

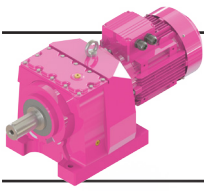
# İçindekiler

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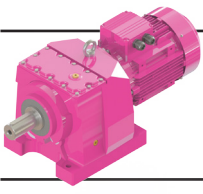
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# Genel Bilgiler

## 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]

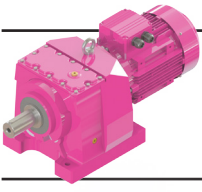
$P_{eq}$ .....: Äquivalente Leistung [kW]

$P_e$ .....: 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

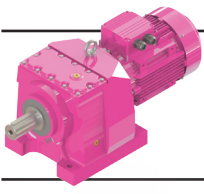
TSerien Getriebe sind zwei stufige, schrägverzahnte Hohlwellenflachgetriebe in Monoblockgehäuse. Die T Serie hat eine kompakte Gehäuse und ist serienmäßig mit Abgangshohlwelle hergestellt, so dass das Getriebe minimalen Platzbedarf hat.

##### - 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

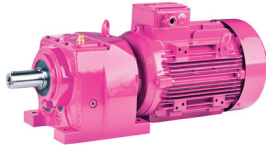
VR Krane und Hebezeuge werden geeignet zur Belastungsart M1 - M8 (1Dm - 5m) hergestellt.



# Genel Bilgiler

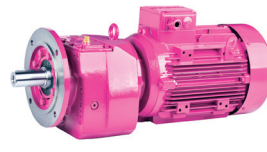
## General Information

### Einführung



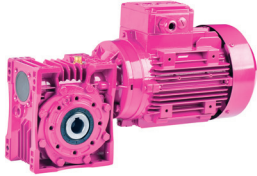
M ...

**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



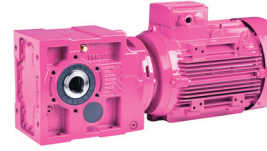
N ...

**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



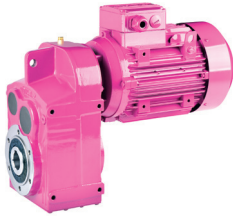
E ...

**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



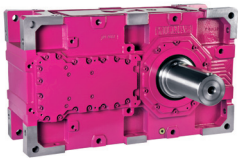
D...

**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



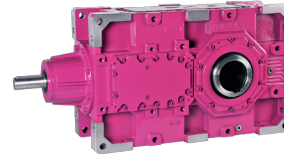
Y ...

**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 ...

**14 farklı büyüklükte;**  
**Moment aralığı: 2.500 - 165.000 Nm**  
**Devir aralığı: 0,1 - 250 d/dak**  
14 different sizes:  
Torque range: 2.500 - 165.000 Nm  
Speed range: 0,1 - 250 rpm  
14 verschiedene Baugrößen:  
Drehmomentber. :2.500 - 165.000 Nm  
Drehzahlbereich : 0,1 - 250 U/min



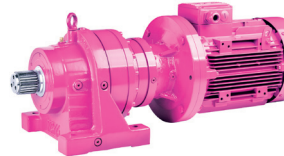
B ...

**14 farklı büyüklükte;**  
**Moment aralığı: 5.000 - 165.000 Nm**  
**Devir aralığı: 0,1 - 115 d/dak**  
14 different sizes:  
Torque range: 5.000 - 165.000 Nm  
Speed range: 0,1 - 115 rpm  
14 verschiedene Baugrößen:  
Drehmomentber. :5.000-165.000 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



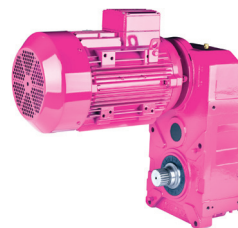
R ...

**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



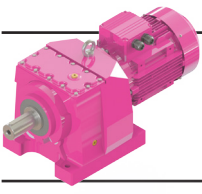
T ...

**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

## General Information

### Einführung



#### 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 yapılmaktadır. 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.

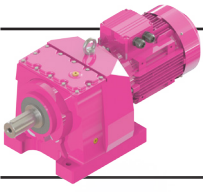
M Serie-Getriebe sind leicht montierbar und einsetzbar. Motoranschluss von Getrieben kann nach Kundenwunsch geeignet zu direkte, IEC B5 oder B14-Verbindung angeboten werden. Alle Modelle können mit Fuß oder Flansch in zwei oder drei stufige Getriebegehäusen geliefert werden. Diese Getriebe haben niedrige 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

## General Information

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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 ( $P_e$ ): [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:

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

##### - Boya:

Redüktörlerin standart rengi DIN1843'e göre RAL 7031 dir. İstek üzerine farklı renklerde boyanabilir.

#### 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 ( $P_e$ ): [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 Yilmaz 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:

The gearboxes are painted with RAL 7031 according DIN1843. Different colors are available upon request.

#### Technische Erläuterungen

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

Multiplikation von Ausgangsmoment des Motors mit Übersetzung 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 ( $P_e$ ): [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 Yilmaz 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.

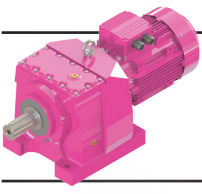
#### Technische Informationen:

##### - Geräuschpegel:

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

##### - Lackierung:

Die Getriebe werden mit der Farbe RAL 7031 nach DIN1843 lackiert. Auf Wunsch sind Sonderlackierungen möglich.



# Genel Bilgiler

## General Information

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#### - 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.

#### - Yüzey Koruması

Redüktörlerimiz aksi belirtilmedikçe boyalı olarak sevk edilmektedir. DIN EN ISO 12944-2 korozyon standardında belirtilen sınıflardan aşağıdaki tabloda belirtilen 4 kategori için yüzey koruması sağlanmaktadır. Standart boya sınıfımız C2 korozyon kategorisini karşılamaktadır. Farklı bir koruma sınıfı istenirse sipariş aşamasında belirtilmelidir.

Mil, flanş bağlantı yüzeyi gibi boyanmayan yüzeylere paslanmaya karşı koruma sağlamak için korozyon önleyici yağ sürülmektedir.

#### - 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.*

#### - Surface Protection

*Our products are all painted unless otherwise stated. 4 corrosion categories which are mentioned below can be offered according to corrosion categories of DIN EN ISO 12944-2 standard. Our standard paint meets C2 corrosion category. If different category is requested, please inform before order.*

*Unpainted parts such as shaft, flange connection surface are coated with anti-corrosion paint before shipment against corrosion.*

#### - 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.

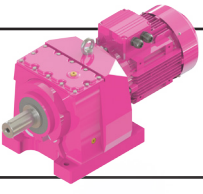
#### - Oberflächenschutz

Getriebe von Yılmaz Redüktör werden lackiert und so geliefert falls nicht anders vereinbart ist. Die 4 untenstehenden Korrosionskategorien können nach Korrosionsschutz-Basisnorm DIN EN ISO 12944-2 angeboten werden. Unsere Standard-Lackierung erfüllt C2-Korrosionskategorie. Wenn Sie eine andere Kategorie erwünschen, informieren Sie uns bitte darüber vor der Bestellung.

Nicht lackierte Teile (z.B. Welle, Oberfläche des Anschlussflanschs) werden mit einem Schutzmittel vor dem Versand geschmiert, um vor Korrosion und Rost zu schützen.

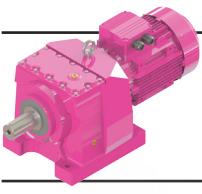
Korozyon Kategorisi Corrosion Categories Korrosivitätskategorie	Çevre Şartları Ambient Conditions Umgebungsbedingungen	Boya Tipi Paint Type Lackierung	Boya Kalınlıkları Paint Thickness Sollschichtdicke
C2 (Standard)	<b>İç ortam ve muhafazalı dış ortam</b> <b>Nem ve kirlilik oranı düşük çalışma ortamı</b> <i>Indoor installation and outdoor installation with protection roof</i> <i>Environments with low humidity and contamination</i> Innenaufstellung und Außenaufstellung mit Überdachung oder Schutzeinrichtung Atmosphäre mit niedriger Luftfeuchtigkeit und Verunreinigung	<b>Su Bazlı Astar</b> <i>Water Based Primer Coat</i> Wasserbasierte Grundierung	80 µm
		<b>Su Bazlı veya Akrilik Sonkat</b> <i>Water Based or Acrylic Top Coat</i> Wasserbasierte oder Akril-Decklack	40 µm
C3	<b>İç ortam ve atmosfere açık dış ortam</b> <b>Orta seviyede nem ve kirlilik olan çalışma ortamı</b> <i>Indoor installation and outdoor installation subject to weathering</i> <i>Environments with mean humidity and contamination</i> Innenaufstellung und Außenaufstellung im Freien unter Bewitterung Atmosphäre mit mäßiger Luftfeuchtigkeit und Verunreinigung	<b>Epoksi Astar</b> <i>Epoxy Primer Coat</i> Epoxy-Grundierung	80 µm
		<b>Akrilik Sonkat</b> <i>Acrylic Top Coat</i> Akril-Decklack	40 µm
C4	<b>İç ortam ve atmosfere açık dış ortam</b> <b>Genelde yüksek nem ve kimyasal madde olan çalışma ortamı</b> <i>Indoor installation and outdoor installation subject to weathering</i> <i>Environments with occasionally high humidity and chemical contamination</i> Innenaufstellung und Außenaufstellung im Freien unter Bewitterung Atmosphäre gelegentlich mit hoher Luftfeuchtigkeit und chemischer Verunreinigung	<b>Epoksi Astar</b> <i>Epoxy Primer Coat</i> Epoxy-Grundierung	180 µm
		<b>Akrilik Sonkat</b> <i>Acrylic Top Coat</i> Akril-Decklack	40 µm
C5-I / C5-M	<b>İç ortam ve atmosfere açık dış ortam</b> <b>Sürekli yüksek nem ve kimyasal madde ile temizlik yapılan çalışma ortamı</b> <i>Indoor installation and outdoor installation subject to weathering</i> <i>Environments with permanent high humidity and chemical cleaning contamination</i> Innenaufstellung und Außenaufstellung im Freien unter Bewitterung Atmosphäre mit ständiger hoher Luftfeuchtigkeit und chemischer Verunreinigung (Nassreinigung mit Säuren/Laugen und auch mit chemischen Reinigungsmitteln).	<b>Çinko Yükleme Epoksi Astar</b> <i>Epoxy Zinc Primer Coat</i> Epoxy-Zink-Grundierung	70 µm
		<b>Epoksi Astar Miox</b> <i>Epoxy Miox Primer Coat</i> Epoxy-Miox-Grundierung	150 µm
		<b>Akrilik Sonkat</b> <i>Acrylic Top Coat</i> Akril-Decklack	40 µm





Genel Bilgiler  
General Information  
Einführung





# Genel Bilgiler General Information Einführung



Tip Tanımlaması / Unit Designation / Typenbezeichnungen

## **M R 4 7 3 - 3 E90S / 4C - 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**

**E90S / 4**

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

**Gövde uzunluğu / Frame Length /**

**Gehäuselänge des Motors**

**Motor büyüklüğü / Motor size /**

**Motorbaugröße**

**Motor tipi / Motor type / Motortyp**

**Motor Verim Sınıfı / Motor Efficiency Class / Motor-Effizienzklasse**

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

**2 Kademe / 2 Stages / 2 stufig**

**3 Kademe / 3 Stages / 3 stufig**

**4 Kademe / 4 Stages / 4 stufig**

**5 Kademe / 5 Stages / 5 stufig**

**6 Kademe / 6 Stages / 6 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**

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

**MN / NN**

**A06 :63 B5 A09 : 90 B5 A13:132 B5 A25: 250 B5**

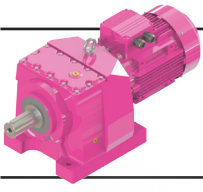
**B06 :63 B14 B09 : 90 B14 B13:132 B14 A28: 280 B5**

**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**



# Genel Bilgiler

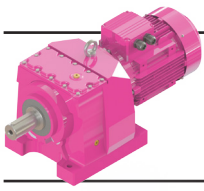
## General Information

### Einführung



#### Tip Tanımlaması / Unit Designation / Typenbezeichnungen

MR...	<b>Monoblok tip, helisel redüktörler, motorlu, ayaklı</b> / Monoblock type helical geared motors, foot mounted / Stirradtriebemotoren mit Blockgehäuse, Ausführung mit Fuss
NR...	<b>Monoblok tip, helisel redüktörler, motorlu, flanşlı</b> / Monoblock type helical geared motors, flange mounted / Stirradtriebemotoren 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 / Stirradgetriebe 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 / Stirradgetriebe 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 / Stirradtriebemotoren 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 / Stirradgetriebe 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> / Stirradtriebemotoren 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> / Stirradtriebemotoren 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> / Stirradtriebemotoren 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> / Stirradgetriebe 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> / Stirradtriebemotoren 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> / Stirradgetriebe 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> / Stirradtriebemotoren 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> / Stirradgetriebe mit Blockgehäuse, Eingangsvollwelle und Mischerflansch



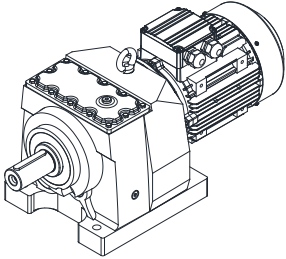
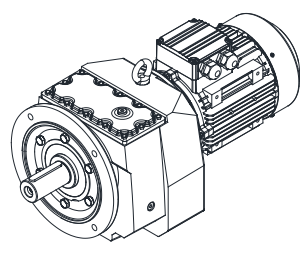
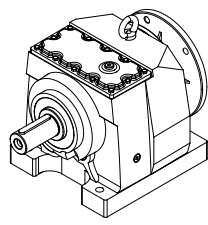
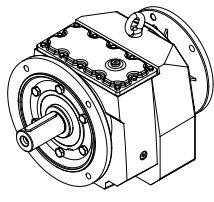
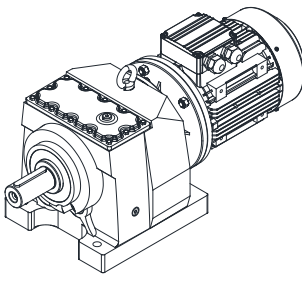
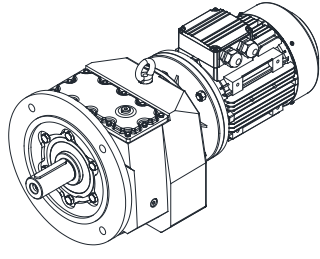
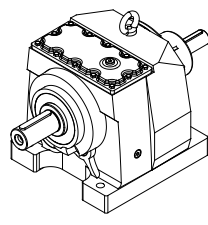
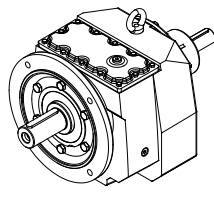
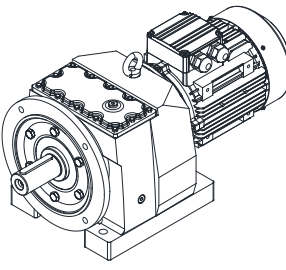
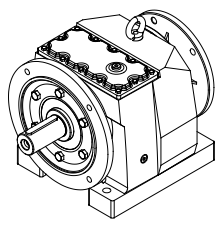
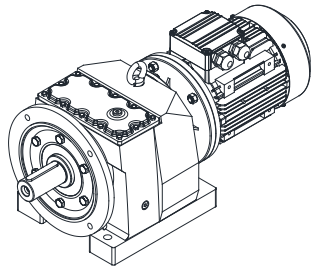
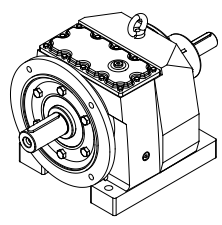
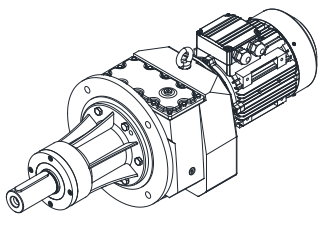
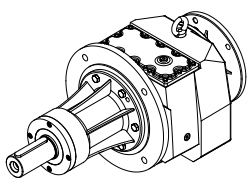
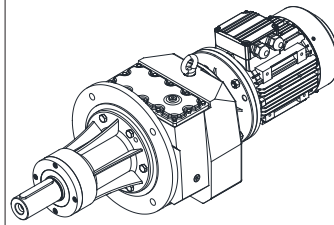
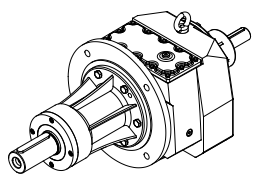
# Genel Bilgiler

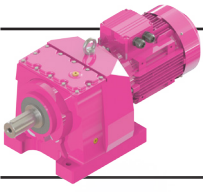
## General Information

### Einführung



#### Tip Tanımlaması / Unit Designation / Typenbezeichnungen

 <b>MR...</b>	 <b>NR...</b>	 <b>MN...</b>	 <b>NN...</b>
 <b>MV...</b>	 <b>NV...</b>	 <b>MT...</b>	 <b>NT...</b>
 <b>MRF...</b>	 <b>MNF...</b>	 <b>MVF...</b>	 <b>MTF...</b>
 <b>NRB...</b>	 <b>NNB...</b>	 <b>NVB...</b>	 <b>NTB...</b>



# Genel Bilgiler

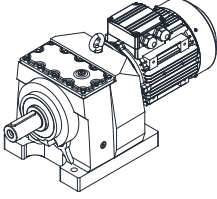
## General Information

### Einführung



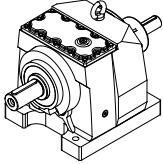
### Örnek Tip Tanımlamaları

#### MR172 - 3E90S/4C - L05



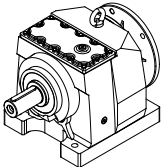
**M**.....: M serisi redüktör  
**R**.....: Motor bağlantılı  
**1**.....: Gövde büyüklük  
**7**.....: Revizyon numarası  
**2**.....: Kademe sayısı  
**3**.....: Verim sınıfı  
**E**.....: Motor tipi  
**90S**.....: Motor büyüklüğü  
**4C**.....: Motor kutup sayısı  
**L05**.....: Fren Tipi

### MT373



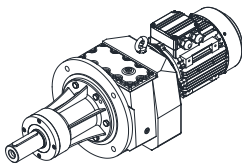
**M**.....: M serisi redüktör  
**T**.....: Motorsuz giriş millî  
**3**.....: Gövde büyüklüğü  
**7**.....: Revizyon numarası  
**3**.....: Kademe sayısı

### 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 flanşlı

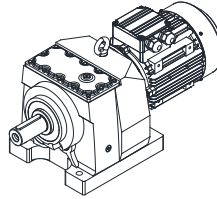
### NRB473 - 3E100L/4C



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

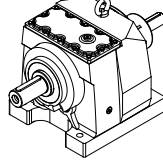
### Sample Designations

#### MR172 - 3E90S/4C - L05



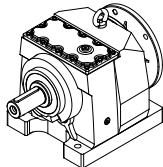
**M**.....: M series gearbox  
**R**.....: With motor connection  
**1**.....: Gear unit size  
**7**.....: Revision number  
**2**.....: Stage number  
**3**.....: Efficiency class  
**E**.....: Motor type  
**90S**.....: Motor frame size  
**4C**.....: Number of poles  
**L05**.....: Brake type

### MT373



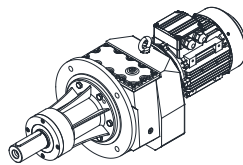
**M**.....: M series gearbox  
**T**.....: Solid input shaft  
**3**.....: Gear unit size  
**7**.....: Revision number  
**3**.....: Stage number

### 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

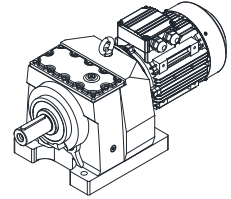
### NRB473 - 3E100L/4C



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

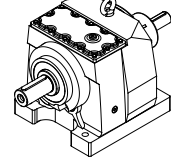
### Beispiele für Typenbezeichnung

#### MR172 - 3E90S/4C - L05



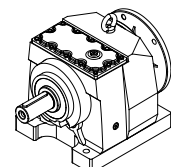
**M**.....: M Serie Getriebe  
**R**.....: Motorverbindung  
**1**.....: Größe der Gehäuse  
**7**.....: Änderungsnummer  
**2**.....: Stufenanzahl  
**3**.....: Effizienzklasse  
**E**.....: Motortyp  
**90S**.....: Motorbaugröße  
**4C**.....: Anzahl der Polen  
**L05**.....: Bremse

### MT373



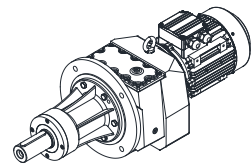
**M**.....: M Serie Getriebe  
**T**.....: Vollwelleneingang ohne Motor  
**3**.....: Größe der Gehäuse  
**7**.....: Änderungsnummer  
**3**.....: Stufenanzahl

### MN473 - A11

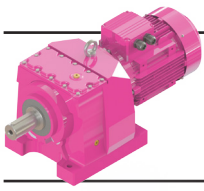


**M**.....: M Serie Getriebe  
**N**.....: IEC B5 Flansch ohne Motor  
**4**.....: Größe der Gehäuse  
**7**.....: Änderungsnummer  
**3**.....: Stufenanzahl  
**A11**.....: Motortyp 112, B5 Motorflansch

### NRB473 - 3E100L/4C



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



# Genel Bilgiler

## General Information

### Einführung



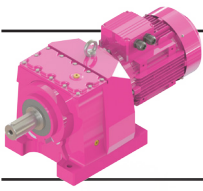
### Motor Büyüklüğüne Göre Geometrik Mümkün Çevrim Oranları

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 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 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 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	3,16 - 11,95
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	19,00 - 60,66
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 9,61 - 30,37	4,20 - 6,25 9,61 - 30,37	4,20 - 6,25 9,61 - 30,37	3,15 - 25,23	3,15 - 19,06	3,15 - 14,31
MR283	3	-	18,33 - 27,80 41,96 - 137,91	18,33 - 27,80 41,96 - 137,91	18,33 - 27,80 41,96 - 137,91	18,33 - 114,14	18,33 - 85,60	18,33 - 27,80 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 29,47 ; 48,00 - 157,76	18,68 - 20,64 29,47 ; 48,00 - 157,76	18,68 - 20,64 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 - 194,15 301,59	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 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	-	-	-	-	-	-	7,26
MR773	3	-	-	-	-	-	-	12,98 - 21,40 17,53 - 19,76 ; 34,89 - 39,33 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	641,40 822,02 - 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

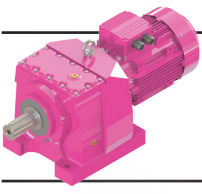


### Motor Büyüklüğüne Göre Geometrik Mümkün Çevrim Oranları

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

#### Motor Büyüklüğü / Motor Size / Motorbaugröße

Tip Type	Kademe Stages 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 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 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 53,99 - 61,42	-	-	-
MR674	4	-	-	-	-	-	-	-
MR675	5	583,04 - 673,70	-	-	-	-	-	-
MR676	6	-	-	-	-	-	-	-
MR772	2	4,73 - 21,40	4,73 - 21,40	4,73 - 21,40	4,73 - 14,54	4,73 - 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 27,39 - 110,17	13,30 ; 16,09 - 20,28 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 54,80 - 186,95	20,36 - 26,03 ; 33,08 - 42,30 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;

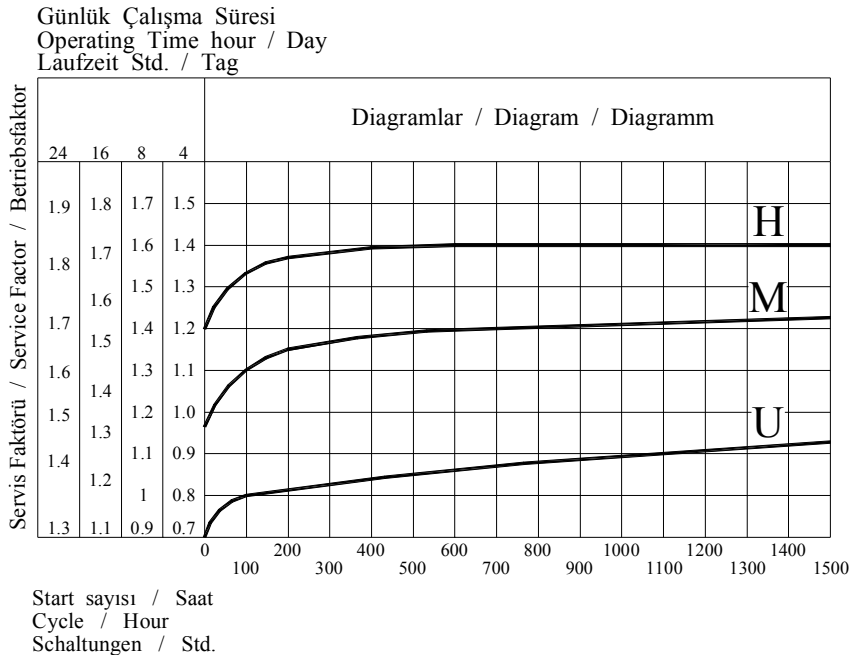
1. Betriebsdauer der angetriebenen Maschine bestimmen.
2. Belastungsart der angetriebenen Maschine auswählen.

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

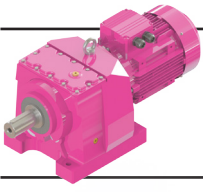
Um eine bessere Auswahl zu treffen, können die Belastungsarten mit den angegebenen Formeln (Seite 18) errechnet werden.

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 Teçizatları

##### 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:

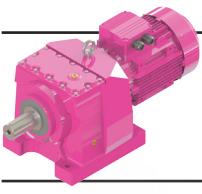
- M - Rohrschneiden
- Knetmaschinen
- Maichen
- H - Rohrmühlen

##### Waschereimaschinen:

- M - Trommeltrockner
- Waschmaschinen

##### Wälzwerke:

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

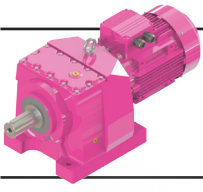
$$J'_{\text{ext}} = \frac{J_{\text{ext}}}{i^2}$$

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

$J_{\text{ext}}$  : **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

$J_{\text{rotor}}$  : **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.

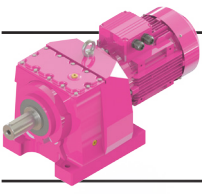
	2-4-6 Kademe / 2-4-6 Stages / 2-4-6 stufig	3-5 Kademe / 3-5 Stages / 3-5 stufig
<b>Saat Yönünde</b> Clockwise im Uhrzeigersinn <b>CW</b>		
<b>Saat Tersi Yönünde</b> Counter Clockwise gegen Uhrzeigersinn <b>CCW</b>		

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 eksenel 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 eksenel 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 değerler aşağıda verilen formül ile düzeltilmesi gerekir.

$$\begin{aligned} F_{qam}' &= F_{qam} \times \frac{t}{y+u} \\ F_{qem}' &= F_{qem} \times \frac{t}{y+u} \end{aligned}$$

"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.

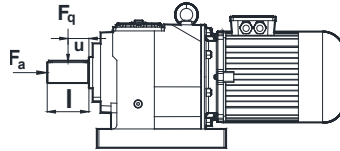
In Selection ;

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

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.

$$\begin{aligned} F_{qam}' &= F_{qam} \times \frac{t}{y+u} \\ F_{qem}' &= F_{qem} \times \frac{t}{y+u} \end{aligned}$$

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.

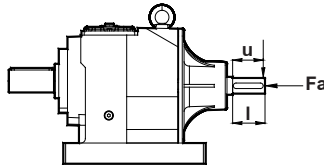
$$\begin{aligned} F_{qam}' &= F_{qam} \times \frac{t}{y+u} \\ F_{qem}' &= F_{qem} \times \frac{t}{y+u} \end{aligned}$$

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

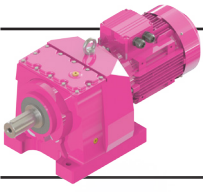
Tip Type Typ	MR002-003 NR002-003	MR102-103 NR102-103	MR172-173 NR172-173	MR202-203 NR202-203	MR272-273 NR272-273	MR282-283 NR282-283	MR372-373 NR372-373	MR472-473 NR472-473	MR572-573 NR572-573	MR672-673 NR672-673	MR772-773 NR772-773	MR872-873 NR872-873	MR972-973 NR972-973
t	90	108	109	140	141	158	170	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 Eingangswelle Korrigierungszahlen

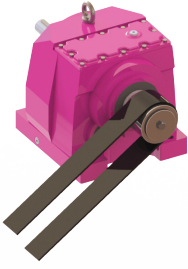
Tip Type Typ	MT002-003 NT002-003	MT102-103 NT102-103	MT172-173 NT172-173	MT202-203 NT202-203	MT272-273 NT272-273	MT282-283 NT282-283	MT372-373 NT372-373	MT472-473 NT472-473	MT572-573 NT572-573	MT672-673 NT672-673	MT772-773 NT772-773	MT872-873 NT872-873	MT972-973 NT972-973
t	78	108	108	111	111	126	126	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

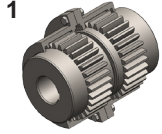


#### Radyal Yüklerin Hesabı

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

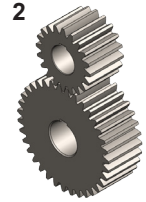
Çalışma sırasında oluşan sapmalar kaplinin güvenlik sınırları içinde ise kuvvetler ihmal edilebilir.



##### 2. Düz Dişli

(20° kavrama açılı)

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



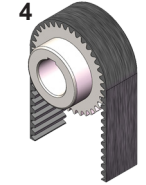
##### 3. Küçük Hızlarda Zincir Dişli (z>17)

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



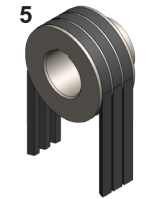
##### 4. Triger Kayış

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



##### 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

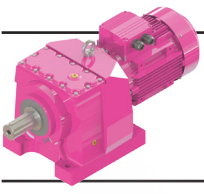
$$F_q = \frac{2500 \times M_2}{D}$$

##### 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

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#### 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

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

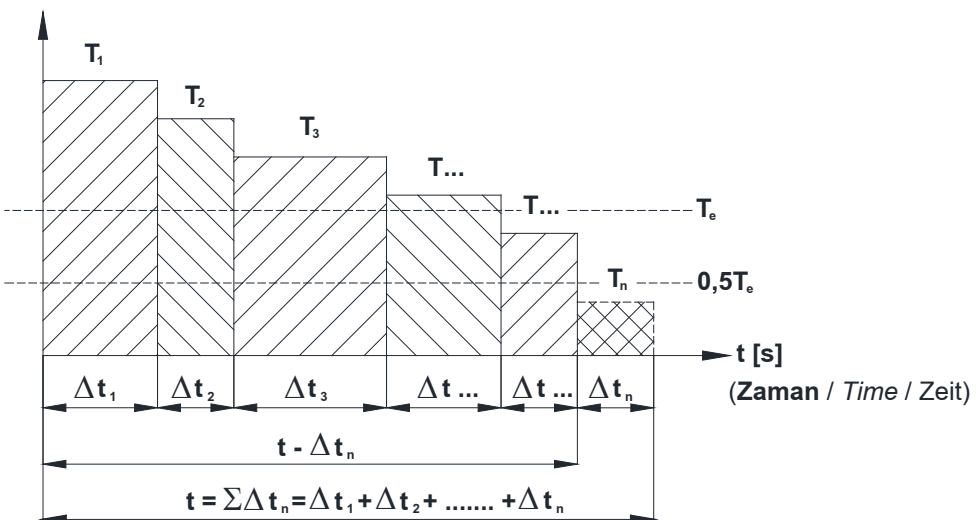
Wenn alle  $T_n$  Werte höher als 50% von  $T_e$  sind, dann wird die äquivalente Leistung nach folgender Formel berechnet;

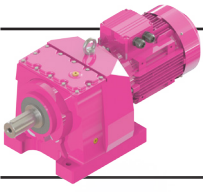
$$P_{eq} = P_N = \frac{T_e \times n}{9550}$$

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)

T [Nm]





# 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;

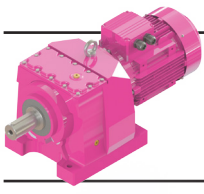
$$t' = t - t_4 - t_5 = 120 - 43 - 10 = 67 \text{ s}$$

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

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 requirement). 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)

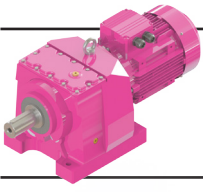
- Von den Belastungsart Tabellen(Seite 17-18) nimmt man Belastungsart M

- 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,

**MR373-3E100L/4D** seçilir. (Sayfa 81)

$$\begin{aligned} P_2 &= 3 \text{ kW} > 2,46 \text{ kW} \\ M_2 &= 554 \text{ Nm} > 470 \text{ Nm} \\ fs &= 1,4 \\ n_2 &= 49 \text{ d/dak} \\ F_{qam} &= 6587 \text{ N} > 5484 \text{ N} \end{aligned}$$

- *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,*

**MR373-3E100L/4D** selected. (Page 81)

$$\begin{aligned} P_2 &= 3 \text{ kW} > 2,46 \text{ kW} \\ M_2 &= 554 \text{ Nm} > 470 \text{ Nm} \\ fs &= 1,4 \\ n_2 &= 49 \text{ rpm} \\ F_{qam} &= 6587 \text{ N} > 5484 \text{ N} \end{aligned}$$

- Für Kettentrieb die erforderte Querkraft (seite 21).

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

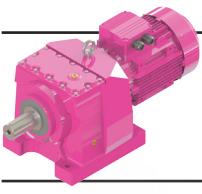
- Von den oben angegebenen Berechnungen die erforderte Getriebe ist wie folgt;

$$\begin{aligned} P_2 &\geq 2,46 \text{ kW} \\ M_2 &\geq 470 \text{ Nm} \\ fs &\geq 1.3 \\ n_2 &= 50 \text{ U/min} \\ F_q &\geq 5484 \text{ N} \end{aligned}$$

Von der Leistung- DrehzahlTabelle ,

wurde **MR373-3E100L/4D** gewählt. (Seite 81)

$$\begin{aligned} P_2 &= 3 \text{ kW} > 2,46 \text{ kW} \\ M_2 &= 554 \text{ Nm} > 470 \text{ Nm} \\ fs &= 1,4 \\ n_2 &= 49 \text{ U/min} \\ F_{qam} &= 6587 \text{ N} > 5484 \text{ N} \end{aligned}$$



# 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

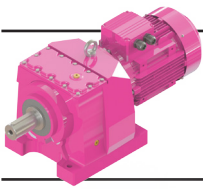
#### Koruma Sınıfı:

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

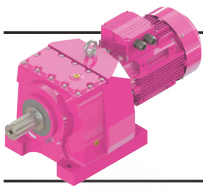
#### Protection Class:

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:

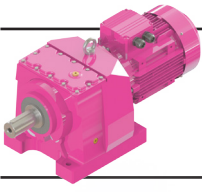
Vollwelle mit Paßfeder [ ]  
 Vollwelle ohne Paßfeder [ ]  
 Sonderwelle [ ]

#### Spannungsversorgung:

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

#### Schutzart:

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



# 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, redüktör yağ sıcaklığı, çalışma koşulları ve yağ ömrü önem taşımaktadır. Redüktörler yağ doldurulmuş olarak sevkedilmektedir. Redüktörler uzun süre depolanacakları zaman veya çalışmaya başlanacağı zaman veya çalışma konumuna göre üstte kalan tapa sökülmesi ve redüktörün beraberinde verilen havalandırma tapası kullanılmalıdır. Bu redüktörün iç basıncından dolayı oluşacak yağ sızmalarını önleyecektir.

Redüktörlerde standart olarak kullanılan yağlar 31. sayfadaki tabloda verilmiştir. Miktarlar ve yağ tipi burada verilen değerlerden farklılık gösterebilir. Redüktörünüzde kullanılan yağın tipi ve miktarı için lütfen etiketine bakınız. Siparişte belirtilmez ise M serisi redüktörler **M1** ve N serisi redüktörler **M4** pozisyonuna göre yağ miktarları ile doldurulur. Bu pozisyonlar dışındaki çalışma durumlarında tablolarda verilen yağ miktarlarına göre ilave veya eksiltme yapılmalıdır. Özel çalışma koşullarında firmamıza danışmanız tavsiye edilir.

