | 5,08   | 275  |                            | -   | <b>86,44</b> | 63,75  | 56,22  | 39,52  | 32,13  | 8931  | -   |   |  |  |
| <b>3170</b>   | 5,73   | 244  |                            | -   | <b>83,34</b> | 61,37  | 54,18  | 36,63  | 28,54  | 9330  | -   |   |  |  |
| <b>2870</b>   | 6,88   | 203  |                            | -   | <b>62,88</b> | 46,33  | 40,90  | 28,74  | 23,77  | 10601   | -   |   |  |  |
| <b>2920</b>   | 7,91   | 177  |                            | -   | <b>55,74</b> | 41,11  | 36,35  | 25,54  | 20,71  | 11338   | -   |   |  |  |
| <b>2990</b>   | 9,13   | 153  |                            | -   | <b>49,51</b> | 36,62  | 32,25  | 22,63  | 17,97  | 12104   | -   |   |  |  |
| <b>3030</b>   | 9,47   | 148  |                            | -   | <b>48,33</b> | 35,58  | 31,41  | 22,06  | 17,31  | 12259   | -   |   |  |  |
| <b>3090</b>   | 10,62  | 132  |                            | -   | <b>43,99</b> | 32,50  | 28,65  | 19,83  | 15,45  | 12883   | -   |   |  |  |
| <b>3170</b>   | 11,97  | 117  |                            | -   | <b>40,09</b> | 29,51  | 26,05  | 17,61  | 13,72  | 13531   | -   |   |  |  |
| <b>3250</b>   | 13,58  | 103  |                            | -   | <b>36,28</b> | 26,77  | 23,60  | 15,54  | 12,11  | 14261   | -   |   |  |  |
| <b>3350</b>   | 15,53  | 90   |                            | 52,95   | <b>32,75</b> | 24,14  | 21,30  | 13,61  | 10,60  | 15049   | -   |   |  |  |
| <b>3470</b>   | 17,93  | 78   |                            | 47,44   | <b>29,42</b> | 21,65  | 19,11  | 11,80  | 9,19   | 15925   | -   |   |  |  |
| <b>3580</b>   | 20,74  | 68   |                            | 42,30   | <b>26,23</b> | 19,32  | 16,94  | 10,20  | 7,94   | 16867   | -   |   |  |  |



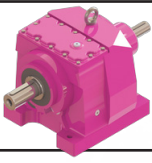
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



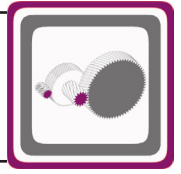
| Anma Momenti<br><i>Nominal Torques</i><br>Nenn-drehmomente<br>Ma [Nm]<br>(n1=1400rpm) | Çevrim Oranı<br><i>Ratio</i><br>Übersetzung<br>i | Çıkış Devri<br><i>Output Speeds</i><br>Abtriebs-drehzahlen<br>n2 [r.p.m]<br>(n1=1400rpm) | Tipi<br><i>Type</i><br>Typ | Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)<br><i>Pe= Nominal Power [kW] (For Service Factor fs=1,0)</i><br>Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) |         |        |        |        |        | Güv. Rad.Yük Çıkış<br><i>Per.O.Loads (Output)</i><br>Zul.Querkräfte (Abtrieb)<br>Fqam [N]<br>(n1=1400rpm) | Güv.Rad.Yük Giriş<br><i>Per.O.Loads (Input)</i><br>Zul.Querkräfte (Antrieb)<br>Fqem [N]<br>(n1=1400rpm) | Ağırlık<br><i>Weight</i><br>Gewicht<br>[kg] | Ölçü Sayfası<br><i>Dim. Page</i><br>Maße Seite | Fiyat Kodu<br><i>Price Ref.</i><br>Preis No. |
|---|--|--|----------------------------|---|---------|--------|--------|--------|--------|---|---|---|--|--|
|   |  |  |                            | Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]   |         |        |        |        |        |   |   |   |  |  |
|   |  |  |                            | n1=2800   | n1=1400 | n1=900 | n1=750 | n1=450 | n1=350 |   |   |   |  |  |
|   |  |  |                            |   |         |        |        |        |        |   |   |   |  |  |
| 3680  | 23,18  | 60   | MT672<br>NT672             | 38,93   | 24,15   | 17,81  | 15,18  | 9,13   | 7,11   | 17731   | -   | 171<br>181                                  | 348  | MT058<br>NT058                               |
| 3530  | 26,66  | 53   | MT673                      | -   | 20,27   | 15,05  | 13,28  | 8,03   | 6,26   | 19264   | 2705  | 199   | 348  | MT059  |
| 3670  | 30,20  | 46   | NT673                      | -   | 18,63   | 13,80  | 11,77  | 7,10   | 5,54   | 20176   | 2810  | 209   |  | NT059  |
| 3820  | 34,36  | 41   |                            | -   | 17,08   | 12,42  | 10,37  | 6,25   | 4,87   | 21447   | 2884  |   |  |  |
| 3990  | 39,30  | 36   |                            | -   | 15,62   | 10,87  | 9,08   | 5,47   | 4,27   | 22833   | 2909  |   |  |  |
| 4160  | 45,29  | 31   |                            | 22,66   | 14,17   | 9,46   | 7,90   | 4,76   | 3,71   | 24363   | 2932  |   |  |  |
| 4300  | 52,68  | 27   |                            | 20,51   | 12,62   | 8,15   | 6,80   | 4,10   | 3,20   | 26077   | 3012  |   |  |  |
| 4300  | 53,99  | 26   |                            | 19,75   | 12,28   | 7,93   | 6,62   | 3,99   | 3,11   | 26364   | 3664  |   |  |  |
| 4300  | 61,42  | 23   |                            | 18,09   | 10,82   | 6,99   | 5,83   | 3,52   | 2,74   | 26500   | 3730  |   |  |  |
| 4300  | 70,26  | 20   |                            | 16,50   | 9,48    | 6,12   | 5,11   | 3,08   | 2,40   | 26500   | 3790  |   |  |  |
| 4300  | 80,96  | 17   |                            | 15,04   | 8,24    | 5,32   | 4,44   | 2,68   | 2,09   | 26500   | 3845  |   |  |  |
| 4300  | 94,17  | 15   |                            | 13,59   | 7,10    | 4,59   | 3,83   | 2,31   | 1,80   | 26500   | 3895  |   |  |  |
| 4300  | 110,55   | 13   |                            | 12,02   | 6,05    | 3,91   | 3,26   | 1,96   | 1,53   | 26500   | 3960  |   |  |  |
| 4300  | 124,07   | 11   |                            | 10,74   | 5,41    | 3,49   | 2,91   | 1,75   | 1,37   | 26500   | 3988  |   |  |  |
| 4300  | 149,11   | 9,4  |                            | 8,95  | 4,51    | 2,91   | 2,43   | 1,46   | 1,14   | 26500   | 4023  |   |  |  |
| 4300  | 174,89   | 8,0  |                            | 7,66  | 3,85    | 2,49   | 2,07   | 1,25   | 0,97   | 26500   | 4051  |   |  |  |
| 4300  | 196,61   | 7,1  |                            | 6,83  | 3,44    | 2,22   | 1,85   | 1,11   | 0,87   | 26500   | 4068  |   |  |  |
| 4300  | 215,97   | 6,5  | MT674                      | 6,33  | 3,17    | 2,04   | 1,70   | 1,02   | 0,79   | 26500   | 1737  | 205   | 349  | MT060  |
| 4300  | 245,67   | 5,7  | NT674                      | 5,57  | 2,79    | 1,79   | 1,49   | 0,90   | 0,70   | 26500   | 1845  | 215   |  | NT060  |
| 4300  | 281,02   | 5,0  |                            | 4,88  | 2,44    | 1,57   | 1,31   | 0,78   | 0,61   | 26500   | 1944  |   |  |  |
| 4300  | 323,82   | 4,3  |                            | 4,24  | 2,12    | 1,36   | 1,14   | 0,68   | 0,53   | 26500   | 2035  |   |  |  |
| 4300  | 376,69   | 3,7  |                            | 3,65  | 1,83    | 1,17   | 0,98   | 0,59   | 0,46   | 26500   | 2188  |   |  |  |
| 4300  | 442,20   | 3,2  |                            | 3,11  | 1,55    | 1,00   | 0,83   | 0,50   | 0,39   | 26500   | 2194  |   |  |  |
| 4300  | 500,39   | 2,8  |                            | 2,75  | 1,37    | 0,88   | 0,74   | 0,44   | 0,34   | 26500   | 2207  |   |  |  |
| 4300  | 583,04   | 2,4  | MT675                      | 2,41  | 1,21    | 0,77   | 0,65   | 0,39   | 0,30   | 26500   | 2063  | 214   | 350  | MT061  |
| 4300  | 673,70   | 2,1  | NT675                      | 2,09  | 1,05    | 0,67   | 0,56   | 0,34   | 0,26   | 26500   | 2073  | 225   |  | NT061  |
| 4300  | 730,46   | 1,9  |                            | 1,93  | 0,96    | 0,62   | 0,52   | 0,31   | 0,27   | 26500   | 2079  |   |  |  |
| 4300  | 874,56   | 1,6  |                            | 1,61  | 0,81    | 0,52   | 0,43   | 0,26   | 0,22   | 26500   | 2089  |   |  |  |
| 4300  | 995,91   | 1,4  |                            | 1,42  | 0,71    | 0,46   | 0,38   | 0,25   | 0,20   | 26500   | 2095  |   |  |  |
| 4300  | 1113,08  | 1,3  |                            | 1,27  | 0,64    | 0,41   | 0,34   | 0,23   | 0,18   | 26500   | 2100  |   |  |  |
| 4300  | 1259,54  | 1,1  |                            | 1,12  | 0,56    | 0,36   | 0,30   | 0,20   | 0,16   | 26500   | 2105  |   |  |  |
| 4300  | 1432,74  | 0,98   |                            | 0,99  | 0,49    | 0,32   | 0,26   | 0,18   | 0,14   | 26500   | 2124  |   |  |  |
| 4300  | 1638,93  | 0,85   |                            | 0,87  | 0,43    | 0,28   | 0,26   | 0,15   | 0,12   | 26500   | 2141  |   |  |  |
| 4300  | 1888,53  | 0,74   |                            | 0,75  | 0,38    | 0,27   | 0,22   | 0,13   | 0,10   | 26500   | 2156  |   |  |  |
| 4300  | 2196,86  | 0,64   |                            | 0,65  | 0,32    | 0,23   | 0,19   | 0,12   | 0,09   | 26500   | 2171  |   |  |  |
| 4300  | 2578,93  | 0,54   |                            | 0,55  | 0,28    | 0,20   | 0,16   | 0,10   | 0,08   | 26500   | 2184  |   |  |  |
| 4300  | 2863,86  | 0,49   | MT676                      | 0,51  | 0,25    | 0,18   | 0,15   | 0,09   | 0,07   | 26500   | 2217  | 217   | 350  | MT062  |
| 4300  | 3342,43  | 0,42   | NT676                      | 0,48  | 0,24    | 0,17   | 0,14   | 0,09   | 0,07   | 26500   | 2220  | 229   |  | NT062  |
| 4300  | 3931,45  | 0,36   |                            | 0,41  | 0,21    | 0,15   | 0,12   | 0,07   | 0,06   | 26500   | 2222  |   |  |  |
| 4300  | 4674,12  | 0,30   |                            | 0,35  | 0,17    | 0,12   | 0,10   | 0,06   | 0,05   | 26500   | 2224  |   |  |  |
| 4300  | 5287,12  | 0,26   |                            | 0,31  | 0,15    | 0,11   | 0,09   | 0,05   | 0,04   | 26500   | 2225  |   |  |  |
| 4300  | 6029,17  | 0,23   |                            | 0,27  | 0,13    | 0,10   | 0,08   | 0,05   | 0,04   | 26500   | 2227  |   |  |  |
| 4300  | 7490,08  | 0,19   |                            | 0,24  | 0,11    | 0,08   | 0,06   | 0,04   | 0,03   | 26500   | 2228  |   |  |  |
| 4300  | 8518,13  | 0,16   |                            | 0,21  | 0,10    | 0,07   | 0,06   | 0,03   | 0,03   | 26500   | 2229  |   |  |  |
| 4300  | 9689,49  | 0,14   |                            | 0,19  | 0,08    | 0,06   | 0,05   | 0,03   | 0,02   | 26500   | 2233  |   |  |  |
| 4300  | 11083,95   | 0,13   |                            | 0,16  | 0,07    | 0,05   | 0,04   | 0,03   | 0,02   | 26500   | 2236  |   |  |  |
| 4300  | 12771,99   | 0,11   |                            | 0,14  | 0,06    | 0,05   | 0,04   | 0,02   | 0,02   | 26500   | 2239  |   |  |  |
| 4300  | 14857,21   | 0,09   |                            | 0,12  | 0,05    | 0,04   | 0,03   | 0,02   | 0,02   | 26500   | 2242  |   |  |  |
| 4300  | 17441,07   | 0,08   |                            | 0,10  | 0,05    | 0,03   | 0,03   | 0,02   | 0,01   | 26500   | 2244  |   |  |  |
| 3680  | 4,25   | 329  | MT772                      | -   | 130,00  | 95,87  | 84,55  | 59,50  | 50,02  | 10.313  | -   | 296   | 351  | MT063  |
| 3990  | 4,83   | 290  | NT772                      | -   | 124,04  | 91,59  | 80,77  | 56,70  | 47,79  | 10.825  | -   | 365   |  | NT063  |
| 4330  | 5,53   | 253  |                            | -   | 117,81  | 86,83  | 76,55  | 53,86  | 45,26  | 11.527  | -   |   |  |  |
| 4490  | 5,86   | 239  |                            | -   | 115,24  | 84,89  | 74,84  | 52,64  | 44,25  | 11.732  | -   |   |  |  |
| 4770  | 6,52   | 215  |                            | -   | 110,03  | 81,06  | 71,49  | 50,30  | 42,28  | 12.319  | -   |   |  |  |
| 5070  | 7,30   | 192  |                            | -   | 104,54  | 77,12  | 68,01  | 47,77  | 40,19  | 12.826  | -   |   |  |  |



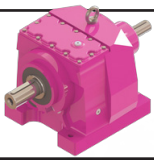
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



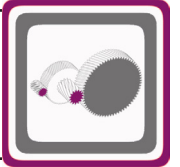
| Anma Momenti<br><i>Nominal Torques</i><br>Nenn-drehmomente<br>Ma [Nm]<br>(n1=1400rpm) | Çevrim Oranı | Çıkış Devri                | Tipi         | Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)           |  |        |        |        |        | Güv. Rad.Yük Çıkış       | Güv.Rad.Yük Giriş        | Ağırlık | Ölçü Sayfası | Fiyat Kodu |
|---|--------------|----------------------------|--------------|---|--|--------|--------|--------|--------|--------------------------|--------------------------|---------|--------------|------------|
|   | Ratio        | Output Speeds              |              | Type  | Pe= Nominal Power [kW] (For Service Factor fs=1,0) |        |        |        |        |                          | Per.O.Loads (Output)     |         |              |            |
|   | Übersetzung  | Abtriebs-drehzahlen        | Typ          | Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm] |  |        |        |        |        | Zul.Querkräfte (Abtrieb) | Zul.Querkräfte (Antrieb) | Gewicht | Maße Seite   | Preis No.  |
|   | i            | n2 [r.p.m]<br>(n1=1400rpm) |              | n1=2800   | n1=1400  | n1=900 | n1=750 | n1=450 | n1=350 | Fqam [N]<br>(n1=1400rpm) | Fqem [N]<br>(n1=1400rpm) | [kg]    |              |            |
| <b>6200</b>   | 8,46         | 166                        | <b>MT772</b> | -   | <b>110,54</b>                                      | 82,53  | 73,27  | 46,20  | 35,99  | 19342                    | -                        | 296     | 351          | MT063      |
| <b>6470</b>   | 9,62         | 146                        | <b>NT772</b> | -   | <b>101,52</b>                                      | 75,67  | 67,19  | 40,66  | 31,68  | 20304                    | -                        | 365     |              | NT063      |
| <b>6770</b>   | 11,00        | 127                        | -            | -   | <b>92,98</b>                                       | 69,42  | 59,11  | 35,59  | 27,72  | 21353                    | -                        |         |              |            |
| <b>6900</b>   | 11,65        | 120                        | -            | -   | <b>89,40</b>                                       | 66,74  | 55,76  | 33,57  | 26,15  | 21845                    | -                        |         |              |            |
| <b>7140</b>   | 12,98        | 108                        | -            | -   | <b>83,14</b>                                       | 60,06  | 50,11  | 30,17  | 23,50  | 22732                    | -                        |         |              |            |
| <b>7420</b>   | 14,54        | 96                         | -            | -   | <b>77,23</b>                                       | 53,69  | 44,80  | 26,97  | 21,01  | 23688                    | -                        |         |              |            |
| <b>7520</b>   | 15,63        | 90                         | <b>MT773</b> | -   | <b>73,23</b>                                       | 50,31  | 42,01  | 25,35  | 19,76  | 33422                    | -                        | 259     | 351          | MT064      |
| <b>7810</b>   | 17,53        | 80                         | <b>NT773</b> | -   | <b>67,91</b>                                       | 44,92  | 37,51  | 22,63  | 17,65  | 33422                    | -                        | 320     |              | NT064      |
| <b>8000</b>   | 19,76        | 71                         | -            | -   | <b>61,81</b>                                       | 39,92  | 33,33  | 20,11  | 15,68  | 33422                    | -                        |         |              |            |
| <b>8000</b>   | 22,62        | 62                         | -            | -   | <b>53,97</b>                                       | 34,85  | 29,09  | 17,55  | 13,69  | 33422                    | -                        |         |              |            |
| <b>8000</b>   | 25,99        | 54                         | -            | -   | <b>47,04</b>                                       | 30,38  | 25,37  | 15,30  | 11,93  | 37392                    | -                        |         |              |            |
| <b>8000</b>   | 30,00        | 47                         | -            | -   | <b>40,83</b>                                       | 26,37  | 22,02  | 13,28  | 10,36  | 41675                    | -                        |         |              |            |
| <b>8000</b>   | 31,11        | 45                         | -            | -   | <b>39,34</b>                                       | 25,41  | 21,21  | 12,80  | 9,98   | 42789                    | -                        |         |              |            |
| <b>8000</b>   | 34,89        | 40                         | -            | -   | <b>35,13</b>                                       | 22,69  | 18,94  | 11,43  | 8,91   | 46386                    | -                        |         |              |            |
| <b>8000</b>   | 39,33        | 36                         | -            | -   | <b>31,22</b>                                       | 20,16  | 16,83  | 10,15  | 7,91   | 48500                    | -                        |         |              |            |
| <b>8000</b>   | 44,17        | 32                         | -            | -   | <b>27,81</b>                                       | 17,96  | 15,00  | 9,04   | 7,05   | 48500                    | 4431                     |         |              |            |
| <b>8000</b>   | 50,75        | 28                         | -            | -   | <b>24,25</b>                                       | 15,66  | 13,07  | 7,89   | 6,15   | 48500                    | 4571                     |         |              |            |
| <b>8000</b>   | 58,59        | 24                         | -            | -   | <b>21,05</b>                                       | 13,59  | 11,35  | 6,84   | 5,33   | 48500                    | 4696                     |         |              |            |
| <b>8000</b>   | 60,76        | 23                         | -            | -   | <b>20,28</b>                                       | 13,10  | 10,93  | 6,59   | 5,14   | 48500                    | 4706                     |         |              |            |
| <b>8000</b>   | 68,15        | 21                         | -            | -   | <b>18,11</b>                                       | 11,70  | 9,77   | 5,89   | 4,59   | 48500                    | 4791                     |         |              |            |
| <b>8000</b>   | 76,81        | 18                         | -            | -   | <b>16,10</b>                                       | 10,39  | 8,68   | 5,23   | 4,08   | 48500                    | 4869                     |         |              |            |
| <b>8000</b>   | 87,13        | 16                         | -            | -   | <b>14,22</b>                                       | 9,18   | 7,66   | 4,62   | 3,60   | 48500                    | 4942                     |         |              |            |
| <b>8000</b>   | 99,63        | 14                         |              | 24,75   | <b>12,46</b>                                       | 8,05   | 6,72   | 4,05   | 3,15   | 48500                    | 5009                     |         |              |            |
| <b>8000</b>   | 115,06       | 12                         |              | 21,49   | <b>10,82</b>                                       | 6,98   | 5,83   | 3,51   | 2,74   | 48500                    | 5072                     |         |              |            |
| <b>8000</b>   | 133,05       | 11                         |              | 18,58   | <b>9,36</b>  | 6,04   | 5,04   | 3,04   | 2,37   | 48500                    | 5147                     |         |              |            |
| <b>8000</b>   | 148,73       | 9,4                        |              | 16,66   | <b>8,39</b>  | 5,41   | 4,52   | 2,72   | 2,12   | 48500                    | 5183                     |         |              |            |
| <b>8000</b>   | 178,78       | 7,8                        |              | 13,89   | <b>6,99</b>  | 4,51   | 3,76   | 2,27   | 1,77   | 48500                    | 5236                     |         |              |            |
| <b>8000</b>   | 208,82       | 6,7                        |              | 11,92   | <b>6,00</b>  | 3,87   | 3,23   | 1,95   | 1,51   | 48500                    | 5272                     |         |              |            |
| <b>8000</b>   | 190,96       | 7,3                        | <b>MT774</b> | 13,29   | <b>6,64</b>  | 4,27   | 3,56   | 2,14   | 1,66   | 48500                    | -                        | 269     | 352          | MT065      |
| <b>8000</b>   | 214,17       | 6,5                        | <b>NT774</b> | 11,86   | <b>5,93</b>  | 3,81   | 3,18   | 1,91   | 1,48   | 48500                    | -                        | 330     |              | NT065      |
| <b>8000</b>   | 241,42       | 5,8                        |              | 10,53   | <b>5,27</b>  | 3,39   | 2,82   | 1,69   | 1,32   | 48500                    | 616                      |         |              |            |
| <b>8000</b>   | 273,85       | 5,1                        |              | 9,30  | <b>4,65</b>  | 2,99   | 2,49   | 1,49   | 1,16   | 48500                    | 1258                     |         |              |            |
| <b>8000</b>   | 313,11       | 4,5                        |              | 8,14  | <b>4,07</b>  | 2,62   | 2,18   | 1,31   | 1,02   | 48500                    | 1665                     |         |              |            |
| <b>8000</b>   | 361,62       | 3,9                        |              | 7,06  | <b>3,53</b>  | 2,27   | 1,89   | 1,13   | 0,88   | 48500                    | 1794                     |         |              |            |
| <b>8000</b>   | 418,17       | 3,3                        |              | 6,10  | <b>3,05</b>  | 1,96   | 1,63   | 0,98   | 0,76   | 48500                    | 1908                     |         |              |            |
| <b>8000</b>   | 467,43       | 3,0                        |              | 5,46  | <b>2,73</b>  | 1,76   | 1,46   | 0,88   | 0,68   | 48500                    | 1984                     |         |              |            |
| <b>8000</b>   | 532,29       | 2,6                        |              | 4,81  | <b>2,40</b>  | 1,54   | 1,29   | 0,77   | 0,60   | 48500                    | 2007                     |         |              |            |
| <b>8000</b>   | 594,92       | 2,4                        |              | 4,30  | <b>2,15</b>  | 1,38   | 1,15   | 0,69   | 0,54   | 48500                    | 2027                     |         |              |            |
| <b>8000</b>   | 641,40       | 2,2                        | <b>MT775</b> | 4,08  | <b>2,04</b>  | 1,31   | 1,09   | 0,66   | 0,51   | 48500                    | 1748                     | 328     | 353          | MT066      |
| <b>8000</b>   | 725,80       | 1,9                        | <b>NT775</b> | 3,61  | <b>1,81</b>  | 1,16   | 0,97   | 0,58   | 0,45   | 48500                    | 1762                     | 400     |              | NT066      |
| <b>8000</b>   | 822,02       | 1,7                        |              | 3,18  | <b>1,59</b>  | 1,02   | 0,85   | 0,51   | 0,40   | 48500                    | 1961                     |         |              |            |
| <b>8000</b>   | 984,18       | 1,4                        |              | 2,67  | <b>1,33</b>  | 0,86   | 0,71   | 0,43   | 0,33   | 48500                    | 1978                     |         |              |            |
| <b>8000</b>   | 1120,74      | 1,2                        |              | 2,35  | <b>1,17</b>  | 0,75   | 0,63   | 0,38   | 0,29   | 48500                    | 1988                     |         |              |            |
| <b>8000</b>   | 1252,60      | 1,1                        |              | 2,10  | <b>1,05</b>  | 0,67   | 0,56   | 0,34   | 0,26   | 48500                    | 1997                     |         |              |            |
| <b>8000</b>   | 1417,41      | 0,99                       |              | 1,86  | <b>0,93</b>  | 0,60   | 0,50   | 0,30   | 0,26   | 48500                    | 2005                     |         |              |            |
| <b>8000</b>   | 1589,68      | 0,88                       |              | 1,66  | <b>0,83</b>  | 0,53   | 0,44   | 0,27   | 0,23   | 48500                    | 2032                     |         |              |            |
| <b>8000</b>   | 1791,91      | 0,78                       |              | 1,47  | <b>0,74</b>  | 0,47   | 0,39   | 0,26   | 0,20   | 48500                    | 2058                     |         |              |            |
| <b>8000</b>   | 2032,66      | 0,69                       |              | 1,30  | <b>0,65</b>  | 0,42   | 0,35   | 0,23   | 0,18   | 48500                    | 2082                     |         |              |            |
| <b>8000</b>   | 2324,10      | 0,60                       |              | 1,14  | <b>0,57</b>  | 0,37   | 0,30   | 0,20   | 0,16   | 48500                    | 2104                     |         |              |            |
| <b>8000</b>   | 2684,10      | 0,52                       |              | 0,99  | <b>0,49</b>  | 0,32   | 0,26   | 0,18   | 0,14   | 48500                    | 2125                     |         |              |            |
| <b>8000</b>   | 3103,85      | 0,45                       |              | 0,85  | <b>0,43</b>  | 0,27   | 0,25   | 0,15   | 0,12   | 48500                    | 2143                     |         |              |            |
| <b>8000</b>   | 3814,39      | 0,37                       |              | 0,69  | <b>0,35</b>  | 0,25   | 0,21   | 0,12   | 0,10   | 48500                    | 2148                     |         |              |            |
| <b>8000</b>   | 4263,81      | 0,33                       |              | 0,62  | <b>0,31</b>  | 0,22   | 0,18   | 0,11   | 0,09   | 48500                    | 2159                     |         |              |            |
| <b>8000</b>   | 4812,09      | 0,29                       |              | 0,55  | <b>0,28</b>  | 0,20   | 0,16   | 0,10   | 0,08   | 48500                    | 2161                     |         |              |            |
| <b>8000</b>   | 2916,59      | 0,48                       | <b>MT776</b> | 0,92  | <b>0,46</b>  | 0,30   | 0,27   | 0,16   | 0,13   | 48500                    | 2187                     | 332     | 353          | MT067      |
| <b>8000</b>   | 3222,83      | 0,43                       | <b>NT776</b> | 0,84  | <b>0,42</b>  | 0,27   | 0,25   | 0,15   | 0,12   | 48500                    | 2190                     | 405     |              | NT067      |
| <b>8000</b>   | 3761,39      | 0,37                       |              | 0,72  | <b>0,36</b>  | 0,26   | 0,21   | 0,13   | 0,10   | 48500                    | 2194                     |         |              |            |



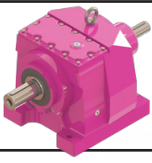
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