Mineral yağlar her 10.000 çalışma saatinde, sentetik yağlar ise her 20.000 çalışma saatinde 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, redüktör 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 (according 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 p. 31. Please look at your gear units label for filled oil type and quantity. If it is not written 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.*

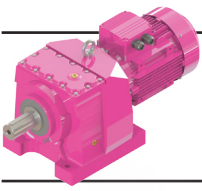
#### Schmierung

Um eine lange Lebensdauer zu gewährleisten muss der Schmierstoff richtig ausgewählt werden.

Für die richtige Ölauswahl müssen Drehzahl, Umgebungstemperatur, 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 Undichtigkeit des Getriebes zu vermeiden. Getriebe und Getriebemotoren sind bei Auslieferung betriebsfertig gefüllt.

Ohne besondere Bestellangaben werden die Getriebe grundsätzlich mit den auf der Seite 31 in der grau unterlegten Spalte angegebenen Schmierstoffen gefüllt. Bitte im Getriebe verwendetes Öl und menge von dem Namensschild ablesen. Die fußbefestigten Getriebe (M Serie) sind gefüllt 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 Temperaturschwankungen 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



### M4 Montaj Pozisyonu için Genleşme Tankı / Expansion Tank for M4 Mounting Position / Ölausgleichsbehälter für M4 Bauform

Aşağıdaki teknik resimde gösterildiği gibi montaj pozisyonları **M4** (montaj pozisyonları syf.32) olan redüktörlerde düzgün bir yağlama sağlanabilmesi için yağ seviyesinin redüktörün üst dişlilerinin yağlanabileceği seviyede olması gerekmektedir. Buda düşük çevrim oranlı redüktörlerde köpürme ve genleşme nedeniyle havalandırma tapasından yağ atılmasına neden olabilmektedir.

Yılmaz redüktör ; bunun önlenmesi için çevrim oranı (i) < 20 ve M47'den daha büyük olan bütün gövdelerde **M4** montaj pozisyonunda genleşme tankı kullanılmasını kesinlikle önermektedir. Önerilen genleşme tankı ölçüleri aşağıdaki tabloda gösterilmiştir.

Çevrim oranı (i) < 20 olup giriş motor devri 1800 d/d dan büyük olan bütün redüktörlerde **M4** montaj pozisyonunda genleşme tankı kullanılması redüktör büyüklüğüne bakılmaksızın önerilmektedir.

*As you can see at the technical drawing below, for gear units with **M4** (mounting positions p. 32) mounting position, oil level is very high for proper lubrication of upper pinion gear and this leads to oil leakage from venting plug, because of foaming and expansion of oil at geared motors with ratios below 20.*

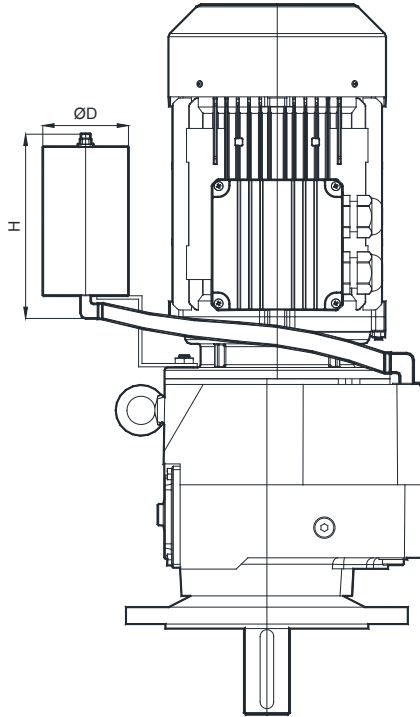
*We ; Yılmaz Redüktör, strongly recommend using expansion tank for **M4** mounting position for gear units M57, M67, M77, M87 and M97 with total ratios (i) below 20, to prevent this. You can find the recommended dimensions of expansion tanks below.*

*If your gear units total ratio (i) is below 20 and input speed is higher than 1800 rpm we recommend using of expansion tank for all gear unit sizes for **M4** mounting position.*

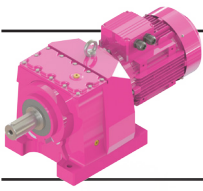
Wie in der folgenden technischen Zeichnung dargestellt ist, sollte der Ölstand auf der gleichen Höhe der ersten Getriebestufe sein, um eine ausreichende Schmierung des oberen Zahnrads bei der **M4** Bauform (s. Seite 32) sicher zu stellen. Aufgrund dieses hohen Ölstands bildet sich Ölschaum aus, welcher aus der Entlüftungsschraube austritt.

Um das verhindern zu müssen, empfiehlt Yılmaz Redüktör bei allen M-Serie Getrieben ab Getriebebaugröße M57 mit niedrigen Übersetzungen (i<20) einen Ölausgleichsbehälter bei der **M4** Bauform einzusetzen. Die empfohlenen Dimensionen des Ölausgleichsbehälters sind in der unteren Tabelle angegeben.

Bei Getrieben mit Übersetzungen (i<20) und bei Motor-Eingangsdrehzahlen >1800 min<sup>-1</sup> empfiehlt Yılmaz Redüktör einen Ölausgleichsbehälter unabhängig von der Getriebebaugröße einzusetzen.



Gövde Büyüklüğü Housing Size Größe der Gehäuse	Genleşme Tankı Expansion Tank Ölausgleichsbehälter	D [mm]	H [mm]	Ağırlık [kg] Weight [kg] Gewicht [kg]
M57..	G1	100	150	4
M67.. , M77..	G2	150	250	5
M87.. , M97..	G3	180	400	9



# Genel Bilgiler

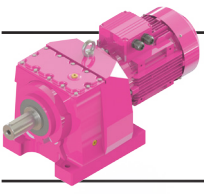
## General Information

### Einführung



#### Yağ Tipleri / Oil Types / Schmierstoffe

Yağ Cinsi Lubricant Art des Schmierers	DIN 51517-3	Çevre Sıcaklığı (°C) Ambient Temperature (°C) Umgebungstemperatur (°C)		ISO VG	Aral	Beyond Petroleum	Castrol	Klüber Lubrication	Mobil	Shell	Total
		Daldırma Yağlama Dip Lubrication Tauchschmier.	Basınçlı Yağlama Forced Lubrication Druckschmier.								
Mineral Yağlar Mineral Oil Mineralöl	CLP	0 ... +50	-	680							
		-5 ... +45	-	460	Degol BG 680	Energol GR-XP 680	Alpha SP 680	Klüberoil GEM 1-680 N	Mobilgear 600 XP 680	Omala 680	Carter EP 680
		-10 ... +40	+15 ... +40	320	Degol BG 460	Energol GR-XP 460	Alpha SP 460	Klüberoil GEM 1-460 N	Mobilgear 600 XP 460	Omala F460	Carter EP 460
		-15 ... +30	+10 ... +30	220	Degol BG 320	Energol GR-XP 320	Alpha SP 320	Klüberoil GEM 1-320 N	Mobilgear 600 XP 320	Omala F320	Carter EP 320
		-20 ... +20	+5 ... +20	150	Degol BG 220	Energol GR-XP 220	Alpha SP 220	Klüberoil GEM 1-220 N	Mobilgear 600 XP 220	Omala F220	Carter EP 220
		-25 ... +10	+3 ... +10	100	Degol BG 150	Energol GR-XP 150	Alpha SP 150	Klüberoil GEM 1-150 N	Mobilgear 600 XP 150	Omala 150	Carter EP 150
Sentetik Yağlar Synthetic Oil Synthetisches Öl	CLP PG	-10 ... +60	-	680	Degol GS 680	Energol SG-XP 680	-	Klübersynth GH 6 -680	Mobil Glygoyle 680	Tivela S 680	Carter SY 680
		-20 ... +50	-	460	Degol GS 460	Energol SG-XP 460	Aphasyn PG 460	Klübersynth GH 6 -460	Mobil Glygoyle 460	Tivela S 460	Carter SY 460
		-25 ... +40	+5 ... +40	320	Degol GS 320	Energol SG-XP 320	Aphasyn PG 320	Klübersynth GH 6 -320	Mobil Glygoyle 320	Tivela S 320	Carter SY 320
		-30 ... +30	0 ... +30	220	Degol GS 220	Energol SG-XP 220	Aphasyn PG 220	Klübersynth GH 6 -220	Mobil Glygoyle 30	Tivela S 220	Carter SY 220
		-35 ... +20	-5 ... +20	150	Degol GS 150	Energol SG-XP 150	Aphasyn PG 150	Klübersynth GH 6 -150	Mobil Glygoyle 22	Tivela S 150	Carter SY 150
		-40 ... +10	-8 ... +10	100	-	-	-	Klübersynth GH 6 -100	Mobil Glygoyle 100	-	-
	CLP HC	-10 ... +60	-	680	-	-	-	Klübersynth GEM 4-680 N	Mobil SHC Gear 680	-	Carter SH 680
		-20 ... +50	-	460	Degol PAS 460	Energol EP-XF 460	Alphasyn T 460	Klübersynth GEM 4-460 N	Mobil SHC Gear 460	Omala HD 460	Carter SH 460
		-25 ... +40	+5 ... +40	320	Degol PAS 320	Energol EP-XF 320	Alphasyn T 320	Klübersynth GEM 4-320 N	Mobil SHC Gear 320	Omala HD 320	Carter SH 320
		-30 ... +30	0 ... +30	220	Degol PAS 220	Energol EP-XF 220	Alphasyn T 220	Klübersynth GEM 4-220 N	Mobil SHC Gear 220	Omala HD 220	Carter SH 220
		-35 ... +20	-5 ... +20	150	Degol PAS 150	Energol EP-XF 150	Alphasyn T 150	Klübersynth GEM 4-150 N	Mobil SHC Gear 150	Omala HD 150	Carter SH 150
		-40 ... +10	-8 ... +10	100	-	-	-	Klübersynth GEM 4-100 N	Mobil SHC 627	-	-
Gıda Uyumlu Yağ Food Grade Oil Lebensmittelöl	CLP NSF H1	-15 ... +25	+5 ... +25	320	-	-	Optileb GT 320	Klüberoil 4 UH1-320 N	Mobil SHC Cibus 320	Cassida Fluid GL-320	Nevastane SL 320
Çevre Dostu Yağ Biodegradable Oil Biologisch abbaubares Öl	CLP E	-25 ... +40	+5 ... +40	320	-	-	Tribol BioTop 1418-320	Klübersynth GEM 2-320	-	-	Carter Bio 320
Mineral Gresler [ -20 ... +120 °C Çalışma Sıcaklığı ] Mineral Grease [ -20 ... +120 °C Working Temperature ] Mineral-Fett [ -20 ... +120 °C Betriebstemperatur ]					Aralub HL3	Energol LS 3	Spheerol AP3	Centoplex 2 EP	Mobilux EP 3	Alvania RL3	Multis Complex EP 2
Sentetik Gresler [ -30 ... +100 °C Çalışma Sıcaklığı ] Synthetic Grease [ -30 ... +100 °C Working Temperature ] Synthetisches Fett [ -30 ... +100 °C Betriebstemperatur ]					-	Energol SY 2202	-	Petamo GHY 133 N	Mobiltemp SHC 100	Cassida RLS 2	Multis Complex SHD 220



# Genel Bilgiler

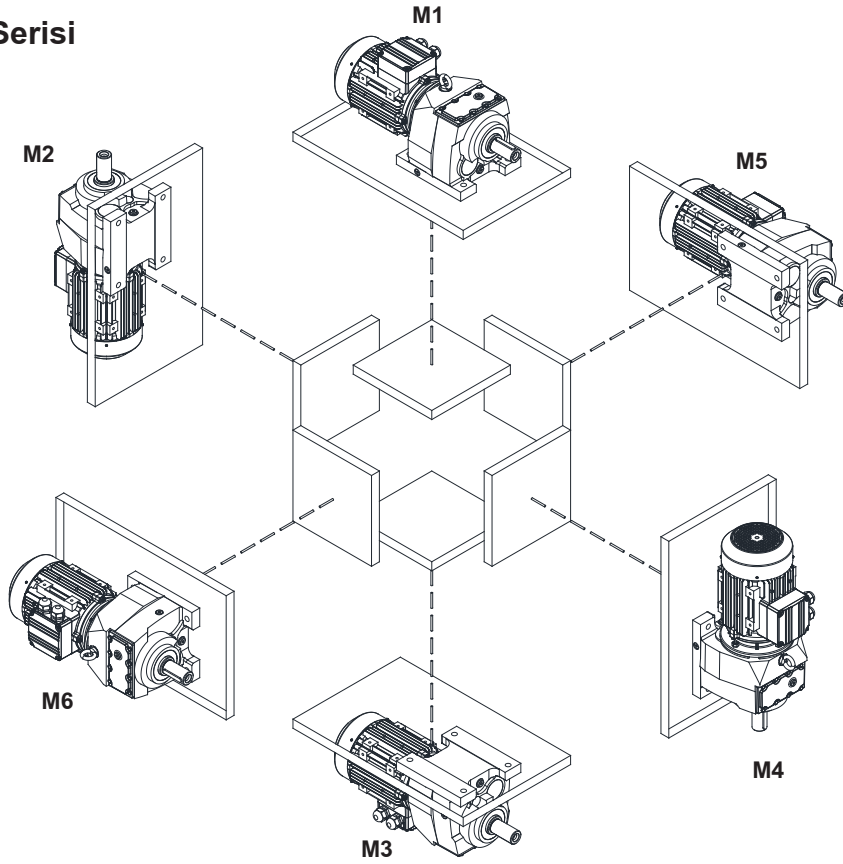
## General Information

### Einführung



#### Montaj Pozisyonları / Mounting Positions / Bauformen

### M Serisi

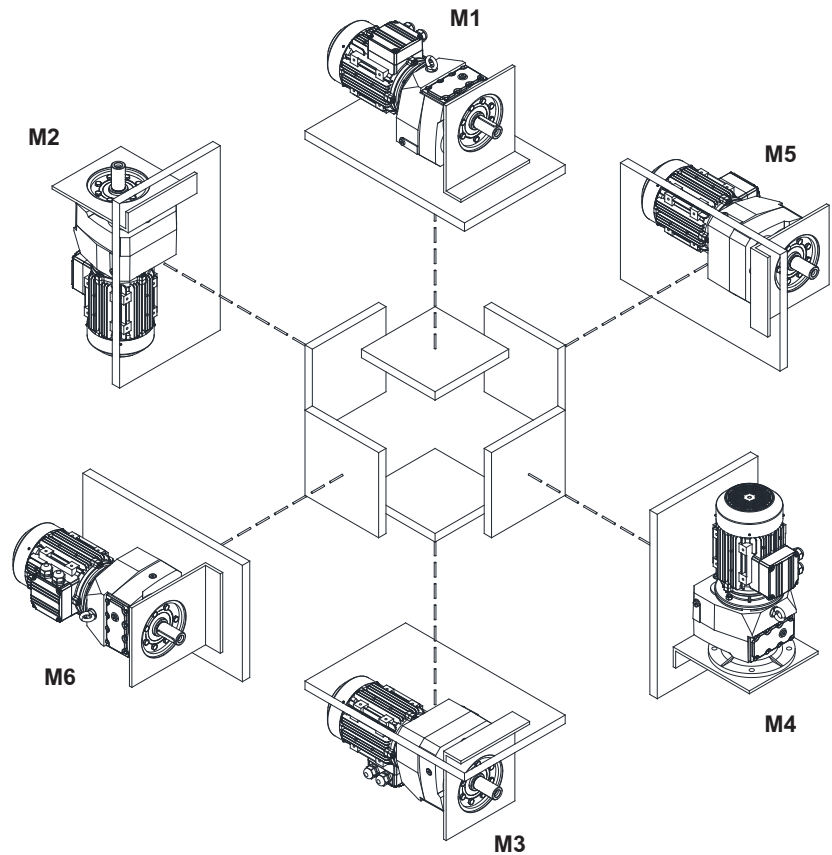


M1....M6 'ya kadar belirtilen montaj pozisyonları redüktörün duruş yönü referans alınarak belirlenmiştir. Montaj yüzeyleri bağlayıcı değildir.

*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

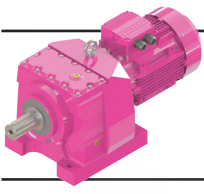


M1....M6 'ya kadar belirtilen montaj pozisyonları redüktörün duruş yönü referans alınarak belirlenmiştir. Montaj yüzeyleri bağlayıcı değildir.

*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

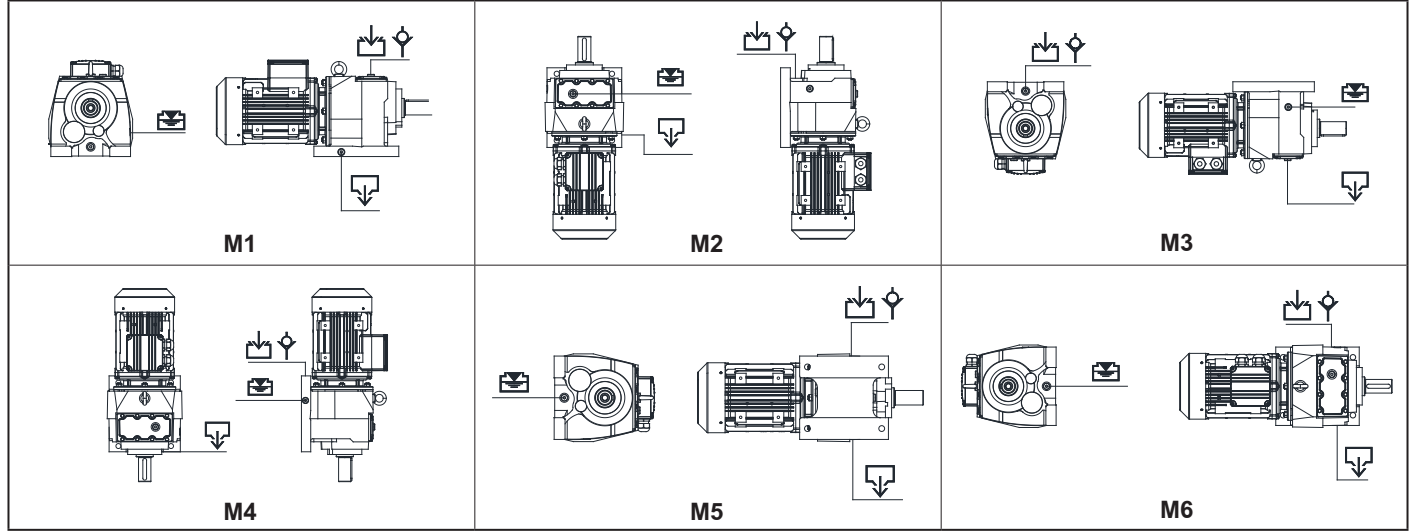
### Einführung



#### 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 Type Typ	M Serisi 2-3 Kademe Yağ Miktarları M Series 2-3 Stages Oil Quantities 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



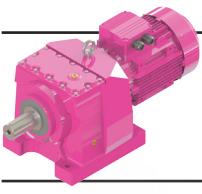
:Yağ boşaltma  
:Drain plug  
:Ölauslass



:Yağ seviyesi  
:Oil level  
:Ölstand



:Havalandırma  
:Vent Plug  
:Entlüftungsschraube



# Genel Bilgiler

## General Information

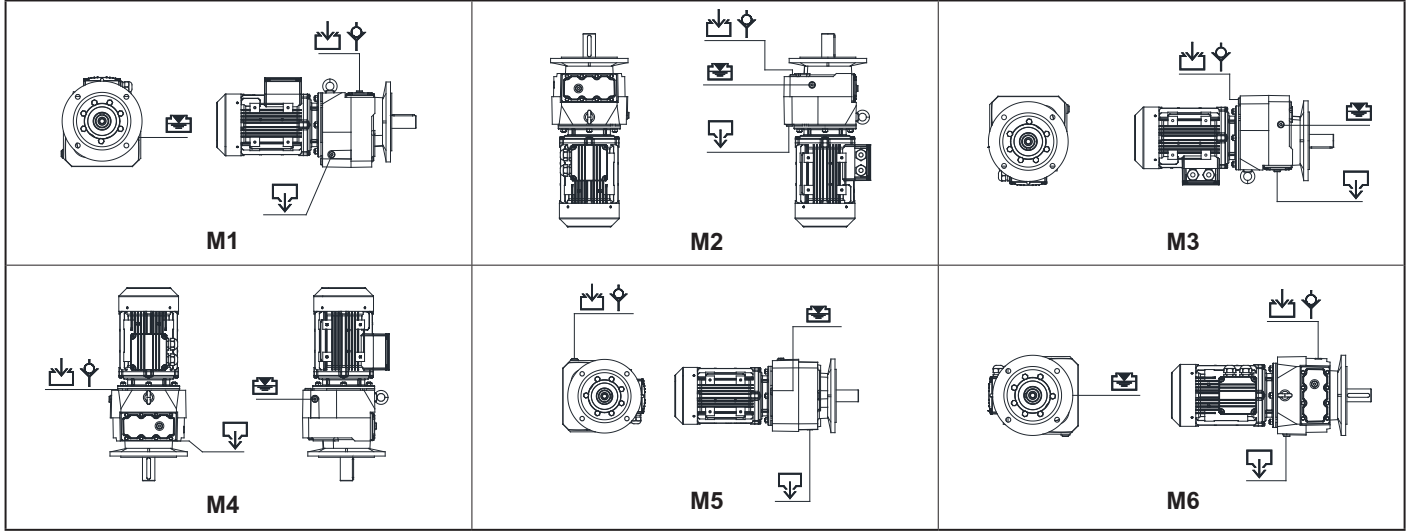
### Einführung



#### 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 Type Typ	N Serisi 2-3 Kademe Yağ Miktarları N Series 2-3 Stages Oil Quantities 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



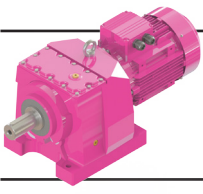
:Yağ boşaltma  
:Drain plug  
:Ölauslass



:Yağ seviyesi  
:Oil level  
:Ölstand



:Havalandırma  
:Vent Plug  
:Entlüftungsschraube



# Genel Bilgiler

## General Information

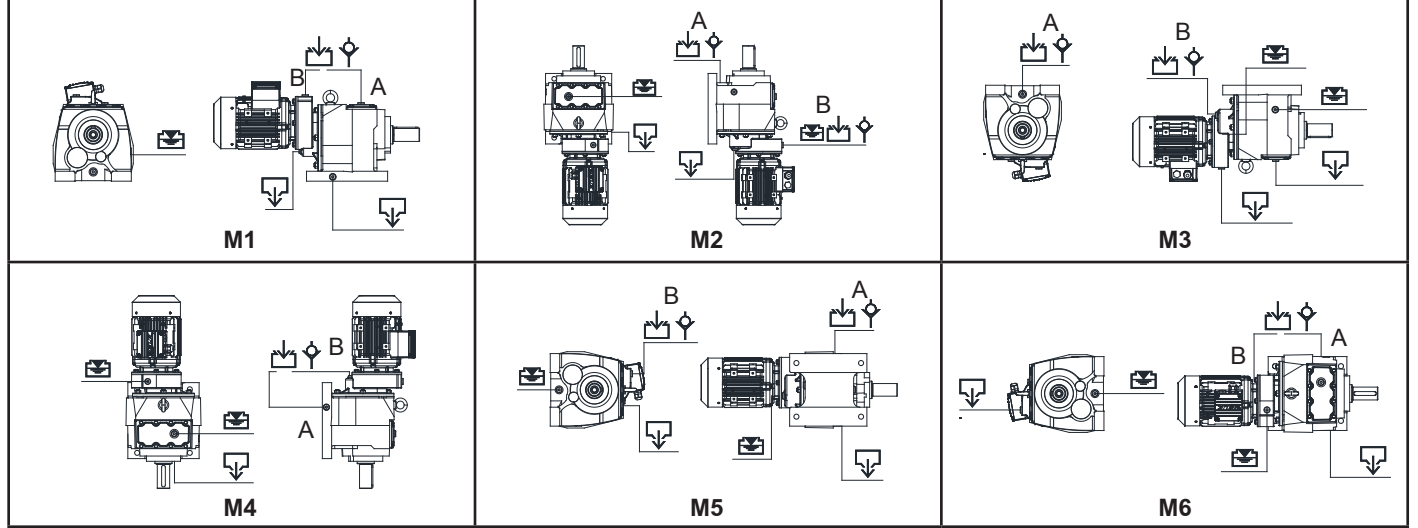
### Einführung



#### 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 Type Typ	M Serisi 4 Kademe Yağ Miktarları M Series 4 Stages Oil Quantities Ölmengen von M Serie mit 4 Stufen					
	M1 A / B	M2 A / B	M3 A / B	M4 A / B	M5 A / B	M6 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



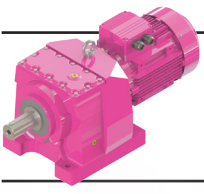
:Yağ boşaltma  
:Drain plug  
:Ölauslass



:Yağ seviyesi  
:Oil level  
:Ölstand



:Havalandırma  
:Vent Plug  
:Entlüftungsschraube



# Genel Bilgiler

## General Information

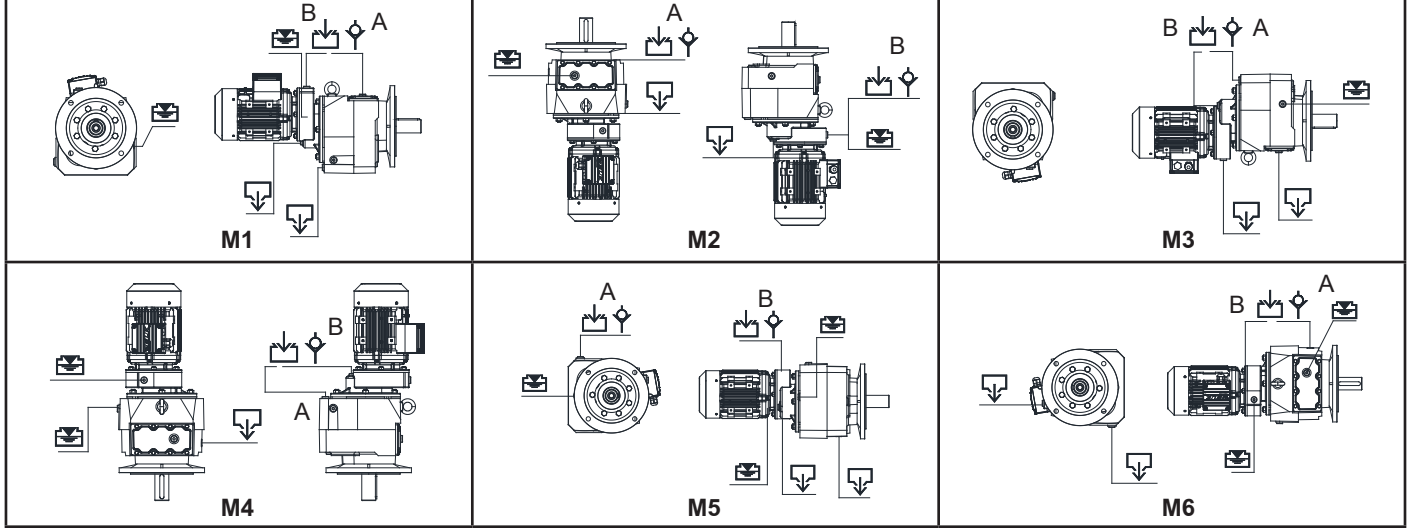
### Einführung



#### 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 Type Typ	N Serisi 4 Kademe Yağ Miktarları N Series 4 Stages Oil Quantities Ölmengen von N Serie mit 4 Stufen					
	M1 A / B	M2 A / B	M3 A / B	M4 A / B	M5 A / B	M6 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



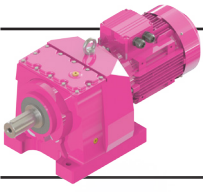
:Yağ boşaltma  
:Drain plug  
:Ölauslass



:Yağ seviyesi  
:Oil level  
:Ölstand



:Havalandırma  
:Vent Plug  
:Entlüftungschraube



# Genel Bilgiler

## General Information

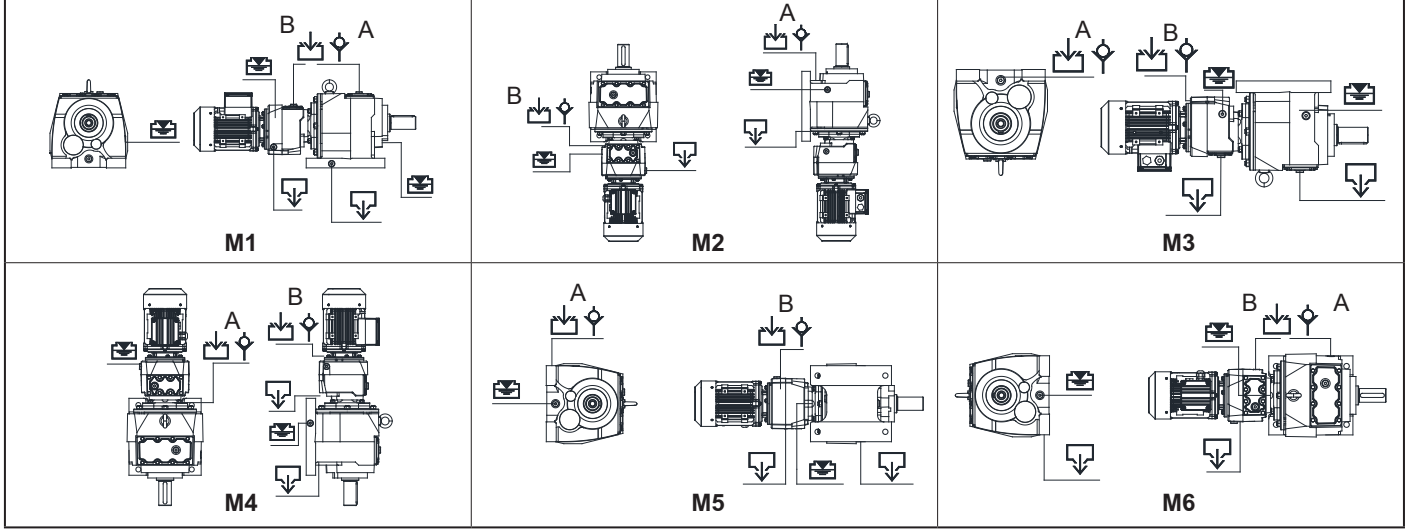
### Einführung



#### 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) / Ölmengen (lt.)

Tip Type Typ	M Serisi 5-6 Kademe Yağ Miktarları M Series 5-6 Stages Oil Quantities Ölmengen von M Serie mit 5-6 Stufen					
	M1 A / B	M2 A / B	M3 A / B	M4 A / B	M5 A / B	M6 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



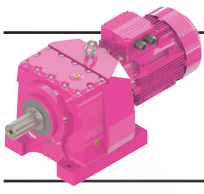
:Yağ boşaltma  
:Drain plug  
:Ölauslass



:Yağ seviyesi  
:Oil level  
:Ölstand



:Havalandırma  
:Vent Plug  
:Entlüftungsschraube



# Genel Bilgiler

## General Information

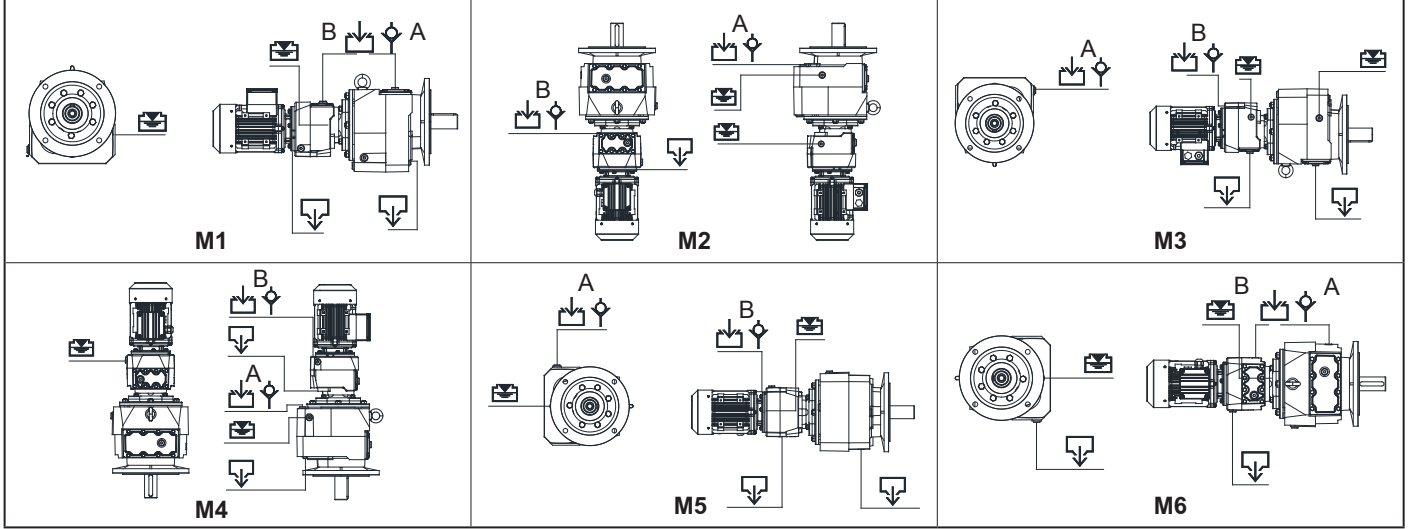
### Einführung



#### 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 Type Typ	N Serisi 5-6 Kademe Yağ Miktarları N Series 5-6 Stages Oil Quantities Ölmengen von N Serie mit 5-6 Stufen					
	M1 A / B	M2 A / B	M3 A / B	M4 A / B	M5 A / B	M6 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

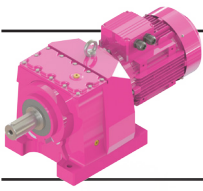
:Ölstand



:Havalandırma

:Vent Plug

:Entlüftungsschraube



# Genel Bilgiler

## General Information

### Einführung

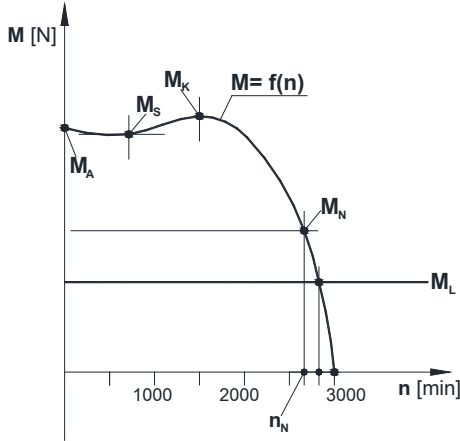


#### MOTORLAR

##### 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.



$M_A$ : 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

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.

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.

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

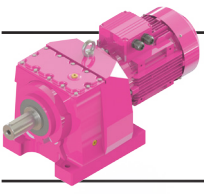
$f$ .....: Frequenz der Spannung [Hz]  
 $p_s$ .....: Anzahl der Polen von Stator

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

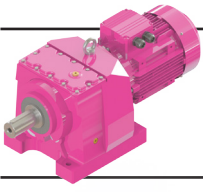
All motors of the catalogue have been laid out for duty S1 (continuous operation). Other duty types are given on the following table.

#### b-Betriebsarten

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

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

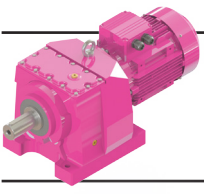
Yılmaz Redüktör Getriebemotoren werden serienmäßig in Wärmeklasse F (IEC317-8) ausgeführt. H Wärmeklasse ist möglich auf Kundenwunsch.

#### 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 Efficiency Classes Energieeffizienzklassen			4 Kutuplu Motor Verim Değeri Hesabı Calculating Efficiency Values of Motors with 4 Poles Berechnung der Wirkungsgrade von Elektromotoren mit 4 Polen	
IE1	EFF 2	<b>Standart Verim</b> Standart Efficiency Standarte Energieeffizienz	A=0,5234 B=-5,0499 C=17,4180 D=74,3171	$\eta_{Mn} = A \times [\log_{10}(P_L)] + B \times [\log_{10}(P_L)]^2 + C \times \log_{10}(P_L) + D$ <p><math>P_L</math> :Anma Yüğü [kW] / Nominal Load [kW] / Nennlast [kW]</p> <p><math>\eta_{Mn}</math> :Nominal verim / Nominal Efficiency / Sollwirkungsgrad</p>
IE2	EFF 1	<b>Yüksek Verim</b> High Efficiency Hohe Energieeffizienz	A=0,0278 B=-1,9247 C=10,4395 D=80,9761	
IE3	-	<b>Premium Verim</b> Premium Efficiency Premium Energieeffizienz	A=0,0773 B=-1,8951 C=9,2984 D=83,7025	
IE4	-	<b>Süper Premium Verim</b> Super Premium Efficiency Super Premium Energieeffizienz	-	

4 Kutuplu Motor Verim Değeri Efficiency Values of Motor with 4 poles Sollwirkungsgrad des Motors mit 4 Polen	Anma Yüğü [kW] Nominal Load [kW] 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 %

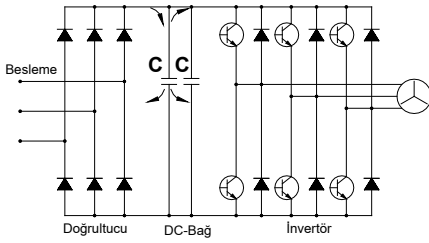


# Genel Bilgiler General Information Einführung

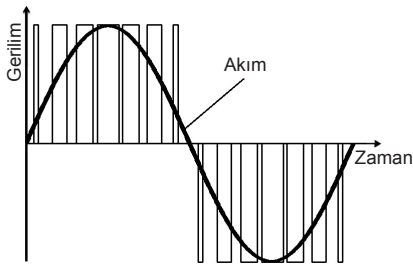


## f- AC Frekans İnvörtörler

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.

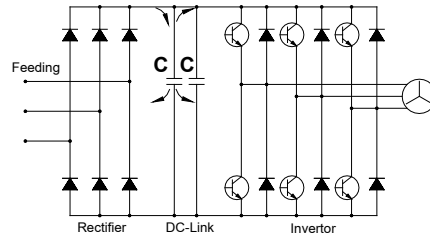


Tam dalga doğrultucuları besleyen üç faz besleme akımı DC-bağ kapasitörlerine iletilir. Kapasitörler voltajdaki dalgalanmaları azaltır ve kısa süreli ağıdaki akım kesintilerinde enerji sağlar. Kapasitörlerdeki voltaj kontrolsüzdür ve gelen AC akımın pik akım değerlerine bağlıdır. DC akım tekrar AC akıma, 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.

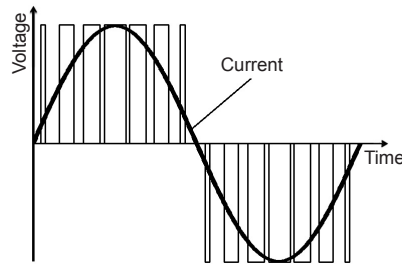


## f- AC Frequency Inverters

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.

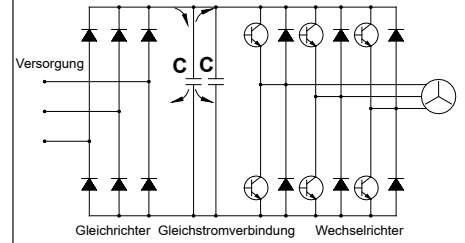


The three phase supply is fed into a full wave rectifier which supplies the DC link capacitors. The capacitors reduce the voltage ripple (especially on single supplies) and supply energy for short mains breaks. The voltage on the capacitors is uncontrolled and depends on the peak AC supply voltage. The 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.

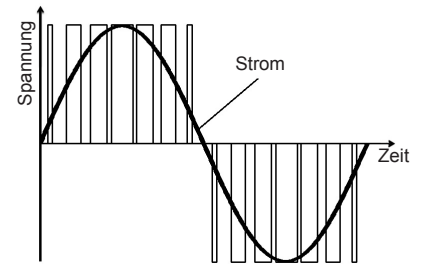


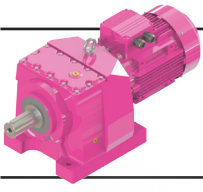
## f- AC Frequenz Umrichter

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





# Genel Bilgiler

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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

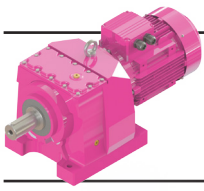
Es gibt zwei verschiedene Wicklungen, nämlich Shunt- und Serial-Wicklung. Das Drehmoment-Drehzahl-Verhältnis ist für beide Wicklungen unterschiedlich.

##### 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

## General Information

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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 Bremsenscheibe, die axial beweglich auf dem Mitnehmer angeordnet ist, frei drehen. Wird der Strom unterbrochen, drücken die Feder die Ankerscheibe gegen die Bremsenscheibe 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

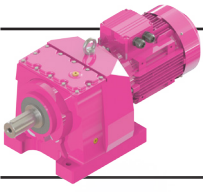
230V AC Versorgungsspannung von Klemmenkasten wird auf die Wicklungsspannung abhängig von der Bremsentyp mit Halbwellen- oder Vollweggleichrichter reduziert. Wicklungsspannung ist auf dem Etikett angegeben.

##### 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.



# Genel Bilgiler

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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:

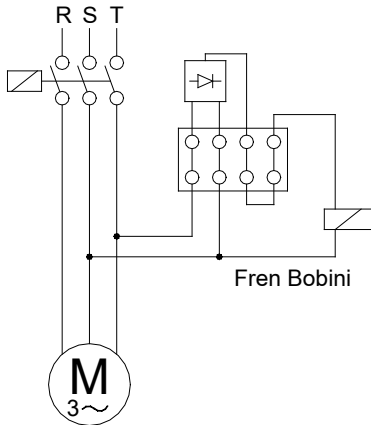
##### a) Verspätetes Bremsen

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.

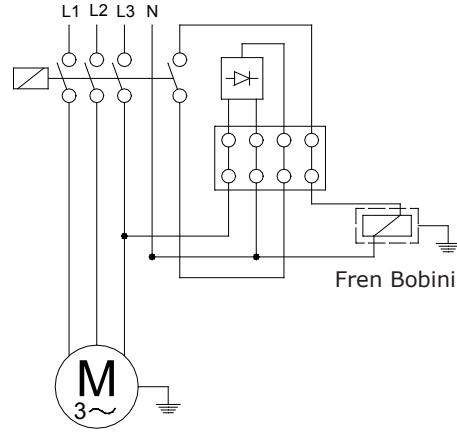
##### b) Schnelles Bremsen:

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.

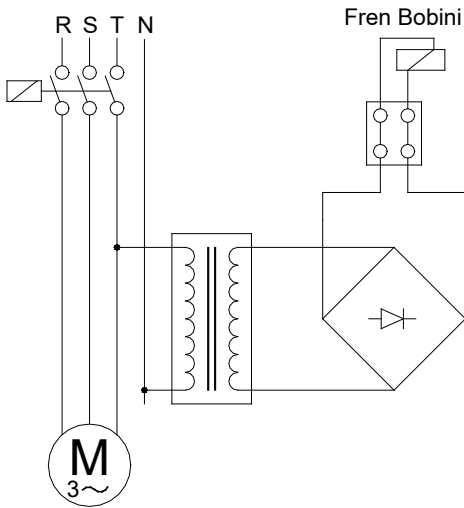
**Gecikmeli Frenleme / Delayed Running Brake / Verspätete Bremsung**  
(230 V)



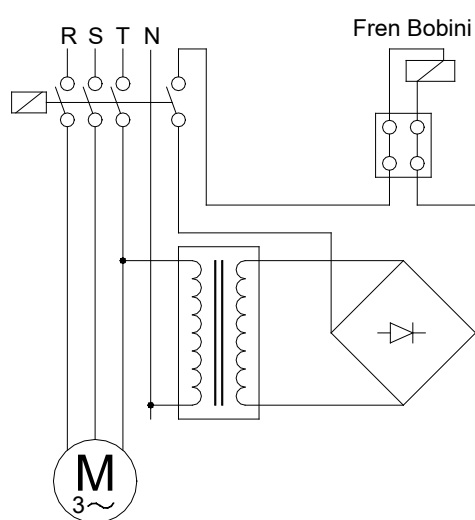
**Ani Frenleme / Sudden Brake / Plötzliche Bremsung**  
(230 V)

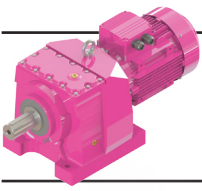


**Gecikmeli Frenleme / Delayed Running Brake / Verspätete Bremsung**  
(24 V)



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





# Genel Bilgiler

## General Information

### Einführung



#### Fren Seçimi:

Doğru bir fren seçimi için aşağıdaki parametreler bilinmelidir.

- $I_{tot} [kg \cdot m^2]$  : 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

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

#### Brake Selection:

To select a brake correctly the following data are necessary;

- $I_{tot} [kg \cdot m^2]$  : 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;

- $I_{tot} [kg \cdot m^2]$  : 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;

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

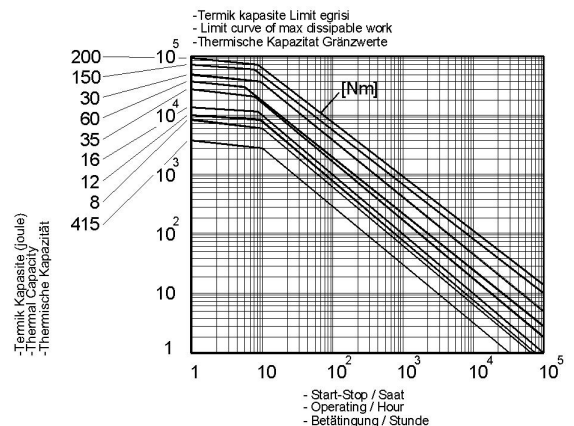
#### Abschätzung zur Bremswahl

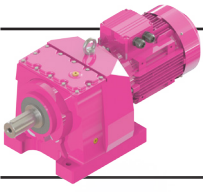
Wenn man nur die Motorleistung und die höchste Drehzahl kennt, kann die Bremskraft mit der folgenden Formel annähernd berechnet werden:

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

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

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





# 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.

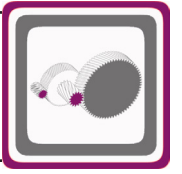
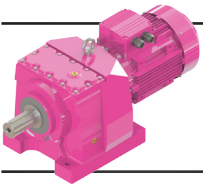
Die thermische Kapazität;

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

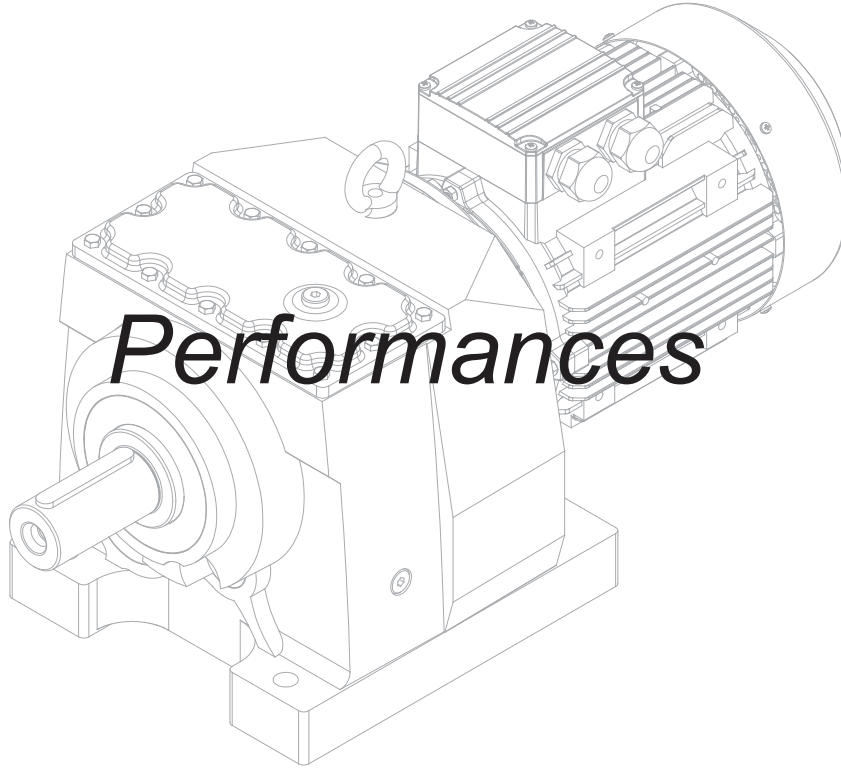
=1302,0 < 18000 Joule (von 150 Nm Kurve) Die ausgewählte 150 Nm Bremse ist ausreichend.



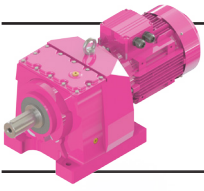




# Güç ve Devir Tabloları



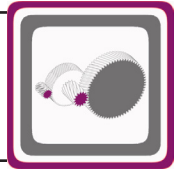
## Leistung und Drehzahlübersicht



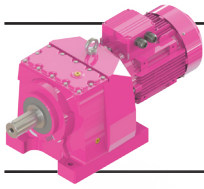
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



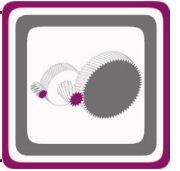
Güç	Çıkış Devri	Çıkış Momenti	Çevrim Oranı	Güv. Rad. Yük Çıkış	Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Snf.
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse
0,12 0,16	0,28	3242	<b>4953,44</b>	18152	0,9	<b>MR576-G63/4a</b>	0,41	157	123	IE1
	0,31	2883	<b>4402,68</b>	20503	1,0	<b>NR576-G63/4a</b>		151		
	0,40	2212	<b>3372,36</b>	24025	1,4					
	0,48	1872	<b>2850,22</b>	25448	1,6					
	0,50	1832	<b>2736,94</b>	25606	1,6	<b>MR575-G63/4a</b>	0,41	155	123	IE1
	0,59	1550	<b>2313,18</b>	26663	1,9	<b>NR575-G63/4a</b>		149		
	0,72	1270	<b>1897,20</b>	27612	2,4					
	0,81	1123	<b>1675,43</b>	28077	2,7					
	0,92	998	<b>1489,14</b>	28449	3,0					
	1,1	845	<b>1259,61</b>	28915	3,5					
1,2	767	<b>1140,65</b>	29101	3,9						
0,50 0,65 0,69 0,78 0,84 0,98 1,1 1,1 1,3 1,5	0,50	1691	<b>2522,85</b>	13294	0,9	<b>MR475-G63/4a</b>	0,41	100	120	IE1
	0,65	1413	<b>2107,15</b>	17344	1,1	<b>NR475-G63/4a</b>		103		
	0,69	1336	<b>1990,76</b>	18266	1,2					
	0,78	1169	<b>1738,98</b>	20032	1,3					
	0,84	1097	<b>1631,08</b>	20714	1,4					
	0,98	933	<b>1386,75</b>	22094	1,7					
	1,1	867	<b>1285,79</b>	22653	1,8					
	1,1	812	<b>1204,49</b>	23070	1,9					
	1,3	712	<b>1053,93</b>	23786	2,2					
	1,5	633	<b>934,94</b>	24312	2,4					
0,90 1,0 1,2 1,4 1,6 1,8 2,0 2,2 2,6	0,90	1045	<b>1561,78</b>	6910	0,8	<b>MR375-G63/4a</b>	0,41	76	117	IE1
	1,0	925	<b>1380,71</b>	9830	0,9	<b>NR375-G63/4a</b>		78		
	1,2	778	<b>1161,33</b>	12320	1,1					
	1,4	662	<b>987,33</b>	13863	1,2					
	1,6	568	<b>845,97</b>	14931	1,4					
	1,8	514	<b>765,58</b>	15470	1,6					
	2,0	455	<b>676,02</b>	16025	1,8					
	2,2	425	<b>631,45</b>	16286	1,9					
2,6	360	<b>533,70</b>	16828	2,3						
2,6 3,2 3,7	2,6	361	<b>524,07</b>	16815	2,3	<b>MR374-G63/4a</b>	0,41	55	116	IE1
	3,2	291	<b>421,85</b>	17348	2,8	<b>NR374-G63/4a</b>		58		
	3,7	255	<b>369,93</b>	17599	3,2					
1,1 1,3 1,6 1,8 2,0 2,4 2,8	1,1	809	<b>1206,98</b>	2333	0,7	<b>MR285-G63/4a</b>	0,41	74	114	IE1
	1,3	681	<b>1015,21</b>	7487	0,9	<b>NR285-G63/4a</b>		75		
	1,6	580	<b>863,11</b>	9637	1,0					
	1,8	497	<b>739,53</b>	10983	1,2					
	2,0	450	<b>669,25</b>	11641	1,3					
	2,4	385	<b>573,81</b>	12445	1,6					
	2,8	330	<b>491,50</b>	13057	1,8					
3,2 3,7 4,2	3,2	298	<b>431,18</b>	13388	2,0	<b>MR284-G63/4a</b>	0,41	74	113	IE1
	3,7	254	<b>368,77</b>	13798	2,4	<b>NR284-G63/4a</b>		75		
	4,2	223	<b>323,39</b>	14073	2,7					
1,6 1,9 2,3 2,7 3,3 3,8 4,1 5,4	1,6	555	<b>827,44</b>	5855	0,8	<b>MR275-G63/4a</b>	0,41	41	111	IE1
	1,9	486	<b>724,01</b>	6465	0,9	<b>NR275-G63/4a</b>		43		
	2,3	403	<b>598,70</b>	7080	1,1					
	2,7	336	<b>499,32</b>	7505	1,3					
	3,3	282	<b>418,57</b>	7806	1,6					
	3,8	242	<b>358,33</b>	8008	1,9					
	4,1	225	<b>332,52</b>	8090	2,0					
	5,4	170	<b>252,20</b>	8331	2,6					



# Motorlu Güç Devir Sayfaları

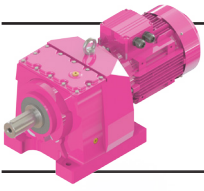
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor* Verim Snf.	
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class	
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse	
0,12 0,16	6,3	146	215,91	8429	3,1	MR275-G63/4a	0,41	41	111	IE1	
	6,6	139	205,95	8457	3,2	NR275-G63/4a		43			
	7,6	122	180,21	8523	3,7						
	9,2	101	149,02	8760	4,0						
	9,9	107	138,55	8650	4,0	MR273-G63/4a	0,41	30	110	IE1	
	11	94	121,03	8864	4,0	NR273-G63/4a		32			
	12	88	113,52	8944	4,0						
	14	77	99,21	5764	2,6	MR173-G63/4a	0,41	30	108	IE1	
	16	68	87,60	5565	2,9	NR173-G63/4a		32			
	17	63	81,82	5457	3,2						
	20	54	69,16	5197	3,7						
	24	45	57,76	4928	4,0						
	27	39	49,81	4715	4,0						
	0,18 0,25	30	35	45,18	2835	2,4	MR003-G63/4a	0,41	12	106	IE1
		34	31	40,04	2857	2,6	NR003-G63/4a		13		
43		25	32,02	2894	3,3						
48		22	28,38	2906	3,7						
57		19	24,13	2797	4,0						
64		17	21,26	2679	4,0						
66		16	20,66	2649	4,0						
71		15	19,17	2581	4,0						
75		14	18,20	2537	4,0						
81		13	16,89	2472	4,0						
93		11	14,67	2357	4,0						
100		11	13,61	2297	4,0						
123		9	11,14	2156	4,0	MR002-G63/4a	0,41	11	106	IE1	
138		8	9,87	2068	4,0	NR002-G63/4a		12			
157		7	8,70	1980	4,0						
162	7	8,45	1959	4,0							
174	6	7,84	1909	4,0							
183	6	7,45	1876	4,0							
198	5	6,91	1828	4,0							
228	5	6,00	1743	4,0							
245	4	5,57	1698	4,0							
300	4	4,56	1588	4,0							
350	3	3,90	1506	4,0							
377	3	3,62	1467	4,0							
0,18 0,25	0,11	12679	8345,18	74316	1,0	MR876-3E71M/6C	0,55	607	132	IE3	
	0,13	10968	7233,00	83155	1,2	NR876-3E71M/6C		622			
	0,15	9582	6313,78	89283	1,4	MR876-2E71M/6B	0,60	606		IE2	
	0,17	8459	5569,66	93713	1,5	NR876-2E71M/6B		621			
	0,19	7530	4954,95	96997	1,7						
	0,21	6749	4438,59	99684	1,9						
	0,24	5928	3892,30	102261	2,2						
	0,27	5248	3441,02	104265	2,5						
	0,32	4423	2894,28	106552	2,9						
	0,38	3768	2460,65	108262	3,5						
	0,16 0,18	0,16	9031	5949,83	44490	0,9	MR776-3E71M/6C	0,55	260	129	IE3
		0,18	7996	5260,00	48911	1,0	NR776-3E71M/6C		322		
							MR776-2E71M/6B	0,60	259		IE2
							NR776-2E71M/6B		321		

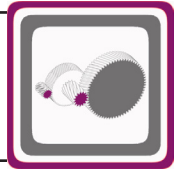
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

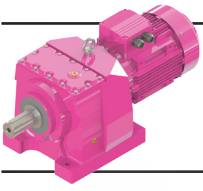
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*	
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class	
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-kategorie	
0,18 0,25	0,19	7482	4812,09	50862	1,1	MR775-3E71M/6C	0,55	257	129	IE3	
	0,22	6629	4263,81	53816	1,2	NR775-3E71M/6C		317			
	0,24	5935	3814,39	55991	1,3	MR775-2E71M/6B	0,60	256		IE2	
	0,30	4842	3103,85	59051	1,7	NR775-2E71M/6B		316			
	0,35	4180	2684,10	60717	1,9						
	0,40	3623	2324,10	62017	2,2						
	0,46	3171	2032,66	62935	2,5						
	0,52	2798	1791,91	63725	2,9						
	0,59	2484	1589,68	64362	3,2						
	0,66	2216	1417,41	64885	3,6						
	0,74	1962	1252,60	65684	4,0						
		0,32	4378	2863,86	25882	1,0	MR676-3E71M/6C	0,55	240	126	IE3
							NR676-3E71M/6C		249		
							MR676-2E71M/6B	0,60	239		IE2
						NR676-2E71M/6B		248			
	0,36	4025	2578,93	27987	1,1	MR675-3E71M/6C	0,55	230	126	IE3	
	0,42	3422	2196,86	30945	1,3	NR675-3E71M/6C		244			
	0,49	2945	1888,53	32984	1,5	MR675-2E71M/6B	0,60	229		IE2	
	0,57	2558	1638,93	34461	1,7	NR675-2E71M/6B		243			
	0,65	2238	1432,74	35578	1,9						
	0,74	1969	1259,54	36451	2,2						
	0,84	1743	1113,08	37141	2,5						
	0,93	1560	995,91	37624	2,8						
	1,1	1372	874,56	38151	3,1						
	1,3	1149	730,46	38748	3,7						
	0,47	3019	2850,22	19665	1,0	MR576-G63/4b	0,60	160	123	IE1	
						NR576-G63/4b		153			
	0,49	2955	2736,94	20068	1,0	MR575-G63/4b	0,60	152	123	IE1	
	0,58	2499	2313,18	22617	1,2	NR575-G63/4b		148			
	0,71	2049	1897,20	24715	1,5						
	0,80	1811	1675,43	25689	1,7						
	0,90	1610	1489,14	26424	1,9						
	1,1	1363	1259,61	27307	2,2						
	1,2	1237	1140,65	27718	2,4						
	1,6	923	574,90	28639	3,3	MR574-3E71M/6C	0,55	137	122	IE3	
	1,9	781	485,89	29040	3,8	NR574-3E71M/6C		135			
	2,3	648	402,12	30397	4,0	MR574-2E71M/6B	0,60	136		IE2	
						NR574-2E71M/6B		134			
	0,77	1885	1738,98	9150	0,8	MR475-G63/4b	0,60	111	120	IE1	
	0,82	1769	1631,08	11836	0,9	NR475-G63/4b		115			
	0,97	1505	1386,75	16156	1,0						
	1,0	1399	1285,79	17525	1,1						
	1,1	1309	1204,49	18560	1,2						
	1,4	1083	674,46	20840	1,4	MR474-3E71M/6C	0,55	96	119	IE3	
	1,5	968	603,46	21841	1,6	NR474-3E71M/6C		100			
	1,8	852	529,93	22771	1,8	MR474-2E71M/6B	0,60	95		IE2	
	2,1	712	442,61	23780	2,2	NR474-2E71M/6B		99			
	2,2	673	418,16	24045	2,3						
	2,7	559	346,07	24743	2,8						
	3,1	478	295,98	25231	3,2						

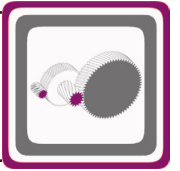
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

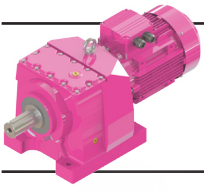
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor* Verim Snf.
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [KW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
0,18 0,25	1,4	1068	987,33	6178	0,8	MR375-G63/4b	0,60	76	117	IE1
	1,6	916	845,97	10009	0,9	NR375-G63/4b		81		
	1,8	839	524,07	11377	1,0	MR374-3E71M/6C	0,55	60	116	IE3
	2,2	676	421,85	13699	1,2	NR374-3E71M/6C		63		
	2,5	593	369,93	14655	1,4	MR374-2E71M/6B NR374-2E71M/6B	0,60	59 62		IE2
	2,6	582	524,07	14771	1,4	MR374-G63/4b	0,60	55	116	IE1
	3,2	469	421,85	15919	1,7	NR374-G63/4b		58		
	3,6	412	369,93	16379	2,0					
	5,9	271	157,76	16454	3,0	MR373-3E71M/6C	0,55	56	115	IE3
	6,7	239	138,72	15843	3,4	NR373-3E71M/6C MR373-2E71M/6B NR373-2E71M/6B	0,60	59 55 58		IE2
	2,2	691	431,18	7218	0,9	MR284-3E71M/6C	0,55	64	113	IE3
	2,5	591	368,77	9393	1,0	NR284-3E71M/6C		67		
	2,9	519	323,39	10665	1,2	MR284-2E71M/6B NR284-2E71M/6B	0,60	63 66		IE2
	3,1	480	431,18	11227	1,3	MR284-G63/4b	0,60	60	113	IE1
	3,6	410	368,77	12144	1,5	NR284-G63/4b		63		
	4,1	360	323,39	12730	1,7					
	4,7	319	285,89	13180	1,9					
	5,6	268	240,47	13658	2,2					
	6,7	240	137,91	13106	2,5	MR283-3E71M/6C	0,55	42	112	IE3
	8,1	199	114,14	12414	3,1	NR283-3E71M/6C MR283-2E71M/6B NR283-2E71M/6B	0,60	44 41 43		IE2
	2,7	542	499,32	5982	0,8	MR275-G63/4b	0,60	41	111	IE1
	3,2	455	418,57	6713	1,0	NR275-G63/4b		43		
	3,7	390	358,33	7169	1,2					
	4,0	362	332,52	7346	1,2					
	5,3	275	252,20	7844	1,6					
	6,7	238	138,55	8024	1,9	MR273-3E71M/6C	0,55	32	110	IE3
	7,7	208	121,03	8154	2,2	NR273-3E71M/6C		34		
	8,2	196	113,52	8212	2,3	MR273-2E71M/6B	0,60	31		IE2
	9,6	166	96,52	8339	2,7	NR273-2E71M/6B		33		
	9,7	165	138,55	8352	2,7	MR273-G63/4b	0,60	28	110	IE1
	11	144	121,03	8436	3,1	NR273-G63/4b		30		
	12	135	113,52	8470	3,3					
	14	117	68,03	8475	2,4	MR203-3E71M/6C	0,55	30	109	IE3
	16	103	59,43	8504	2,7	NR203-3E71M/6C		32		
	17	96	55,74	8346	2,9	MR203-2E71M/6B NR203-2E71M/6B	0,60	29 31		IE2
	20	81	68,03	7944	3,4	MR203-G63/4b NR203-G63/4b	0,60	27 29	109	IE1

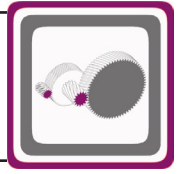
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

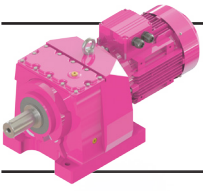
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Snf.*	
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class	
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse	
0,18 0,25	9,4	171	99,21	5822	1,2	MR173-3E71M/6C	0,55	18	109	IE3	
	11	151	87,60	5895	1,3	NR173-3E71M/6C		20			
	11	141	81,82	5801	1,4	MR173-2E71M/6B	0,60	17		IE2	
	13	119	69,16	5568	1,7	NR173-2E71M/6B		19			
	14	118	99,21	5561	1,7	MR173-G63/4b	0,60	13	109	IE1	
	15	104	87,60	5389	1,9	NR173-G63/4b		15			
	16	98	81,82	5294	2,1						
	19	82	69,16	5063	2,4						
	23	69	57,76	4820	2,9						
	27	60	49,81	4624	3,4						
	18	87	50,51	3512	1,6	MR103-3E71M/6C	0,55	17	107	IE3	
	21	77	44,60	3411	1,8	NR103-3E71M/6C		19			
	22	72	41,66	3355	1,9	MR103-2E71M/6B	0,60	16		IE2	
							NR103-2E71M/6B		18		
	27	60	50,51	3213	2,3	MR103-G63/4b	0,60	16	107	IE1	
	30	53	44,60	3112	2,6	NR103-G63/4b		18			
	32	50	41,66	3056	2,8						
	38	42	35,21	2921	3,3						
	21	77	45,18	2530	1,1	MR003-3E71M/6C	0,55	16	106	IE3	
	23	69	40,04	2603	1,2	NR003-3E71M/6C		17			
	29	55	32,02	2707	1,5	MR003-2E71M/6B	0,60	15		IE2	
							NR003-2E71M/6B		16		
	30	54	45,18	2717	1,5	MR003-G63/4b	0,60	13	106	IE1	
	33	48	40,04	2757	1,7	NR003-G63/4b		14			
	42	38	32,02	2818	2,2						
	47	34	28,38	2840	2,4						
	56	29	24,13	2733	2,8						
	63	25	21,26	2664	3,2						
65	25	20,66	2672	3,3							
70	23	19,17	2628	3,6							
74	22	18,20	2584	3,8							
79	20	16,89	2516	4,0							
91	18	14,67	2398	4,0							
98	16	13,61	2336	4,0							
120	13	11,14	2197	4,0	MR002-G63/4b	0,60	12	106	IE1		
136	12	9,87	2105	4,0	NR002-G63/4b		13				
154	11	8,70	2014	4,0							
159	10	8,45	1992	4,0							
171	9,5	7,84	1940	4,0							
180	9,0	7,45	1907	4,0							
194	8,4	6,91	1857	4,0							
223	7,3	6,00	1770	4,0							
241	6,8	5,57	1724	4,0							
294	5,5	4,56	1612	4,0							
344	4,7	3,90	1527	4,0							
370	4,4	3,62	1488	4,0							
408	3,9	6,91	1433	4,0	MR002-G63/2a	0,50	12	106	IE1		
470	3,4	6,00	1366	4,0	NR002-G63/2a		13				
506	3,2	5,57	1332	4,0							
619	2,6	4,56	1245	4,0							
723	2,2	3,90	1181	4,0							
779	2,0	3,62	1151	4,0							

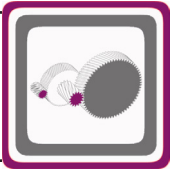
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

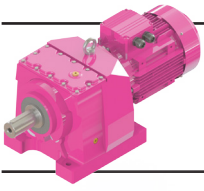
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor* Verim Snf.	
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class	
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse	
0,25 0,34	0,13	15953	<b>11443,34</b>	50996	0,8	<b>MR876-3E71M/4C</b>	0,67	612	132	IE3	
	0,17	11653	<b>8345,18</b>	79805	1,1	<b>NR876-3E71M/4C</b>		627			
	0,20	10080	<b>7233,00</b>	87174	1,3	<b>MR876-2E71M/4B</b>	0,71	611		IE2	
	0,23	8807	<b>6313,78</b>	92433	1,5	<b>NR876-2E71M/4B</b>		626			
	0,26	7774	<b>5569,66</b>	96350	1,7						
	0,29	6921	<b>4954,95</b>	99123	1,9						
	0,32	6203	<b>4438,59</b>	101418	2,1						
	0,37	5448	<b>3892,30</b>	103687	2,4						
	0,42	4824	<b>3441,02</b>	105462	2,7						
	0,50	4065	<b>2894,28</b>	107497	3,2						
	0,58	3463	<b>2460,65</b>	109026	3,8						
	0,68	2972	<b>2108,33</b>	112703	4,0						
	0,24 0,27	0,24	8300	<b>5949,83</b>	47686	1,0	<b>MR776-3E71M/4C</b>	0,67	260	129	IE3
		0,27	7349	<b>5260,00</b>	51346	1,1	<b>NR776-3E71M/4C</b>		322		
							<b>MR776-2E71M/4B</b>	0,71	259		IE2
						<b>NR776-2E71M/4B</b>		321			
0,30 0,34 0,38 0,46 0,53 0,62 0,71 0,80 0,90 1,0 1,1	0,30	6877	<b>4812,09</b>	52918	1,2	<b>MR775-3E71M/4C</b>	0,67	257	129	IE3	
	0,34	6093	<b>4263,81</b>	55512	1,3	<b>NR775-3E71M/4C</b>		318			
	0,38	5454	<b>3814,39</b>	57388	1,5	<b>MR775-2E71M/4B</b>	0,71	258		IE2	
	0,46	4451	<b>3103,85</b>	59975	1,8	<b>NR775-2E71M/4B</b>		317			
	0,53	3842	<b>2684,10</b>	61455	2,1						
	0,62	3330	<b>2324,10</b>	62616	2,4						
	0,71	2915	<b>2032,66</b>	63505	2,7						
	0,80	2571	<b>1791,91</b>	64207	3,1						
	0,90	2283	<b>1589,68</b>	64804	3,5						
	1,0	2037	<b>1417,41</b>	65267	3,9						
	1,1	1803	<b>1252,60</b>	67039	4,0						
0,43 0,50	0,43	4687	<b>3342,43</b>	23925	0,9	<b>MR676-3E71M/4C</b>	0,67	232	126	IE3	
	0,50	4023	<b>2863,86</b>	27958	1,1	<b>NR676-3E71M/4C</b>		244			
						<b>MR676-2E71M/4B</b>	0,71	231		IE2	
						<b>NR676-2E71M/4B</b>		243			
0,56 0,65 0,76 0,88 1,0 1,1 1,3 1,4 1,6 2,0	0,56	3699	<b>2578,93</b>	29635	1,2	<b>MR675-3E71M/4C</b>	0,67	230	126	IE3	
	0,65	3145	<b>2196,86</b>	32126	1,4	<b>NR675-3E71M/4C</b>		245			
	0,76	2707	<b>1888,53</b>	33910	1,6	<b>MR675-2E71M/4B</b>	0,71	229		IE2	
	0,88	2351	<b>1638,93</b>	35136	1,8	<b>NR675-2E71M/4B</b>		244			
	1,0	2057	<b>1432,74</b>	36125	2,1						
	1,1	1809	<b>1259,54</b>	36903	2,4						
	1,3	1602	<b>1113,08</b>	37520	2,7						
	1,4	1433	<b>995,91</b>	37997	3,0						
	1,6	1261	<b>874,56</b>	38465	3,4						
	2,0	1056	<b>730,46</b>	39205	4,0						
0,76 0,86 0,96 1,1 1,3	0,76	2713	<b>1897,20</b>	21484	1,1	<b>MR575-3E71M/4C</b>	0,67	153	123	IE3	
	0,86	2398	<b>1675,43</b>	23125	1,3	<b>NR575-3E71M/4C</b>		149			
	0,96	2132	<b>1489,14</b>	24354	1,4	<b>MR575-2E71M/4B</b>	0,71	152		IE2	
	1,1	1805	<b>1259,61</b>	25710	1,7	<b>NR575-2E71M/4B</b>		148			
	1,3	1639	<b>1140,65</b>	26299	1,8						
1,6 1,9 2,3	1,6	1309	<b>574,90</b>	27486	2,3	<b>MR574-3E71M/6D</b>	0,77	139	122	IE3	
	1,9	1108	<b>485,89</b>	28085	2,7	<b>NR574-3E71M/6D</b>		135			
	2,3	919	<b>402,12</b>	28650	3,3	<b>MR574-2E71M/6C</b>	0,78	138		IE2	
						<b>NR574-2E71M/6C</b>		134			
2,5 3,0	2,5	848	<b>574,90</b>	28862	3,5	<b>MR574-3E71M/4C</b>	0,67	134	122	IE3	
	3,0	718	<b>485,89</b>	29566	4,0	<b>NR574-3E71M/4C</b>		130			