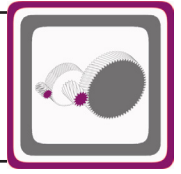
| Anma Momenti<br><i>Nominal Torques</i><br>Nenn-drehmomente<br>Ma [Nm]<br>(n1=1400rpm) | Çevrim Oranı<br><i>Ratio</i><br>Übersetzung<br>i | Çıkış Devri<br><i>Output Speeds</i><br>Abtriebs-drehzahlen<br>n2 [r.p.m]<br>(n1=1400rpm) | Tipi<br><i>Type</i><br>Typ | Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)<br><i>Pe= Nominal Power [kW] (For Service Factor fs=1,0)</i><br>Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) |         |        |        |        |        | Güv. Rad.Yük Çıkış<br><i>Per.O.Loads (Output)</i><br>Zul.Querkräfte (Abtrieb)<br>Fqam [N]<br>(n1=1400rpm) | Güv.Rad.Yük Giriş<br><i>Per.O.Loads (Input)</i><br>Zul.Querkräfte (Antrieb)<br>Fqem [N]<br>(n1=1400rpm) | Ağırlık<br><i>Weight</i><br>Gewicht<br>[kg] | Ölçü Sayfası<br><i>Dim. Page</i><br>Maße Seite | Fiyat Kodu<br><i>Price Ref.</i><br>Preis No. |
|---|--|--|----------------------------|---|---------|--------|--------|--------|--------|---|---|---|--|--|
|   |  |  |                            | Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]   |         |        |        |        |        |   |   |   |  |  |
|   |  |  |                            | n1=2800   | n1=1400 | n1=900 | n1=750 | n1=450 | n1=350 |   |   |   |  |  |
|   |  |  |                            |   |         |        |        |        |        |   |   |   |  |  |
| 8000  | 4424,24  | 0,32   | MT776                      | 0,61  | 0,31    | 0,22   | 0,18   | 0,11   | 0,08   | 48500   | 2198  | 332   | 353  | MT067  |
| 8000  | 5260,00  | 0,27   | NT776                      | 0,52  | 0,26    | 0,18   | 0,15   | 0,09   | 0,07   | 48500   | 2201  | 405   |  | NT067  |
| 8000  | 5949,83  | 0,24   |                            | 0,51  | 0,25    | 0,18   | 0,15   | 0,09   | 0,07   | 48500   | 2204  |   |  |  |
| 8000  | 6784,90  | 0,21   |                            | 0,45  | 0,22    | 0,16   | 0,13   | 0,08   | 0,06   | 48500   | 2206  |   |  |  |
| 8000  | 8428,93  | 0,17   |                            | 0,36  | 0,18    | 0,13   | 0,11   | 0,06   | 0,05   | 48500   | 2208  |   |  |  |
| 8000  | 9585,84  | 0,15   |                            | 0,32  | 0,16    | 0,11   | 0,09   | 0,06   | 0,04   | 48500   | 2210  |   |  |  |
| 8000  | 10750,89   | 0,13   |                            | 0,28  | 0,14    | 0,10   | 0,08   | 0,05   | 0,04   | 48500   | 2215  |   |  |  |
| 8000  | 12118,56   | 0,12   |                            | 0,25  | 0,13    | 0,09   | 0,07   | 0,04   | 0,03   | 48500   | 2220  |   |  |  |
| 8000  | 13746,73   | 0,10   |                            | 0,25  | 0,11    | 0,08   | 0,07   | 0,04   | 0,03   | 48500   | 2225  |   |  |  |
| 8000  | 15717,68   | 0,09   |                            | 0,21  | 0,10    | 0,07   | 0,06   | 0,03   | 0,03   | 48500   | 2229  |   |  |  |
| 8000  | 18152,38   | 0,08   |                            | 0,19  | 0,08    | 0,06   | 0,05   | 0,03   | 0,02   | 48500   | 2233  |   |  |  |
| 8000  | 20991,08   | 0,07   |                            | 0,16  | 0,07    | 0,05   | 0,04   | 0,03   | 0,02   | 48500   | 2236  |   |  |  |
| 8000  | 23464,25   | 0,06   |                            | 0,14  | 0,06    | 0,05   | 0,04   | 0,02   | 0,02   | 48500   | 2239  |   |  |  |
| 8700  | 4,32   | 324  | MT872                      | -   | 307,71  | 225,10 | 198,95 | 138,70 | 114,95 | 54833   | -   | 550   | 354  | MT043  |
| 9000  | 4,95   | 283  | NT872                      | -   | 277,41  | 204,09 | 179,16 | 125,82 | 100,17 | 57334   | -   | 560   |  | NT043  |
| 9550  | 5,22   | 268  |                            | -   | 279,26  | 204,90 | 180,93 | 122,19 | 95,03  | 43596   | -   |   |  |  |
| 9900  | 5,99   | 234  |                            | -   | 252,28  | 185,93 | 163,13 | 106,48 | 82,82  | 45656   | -   |   |  |  |
| 10200   | 6,64   | 211  |                            | -   | 234,53  | 172,20 | 151,51 | 96,08  | 74,73  | 47129   | -   |   |  |  |
| 10600   | 7,55   | 185  |                            | -   | 214,29  | 157,25 | 137,54 | 84,48  | 65,70  | 48992   | -   |   |  |  |
| 11200   | 8,87   | 158  |                            | -   | 192,83  | 141,12 | 119,90 | 71,94  | 55,95  | 76122   | -   |   |  |  |
| 11500   | 10,09  | 139  |                            | -   | 174,08  | 126,51 | 105,42 | 63,25  | 49,20  | 79405   | -   |   |  |  |
| 12700   | 11,59  | 121  | MT873                      | -   | 170,91  | 112,46 | 93,72  | 56,23  | 43,74  | 75784   | -   | 555   | 354  | MT044  |
| 13000   | 13,30  | 105  | NT873                      | -   | 152,46  | 98,01  | 81,67  | 49,00  | 38,11  | 72000   | -   | 565   |  | NT044  |
| 13000   | 14,02  | 100  |                            | -   | 144,63  | 92,98  | 77,48  | 46,49  | 36,16  | 57957   | -   |   |  |  |
| 13000   | 16,09  | 87   |                            | -   | 126,04  | 81,03  | 67,52  | 40,51  | 31,51  | 62738   | -   |   |  |  |
| 13000   | 17,83  | 79   |                            | -   | 113,73  | 73,11  | 60,93  | 36,56  | 28,43  | 66441   | -   |   |  |  |
| 13000   | 20,28  | 69   |                            | -   | 99,99   | 64,28  | 53,57  | 32,14  | 25,00  | 71241   | -   |   |  |  |
| 13000   | 23,87  | 59   |                            | -   | 84,92   | 54,59  | 45,50  | 27,30  | 21,23  | 72000   | -   |   |  |  |
| 13000   | 27,39  | 51   |                            | -   | 74,01   | 47,58  | 39,65  | 23,79  | 18,50  | 72000   | -   |   |  |  |
| 13000   | 30,36  | 46   |                            | -   | 66,78   | 42,93  | 35,77  | 21,46  | 16,69  | 72000   | -   |   |  |  |
| 13000   | 34,53  | 41   |                            | -   | 58,71   | 37,74  | 31,45  | 18,87  | 14,68  | 72000   | -   |   |  |  |
| 13000   | 40,55  | 35   |                            | -   | 50,00   | 32,14  | 26,79  | 16,07  | 12,50  | 72000   | 1072  |   |  |  |
| 13000   | 46,12  | 30   |                            | -   | 43,96   | 28,26  | 23,55  | 14,13  | 10,99  | 72000   | 1795  |   |  |  |
| 13000   | 52,86  | 26   |                            | -   | 38,36   | 24,66  | 20,55  | 12,33  | 9,59   | 72000   | 2466  |   |  |  |
| 13000   | 56,54  | 25   |                            | 71,71   | 35,86   | 23,05  | 19,21  | 11,53  | 8,96   | 72000   | -   |   |  |  |
| 13000   | 64,77  | 22   |                            | 62,60   | 31,30   | 20,12  | 16,77  | 10,06  | 7,83   | 72000   | -   |   |  |  |
| 13000   | 75,51  | 19   |                            | 53,70   | 26,85   | 17,26  | 14,38  | 8,63   | 6,71   | 72000   | 3698  |   |  |  |
| 13000   | 86,51  | 16   |                            | 46,87   | 23,44   | 15,07  | 12,56  | 7,53   | 5,86   | 72000   | 4108  |   |  |  |
| 13000   | 99,81  | 14   |                            | 40,63   | 20,31   | 13,06  | 10,88  | 6,53   | 5,08   | 72000   | 4705  |   |  |  |
| 13000   | 110,17   | 13   |                            | 36,81   | 18,40   | 11,83  | 9,86   | 5,92   | 4,60   | 72000   | 4844  |   |  |  |
| 13000   | 107,60   | 13   | MT874                      | 38,04   | 19,02   | 12,23  | 10,19  | 6,11   | 4,76   | 72000   | 681   | 590   | 355  | MT045  |
| 13000   | 125,70   | 11   | NT874                      | 32,63   | 16,31   | 10,49  | 8,74   | 5,24   | 4,08   | 72000   | 1284  | 600   |  | NT045  |
| 13000   | 147,61   | 9,5  |                            | 27,84   | 13,92   | 8,95   | 7,46   | 4,47   | 3,48   | 72000   | 1816  |   |  |  |
| 13000   | 174,68   | 8,0  |                            | 23,59   | 11,79   | 7,58   | 6,32   | 3,79   | 2,95   | 72000   | 2288  |   |  |  |
| 13000   | 188,08   | 7,4  |                            | 21,87   | 10,93   | 7,03   | 5,86   | 3,51   | 2,73   | 72000   | 2623  |   |  |  |
| 13000   | 211,60   | 6,6  |                            | 19,47   | 9,73    | 6,26   | 5,21   | 3,13   | 2,43   | 72000   | 2686  |   |  |  |
| 13000   | 239,61   | 5,8  |                            | 17,22   | 8,61    | 5,53   | 4,61   | 2,77   | 2,15   | 72000   | 2746  |   |  |  |
| 13000   | 292,15   | 4,8  |                            | 14,14   | 7,07    | 4,54   | 3,79   | 2,27   | 1,77   | 72000   | 2823  |   |  |  |
| 13000   | 345,67   | 4,1  |                            | 11,97   | 5,99    | 3,85   | 3,21   | 1,92   | 1,50   | 72000   | 2880  |   |  |  |
| 13000   | 390,74   | 3,6  |                            | 10,61   | 5,30    | 3,41   | 2,84   | 1,71   | 1,33   | 72000   | 2916  |   |  |  |
| 13000   | 446,42   | 3,1  |                            | 9,30  | 4,65    | 2,99   | 2,49   | 1,50   | 1,16   | 72000   | 2950  |   |  |  |
| 13000   | 495,97   | 2,8  | MT875                      | 8,55  | 4,28    | 2,75   | 2,29   | 1,37   | 1,07   | 72000   | 1496  | 618   | 356  | MT046  |
| 13000   | 537,75   | 2,6  | NT875                      | 7,89  | 3,94    | 2,53   | 2,11   | 1,27   | 0,99   | 72000   | 1520  | 628   |  | NT046  |
| 13000   | 643,84   | 2,2  |                            | 6,60  | 3,30    | 2,12   | 1,77   | 1,06   | 0,83   | 72000   | 1561  |   |  |  |
| 13000   | 718,74   | 1,9  |                            | 5,92  | 2,96    | 1,90   | 1,59   | 0,95   | 0,74   | 72000   | 1634  |   |  |  |
| 13000   | 807,91   | 1,7  |                            | 5,27  | 2,63    | 1,69   | 1,41   | 0,85   | 0,66   | 72000   | 1703  |   |  |  |
| 13000   | 915,85   | 1,5  |                            | 4,65  | 2,33    | 1,50   | 1,25   | 0,75   | 0,58   | 72000   | 1768  |   |  |  |



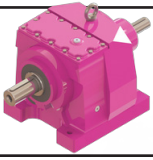
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



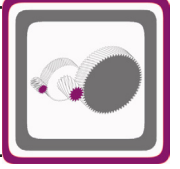
| Anma Momenti<br>Nominal Torques<br>Nenn-drehmomente<br>Ma [Nm]<br>(n1=1400rpm) | Çevrim Oranı<br>Ratio<br>Übersetzung<br>i | Çıkış Devri<br>Output Speeds<br>Abtriebs-drehzahlen<br>n2 [r.p.m]<br>(n1=1400rpm) | Tipi<br>Type<br>Typ | Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)<br>Pe= Nominal Power [kW] (For Service Factor fs=1,0)<br>Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) |         |        |        |        |        | Güv. Rad.Yük Çıkış<br>Per.O.Loads (Output)<br>Zul.Querkräfte (Abtrieb)<br>Fqam [N]<br>(n1=1400rpm) | Güv.Rad.Yük Giriş<br>Per.O.Loads (Input)<br>Zul.Querkräfte (Antrieb)<br>Fqem [N]<br>(n1=1400rpm) | Ağırlık<br>Weight<br>Gewicht<br>[kg] | Ölçü Sayfası<br>Dim. Page<br>Maße Seite | Fiyat Kodu<br>Price Ref.<br>Preis No. |
|--|---|---|---------------------|--|---------|--------|--------|--------|--------|--|--|--------------------------------------|---|---------------------------------------|
|  |   |   |                     | Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]  |         |        |        |        |        |  |  |                                      |   |                                       |
|  |   |   |                     | n1=2800  | n1=1400 | n1=900 | n1=750 | n1=450 | n1=350 |  |  |                                      |   |                                       |
|  |   |   |                     |  |         |        |        |        |        |  |  |                                      |   |                                       |
| 13000  | 1049,18                                   | 1,3   | MT875               | 4,07   | 2,03    | 1,31   | 1,09   | 0,65   | 0,51   | 72000  | 1830   | 618                                  | 356                                     | MT046                                 |
| 13000  | 1210,51                                   | 1,2   | NT875               | 3,52   | 1,76    | 1,13   | 0,94   | 0,57   | 0,44   | 72000  | 1888   | 628                                  |   | NT046                                 |
| 13000  | 1336,15                                   | 1,0   |                     | 3,19   | 1,59    | 1,03   | 0,85   | 0,51   | 0,40   | 72000  | 1922   |                                      |   |                                       |
| 13000  | 1521,55                                   | 0,92  |                     | 2,81   | 1,40    | 0,90   | 0,75   | 0,45   | 0,35   | 72000  | 1935   |                                      |   |                                       |
| 13000  | 1700,56                                   | 0,82  |                     | 2,51   | 1,26    | 0,81   | 0,67   | 0,40   | 0,31   | 72000  | 1946   |                                      |   |                                       |
| 13000  | 1924,32                                   | 0,73  |                     | 2,22   | 1,11    | 0,71   | 0,60   | 0,36   | 0,28   | 72000  | 1955   |                                      |   |                                       |
| 13000  | 2108,33                                   | 0,66  | MT876               | 2,07   | 1,03    | 0,67   | 0,55   | 0,33   | 0,26   | 72000  | 2088   | 620                                  | 356                                     | MT047                                 |
| 13000  | 2460,65                                   | 0,57  | NT876               | 1,78   | 0,89    | 0,57   | 0,48   | 0,29   | 0,25   | 72000  | 2098   | 630                                  |   | NT047                                 |
| 13000  | 2894,28                                   | 0,48  |                     | 1,51   | 0,76    | 0,49   | 0,41   | 0,27   | 0,21   | 72000  | 2108   |                                      |   |                                       |
| 13000  | 3441,02                                   | 0,41  |                     | 1,28   | 0,64    | 0,41   | 0,34   | 0,23   | 0,18   | 72000  | 2117   |                                      |   |                                       |
| 13000  | 3892,30                                   | 0,36  |                     | 1,13   | 0,56    | 0,36   | 0,30   | 0,20   | 0,16   | 72000  | 2122   |                                      |   |                                       |
| 13000  | 4438,59                                   | 0,32  |                     | 0,99   | 0,50    | 0,32   | 0,27   | 0,18   | 0,14   | 72000  | 2127   |                                      |   |                                       |
| 13000  | 4954,95                                   | 0,28  |                     | 0,89   | 0,44    | 0,29   | 0,26   | 0,16   | 0,12   | 72000  | 2141   |                                      |   |                                       |
| 13000  | 5569,66                                   | 0,25  |                     | 0,79   | 0,40    | 0,25   | 0,24   | 0,14   | 0,11   | 72000  | 2154   |                                      |   |                                       |
| 13000  | 6313,78                                   | 0,22  |                     | 0,70   | 0,35    | 0,25   | 0,21   | 0,12   | 0,10   | 72000  | 2166   |                                      |   |                                       |
| 13000  | 7233,00                                   | 0,19  |                     | 0,61   | 0,31    | 0,22   | 0,18   | 0,11   | 0,08   | 72000  | 2178   |                                      |   |                                       |
| 13000  | 8345,18                                   | 0,17  |                     | 0,53   | 0,26    | 0,19   | 0,16   | 0,09   | 0,07   | 72000  | 2189   |                                      |   |                                       |
| 13000  | 11443,34                                  | 0,12  |                     | 0,43   | 0,21    | 0,15   | 0,13   | 0,08   | 0,06   | 72000  | 2198   |                                      |   |                                       |
| 13000  | 13014,00                                  | 0,11  |                     | 0,38   | 0,19    | 0,13   | 0,11   | 0,07   | 0,05   | 72000  | 2200   |                                      |   |                                       |
| 13000  | 14977,32                                  | 0,09  |                     | 0,33   | 0,16    | 0,12   | 0,10   | 0,06   | 0,05   | 72000  | 2202   |                                      |   |                                       |
| 13000  | 17501,59                                  | 0,08  |                     | 0,28   | 0,14    | 0,10   | 0,08   | 0,05   | 0,04   | 72000  | 2203   |                                      |   |                                       |
| 9950   | 7,11                                      | 197   | MT972               | -  | 209,66  | 154,84 | 135,99 | 95,54  | 80,30  | 96156  | 23900  | 960                                  | 357                                     | MT048                                 |
| 10700  | 7,92                                      | 177   | NT972               | -  | 202,71  | 149,00 | 131,45 | 92,36  | 77,46  | 98548  | 22386  | 1010                                 |   | NT048                                 |
| 11450  | 8,86                                      | 158   |                     | -  | 193,98  | 143,08 | 126,22 | 88,63  | 74,41  | 101270   | 17560  |                                      |   |                                       |
| 12350  | 9,99                                      | 140   |                     | -  | 185,87  | 136,82 | 120,24 | 84,60  | 68,38  | 104116   | 11280  |                                      |   |                                       |
| 18000  | 11,56                                     | 121   |                     | -  | 234,26  | 151,02 | 126,00 | 75,87  | 59,11  | 94500  | 12624  |                                      |   |                                       |
| 18000  | 12,86                                     | 109   |                     | -  | 210,63  | 135,79 | 113,30 | 68,22  | 53,15  | 94500  | 17217  |                                      |   |                                       |
| 18000  | 14,40                                     | 97  |                     | -  | 188,37  | 121,45 | 101,33 | 61,01  | 47,53  | 94500  | 21524  |                                      |   |                                       |
| 18000  | 16,23                                     | 86  |                     | -  | 167,35  | 107,90 | 90,03  | 54,20  | 42,23  | 94500  | 23900  |                                      |   |                                       |
| 18000  | 18,15                                     | 77  | MT973               | -  | 150,34  | 97,05  | 81,03  | 48,89  | 38,13  | 94500  | 23900  | 1000                                 | 357                                     | MT049                                 |
| 18000  | 20,36                                     | 69  | NT973               | -  | 134,23  | 86,66  | 72,36  | 43,66  | 34,05  | 94500  | 23900  | 1050                                 |   | NT049                                 |
| 18000  | 22,95                                     | 61  |                     | -  | 119,26  | 77,01  | 64,30  | 38,79  | 30,25  | 94500  | 23900  |                                      |   |                                       |
| 18000  | 26,03                                     | 54  |                     | -  | 105,31  | 68,01  | 56,79  | 34,26  | 26,72  | 94500  | 23900  |                                      |   |                                       |
| 18000  | 29,49                                     | 47  |                     | -  | 92,89   | 59,97  | 50,07  | 30,21  | 23,56  | 94500  | 23900  |                                      |   |                                       |
| 18000  | 33,08                                     | 42  |                     | -  | 82,94   | 53,56  | 44,72  | 26,98  | 21,04  | 94500  | 23900  |                                      |   |                                       |
| 18000  | 37,29                                     | 38  |                     | -  | 73,70   | 47,59  | 39,74  | 23,97  | 18,69  | 94500  | 23900  |                                      |   |                                       |
| 18000  | 42,30                                     | 33  |                     | -  | 65,09   | 42,04  | 35,10  | 21,17  | 16,51  | 94500  | 23900  |                                      |   |                                       |
| 18000  | 48,86                                     | 29  |                     | -  | 56,33   | 36,37  | 30,37  | 18,32  | 14,28  | 94500  | 23900  |                                      |   |                                       |
| 18000  | 54,80                                     | 26  |                     | -  | 50,30   | 32,48  | 27,12  | 16,36  | 12,75  | 94500  | 23900  |                                      |   |                                       |
| 18000  | 61,77                                     | 23  |                     | -  | 44,70   | 28,87  | 24,10  | 14,54  | 11,33  | 94500  | 23900  |                                      |   |                                       |
| 18000  | 70,07                                     | 20  |                     | -  | 39,48   | 25,50  | 21,29  | 12,84  | 10,01  | 94500  | 23900  |                                      |   |                                       |
| 18000  | 82,20                                     | 17  |                     | -  | 33,69   | 21,76  | 18,16  | 10,95  | 8,54   | 94500  | 23900  |                                      |   |                                       |
| 18000  | 91,56                                     | 15  |                     | -  | 30,30   | 19,57  | 16,34  | 9,85   | 7,68   | 94500  | 23900  |                                      |   |                                       |
| 18000  | 102,69                                    | 14  |                     | -  | 27,07   | 17,48  | 14,59  | 8,80   | 6,85   | 94500  | 23900  |                                      |   |                                       |
| 18000  | 116,17                                    | 12  |                     | -  | 23,98   | 15,48  | 12,93  | 7,79   | 6,07   | 94500  | 23900  |                                      |   |                                       |
| 18000  | 132,83                                    | 11  |                     | 41,76  | 21,03   | 13,58  | 11,33  | 6,83   | 5,32   | 94500  | 23900  |                                      |   |                                       |
| 18000  | 150,02                                    | 9,3   |                     | 36,97  | 18,62   | 12,02  | 10,03  | 6,04   | 4,71   | 94500  | 23900  |                                      |   |                                       |
| 18000  | 166,73                                    | 8,4   |                     | 33,33  | 16,78   | 10,83  | 9,04   | 5,45   | 4,24   | 94500  | 23900  |                                      |   |                                       |
| 18000  | 186,95                                    | 7,5   |                     | 29,80  | 15,00   | 9,68   | 8,08   | 4,87   | 3,79   | 94500  | 23900  |                                      |   |                                       |
| 18000  | 172,08                                    | 8,1   | MT974               | 32,93  | 16,47   | 10,59  | 8,82   | 5,29   | 4,12   | 94500  | 277  | 1050                                 | 358                                     | MT050                                 |
| 18000  | 193,13                                    | 7,2   | NT974               | 29,40  | 14,70   | 9,45   | 7,87   | 4,72   | 3,67   | 94500  | 466  | 1100                                 |   | NT050                                 |
| 18000  | 216,03                                    | 6,5   |                     | 26,33  | 13,17   | 8,46   | 7,05   | 4,23   | 3,29   | 94500  | 629  |                                      |   |                                       |
| 18000  | 272,24                                    | 5,1   |                     | 20,93  | 10,47   | 6,73   | 5,61   | 3,36   | 2,62   | 94500  | 1143   |                                      |   |                                       |
| 18000  | 305,33                                    | 4,6   |                     | 18,68  | 9,34    | 6,01   | 5,00   | 3,00   | 2,34   | 94500  | 2263   |                                      |   |                                       |
| 18000  | 344,17                                    | 4,1   |                     | 16,59  | 8,30    | 5,33   | 4,44   | 2,67   | 2,07   | 94500  | 3191   |                                      |   |                                       |
| 18000  | 390,41                                    | 3,6   |                     | 14,65  | 7,32    | 4,71   | 3,92   | 2,35   | 1,83   | 94500  | 3396   |                                      |   |                                       |
| 18000  | 457,99                                    | 3,1   |                     | 12,48  | 6,24    | 4,01   | 3,34   | 2,01   | 1,56   | 94500  | 3622   |                                      |   |                                       |



# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

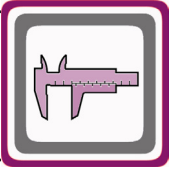
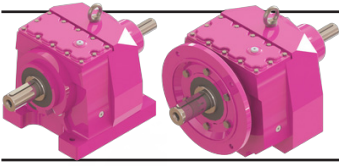
### Leistung und Drehzahlübersicht von Getriebe



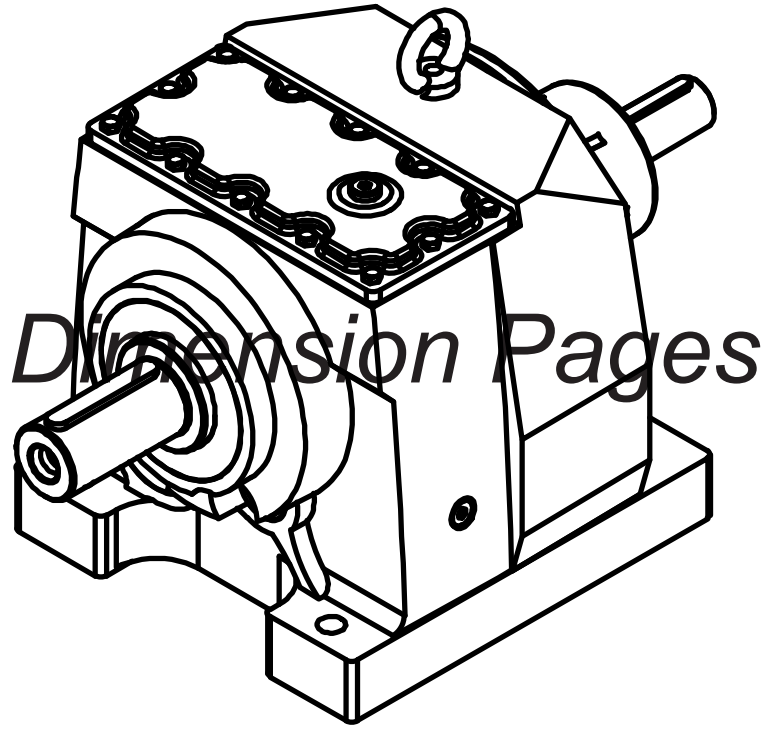
| Anma Momenti<br><i>Nominal Torques</i><br>Nenn-drehmomente<br>Ma [Nm]<br>(n1=1400rpm) | Çevrim Oranı | Çıkış Devri                | Tipi                         | Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)           |  |        |        |        |        | Güv. Rad.Yük Çıkış       | Güv.Rad.Yük Giriş        | Ağırlık      | Ölçü Sayfası | Fiyat Kodu     |
|---|--------------|----------------------------|------------------------------|---|--|--------|--------|--------|--------|--------------------------|--------------------------|--------------|--------------|----------------|
|   | Ratio        | Output Speeds              |                              | Type  | Pe= Nominal Power [kW] (For Service Factor fs=1,0) |        |        |        |        |                          | Per.O.Loads (Output)     |              |              |                |
|   | Übersetzung  | Abtriebs-drehzahlen        | Typ                          | Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm] |  |        |        |        |        | Zul.Querkräfte (Abtrieb) | Zul.Querkräfte (Antrieb) | Gewicht      | Maße Seite   | Preis No.      |
|   | i            | n2 [r.p.m]<br>(n1=1400rpm) |                              | n1=2800   | n1=1400  | n1=900 | n1=750 | n1=450 | n1=350 | Fqam [N]<br>(n1=1400rpm) | Fqem [N]<br>(n1=1400rpm) | [kg]         |              |                |
| <b>18000</b>  | 510,11       | 2,7                        | <b>MT974</b><br><b>NT974</b> | 11,22   | <b>5,61</b>  | 3,61   | 3,01   | 1,80   | 1,40   | 94500                    | 3755                     | 1050<br>1100 | 358          | MT050<br>NT050 |
| <b>18000</b>  | 462,18       | 3,0                        | <b>MT975</b>                 | 12,62   | <b>6,31</b>  | 4,06   | 3,38   | 2,03   | 1,58   | 94500                    | 1774                     | 1100         | 359          | MT051          |
| <b>18000</b>  | 546,94       | 2,6                        | <b>NT975</b>                 | 10,69   | <b>5,35</b>  | 3,44   | 2,86   | 1,72   | 1,34   | 94500                    | 1831                     | 1150         |              | NT051          |
| <b>18000</b>  | 588,87       | 2,4                        |                              | 9,91  | <b>4,96</b>  | 3,19   | 2,66   | 1,59   | 1,24   | 94500                    | 1875                     |              |              |                |
| <b>18000</b>  | 662,54       | 2,1                        |                              | 8,83  | <b>4,41</b>  | 2,84   | 2,36   | 1,42   | 1,10   | 94500                    | 1906                     |              |              |                |
| <b>18000</b>  | 750,24       | 1,9                        |                              | 7,81  | <b>3,91</b>  | 2,51   | 2,09   | 1,26   | 0,98   | 94500                    | 1936                     |              |              |                |
| <b>18000</b>  | 842,80       | 1,7                        |                              | 6,97  | <b>3,48</b>  | 2,24   | 1,87   | 1,12   | 0,87   | 94500                    | 1953                     |              |              |                |
| <b>18000</b>  | 914,74       | 1,5                        |                              | 6,41  | <b>3,21</b>  | 2,06   | 1,72   | 1,03   | 0,80   | 94500                    | 1974                     |              |              |                |
| <b>18000</b>  | 1082,31      | 1,3                        |                              | 5,43  | <b>2,72</b>  | 1,75   | 1,46   | 0,87   | 0,68   | 94500                    | 2002                     |              |              |                |
| <b>18000</b>  | 1213,85      | 1,2                        |                              | 4,85  | <b>2,42</b>  | 1,56   | 1,30   | 0,78   | 0,61   | 94500                    | 2070                     |              |              |                |
| <b>18000</b>  | 1368,27      | 1,0                        |                              | 4,30  | <b>2,15</b>  | 1,38   | 1,15   | 0,69   | 0,54   | 94500                    | 2133                     |              |              |                |
| <b>18000</b>  | 1552,10      | 0,90                       |                              | 3,80  | <b>1,90</b>  | 1,22   | 1,02   | 0,61   | 0,47   | 94500                    | 2192                     |              |              |                |
| <b>18000</b>  | 1820,78      | 0,77                       |                              | 3,24  | <b>1,62</b>  | 1,04   | 0,87   | 0,52   | 0,40   | 94500                    | 2257                     |              |              |                |
| <b>18000</b>  | 2027,97      | 0,69                       |                              | 2,91  | <b>1,45</b>  | 0,93   | 0,78   | 0,47   | 0,36   | 94500                    | 2295                     |              |              |                |
| <b>18000</b>  | 2836,64      | 0,49                       | <b>MT976</b>                 | 2,12  | <b>1,06</b>  | 0,68   | 0,57   | 0,34   | 0,26   | 94500                    | 2427                     | 1105         | 359          | MT052          |
| <b>18000</b>  | 3594,81      | 0,39                       | <b>NT976</b>                 | 1,68  | <b>0,84</b>  | 0,54   | 0,45   | 0,27   | 0,23   | 94500                    | 2441                     | 1155         |              | NT052          |
| <b>18000</b>  | 4227,50      | 0,33                       |                              | 1,43  | <b>0,71</b>  | 0,46   | 0,38   | 0,26   | 0,20   | 94500                    | 2494                     |              |              |                |
| <b>18000</b>  | 4474,67      | 0,31                       |                              | 1,35  | <b>0,68</b>  | 0,43   | 0,36   | 0,24   | 0,19   | 94500                    | 2496                     |              |              |                |
| <b>18000</b>  | 5357,43      | 0,26                       |                              | 1,13  | <b>0,57</b>  | 0,36   | 0,30   | 0,20   | 0,16   | 94500                    | 2504                     |              |              |                |
| <b>18000</b>  | 6842,29      | 0,20                       |                              | 0,89  | <b>0,44</b>  | 0,29   | 0,26   | 0,16   | 0,12   | 94500                    | 2521                     |              |              |                |
| <b>18000</b>  | 8620,11      | 0,16                       |                              | 0,70  | <b>0,35</b>  | 0,25   | 0,21   | 0,13   | 0,10   | 94500                    | 2537                     |              |              |                |
| <b>18000</b>  | 11064,86     | 0,13                       |                              | 0,55  | <b>0,28</b>  | 0,20   | 0,16   | 0,10   | 0,08   | 94500                    | 2550                     |              |              |                |
| <b>18000</b>  | 15951,72     | 0,09                       |                              | 0,42  | <b>0,21</b>  | 0,15   | 0,13   | 0,08   | 0,06   | 94500                    | 2565                     |              |              |                |
| <b>18000</b>  | 20051,59     | 0,07                       |                              | 0,34  | <b>0,17</b>  | 0,12   | 0,10   | 0,06   | 0,05   | 94500                    | 2573                     |              |              |                |



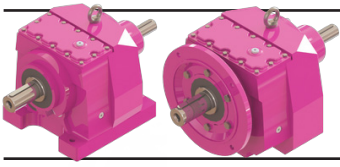




# Ölçü Sayfaları



Abmessungsseiten

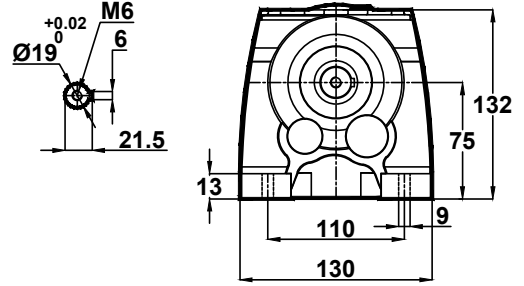
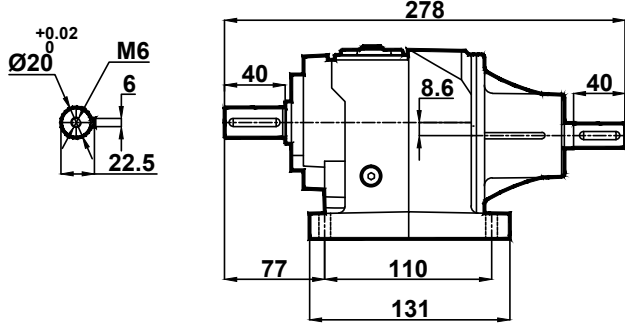


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

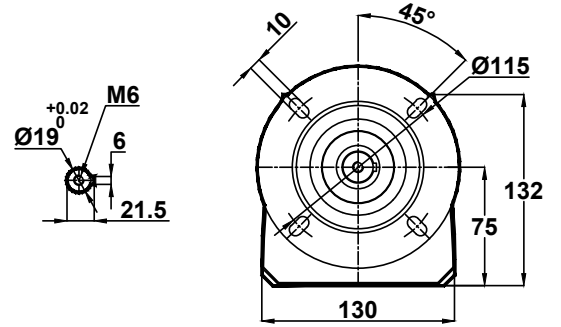
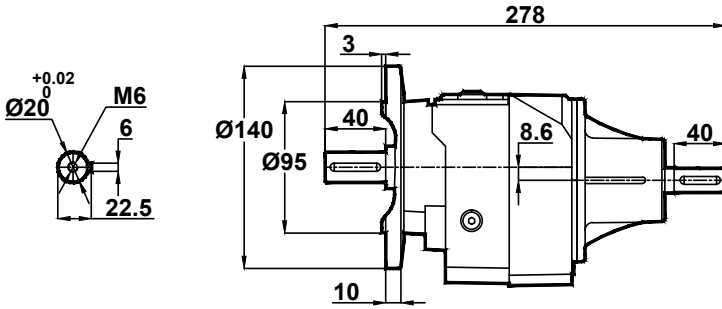


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

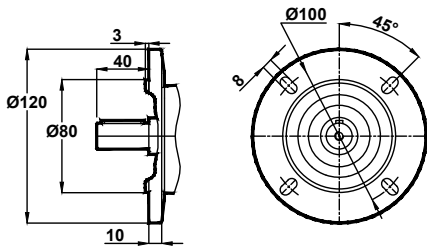
## MT002 MT003



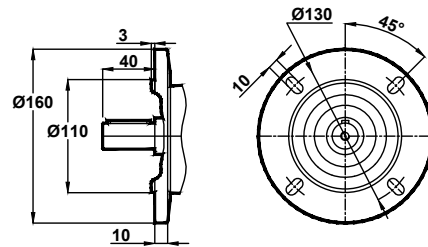
## NT002 NT003



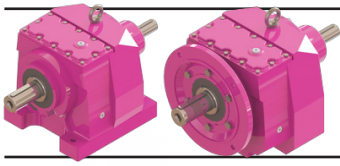
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