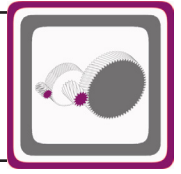
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

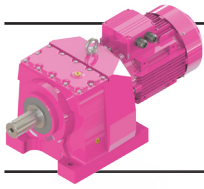
### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
0,25 0,34	2,5	848	<b>574,90</b>	28862	3,5	<b>MR574-2E71M/4B</b>	0,71	133	122	IE2
	3,0	718	<b>485,89</b>	29566	4,0	<b>NR574-2E71M/4B</b>		129		
	1,1	1852	<b>1285,79</b>	9956	0,8	<b>MR475-3E71M/4C</b>	0,67	102	120	IE3
	1,2	1734	<b>1204,49</b>	12492	0,9	<b>NR475-3E71M/4C</b>	0,71	107	101	IE2
						<b>MR475-2E71M/4B</b>				
						<b>NR475-2E71M/4B</b>				
1,4	1536	<b>674,46</b>	15720	1,0	<b>MR474-3E71M/6D</b>	0,77	97	119	IE3	
1,5	1373	<b>603,46</b>	17825	1,1	<b>NR474-3E71M/6D</b>	0,78	102	IE2		
1,8	1208	<b>529,93</b>	19641	1,3	<b>MR474-2E71M/6C</b>					
2,1	1010	<b>442,61</b>	21487	1,5	<b>NR474-2E71M/6C</b>					
	2,1	996	<b>674,46</b>	21612	1,6	<b>MR474-3E71M/4C</b>	0,67	97	119	IE3
	2,4	890	<b>603,46</b>	22474	1,7	<b>NR474-3E71M/4C</b>				
	2,7	783	<b>529,93</b>	23243	2,0	<b>MR474-2E71M/4B</b>				
	3,2	655	<b>442,61</b>	24138	2,4	<b>NR474-2E71M/4B</b>				
	3,4	619	<b>418,16</b>	24374	2,5					
	4,1	513	<b>346,07</b>	25032	3,0					
2,2	958	<b>421,85</b>	9124	0,9	<b>MR374-3E71M/6D</b>	0,77	60	116	IE3	
2,5	841	<b>369,93</b>	11344	1,0	<b>NR374-3E71M/6D</b>					
					<b>MR374-2E71M/6C</b>					
					<b>NR374-2E71M/6C</b>					
2,7	771	<b>524,07</b>	12424	1,1	<b>MR374-3E71M/4C</b>	0,67	60	116	IE3	
3,4	621	<b>421,85</b>	14316	1,3	<b>NR374-3E71M/4C</b>					
3,9	545	<b>369,93</b>	15160	1,5	<b>MR374-2E71M/4B</b>					
4,4	482	<b>327,04</b>	15771	1,7	<b>NR374-2E71M/4B</b>					
5,2	406	<b>275,08</b>	16422	2,0						
	5,9	377	<b>157,76</b>	16059	2,2	<b>MR373-3E71M/6D</b>	0,77	60	115	IE3
	6,7	332	<b>138,72</b>	15496	2,5	<b>NR373-3E71M/6D</b>				
	8,3	268	<b>111,67</b>	14570	3,1	<b>MR373-2E71M/6C</b>				
	9,1	244	<b>157,76</b>	14203	3,4	<b>MR373-3E71M/4C</b>	0,67	54	115	IE3
						<b>NR373-3E71M/4C</b>				
						<b>MR373-2E71M/4B</b>				
						<b>NR373-2E71M/4B</b>				
	2,5	839	<b>368,77</b>	-	0,7	<b>MR284-3E71M/6D</b>	0,77	64	113	IE3
	2,9	736	<b>323,39</b>	5902	0,8	<b>NR284-3E71M/6D</b>				
						<b>MR284-2E71M/6C</b>	0,78	66	IE2	
						<b>MR284-2E71M/6C</b>				
						<b>NR284-2E71M/6C</b>				
						<b>NR284-2E71M/6C</b>				
						<b>NR284-2E71M/6C</b>				
						<b>MR284-3E71M/4C</b>	0,67	64	113	IE3
						<b>NR284-3E71M/4C</b>				
						<b>MR284-2E71M/4B</b>				
						<b>NR284-2E71M/4B</b>				
						<b>NR284-2E71M/4B</b>				
						<b>NR284-2E71M/4B</b>				
						<b>MR283-3E71M/6D</b>	0,77	32	112	IE3
						<b>NR283-3E71M/6D</b>				
						<b>MR283-2E71M/6C</b>				
						<b>NR283-2E71M/6C</b>				
						<b>MR283-2E71M/6C</b>	0,78	34	IE2	
						<b>NR283-2E71M/6C</b>				
						<b>NR283-2E71M/6C</b>				

\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

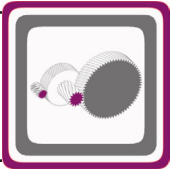




# Motorlu Güç Devir Sayfaları

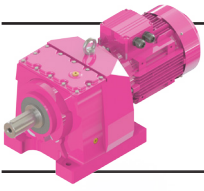
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor* Verim Snf.
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [KW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zül.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse
0,25 0,34	10	214	137,91	11308	2,8	MR283-3E71M/4C	0,67	32	112	IE3
	13	177	114,14	10715	3,4	NR283-3E71M/4C		34		
	4,0	516	358,33	6211	0,9	MR275-3E71M/4C	0,67	47	111	IE3
	4,3	480	332,52	6518	0,9	NR275-3E71M/4C		49		
	5,7	364	252,20	7338	1,2	MR275-2E71M/4B	0,71	46		IE2
						NR275-2E71M/4B		48		
	6,7	332	138,55	7529	1,4	MR273-3E71M/6D	0,77	32	110	IE3
	7,7	290	121,03	7762	1,6	NR273-3E71M/6D		34		
	8,2	272	113,52	7855	1,7	MR273-2E71M/6C	0,78	31		IE2
	9,6	232	96,52	8057	1,9	NR273-2E71M/6C		33		
	10	215	138,55	8128	2,1	MR273-3E71M/4C	0,67	32	110	IE3
	12	188	121,03	8249	2,4	NR273-3E71M/4C		34		
	13	176	113,52	8299	2,6	MR273-2E71M/4B	0,71	31		IE2
	15	150	96,52	8413	3,0	NR273-2E71M/4B		33		
	17	130	83,83	8486	3,4					
	14	163	68,03	8313	1,7	MR203-3E71M/6D	0,77	30	109	IE3
	16	143	59,43	8306	2,0	NR203-3E71M/6D		32		
	17	134	55,74	8159	2,1	MR203-2E71M/6C	0,78	29		IE2
						NR203-2E71M/6C		31		
	21	106	68,03	7635	2,6	MR203-3E71M/4C	0,67	30	109	IE3
	24	93	59,43	7342	3,0	NR203-3E71M/4C		32		
	26	87	55,74	7206	3,2	MR203-2E71M/4B	0,71	29		IE2
	30	74	47,39	6868	3,8	NR203-2E71M/4B		31		
	9,4	237	99,21	5448	0,8	MR173-3E71M/6D	0,77	19	109	IE3
	11	210	87,60	5550	1,0	NR173-3E71M/6D		21		
						MR173-2E71M/6C	0,78	18		IE2
						NR173-2E71M/6C		20		
	14	154	99,21	5213	1,3	MR173-3E71M/4C	0,67	20	108	IE3
	16	136	87,60	5070	1,5	NR173-3E71M/4C		21		
	18	127	81,82	4991	1,6	MR173-2E71M/4B	0,71	19		IE2
	21	107	69,16	4794	1,9	NR173-2E71M/4B		20		
	25	90	57,76	4582	2,2					
	29	78	49,81	4408	2,6					
	31	71	45,90	4313	2,8					
	33	67	42,87	4234	3,0					
	40	56	36,24	4043	3,5					
	18	121	50,51	3300	1,2	MR103-3E71M/6D	0,77	19	107	IE3
	21	107	44,60	3224	1,3	NR103-3E71M/6D		21		
	22	100	41,66	3180	1,4	MR103-2E71M/6C	0,78	18		IE2
						NR103-2E71M/6C		20		
	28	79	50,51	3020	1,8	MR103-3E71M/4C	0,67	18	107	IE3
	32	69	44,60	2935	2,0	NR103-3E71M/4C		19		
	34	65	41,66	2888	2,2	MR103-2E71M/4B	0,71	17		IE2
	41	55	35,21	2771	2,6	NR103-2E71M/4B		18		
	44	50	32,25	2710	2,8					
	49	46	29,40	2646	3,0					

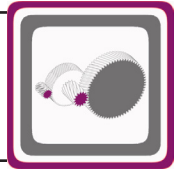
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

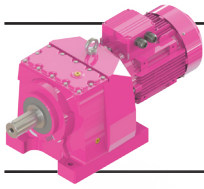
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor*
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
0,25 0,34	57	39	24,86	2508	3,3	MR103-3E71M/4C NR103-3E71M/4C MR103-2E71M/4B NR103-2E71M/4B	0,67 0,71	18 19 17 18	107	IE3 IE2
	21	108	45,18	1892	0,8	MR003-3E71M/6D	0,77	15	106	IE3
	23	96	40,04	2009	0,9	NR003-3E71M/6D		16		
	29	77	32,02	2248	1,1	MR003-2E71M/6C NR003-2E71M/6C	0,78	14 15		IE2
	32	70	45,18	2304	1,2	MR003-3E71M/4C	0,67	14	106	IE3
	36	62	40,04	2337	1,3	NR003-3E71M/4C		15		
	45	50	32,02	2418	1,7	MR003-2E71M/4B	0,71	13		IE2
	51	44	28,38	2410	1,9	NR003-2E71M/4B		14		
	59	38	24,13	2406	2,2					
	68	33	21,26	2364	2,5					
69	32	20,66	2385	2,5						
75	30	19,17	2370	2,7						
79	28	18,20	2335	2,9						
85	26	16,89	2317	3,1						
98	23	14,67	2248	3,6						
105	21	13,61	2226	3,8						
0,37 0,50	129	18	11,14	2172	3,7	MR002-3E71M/4C	0,67	14	106	IE3
	145	16	9,87	2080	4,0	NR002-3E71M/4C		15		
	165	14	8,70	1990	4,0	MR002-2E71M/4B	0,71	13		IE2
	170	13	8,45	1967	4,0	NR002-2E71M/4B		14		
	183	12	7,84	1915	4,0					
	193	12	7,45	1881	4,0					
	208	11	6,91	1832	4,0					
	239	10	6,00	1745	4,0					
	258	9	5,57	1699	4,0					
	315	7	4,56	1588	4,0					
	368	6	3,90	1503	4,0					
	397	6	3,62	1464	4,0					
	411	5	6,91	1439	4,0	MR002-G63/2b	0,67	13	106	IE1
	473	5	6,00	1372	4,0	NR002-G63/2b		14		
510	4	5,57	1337	4,0						
623	4	4,56	1250	4,0						
728	3	3,90	1184	4,0						
785	3	3,62	1154	4,0						
0,37 0,50	0,20	15380	7233,00	56000	0,8	MR876-3E71M/4D	0,97	600	132	IE3
	0,23	13437	6313,78	69831	1,0	NR876-3E71M/4D		612		
	0,26	11862	5569,66	78738	1,1	MR876-2E71M/4C	1,00	599		IE2
	0,29	10559	4954,95	85048	1,2	NR876-2E71M/4C		611		
	0,32	9464	4438,59	89697	1,4					
	0,37	8312	3892,30	94366	1,6					
	0,42	7360	3441,02	97651	1,8					
	0,50	6203	2894,28	101417	2,1					
	0,58	5283	2460,65	104164	2,5					
	0,68	4535	2108,33	106252	2,9					
	0,75	4223	1924,32	107085	3,1	MR875-3E71M/4D	0,97	597	132	IE3
	0,84	3738	1700,56	108338	3,5	NR875-3E71M/4D		607		
	0,94	3345	1521,55	109316	3,9	MR875-2E71M/4C NR875-2E71M/4C	1,00	596 606		IE2

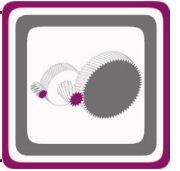
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

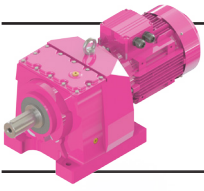
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Snf.*	
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class	
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse	
0,37 0,50	0,38	8322	<b>3814,39</b>	47598	1,0	<b>MR775-3E71M/4D</b>	0,97	265	129	IE3	
	0,46	6791	<b>3103,85</b>	53223	1,2	<b>NR775-3E71M/4D</b>		323			
	0,53	5862	<b>2684,10</b>	56209	1,4	<b>MR775-2E71M/4C</b>	1,00	264		IE2	
	0,62	5081	<b>2324,10</b>	58419	1,6	<b>NR775-2E71M/4C</b>		322			
	0,71	4447	<b>2032,66</b>	59983	1,8						
	0,80	3923	<b>1791,91</b>	61263	2,0						
	0,90	3483	<b>1589,68</b>	62276	2,3						
	1,0	3107	<b>1417,41</b>	63098	2,6						
	1,1	2751	<b>1252,60</b>	63844	2,9						
	1,3	2462	<b>1120,74</b>	64424	3,2						
	1,5	2166	<b>984,18</b>	65025	3,7						
		1,6	2072	<b>594,92</b>	65180	3,9	<b>MR774-3E80M/6B</b>	1,03	245	128	IE3
		1,7	1855	<b>532,29</b>	66612	4,0	<b>NR774-3E80M/6B</b> <b>MR774-2E80M/6A</b> <b>NR774-2E80M/6A</b>	1,08	302 244 301		IE2
		0,76	4130	<b>1888,53</b>	27370	1,0	<b>MR675-3E71M/4D</b>	0,97	229	126	IE3
		0,88	3587	<b>1638,93</b>	30178	1,2	<b>NR675-3E71M/4D</b>		245		
	1,0	3138	<b>1432,74</b>	32158	1,4	<b>MR675-2E71M/4C</b>	1,00	228		IE2	
	1,1	2761	<b>1259,54</b>	33706	1,6	<b>NR675-2E71M/4C</b>		244			
	1,3	2444	<b>1113,08</b>	34869	1,8						
	1,4	2187	<b>995,91</b>	35696	2,0						
	1,6	1924	<b>874,56</b>	36548	2,2						
	1,9	1742	<b>500,39</b>	37113	2,5	<b>MR674-3E80M/6B</b>	1,03	219	125	IE3	
	2,1	1542	<b>442,20</b>	37697	2,8	<b>NR674-3E80M/6B</b>		235			
	2,5	1312	<b>376,69</b>	38334	3,3	<b>MR674-2E80M/6A</b>	1,08	218		IE2	
	2,9	1130	<b>323,82</b>	38814	3,8	<b>NR674-2E80M/6A</b>		234			
	3,3	982	<b>281,02</b>	40076	4,0						
	1,1	2754	<b>1259,61</b>	21254	1,1	<b>MR575-3E71M/4D</b>	0,97	153	123	IE3	
	1,3	2500	<b>1140,65</b>	22616	1,2	<b>NR575-3E71M/4D</b>		150			
	1,5	2115	<b>964,05</b>	24428	1,4	<b>MR575-2E71M/4C</b> <b>NR575-2E71M/4C</b>	1,00	152 149		IE2	
	1,6	1997	<b>574,90</b>	24897	1,5	<b>MR574-3E80M/6B</b>	1,03	139	122	IE3	
	1,9	1690	<b>485,89</b>	26116	1,8	<b>NR574-3E80M/6B</b>		135			
	2,3	1402	<b>402,12</b>	27150	2,1	<b>MR574-2E80M/6A</b> <b>NR574-2E80M/6A</b>	1,08	138 134		IE2	
	2,5	1294	<b>574,90</b>	27504	2,3	<b>MR574-3E71M/4D</b>	0,97	134	122	IE3	
	3,0	1095	<b>485,89</b>	28136	2,7	<b>NR574-3E71M/4D</b>		130			
	3,6	909	<b>402,12</b>	28679	3,3	<b>MR574-2E71M/4C</b>	1,00	133		IE2	
	4,2	778	<b>343,91</b>	29072	3,9	<b>NR574-2E71M/4C</b>		129			
	4,8	683	<b>301,59</b>	29992	4,0						
	4,9	659	<b>291,25</b>	30274	4,0						
	1,8	1843	<b>529,93</b>	10176	0,8	<b>MR474-3E80M/6B</b>	1,03	137	119	IE3	
	2,1	1541	<b>442,61</b>	15686	1,0	<b>NR474-3E80M/6B</b> <b>MR474-2E80M/6A</b> <b>NR474-2E80M/6A</b>	1,08	142 136 141		IE2	
	2,1	1519	<b>674,46</b>	15971	1,0	<b>MR474-3E71M/4D</b>	0,97	132	119	IE3	
	2,4	1358	<b>603,46</b>	18007	1,1	<b>NR474-3E71M/4D</b>		137			
	2,7	1194	<b>529,93</b>	19777	1,3	<b>MR474-2E71M/4C</b>	1,00	131		IE2	
	3,2	999	<b>442,61</b>	21584	1,6	<b>NR474-2E71M/4C</b>		136			
	3,4	944	<b>418,16</b>	22042	1,6						

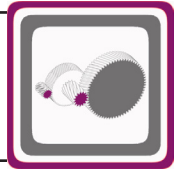
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

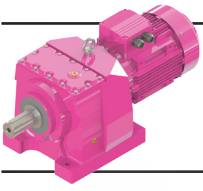
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
0,37 0,50	4,1	783	346,07	23240	2,0	MR474-3E71M/4D NR474-3E71M/4D MR474-2E71M/4C NR474-2E71M/4C	0,97 1,00	132 137 131 136	119	IE3 IE2
	4,2 4,8 5,9 6,7 7,4	776 688 561 496 444	219,00 194,05 157,90 139,54 124,85	23300 23923 24750 25142 25445	2,0 2,3 2,8 3,1 3,5	MR473-3E80M/6B NR473-3E80M/6B MR473-2E80M/6A NR473-2E80M/6A	1,03 1,08	87 90 86 89	118	IE3 IE2
	3,4 3,9 4,4 5,2	948 832 736 620	421,85 369,93 327,04 275,08	9355 11517 12918 14359	0,9 1,0 1,1 1,3	MR374-3E71M/4D NR374-3E71M/4D MR374-2E71M/4C NR374-2E71M/4C	0,97 1,00	60 65 59 64	116	IE3 IE2
	5,9 6,7 8,3	558 491 396	157,76 138,72 111,67	15027 14902 14092	1,5 1,7 2,1	MR373-3E80M/6B NR373-3E80M/6B MR373-2E80M/6A NR373-2E80M/6A	1,03 1,08	65 70 64 69	115	IE3 IE2
	9,1 10 13 15	363 319 257 226	157,76 138,72 111,67 97,92	13765 13294 12515 12056	2,3 2,6 3,2 3,6	MR373-3E71M/4D NR373-3E71M/4D MR373-2E71M/4C NR373-2E71M/4C	0,97 1,00	54 59 53 58	115	IE3 IE2
	5,0	644	285,89	8353	0,9	MR284-3E71M/4D NR284-3E71M/4D MR284-2E71M/4C NR284-2E71M/4C	0,97 1,00	64 66 63 65	113	IE3 IE2
	6,7 8,1 9,5	488 405 346	137,91 114,14 97,62	11107 11559 11129	1,2 1,5 1,7	MR283-3E80M/6B NR283-3E80M/6B MR283-2E80M/6A NR283-2E80M/6A	1,03 1,08	44 46 43 45	112	IE3 IE2
	10 13 15 17	317 263 225 198	137,91 114,14 97,62 85,60	10885 10365 9940 9588	1,9 2,3 2,7 3,0	MR283-3E71M/4D NR283-3E71M/4D MR283-2E71M/4C NR283-2E71M/4C	0,97 1,00	40 43 39 42	112	IE3 IE2
	6,7 7,7 8,2 9,6	491 429 403 342	138,55 121,03 113,52 96,52	6429 6901 7085 7456	0,9 1,0 1,1 1,3	MR273-3E80M/6B NR273-3E80M/6B MR273-2E80M/6A NR273-2E80M/6A	1,03 1,08	32 35	110	IE3 IE2
	10 12 13 15 17 20 24	319 279 262 223 194 170 140	138,55 121,03 113,52 96,52 83,83 73,35 60,66	7603 7811 7900 8092 8224 8328 7788	1,4 1,6 1,7 2,0 2,3 2,7 3,2	MR273-3E71M/4D NR273-3E71M/4D MR273-2E71M/4C NR273-2E71M/4C	0,97 1,00	30 33 29 32	110	IE3 IE2

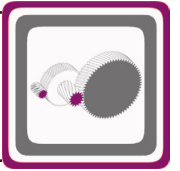
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

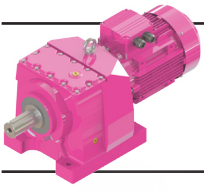
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor* Verim Snf.
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [KW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
0,37 0,50	14	242	68,03	8002	1,2	MR203-3E80M/6B	1,03	37	109	IE3
	16	211	59,43	7965	1,3	NR203-3E80M/6B		39		
	17	198	55,74	7840	1,4	MR203-2E80M/6A NR203-2E80M/6A	1,08	36 38		IE2
	21	157	68,03	7382	1,8	MR203-3E71M/4D	0,97	35	109	IE3
	24	137	59,43	7121	2,0	NR203-3E71M/4D		38		
	26	129	55,74	6998	2,2	MR203-2E71M/4C	1,00	34		IE2
	30	110	47,39	6692	2,6	NR203-2E71M/4C		37		
	33	102	43,94	6552	2,7					
	35	95	41,16	6432	2,9					
	40	84	36,02	6190	3,4					
	14	228	99,21	4779	0,9	MR173-3E71M/4D	0,97	20	108	IE3
	16	202	87,60	4687	1,0	NR173-3E71M/4D		21		
	18	189	81,82	4633	1,1	MR173-2E71M/4C	1,00	19		IE2
	21	159	69,16	4491	1,3	NR173-2E71M/4C		20		
	25	133	57,76	4329	1,5					
29	115	49,81	4190	1,7						
31	106	45,90	4112	1,9						
33	99	42,87	4047	2,0						
40	84	36,24	3884	2,4						
47	70	30,26	3710	2,9						
55	61	26,10	3568	3,3						
18	179	50,51	2938	0,8	MR103-3E80M/6B	1,03	22	107	IE3	
21	159	44,60	2904	0,9	NR103-3E80M/6B		24			
22	148	41,66	2881	0,9	MR103-2E80M/6A NR103-2E80M/6A	1,08	21 23		IE2	
28	117	50,51	2785	1,2	MR103-3E71M/4D	0,97	19	107	IE3	
32	103	44,60	2727	1,4	NR103-3E71M/4D		20			
34	96	41,66	2694	1,5	MR103-2E71M/4C	1,00	18		IE2	
41	81	35,21	2607	1,7	NR103-2E71M/4C		19			
44	75	32,25	2560	1,9						
49	68	29,40	2509	2,1						
58	57	24,86	2374	2,3						
65	51	21,96	2308	2,4						
70	48	20,51	2272	2,5						
83	40	17,33	2181	2,7						
90	37	15,95	2161	3,1	MR102-3E71M/4D	0,97	19	107	IE3	
102	33	14,08	2091	3,3	NR102-3E71M/4D		20			
109	31	13,15	2053	3,4	MR102-2E71M/4C NR102-2E71M/4C	1,00	18 19		IE2	
32	104	45,18	1350	0,8	MR003-3E71M/4D	0,97	15	106	IE3	
36	92	40,04	1480	0,9	NR003-3E71M/4D		16			
45	74	32,02	1741	1,1	MR003-2E71M/4C	1,00	14		IE2	
51	66	28,38	1803	1,3	NR003-2E71M/4C		15			
59	56	24,13	1890	1,5						
68	49	21,26	1896	1,7						
69	48	20,66	1943	1,7						
75	44	19,17	1960	1,8						
79	42	18,20	1935	1,9						
85	39	16,89	1946	2,1						
98	34	14,67	1911	2,4						
105	32	13,61	1913	2,5						

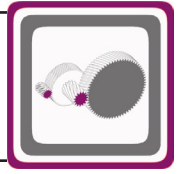
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

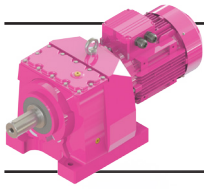
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Snf.*	
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class	
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse	
0,37 0,50	129	26	11,14	2084	2,5	MR002-3E71M/4D	0,97	15	106	IE3	
	145	23	9,87	2038	3,4	NR002-3E71M/4D		16			
	165	20	8,70	1981	3,6	MR002-2E71M/4C	1,00	14		IE2	
	170	20	8,45	1987	3,7	NR002-2E71M/4C		15			
	183	18	7,84	1950	3,9						
	193	18	7,45	1916	4,0						
	208	16	6,91	1864	4,0						
	239	14	6,00	1774	4,0						
	258	13	5,57	1726	4,0						
	315	11	4,56	1614	4,0						
	368	9	3,90	1525	4,0						
	397	9	3,62	1484	4,0						
		410	8	6,91	1458	4,0	MR002-3E71M/2B	0,86	15	106	IE3
		472	7	6,00	1388	4,0	NR002-3E71M/2B		16		
	508	7	5,57	1352	4,0	MR002-2E71M/2A	0,90	14		IE2	
	621	5	4,56	1264	4,0	NR002-2E71M/2A		15			
0,55 0,75	0,21	21545	6842,29	68090	0,8	MR976-3E80M/4C	1,34	1103	135	IE3	
	0,27	16906	5357,43	101458	1,1	NR976-3E80M/4C		1153			
	0,32	14152	4474,67	115408	1,3	MR976-2E80M/4B	1,45	1102		IE2	
	0,34	13380	4227,50	118840	1,3	NR976-2E80M/4B		1152			
	0,40	11392	3594,81	126893	1,6						
	0,51	9019	2836,64	135261	2,0						
		0,71	6576	2027,97	142495	2,7	MR975-3E80M/4C	1,34	1101	135	IE3
		0,80	5908	1820,78	144369	3,0	NR975-3E80M/4C		1151		
		0,93	5033	1552,10	146710	3,6	MR975-2E80M/4B	1,45	1100		IE2
							NR975-2E80M/4B		1150		
		0,29	15534	4954,95	54775	0,8	MR876-3E80M/4C	1,34	603	132	IE3
		0,33	13922	4438,59	66738	0,9	NR876-3E80M/4C		613		
		0,37	12229	3892,30	76803	1,1	MR876-2E80M/4B	1,45	602		IE2
		0,42	10827	3441,02	83816	1,2	NR876-2E80M/4B		612		
	0,50	9125	2894,28	91140	1,4						
	0,59	7772	2460,65	96066	1,7						
	0,69	6671	2108,33	99936	1,9						
	0,75	6212	1924,32	101388	2,1	MR875-3E80M/4C	1,34	599	132	IE3	
	0,85	5499	1700,56	103540	2,4	NR875-3E80M/4C		609			
	0,95	4921	1521,55	105192	2,6	MR875-2E80M/4B	1,45	598		IE2	
	1,1	4328	1336,15	106805	3,0	NR875-2E80M/4B		608			
	1,2	3924	1210,51	107862	3,3						
	1,4	3395	1049,18	109192	3,8						
	0,62	7474	2324,10	50893	1,1	MR775-3E80M/4C	1,34	340	129	IE3	
	0,71	6542	2032,66	54099	1,2	NR775-3E80M/4C		415			
	0,81	5772	1791,91	56474	1,4	MR775-2E80M/4B	1,45	339		IE2	
	0,91	5124	1589,68	58302	1,6	NR775-2E80M/4B		414			
	1,0	4571	1417,41	59749	1,8						
	1,2	4047	1252,60	61036	2,0						
	1,3	3622	1120,74	61934	2,2						
	1,5	3186	984,18	62905	2,5						

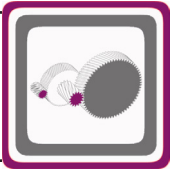
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

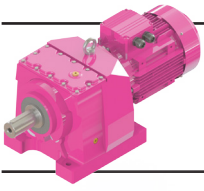
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor* Verim Snf.
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
0,55 0,75	1,6	3064	594,92	63237	2,6	MR774-3E80M/6C	1,47	318	128	IE3
	1,8	2742	532,29	63901	2,9	NR774-3E80M/6C		393		
	2,0	2412	467,43	64555	3,3	MR774-2E80M/6B	1,50	318		IE2
	2,2	2160	418,17	65036	3,7	NR774-2E80M/6B		393		
	2,4	1976	594,92	65557	4,0	MR774-3E80M/4C	1,34	315	128	IE3
	2,7	1768	532,29	67316	4,0	NR774-3E80M/4C		391		
						MR774-2E80M/4B	1,45	314		IE2
						NR774-2E80M/4B		390		
	1,0	4616	1432,74	24312	0,9	MR675-3E80M/4C	1,34	245	126	IE3
	1,2	4061	1259,54	27791	1,1	NR675-3E80M/4C		255		
	1,3	3595	1113,08	30140	1,2	MR675-2E80M/4B	1,45	244		IE2
	1,5	3218	995,91	31852	1,3	NR675-2E80M/4B		254		
	1,7	2831	874,56	33435	1,5					
	1,9	2576	500,39	34368	1,7	MR674-3E80M/6C	1,47	223	125	IE3
	2,1	2280	442,20	35434	1,9	NR674-3E80M/6C		233		
	2,5	1940	376,69	36540	2,2	MR674-2E80M/6B	1,50	223		IE2
						NR674-2E80M/6B		233		
	2,9	1661	500,39	37329	2,6	MR674-3E80M/4C	1,34	220	125	IE3
	3,3	1471	442,20	37879	2,9	NR674-3E80M/4C		231		
	3,8	1251	376,69	38481	3,4	MR674-2E80M/4B	1,45	219		IE2
	4,5	1077	323,82	38934	4,0	NR674-2E80M/4B		230		
	5,2	936	281,02	40572	4,0					
	1,6	2953	574,90	20079	1,0	MR574-3E80M/6C	1,47	153	122	IE3
	1,9	2499	485,89	22620	1,2	NR574-3E80M/6C		149		
	2,3	2073	402,12	24611	1,4	MR574-2E80M/6B	1,50	153		IE2
						NR574-2E80M/6B		149		
	2,5	1904	574,90	25317	1,6	MR574-3E80M/4C	1,34	151	122	IE3
	3,0	1611	485,89	26441	1,9	NR574-3E80M/4C		146		
	3,6	1337	402,12	27394	2,2	MR574-2E80M/4B	1,45	150		IE2
	4,2	1144	343,91	27973	2,6	NR574-2E80M/4B		145		
	4,8	1005	301,59	28399	3,0					
	5,0	969	291,25	28504	3,1					
	5,6	863	258,87	28839	3,5					
	6,5	738	221,40	29303	4,0					
	7,5	649	194,15	30390	4,0					
	2,7	1769	529,93	12048	0,9	MR474-3E80M/4C	1,34	133	119	IE3
	3,3	1480	442,61	16591	1,1	NR474-3E80M/4C		137		
	3,4	1399	418,16	17641	1,1	MR474-2E80M/4B	1,45	132		IE2
	4,2	1160	346,07	20191	1,3	NR474-2E80M/4B		136		
	4,3	1150	219,00	20209	1,3	MR473-3E80M/6C	1,47	111	118	IE3
	4,8	1019	194,05	21411	1,5	NR473-3E80M/6C		114		
	5,9	831	157,90	22920	1,9	MR473-2E80M/6B	1,50	111		IE2
						NR473-2E80M/6B		114		
	6,6	743	219,00	23568	2,1	MR473-3E80M/4C	1,34	111	118	IE3
	7,5	658	194,05	24146	2,4	NR473-3E80M/4C		114		
	9,2	537	157,90	24420	2,9	MR473-2E80M/4B	1,45	110		IE2
	10	475	139,54	23561	3,3	NR473-2E80M/4B		113		
	12	425	124,85	22805	3,6					

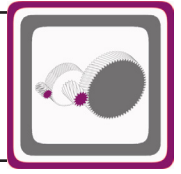
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

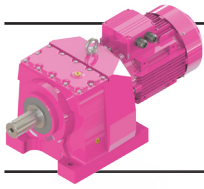
### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor*
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
0,55 0,75	5,3	912	275,08	10080	0,9	MR374-3E80M/4C	1,34	66	116	IE3
						NR374-3E80M/4C				
	5,9 6,7 8,4	827 728 586	157,76 138,72 111,67	11575 13026 13358	1,0 1,1 1,4	MR373-3E80M/6C	1,47	58	115	IE3
						NR373-3E80M/6C				
						MR373-2E80M/6B				
	9,2 10 13 15 17 20 23	534 470 379 333 294 248 211	157,76 138,72 111,67 97,92 86,57 72,81 61,91	13077 12684 12018 11616 11242 10724 10249	1,5 1,7 2,2 2,5 2,8 3,3 3,9	MR373-3E80M/4C	1,34	66	115	IE3
						NR373-3E80M/4C				
						MR373-2E80M/4B				
						NR373-2E80M/4B				
						MR373-2E80M/4B				
						NR373-2E80M/4B				
						NR373-2E80M/4B				
	6,8 8,2 9,6	724 600 513	137,91 114,14 97,62	6313 9261 10425	0,8 1,0 1,2	MR283-3E80M/6C	1,47	46	112	IE3
						NR283-3E80M/6C				
						MR283-2E80M/6B				
	11 13 15 17 19 23 27	467 387 331 291 258 217 185	137,91 114,14 97,62 85,60 75,68 63,65 54,12	10229 9817 9468 9171 8892 8502 8140	1,3 1,5 1,8 2,1 2,3 2,8 3,2	MR283-3E80M/4C	1,34	48	112	IE3
						NR283-3E80M/4C				
						MR283-2E80M/4B				
						NR283-2E80M/4B				
						NR283-2E80M/4B				
						NR283-2E80M/4B				
						NR283-2E80M/4B				
	9,7	507	96,52	6289	0,9	MR273-3E80M/6C	1,47	31	110	IE3
						NR273-3E80M/6C				
						MR273-2E80M/6B				
	10 12 13 15 17 20 24 29 34 40	470 411 385 328 285 250 207 173 145 125	138,55 121,03 113,52 96,52 83,83 73,35 60,66 50,59 42,41 36,55	6598 7030 7199 7553 7789 7970 7896 7388 6930 6568	1,0 1,1 1,2 1,4 1,6 1,8 2,2 2,6 3,1 3,6	MR273-3E80M/4C	1,34	33	110	IE3
						NR273-3E80M/4C				
						MR273-2E80M/4B				
						NR273-2E80M/4B				
						NR273-2E80M/4B				
						NR273-2E80M/4B				
						NR273-2E80M/4B				
						NR273-2E80M/4B				
						NR273-2E80M/4B				
						NR273-2E80M/4B				
						NR273-2E80M/4B				
						NR273-2E80M/4B				
						NR273-2E80M/4B				
	14 16 17	358 313 294	68,03 59,43 55,74	7417 7446 7352	0,8 0,9 1,0	MR203-3E80M/6C	1,47	34	109	IE3
						NR203-3E80M/6C				
						MR203-2E80M/6B				
	21 24 26 31 33 35	231 202 190 161 150 140	68,03 59,43 55,74 47,39 43,94 41,16	6986 6773 6671 6411 6290 6185	1,2 1,4 1,5 1,7 1,9 2,0	MR203-3E80M/4C	1,34	34	109	IE3
						NR203-3E80M/4C				
						MR203-2E80M/4B				
						NR203-2E80M/4B				
						NR203-2E80M/4B				
						NR203-2E80M/4B				
						NR203-2E80M/4B				