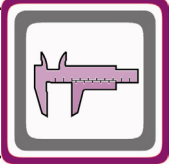
Opt. 1



Opt. 2

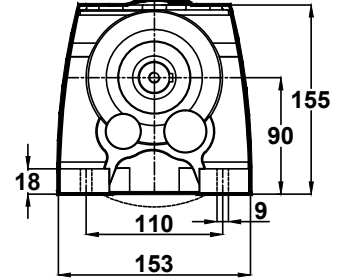
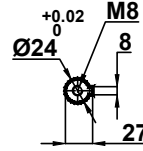
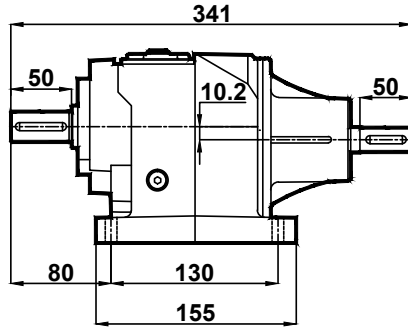
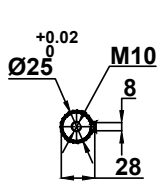


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

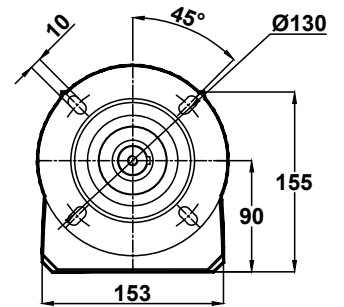
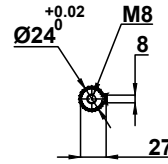
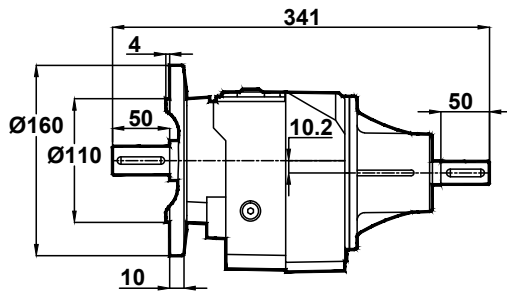
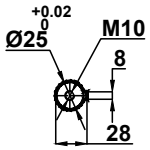


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

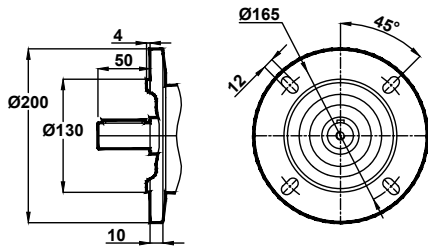
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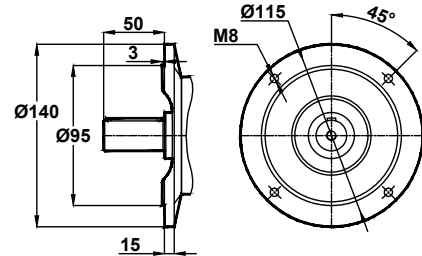
## NT102 NT103



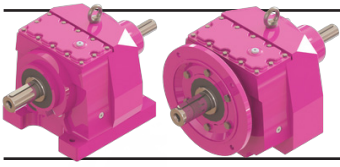
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



Opt. 2

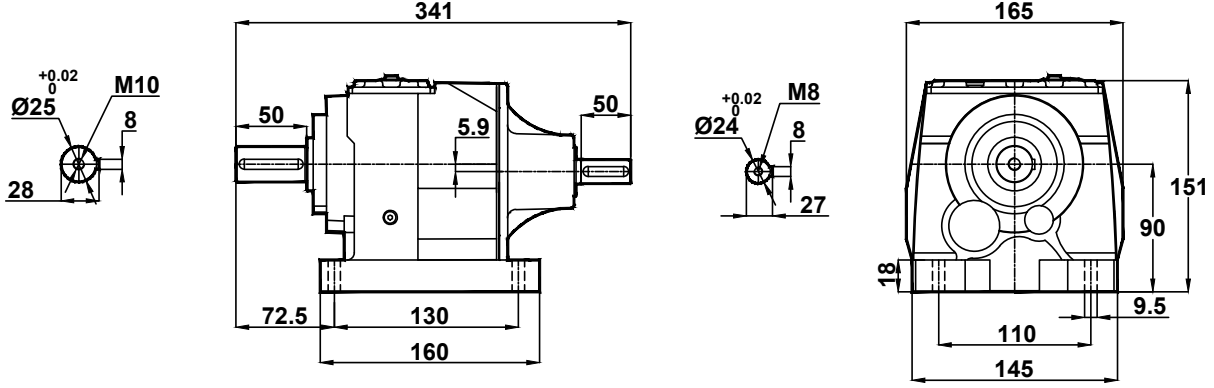


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

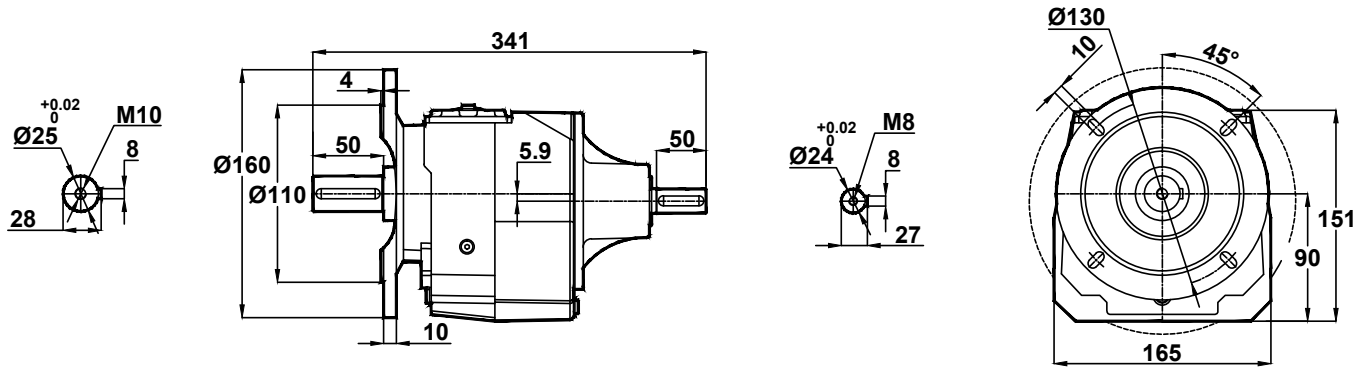


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

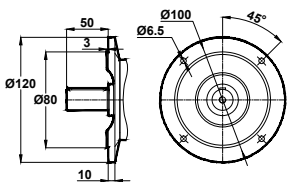
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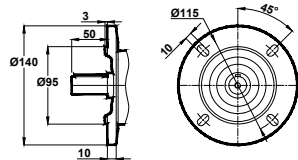
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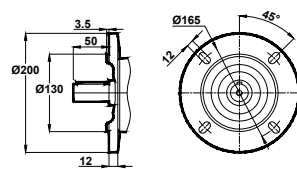
### Opsiyonel Flaş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



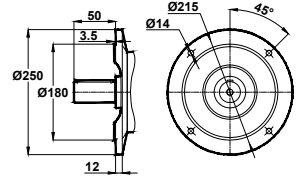
Opt. 1



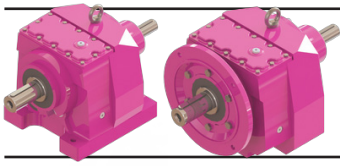
Opt. 2



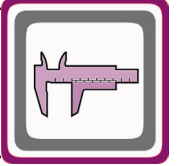
Opt. 3



Opt. 4

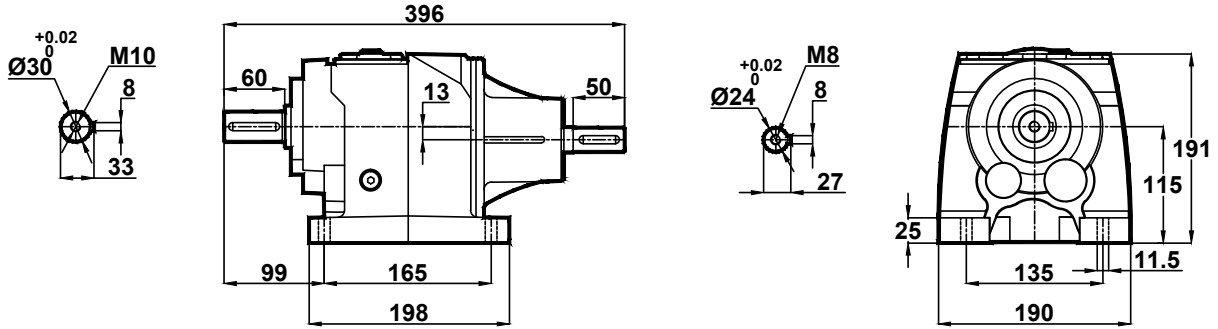


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

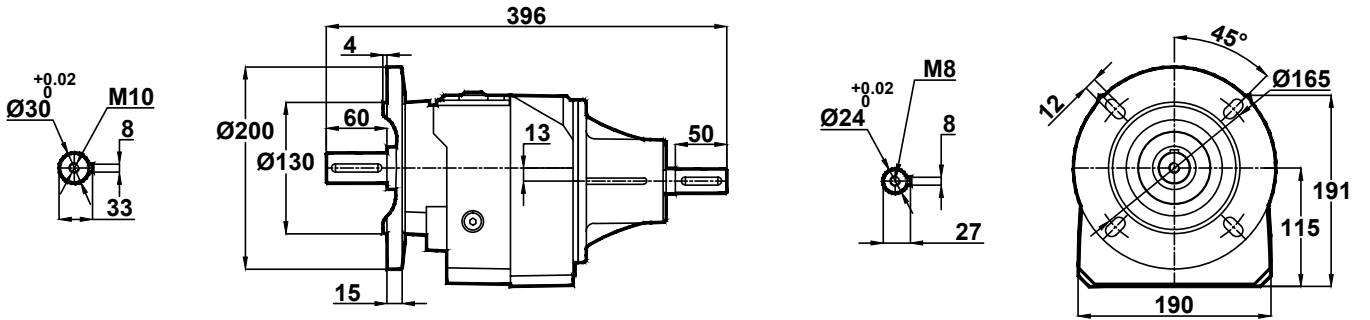


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

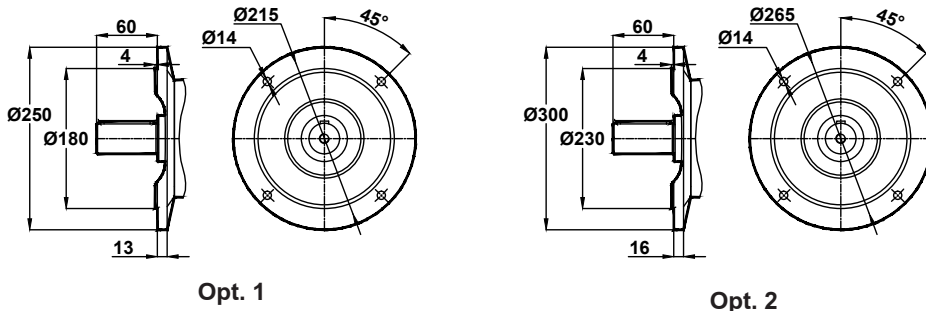
## MT202 MT203

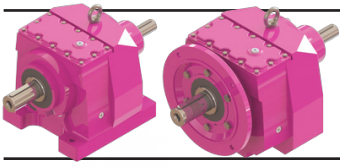


## NT202 NT203



### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



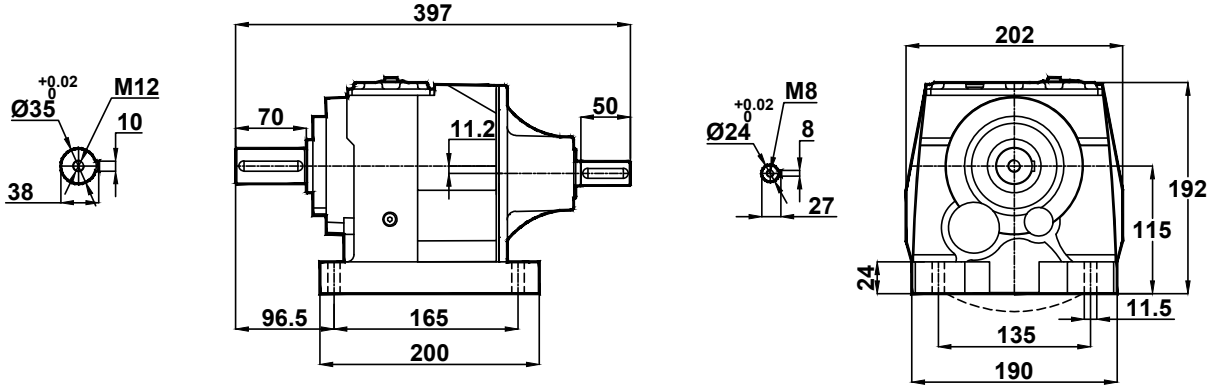


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

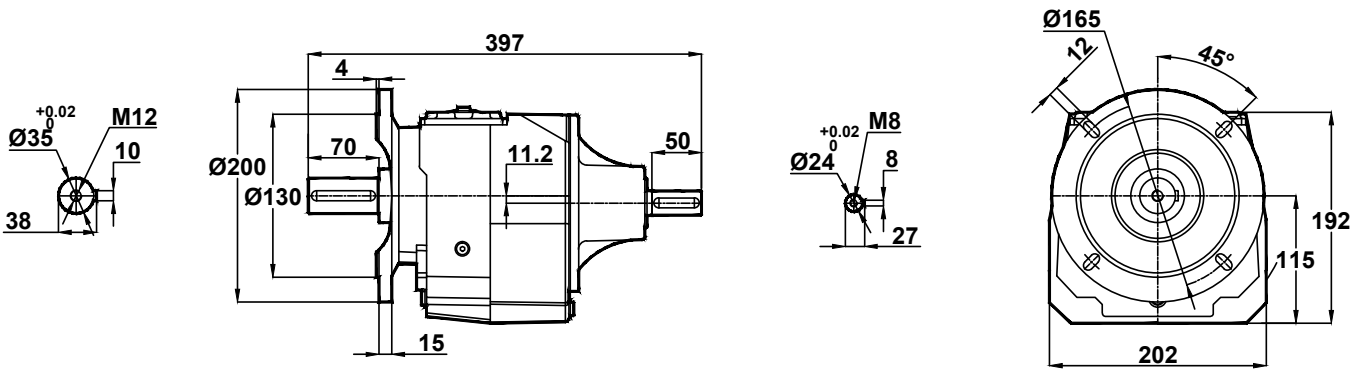


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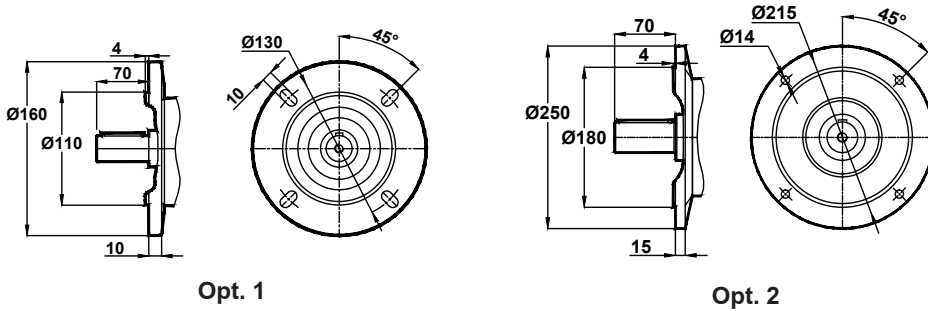
## MT272 MT273

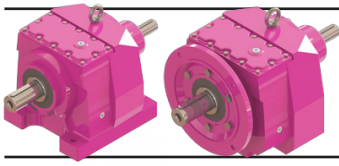


## NT272 NT273

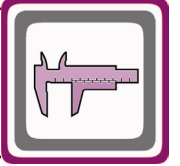


### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



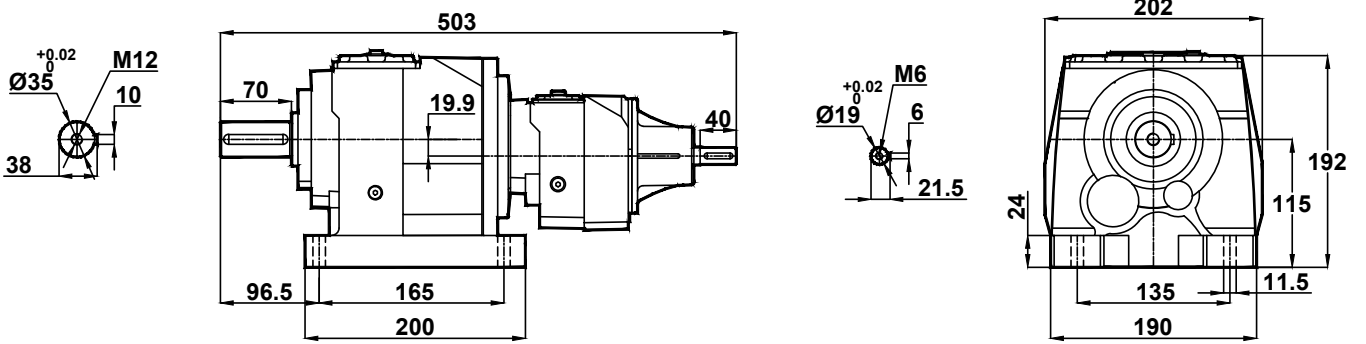


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

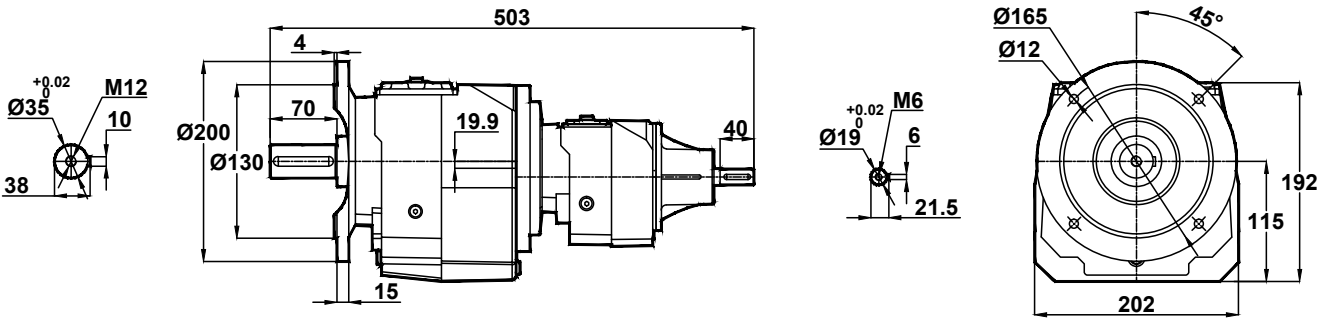


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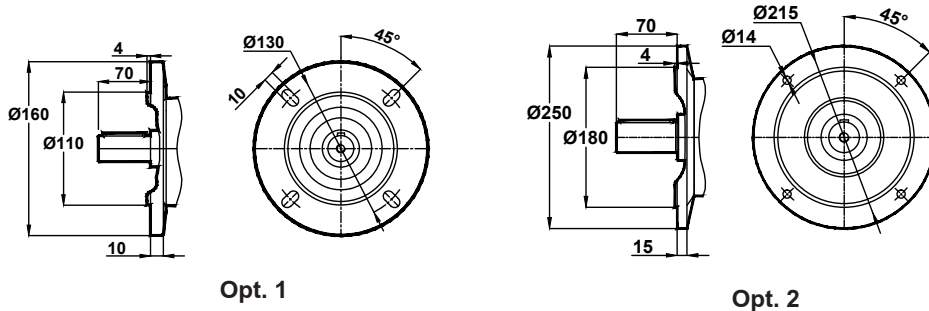
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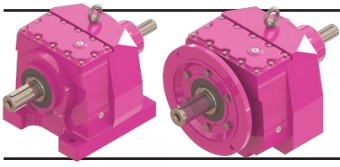


## NT275 NT276



### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



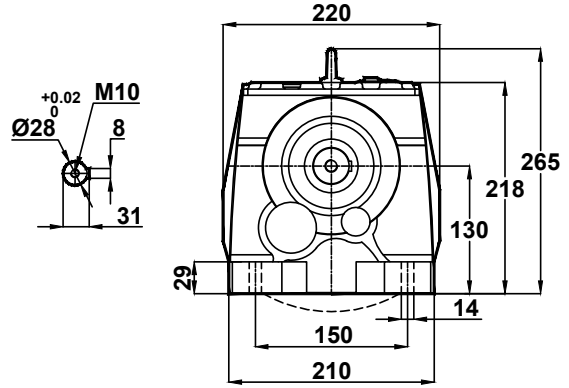
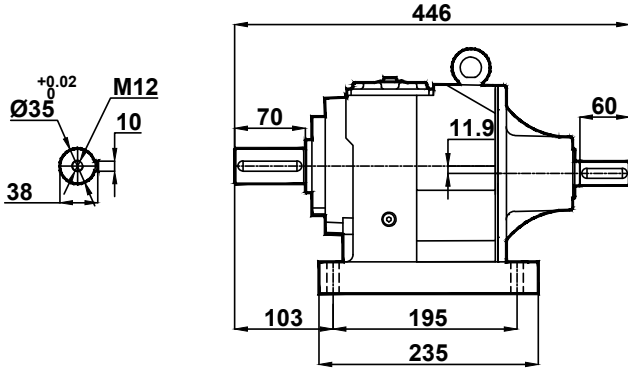


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

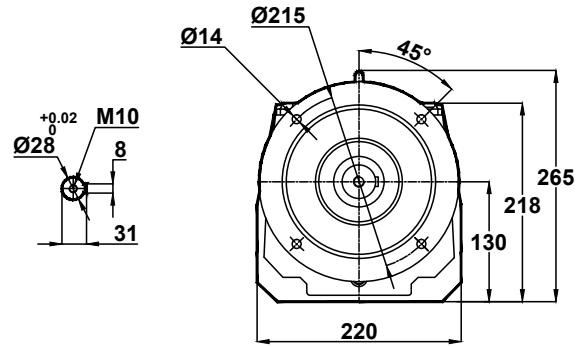
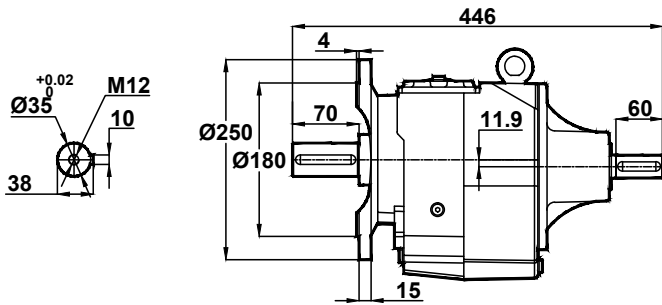


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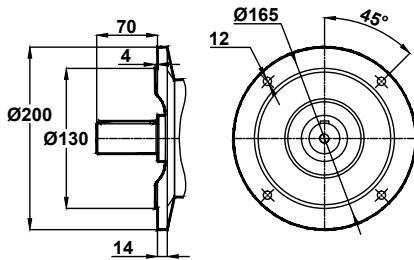
## MT282 MT283



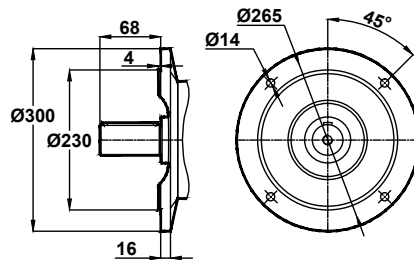
## NT282 NT283



### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

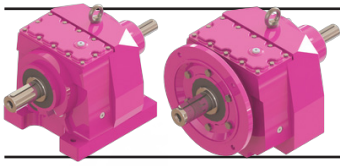


Opt. 1

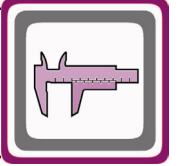


Opt. 2



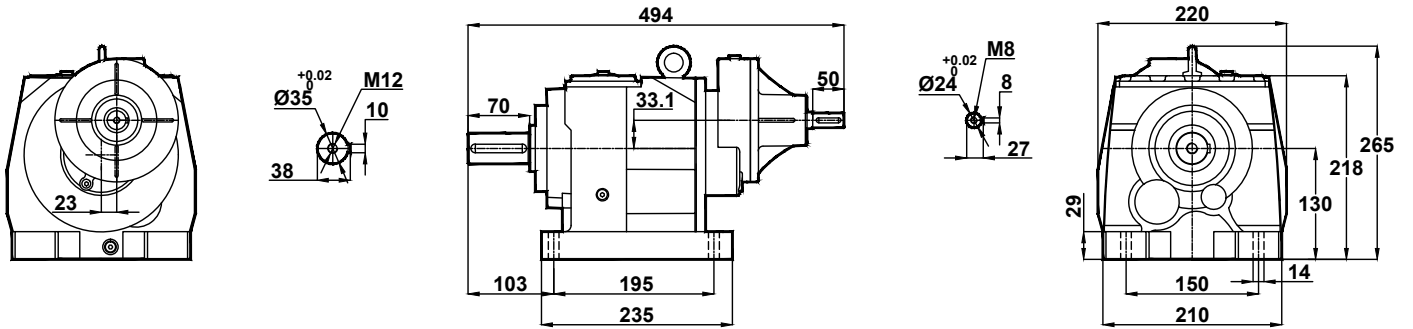


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

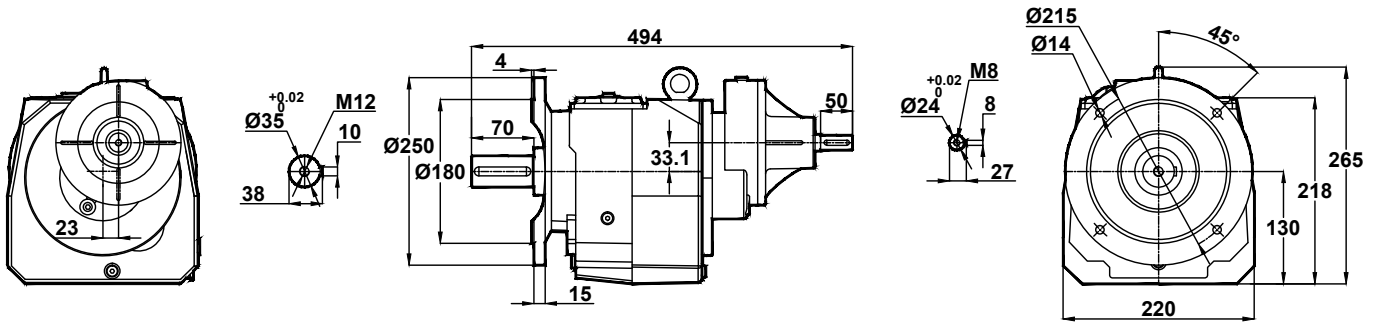


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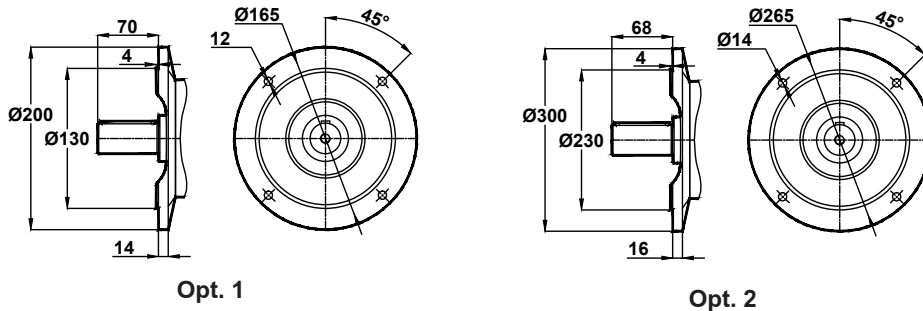
## MT284

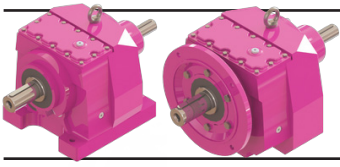


## NT284



### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



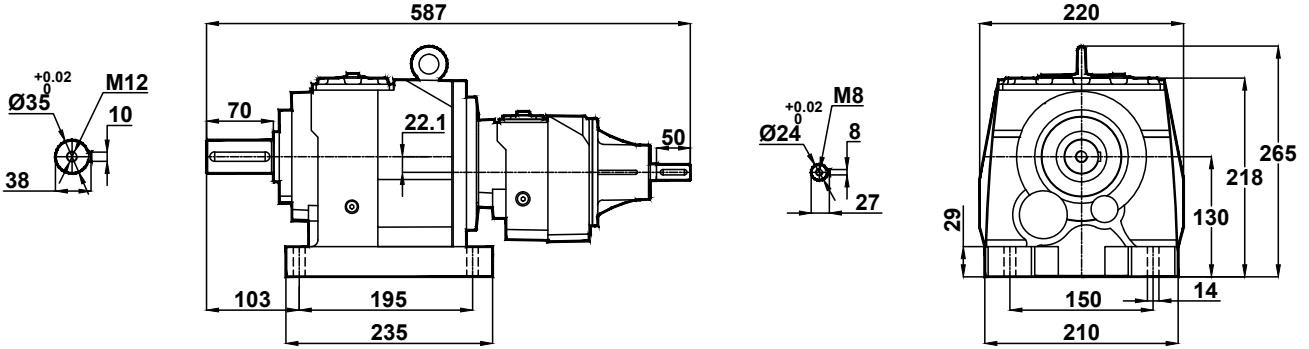


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

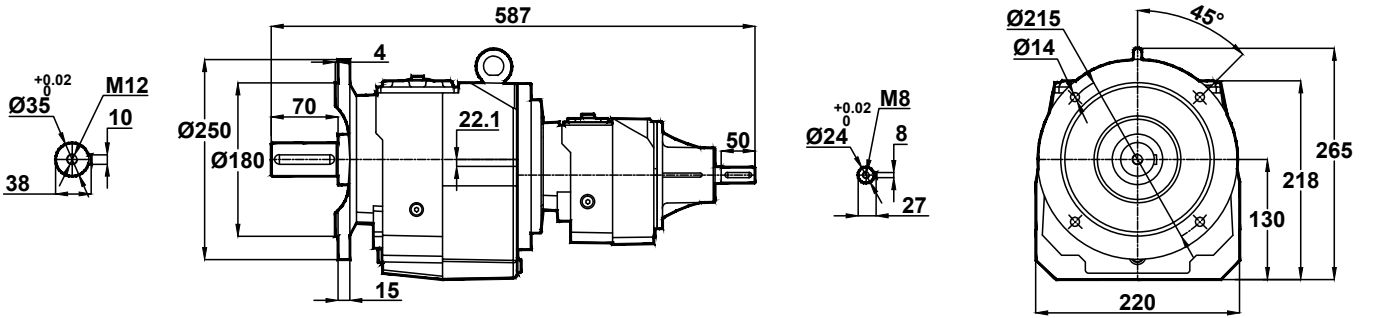


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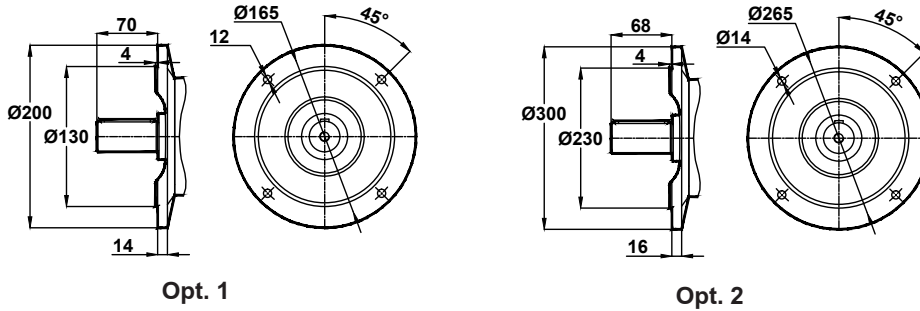
## MT285 MT286