\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

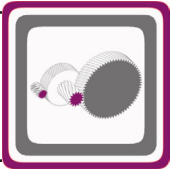




# Motorlu Güç Devir Sayfaları

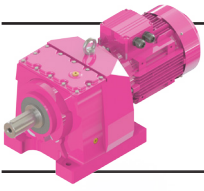
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor* Verim Snf.	
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class	
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse	
0,55 0,75	40	123	<b>36,02</b>	5973	2,3	<b>MR203-3E80M/4C</b>	1,34	34	109	IE3	
	51	97	<b>28,35</b>	6418	2,9	<b>NR203-3E80M/4C</b>		36			
	59	84	<b>24,77</b>	6107	3,3	<b>MR203-2E80M/4B</b>	1,45	33		IE2	
	62	79	<b>23,23</b>	5966	3,4	<b>NR203-2E80M/4B</b>		35			
	21	235	<b>69,16</b>	4033	0,9	<b>MR173-3E80M/4C</b>	1,34	23	108	IE3	
	25	196	<b>57,76</b>	3944	1,0	<b>NR173-3E80M/4C</b>		25			
	29	169	<b>49,81</b>	3857	1,2	<b>MR173-2E80M/4B</b>	1,45	22		IE2	
	32	156	<b>45,90</b>	3804	1,3	<b>NR173-2E80M/4B</b>		24			
	34	146	<b>42,87</b>	3758	1,4						
	40	123	<b>36,24</b>	3639	1,6						
	48	103	<b>30,26</b>	3503	1,9						
	56	89	<b>26,10</b>	3388	2,2						
	69	72	<b>20,92</b>	3816	2,8	<b>MR172-3E80M/4C</b>	1,34	22	108	IE3	
	79	63	<b>18,28</b>	3633	3,2	<b>NR172-3E80M/4C</b>		24			
						<b>MR172-2E80M/4B</b>	1,45	21		IE2	
						<b>NR172-2E80M/4B</b>		23			
	29	172	<b>50,51</b>	2432	0,8	<b>MR103-3E80M/4C</b>	1,34	23	107	IE3	
	33	152	<b>44,60</b>	2414	0,9	<b>NR103-3E80M/4C</b>		24			
	35	142	<b>41,66</b>	2401	1,0	<b>MR103-2E80M/4B</b>	1,45	22		IE2	
	41	120	<b>35,21</b>	2358	1,2	<b>NR103-2E80M/4B</b>		23			
	45	110	<b>32,25</b>	2331	1,3						
	49	100	<b>29,40</b>	2300	1,4						
	58	85	<b>24,86</b>	2178	1,5						
	66	75	<b>21,96</b>	2134	1,6						
	71	70	<b>20,51</b>	2108	1,7						
	84	59	<b>17,33</b>	2042	1,9						
		91	55	<b>15,95</b>	2045	2,1	<b>MR102-3E80M/4C</b>	1,34	22	107	IE3
		103	49	<b>14,08</b>	1988	2,3	<b>NR102-3E80M/4C</b>		23		
110		46	<b>13,15</b>	1956	2,3	<b>MR102-2E80M/4B</b>	1,45	21		IE2	
130		39	<b>11,12</b>	1877	2,6	<b>NR102-2E80M/4B</b>		22			
142		35	<b>10,18</b>	1836	2,8						
156		32	<b>9,29</b>	1793	2,9						
181		28	<b>8,01</b>	1724	3,2						
209		24	<b>6,93</b>	1641	3,7						
		45	109	<b>32,02</b>	746	0,8	<b>MR003-3E80M/4C</b>	1,34	19	106	IE3
		51	96	<b>28,38</b>	908	0,9	<b>NR003-3E80M/4C</b>		20		
	60	82	<b>24,13</b>	1128	1,0	<b>MR003-2E80M/4B</b>	1,45	18		IE2	
	68	72	<b>21,26</b>	1206	1,1	<b>NR003-2E80M/4B</b>		19			
	70	70	<b>20,66</b>	1290	1,2						
	76	65	<b>19,17</b>	1353	1,3						
	80	62	<b>18,20</b>	1343	1,3						
	86	58	<b>16,89</b>	1396	1,4						
	99	50	<b>14,67</b>	1412	1,6						
	107	46	<b>13,61</b>	1450	1,7						
		130	38	<b>11,14</b>	1789	1,7	<b>MR002-3E80M/4C</b>	1,34	17	106	IE3
		147	34	<b>9,87</b>	1772	2,3	<b>NR002-3E80M/4C</b>		18		
167		30	<b>8,70</b>	1738	2,5	<b>MR002-2E80M/4B</b>	1,45	16		IE2	
172		29	<b>8,45</b>	1758	2,5	<b>NR002-2E80M/4B</b>		17			
185		27	<b>7,84</b>	1747	2,6						
195		26	<b>7,45</b>	1719	2,8						
210		24	<b>6,91</b>	1706	2,9						
242		21	<b>6,00</b>	1651	3,2						
260		19	<b>5,57</b>	1636	3,3						
318		16	<b>4,56</b>	1528	3,7						

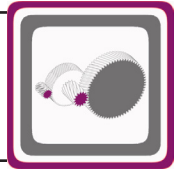
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

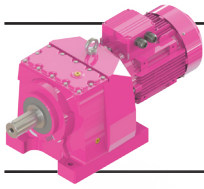
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*	
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class	
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-kategorie	
0,55 0,75	372	14	3,90	1494	4,0	MR002-3E80M/4C	1,34	17	106	IE3	
	401	13	3,62	1476	4,0	NR002-3E80M/4C		18			
						MR002-2E80M/4B	1,45	16		IE2	
						NR002-2E80M/4B		17			
	410	12	6,91	1482	4,0	MR002-3E71M/2C	1,19	15	106	IE3	
	472	11	6,00	1410	4,0	NR002-3E71M/2C		16			
	508	10	5,57	1373	4,0	MR002-2E71M/2B	1,25	14		IE2	
	621	8	4,56	1283	4,0	NR002-2E71M/2B		15			
	726	7	3,90	1213	4,0						
	782	6	3,62	1181	4,0						
	0,75 1,0	0,27	23053	5357,43	51426	0,8	MR976-3E80M/4D	1,77	1093	135	IE3
		0,32	19298	4474,67	86315	0,9	NR976-3E80M/4D		1143		
		0,34	18245	4227,50	93574	1,0	MR976-2E80M/4C	1,89	1092		IE2
		0,40	15535	3594,81	108770	1,2	NR976-2E80M/4C		1142		
0,51		12298	2836,64	123352	1,5						
0,71		8968	2027,97	135224	2,0	MR975-3E80M/4D	1,77	1091	135	IE3	
0,80		8057	1820,78	138145	2,2	NR975-3E80M/4D		1141			
0,93		6863	1552,10	141735	2,6	MR975-2E80M/4C	1,89	1090		IE2	
1,1		6056	1368,27	144020	3,0	NR975-2E80M/4C		1140			
1,2		5376	1213,85	145857	3,3						
0,42		14764	3441,02	60861	0,9	MR876-3E80M/4D	1,77	608	132	IE3	
0,50		12443	2894,28	75635	1,0	NR876-3E80M/4D		613			
0,59		10599	2460,65	84867	1,2	MR876-2E80M/4C	1,89	607		IE2	
0,69		9097	2108,33	91252	1,4	NR876-2E80M/4C		612			
0,75		8471	1924,32	93667	1,5	MR875-3E80M/4D	1,77	605	132	IE3	
0,85		7498	1700,56	97048	1,7	NR875-3E80M/4D		610			
0,95		6710	1521,55	99810	1,9	MR875-2E80M/4C	1,89	604		IE2	
1,1		5902	1336,15	102338	2,2	NR875-2E80M/4C		609			
1,2		5351	1210,51	103968	2,4						
1,4		4630	1049,18	105993	2,8						
1,6		4046	915,85	107547	3,2						
1,8		3573	807,91	108753	3,6						
0,81		7871	1791,91	49401	1,0	MR775-3E80M/4D	1,77	260	129	IE3	
0,91		6987	1589,68	52618	1,1	NR775-3E80M/4D		318			
1,0		6234	1417,41	55079	1,3	MR775-2E80M/4C	1,89	259		IE2	
1,2		5518	1252,60	57207	1,4	NR775-2E80M/4C		317			
1,3		4939	1120,74	58706	1,6						
1,5		4345	984,18	60240	1,8						
1,6		4134	594,92	60775	1,9	MR774-3E90S/6B	1,96	241	128	IE3	
1,8		3700	532,29	61799	2,2	NR774-3E90S/6B		299			
2,0	3255	467,43	62793	2,5	MR774-2E90S/6A	2,00	239		IE2		
2,3	2915	418,17	63516	2,7	NR774-2E90S/6A		297				
2,4	2694	594,92	63960	3,0	MR774-3E80M/4D	1,77	230	128	IE3		
2,7	2411	532,29	64524	3,3	NR774-3E80M/4D		283				
3,1	2121	467,43	65082	3,8	MR774-2E80M/4C	1,89	229		IE2		
3,5	1900	418,17	66231	4,0	NR774-2E80M/4C		282				

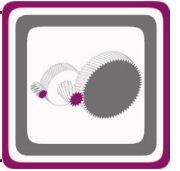
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

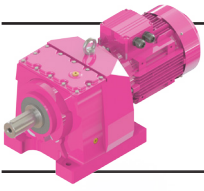
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor* Verim Snf.
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [KW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m.]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
0,75 1,0	1,5	4388	995,91	25927	1,0	MR675-3E80M/4D	1,77	241	126	IE3
	1,7	3860	874,56	28823	1,1	NR675-3E80M/4D		252		
						MR675-2E80M/4C	1,89	240		IE2
						NR675-2E80M/4C		251		
	1,9	3476	500,39	30699	1,2	MR674-3E90S/6B	1,96	229	125	IE3
	2,1	3077	442,20	32446	1,4	NR674-3E90S/6B		239		
	2,5	2618	376,69	34190	1,6	MR674-2E90S/6A	2,00	227		IE2
						NR674-2E90S/6A		237		
	2,9	2265	500,39	35432	1,9	MR674-3E80M/4D	1,77	226	125	IE3
	3,3	2005	442,20	36291	2,1	NR674-3E80M/4D		236		
	3,8	1706	376,69	37214	2,5	MR674-2E80M/4C	1,89	225		IE2
	4,5	1469	323,82	37899	2,9	NR674-2E80M/4C		235		
5,2	1276	281,02	38425	3,4						
5,9	1117	245,67	38842	3,8						
6,7	983	215,97	40060	4,0						
2,4	2,4	2797	402,12	21008	1,1	MR574-3E90S/6B	1,96	145	122	IE3
						NR574-3E90S/6B		141		
						MR574-2E90S/6A	2,00	143		IE2
						NR574-2E90S/6A		139		
	2,5	2596	574,90	22116	1,2	MR574-3E80M/4D	1,77	138	122	IE3
	3,0	2197	485,89	24064	1,4	NR574-3E80M/4D		135		
	3,6	1823	402,12	25640	1,6	MR574-2E80M/4C	1,89	137		IE2
	4,2	1560	343,91	26587	1,9	NR574-2E80M/4C		134		
	4,8	1371	301,59	27250	2,2					
	5,0	1322	291,25	27413	2,3					
	5,6	1176	258,87	27885	2,6					
	6,5	1007	221,40	28404	3,0					
7,5	884	194,15	28760	3,4						
8,4	783	171,64	29042	3,8						
10	660	144,37	30258	4,0						
3,5	3,5	1894	418,16	8853	0,8	MR474-3E80M/4D	1,77	138	119	IE3
	4,2	1571	346,07	15203	1,0	NR474-3E80M/4D		142		
						MR474-2E80M/4C	1,89	137		IE2
						NR474-2E80M/4C		141		
	4,3	1551	219,00	15551	1,0	MR473-3E90S/6B	1,96	99	118	IE3
	4,9	1374	194,05	17820	1,1	NR473-3E90S/6B		101		
	6,0	1120	157,90	20498	1,4	MR473-2E90S/6A	2,00	97		IE2
						NR473-2E90S/6A		99		
	6,6	1014	219,00	21451	1,5	MR473-3E80M/4D	1,77	95	118	IE3
	7,5	899	194,05	22407	1,7	NR473-3E80M/4D		98		
	9,2	733	157,90	23603	2,1	MR473-2E80M/4C	1,89	94		IE2
	10	648	139,54	23025	2,4	NR473-2E80M/4C		97		
12	580	124,85	22325	2,7						
13	510	109,64	21522	3,0						
16	427	91,58	20436	3,6						
6,8	6,8	982	138,72	8562	0,8	MR373-3E90S/6B	1,96	59	115	IE3
	8,5	791	111,67	12140	1,0	NR373-3E90S/6B		61		
						MR373-2E90S/6A	2,00	57		IE2
					NR373-2E90S/6A		59			

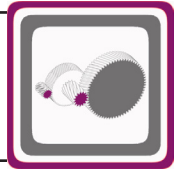
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

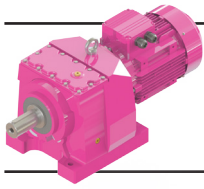
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor* Verim Snf.
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
0,75 1,0	9,2	729	157,76	12354	1,1	MR373-3E80M/4D	1,77	54	115	IE3
	10	642	138,72	12049	1,3	NR373-3E80M/4D		56		
	13	517	111,67	11507	1,6	MR373-2E80M/4C	1,89	53		IE2
	15	454	97,92	11168	1,8	NR373-2E80M/4C		55		
	17	402	86,57	10846	2,0					
	20	339	72,81	10391	2,4					
	23	288	61,91	9965	2,8					
	27	247	53,04	9564	3,3					
	30	224	48,00	9307	3,7					
		9,7	692	97,62	7187	0,9	MR283-3E90S/6B NR283-3E90S/6B MR283-2E90S/6A NR283-2E90S/6A	1,96 2,00	46 48 44 46	112
	11	638	137,91	8472	0,9	MR283-3E80M/4D NR283-3E80M/4D MR283-2E80M/4C NR283-2E80M/4C	1,77 1,89	44 49 43 48	112	IE3 IE2
	13	529	114,14	9240	1,1					
	15	453	97,62	8974	1,3					
	17	397	85,60	8738	1,5					
	19	352	75,68	8509	1,7					
	23	296	63,65	8180	2,0					
	27	252	54,12	7866	2,4					
	31	216	46,37	7567	2,6					
	35	196	41,96	7374	2,8					
	12	561	121,03	5581	0,8	MR273-3E80M/4D NR273-3E80M/4D MR273-2E80M/4C NR273-2E80M/4C	1,77 1,89	35 37 34 36	110	IE3 IE2
	13	526	113,52	5868	0,9					
	15	448	96,52	6462	1,0					
	17	389	83,83	6842	1,2					
	20	341	73,35	7104	1,3					
	24	282	60,66	7338	1,6					
	29	236	50,59	7441	1,9					
	34	198	42,41	7036	2,3					
	40	171	36,55	6660	2,6					
	48	142	30,48	6232	3,2					
	21	316	68,03	6569	0,9	MR203-3E80M/4D NR203-3E80M/4D MR203-2E80M/4C NR203-2E80M/4C	1,77 1,89	33 35 32 34	109	IE3 IE2
	24	276	59,43	6409	1,0					
	26	259	55,74	6329	1,1					
	31	221	47,39	6121	1,3					
	33	205	43,94	6021	1,4					
	35	192	41,16	5933	1,5					
	40	168	36,02	5752	1,7					
	51	132	28,35	6540	2,1					
	59	115	24,77	6214	2,4					
	62	108	23,23	6067	2,5					
	63	109	23,01	5957	2,6	MR202-3E80M/4D NR202-3E80M/4D MR202-2E80M/4C NR202-2E80M/4C	1,77 1,89	33 34 32 33	109	IE3 IE2
	72	95	20,10	5671	2,7					
	77	89	18,85	5541	2,9					
	90	76	16,03	5227	3,2					
	29	231	49,81	3498	0,9	MR173-3E80M/4D NR173-3E80M/4D MR173-2E80M/4C NR173-2E80M/4C	1,77 1,89	23 24 22 23	108	IE3 IE2
	32	213	45,90	3473	0,9					
	34	199	42,87	3449	1,0					
	40	169	36,24	3377	1,2					
	48	141	30,26	3285	1,4					
	56	122	26,10	3200	1,6					

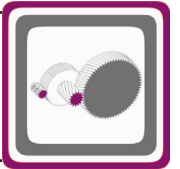
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

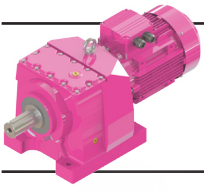
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor* Verim Snf.
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse
0,75 1,0	69	99	20,92	3487	2,0	MR172-3E80M/4D	1,77	23	108	IE3
	79	87	18,28	3476	2,3	NR172-3E80M/4D		25		
	85	81	17,14	3464	2,5	MR172-2E80M/4C	1,89	22		IE2
	99	69	14,57	3394	2,8	NR172-2E80M/4C		24		
	115	60	12,66	3224	3,2					
	131	53	11,08	3071	3,4					
	41	164	35,21	2088	0,9	MR103-3E80M/4D	1,77	22	107	IE3
	45	150	32,25	2084	0,9	NR103-3E80M/4D		25		
	49	137	29,40	2074	1,0	MR103-2E80M/4C	1,89	21		IE2
	58	116	24,86	1965	1,1	NR103-2E80M/4C		24		
	66	102	21,96	1946	1,2					
	71	96	20,51	1933	1,3					
	84	81	17,33	1894	1,4					
	91	75	15,95	1923	1,5	MR102-3E80M/4D	1,77	22	107	IE3
	103	67	14,08	1880	1,7	NR102-3E80M/4D		23		
	110	62	13,15	1855	1,7	MR102-2E80M/4C	1,89	21		IE2
	130	53	11,12	1792	1,9	NR102-2E80M/4C		22		
	142	48	10,18	1758	2,1					
	156	44	9,29	1722	2,2					
	181	38	8,01	1663	2,4					
	209	33	6,93	1582	2,7					
	224	31	6,48	1556	2,8					
	265	26	5,47	1492	3,1					
	289	24	5,01	1459	3,4					
	317	22	4,57	1424	3,5					
	60	112	24,13	276	0,7	MR003-3E80M/4D	1,77	19	106	IE3
	68	99	21,26	434	0,8	NR003-3E80M/4D		20		
	70	96	20,66	560	0,9	MR003-2E80M/4C	1,89	18		IE2
	76	89	19,17	676	0,9	NR003-2E80M/4C		19		
	80	85	18,20	683	1,0					
	86	79	16,89	783	1,0					
	99	68	14,67	857	1,2					
	107	63	13,61	934	1,3					
	130	53	11,14	1465	1,2	MR002-3E80M/4D	1,77	19	106	IE3
	147	47	9,87	1480	1,7	NR002-3E80M/4D		20		
	167	41	8,70	1472	1,8	MR002-2E80M/4C	1,89	18		IE2
	172	40	8,45	1508	1,8	NR002-2E80M/4C		19		
	185	37	7,84	1515	1,9					
	195	35	7,45	1491	2,0					
	210	33	6,91	1495	2,1					
	242	28	6,00	1458	2,3					
	260	26	5,57	1457	2,4					
	318	22	4,56	1360	2,7					
	372	19	3,90	1350	3,0					
	401	17	3,62	1343	3,1					
	417	16	6,91	1421	3,3	MR002-3E80M/2B	1,59	19	106	IE3
	480	14	6,00	1371	3,6	NR002-3E80M/2B		20		
	517	13	5,57	1355	3,9	MR002-2E80M/2A	1,67	18		IE2
	632	11	4,56	1266	4,0	NR002-2E80M/2A		19		
	738	9	3,90	1223	4,0					
	796	9	3,62	1190	4,0					

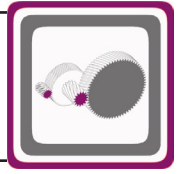
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

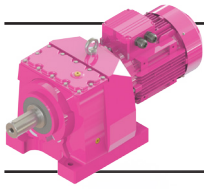
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-kategorie
1,1 1,5	0,40 0,51	22784 18037	3594,81 2836,64	54822 94915	0,8 1,0	MR976-3E90S/4C NR976-3E90S/4C MR976-2E90S/4B NR976-2E90S/4B	2,46 2,60	1097 1147 1095 1145	135	IE3 IE2
	0,71 0,80 0,93 1,1 1,2 1,3 1,6 1,7	13153 11817 10066 8881 7885 7035 5960 5488	2027,97 1820,78 1552,10 1368,27 1213,85 1082,31 914,74 842,80	119815 125260 131719 135508 138679 141234 144282 145559	1,4 1,5 1,8 2,0 2,3 2,6 3,0 3,3	MR975-3E90S/4C NR975-3E90S/4C MR975-2E90S/4B NR975-2E90S/4B	2,46 2,60	1095 1145 1093 1143	135	IE3 IE2
	0,75 0,85 0,95 1,1 1,2 1,4 1,6 1,8 2,0 2,3 2,7	12424 10997 9841 8657 7849 6791 5934 5240 4665 4182 3502	1924,32 1700,56 1521,55 1336,15 1210,51 1049,18 915,85 807,91 718,74 643,84 537,75	75738 83016 88196 92964 95787 99548 102241 104289 105897 107191 108929	1,0 1,2 1,3 1,5 1,7 1,9 2,2 2,5 2,8 3,1 3,7	MR875-3E90S/4C NR875-3E90S/4C MR875-2E90S/4B NR875-2E90S/4B	2,46 2,60	600 605 598 603	132	IE3 IE2
	1,2 1,3 1,5	8093 7244 6373	1252,60 1120,74 984,18	48526 51722 54641	1,0 1,1 1,3	MR775-3E90S/4C NR775-3E90S/4C MR775-2E90S/4B NR775-2E90S/4B	2,46 2,60	338 408 336 406	129	IE3 IE2
	1,6 1,8 2,0 2,2	6095 5455 4799 4297	594,92 532,29 467,43 418,17	55503 57384 59184 60431	1,3 1,5 1,7 1,9	MR774-3E90L/6C NR774-3E90L/6C MR774-2E90L/6B NR774-2E90L/6B	2,75 2,90	310 376 308 374	128	IE3 IE2
	2,4 2,7 3,1 3,5 4,0 4,6 5,3	3951 3536 3111 2786 2406 2087 1828	594,92 532,29 467,43 418,17 361,62 313,11 273,85	61197 62157 63092 63773 64534 65147 66837	2,0 2,3 2,6 2,9 3,3 3,8 4,0	MR774-3E90S/4C NR774-3E90S/4C MR774-2E90S/4B NR774-2E90S/4B	2,46 2,60	305 371 303 369	128	IE3 IE2
	2,1 2,5	4537 3860	442,20 376,69	24922 28823	0,9 1,1	MR674-3E90L/6C NR674-3E90L/6C MR674-2E90L/6B NR674-2E90L/6B	2,75 2,90	234 244 232 242	125	IE3 IE2
	2,9 3,3 3,8 4,5 5,2 5,9 6,7	3322 2941 2502 2154 1872 1638 1442	500,39 442,20 376,69 323,82 281,02 245,67 215,97	31393 33000 34662 35806 36711 37414 37974	1,3 1,5 1,7 2,0 2,3 2,6 3,0	MR674-3E90S/4C NR674-3E90S/4C MR674-2E90S/4B NR674-2E90S/4B	2,46 2,60	230 240 228 238	125	IE3 IE2

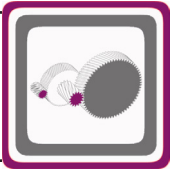
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

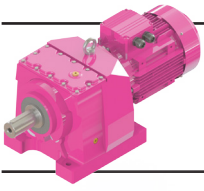
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [KW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse
1,1 1,5	3,6	2674	<b>402,12</b>	21701	1,1	<b>MR574-3E90S/4C</b>	2,46	151	122	IE3
	4,2	2288	<b>343,91</b>	23647	1,3	<b>NR574-3E90S/4C</b>		147		
	4,8	2010	<b>301,59</b>	24880	1,5	<b>MR574-2E90S/4B</b>	2,60	149		IE2
	5,0	1939	<b>291,25</b>	25139	1,5	<b>NR574-2E90S/4B</b>		145		
	5,6	1725	<b>258,87</b>	26019	1,7					
	6,5	1477	<b>221,40</b>	26885	2,0					
	7,5	1297	<b>194,15</b>	27495	2,3					
	8,4	1149	<b>171,64</b>	27971	2,6					
	10	969	<b>144,37</b>	28517	3,1					
		6,0	1654	<b>157,90</b>	13930	0,9	<b>MR473-3E90L/6C</b>	2,75	98	118
						<b>NR473-3E90L/6C</b>		100		
						<b>MR473-2E90L/6B</b>	2,90	96		IE2
						<b>NR473-2E90L/6B</b>		98		
	6,6	1489	<b>219,00</b>	16399	1,0	<b>MR473-3E90S/4C</b>	2,46	97	118	IE3
	7,5	1319	<b>194,05</b>	18456	1,2	<b>NR473-3E90S/4C</b>		99		
	9,2	1075	<b>157,90</b>	20912	1,4	<b>MR473-2E90S/4B</b>	2,60	95		IE2
	10	951	<b>139,54</b>	21983	1,6	<b>NR473-2E90S/4B</b>		97		
	12	851	<b>124,85</b>	21485	1,8					
	13	748	<b>109,64</b>	20784	2,1					
	16	626	<b>91,58</b>	19820	2,5					
	17	592	<b>86,52</b>	19519	2,6					
	10	942	<b>138,72</b>	9428	0,9	<b>MR373-3E90S/4C</b>	2,46	58	115	IE3
	13	759	<b>111,67</b>	10612	1,1	<b>NR373-3E90S/4C</b>		61		
	15	666	<b>97,92</b>	10383	1,2	<b>MR373-2E90S/4B</b>	2,60	56		IE2
	17	590	<b>86,57</b>	10152	1,4	<b>NR373-2E90S/4B</b>		59		
	20	497	<b>72,81</b>	9807	1,7					
	23	423	<b>61,91</b>	9469	1,9					
	27	363	<b>53,04</b>	9139	2,3					
	30	329	<b>48,00</b>	8923	2,5					
	40	249	<b>23,33</b>	9617	3,3	<b>MR372-3E90L/6C</b>	2,75	60	115	IE3
	46	221	<b>20,62</b>	9198	3,7	<b>NR372-3E90L/6C</b>		64		
						<b>MR372-2E90L/6B</b>	2,90	58		IE2
						<b>NR372-2E90L/6B</b>		62		
	15	664	<b>97,62</b>	7865	0,9	<b>MR283-3E90S/4C</b>	2,46	50	112	IE3
	17	583	<b>85,60</b>	7981	1,0	<b>NR283-3E90S/4C</b>		54		
	19	516	<b>75,68</b>	7840	1,2	<b>MR283-2E90S/4B</b>	2,60	48		IE2
	23	435	<b>63,65</b>	7617	1,4	<b>NR283-2E90S/4B</b>		52		
	27	370	<b>54,12</b>	7388	1,6					
	31	317	<b>46,37</b>	7157	1,8					
	35	288	<b>41,96</b>	7003	1,9					
	37	269	<b>25,23</b>	8462	2,2	<b>MR282-3E90L/6C</b>	2,75	48	112	IE3
	43	231	<b>21,66</b>	7998	2,5	<b>NR282-3E90L/6C</b>		52		
						<b>MR282-2E90L/6B</b>	2,90	46		IE2
						<b>NR282-2E90L/6B</b>		50		
	48	210	<b>30,37</b>	7724	2,7	<b>MR282-3E90S/4C</b>	2,46	50	112	IE3
	57	175	<b>25,23</b>	7220	3,0	<b>NR282-3E90S/4C</b>		53		
	67	150	<b>21,66</b>	6832	3,3	<b>MR282-2E90S/4B</b>	2,60	48		IE2
						<b>NR282-2E90S/4B</b>		51		

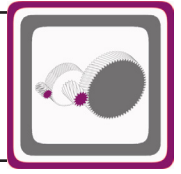
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

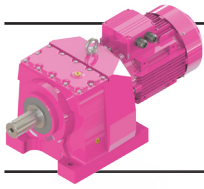
### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse
1,1 1,5	17	571	<b>83,83</b>	3638	0,8	<b>MR273-3E90S/4C</b>	2,46	40	110	IE3
	20	500	<b>73,35</b>	4300	0,9	<b>NR273-3E90S/4C</b>		41		
	24	414	<b>60,66</b>	5020	1,1	<b>MR273-2E90S/4B</b>	2,60	38		IE2
	29	346	<b>50,59</b>	5507	1,3	<b>NR273-2E90S/4B</b>		39		
	34	290	<b>42,41</b>	5828	1,5					
	40	250	<b>36,55</b>	6004	1,8					
	48	209	<b>30,48</b>	6122	2,2					
	56	180	<b>25,89</b>	5979	2,5	<b>MR272-3E90S/4C</b>	2,46	41	110	IE3
	68	149	<b>21,43</b>	5575	3,0	<b>NR272-3E90S/4C</b>		43		
	79	127	<b>18,33</b>	5265	3,5	<b>MR272-2E90S/4B</b> <b>NR272-2E90S/4B</b>	2,60	39 41		IE2
31 33 35 40 51 59 62	324	<b>47,39</b>	5612	0,9	<b>MR203-3E90S/4C</b>	2,46	39	109	IE3	
	301	<b>43,94</b>	5549	0,9	<b>NR203-3E90S/4C</b>		42			
	281	<b>41,16</b>	5492	1,0	<b>MR203-2E90S/4B</b>	2,60	37		IE2	
	247	<b>36,02</b>	5366	1,1	<b>NR203-2E90S/4B</b>		40			
	193	<b>28,35</b>	5583	1,4						
	169	<b>24,77</b>	5753	1,6						
	159	<b>23,23</b>	5811	1,7						
	63	159	<b>23,01</b>	6089	1,8	<b>MR202-3E90S/4C</b>	2,46	41	109	IE3
72	139	<b>20,10</b>	5787	1,9	<b>NR202-3E90S/4C</b>		43			
77	131	<b>18,85</b>	5650	2,0	<b>MR202-2E90S/4B</b>	2,60	39		IE2	
90	111	<b>16,03</b>	5319	2,2	<b>NR202-2E90S/4B</b>		41			
98	103	<b>14,86</b>	5173	2,3						
104	97	<b>13,92</b>	5050	2,4						
119	85	<b>12,18</b>	4810	2,7						
134	75	<b>10,81</b>	4605	2,9						
144	70	<b>10,07</b>	4490	3,0						
173	59	<b>8,40</b>	4207	3,4						
40 48 56	247	<b>36,24</b>	2920	0,8	<b>MR173-3E90S/4C</b>	2,46	30	108	IE3	
	207	<b>30,26</b>	2903	1,0	<b>NR173-3E90S/4C</b>		32			
	179	<b>26,10</b>	2870	1,1	<b>MR173-2E90S/4B</b> <b>NR173-2E90S/4B</b>	2,60	28 30		IE2	
69 79 85 99 115 131 152 162 191 220 251	145	<b>20,92</b>	2679	1,4	<b>MR172-3E90S/4C</b>	2,46	29	108	IE3	
	127	<b>18,28</b>	2770	1,6	<b>NR172-3E90S/4C</b>		30			
	119	<b>17,14</b>	2803	1,7	<b>MR172-2E90S/4B</b>	2,60	27		IE2	
	101	<b>14,57</b>	2857	1,9	<b>NR172-2E90S/4B</b>		28			
	88	<b>12,66</b>	2877	2,2						
	77	<b>11,08</b>	2877	2,3						
	66	<b>9,53</b>	2710	2,6						
	62	<b>8,94</b>	2706	2,6						
	53	<b>7,60</b>	2683	3,0						
	46	<b>6,60</b>	2618	3,1						
	40	<b>5,78</b>	2492	3,3						
58 66 71 84	170	<b>24,86</b>	1593	0,8	<b>MR103-3E90S/4C</b>	2,46	29	107	IE3	
	150	<b>21,96</b>	1618	0,8	<b>NR103-3E90S/4C</b>		31			
	140	<b>20,51</b>	1626	0,9	<b>MR103-2E90S/4B</b>	2,60	27		IE2	
	119	<b>17,33</b>	1634	0,9	<b>NR103-2E90S/4B</b>		29			
91 103 110 130	111	<b>15,95</b>	1708	1,0	<b>MR102-3E90S/4C</b>	2,46	30	107	IE3	
	98	<b>14,08</b>	1691	1,1	<b>NR102-3E90S/4C</b>		31			
	91	<b>13,15</b>	1678	1,1	<b>MR102-2E90S/4B</b>	2,60	28		IE2	
	77	<b>11,12</b>	1643	1,3	<b>NR102-2E90S/4B</b>		29			

\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

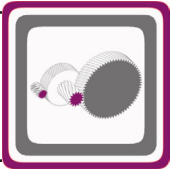




# Motorlu Güç Devir Sayfaları

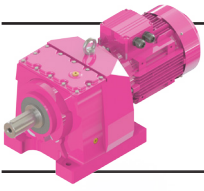
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Snf.*	
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class	
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse	
1,1 1,5	142	71	10,18	1621	1,4	MR102-3E90S/4C	2,46	30	107	IE3	
	156	65	9,29	1597	1,5	NR102-3E90S/4C		31			
	181	56	8,01	1555	1,6	MR102-2E90S/4B	2,60	28		IE2	
	209	48	6,93	1479	1,9	NR102-2E90S/4B		29			
	224	45	6,48	1460	1,9						
	265	38	5,47	1410	2,1						
	289	35	5,01	1384	2,3						
	317	32	4,57	1356	2,4						
	368	28	3,94	1310	2,5						
		415	24	6,93	1271	2,9	MR102-3E80M/2C	2,26	25	107	IE3
		445	23	6,48	1250	3,1	NR102-3E80M/2C		26		
		526	19	5,47	1197	3,4	MR102-2E80M/2B NR102-2E80M/2B	2,36	24 25		IE2
		99	100	14,67	-	0,8	MR003-3E90S/4C	2,46	24	106	IE3
		107	93	13,61	33	0,9	NR003-3E90S/4C MR003-2E90S/4B NR003-2E90S/4B	2,60	25 22 23		IE2
		130	77	11,14	896	0,8	MR002-3E90S/4C	2,46	24	106	IE3
		147	69	9,87	969	1,1	NR002-3E90S/4C		25		
		167	60	8,70	1007	1,2	MR002-2E90S/4B	2,60	22		IE2
		172	59	8,45	1070	1,3	NR002-2E90S/4B		23		
		185	55	7,84	1109	1,3					
		195	52	7,45	1093	1,4					
		210	48	6,91	1125	1,4					
		242	42	6,00	1121	1,6					
		260	39	5,57	1144	1,7					
		318	32	4,56	1066	1,8					
		372	27	3,90	1098	2,0					
		401	25	3,62	1109	2,1					
		417	24	6,91	1234	2,2	MR002-3E80M/2C	2,26	18	106	IE3
		480	21	6,00	1202	2,5	NR002-3E80M/2C		20		
	517	20	5,57	1197	2,6	MR002-2E80M/2B	2,36	17		IE2	
	632	16	4,56	1118	2,9	NR002-2E80M/2B		19			
	738	14	3,90	1105	3,2						
	796	13	3,62	1097	3,3						
1,5 2,0	0,71	17935	2027,97	95566	1,0	MR975-3E90L/4D	3,30	1031	135	IE3	
	0,80	16114	1820,78	105780	1,1	NR975-3E90L/4D		1081			
	0,93	13727	1552,10	117320	1,3	MR975-2E90L/4C	3,40	1030		IE2	
	1,1	12111	1368,27	124101	1,5	NR975-2E90L/4C		1080			
	1,2	10752	1213,85	129104	1,7						
	1,3	9594	1082,31	133120	1,9						
	1,6	8128	914,74	137923	2,2						
	1,7	7484	842,80	139900	2,4						
	1,9	6675	750,24	142278	2,7						
	2,2	5906	662,54	144432	3,0						
	2,5	5259	588,87	146168	3,4						
		0,85	14996	1700,56	59105	0,9	MR875-3E90L/4D	3,30	595	132	IE3
		0,95	13420	1521,55	69941	1,0	NR875-3E90L/4D		600		
		1,1	11805	1336,15	79031	1,1	MR875-2E90L/4C	3,40	594		IE2
		1,2	10703	1210,51	84391	1,2	NR875-2E90L/4C		599		
		1,4	9260	1049,18	90598	1,4					
		1,6	8092	915,85	95067	1,6					
		1,8	7145	807,91	98483	1,8					

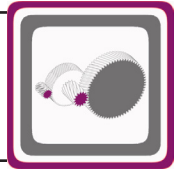
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

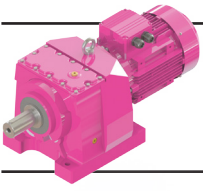
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
1,5 2,0	2,1	6145	446,42	101594	2,1	MR874-3E100L/6B	3,50	587	131	IE3
	2,4	5389	390,74	103902	2,4	NR874-3E100L/6B		592		
	2,8	4775	345,67	105596	2,7	MR874-2E100L/6A	3,72	584		IE2
	3,3	4044	292,15	107551	3,2	NR874-2E100L/6A		589		
	4,0	3320	239,61	109333	3,9					
	1,6	8181	594,92	48173	1,0	MR774-3E100L/6B	3,50	323	128	IE3
	1,8	7322	532,29	51444	1,1	NR774-3E100L/6B		394		
	2,0	6441	467,43	54425	1,2	MR774-2E100L/6A	3,72	320		IE2
	2,3	5768	418,17	56392	1,4	NR774-2E100L/6A		391		
	2,4	5388	594,92	57573	1,5	MR774-3E90L/4D	3,30	318	128	IE3
	2,7	4822	532,29	59016	1,7	NR774-3E90L/4D		385		
	3,1	4242	467,43	60495	1,9	MR774-2E90L/4C	3,40	317		IE2
	3,5	3799	418,17	61555	2,1	NR774-2E90L/4C		384		
	4,0	3281	361,62	62723	2,4					
	4,6	2845	313,11	63650	2,8					
	5,3	2492	273,85	64365	3,2					
	6,0	2200	241,42	64933	3,6					
	6,8	1954	214,17	65755	4,0					
	2,9	4531	500,39	25002	0,9	MR674-3E90L/4D	3,30	237	125	IE3
	3,3	4010	442,20	28028	1,1	NR674-3E90L/4D		248		
	3,8	3412	376,69	30992	1,3	MR674-2E90L/4C	3,40	236		IE2
	4,5	2937	323,82	33014	1,5	NR674-2E90L/4C		247		
	5,2	2553	281,02	34480	1,7					
	5,9	2234	245,67	35538	1,9					
	6,7	1966	215,97	36416	2,2					
	4,2	3120	343,91	19040	1,0	MR574-3E90L/4D	3,30	153	122	IE3
	4,8	2741	301,59	21328	1,1	NR574-3E90L/4D		137		
						MR574-2E90L/4C	3,40	152		IE2
						NR574-2E90L/4C		136		
	5,7	2351	167,32	23351	1,3	MR573-3E100L/6B	3,50	140	121	IE3
	6,2	2158	153,61	24242	1,4	NR573-3E100L/6B		136		
	7,1	1891	134,45	25329	1,6	MR573-2E100L/6A	3,72	137		IE2
	8,0	1675	118,95	26174	1,8	NR573-2E100L/6A		133		
	9,5	1418	100,53	27098	2,1					
	12	1163	82,45	27932	2,6					
	13	1028	72,81	28345	2,9					
	15	915	64,72	28677	3,3					
	17	775	54,74	29069	3,9					
	20	691	48,74	29444	4,0					
	7,5	1800	194,05	11156	0,9	MR473-3E90L/4D	3,30	100	118	IE3
	9,2	1468	157,90	16686	1,1	NR473-3E90L/4D		102		
	10	1298	139,54	18683	1,2	MR473-2E90L/4C	3,40	99		IE2
	12	1162	124,85	20098	1,3	NR473-2E90L/4C		101		
	13	1021	109,64	19941	1,5					
	16	855	91,58	19117	1,8					
	17	808	86,52	18854	1,9					
	18	733	157,90	18431	2,1	MR473-3E90S/2B	2,97	98	118	IE3
	21	648	139,54	17860	2,4	NR473-3E90S/2B		100		
	23	580	124,85	17348	2,7	MR473-2E90S/2A	3,19	97		IE2
	26	510	109,64	16756	3,0	NR473-2E90S/2A		99		

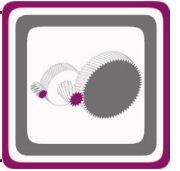
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

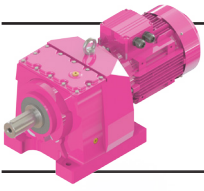
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*
Power	Output Speeds	Output Torque	Ratio	Per. O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m.]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul. Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse
1,5 2,0	15	910	<b>97,92</b>	9486	0,9	MR373-3E90L/4D	3,30	61	115	IE3
	17	805	<b>86,57</b>	9359	1,0	NR373-3E90L/4D		64		
	20	678	<b>72,81</b>	9140	1,2	MR373-2E90L/4C	3,40	60		IE2
	23	577	<b>61,91</b>	8902	1,4	NR373-2E90L/4C		63		
	27	495	<b>53,04</b>	8653	1,7					
	30	448	<b>48,00</b>	8483	1,8					
	41	335	<b>23,33</b>	9704	2,4	MR372-3E100L/6B	3,50	62	115	IE3
	46	296	<b>20,62</b>	9272	2,8	NR372-3E100L/6B		64		
	52	265	<b>18,45</b>	8902	3,1	MR372-2E100L/6A	3,72	59		IE2
	59	233	<b>16,20</b>	8491	3,5	NR372-2E100L/6A		61		
	62	221	<b>23,33</b>	8331	3,6	MR372-3E90L/4D	3,30	60	115	IE3
	70	196	<b>20,62</b>	7967	3,9	NR372-3E90L/4D		62		
	79	175	<b>18,45</b>	7656	4,0	MR372-2E90L/4C	3,40	59		IE2
						NR372-2E90L/4C		61		
	19	704	<b>75,68</b>	6867	0,9	MR283-3E90L/4D	3,30	52	112	IE3
23	593	<b>63,65</b>	6973	1,0	NR283-3E90L/4D		54			
27	505	<b>54,12</b>	6841	1,2	MR283-2E90L/4C	3,40	51		IE2	
31	433	<b>46,37</b>	6688	1,3	NR283-2E90L/4C		53			
35	392	<b>41,96</b>	6579	1,4						
38	362	<b>25,23</b>	8572	1,7	MR282-3E100L/6B	3,50	55	112	IE3	
44	310	<b>21,66</b>	8096	1,9	NR282-3E100L/6B		57			
					MR282-2E100L/6A	3,72	52		IE2	
					NR282-2E100L/6A		54			
48	287	<b>30,37</b>	7858	1,9	MR282-3E90L/4D	3,30	51	112	IE3	
57	239	<b>25,23</b>	7332	2,2	NR282-3E90L/4D		53			
67	205	<b>21,66</b>	6930	2,4	MR282-2E90L/4C	3,40	50		IE2	
76	181	<b>19,06</b>	6612	2,7	NR282-2E90L/4C		52			
86	161	<b>16,91</b>	6330	2,9						
101	136	<b>14,31</b>	5959	3,2						
24	565	<b>60,66</b>	2371	0,8	MR273-3E90L/4D	3,30	43	110	IE3	
29	472	<b>50,59</b>	3298	1,0	NR273-3E90L/4D		45			
34	396	<b>42,41</b>	3976	1,1	MR273-2E90L/4C	3,40	42		IE2	
40	342	<b>36,55</b>	4408	1,3	NR273-2E90L/4C		44			
48	285	<b>30,48</b>	4791	1,6						
56	245	<b>25,89</b>	5025	1,8	MR272-3E90L/4D	3,30	42	110	IE3	
68	203	<b>21,43</b>	5190	2,2	NR272-3E90L/4D		44			
79	174	<b>18,33</b>	5256	2,6	MR272-2E90L/4C	3,40	41		IE2	
90	153	<b>16,07</b>	5098	2,8	NR272-2E90L/4C		43			
102	135	<b>14,21</b>	4871	3,0						
121	114	<b>11,95</b>	4571	3,4						
40	337	<b>36,02</b>	4924	0,8	MR203-3E90L/4D	3,30	43	109	IE3	
51	264	<b>28,35</b>	3749	1,1	NR203-3E90L/4D		44			
59	231	<b>24,77</b>	4150	1,2	MR203-2E90L/4C	3,40	42		IE2	
62	217	<b>23,23</b>	4309	1,2	NR203-2E90L/4C		43			
63	218	<b>23,01</b>	5238	1,3	MR202-3E90L/4D	3,30	41	109	IE3	
72	190	<b>20,10</b>	5393	1,4	NR202-3E90L/4D		43			
77	179	<b>18,85</b>	5446	1,5	MR202-2E90L/4C	3,40	40		IE2	
90	152	<b>16,03</b>	5423	1,6	NR202-2E90L/4C		42			

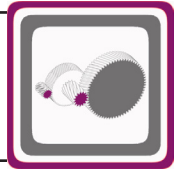
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

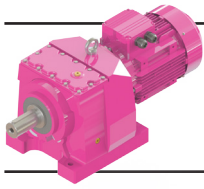
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Snf.*
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
1,5 2,0	98	141	14,86	5270	1,7	MR202-3E90L/4D	3,30	41	109	IE3
	104	132	13,92	5141	1,8	NR202-3E90L/4D		43		
	119	116	12,18	4890	1,9	MR202-2E90L/4C	3,40	40		IE2
	134	103	10,81	4676	2,1	NR202-2E90L/4C		42		
	144	96	10,07	4556	2,2					
	173	80	8,40	4262	2,5					
	206	67	7,04	3997	2,8					
	250	55	5,80	3772	3,2					
	69	198	20,92	1757	1,0	MR172-3E90L/4D	3,30	31	108	IE3
	79	173	18,28	1964	1,2	NR172-3E90L/4D		33		
	85	163	17,14	2047	1,2	MR172-2E90L/4C	3,40	30		IE2
	99	138	14,57	2214	1,4	NR172-2E90L/4C		32		
	115	120	12,66	2319	1,6					
	131	105	11,08	2388	1,7					
	152	91	9,53	2236	1,9					
	162	85	8,94	2262	1,9					
	191	72	7,60	2304	2,2					
	220	63	6,60	2320	2,3					
	251	55	5,78	2319	2,4					
	303	46	4,78	2297	2,8					
	355	39	4,09	2195	3,1					
	429	32	3,38	2095	3,4					
	439	31	6,60	2062	4,0	MR172-3E90S/2B	2,97	30	108	IE3
	502	27	5,78	1964	4,0	NR172-3E90S/2B		32		
	607	23	4,78	1834	4,0	MR172-2E90S/2A	3,19	29		IE2
	710	19	4,09	1744	4,0	NR172-2E90S/2A		31		
	858	16	3,38	1629	4,0					
	103	134	14,08	1474	0,8	MR102-3E90L/4D	3,30	30	107	IE3
	110	125	13,15	1476	0,8	NR102-3E90L/4D		31		
	130	106	11,12	1472	0,9	MR102-2E90L/4C	3,40	29		IE2
	142	97	10,18	1465	1,0	NR102-2E90L/4C		30		
	156	88	9,29	1454	1,1					
	181	76	8,01	1432	1,2					
	209	66	6,93	1360	1,4					
	224	62	6,48	1349	1,4					
	265	52	5,47	1317	1,5					
	289	48	5,01	1298	1,7					
	317	44	4,57	1278	1,7					
	368	38	3,94	1242	1,9					
		418	33	6,93	1210	2,1	MR102-3E90S/2B	2,97	28	107
448		31	6,48	1192	2,3	NR102-3E90S/2B		30		
530		26	5,47	1148	2,5	MR102-2E90S/2A	3,19	27		IE2
578		24	5,01	1125	2,5	NR102-2E90S/2A		29		
634		22	4,57	1100	2,8					
736		19	3,94	1060	2,9					
	147	94	9,87	384	0,8	MR002-3E90L/4D	3,30	27	106	IE3
	167	82	8,70	475	0,9	NR002-3E90L/4D		28		
	172	80	8,45	569	0,9	MR002-2E90L/4C	3,40	26		IE2
	185	74	7,84	644	1,0	NR002-2E90L/4C		27		
	195	71	7,45	637	1,0					
	210	66	6,91	703	1,1					
	242	57	6,00	735	1,2					
	260	53	5,57	786	1,2					
	318	43	4,56	730	1,3					
	372	37	3,90	811	1,5					
	401	34	3,62	842	1,5					

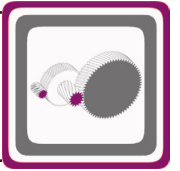
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

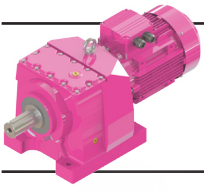
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per. O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor* Verim Snf.
Power	Output Speeds	Output Torque	Ratio	Per. O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [KW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
1,5 2,0	420	33	6,91	1023	1,7	MR002-3E90S/2B	2,97	25	106	IE3
	483	28	6,00	1008	1,8	NR002-3E90S/2B		27		
	521	26	5,57	1018	1,9	MR002-2E90S/2A	3,19	24		IE2
	637	22	4,56	949	2,1	NR002-2E90S/2A		26		
	744	19	3,90	960	2,4					
	801	17	3,62	962	2,4					
2,2 3,0	0,93	20133	1552,10	80517	0,9	MR975-3E100L/4C	4,65	1117	135	IE3
	1,1	17763	1368,27	96442	1,0	NR975-3E100L/4C		1167		
	1,2	15770	1213,85	107571	1,1	MR975-2E100L/4B	4,85	1116		IE2
	1,3	14070	1082,31	115554	1,3	NR975-2E100L/4B		1166		
	1,6	11921	914,74	124687	1,5					
	1,7	10977	842,80	128448	1,6					
	1,9	9790	750,24	132559	1,8					
	2,2	8662	662,54	136320	2,1					
	2,5	7713	588,87	139289	2,3					
	2,7	7151	546,94	140965	2,5					
	2,8	6816	510,11	141940	2,6	MR974-3E100L/4C	4,65	1132	134	IE3
	3,2	6126	457,99	143886	2,9	NR974-3E100L/4C		1182		
	3,7	5221	390,41	146314	3,4	MR974-2E100L/4B	4,85	1131		IE2
						NR974-2E100L/4B		1181		
	1,2	15697	1210,51	53401	0,8	MR875-3E100L/4C	4,65	622	132	IE3
	1,4	13582	1049,18	68923	1,0	NR875-3E100L/4C		627		
	1,6	11869	915,85	78704	1,1	MR875-2E100L/4B	4,85	621		IE2
	1,8	10480	807,91	85242	1,2	NR875-2E100L/4B		626		
	2,0	9331	718,74	90183	1,4					
	2,5	7821	390,74	95889	1,7	MR874-3E112M/6B	4,95	606	131	IE3
	2,8	6931	345,67	98966	1,9	NR874-3E112M/6B		611		
						MR874-2E112M/6A	5,32	603		IE2
						NR874-2E112M/6A		608		
	3,2	5936	446,42	102173	2,2	MR874-3E100L/4C	4,65	607	131	IE3
3,7	5205	390,74	104336	2,5	NR874-3E100L/4C		612			
4,2	4612	345,67	105998	2,8	MR874-2E100L/4B	4,85	606		IE2	
5,0	3907	292,15	107872	3,3	NR874-2E100L/4B		611			
6,1	3208	239,61	109927	4,0						
2,4	7903	594,92	49168	1,0	MR774-3E100L/4C	4,65	331	128	IE3	
2,7	7073	532,29	52235	1,1	NR774-3E100L/4C		404			
3,1	6222	467,43	55047	1,3	MR774-2E100L/4B	4,85	330		IE2	
3,5	5572	418,17	57040	1,4	NR774-2E100L/4B		403			
4,0	4812	361,62	59086	1,7						
4,6	4173	313,11	60698	1,9						
5,3	3655	273,85	61916	2,2						
6,0	3226	241,42	62867	2,5						
6,8	2865	214,17	63629	2,8						
7,6	2557	190,96	64253	3,1						
4,9	4012	196,61	28019	1,1	MR673-3E112M/6B	4,95	196	124	IE3	
5,5	3573	174,89	30245	1,2	NR673-3E112M/6B		197			
6,5	3050	149,11	32556	1,4	MR673-2E112M/6A	5,32	193		IE2	
7,8	2539	124,07	34480	1,7	NR673-2E112M/6A		194			
8,7	2265	110,55	35446	1,9						

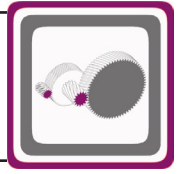
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

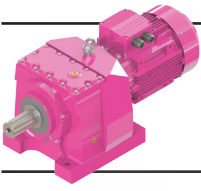
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-kategorie
2,2 3,0	7,2	2748	134,45	21288	1,1	MR573-3E112M/6B	4,95	144	121	IE3
	8,1	2434	118,95	22947	1,2	NR573-3E112M/6B		150		
						MR573-2E112M/6A	5,32	141		IE2
						NR573-2E112M/6A		147		
	8,7	2280	167,32	23646	1,3	MR573-3E100L/4C	4,65	140	121	IE3
	9,4	2093	153,61	24525	1,4	NR573-3E100L/4C		146		
	11	1835	134,45	25569	1,6	MR573-2E100L/4B	4,85	139		IE2
	12	1625	118,95	26371	1,8	NR573-2E100L/4B		145		
	14	1376	100,53	24667	2,2					
	18	1129	82,45	28045	2,7					
	20	998	72,81	28440	3,0					
	22	888	64,72	27611	3,4					
	26	752	54,74	26326	4,0					
	30	671	48,74	25458	4,0					
	10	1905	139,54	8420	0,8	MR473-3E100L/4C	4,65	108	118	IE3
	12	1705	124,85	13075	0,9	NR473-3E100L/4C		111		
	13	1499	109,64	16237	1,0	MR473-2E100L/4B	4,85	109		IE2
	16	1254	91,58	17885	1,2	NR473-2E100L/4B		110		
	17	1185	86,52	17690	1,3					
	17	1156	84,46	17607	1,3					
	20	1002	73,09	17091	1,5					
	23	874	63,70	16584	1,8					
	26	767	55,82	16087	2,0					
	30	674	49,05	15595	2,3					
	34	588	42,75	15070	2,6					
	39	516	37,45	14566	3,0					
	47	427	30,93	13844	3,6					
	20	995	72,81	7973	0,8	MR373-3E100L/4C	4,65	67	115	IE3
	23	847	61,91	7909	1,0	NR373-3E100L/4C		68		
	27	727	53,04	7802	1,1	MR373-2E100L/4B	4,85	66		IE2
	30	658	48,00	7713	1,2	NR373-2E100L/4B		67		
	35	564	41,16	7552	1,5					
	41	484	35,25	7365	1,6					
	49	406	29,47	7127	1,8					
	57	348	25,27	6908	2,0					
	62	325	23,33	8493	2,5	MR372-3E100L/4C	4,65	66	115	IE3
	70	287	20,62	8112	2,7	NR372-3E100L/4C		69		
	79	257	18,45	7786	2,9	MR372-2E100L/4B	4,85	65		IE2
	90	226	16,20	7423	3,1	NR372-2E100L/4B		68		
	107	189	13,53	6953	3,5					
	116	174	12,48	6753	3,7					
	27	741	54,12	5713	0,8	MR283-3E100L/4C	4,65	60	112	IE3
	31	636	46,37	5867	0,9	NR283-3E100L/4C		62		
	35	576	41,96	5836	1,0	MR283-2E100L/4B	4,85	59		IE2
	40	493	35,98	5760	1,0	NR283-2E100L/4B		61		
	47	423	30,82	5657	1,1					
	57	351	25,23	6888	1,5	MR282-3E100L/4C	4,65	57	112	IE3
	67	301	21,66	7074	1,7	NR282-3E100L/4C		61		
	76	265	19,06	6759	1,8	MR282-2E100L/4B	4,85	56		IE2
	86	236	16,91	6461	2,0	NR282-2E100L/4B		60		
	101	200	14,31	6071	2,2					
	118	171	12,24	5731	2,5					
	137	148	10,57	5430	2,8					
	151	135	9,61	5246	3,0					

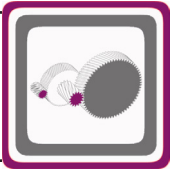
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

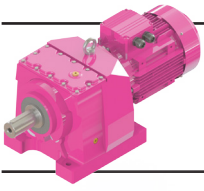
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor* Verim Snf.
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [KW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
2,2 3,0	174	116	8,33	4981	3,3	MR282-3E100L/4C NR282-3E100L/4C MR282-2E100L/4B NR282-2E100L/4B	4,65 4,85	57 61 56 60	112	IE3  IE2
	40 48 57	501 419 352	36,55 30,48 25,55	1614 2461 3087	0,9 1,1 1,2	MR273-3E100L/4C NR273-3E100L/4C MR273-2E100L/4B NR273-2E100L/4B	4,65 4,85	50 52 49 51	110	IE3  IE2
	68 79 90 102 121 143 167 233 274	299 255 224 198 167 142 122 87 74	21,43 18,33 16,07 14,21 11,95 10,16 8,71 6,21 5,28	3552 3855 4043 4173 4290 4343 4150 3709 3493	1,5 1,7 1,9 2,1 2,3 2,6 3,0 3,8 3,6	MR272-3E100L/4C NR272-3E100L/4C MR272-2E100L/4B NR272-2E100L/4B	4,65 4,85	48 50 47 49	110	IE3  IE2
	59 62	339 318	24,77 23,23	1346 1678	0,8 0,8	MR203-3E100L/4C NR203-3E100L/4C MR203-2E100L/4B NR203-2E100L/4B	4,65 4,85	48 50 47 49	109	IE3  IE2
	72 77 90 98 104 119 134 144 173 206 250 286 322 345 414	279 262 223 207 194 170 151 141 117 99 81 71 63 59 49	20,10 18,85 16,03 14,86 13,92 12,18 10,81 10,07 8,40 7,04 5,80 5,08 4,50 4,20 3,50	3486 3657 4011 4140 4236 4389 4485 4525 4358 4078 3859 3669 3507 3417 3195	0,9 1,0 1,1 1,2 1,2 1,3 1,4 1,5 1,7 1,9 2,2 2,3 2,4 2,5 2,5	MR202-3E100L/4C NR202-3E100L/4C MR202-2E100L/4B NR202-2E100L/4B	4,65 4,85	48 50 47 49	109	IE3  IE2
	79 85 99 115 131 152 162 191 220 251 303 355 429	254 239 203 177 155 133 125 106 92 81 67 57 47	18,28 17,14 14,57 12,66 11,08 9,53 8,94 7,60 6,60 5,78 4,78 4,09 3,38	554 724 1089 1342 1534 1406 1483 1643 1745 1816 1882 1807 1833	0,8 0,8 1,0 1,1 1,2 1,3 1,3 1,5 1,6 1,7 1,9 2,1 2,3	MR172-3E100L/4C NR172-3E100L/4C MR172-2E100L/4B NR172-2E100L/4B	4,65 4,85	38 40 37 39	108	IE3  IE2
	439 502 607 710 858	46 40 33 29 24	6,60 5,78 4,78 4,09 3,38	1916 1906 1867 1777 1656	2,7 3,0 3,3 3,5 3,6	MR172-3E90L/2C NR172-3E90L/2C MR172-2E90L/2B NR172-2E90L/2B	4,25 4,48	31 33 30 32	108	IE3  IE2

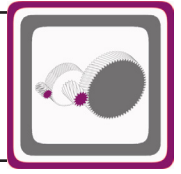
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

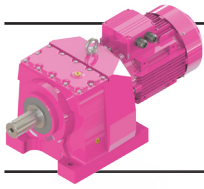
### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
3,0 4,0	1,2	21504	1213,85	68484	0,8	MR975-3E100L/4D	6,26	1131	135	IE3
	1,3	19187	1082,31	87173	0,9	NR975-3E100L/4D		1181		
	1,6	16256	914,74	105024	1,1	MR975-2E100L/4C	6,42	1129		IE2
	1,7	14968	842,80	111316	1,2	NR975-2E100L/4C		1179		
	1,9	13350	750,24	118765	1,3					
	2,2	11812	662,54	125117	1,5					
	2,5	10517	588,87	129906	1,7					
	2,7	9752	546,94	132691	1,8					
	2,8	9295	510,11	134243	1,9	MR974-3E100L/4D	6,26	1145	134	IE3
	3,2	8353	457,99	137305	2,2	NR974-3E100L/4D		1195		
	3,7	7119	390,41	141059	2,5	MR974-2E100L/4C	6,42	1143		IE2
	4,2	6284	344,17	143447	2,9	NR974-2E100L/4C		1193		
	4,7	5581	305,33	145364	3,2					
	2,8	9402	345,67	90007	1,4	MR874-3E132S/6B	6,55	619	131	IE3
						NR874-3E132S/6B		624		
						MR874-2E132S/6A	6,85	614		IE2
						NR874-2E132S/6A		619		
	3,2	8095	446,42	95060	1,6	MR874-3E100L/4D	6,26	604	131	IE3
	3,7	7098	390,74	98451	1,8	NR874-3E100L/4D		609		
	4,2	6290	345,67	101078	2,1	MR874-2E100L/4C	6,42	602		IE2
	5,0	5327	292,15	103984	2,4	NR874-2E100L/4C		607		
	6,1	4374	239,61	106644	3,0					
	6,9	3869	211,60	107969	3,4					
	7,7	3444	188,08	109043	3,8					
	8,3	3193	174,68	110099	4,0					
	9,8	2705	147,61	115458	4,0					
	12	2308	125,70	118854	4,0					
	13	1980	107,60	121258	4,0					
	3,5	7598	418,17	50336	1,1	MR774-3E100L/4D	6,26	320	128	IE3
	4,0	6562	361,62	53959	1,2	NR774-3E100L/4D		391		
						MR774-2E100L/4C	6,42	318		IE2
						NR774-2E100L/4C		389		
	4,6	5781	208,82	56440	1,4	MR773-3E132S/6B	6,55	317	127	IE3
	5,4	4956	178,78	58748	1,6	NR773-3E132S/6B		383		
	6,5	4124	148,73	60850	1,9	MR773-2E132S/6A	6,85	312		IE2
	7,3	3693	133,05	61793	2,2	NR773-2E132S/6A		378		
	8,4	3191	115,06	63024	2,5					
	9,7	2767	99,63	63850	2,9					
	11	2423	87,13	64534	3,3					
	13	2139	76,81	65077	3,7					
	14	1899	68,15	66229	4,0					
	6,5	4135	149,11	27341	1,0	MR673-3E132S/6B	6,55	226	124	IE3
	7,8	3441	124,07	30850	1,2	NR673-3E132S/6B		228		
	8,8	3070	110,55	32471	1,4	MR673-2E132S/6A	6,85	221		IE2
	10	2613	94,17	34257	1,6	NR673-2E132S/6A		223		
	12	2249	80,96	35537	1,9					
	14	1955	70,26	36494	2,2					
	16	1711	61,42	37234	2,5					
	18	1506	53,99	36465	2,9					
	18	1468	52,68	36219	2,9					
	21	1264	45,29	34729	3,4					
	25	1099	39,30	33361	3,9					
	28	962	34,36	32093	4,0					

\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

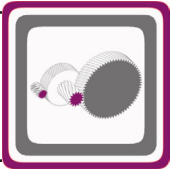




# Motorlu Güç Devir Sayfaları

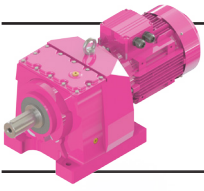
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per. O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*	
Power	Output Speeds	Output Torque	Ratio	Per. O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class	
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul. Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse	
3,0 4,0	8,7	3111	167,32	19059	1,0	MR573-3E100L/4D	6,26	144	121	IE3	
	9,4	2856	153,61	20666	1,1	NR573-3E100L/4D		138			
	11	2503	134,45	22555	1,2	MR573-2E100L/4C	6,42	142		IE2	
	12	2217	118,95	23939	1,4	NR573-2E100L/4C		136			
	14	1877	100,53	25413	1,6						
	18	1540	82,45	26678	1,9						
	20	1362	72,81	27295	2,2						
	22	1212	64,72	26831	2,5						
	26	1027	54,74	25667	2,9						
	30	916	48,74	24870	3,3						
	36	751	39,98	23535	3,8						
	41	664	35,31	22718	4,0						
	46	591	31,38	21958	4,0						
		16	1711	91,58	12963	0,9	MR473-3E100L/4D	6,26	109	118	IE3
		17	1617	86,52	14572	1,0	NR473-3E100L/4D		112		
		17	1577	84,46	15128	1,0	MR473-2E100L/4C	6,42	107		IE2
20		1367	73,09	15967	1,1	NR473-2E100L/4C		110			
23		1192	63,70	15605	1,3						
26		1046	55,82	15229	1,5						
30		920	49,05	14841	1,7						
34		803	42,75	14412	1,9						
39		704	37,45	13990	2,2						
	44	628	22,15	13591	2,5	MR472-3E132S/6B	6,55	119	118	IE3	
	52	531	18,72	13041	2,9	NR472-3E132S/6B		122			
	56	489	17,25	12773	3,0	MR472-2E132S/6A	6,85	114		IE2	
	63	436	15,35	12394	3,3	NR472-2E132S/6A		117			
	27	991	53,04	6831	0,8	MR373-3E100L/4D	6,26	69	115	IE3	
	30	898	48,00	6834	0,9	NR373-3E100L/4D		72			
	35	769	41,16	6798	1,1	MR373-2E100L/4C	6,42	67		IE2	
	41	660	35,25	6719	1,2	NR373-2E100L/4C		70			
	49	554	29,47	6587	1,4						
	57	475	25,27	6445	1,5						
	62	443	23,33	8279	1,8	MR372-3E100L/4D	6,26	67	115	IE3	
	70	392	20,62	8271	2,0	NR372-3E100L/4D		69			
	79	351	18,45	7929	2,1	MR372-2E100L/4C	6,42	65		IE2	
	90	308	16,20	7551	2,3	NR372-2E100L/4C		67			
	107	258	13,53	7061	2,6						
	116	238	12,48	6852	2,7						
	134	206	10,80	6498	3,0						
	154	180	9,41	6179	3,3						
	176	158	8,25	5890	3,6						
	47	578	30,82	5034	0,8	MR283-3E100L/4D	6,26	61	112	IE3	
						NR283-3E100L/4D		63			
						MR283-2E100L/4C	6,42	59		IE2	
						NR283-2E100L/4C		61			
	57	479	25,23	4803	1,1	MR282-3E100L/4D	6,26	59	112	IE3	
	67	411	21,66	5284	1,2	NR282-3E100L/4D		61			
	76	362	19,06	5589	1,3	MR282-2E100L/4C	6,42	57		IE2	
	86	322	16,91	5806	1,5	NR282-2E100L/4C		59			
	101	272	14,31	6014	1,6						
	118	233	12,24	5838	1,8						
	137	202	10,57	5523	2,0						
	151	184	9,61	5331	2,2						
	174	159	8,33	5055	2,5						

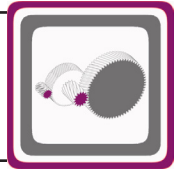
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

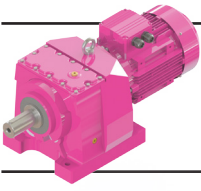
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
3,0 4,0	201	138	7,21	4794	2,7	MR282-3E100L/4D	6,26	59	112	IE3
	232	119	6,25	4614	3,0	NR282-3E100L/4D		61		
	271	102	5,35	4355	3,1	MR282-2E100L/4C	6,42	57		IE2
	314	88	4,62	4125	3,2	NR282-2E100L/4C		59		
	345	80	4,20	3985	3,2					
	398	70	3,64	3783	3,5					
	57	480	25,55	855	0,9	MR273-3E100L/4D	6,26	51	110	IE3
						NR273-3E100L/4D		53		
						MR273-2E100L/4C	6,42	49		IE2
						NR273-2E100L/4C		51		
68 79 90 102 121 143 167 233 274 320	407	21,43	1680	1,1	MR272-3E100L/4D	6,26	50	110	IE3	
	348	18,33	2254	1,3	NR272-3E100L/4D		52			
	306	16,07	2639	1,4	MR272-2E100L/4C	6,42	48		IE2	
	271	14,21	2932	1,5	NR272-2E100L/4C		50			
	228	11,95	3246	1,7						
	194	10,16	3455	1,9						
	166	8,71	3591	2,2						
	119	6,21	3454	2,8						
	101	5,28	3496	2,6						
	87	4,53	3357	2,7						
	90	304	16,03	2273	0,8	MR202-3E100L/4D	6,26	50	109	IE3
	98	283	14,86	2529	0,8	NR202-3E100L/4D		52		
	104	265	13,92	2726	0,9	MR202-2E100L/4C	6,42	48		IE2
	119	232	12,18	3069	1,0	NR202-2E100L/4C		50		
134	206	10,81	3314	1,0						
144	192	10,07	3434	1,1						
173	160	8,40	3671	1,2						
206	134	7,04	3819	1,4						
250	111	5,80	3447	1,6						
286	97	5,08	3527	1,7						
322	86	4,50	3570	1,7						
345	80	4,20	3489	1,8						
414	67	3,50	3255	1,9						
502 574 647 694 833	55	5,80	3026	2,5	MR202-3E100L/2C	5,58	48	109	IE3	
	48	5,08	2879	2,6	NR202-3E100L/2C		50			
	43	4,50	2755	2,8	MR202-2E100L/2B	5,80	46		IE2	
	40	4,20	2684	2,9	NR202-2E100L/2B		48			
	33	3,50	2512	3,0						
115 131 152 162 191 220 251 303 355 429	241	12,66	225	0,8	MR172-3E100L/4D	6,26	40	108	IE3	
	211	11,08	556	0,9	NR172-3E100L/4D		41			
	182	9,53	458	0,9	MR172-2E100L/4C	6,42	38		IE2	
	170	8,94	594	1,0	NR172-2E100L/4C		39			
	145	7,60	887	1,1						
	126	6,60	1088	1,2						
	110	5,78	1242	1,2						
	91	4,78	1406	1,4						
	78	4,09	1364	1,5						
	65	3,38	1466	1,7						
441 505 610 713 863	63	6,60	1589	2,0	MR172-3E100L/2C	5,58	40	108	IE3	
	55	5,78	1619	2,2	NR172-3E100L/2C		41			
	45	4,78	1640	2,4	MR172-2E100L/2B	5,80	38		IE2	
	39	4,09	1571	2,6	NR172-2E100L/2B		39			
	32	3,38	1567	2,6						

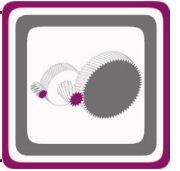
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