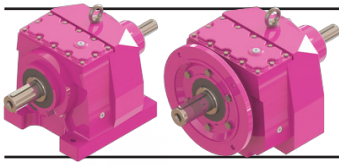


## NT285 NT286



### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

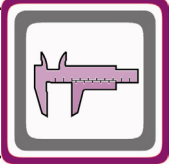




# Ölçü Sayfaları

## Dimension Pages

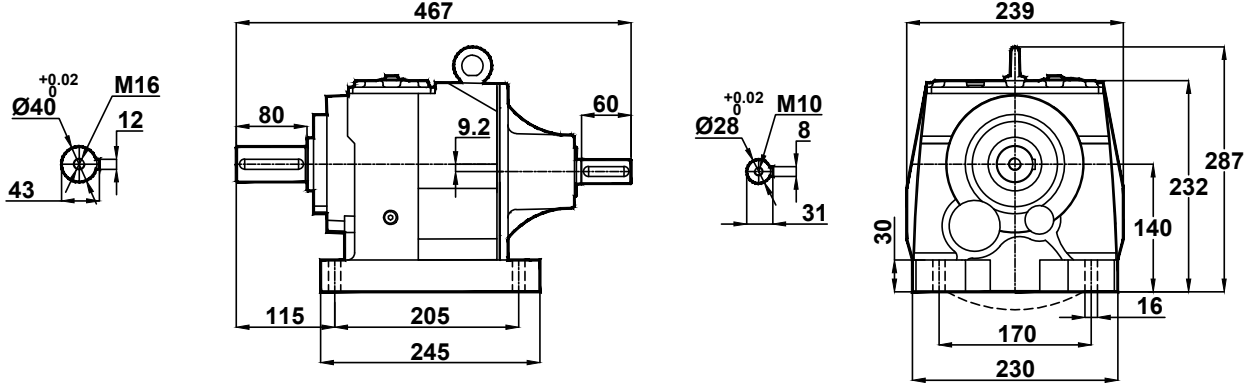
### Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

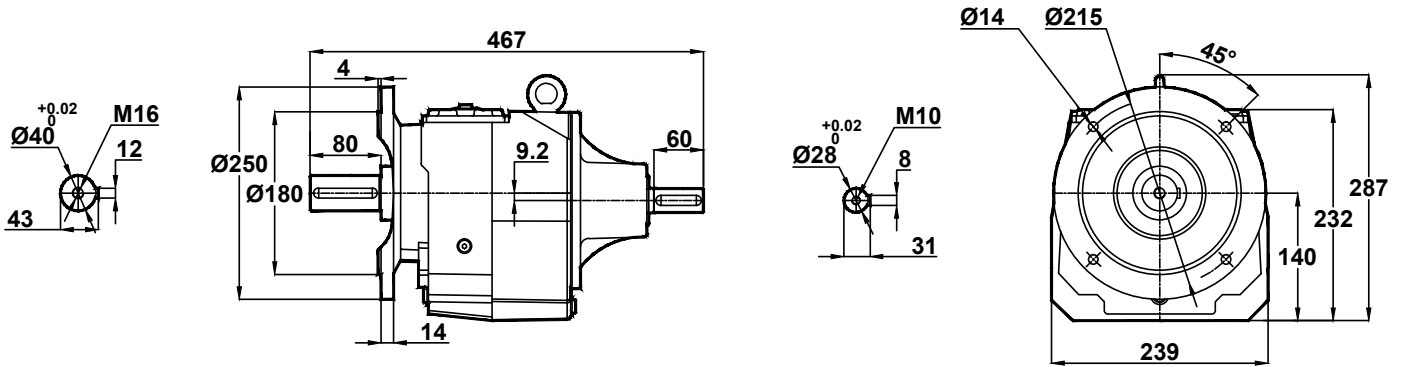
## MT372

## MT373

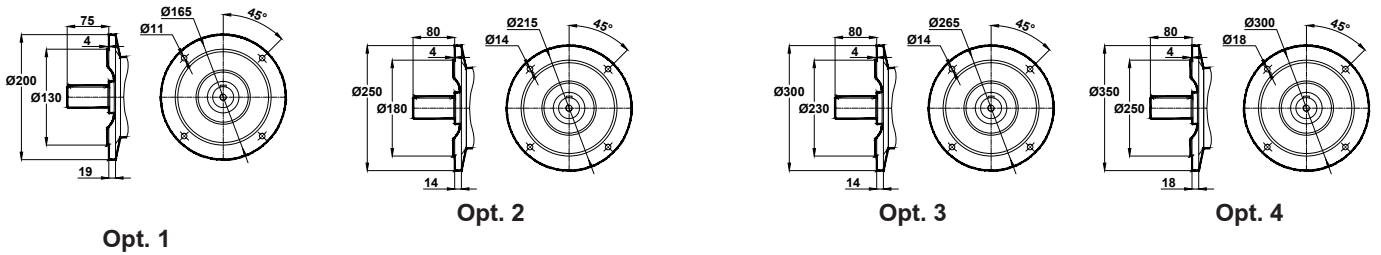


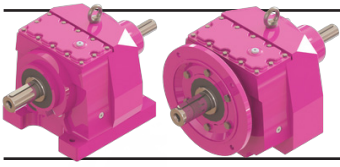
## NT372

## NT373



### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen





# Ölçü Sayfaları

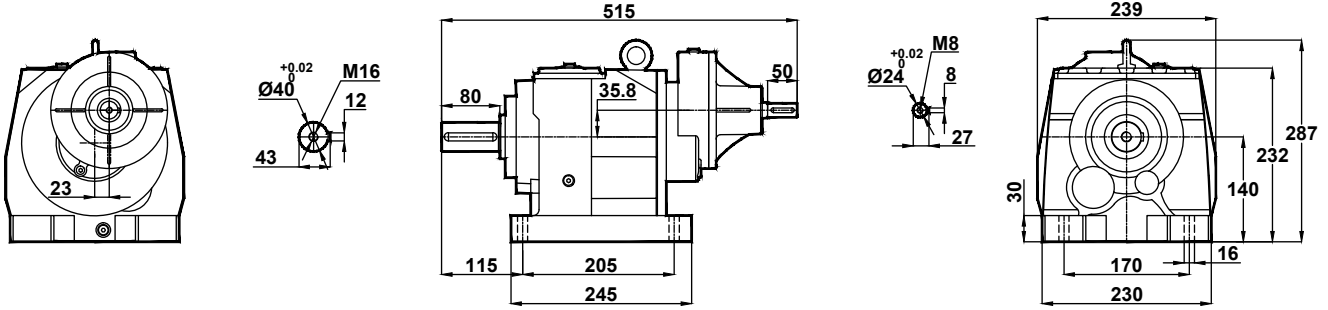
## Dimension Pages

### Abmessungsseiten

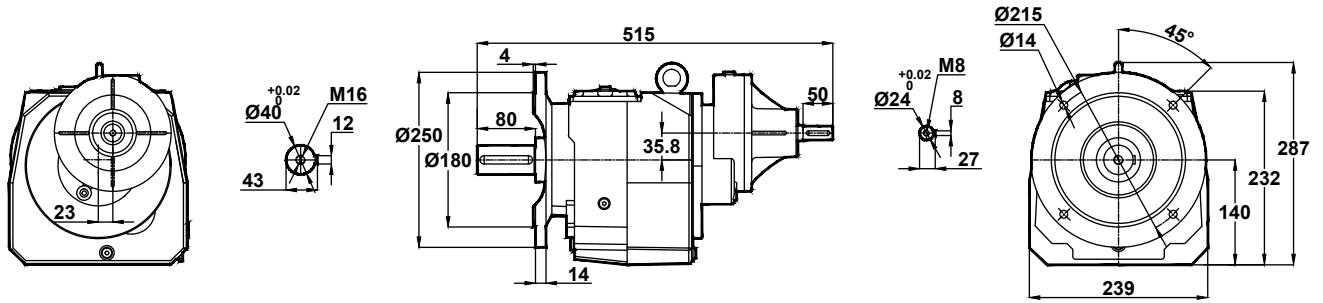


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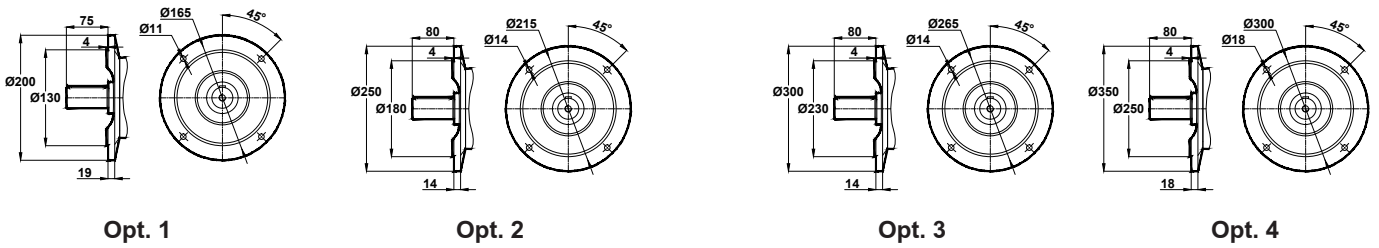
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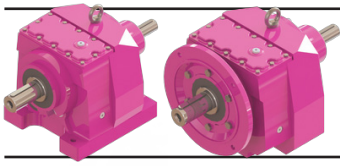


## NT374



### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

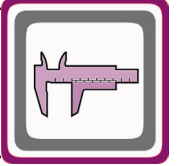




# Ölçü Sayfaları

## Dimension Pages

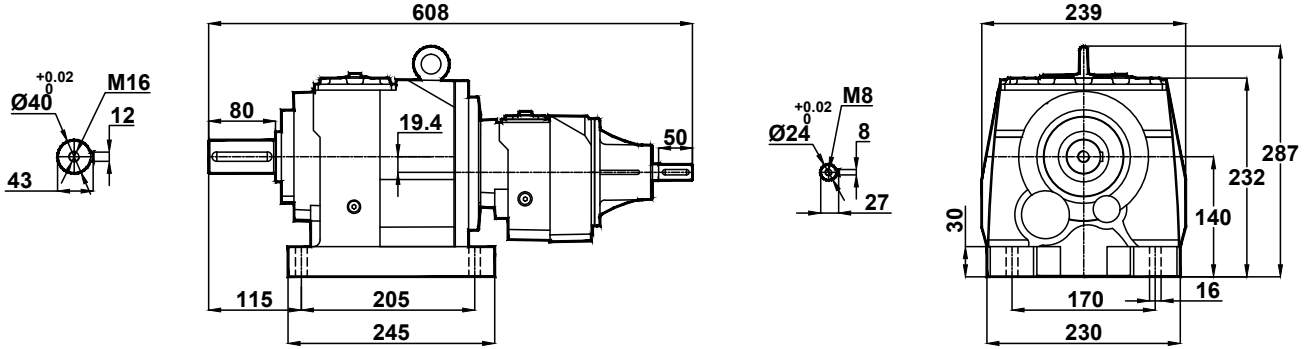
### Abmessungsseiten



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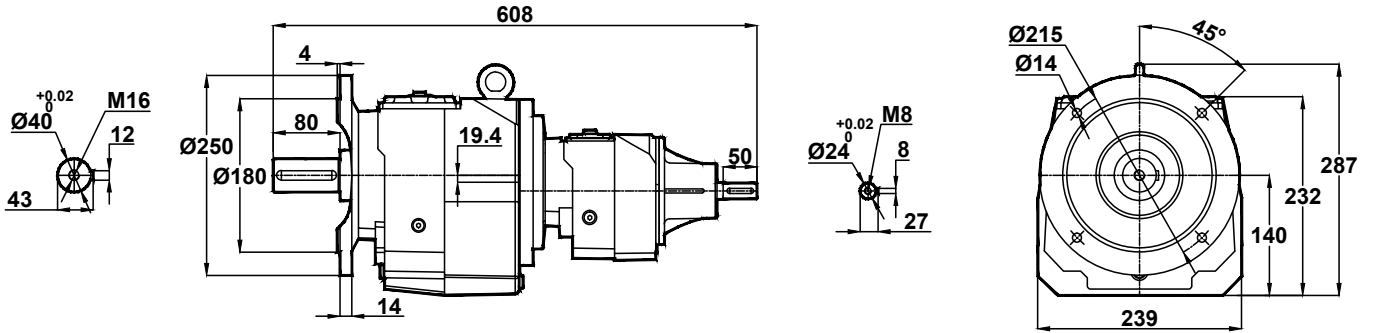
### MT375

### MT376

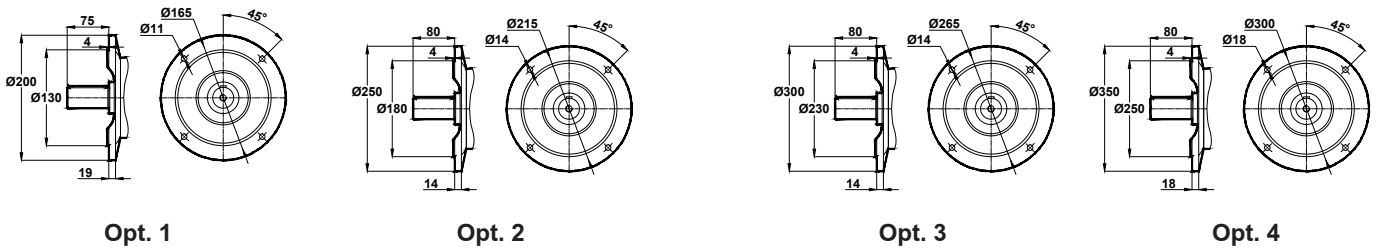


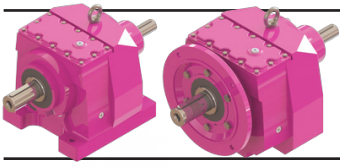
### NT375

### NT376

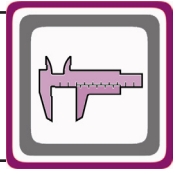


### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



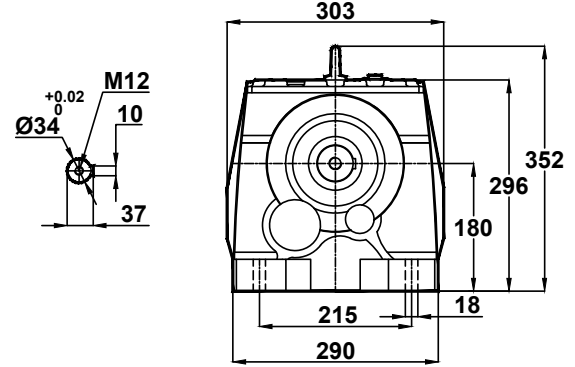
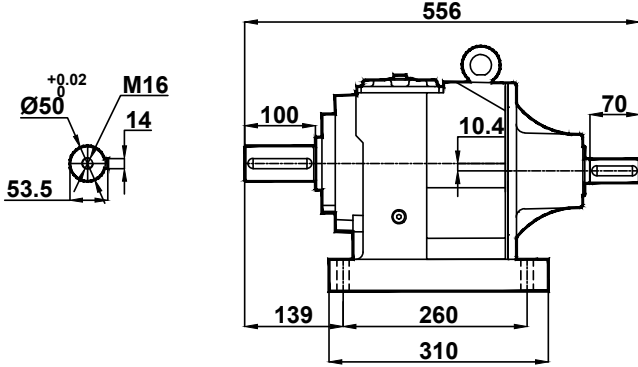


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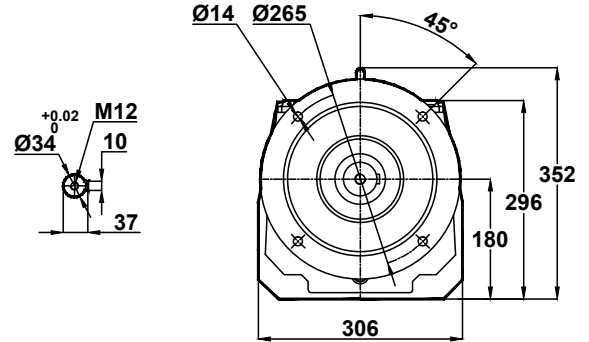
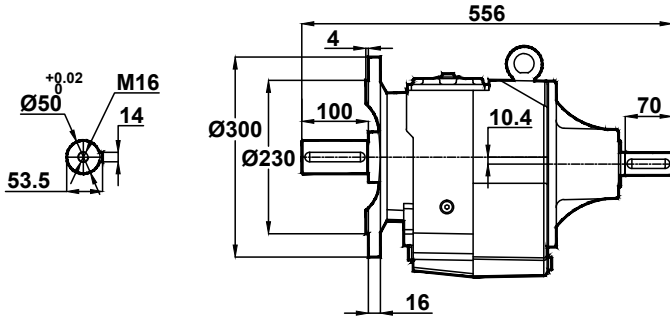


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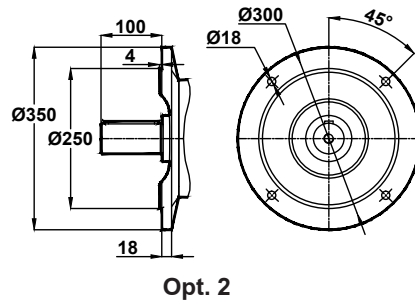
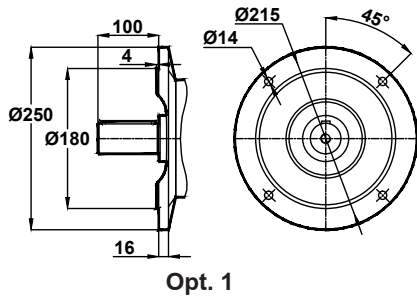
## MT472 MT473

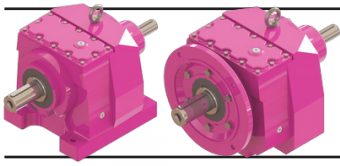


## NT472 NT473

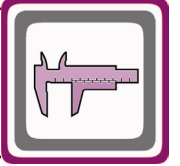


### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



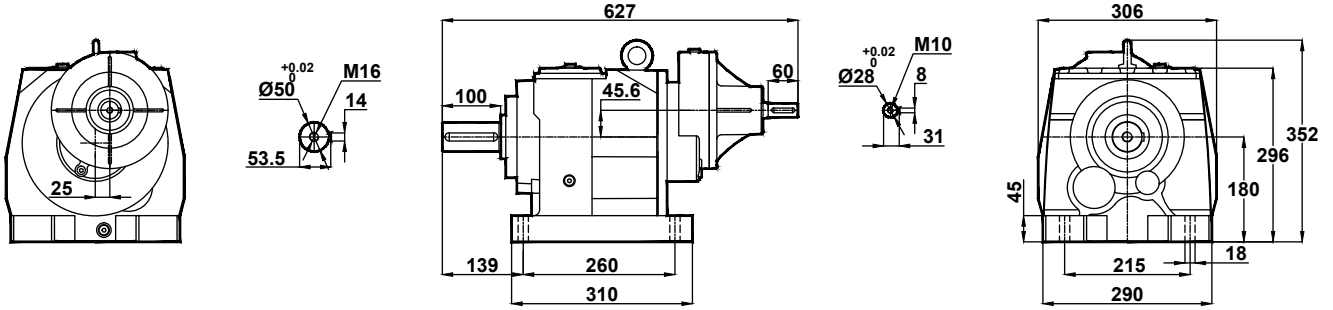


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

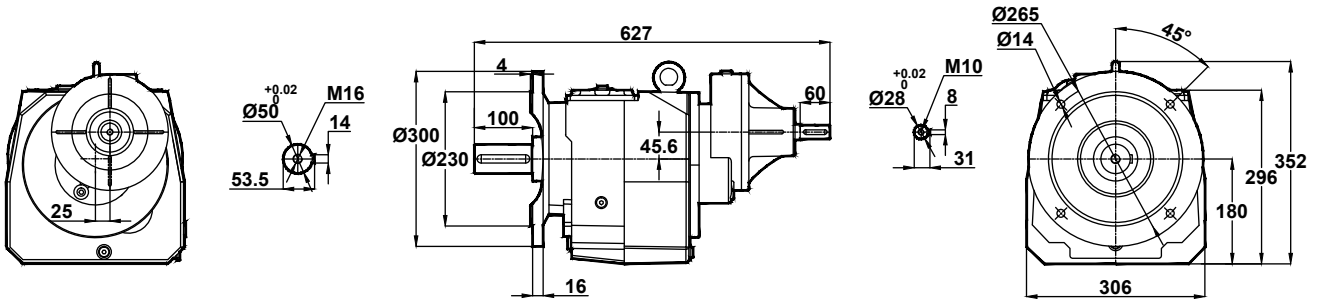


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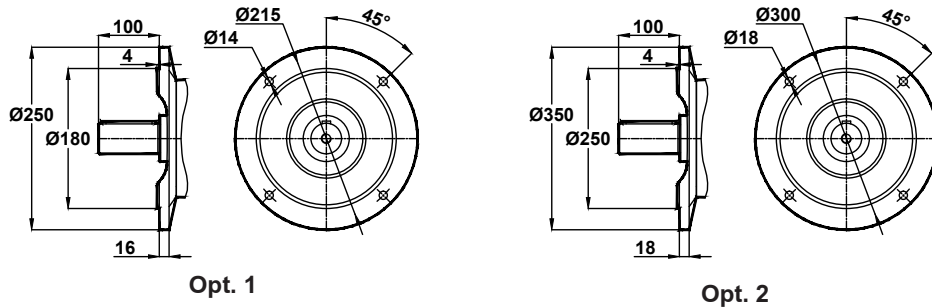
## MT474

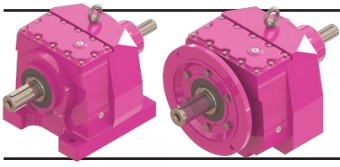


## NT474



### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



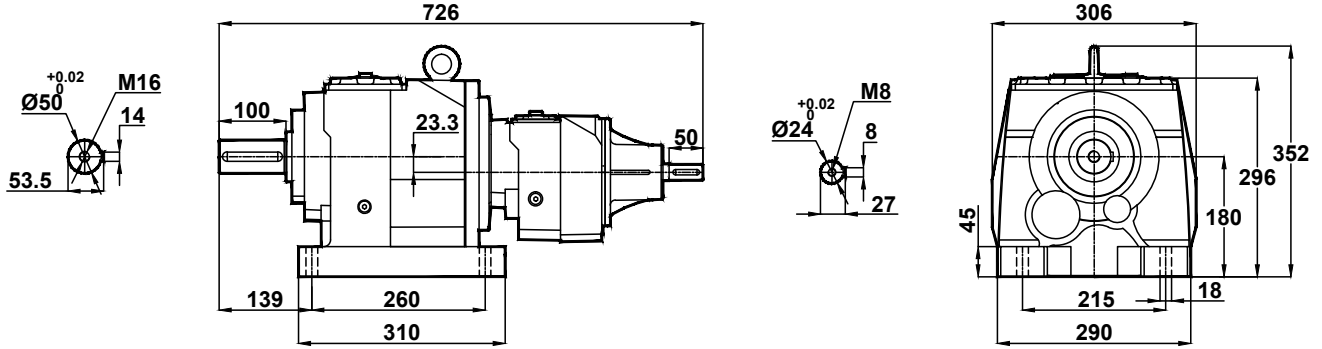


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

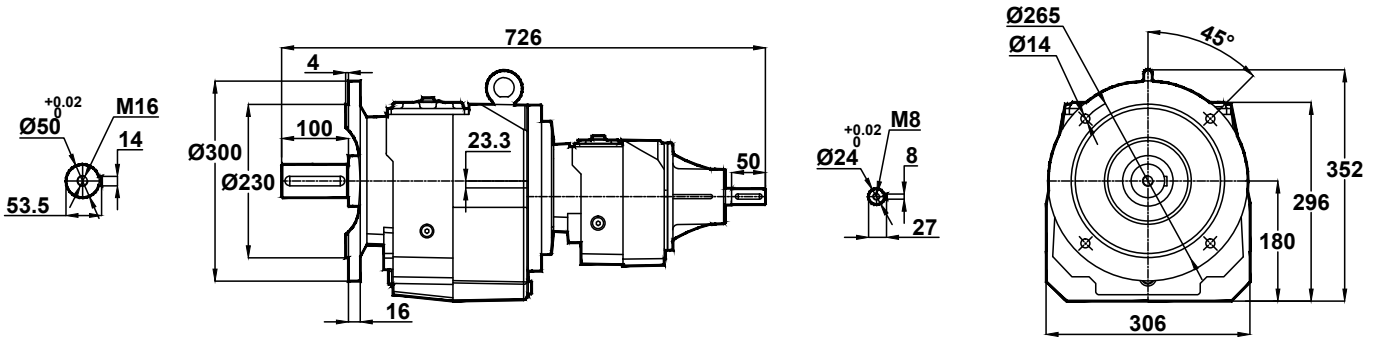


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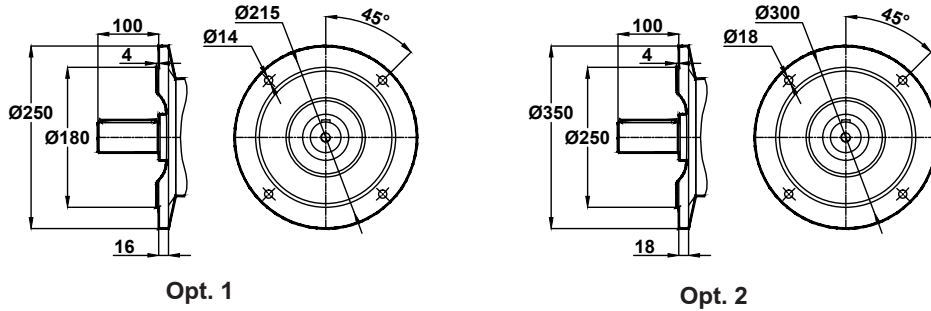
## MT475 MT476



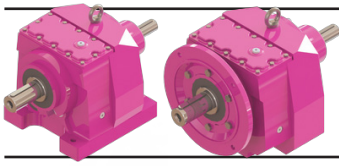
## NT475 NT476



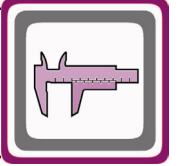
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen





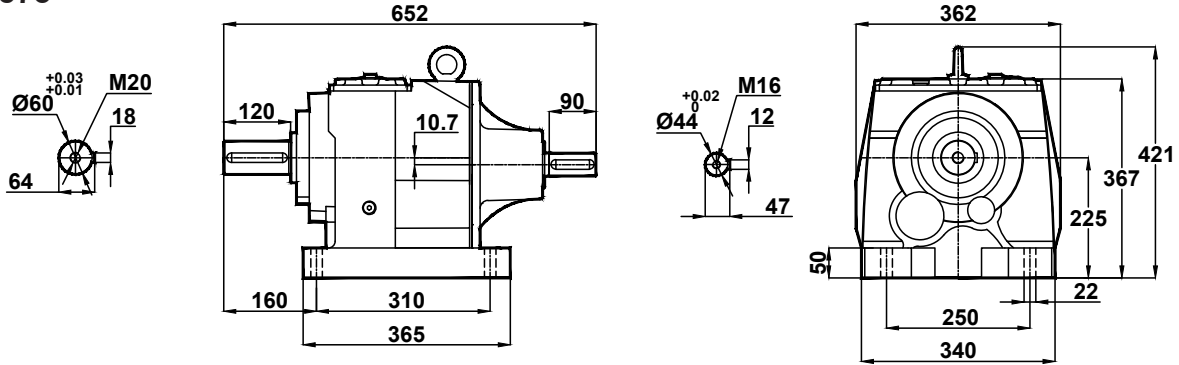


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

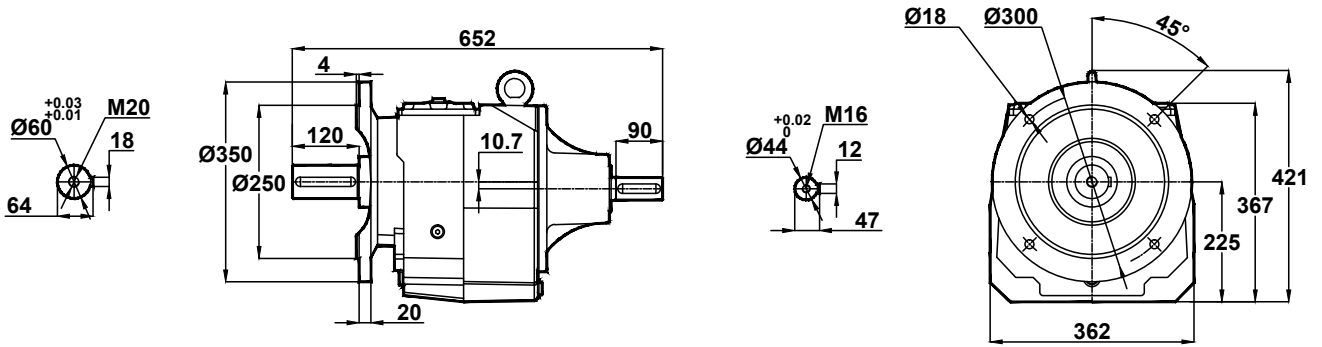


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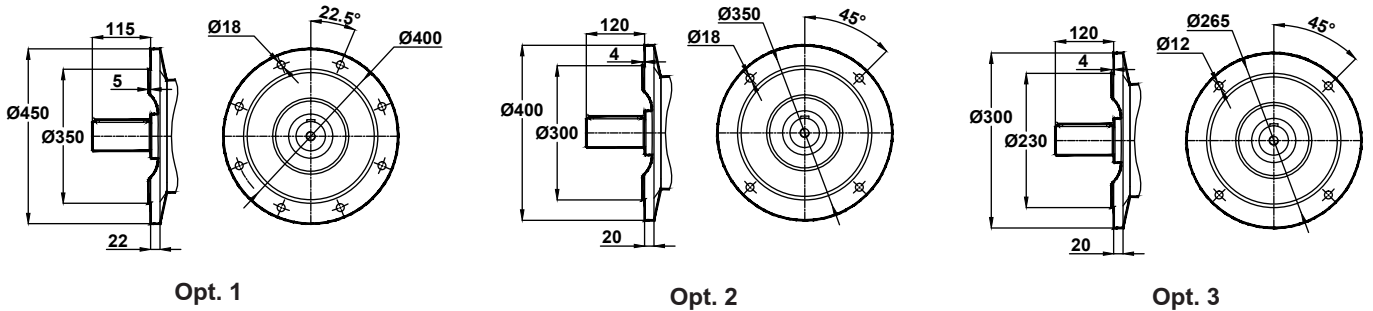
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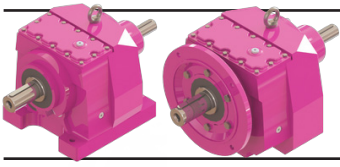


## NT572 NT573



### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



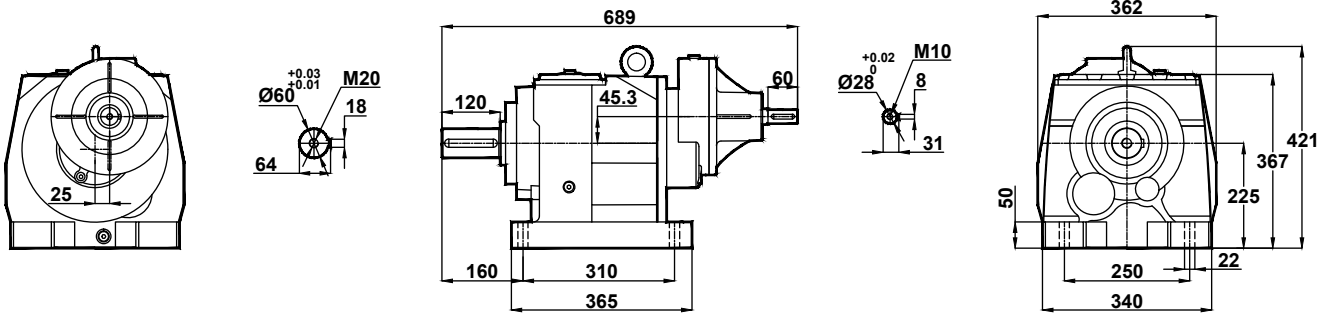


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

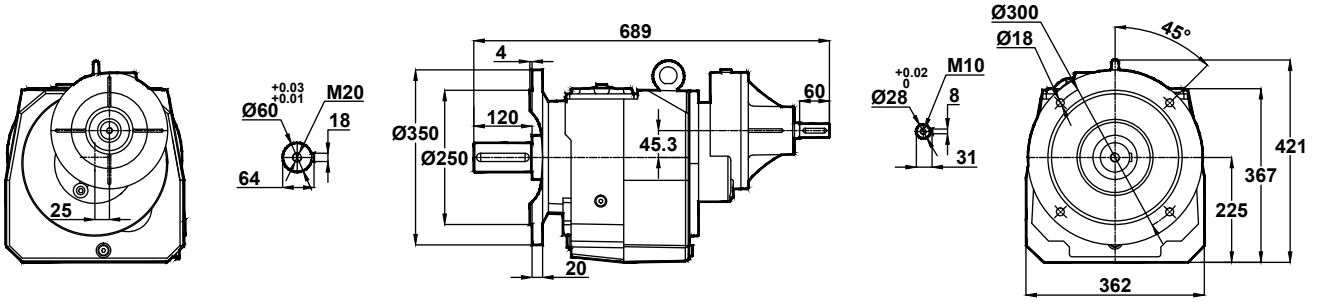


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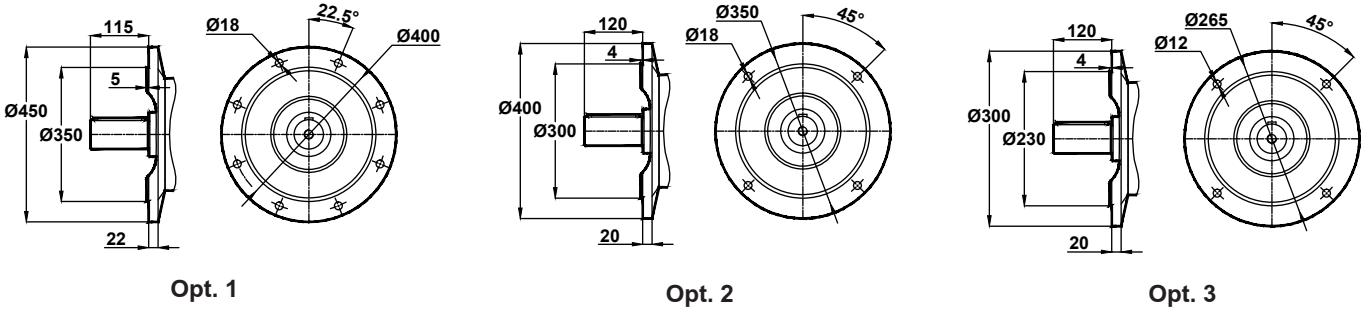
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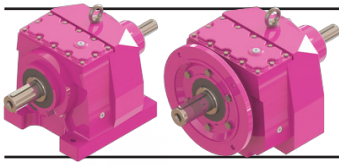


## NT574

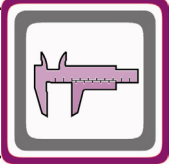


### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



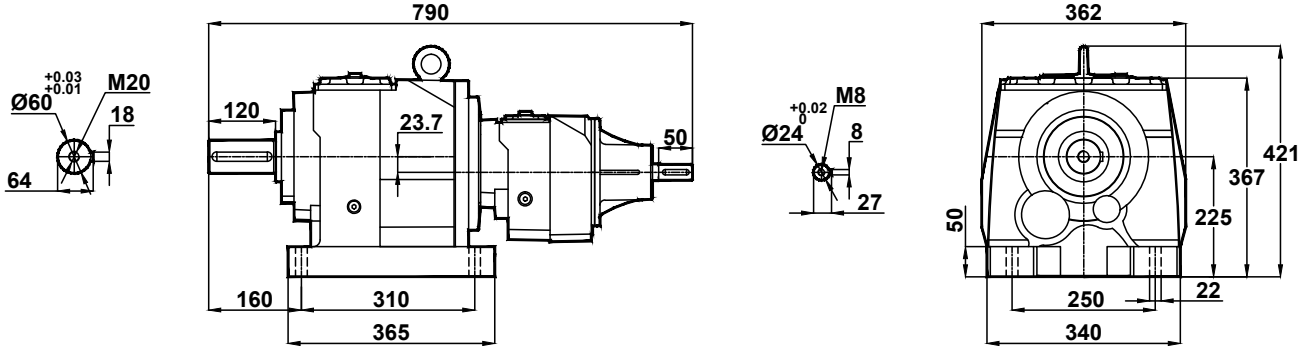


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

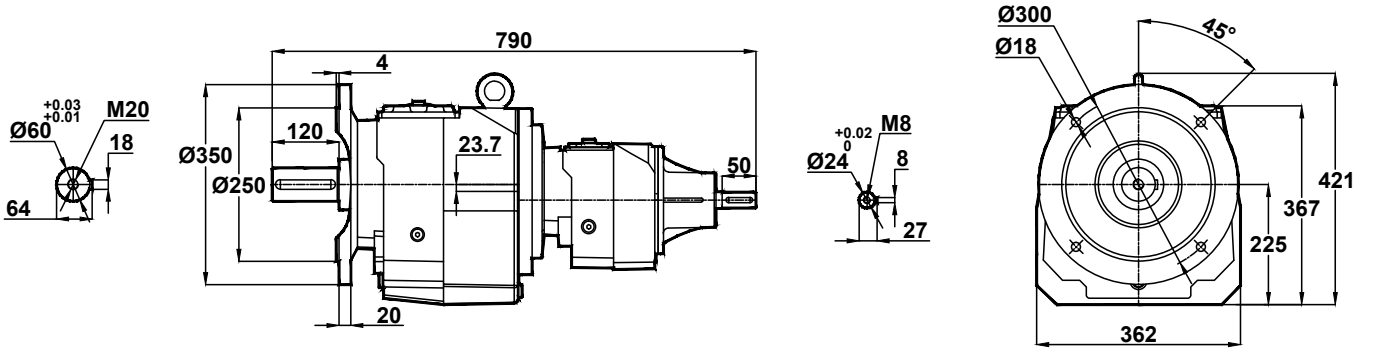


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

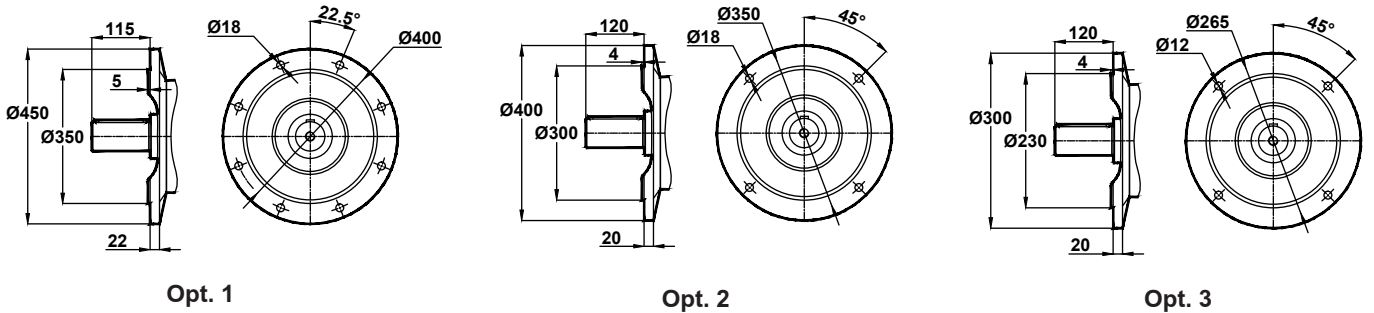
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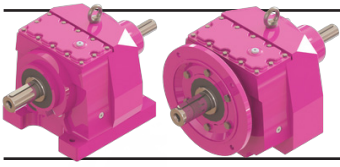


## NT575 NT576



### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



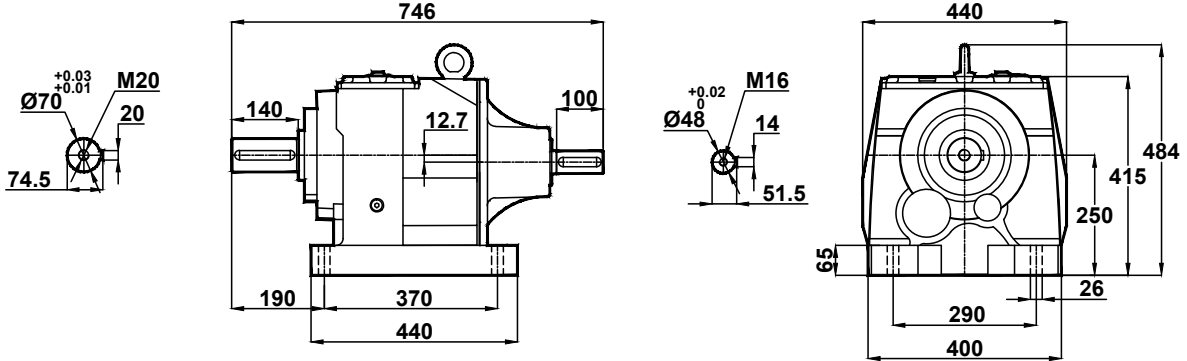


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

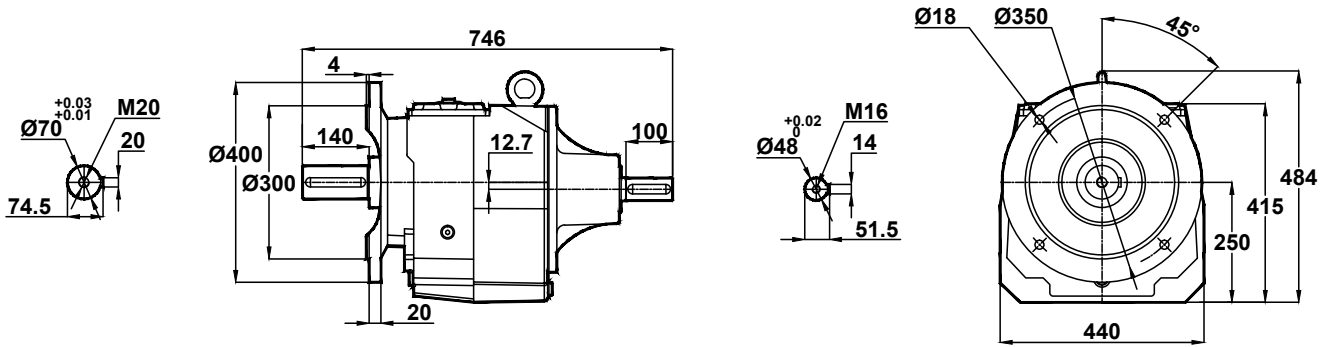


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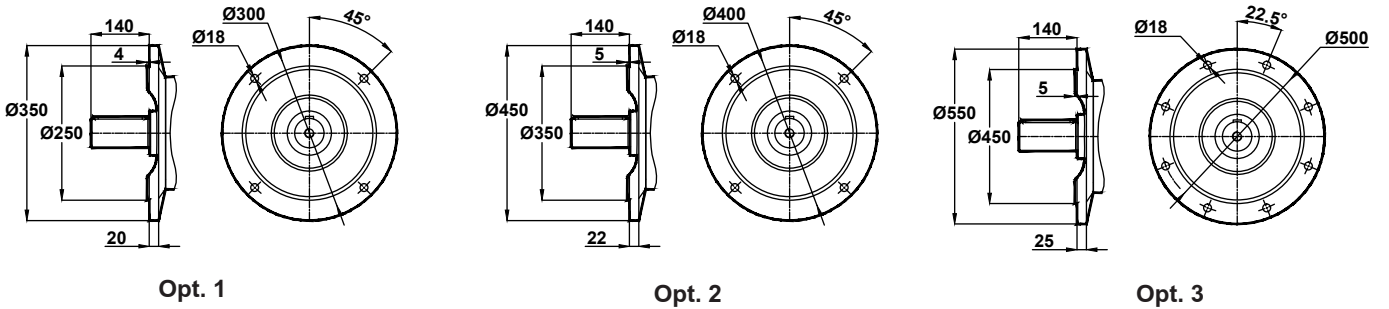
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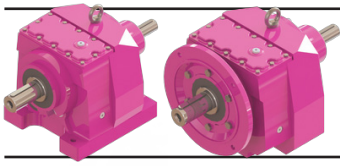


## NT672 NT673

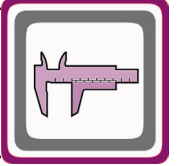


### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



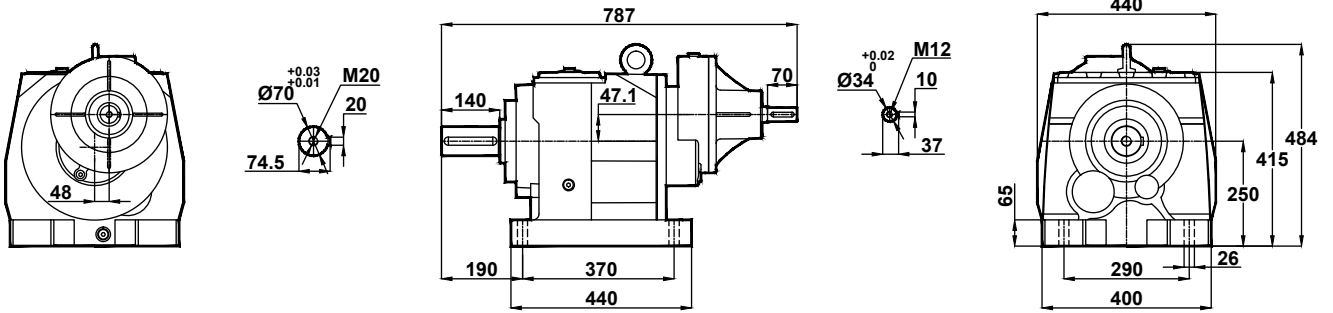


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

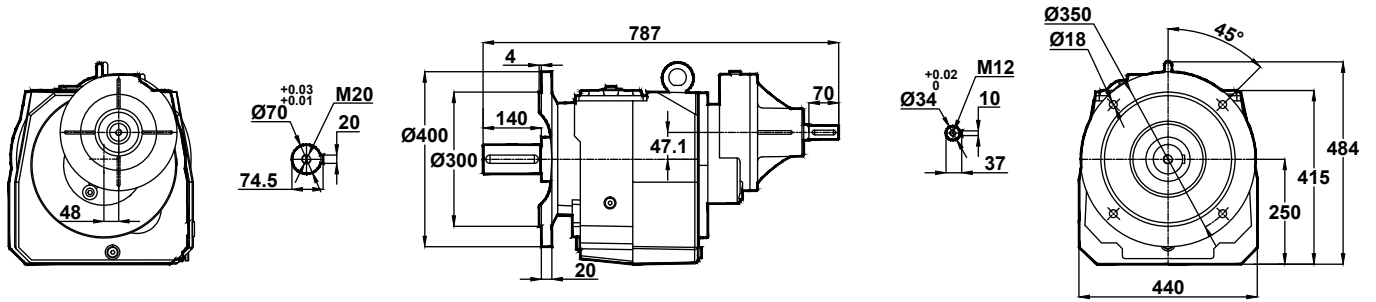


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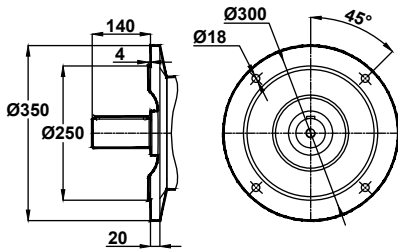
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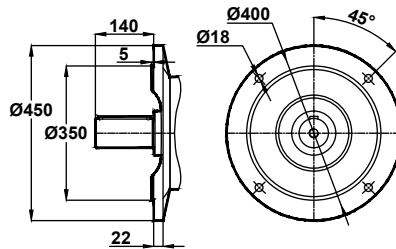
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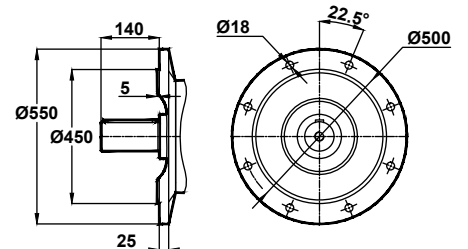
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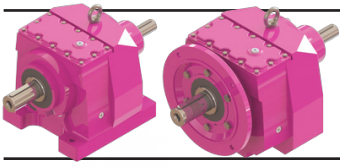
Opt. 1



Opt. 2



Opt. 3

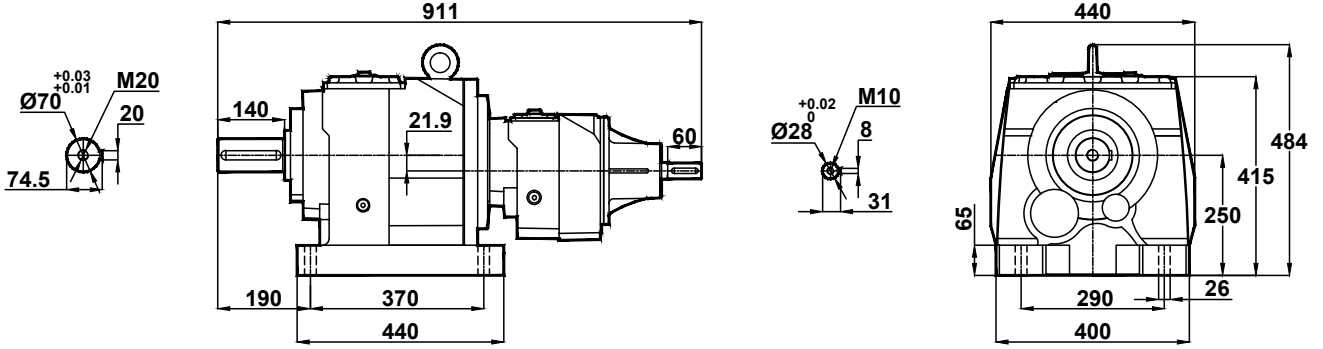


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

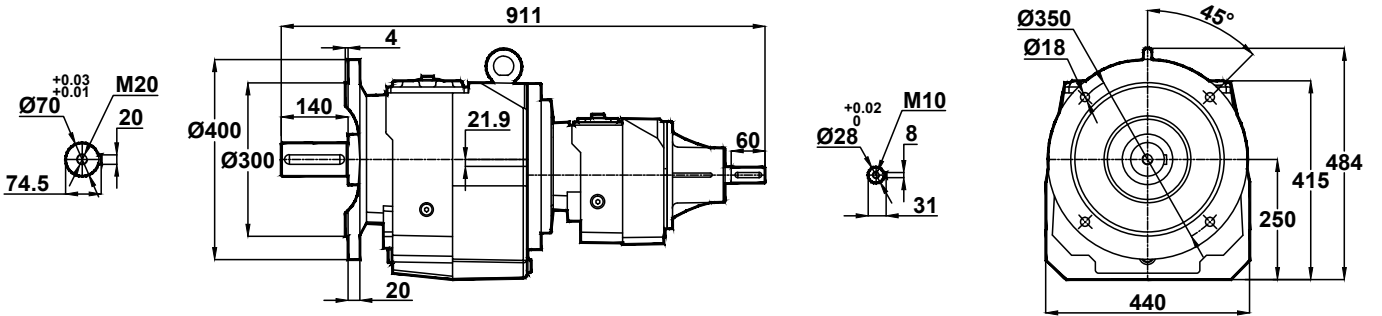


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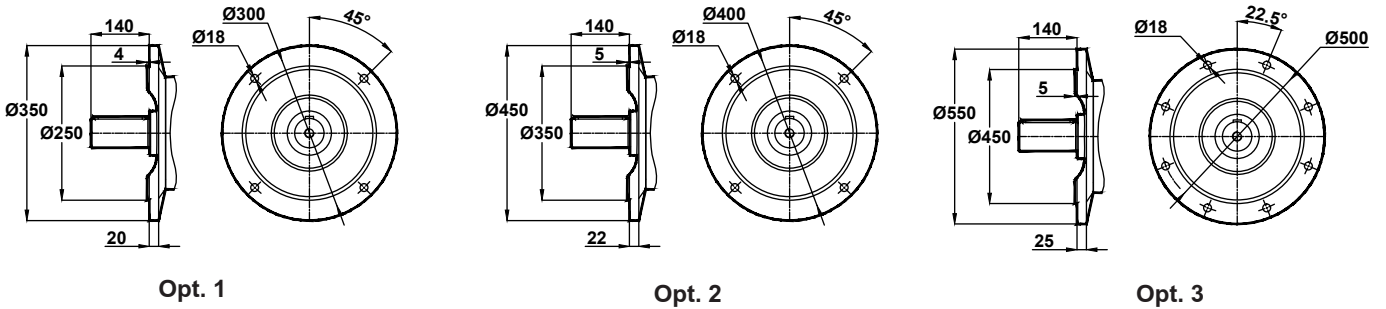
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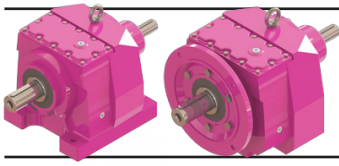


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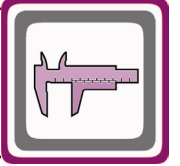


### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



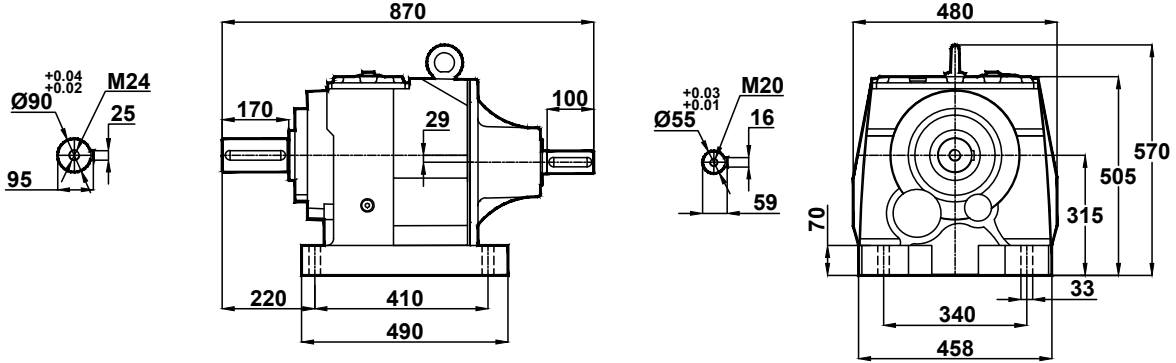


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

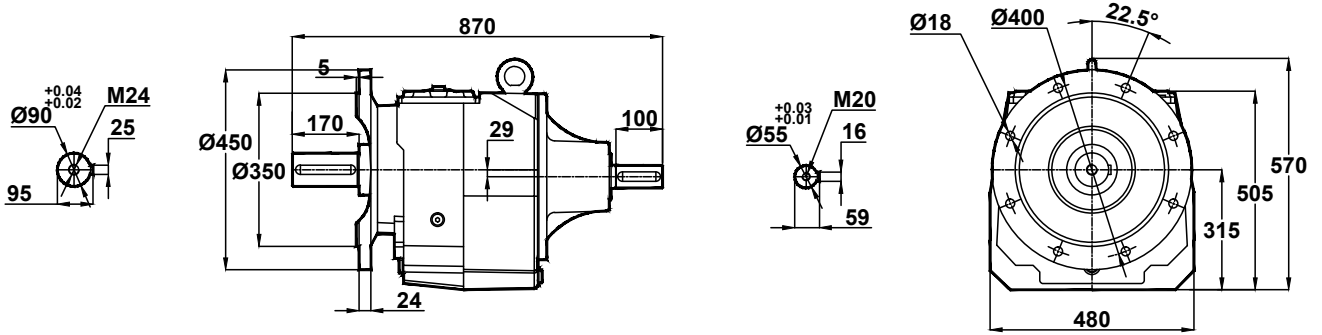


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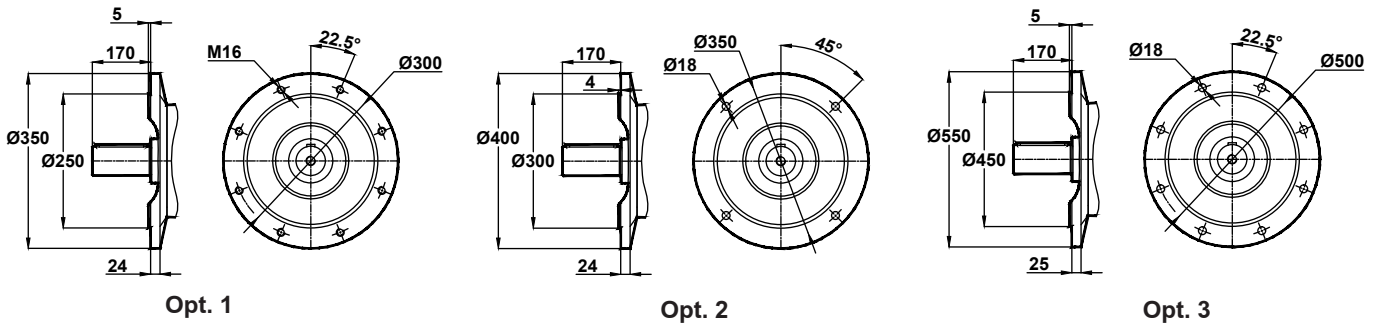
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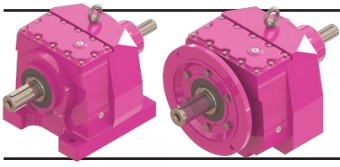


## NT772 NT773



### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



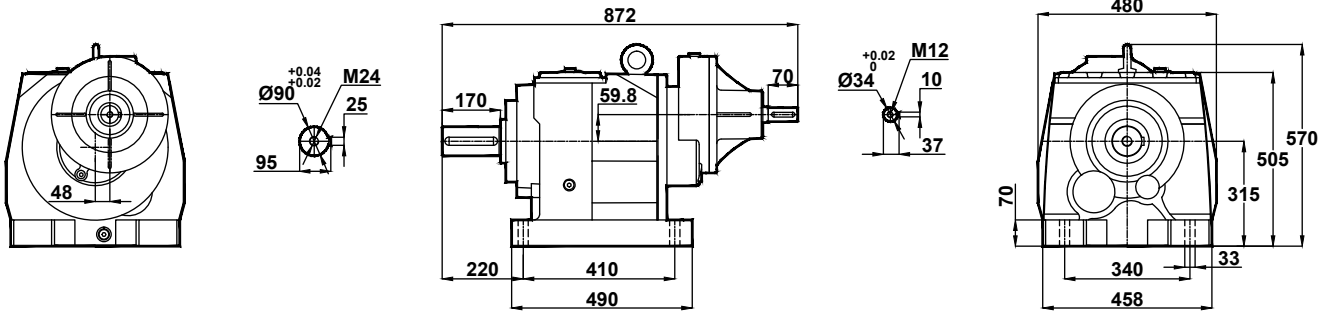


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

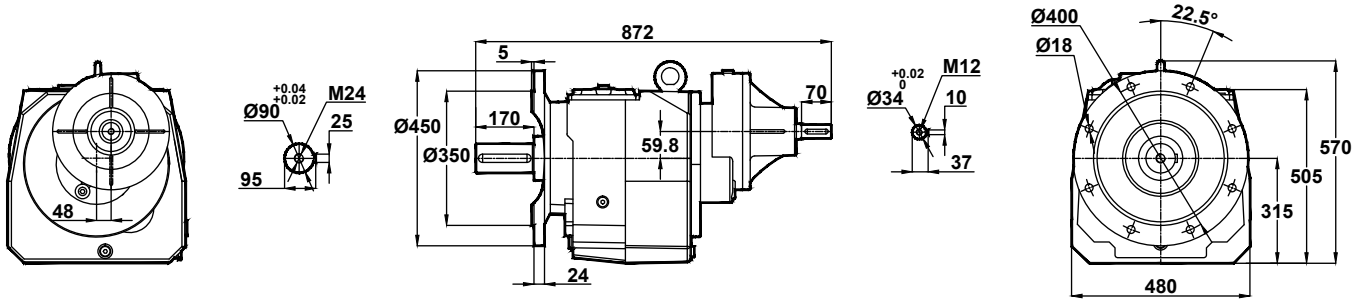


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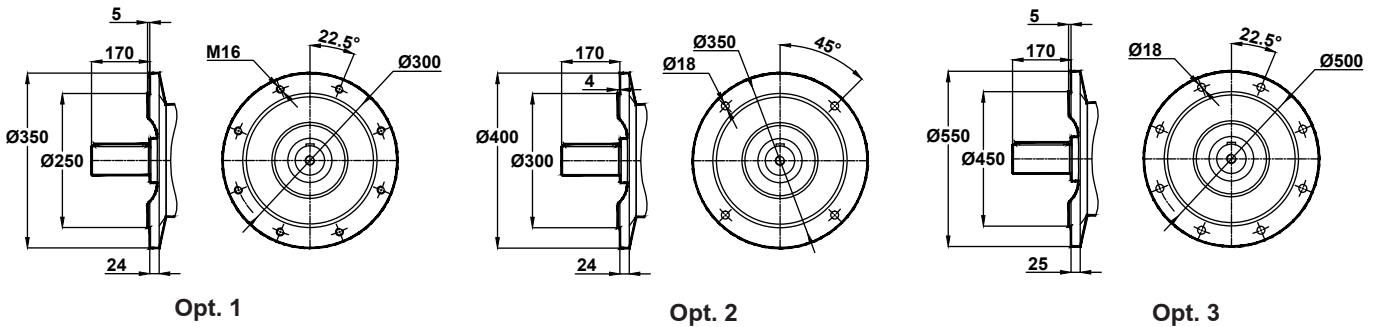
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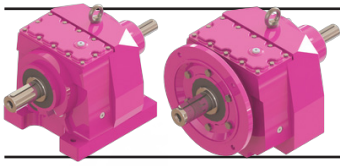
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### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



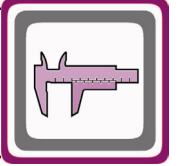




# Ölçü Sayfaları

## Dimension Pages

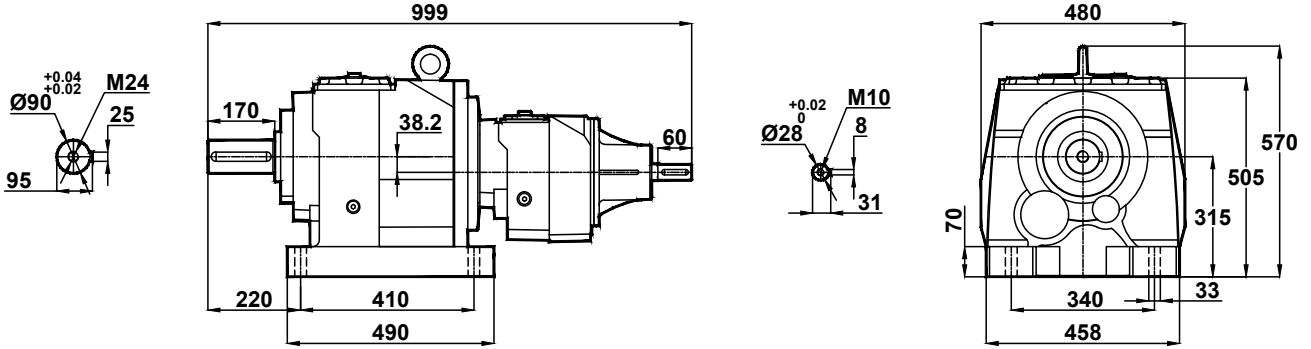
### Abmessungsseiten



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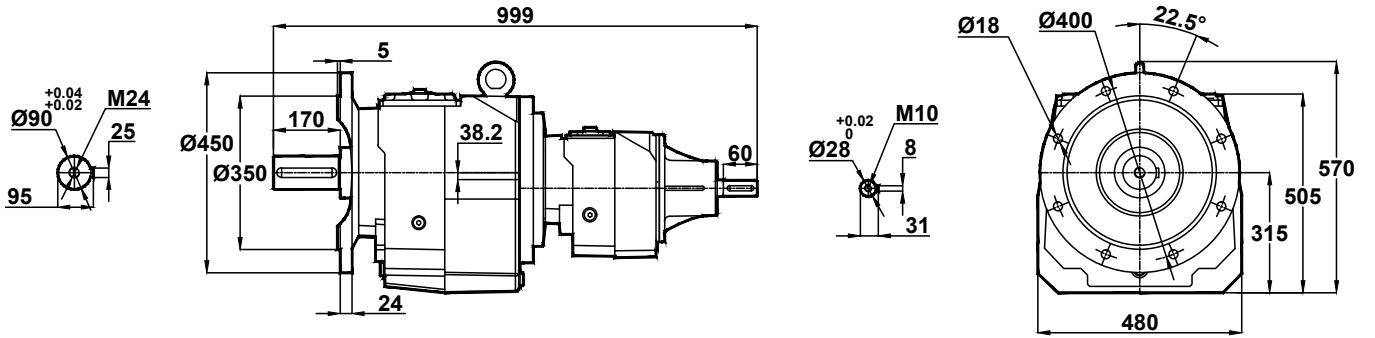
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## MT776