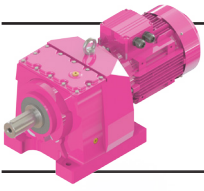
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per. O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor* Verim Snf.
Power	Output Speeds	Output Torque	Ratio	Per. O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
4,0 5,5	1,7	19821	<b>842,80</b>	82433	0,9	<b>MR975-3E112M/4D</b>	8,05	1137	135	IE3
	1,9	17678	<b>750,24</b>	97186	1,0	<b>NR975-3E112M/4D</b>		1187		
	2,2	15641	<b>662,54</b>	108230	1,2	<b>MR975-2E112M/4C</b>	8,20	1135		IE2
	2,5	13927	<b>588,87</b>	116428	1,3	<b>NR975-2E112M/4C</b>		1185		
	2,7	12913	<b>546,94</b>	120825	1,4					
	2,9	12308	<b>510,11</b>	123313	1,5	<b>MR974-3E112M/4D</b>	8,05	1187	134	IE3
	3,2	11061	<b>457,99</b>	128136	1,6	<b>NR974-3E112M/4D</b>		1237		
	3,7	9428	<b>390,41</b>	133687	1,9	<b>MR974-2E112M/4C</b>	8,20	1185		IE2
	4,2	8321	<b>344,17</b>	137316	2,2	<b>NR974-2E112M/4C</b>		1235		
	4,8	7390	<b>305,33</b>	140184	2,4					
	5,4	6596	<b>272,24</b>	142505	2,7					
	6,8	5244	<b>216,03</b>	146207	3,4					
	2,8	12536	<b>345,67</b>	75126	1,0	<b>MR874-3E132M/6C</b>	8,52	627	131	IE3
	3,3	10618	<b>292,15</b>	84759	1,2	<b>NR874-3E132M/6C</b>		632		
						<b>MR874-2E132M/6B</b>	8,80	622		IE2
						<b>NR874-2E132M/6B</b>		627		
	3,7	9399	<b>390,74</b>	90037	1,4	<b>MR874-3E112M/4D</b>	8,05	623	131	IE3
	4,2	8329	<b>345,67</b>	94199	1,6	<b>NR874-3E112M/4D</b>		628		
	5,0	7055	<b>292,15</b>	98633	1,8	<b>MR874-2E112M/4C</b>	8,20	621		IE2
	6,1	5792	<b>239,61</b>	102551	2,2	<b>NR874-2E112M/4C</b>		626		
	7,8	4561	<b>188,08</b>	106097	2,9					
	8,4	4228	<b>174,68</b>	106993	3,1					
	8,8	4078	<b>110,17</b>	107463	3,2	<b>MR873-3E132M/6C</b>	8,52	592	130	IE3
	9,7	3695	<b>99,81</b>	108446	3,5	<b>NR873-3E132M/6C</b>		597		
						<b>MR873-2E132M/6B</b>	8,80	587		IE2
						<b>NR873-2E132M/6B</b>		592		
	4,6	7714	<b>208,82</b>	49983	1,0	<b>MR773-3E132M/6C</b>	8,52	329	127	IE3
	5,4	6614	<b>178,78</b>	53856	1,2	<b>NR773-3E132M/6C</b>		397		
	6,5	5504	<b>148,73</b>	57240	1,5	<b>MR773-2E132M/6B</b>	8,80	324		IE2
	7,3	4929	<b>133,05</b>	58820	1,6	<b>NR773-2E132M/6B</b>		392		
	8,4	4259	<b>115,06</b>	60524	1,9					
	9,7	3693	<b>99,63</b>	61795	2,2					
	11	3234	<b>87,13</b>	62923	2,5					
	13	2854	<b>76,81</b>	63672	2,8					
	14	2535	<b>68,15</b>	64315	3,2					
	8,3	4310	<b>174,89</b>	26324	1,0	<b>MR673-3E112M/4D</b>	8,05	224	124	IE3
	9,8	3680	<b>149,11</b>	29726	1,2	<b>NR673-3E112M/4D</b>		233		
	12	3064	<b>124,07</b>	32500	1,4	<b>MR673-2E112M/4C</b>	8,20	222		IE2
	13	2733	<b>110,55</b>	33811	1,6	<b>NR673-2E112M/4C</b>		231		
	16	2283	<b>61,42</b>	35422	1,9	<b>MR673-3E132M/6C</b>	8,52	224	124	IE3
	18	2009	<b>53,99</b>	35379	2,1	<b>NR673-3E132M/6C</b>		232		
	18	1960	<b>52,68</b>	35160	2,2	<b>MR673-2E132M/6B</b>	8,80	219		IE2
	21	1687	<b>45,29</b>	33818	2,5	<b>NR673-2E132M/6B</b>		227		
	25	1466	<b>39,30</b>	32570	2,9					
	28	1284	<b>34,36</b>	31402	3,3					
	32	1130	<b>30,20</b>	30300	3,7					
	12	2937	<b>118,95</b>	20176	1,0	<b>MR573-3E112M/4D</b>	8,05	149	121	IE3
	15	2486	<b>100,53</b>	22685	1,2	<b>NR573-3E112M/4D</b>		143		
	18	2040	<b>82,45</b>	24752	1,5	<b>MR573-2E112M/4C</b>	8,20	147		IE2
	20	1804	<b>72,81</b>	25715	1,7	<b>NR573-2E112M/4C</b>		141		

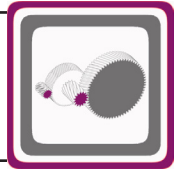
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

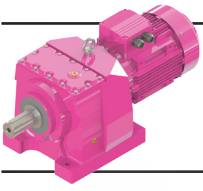
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
4,0 5,5	23	1605	64,72	25814	1,9	MR573-3E112M/4D	8,05	149	121	IE3
	27	1360	54,74	24800	2,2	NR573-3E112M/4D		143		
	30	1213	48,74	24094	2,5	MR573-2E112M/4C	8,20	147		IE2
	37	995	39,98	22891	2,9	NR573-2E112M/4C		141		
	41	880	35,31	22145	3,1					
	47	783	31,38	21445	3,4					
	54	681	27,00	20567	4,0	MR572-3E112M/4D	8,05	142	121	IE3
	63	581	23,02	19657	4,0	NR572-3E112M/4D		136		
						MR572-2E112M/4C	8,20	140		IE2
						NR572-2E112M/4C		134		
	20	1810	73,09	10931	0,9	MR473-3E112M/4D	8,05	122	118	IE3
	23	1580	63,70	14370	1,0	NR473-3E112M/4D		130		
	26	1386	55,82	14143	1,1	MR473-2E112M/4C	8,20	120		IE2
	30	1219	49,05	13884	1,3	NR473-2E112M/4C		128		
	34	1064	42,75	13575	1,5					
	39	933	37,45	13253	1,7					
	47	772	30,93	12756	2,0					
	57	642	25,67	12247	2,4					
	66	559	22,15	11834	2,6	MR472-3E112M/4D	8,05	115	118	IE3
	78	473	18,72	11358	3,1	NR472-3E112M/4D		123		
	85	435	17,25	11126	3,0	MR472-2E112M/4C	8,20	113		IE2
	95	388	15,35	10797	3,2	NR472-2E112M/4C		121		
	41	874	35,25	5913	0,9	MR373-3E112M/4D	8,05	76	115	IE3
	50	734	29,47	5910	1,0	NR373-3E112M/4D		78		
	58	629	25,27	5863	1,1	MR373-2E112M/4C	8,20	74		IE2
	67	539	21,65	5782	1,2	NR373-2E112M/4C		76		
	71	520	20,62	6457	1,5	MR372-3E112M/4D	8,05	76	115	IE3
	79	465	18,45	6779	1,6	NR372-3E112M/4D		79		
	90	409	16,20	7066	1,7	MR372-2E112M/4C	8,20	74		IE2
	108	342	13,53	7172	2,0	NR372-2E112M/4C		77		
	117	315	12,48	6955	2,1					
	135	273	10,80	6586	2,3					
	155	238	9,41	6257	2,5					
	177	209	8,25	5957	2,7					
	213	173	6,84	5605	3,2					
	77	480	19,06	3648	1,0	MR282-3E112M/4D	8,05	69	112	IE3
	86	426	16,91	4081	1,1	NR282-3E112M/4D		71		
	102	361	14,31	4552	1,2	MR282-2E112M/4C	8,20	67		IE2
	119	309	12,24	4872	1,4	NR282-2E112M/4C		69		
	138	267	10,57	5086	1,5					
	152	243	9,61	5184	1,6					
	175	211	8,33	5133	1,9					
	202	183	7,21	4861	2,0					
	234	158	6,25	4693	2,3					
	273	135	5,35	4422	2,4					
	316	117	4,62	4182	2,4					
	348	107	4,20	4037	2,4					
	401	92	3,64	3827	2,6					
	463	80	3,15	3629	2,8					

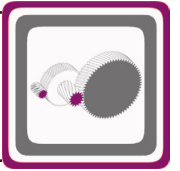
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

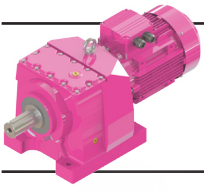
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per. O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*	
Power	Output Speeds	Output Torque	Ratio	Per. O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class	
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul. Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienzklasse	
4,0 5,5	545	68	5,35	3420	3,8	MR282-3E112M/2C NR282-3E112M/2C MR282-2E112M/2A NR282-2E112M/2A	7,28 7,50	69 70 66 67	112	IE3 IE2	
	77	472	19,00	-	0,9	MR273-3E112M/4D NR273-3E112M/4D MR273-2E112M/4C NR273-2E112M/4C	8,05 8,20	59 61 57 59	110	IE3 IE2	
	91 103 122 144 168 235 276 323	405 359 302 257 221 157 134 115	16,07 14,21 11,95 10,16 8,71 6,21 5,28 4,53	914 1405 1960 2361 2652 2693 2848 2946	1,0 1,1 1,3 1,5 1,6 2,1 2,0 2,0	MR272-3E112M/4D NR272-3E112M/4D MR272-2E112M/4C NR272-2E112M/4C	8,05 8,20	59 61 57 59	110	IE3 IE2	
	469 552 644	79 67 58	6,21 5,28 4,53	2962 2788 2633	3,6 2,9 3,1	MR272-3E112M/2C NR272-3E112M/2C MR272-2E112M/2A NR272-2E112M/2A	7,28 7,50	58 60 55 57	110	IE3 IE2	
	135 145 174 207 252 288 324 348 417	273 254 212 178 146 128 114 106 89	10,81 10,07 8,40 7,04 5,80 5,08 4,50 4,20 3,50	1872 2088 2548 2875 2520 2714 2849 2912 3030	0,8 0,8 0,9 1,0 1,2 1,2 1,3 1,4 1,4	MR202-3E112M/4D NR202-3E112M/4D MR202-2E112M/4C NR202-2E112M/4C	8,05 8,20	59 61 57 59	109	IE3 IE2	
	502 574 647 694 833	73 64 57 53 44	5,80 5,08 4,50 4,20 3,50	3088 2934 2803 2729 2550	1,8 1,9 2,1 2,2 2,3	MR202-3E112M/2C NR202-3E112M/2C MR202-2E112M/2A NR202-2E112M/2A	7,28 7,50	56 58 53 55	109	IE3 IE2	
	221 253 306 357 432	167 146 121 104 86	6,60 5,78 4,78 4,09 3,38	282 535 821 817 1013	0,9 0,9 1,1 1,2 1,3	MR172-3E112M/4D NR172-3E112M/4D MR172-2E112M/4C NR172-2E112M/4C	8,05 8,20	49 51 47 49	108	IE3 IE2	
	441 505 610 713 863	84 73 61 52 43	6,60 5,78 4,78 4,09 3,38	1180 1262 1344 1295 1339	1,5 1,6 1,8 1,9 2,0	MR172-3E112M/2C NR172-3E112M/2C MR172-2E112M/2A NR172-2E112M/2A	7,28 7,50	47 49 44 46	108	IE3 IE2	
	5,5 7,5	2,2 2,5 2,7	21507 19149 17756	662,54 588,87 546,94	68481 87436 96484	0,8 0,9 1,0	MR975-3E132S/4C NR975-3E132S/4C MR975-2E132S/4B NR975-2E132S/4B	10,65 11,05	1167 1217 1161 1211	135	IE3 IE2

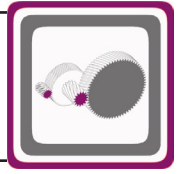
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

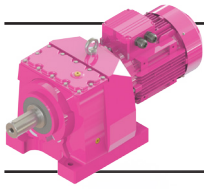
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor* Verim Snf.
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse
5,5 7,5	2,9	16923	510,11	101358	1,1	MR974-3E132S/4C	10,65	1217	134	IE3
	3,2	15209	457,99	110131	1,2	NR974-3E132S/4C		1267		
	3,7	12963	390,41	120425	1,4	MR974-2E132S/4B	11,05	1211		IE2
	4,2	11441	344,17	126552	1,6	NR974-2E132S/4B		1261		
	4,8	10161	305,33	131221	1,8					
	5,4	9070	272,24	135142	2,0					
	6,8	7210	216,03	140792	2,5					
	7,6	6458	193,13	142959	2,8					
	8,5	5765	172,08	144871	3,1					
		4,2	11452	345,67	80614	1,1	MR874-3E132S/4C	10,65	632	131
	5,0	9700	292,15	88651	1,3	NR874-3E132S/4C		637		
	6,1	7964	239,61	95432	1,6	MR874-2E132S/4B	11,05	626		IE2
	6,9	7044	211,60	98670	1,8	NR874-2E132S/4B		631		
	7,8	6271	188,08	101138	2,1					
	8,4	5814	174,68	102544	2,2					
	9,9	4925	147,61	105133	2,6					
	12	4203	125,70	107100	3,1					
	6,5	7573	148,73	50526	1,1	MR773-3E132M/6D	11,55	329	127	IE3
						NR773-3E132M/6D		397		
						MR773-2E132M/6C	12,00	324		IE2
						NR773-2E132M/6C		392		
	7,0	7075	208,82	52227	1,1	MR773-3E132S/4C	10,65	337	127	IE3
	8,2	6066	178,78	55529	1,3	NR773-3E132S/4C		405		
	9,8	5049	148,73	58498	1,6	MR773-2E132S/4B	11,05	331		IE2
	11	4521	133,05	59836	1,8	NR773-2E132S/4B		399		
	13	3907	115,06	61334	2,0					
	15	3388	99,63	62514	2,4					
	17	2967	87,13	63418	2,7					
	19	2619	76,81	64130	3,1					
	21	2326	68,15	64706	3,4					
	12	4213	124,07	26896	1,0	MR673-3E132S/4C	10,65	248	124	IE3
	13	3758	110,55	29275	1,1	NR673-3E132S/4C		258		
	16	3199	94,17	31883	1,3	MR673-2E132S/4B	11,05	242		IE2
	18	2754	80,96	33692	1,6	NR673-2E132S/4B		252		
	21	2394	70,26	32677	1,8					
	24	2095	61,42	31668	2,1					
	27	1844	53,99	30693	2,3					
	28	1799	52,68	30506	2,4					
	32	1549	45,29	29360	2,7					
	37	1346	39,30	28291	3,0					
	42	1178	34,36	27288	3,2					
	48	1037	30,20	26340	3,5					
	18	2806	82,45	20959	1,1	MR573-3E132S/4C	10,65	176	121	IE3
	20	2481	72,81	22669	1,2	NR573-3E132S/4C		170		
	23	2207	64,72	23984	1,4	MR573-2E132S/4B	11,05	170		IE2
	27	1870	54,74	23571	1,6	NR573-2E132S/4B		164		
	30	1669	48,74	23000	1,8					
	37	1368	39,98	21994	2,1					
	41	1210	35,31	21352	2,3					
	47	1077	31,38	20741	2,5					
	54	937	27,00	19961	2,9	MR572-3E132S/4C	10,65	167	121	IE3
	63	800	23,02	19140	3,3	NR572-3E132S/4C		160		
	54	937	27,00	19961	2,9	MR572-2E132S/4B	11,05	161		IE2
	63	800	23,02	19140	3,3	NR572-2E132S/4B		154		

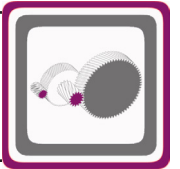
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

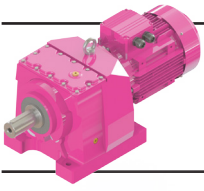
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Snf.*
Power	Output Speeds	Output Torque	Ratio	Per. O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul. Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse
5,5 7,5	76	666	19,15	18208	3,8	MR572-3E132S/4C	10,65	167	121	IE3
	86	594	17,07	17634	4,0	NR572-3E132S/4C		160		
						MR572-2E132S/4B	11,05	161		IE2
						NR572-2E132S/4B		154		
	26	1906	55,82	8412	0,8	MR473-3E132S/4C	10,65	143	118	IE3
	30	1676	49,05	12479	0,9	NR473-3E132S/4C		145		
	34	1463	42,75	12351	1,1	MR473-2E132S/4B	11,05	137		IE2
	39	1283	37,45	12181	1,2	NR473-2E132S/4B		139		
	47	1062	30,93	11870	1,5					
	57	882	25,67	11512	1,8					
	66	769	22,15	11200	1,9	MR472-3E132S/4C	10,65	138	118	IE3
	78	650	18,72	10822	2,2	NR472-3E132S/4C		141		
	85	599	17,25	10632	2,2	MR472-2E132S/4B	11,05	132		IE2
	95	534	15,35	10358	2,3	NR472-2E132S/4B		135		
	108	472	13,56	10060	2,6					
	121	420	12,05	9776	2,8					
	135	375	10,79	9455	2,9					
	153	332	9,53	9162	3,2					
	58	865	25,27	5001	0,8	MR373-3E132S/4C	10,65	97	115	IE3
	67	742	21,65	5044	0,9	NR373-3E132S/4C		99		
	71	707	20,64	4882	0,9	MR373-2E132S/4B	11,05	91		IE2
	78	641	18,68	4894	1,0	NR373-2E132S/4B		93		
	90	562	16,20	4684	1,3	MR372-3E132S/4C	10,65	97	115	IE3
	108	470	13,53	5341	1,4	NR372-3E132S/4C		99		
	117	433	12,48	5572	1,5	MR372-2E132S/4B	11,05	91		IE2
	135	375	10,80	5899	1,7	NR372-2E132S/4B		93		
	155	328	9,41	6122	1,8					
	177	287	8,25	6076	1,9					
	213	238	6,84	5720	2,3					
	245	208	5,97	5429	2,5					
	279	182	5,23	5165	2,8					
	295	173	4,96	5131	2,7					
	340	150	4,29	4857	3,0					
	390	131	3,74	4612	3,1					
	311	163	9,41	4921	2,8	MR372-3E132S/2B	9,90	90	115	IE3
	355	143	8,25	4688	3,1	NR372-3E132S/2B		92		
	428	119	6,84	4410	3,6	MR372-2E132S/2A	10,20	86		IE2
	491	103	5,97	4194	4,0	NR372-2E132S/2A		88		
	561	91	5,23	3998	4,0					
	591	86	4,96	3956	4,0					
	683	74	4,29	3753	4,0					
	784	65	3,74	3571	4,0					
	102	496	14,31	2350	0,9	MR282-3E132S/4C	10,65	90	112	IE3
	119	425	12,24	2987	1,0	NR282-3E132S/4C		92		
	138	367	10,57	3459	1,1	MR282-2E132S/4B	11,05	84		IE2
	152	335	9,61	3705	1,2	NR282-2E132S/4B		86		
	175	290	8,33	4003	1,3					
	202	251	7,21	4226	1,5					
	234	217	6,25	3795	1,7					
	273	186	5,35	3989	1,7					
	316	161	4,62	4111	1,7					
	348	147	4,20	4128	1,8					
	401	127	3,64	3906	1,9					
	463	110	3,15	3698	2,0					

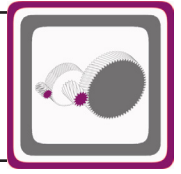
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

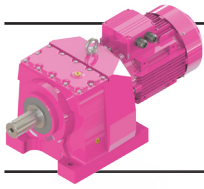
### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*	
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class	
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse	
5,5 7,5	551	92	5,35	3466	2,8	MR282-3E132S/2B	9,90	84	112	IE3	
	638	80	4,62	3281	2,9	NR282-3E132S/2B		86			
	701	72	4,20	3168	2,9	MR282-2E132S/2A	10,20	80		IE2	
	809	63	3,64	3006	3,0	NR282-2E132S/2A		82			
	935	54	3,15	2852	3,1						
	122	415	11,95	-	0,9	MR272-3E132S/4C	10,65	81	110	IE3	
	144	354	10,16	708	1,1	NR272-3E132S/4C		83			
	168	303	8,71	1236	1,2	MR272-2E132S/4B	11,05	75		IE2	
	235	216	6,21	1548	1,5	NR272-2E132S/4B		77			
	276	184	5,28	1874	1,4						
	323	158	4,53	2112	1,5						
	396	129	3,69	2087	1,6						
	462	110	3,16	2238	1,8						
	474	107	6,21	2467	2,6	MR272-3E132S/2B	9,90	75	110	IE3	
	557	91	5,28	2539	2,1	NR272-3E132S/2B		79			
	651	78	4,53	2576	2,3	MR272-2E132S/2A	10,20	71		IE2	
							NR272-2E132S/2A		73		
	7,5 10	3,2	20669	457,99	76047	0,9	MR974-3E132M/4D	14,40	1168	134	IE3
3,8		17616	390,41	97327	1,0	NR974-3E132M/4D		1218			
4,3		15549	344,17	108424	1,2	MR974-2E132M/4C	15,00	1163		IE2	
4,8		13809	305,33	116736	1,3	NR974-2E132M/4C		1213			
5,2		13010	186,95	120420	1,4	MR973-3E160M/6	15,00	1115	133	IE3	
5,8		11616	166,73	126036	1,5	NR973-3E160M/6		1165			
6,5		10463	150,02	130315	1,7	MR973-2E160M/6	15,00	1115		IE2	
7,3		9256	132,83	134478	1,9	NR973-2E160M/6		1165			
8,3		8108	116,17	138161	2,2						
9,4		7176	102,69	140965	2,5						
11		6405	91,56	142982	2,8						
12		5757	82,20	144783	3,1						
5,0		13182	292,15	71383	1,0	MR874-3E132M/4D	14,40	628	131	IE3	
6,1		10823	239,61	83659	1,2	NR874-3E132M/4D		633			
6,9		9573	211,60	89182	1,4	MR874-2E132M/4C	15,00	623		IE2	
7,8		8522	188,08	93365	1,5	NR874-2E132M/4C		628			
8,4		7901	174,68	95659	1,6						
8,8		7647	110,17	96658	1,7	MR873-3E160M/6	15,00	635	130	IE3	
9,7		6928	99,81	99100	1,9	NR873-3E160M/6		640			
11		6004	86,51	102028	2,2	MR873-2E160M/6	15,00	635		IE2	
13		5241	75,51	104284	2,5	NR873-2E160M/6		640			
15		4496	64,77	106230	2,9						
17		3925	56,54	107756	3,3						
8,2		8246	178,78	47910	1,0	MR773-3E132M/4D	14,40	357	127	IE3	
9,9		6863	148,73	52957	1,2	NR773-3E132M/4D		443			
11		6146	133,05	55281	1,3	MR773-2E132M/4C	15,00	352		IE2	
13		5311	115,06	57788	1,5	NR773-2E132M/4C		338			
15		4606	99,63	59702	1,7						
17		4034	87,13	61034	2,0						
19		3561	76,81	62131	2,2						
21	3162	68,15	63005	2,5							

\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

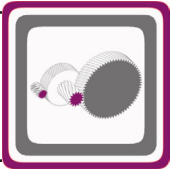




# Motorlu Güç Devir Sayfaları

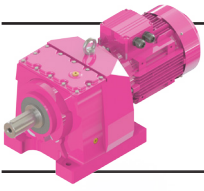
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*	
Power	Output Speeds	Output Torque	Ratio	Per. O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class	
Leistung P <sub>g</sub> [KW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul. Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienzklasse	
7,5 10	16	4349	<b>94,17</b>	26093	1,0	<b>MR673-3E132M/4D</b>	14,40	246	124	IE3	
	18	3744	<b>80,96</b>	29344	1,1	<b>NR673-3E132M/4D</b>		257			
	21	3254	<b>70,26</b>	30780	1,3	<b>MR673-2E132M/4C</b>	15,00	241		IE2	
	24	2848	<b>61,42</b>	30006	1,5	<b>NR673-2E132M/4C</b>		252			
	27	2507	<b>53,99</b>	29229	1,7						
	28	2445	<b>52,68</b>	29077	1,8						
	32	2106	<b>45,29</b>	28127	2,0						
	37	1830	<b>39,30</b>	27218	2,2						
	43	1602	<b>34,36</b>	26347	2,4						
	49	1410	<b>30,20</b>	25510	2,6						
		63	1094	<b>23,18</b>	23803	3,4	<b>MR672-3E132M/4D</b>	14,40	241	124	IE3
		71	980	<b>20,74</b>	23095	3,7	<b>NR672-3E132M/4D</b>		251		
							<b>MR672-2E132M/4C</b>	15,00	236		IE2
							<b>NR672-2E132M/4C</b>		246		
		23	3001	<b>64,72</b>	19779	1,0	<b>MR573-3E132M/4D</b>	14,40	180	121	IE3
		27	2542	<b>54,74</b>	21922	1,2	<b>NR573-3E132M/4D</b>		173		
		30	2268	<b>48,74</b>	21529	1,3	<b>MR573-2E132M/4C</b>	15,00	175		IE2
		37	1860	<b>39,98</b>	20784	1,5	<b>NR573-2E132M/4C</b>		168		
		41	1645	<b>35,31</b>	20281	1,7					
		47	1464	<b>31,38</b>	19787	1,8					
		54	1273	<b>27,00</b>	19138	2,2	<b>MR572-3E132M/4D</b>	14,40	173	121	IE3
		64	1087	<b>23,02</b>	18436	2,4	<b>NR572-3E132M/4D</b>		166		
		76	905	<b>19,15</b>	17620	2,8	<b>MR572-2E132M/4C</b>	15,00	168		IE2
		86	807	<b>17,07</b>	17108	3,0	<b>NR572-2E132M/4C</b>		161		
		101	687	<b>14,54</b>	16401	3,5					
		117	591	<b>12,50</b>	15743	3,9					
		39	1744	<b>37,45</b>	10751	0,9	<b>MR473-3E132M/4D</b>	14,40	150	118	IE3
		47	1443	<b>30,93</b>	10687	1,1	<b>NR473-3E132M/4D</b>		153		
		57	1200	<b>25,67</b>	10528	1,3	<b>MR473-2E132M/4C</b>	15,00	145		IE2
							<b>NR473-2E132M/4C</b>		148		
		66	1045	<b>22,15</b>	10350	1,4	<b>MR472-3E132M/4D</b>	14,40	143	118	IE3
		78	884	<b>18,72</b>	10102	1,6	<b>NR472-3E132M/4D</b>		146		
		85	814	<b>17,25</b>	9968	1,6	<b>MR472-2E132M/4C</b>	15,00	138		IE2
		95	726	<b>15,35</b>	9766	1,7	<b>NR472-2E132M/4C</b>		141		
		108	641	<b>13,56</b>	9537	1,9					
		122	571	<b>12,05</b>	9310	2,0					
		136	510	<b>10,79</b>	9017	2,2					
		154	451	<b>9,53</b>	8774	2,3					
		173	401	<b>8,47</b>	8540	2,6					
		186	372	<b>7,87</b>	8391	2,7					
		220	315	<b>6,65</b>	8051	3,1					
		90	767	<b>16,20</b>	1533	0,9	<b>MR372-3E132M/4D</b>	14,40	104	115	IE3
		108	641	<b>13,53</b>	2708	1,0	<b>NR372-3E132M/4D</b>		106		
	117	591	<b>12,48</b>	3143	1,1	<b>MR372-2E132M/4C</b>	15,00	99		IE2	
	136	512	<b>10,80</b>	3795	1,2	<b>NR372-2E132M/4C</b>		101			
	156	447	<b>9,41</b>	4287	1,3						
	178	392	<b>8,25</b>	4659	1,4						
	214	325	<b>6,84</b>	4633	1,7						
	246	284	<b>5,97</b>	4879	1,9						
	280	249	<b>5,23</b>	5050	2,1						

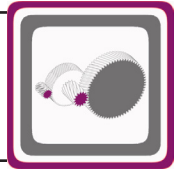
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

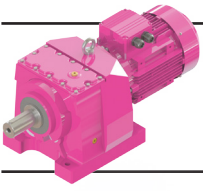
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
7,5 10	313	222	9,41	5002	2,1	MR372-3E132S/2C	13,20	93	115	IE3
	357	194	8,25	4759	2,3	NR372-3E132S/2C		95		
	430	161	6,84	4479	2,7	MR372-2E132S/2B	13,60	88		IE2
	494	141	5,97	4254	3,0	NR372-2E132S/2B		90		
	563	123	5,23	4050	3,2					
	594	117	4,96	4018	3,2					
	686	101	4,29	3806	3,5					
	788	88	3,74	3617	3,7					
	899	77	3,28	3445	3,9					
		139	500	10,57	1307	0,8	MR282-3E132M/4D	14,40	96	112
	152	455	9,61	1746	0,9	NR282-3E132M/4D		98		
	176	394	8,33	2305	1,0	MR282-2E132M/4C	15,00	91		IE2
	203	341	7,21	2755	1,1	NR282-2E132M/4C		93		
	234	296	6,25	2308	1,2					
	274	253	5,35	2715	1,3					
	317	219	4,62	3012	1,3					
	349	199	4,20	3163	1,3					
	403	172	3,64	3342	1,4					
	465	150	3,15	3469	1,5					
	551	126	5,35	3542	2,1	MR282-3E132S/2C	13,20	95	112	IE3
	638	109	4,62	3347	2,1	NR282-3E132S/2C		97		
	701	99	4,20	3229	2,1	MR282-2E132S/2B	13,60	90		IE2
	809	86	3,64	3058	2,2	NR282-2E132S/2B		92		
	935	74	3,15	2898	2,3					
	144	481	10,16	-	0,8	MR272-3E132M/4D	14,40	87	110	IE3
	168	412	8,71	-	0,9	NR272-3E132M/4D		89		
	236	294	6,21	-	1,1	MR272-2E132M/4C	15,00	82		IE2
	277	250	5,28	586	1,1	NR272-2E132M/4C		84		
	324	215	4,53	1008	1,1					
	397	175	3,69	1097	1,2					
	464	150	3,16	1389	1,3					
	474	146	6,21	1710	1,9	MR272-3E132S/2C	13,20	86	110	IE3
	557	125	5,28	1896	1,6	NR272-3E132S/2C		88		
	651	107	4,53	2025	1,7	MR272-2E132S/2B	13,60	81		IE2
						NR272-2E132S/2B		83		
11 15	5,2	19092	186,95	88052	0,9	MR973-3E160L/6	21,50	1151	133	IE3
	5,8	17047	166,73	100656	1,1	NR973-3E160L/6		1201		
	7,3	13584	132,83	117951	1,3	MR973-2E160L/6	22,00	1151		IE2
						NR973-2E160L/6		1201		
	7,9	12639	186,95	121960	1,4	MR973-3E160M/4C	21,00	1124	133	IE3
	8,8	11286	166,73	127289	1,6	NR973-3E160M/4C		1174		
	9,8	10167	150,02	131366	1,8	MR973-2E160M/4B	21,00	1134		IE2
	11	8994	132,83	135325	2,0	NR973-2E160M/4B		1184		
	13	7879	116,17	138864	2,3					
	14	6974	102,69	141553	2,6					
16	6225	91,56	143669	2,9						
18	5596	82,20	145376	3,2						
	8,8	11215	110,17	81975	1,2	MR873-3E160L/6	21,50	670	130	IE3
	9,7	10160	99,81	86825	1,3	NR873-3E160L/6		675		
	11	8806	86,51	92391	1,5	MR873-2E160L/6	22,00	670		IE2
	13	7687	75,51	96366	1,7	NR873-2E160L/6		675		
	15	6594	64,77	100069	2,0					

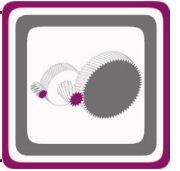
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

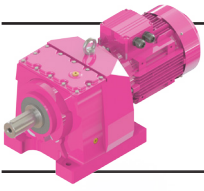
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Snf.*
Power	Output Speeds	Output Torque	Ratio	Per. O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung	Abtriebswelle Drehzahlen	Abtriebswelle Drehmomente	Übersetzung	Zul. Querkräfte (Abtrieb)	Betriebsfaktor	Typ	Nennstrom	Gewicht	Maße Seite	Motor Effizienzklasse
P <sub>g</sub> [KW] P <sub>g</sub> [HP]	n <sub>2</sub> [r.p.m]	M <sub>2</sub> [Nm]	i	F <sub>qam</sub> [N]	f <sub>s</sub>		[A]	[kg]		
11 15	13	7400	<b>110,17</b>	97507	1,8	<b>MR873-3E160M/4C</b>	21,00	661	130	IE3
	15	6705	<b>99,81</b>	99712	1,9	<b>NR873-3E160M/4C</b>		666		
	17	5811	<b>86,51</b>	102735	2,2	<b>MR873-2E160M/4B</b>	21,00	671		IE2
	19	5072	<b>75,51</b>	104765	2,6	<b>NR873-2E160M/4B</b>		676		
	23	4351	<b>64,77</b>	106745	3,0					
	26	3798	<b>56,54</b>	108184	3,4					
	28	3551	<b>52,86</b>	108779	3,7					
	11	8986	<b>133,05</b>	44711	0,9	<b>MR773-3E160M/4C</b>	21,00	429	127	IE3
	13	7765	<b>115,06</b>	49800	1,0	<b>NR773-3E160M/4C</b>		521		
	15	6734	<b>99,63</b>	53467	1,2	<b>MR773-2E160M/4B</b>	21,00	439		IE2
	17	5898	<b>87,13</b>	56099	1,4	<b>NR773-2E160M/4B</b>		531		
	19	5206	<b>76,81</b>	58078	1,5					
	22	4623	<b>68,15</b>	59610	1,7					
	24	4127	<b>60,76</b>	60845	1,9					
	25	3976	<b>58,59</b>	61203	2,0					
	29	3449	<b>50,75</b>	62406	2,3					
	33	3005	<b>44,17</b>	63359	2,7					
	37	2683	<b>39,33</b>	64020	3,0					
	42	2383	<b>34,89</b>	64611	3,4					
	47	2127	<b>31,11</b>	65098	3,8					
	49	2050	<b>30,00</b>	65243	3,9					
	24	4164	<b>61,42</b>	27133	1,0	<b>MR673-3E160M/4C</b>	21,00	298	124	IE3
	27	3665	<b>53,99</b>	26699	1,2	<b>NR673-3E160M/4C</b>		311		
	28	3575	<b>52,68</b>	26608	1,2	<b>MR673-2E160M/4B</b>	21,00	308		IE2
	32	3078	<b>45,29</b>	26002	1,4	<b>NR673-2E160M/4B</b>		321		
	37	2676	<b>39,30</b>	25370	1,5					
	43	2342	<b>34,36</b>	24729	1,6					
	49	2062	<b>30,20</b>	24085	1,8					
55	1823	<b>26,66</b>	23442	1,9						
63	1600	<b>23,18</b>	22704	2,3	<b>MR672-3E160M/4C</b>	21,00	296	124	IE3	
71	1433	<b>20,74</b>	22110	2,5	<b>NR672-3E160M/4C</b>		306			
82	1238	<b>17,93</b>	21331	2,8	<b>MR672-2E160M/4B</b>	21,00	306		IE2	
95	1073	<b>15,53</b>	20560	3,1	<b>NR672-2E160M/4B</b>		316			
108	940	<b>13,58</b>	19847	3,5						
123	829	<b>11,97</b>	19184	3,8						
37	2720	<b>39,98</b>	18691	1,1	<b>MR573-3E160M/4C</b>	21,00	229	121	IE3	
42	2405	<b>35,31</b>	18431	1,1	<b>NR573-3E160M/4C</b>		221			
47	2141	<b>31,38</b>	18140	1,2	<b>MR573-2E160M/4B</b>	21,00	239		IE2	
55	1814	<b>26,54</b>	17668	1,4	<b>NR573-2E160M/4B</b>		231			
64	1589	<b>23,02</b>	17224	1,7	<b>MR572-3E160M/4C</b>	21,00	226	121	IE3	
77	1323	<b>19,15</b>	16608	1,9	<b>NR572-3E160M/4C</b>		218			
86	1180	<b>17,07</b>	16205	2,1	<b>MR572-2E160M/4B</b>	21,00	236		IE2	
101	1004	<b>14,54</b>	15630	2,4	<b>NR572-2E160M/4B</b>		228			
118	865	<b>12,50</b>	15078	2,7						
136	751	<b>10,85</b>	14558	3,0						
155	658	<b>9,48</b>	14065	3,3						
176	579	<b>8,34</b>	13596	3,7						
198	514	<b>7,41</b>	13081	4,0						
68	1484	<b>21,74</b>	8663	1,0	<b>MR473-3E160M/4C</b>	21,00	198	118	IE3	
81	1233	<b>18,04</b>	8662	1,3	<b>NR473-3E160M/4C</b>		200			
					<b>MR473-2E160M/4B</b>	21,00	208		IE2	
					<b>NR473-2E160M/4B</b>		210			

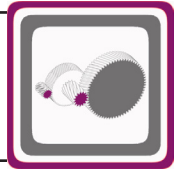
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