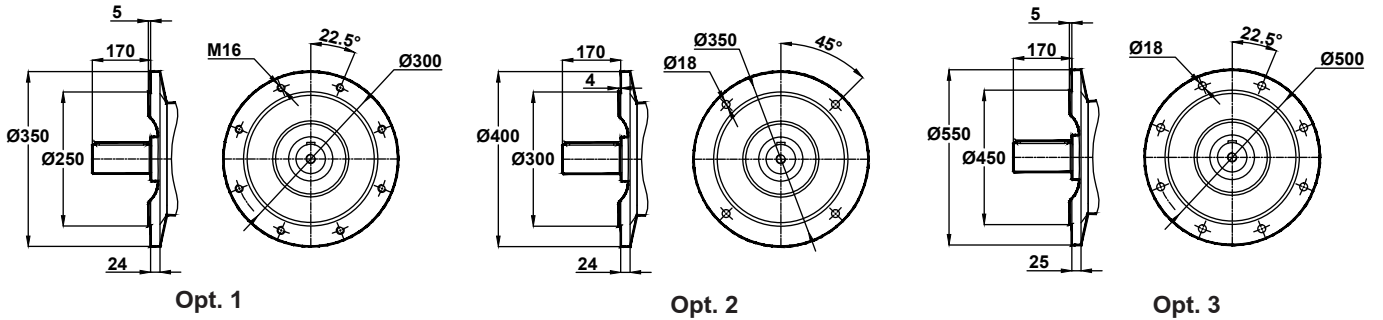


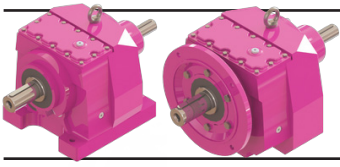
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## NT776



### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flansabmessungen



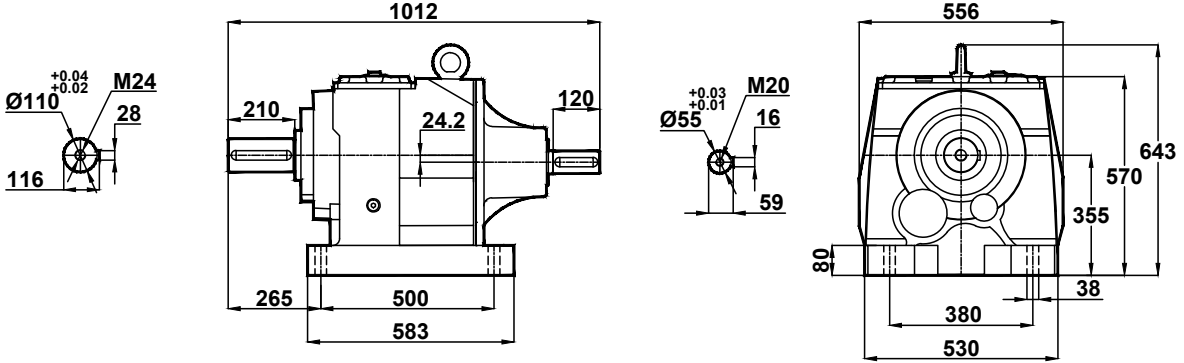


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

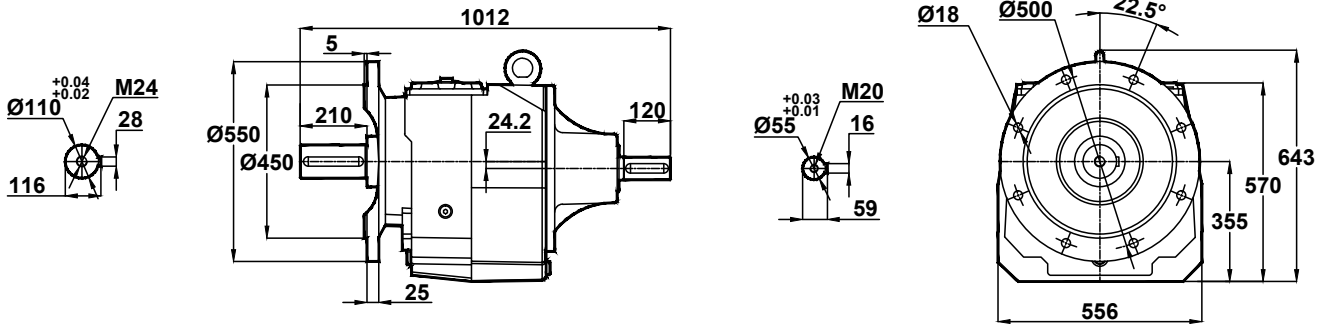


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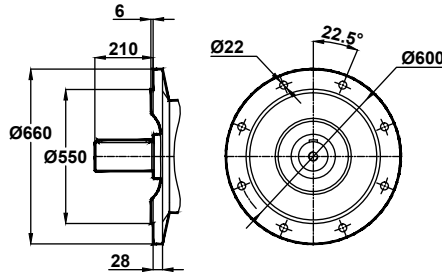
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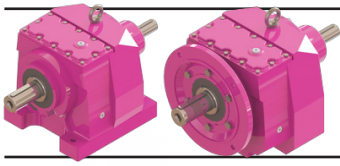
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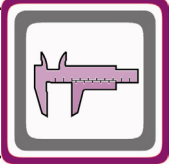
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

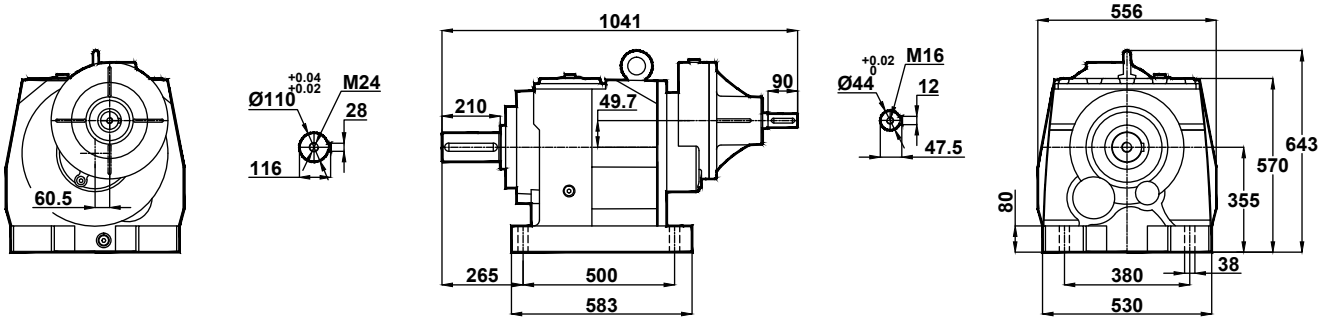


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

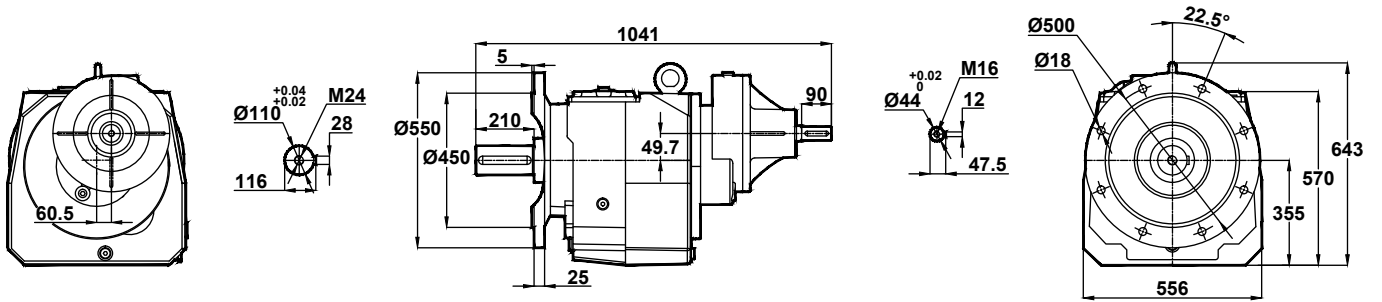


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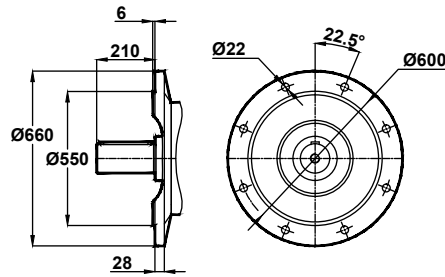
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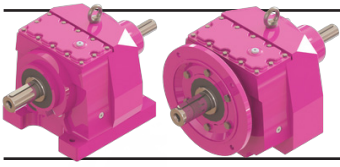
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Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

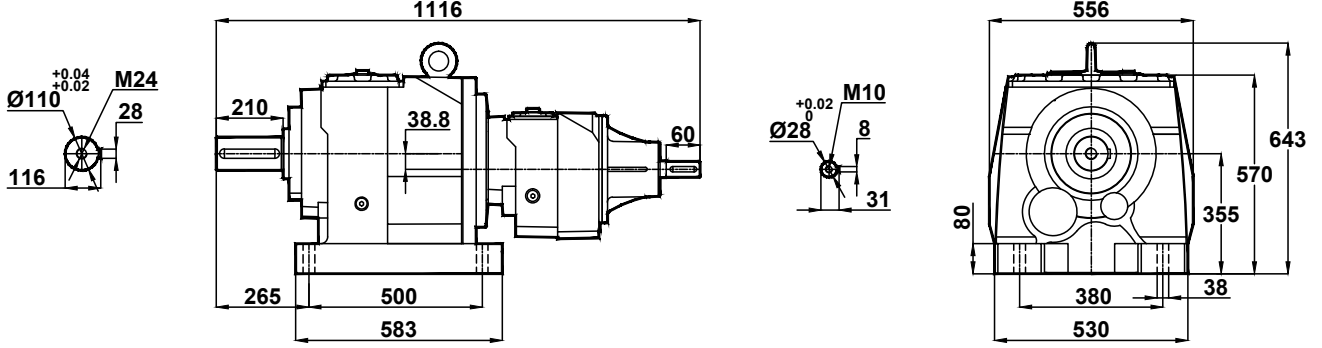


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

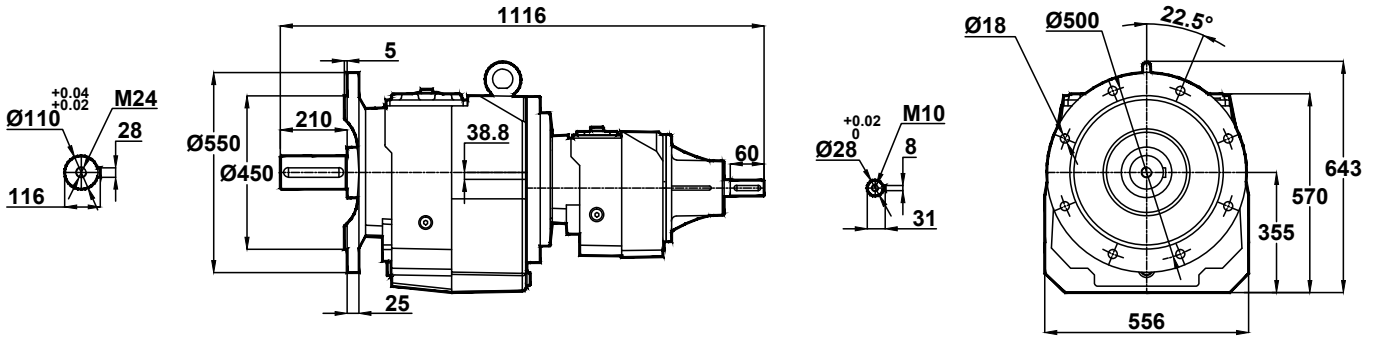


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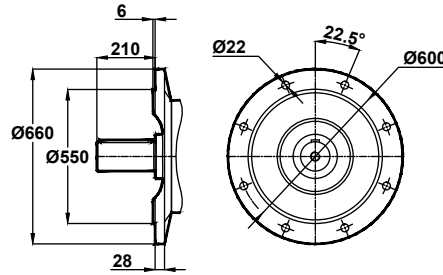
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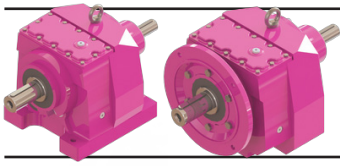
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### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



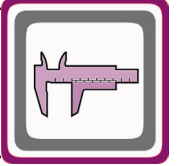
Opt. 1



# Ölçü Sayfaları

## Dimension Pages

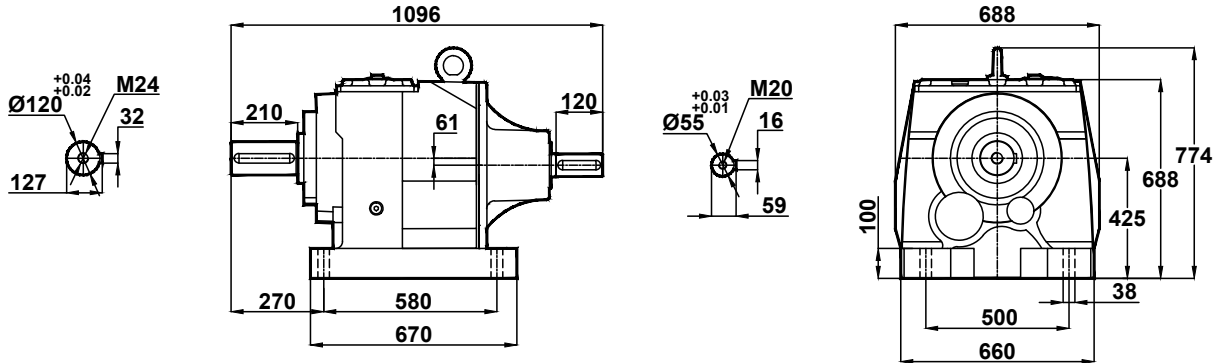
### Abmessungsseiten



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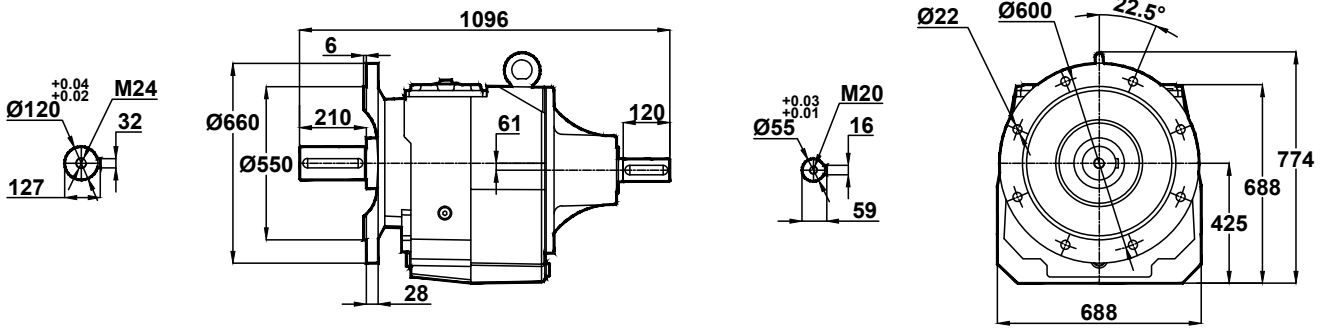
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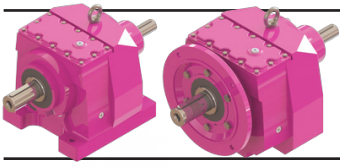
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## NT972

## NT973



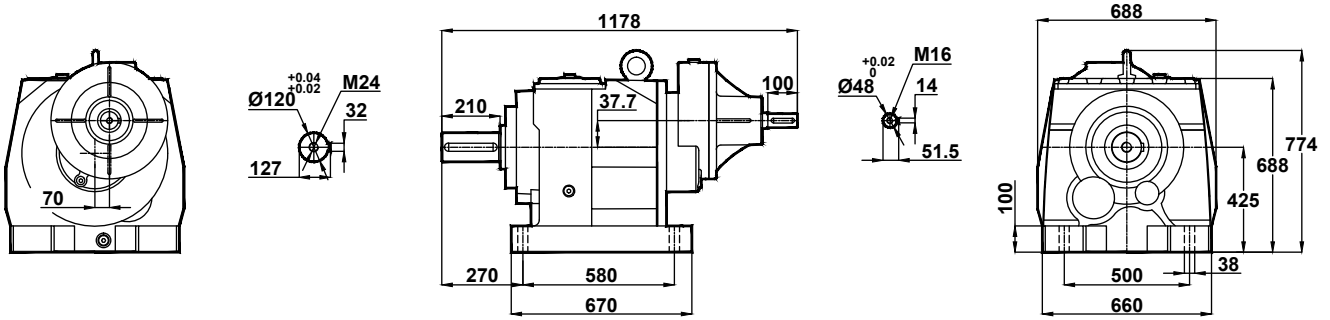


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

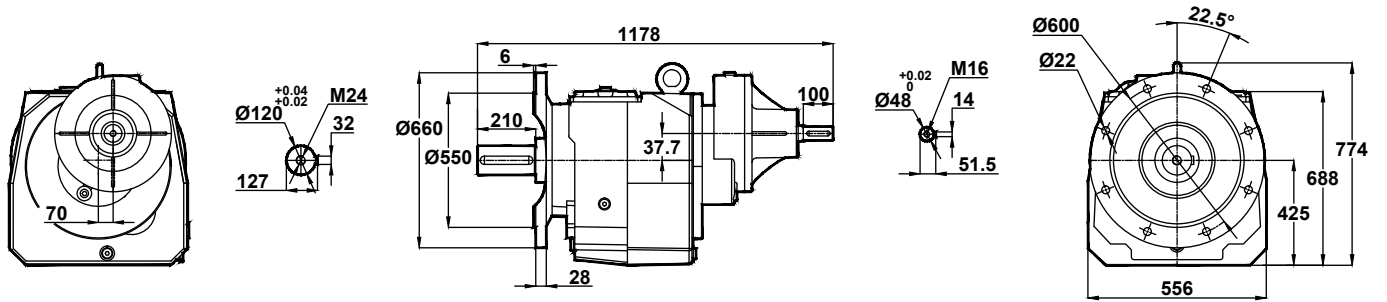


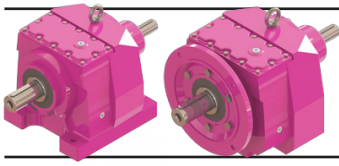
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## MT974



## NT974

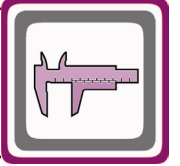




# Ölçü Sayfaları

## Dimension Pages

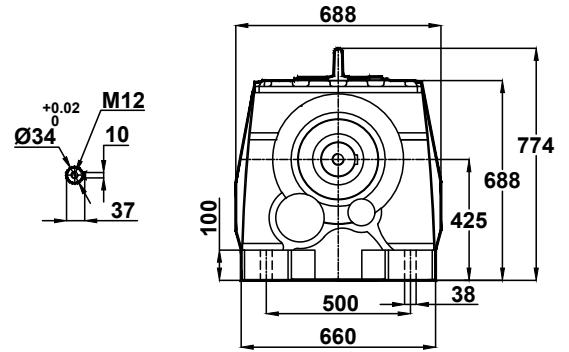
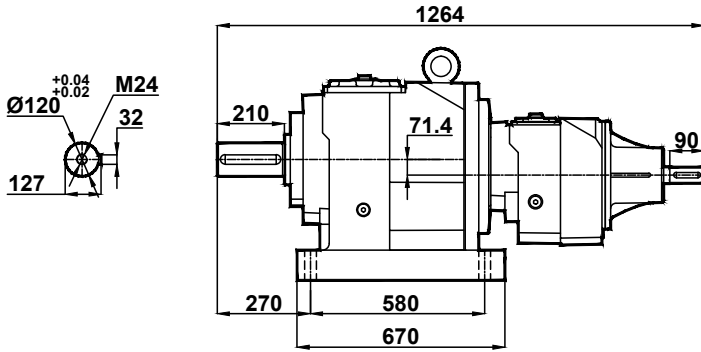
### Abmessungsseiten



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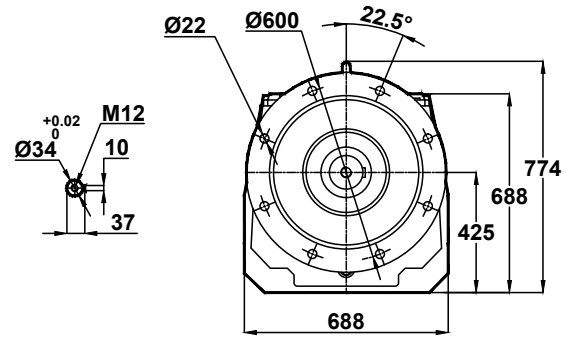
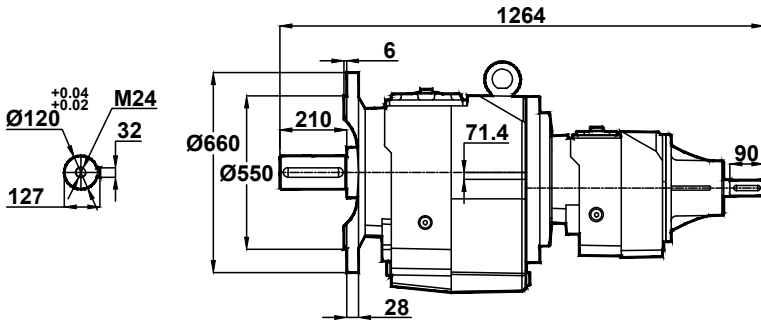
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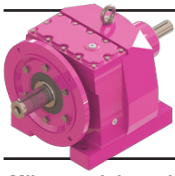
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### NT975

### NT976



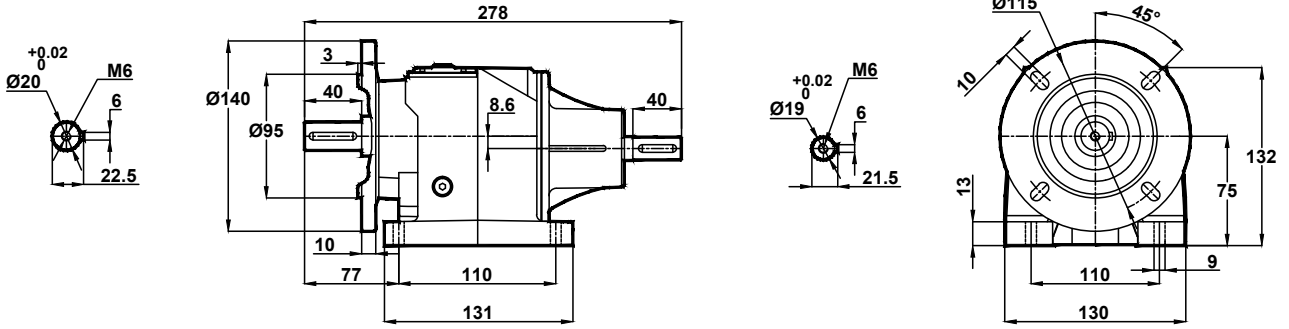


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

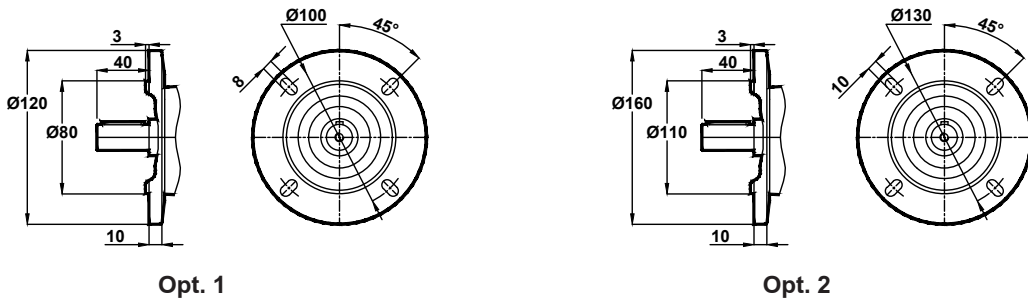


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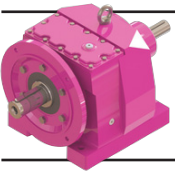
MTF002  
MTF003



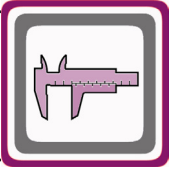
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen





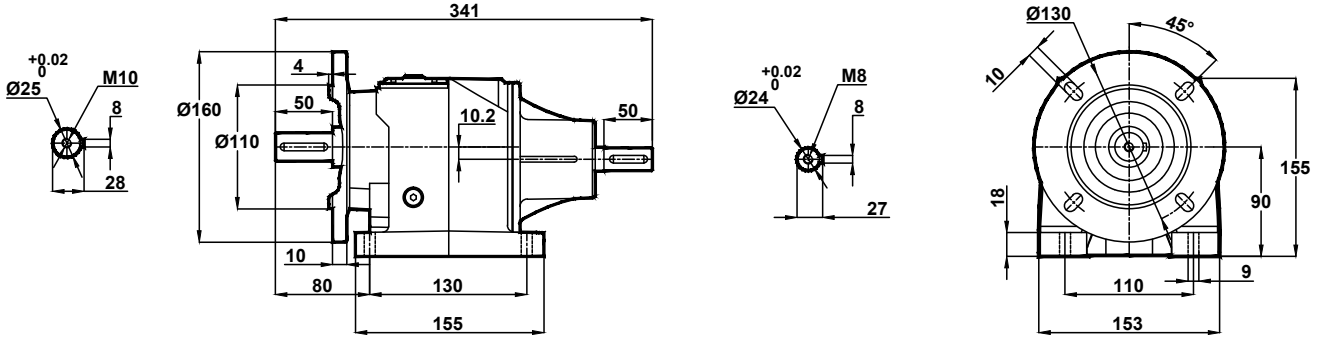


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

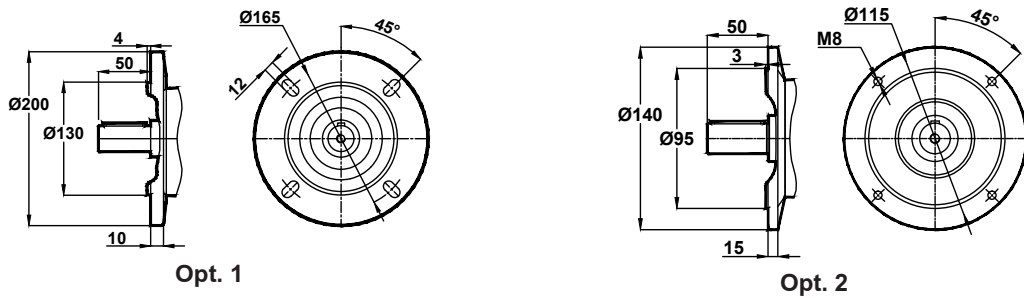


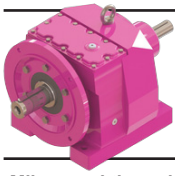
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## MTF102 MTF103

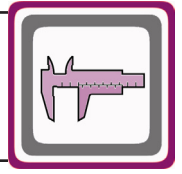


### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



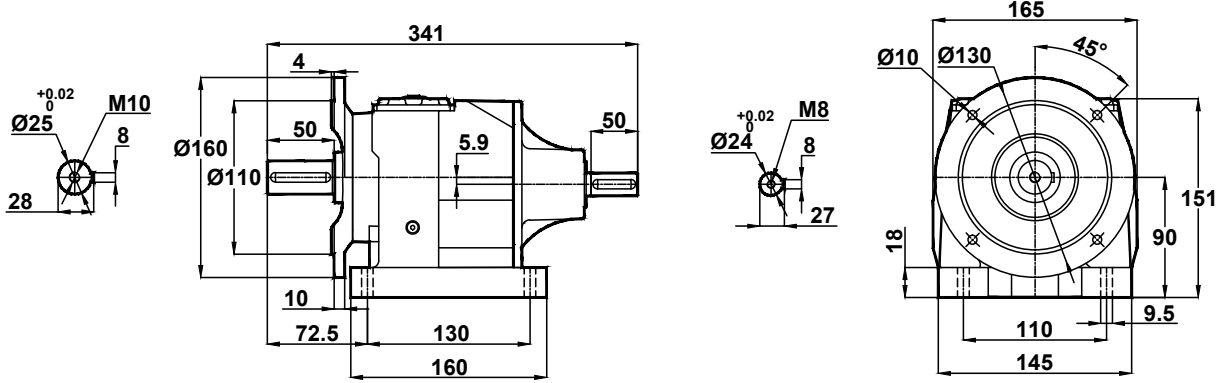


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

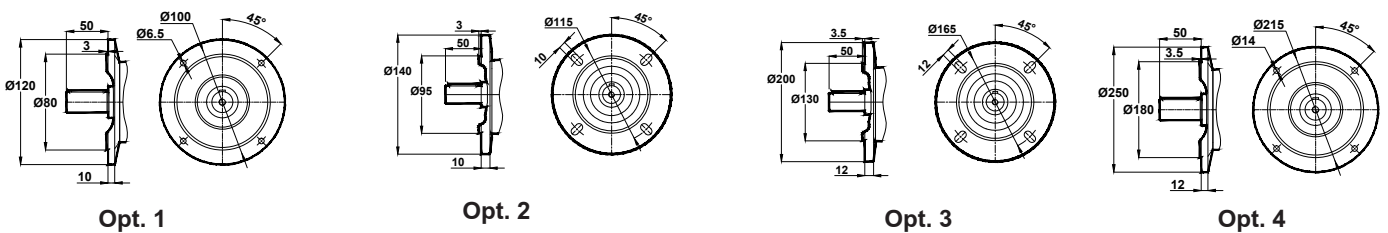


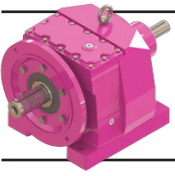
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**MTF172  
MTF173**

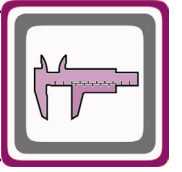


## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



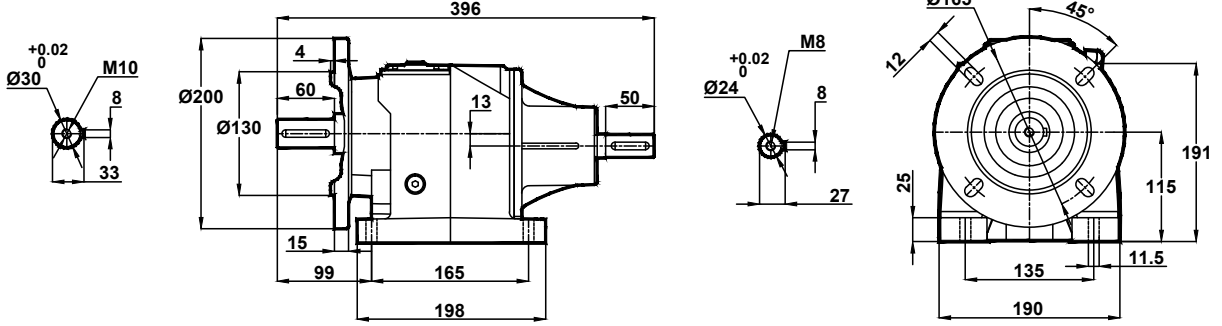


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

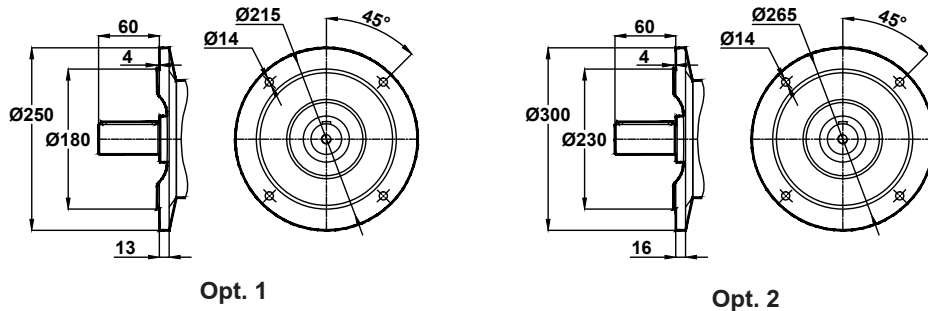


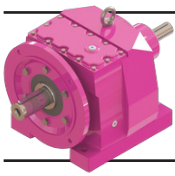
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MTF202  
MTF203

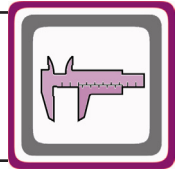


Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



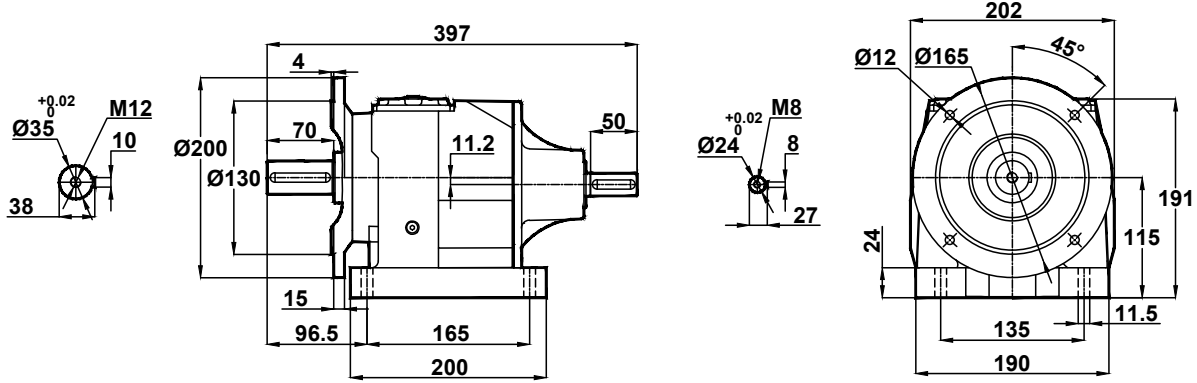


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

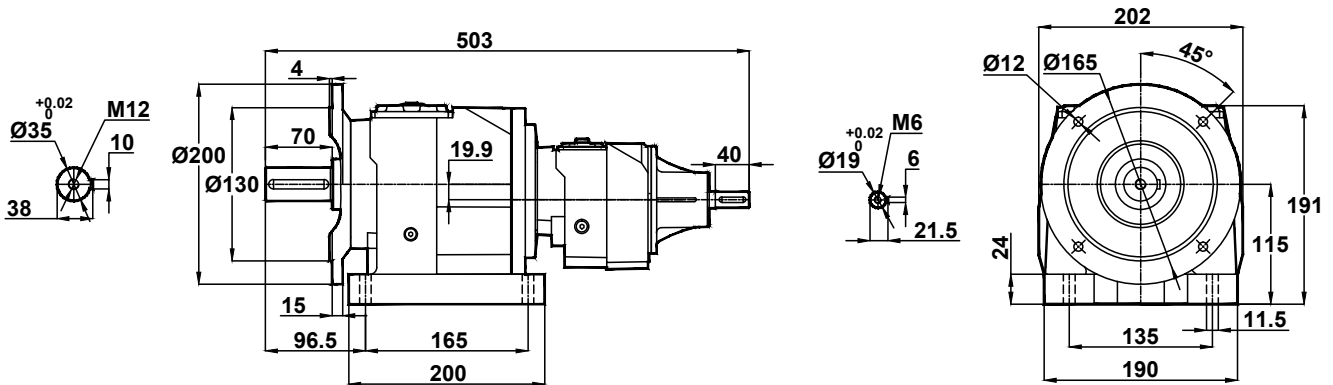


-Mil ucu çekirtme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

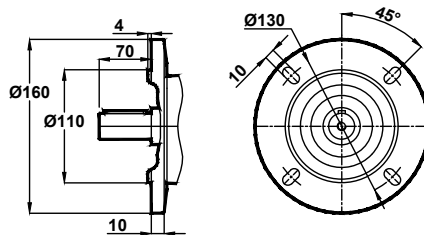
## MTF272 MTF273



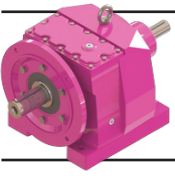
## MTF275 MTF276



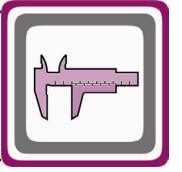
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

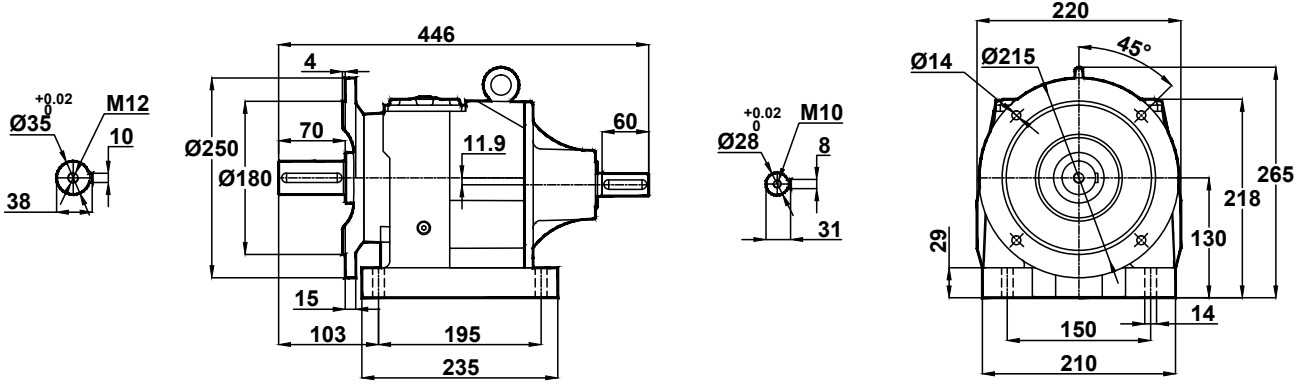


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

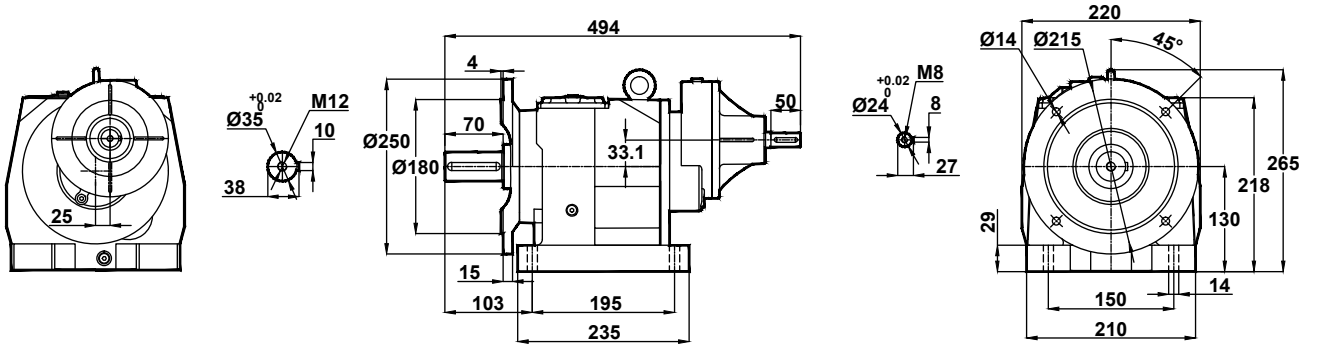


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

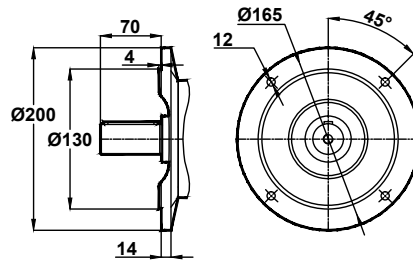
## MTF282 MTF283



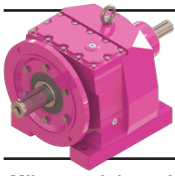
## MTF284



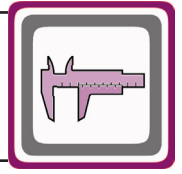
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

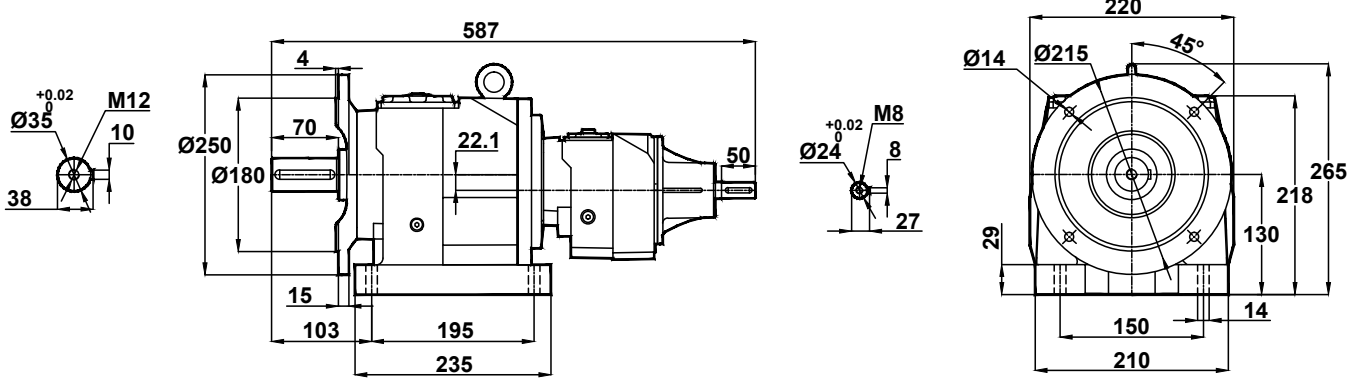


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

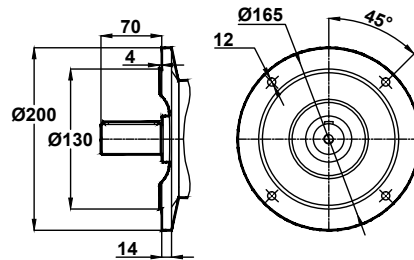


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

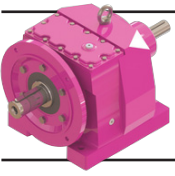
**MTF285**  
**MTF286**



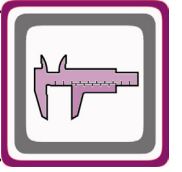
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

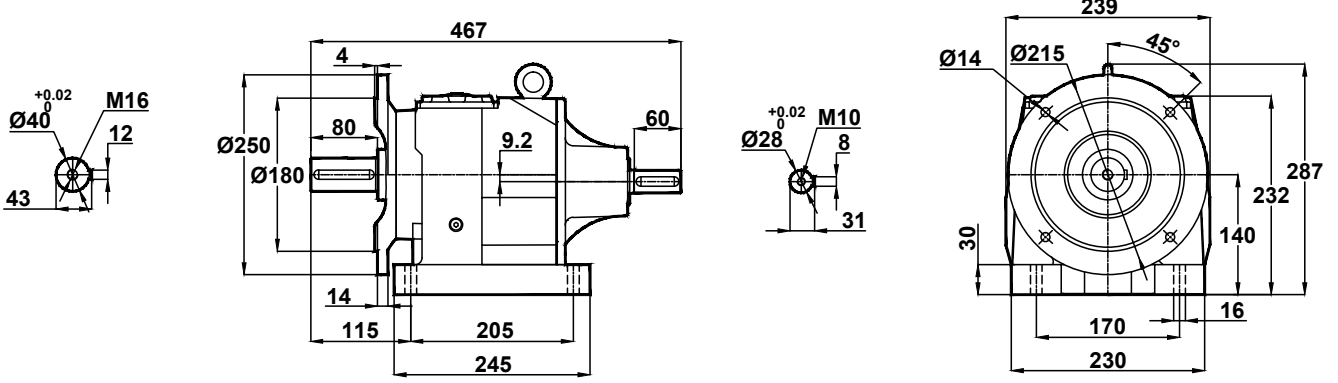


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

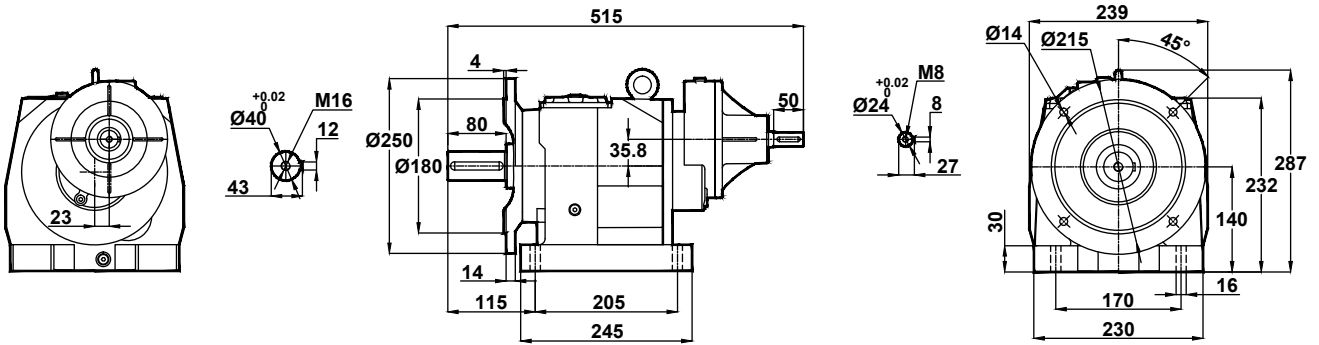


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

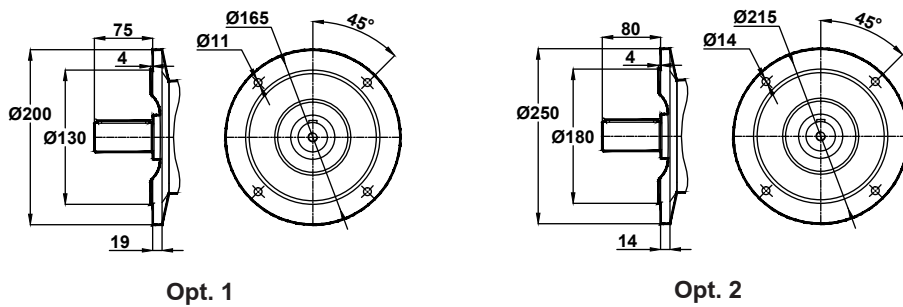
## MTF372 MTF373

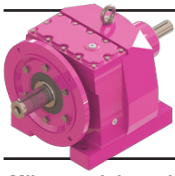


## MTF374

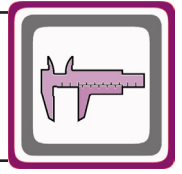


### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



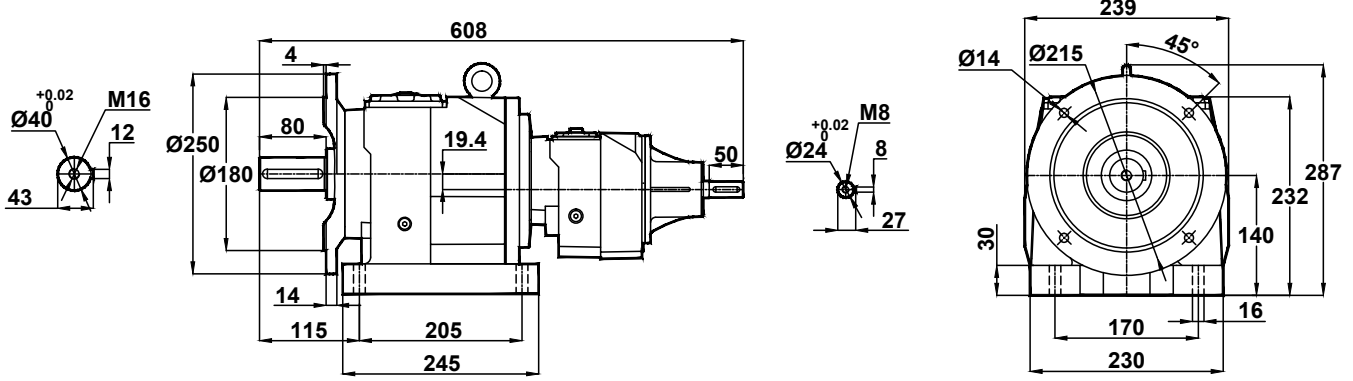


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

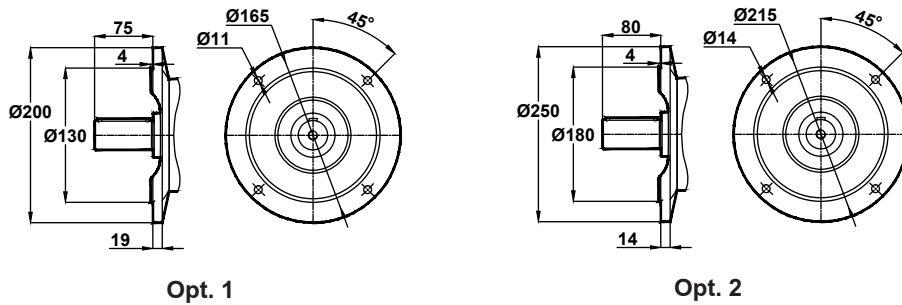


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

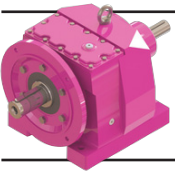
## MTF375 MTF376



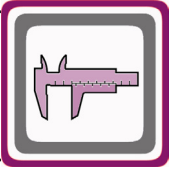
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen





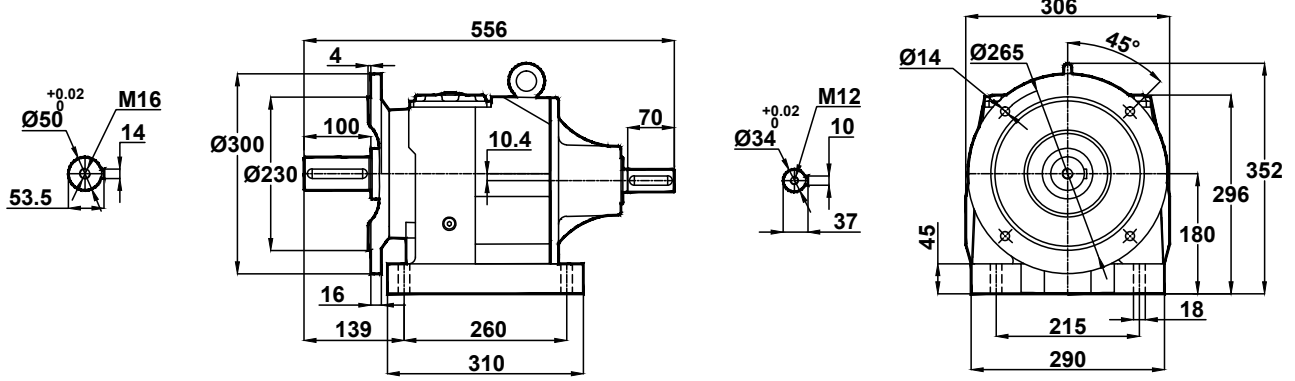


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

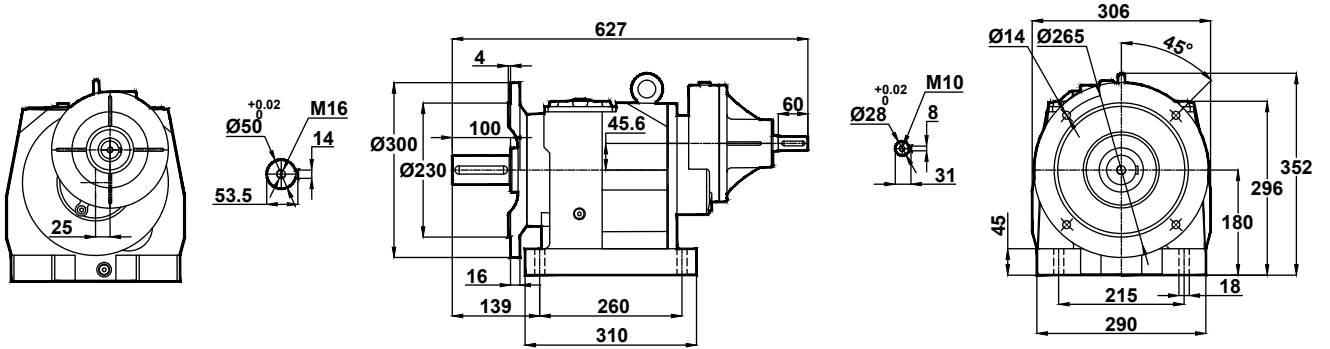


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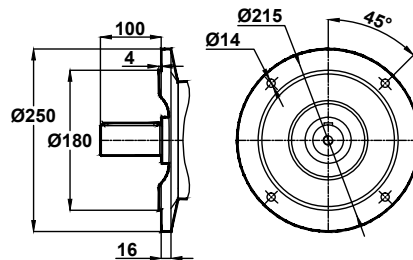
## MTF472 MTF473



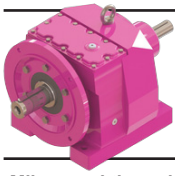
## MTF474



### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

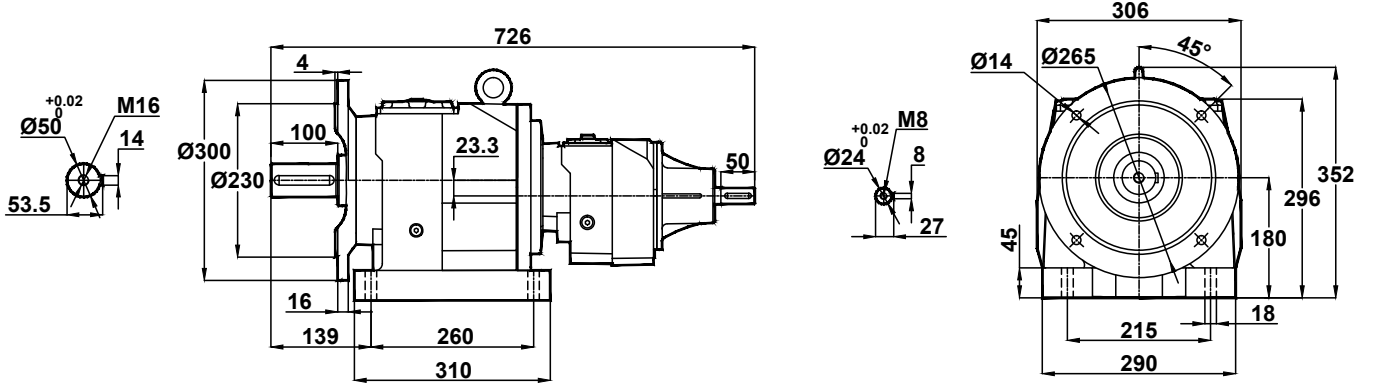


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

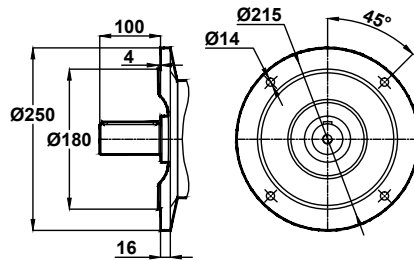


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**MTF475**  
**MTF476**

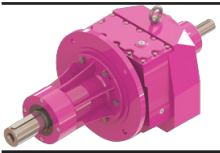


**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1



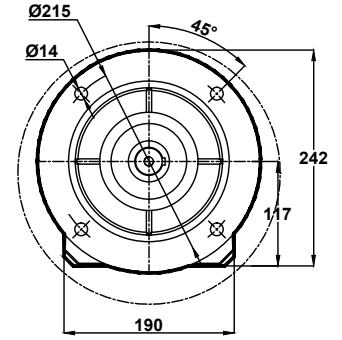
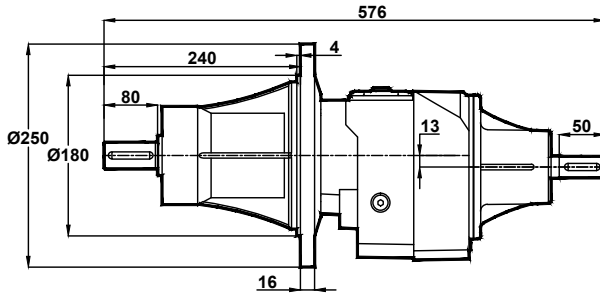
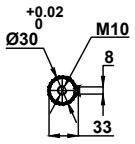


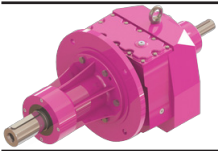
# Ölçü Sayfaları Dimension Pages Abmessungsseiten



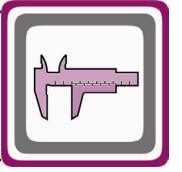
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**NTB202**  
**NTB203**



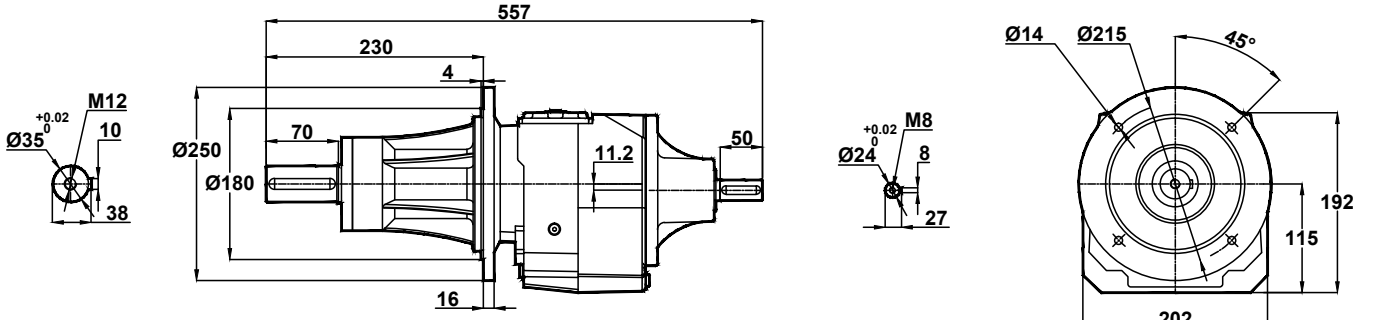


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

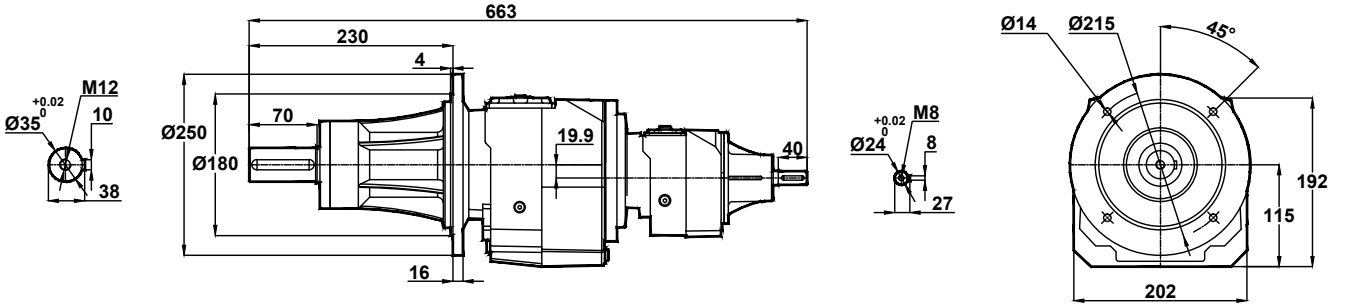


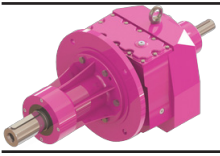
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

**NTB272  
NTB273**



**NTB275  
NTB276**



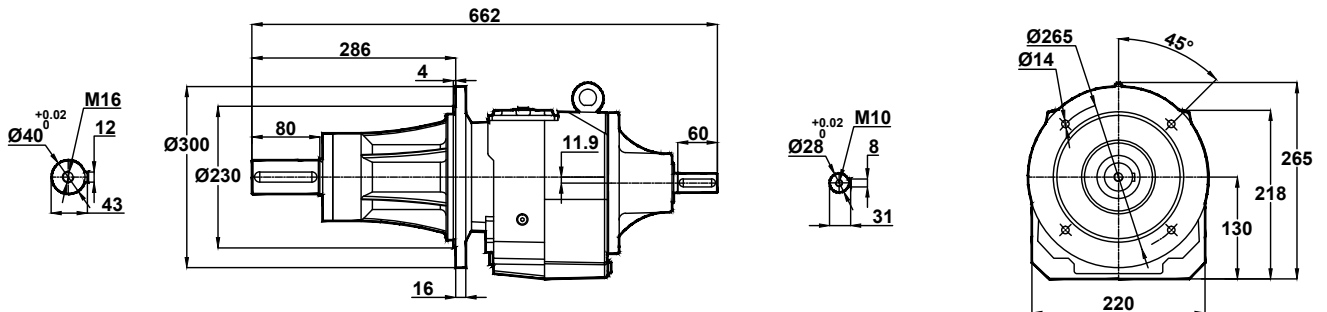


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

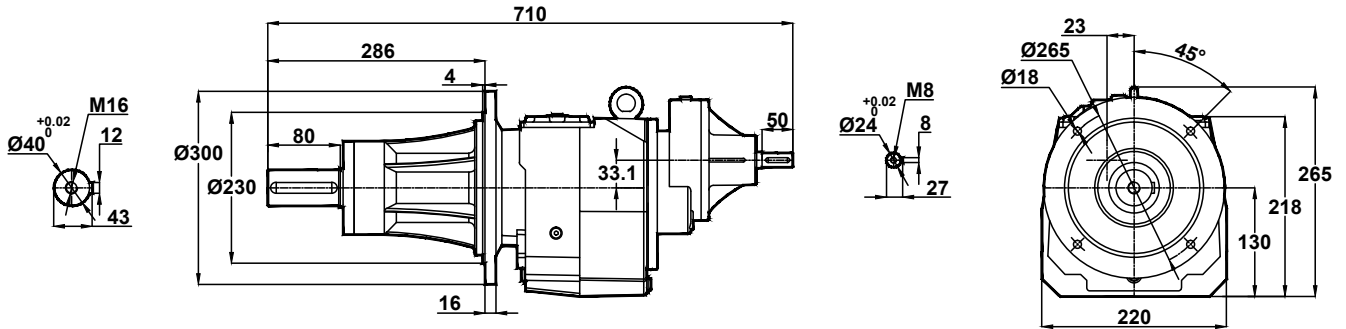


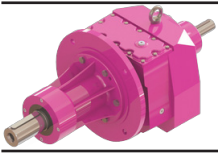
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## NTB282 NTB283

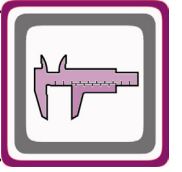


## NTB284



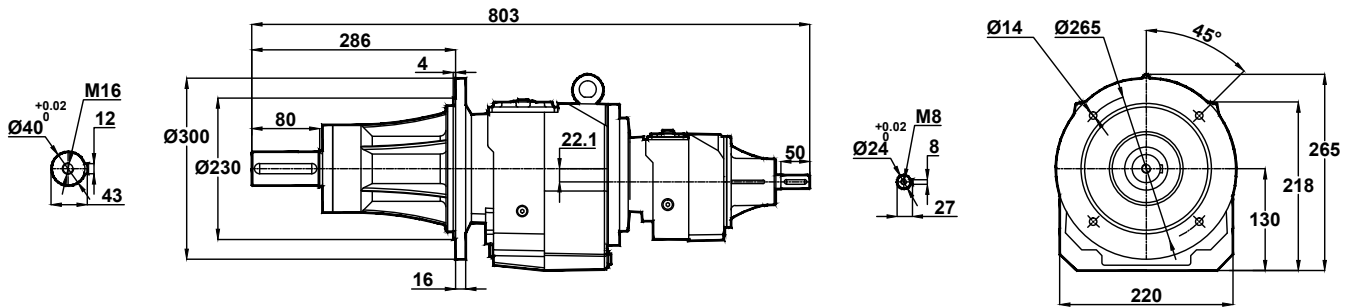


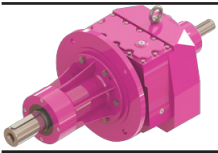
# Ölçü Sayfaları Dimension Pages Abmessungenseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

NTB285  
NTB286





# Ölçü Sayfaları

## Dimension Pages

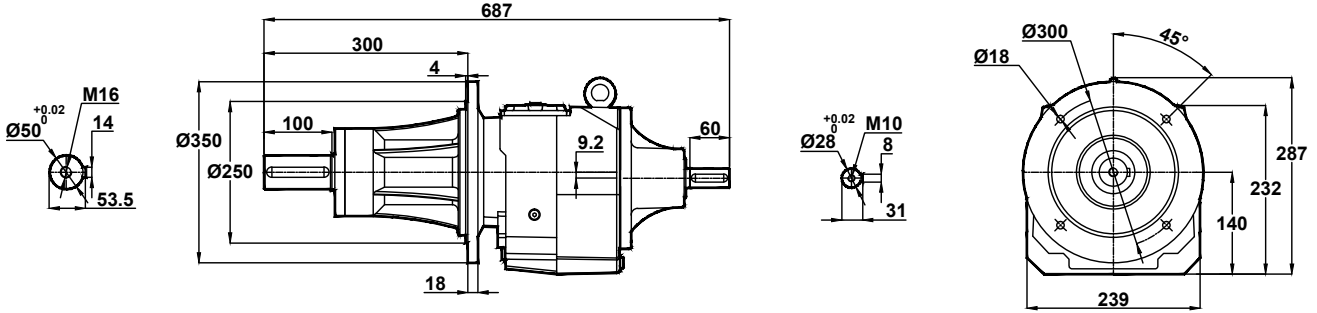
### Abmessungenseiten



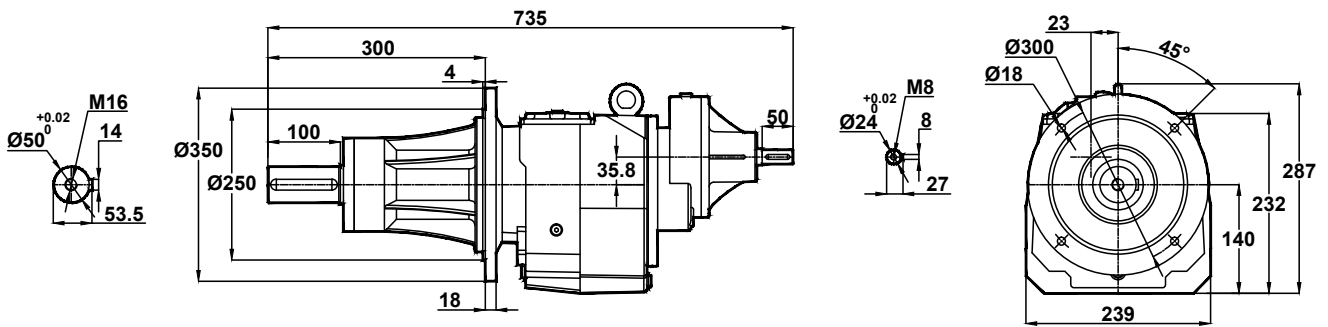
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## NTB372

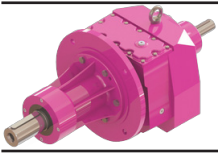
## NTB373



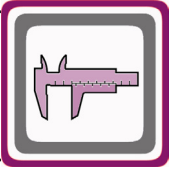
## NTB374





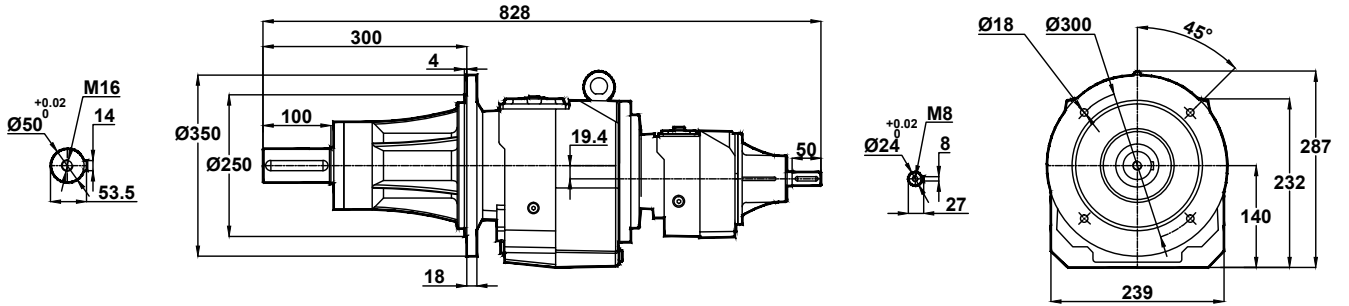


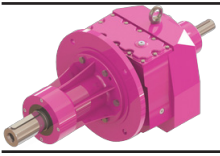
# Ölçü Sayfaları Dimension Pages Abmessungenseiten



-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

NTB375  
NTB376



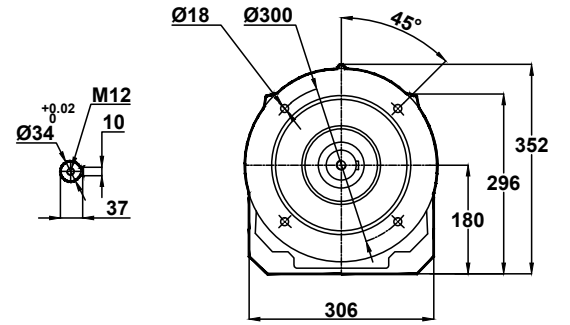
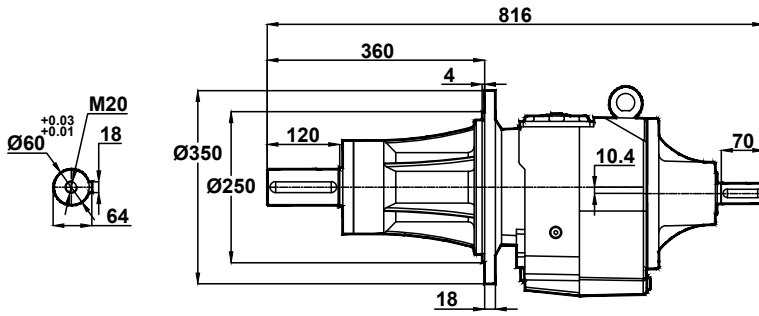


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

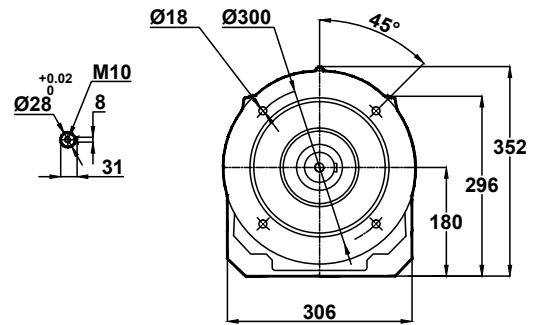
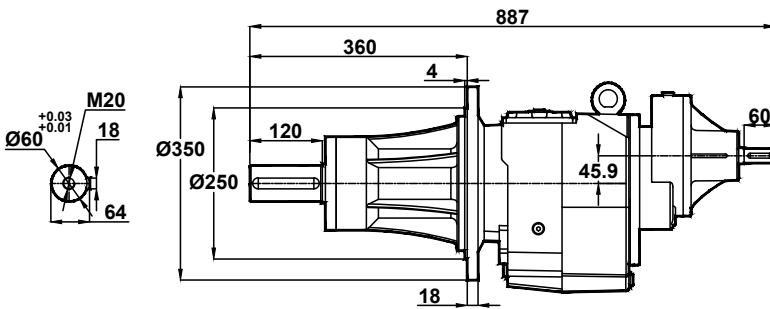


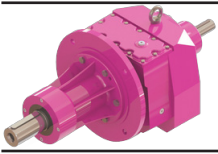
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## NTB472 NTB473

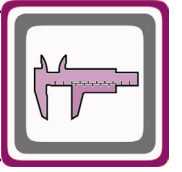


## NTB474



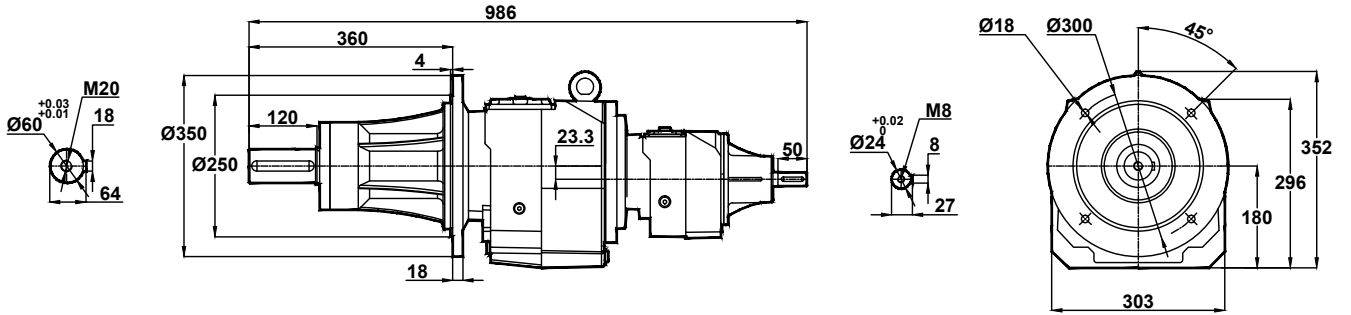


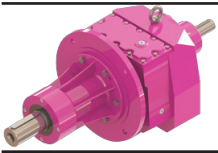
# Ölçü Sayfaları Dimension Pages Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

NTB475  
NTB476



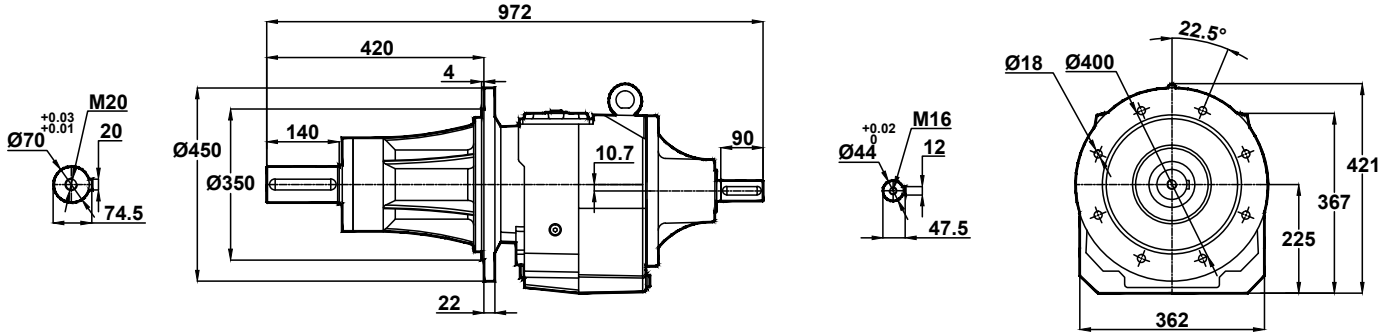


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

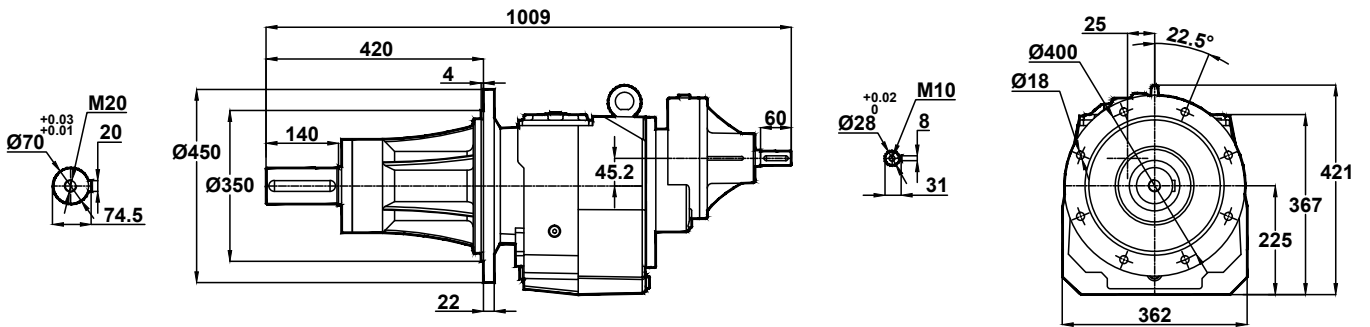


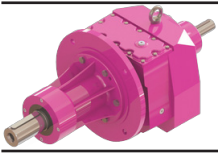
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## NTB572 NTB573

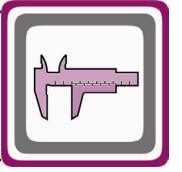


## NTB574



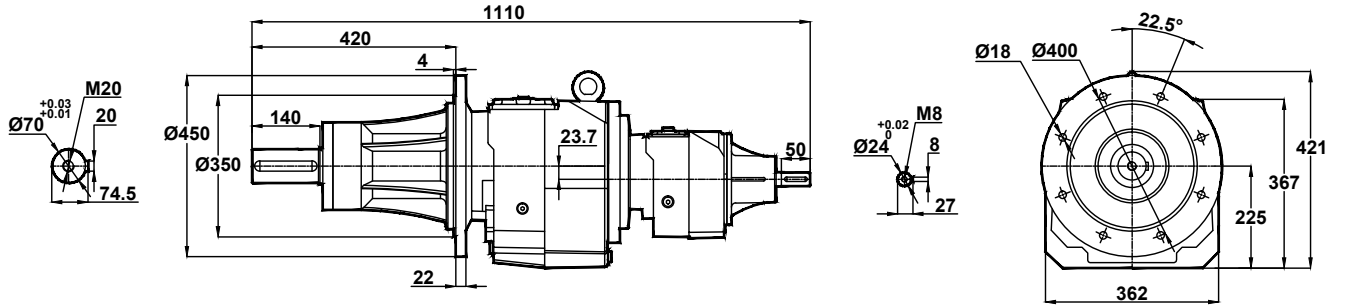


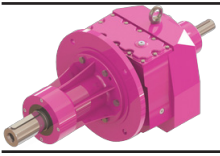
# Ölçü Sayfaları Dimension Pages Abmessungsseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

NTB575  
NTB576





# Ölçü Sayfaları

## Dimension Pages

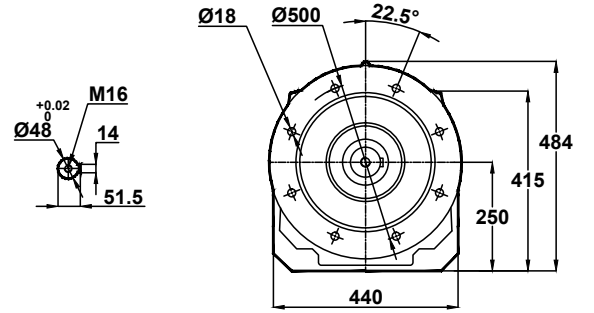
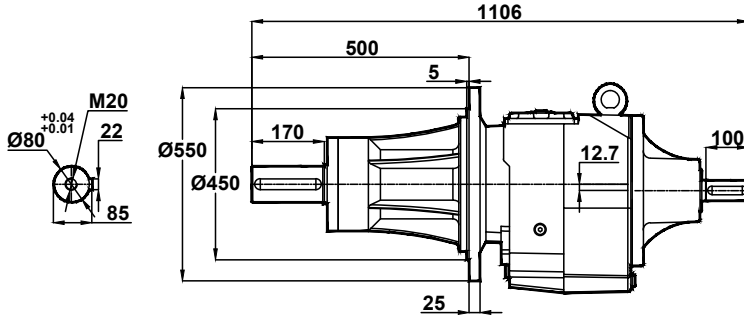
### Abmessungsseiten



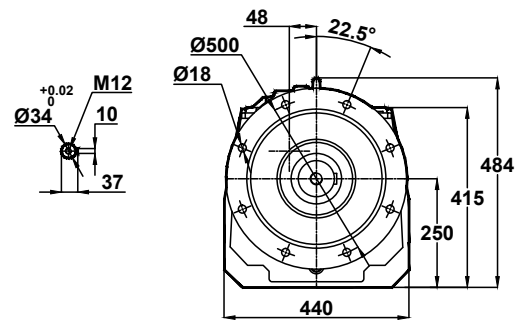
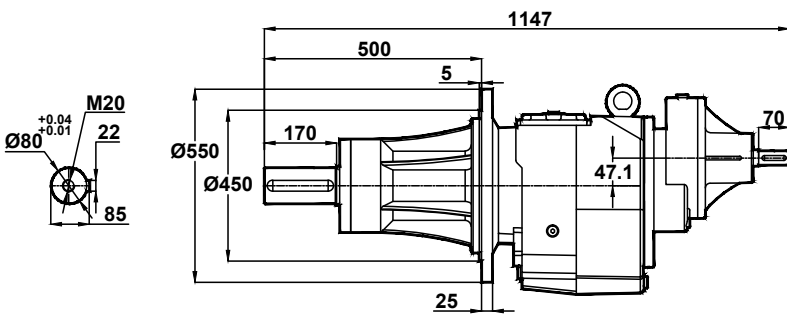
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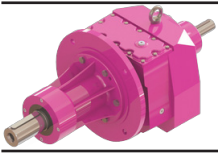
## NTB672

## NTB673

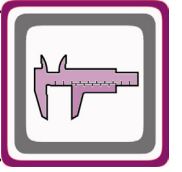


## NTB674



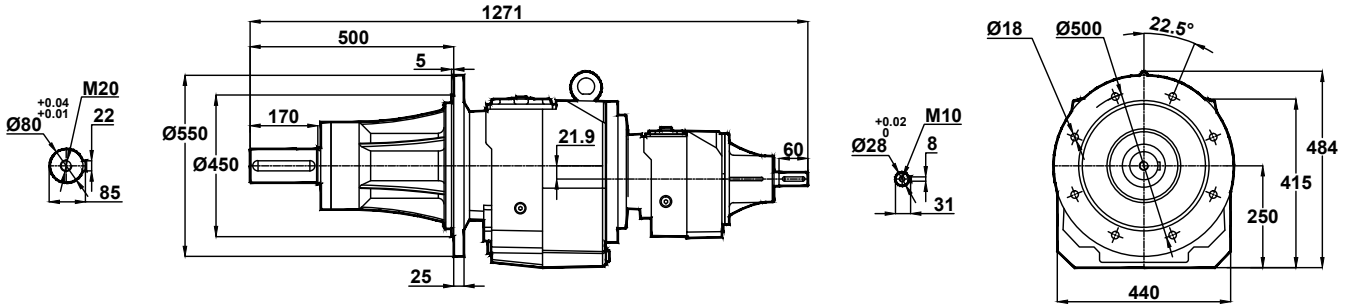


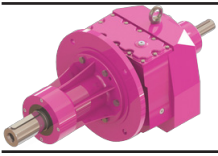
# Ölçü Sayfaları Dimension Pages Abmessungenseiten



-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

NTB675  
NTB676



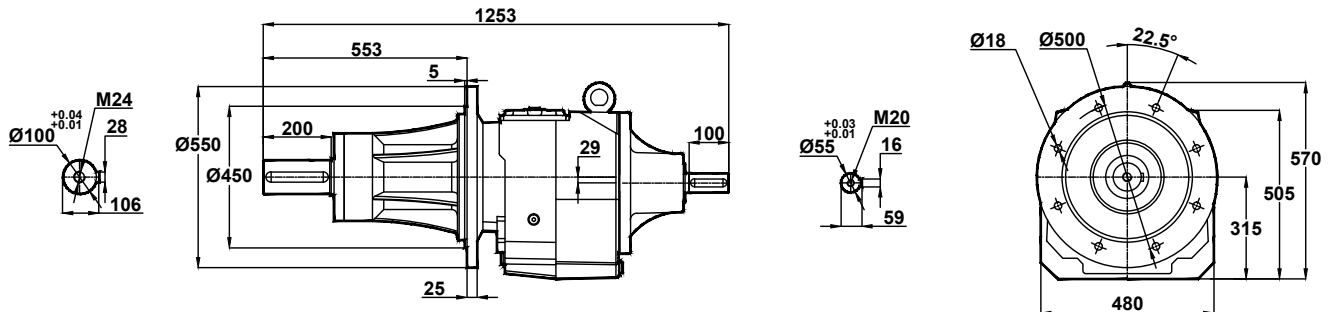


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

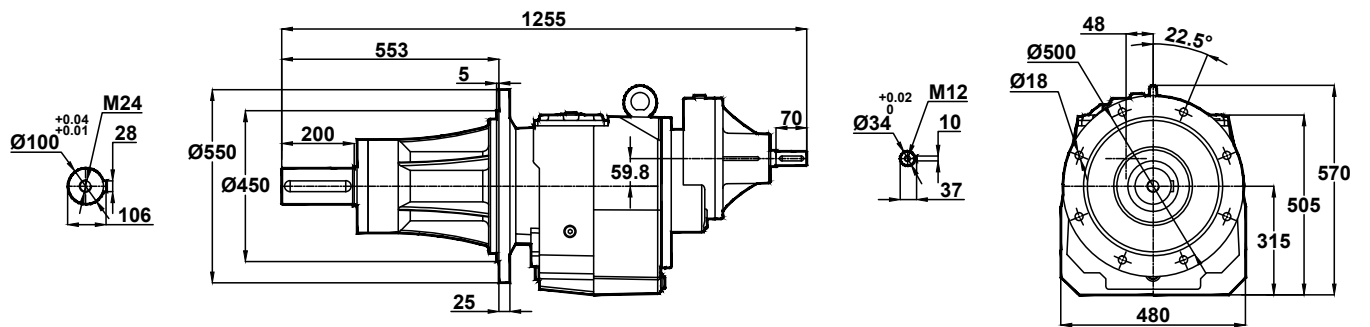


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit gewinde DIN 332, Blatt 2

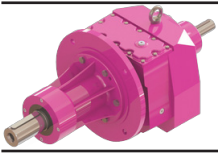
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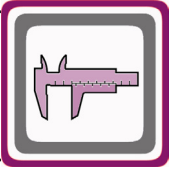
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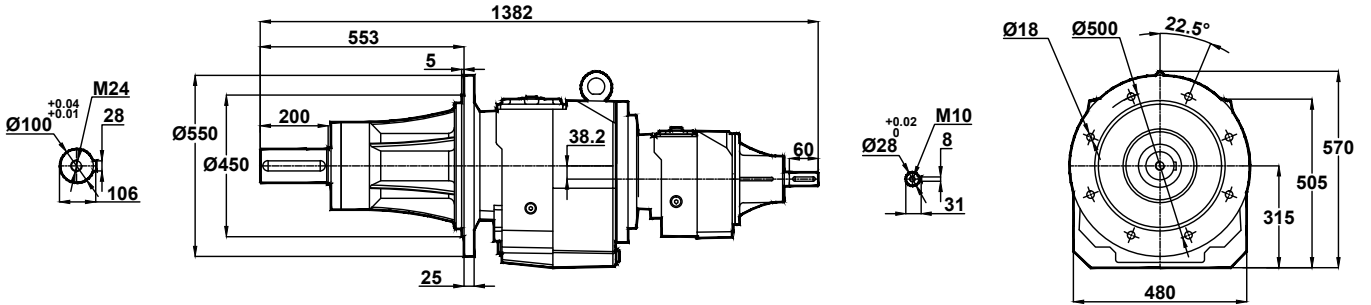


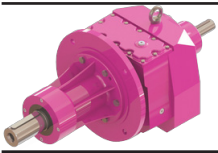
# Ölçü Sayfaları Dimension Pages Abmessungenseiten



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NTB775  
NTB776



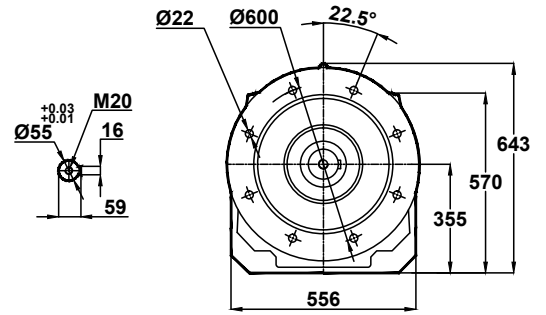
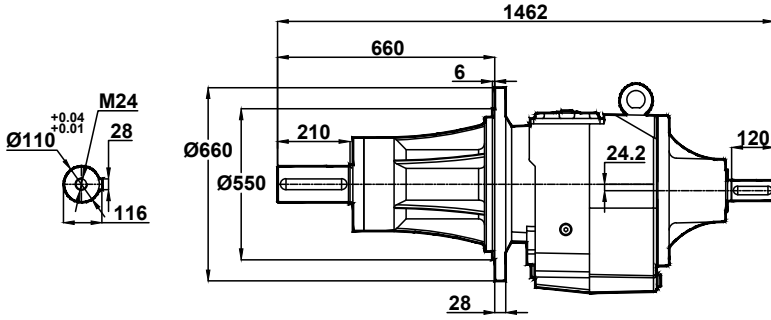


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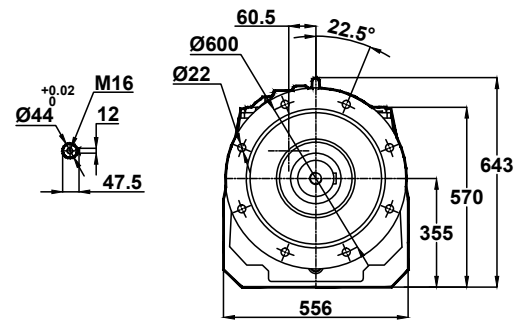
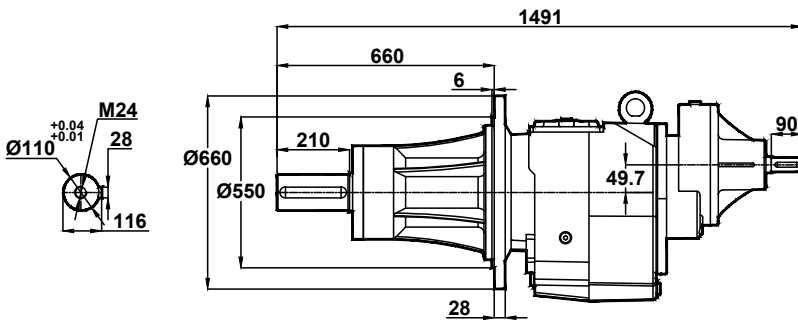


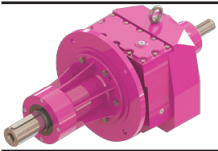
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## NTB872 NTB873

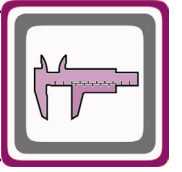


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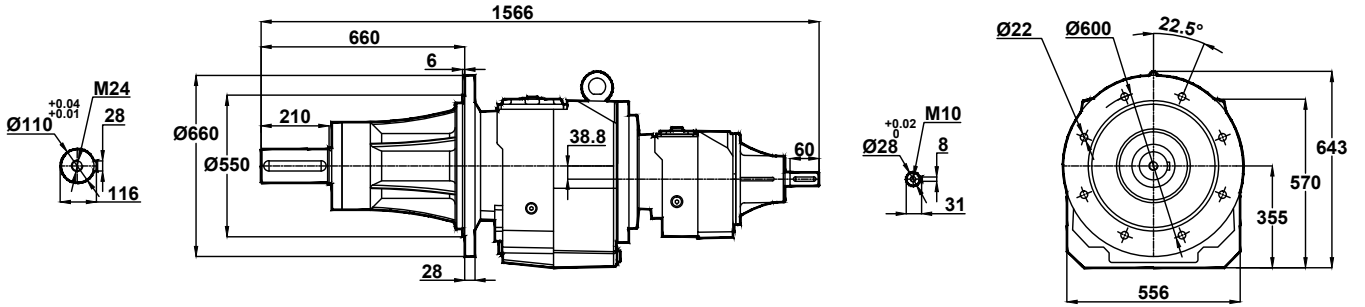


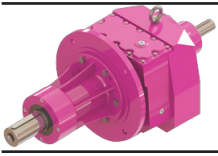
# Ölçü Sayfaları Dimension Pages Abmessungsseiten



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NTB875  
NTB876



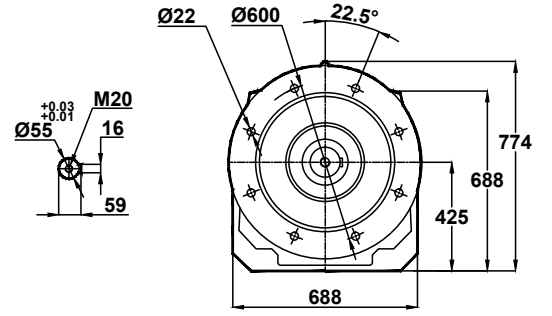
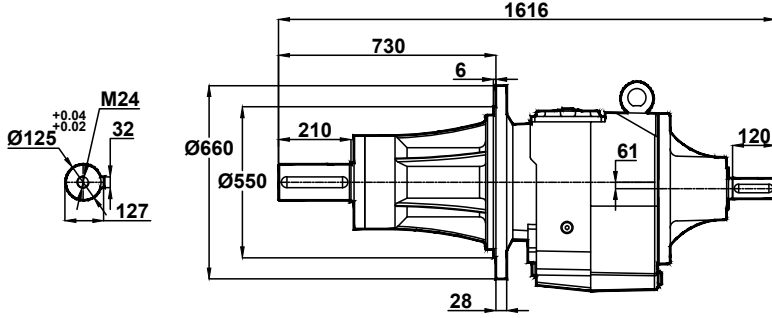


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

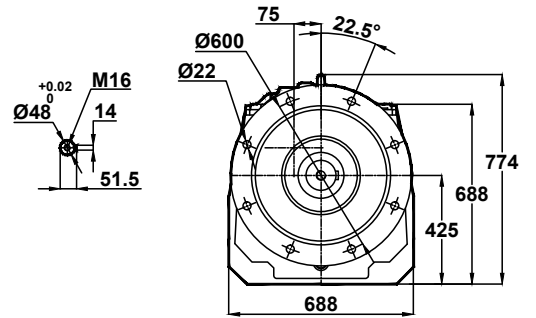
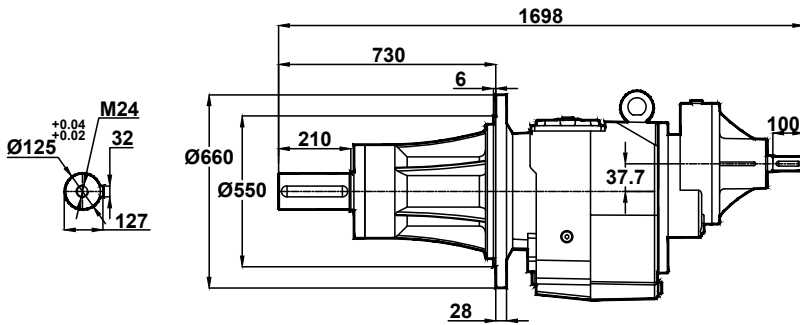


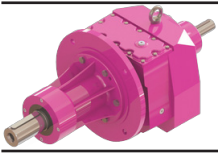
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## NTB972 NTB973

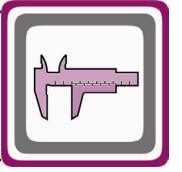


## NTB974





# Ölçü Sayfaları Dimension Pages Abmessungenseiten



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NTB975  
NTB976