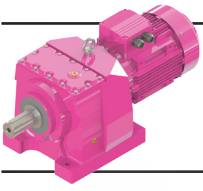
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-kategorie
11 15	85	1190	17,25	8819	1,1	MR472-3E160M/4C	21,00	196	118	IE3
	96	1061	15,35	8741	1,2	NR472-3E160M/4C		198		
	108	938	13,56	8631	1,3	MR472-2E160M/4B	21,00	206		IE2
	122	834	12,05	8504	1,4	NR472-2E160M/4B		208		
	136	746	10,79	8261	1,5					
	154	660	9,53	8105	1,6					
	174	587	8,47	7944	1,7					
	187	544	7,87	7838	1,9					
	221	460	6,65	7582	2,1					
	260	393	5,66	7327	2,4					
	301	340	4,89	6966	2,4					
	324	315	4,54	6853	2,3					
	383	266	3,83	6589	2,4					
429	238	3,27	6404	2,5						
15 20	7,3	18431	132,83	92255	1,0	MR973-3E180L/6	29,00	1227	133	IE3
						NR973-3E180L/6		1277		
						MR973-2E180L/6	29,00	1207		IE2
						NR973-2E180L/6		1257		
	7,9	17238	186,95	99559	1,0	MR973-3E160L/4D	29,00	1160	133	IE3
	8,8	15393	166,73	109734	1,2	NR973-3E160L/4D		1210		
	9,8	13866	150,02	116899	1,3	MR973-2E160L/4C	29,30	1157		IE2
	11	12267	132,83	123637	1,5	NR973-2E160L/4C		1207		
	13	10746	116,17	129424	1,7					
	14	9512	102,69	133728	1,9					
	16	8491	91,56	136978	2,1					
	18	7632	82,20	139612	2,4					
	21	6508	70,07	142944	2,8					
24	5745	61,77	145030	3,1						
27	5103	54,80	146712	3,5						
8,9	15215	110,17	57310	0,9	MR873-3E180L/6	29,00	695	130	IE3	
	13784	99,81	67627	0,9	NR873-3E180L/6		700			
	11947	86,51	78415	1,1	MR873-2E180L/6	29,00	675		IE2	
	10429	75,51	85637	1,2	NR873-2E180L/6		680			
	13	10091	110,17	87265	1,3	MR873-3E160L/4D	29,00	635	130	IE3
15	9143	99,81	91189	1,4	NR873-3E160L/4D		640			
17	7924	86,51	95767	1,6	MR873-2E160L/4C	29,30	632		IE2	
19	6917	75,51	99209	1,9	NR873-2E160L/4C		637			
23	5933	64,77	102335	2,2						
26	5179	56,54	104512	2,5						
28	4842	52,86	105493	2,7						
32	4224	46,12	107118	3,1						
36	3714	40,55	108429	3,5						
15	9184	99,63	43792	0,9	MR773-3E160L/4D	29,00	426	127	IE3	
	8044	87,13	48824	1,0	NR773-3E160L/4D		510			
	7100	76,81	52306	1,1	MR773-2E160L/4C	29,30	423		IE2	
	6306	68,15	54916	1,3	NR773-2E160L/4C		507			
	5629	60,76	56964	1,4						
	5423	58,59	57526	1,5						
	4704	50,75	59383	1,7						
	4099	44,17	60911	2,0						
	3659	39,33	61963	2,2						
	3251	34,89	62863	2,5						
	2902	31,11	63595	2,8						
	2796	30,00	63811	2,9						
	2425	25,99	64545	3,3						
2114	22,62	65137	3,8							

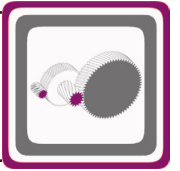
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

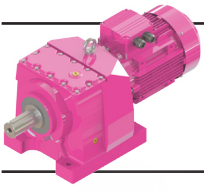
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor* Verim Snf.
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [KW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse
15 20	69	2015	21,40	65319	4,0	MR772-3E160L/4D NR772-3E160L/4D MR772-2E160L/4C NR772-2E160L/4C	29,00 29,30	396 480 393 477	127	IE3  IE2
	32 37 43 49 55	4199 3649 3195 2812 2486	45,29 39,30 34,36 30,20 26,66	23597 23284 22905 22481 22027	1,0 1,1 1,2 1,3 1,4	MR673-3E160L/4D NR673-3E160L/4D MR673-2E160L/4C NR673-2E160L/4C	29,00 29,30	325 337 322 334	124	IE3  IE2
	63 71 82 95 108 123 138 155 161 186	2182 1954 1688 1464 1282 1131 1005 896 864 749	23,18 20,74 17,93 15,53 13,58 11,97 10,62 9,47 9,13 7,91	21474 21009 20379 19736 19126 18548 17998 17473 17307 16656	1,7 1,8 2,1 2,3 2,5 2,8 3,1 3,4 3,5 3,9	MR672-3E160L/4D NR672-3E160L/4D MR672-2E160L/4C NR672-2E160L/4C	29,00 29,30	320 332 317 329	124	IE3  IE2
	47 55	2920 2474	31,38 26,54	16274 16090	0,9 1,0	MR573-3E160L/4D NR573-3E160L/4D MR573-2E160L/4C NR573-2E160L/4C	29,00 29,30	271 262 268 259	121	IE3  IE2
	64 77 86 101 118 136 155 176 198 228 261 297 337	2168 1804 1610 1370 1179 1025 897 789 702 610 534 469 415	23,02 19,15 17,07 14,54 12,50 10,85 9,48 8,34 7,41 6,43 5,63 4,95 4,37	15855 15470 15190 14765 14335 13913 13501 13101 12607 12178 11771 11383 11010	1,2 1,4 1,5 1,7 2,0 2,2 2,5 2,7 3,1 3,4 3,7 4,0 4,0	MR572-3E160L/4D NR572-3E160L/4D MR572-2E160L/4C NR572-2E160L/4C	29,00 29,30	265 257 262 254	121	IE3  IE2
	81	1681	18,04	7230	0,9	MR473-3E160L/4D NR473-3E160L/4D MR473-2E160L/4C NR473-2E160L/4C	29,00 29,30	222 225 219 222	118	IE3  IE2
	85 96 108 122 136 154 174 187 221 260 301 324 383 450	1624 1447 1279 1138 1018 900 801 742 628 536 463 430 364 310	17,25 15,35 13,56 12,05 10,79 9,53 8,47 7,87 6,65 5,66 4,89 4,54 3,83 3,27	7511 7577 7603 7590 7404 7349 7272 7213 7055 6877 6535 6452 6250 6047	0,8 0,9 0,9 1,0 1,1 1,2 1,3 1,4 1,6 1,7 1,7 1,8 1,9	MR472-3E160L/4D NR472-3E160L/4D MR472-2E160L/4C NR472-2E160L/4C	29,00 29,30	220 223 217 220	118	IE3  IE2

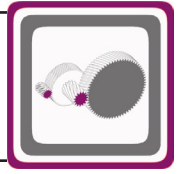
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

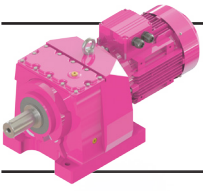
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*	
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class	
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse	
18,5 25	8,8	18921	166,73	89083	1,0	MR973-3E180M/4C	34,50	1187	133	IE3	
	9,8	17045	150,02	100675	1,1	NR973-3E180M/4C		1237			
	11	15079	132,83	111022	1,2	MR973-2E180M/4B	34,50	1187		IE2	
	13	13209	116,17	119563	1,4	NR973-2E180M/4B		1237			
	14	11692	102,69	125735	1,5						
	16	10437	91,56	130404	1,7						
	18	9382	82,20	134057	1,9						
	21	8000	70,07	138616	2,3						
	24	7062	61,77	141298	2,5						
	27	6272	54,80	143539	2,9						
	30	5599	48,86	145367	3,2						
	35	4852	42,30	147309	3,7						
		13	12862	75,51	73297	1,0	MR873-3G200L/6a	36,50	725	130	IE3
		15	11033	64,77	82825	1,2	NR873-3G200L/6a		730		
							MR873-2G200L/6a	36,50	725		IE2
							NR873-2G200L/6a		730		
		17	9740	86,51	88619	1,3	MR873-3E180M/4C	34,50	687	130	IE3
		20	8502	75,51	93547	1,5	NR873-3E180M/4C		692		
		23	7293	64,77	97873	1,8	MR873-2E180M/4B	34,50	687		IE2
		26	6366	56,54	100811	2,0	NR873-2E180M/4B		692		
		28	5951	52,86	102270	2,2					
		32	5192	46,12	104425	2,5					
		36	4565	40,55	106169	2,8					
		19	8727	76,81	45867	0,9	MR773-3E180M/4C	34,50	450	127	IE3
		22	7751	68,15	49852	1,0	NR773-3E180M/4C		542		
		24	6919	60,76	52845	1,2	MR773-2E180M/4B	34,50	450		IE2
		25	6666	58,59	53691	1,2	NR773-2E180M/4B		542		
		29	5782	50,75	56440	1,4					
		33	5039	44,17	58529	1,6					
		38	4498	39,33	59872	1,8					
		42	3996	34,89	61193	2,0					
		47	3567	31,11	62143	2,2					
		49	3437	30,00	62433	2,3					
		57	2981	25,99	63409	2,7					
		65	2598	22,62	64190	3,1					
	69	2477	21,40	64428	3,2	MR772-3E180M/4C	34,50	445	127	IE3	
	79	2160	18,63	65037	3,7	NR772-3E180M/4C		537			
						MR772-2E180M/4B	34,50	445		IE2	
						NR772-2E180M/4B		537			
	38	4486	39,30	21455	0,9	MR673-3E180M/4C	34,50	341	124	IE3	
	43	3927	34,36	21304	1,0	NR673-3E180M/4C		355			
	49	3457	30,20	21071	1,1	MR673-2E180M/4B	34,50	341		IE2	
	55	3056	26,66	20779	1,2	NR673-2E180M/4B		355			
	64	2682	23,18	20387	1,4	MR672-3E180M/4C	34,50	338	124	IE3	
	71	2402	20,74	20035	1,5	NR672-3E180M/4C		349			
	82	2075	17,93	19534	1,7	MR672-2E180M/4B	34,50	338		IE2	
	95	1799	15,53	19001	1,9	NR672-2E180M/4B		349			
	109	1576	13,58	18482	2,1						
	123	1391	11,97	17978	2,3						
	139	1235	10,62	17491	2,5						
	156	1102	9,47	17019	2,7						
	162	1062	9,13	16868	2,8						
	186	921	7,91	16274	3,2						
	214	802	6,88	15701	3,6						

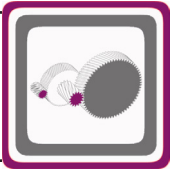
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

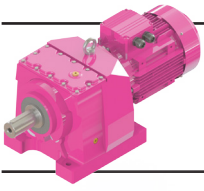
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor* Verim Snf.	
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class	
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse	
18,5 25	257	668	5,73	14781	4,0	MR672-3E180M/4C NR672-3E180M/4C	34,50	338 349	124	IE3	
						MR672-2E180M/4B NR672-2E180M/4B	34,50	338 349		IE2	
	77	2218	19,15	14469	1,1	MR572-3E180M/4C	34,50	289	121	IE3	
	86	1979	17,07	14297	1,2	NR572-3E180M/4C		277			
	101	1684	14,54	14002	1,4	MR572-2E180M/4B	34,50	289		IE2	
	118	1450	12,50	13677	1,6	NR572-2E180M/4B		277			
	136	1260	10,85	13341	1,8						
	156	1103	9,48	12999	2,0						
	177	970	8,34	12658	2,2						
	199	862	7,41	12183	2,5						
	229	749	6,43	11809	2,8						
	262	656	5,63	11447	3,0						
	298	577	4,95	11096	3,3						
	338	510	4,37	10756	3,6						
	22 30	109	1573	13,56	6706	0,8	MR472-3E180M/4C	34,50	269	118	IE3
122		1399	12,05	6792	0,8	NR472-3E180M/4C		272			
137		1251	10,79	6656	0,9	MR472-2E180M/4B	34,50	269		IE2	
155		1106	9,53	6687	0,9	NR472-2E180M/4B		272			
174		984	8,47	6683	1,0						
188		912	7,87	6666	1,1						
222		772	6,65	6591	1,3						
261		658	5,66	6481	1,4						
302		570	4,89	6155	1,4						
325		528	4,54	6098	1,3						
385		447	3,83	5951	1,5						
452		381	3,27	5791	1,5						
22 30		11	17933	132,83	95428	1,0	MR973-3E180L/4D	42,50	1212	133	IE3
		13	15709	116,17	107874	1,1	NR973-3E180L/4D		1262		
		14	13905	102,69	116512	1,3	MR973-2E180L/4C	42,50	1212		IE2
	16	12413	91,56	122880	1,5	NR973-2E180L/4C		1262			
	18	11157	82,20	127771	1,6						
	21	9514	70,07	133612	1,9						
	24	8398	61,77	137204	2,1						
	27	7460	54,80	140128	2,4						
	30	6659	48,86	142455	2,7						
	35	5771	42,30	144908	3,1						
	40	5094	37,29	146689	3,5						
	22 30	13	15296	75,51	56641	0,8	MR873-3G200L/6b	43,00	740	130	IE3
		15	13120	64,77	71797	1,0	NR873-3G200L/6b		745		
							MR873-2G200L/6b	43,00	740		IE2
							NR873-2G200L/6b		745		
17		11583	86,51	80155	1,1	MR873-3E180L/4D	42,50	687	130	IE3	
20		10111	75,51	87034	1,3	NR873-3E180L/4D		692			
23		8673	64,77	92898	1,5	MR873-2E180L/4C	42,50	687		IE2	
26		7571	56,54	96919	1,7	NR873-2E180L/4C		692			
28		7077	52,86	98601	1,8						
32		6175	46,12	101504	2,1						
36		5429	40,55	103743	2,4						
22 30		24	8228	60,76	47975	1,0	MR773-3E180L/4D	42,50	489	127	IE3
		25	7928	58,59	49172	1,0	NR773-3E180L/4D		587		
		29	6877	50,75	52987	1,2	MR773-2E180L/4C	42,50	489		IE2
		33	5993	44,17	55813	1,3	NR773-2E180L/4C		587		

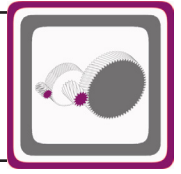
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

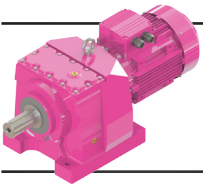
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienzklasse
22 30	38	5350	<b>39,33</b>	57678	1,5	<b>MR773-3E180L/4D</b>	42,50	489	127	IE3
	42	4752	<b>34,89</b>	59285	1,7	<b>NR773-3E180L/4D</b>		587		
	47	4242	<b>31,11</b>	60614	1,9	<b>MR773-2E180L/4C</b>	42,50	489		IE2
	49	4087	<b>30,00</b>	61022	2,0	<b>NR773-2E180L/4C</b>		587		
	57	3546	<b>25,99</b>	62191	2,3					
	65	3090	<b>22,62</b>	63181	2,6					
	69	2946	<b>21,40</b>	63482	2,7	<b>MR772-3E180L/4D</b>	42,50	457	127	IE3
	79	2569	<b>18,63</b>	64248	3,1	<b>NR772-3E180L/4D</b>		557		
	90	2262	<b>16,39</b>	65386	3,4	<b>MR772-2E180L/4C</b>	42,50	457		IE2
	101	2009	<b>14,54</b>	66349	3,7	<b>NR772-2E180L/4C</b>		557		
	49	4111	<b>30,20</b>	19673	0,9	<b>MR673-3E180L/4D</b>	42,50	370	124	IE3
	55	3634	<b>26,66</b>	19544	1,0	<b>NR673-3E180L/4D</b>		384		
						<b>MR673-2E180L/4C</b>	42,50	370		IE2
						<b>NR673-2E180L/4C</b>		384		
	64	3190	<b>23,18</b>	19314	1,2	<b>MR672-3E180L/4D</b>	42,50	345	124	IE3
	71	2857	<b>20,74</b>	19075	1,3	<b>NR672-3E180L/4D</b>		349		
	82	2468	<b>17,93</b>	18704	1,4	<b>MR672-2E180L/4C</b>	42,50	345		IE2
	95	2140	<b>15,53</b>	18283	1,6	<b>NR672-2E180L/4C</b>		349		
	109	1874	<b>13,58</b>	17853	1,7					
	123	1654	<b>11,97</b>	17424	1,9					
	139	1469	<b>10,62</b>	16999	2,1					
	156	1311	<b>9,47</b>	16580	2,3					
	162	1263	<b>9,13</b>	16446	2,4					
	186	1095	<b>7,91</b>	15908	2,7					
	214	954	<b>6,88</b>	15383	3,0					
	257	795	<b>5,73</b>	14484	4,0					
	290	706	<b>5,08</b>	14055	4,0					
	325	630	<b>4,53</b>	13645	4,0					
	338	607	<b>4,37</b>	13516	4,0					
	390	526	<b>3,79</b>	13008	4,0					
	77	2638	<b>19,15</b>	13476	1,0	<b>MR572-3E180L/4D</b>	42,50	311	121	IE3
	86	2353	<b>17,07</b>	13412	1,0	<b>NR572-3E180L/4D</b>		298		
	101	2003	<b>14,54</b>	13249	1,2	<b>MR572-2E180L/4C</b>	42,50	311		IE2
	118	1724	<b>12,50</b>	13029	1,3	<b>NR572-2E180L/4C</b>		298		
	136	1498	<b>10,85</b>	12778	1,5					
	156	1311	<b>9,48</b>	12508	1,7					
	177	1154	<b>8,34</b>	12226	1,9					
	199	1026	<b>7,41</b>	11769	2,1					
	229	891	<b>6,43</b>	11450	2,3					
	262	780	<b>5,63</b>	11133	2,5					
	298	686	<b>4,95</b>	10820	2,8					
	338	607	<b>4,37</b>	10513	3,0					
	155	1316	<b>9,53</b>	6027	0,8	<b>MR472-3E180L/4D</b>	42,50	269	118	IE3
	174	1170	<b>8,47</b>	6096	0,9	<b>NR472-3E180L/4D</b>		271		
	188	1085	<b>7,87</b>	6121	0,9	<b>MR472-2E180L/4C</b>	42,50	269		IE2
	222	918	<b>6,65</b>	6131	1,1	<b>NR472-2E180L/4C</b>		271		
	261	783	<b>5,66</b>	6089	1,2					
	302	678	<b>4,89</b>	5778	1,2					
	325	628	<b>4,54</b>	5749	1,1					
	385	532	<b>3,83</b>	5655	1,2					
	452	453	<b>3,27</b>	5539	1,3					

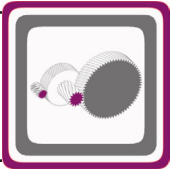




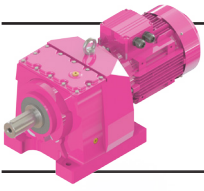
# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



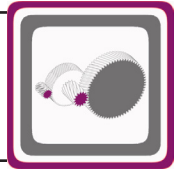
Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*		
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class		
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-klasse		
30 40	14	18963	<b>102,69</b>	88796	0,9	<b>MR973-3G200L/4</b>	55,00	1271	133	IE3		
	16	16928	<b>91,56</b>	101334	1,1	<b>NR973-3G200L/4</b>		1321				
	18	15216	<b>82,20</b>	110352	1,2	<b>MR973-2G200L/4</b>	55,00	1258		IE2		
	21	12975	<b>70,07</b>	120559	1,4	<b>NR973-2G200L/4</b>		1308				
	24	11453	<b>61,77</b>	126654	1,6							
	27	10173	<b>54,80</b>	131340	1,8							
	30	9081	<b>48,86</b>	135053	2,0							
	35	7870	<b>42,30</b>	138982	2,3							
	40	6948	<b>37,29</b>	141629	2,6							
	45	6172	<b>33,08</b>	143817	2,9							
50	5509	<b>29,49</b>	145605	3,3								
	20	13787	<b>75,51</b>	67641	0,9	<b>MR873-3G200L/4</b>	55,00	777	130	IE3		
	23	11826	<b>64,77</b>	78916	1,1	<b>NR873-3G200L/4</b>		782				
	26	10323	<b>56,54</b>	86098	1,3	<b>MR873-2G200L/4</b>	55,00	764		IE2		
	28	9651	<b>52,86</b>	88992	1,3	<b>NR873-2G200L/4</b>		769				
	32	8420	<b>46,12</b>	93855	1,5							
	36	7403	<b>40,55</b>	97498	1,8							
	43	6305	<b>34,53</b>	101037	2,1							
	49	5543	<b>30,36</b>	103477	2,3							
	54	5002	<b>27,39</b>	104965	2,6							
	62	4359	<b>23,87</b>	106724	3,0							
	73	3702	<b>20,28</b>	107951	3,5							
	83	3255	<b>17,83</b>	105255	4,0							
	92	2937	<b>16,09</b>	103054	4,0							
	105	2559	<b>14,02</b>	100062	4,0							
	38	7296	<b>39,33</b>	51530	1,1	<b>MR773-3G200L/4</b>	55,00	528	127	IE3		
	42	6481	<b>34,89</b>	54292	1,2	<b>NR773-3G200L/4</b>		631				
	47	5785	<b>31,11</b>	56432	1,4	<b>MR773-2G200L/4</b>	55,00	515		IE2		
	49	5574	<b>30,00</b>	57045	1,4	<b>NR773-2G200L/4</b>		618				
	57	4836	<b>25,99</b>	58976	1,7							
	65	4214	<b>22,62</b>	60692	1,9							
	69	4018	<b>21,40</b>	61103	2,0	<b>MR772-3G200L/4</b>	55,00	496	127	IE3		
	79	3503	<b>18,63</b>	62280	2,3	<b>NR772-3G200L/4</b>		601				
	90	3085	<b>16,39</b>	63789	2,5	<b>MR772-2G200L/4</b>	55,00	483		IE2		
	101	2739	<b>14,54</b>	65036	2,7	<b>NR772-2G200L/4</b>		588				
	114	2449	<b>12,98</b>	66035	2,9							
	127	2200	<b>11,65</b>	66899	3,1							
	134	2076	<b>11,00</b>	67301	3,3							
	153	1817	<b>9,62</b>	68157	3,6							
		82	3366	<b>17,93</b>	16806	1,0	<b>MR672-3G200L/4</b>	55,00		417	124	IE3
		95	2919	<b>15,53</b>	16639	1,1	<b>NR672-3G200L/4</b>			411		
109		2556	<b>13,58</b>	16416	1,3	<b>MR672-2G200L/4</b>	55,00	404	IE2			
123		2256	<b>11,97</b>	16157	1,4	<b>NR672-2G200L/4</b>		398				
139		2003	<b>10,62</b>	15875	1,5							
156		1788	<b>9,47</b>	15578	1,7							
162		1722	<b>9,13</b>	15479	1,7							
186		1493	<b>7,91</b>	15071	2,0							
214		1301	<b>6,88</b>	14654	2,2							
257		1084	<b>5,73</b>	13804	2,9							
290		963	<b>5,08</b>	13452	3,0							
325		859	<b>4,53</b>	13107	3,1							
338		828	<b>4,37</b>	12997	3,2							
390		718	<b>3,79</b>	12559	3,3							
448		625	<b>3,29</b>	12133	3,4							



# Motorlu Güç Devir Sayfaları

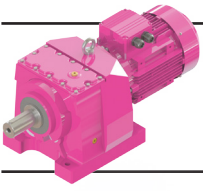
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor*	
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class	
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse	
30 40	101	2731	14,54	11526	0,9	MR572-3G200L/4	55,00	335	121	IE3	
	118	2352	12,50	11548	1,0	NR572-3G200L/4		322			
	136	2043	10,85	11493	1,1	MR572-2G200L/4	55,00	322		IE2	
	156	1788	9,48	11384	1,2	NR572-2G200L/4		309			
	177	1574	8,34	11238	1,4						
	199	1399	7,41	10823	1,6						
	229	1216	6,43	10629	1,7						
	262	1064	5,63	10415	1,9						
	298	936	4,95	10190	2,0						
	338	827	4,37	9956	2,2						
37 50	18	18767	82,20	90116	1,0	MR973-3G225S/4	67,00	1295	133	IE3	
	21	16003	70,07	106356	1,1	NR973-3G225S/4		1345			
	24	14127	61,77	115513	1,3	MR973-2G225S/4	67,00	1279		IE2	
	27	12548	54,80	122331	1,4	NR973-2G225S/4		1329			
	30	11201	48,86	127606	1,6						
	35	9707	42,30	132957	1,9						
	40	8569	37,29	136744	2,1						
	45	7612	33,08	139875	2,4						
	50	6795	29,49	142067	2,6						
	57	5993	26,03	144306	3,0						
	64	5291	22,95	146178	3,4						
		32	10385	46,12	85826	1,3	MR873-3G225S/4	67,00	855	130	IE3
		36	9131	40,55	91113	1,4	NR873-3G225S/4		860		
		43	7776	34,53	96200	1,7	MR873-2G225S/4	67,00	839		IE2
		49	6837	30,36	99396	1,9	NR873-2G225S/4		844		
		54	6169	27,39	101500	2,1					
		62	5376	23,87	104015	2,4					
		73	4566	20,28	104029	2,8					
	83	4014	17,83	101807	3,2						
	92	3622	16,09	99942	3,6						
	105	3157	14,02	97350	4,0						
	111	2995	13,30	102064	4,0						
	42	7993	34,89	48915	1,0	MR773-3G225S/4	67,00	619	127	IE3	
	47	7136	31,11	52098	1,1	NR773-3G225S/4		730			
	49	6875	30,00	52994	1,2	MR773-2G225S/4	67,00	603		IE2	
	57	5964	25,99	55899	1,3	NR773-2G225S/4		714			
	65	5198	22,62	58099	1,5						
	76	4486	19,52	60422	1,7						
	85	4004	17,40	62238	1,9						
	101	3379	14,54	63785	2,2	MR772-3G225S/4	67,00	610	127	IE3	
	114	3020	12,98	65037	2,4	NR772-3G225S/4		720			
	127	2714	11,65	66028	2,5	MR772-2G225S/4	67,00	594		IE2	
	134	2560	11,00	66517	2,6	NR772-2G225S/4		704			
	153	2241	9,62	67520	2,9						
	174	1972	8,46	66564	3,1						
	203	1695	7,26	63620	2,8						
	226	1523	6,52	61453	2,9						
	123	2782	11,97	15049	1,1	MR672-3G225S/4	67,00	495	124	IE3	
	139	2471	10,62	14892	1,3	NR672-3G225S/4		511			
	156	2205	9,47	14701	1,4	MR672-2G225S/4	67,00	479		IE2	
	162	2124	9,13	14634	1,4	NR672-2G225S/4		495			
	186	1842	7,91	14339	1,6						
	214	1605	6,88	14017	1,8						
	257	1337	5,73	13209	2,4						
	290	1187	5,08	12924	2,5						
	325	1060	4,53	12637	2,5						

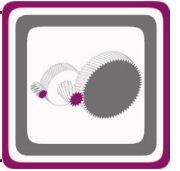
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

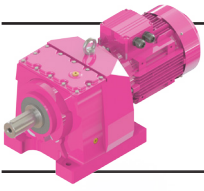
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor* Verim Sınıf.	
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class	
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse	
37 50	338	1021	4,37	12543	2,6	MR672-3G225S/4	67,00	495	124	IE3	
	390	885	3,79	12166	2,7	NR672-3G225S/4		511			
	448	771	3,29	11791	2,8	MR672-2G225S/4 NR672-2G225S/4	67,00	479 495		IE2	
45 60	24	17182	61,77	99890	1,0	MR973-3G225M/4	80,00	1264	133	IE3	
	27	15262	54,80	110125	1,2	NR973-3G225M/4		1314			
	30	13623	48,86	117766	1,3	MR973-2G225M/4	80,00	1264		IE2	
	35	11806	42,30	125294	1,5	NR973-2G225M/4		1314			
	40	10423	37,29	130457	1,7						
	45	9258	33,08	134468	1,9						
	50	8265	29,49	137659	2,2						
	57	7290	26,03	140631	2,5						
	64	6436	22,95	143083	2,8						
	72	5717	20,36	144221	3,1						
	81	5104	18,15	140115	3,5						
		32	12630	46,12	74597	1,0	MR873-3G225M/4	80,00	875	130	IE3
		36	11105	40,55	82498	1,2	NR873-3G225M/4		879		
		43	9457	34,53	89792	1,4	MR873-2G225M/4	80,00	875		IE2
	49	8315	30,36	94247	1,6	NR873-2G225M/4		879			
	54	7503	27,39	97155	1,7						
	62	6538	23,87	100203	2,0						
	73	5553	20,28	99546	2,3						
	83	4882	17,83	97866	2,7						
	92	4405	16,09	96386	3,0						
	105	3839	14,02	94251	3,4						
	111	3642	13,30	100362	3,6						
	127	3174	11,59	97147	4,0						
	146	2822	10,09	95212	4,0	MR872-3G225M/4	80,00	871	130	IE3	
	166	2481	8,87	92101	4,0	NR872-3G225M/4		875			
	195	2113	7,55	83381	4,0	MR872-2G225M/4	80,00	871		IE2	
	222	1858	6,64	81001	4,0	NR872-2G225M/4		875			
	246	1676	5,99	79097	4,0						
	282	1461	5,22	76555	4,0						
	298	1386	4,95	78185	4,0						
	342	1208	4,32	75338	4,0						
	57	7254	25,99	51679	1,1	MR773-3G225M/4	80,00	631	127	IE3	
	65	6322	22,62	54798	1,3	NR773-3G225M/4		741			
	76	5456	19,52	57912	1,4	MR773-2G225M/4	80,00	631		IE2	
	85	4871	17,40	60147	1,5	NR773-2G225M/4		741			
	101	4110	14,54	62270	1,8	MR772-3G225M/4	80,00	621	127	IE3	
	114	3673	12,98	63756	1,9	NR772-3G225M/4		731			
	127	3301	11,65	64959	2,1	MR772-2G225M/4	80,00	621		IE2	
	134	3114	11,00	65547	2,2	NR772-2G225M/4		731			
	153	2725	9,62	66742	2,4						
	174	2398	8,46	66950	2,6						
	203	2062	7,26	64002	2,3						
	226	1853	6,52	61796	2,4						
	240	1748	6,15	60656	2,5						
	123	3384	11,97	13782	0,9	MR672-3G225M/4	80,00	511	124	IE3	
	139	3005	10,62	13768	1,0	NR672-3G225M/4		526			
	156	2682	9,47	13699	1,1	MR672-2G225M/4	80,00	511		IE2	
	162	2584	9,13	13668	1,2	NR672-2G225M/4		526			
	186	2241	7,91	13502	1,3						
	214	1952	6,88	13289	1,5						

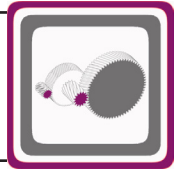
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

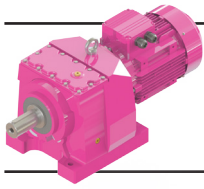
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Snf.*
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
45 60	257 290 325 338 390 448	1626 1444 1289 1242 1077 938	5,73 5,08 4,53 4,37 3,79 3,29	12529 12321 12099 12025 11717 11400	1,9 2,0 2,1 2,2 2,2 2,3	MR672-3G225M/4 NR672-3G225M/4 MR672-2G225M/4 NR672-2G225M/4	80,00 80,00	511 526 511 526	124	IE3 IE2
55 75	27 30 35 40 45 50 57 64 73 82	18591 16595 14382 12696 11278 10068 8880 7840 6964 6217	54,80 48,86 42,30 37,29 33,08 29,49 26,03 22,95 20,36 18,15	91281 103185 114338 121719 127317 131709 135710 138999 141581 137811	1,0 1,1 1,3 1,4 1,6 1,8 2,0 2,3 2,6 2,9	MR973-3G250M/4 NR973-3G250M/4 MR973-2G250M/4 NR973-2G250M/4	96,00 96,00	1470 1520 1470 1520	133	IE3 IE2
	91 103	5604 4978	16,23 14,40	135067 131013	3,2 3,6	MR972-3G250M/4 NR972-3G250M/4 MR972-2G250M/4 NR972-2G250M/4	96,00 96,00	1430 1480 1430 1480	133	IE3 IE2
	43 49 54 62 73 83 92 106 111 128	11520 10128 9139 7964 6764 5947 5366 4676 4436 3866	34,53 30,36 27,39 23,87 20,28 17,83 16,09 14,02 13,30 11,59	80469 86955 91078 94730 93920 92909 91905 90336 98164 95221	1,1 1,3 1,4 1,6 1,9 2,2 2,4 2,8 2,9 3,3	MR873-3G250M/4 NR873-3G250M/4 MR873-2G250M/4 NR873-2G250M/4	96,00 96,00	935 940 935 940	130	IE3 IE2
	147 167 196 223 247 283 299 343	3437 3022 2574 2263 2042 1779 1688 1471	10,09 8,87 7,55 6,64 5,99 5,22 4,95 4,32	93806 90856 81238 79109 77384 75055 77325 74581	3,3 3,7 4,0 4,0 4,0 4,0 4,0 4,0	MR872-3G250M/4 NR872-3G250M/4 MR872-2G250M/4 NR872-2G250M/4	96,00 96,00	930 935 930 935	130	IE3 IE2
	65 76 85	7701 6646 5933	22,62 19,52 17,40	50040 54372 57388	1,0 1,2 1,3	MR773-3G250M/4 NR773-3G250M/4 MR773-2G250M/4 NR773-2G250M/4	96,00 96,00	652 780 652 780	127	IE3 IE2
	102 114 127 134 154 175 204 227 240	5006 4475 4021 3794 3320 2922 2512 2257 2129	14,54 12,98 11,65 11,00 9,62 8,46 7,26 6,52 6,15	60112 61998 63534 64258 65717 66864 64406 62155 60992	1,5 1,6 1,7 1,8 1,9 2,1 1,9 2,0 2,0	MR772-3G250M/4 NR772-3G250M/4 MR772-2G250M/4 NR772-2G250M/4	96,00 96,00	622 750 622 750	127	IE3 IE2

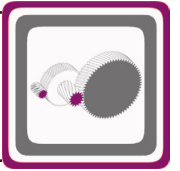
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

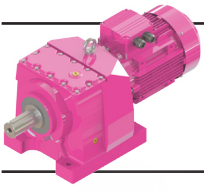
## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Snf.*
Power	Output Speeds	Output Torque	Ratio	Per. O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class
Leistung	Abtriebswelle Drehzahlen	Abtriebswelle Drehmomente	Übersetzung	Zul. Querkräfte (Abtrieb)	Betriebsfaktor	Typ	Nennstrom	Gewicht	Maße Seite	Motor Effizienz-klasse
P <sub>g</sub> [KW] P <sub>g</sub> [HP]	n <sub>2</sub> [r.p.m]	M <sub>2</sub> [Nm]	i	F <sub>qam</sub> [N]	f <sub>s</sub>		[A]	[kg]		
75 97	40	17256	<b>37,29</b>	99467	1,0	MR973-3G280S/4	133,0	1637	133	IE3
	45	15328	<b>33,08</b>	109791	1,2	NR973-3G280S/4		1687		
	50	13684	<b>29,49</b>	117497	1,3	MR973-2G280S/4	133,0	1637		IE2
	57	12069	<b>26,03</b>	124256	1,5	NR973-2G280S/4		1687		
	65	10655	<b>22,95</b>	129617	1,7					
	73	9466	<b>20,36</b>	133773	1,9					
	82	8450	<b>18,15</b>	133347	2,1					
	92	7616	<b>16,23</b>	131419	2,4	MR972-3G280S/4	133,0	1597	133	IE3
	103	6766	<b>14,40</b>	127765	2,7	NR972-3G280S/4		1637		
	115	6050	<b>12,86</b>	124330	3,0	MR972-2G280S/4	133,0	1597		IE2
	129	5439	<b>11,56</b>	121086	3,3	NR972-2G280S/4		1637		
	149	4704	<b>9,99</b>	115903	2,6					
	168	4178	<b>8,86</b>	112471	2,7					
	188	3736	<b>7,92</b>	109274	2,9					
	209	3358	<b>7,11</b>	106276	3,0					
	54	12420	<b>27,39</b>	75762	1,0	MR873-3G280S/4	133,0	1017	130	IE3
	62	10824	<b>23,87</b>	81614	1,2	NR873-3G280S/4		1022		
	73	9193	<b>20,28</b>	82767	1,4	MR873-2G280S/4	133,0	1017		IE2
	83	8082	<b>17,83</b>	83092	1,6	NR873-2G280S/4		1022		
	92	7293	<b>16,09</b>	83039	1,8					
	106	6355	<b>14,02</b>	82599	2,0					
	112	6029	<b>13,30</b>	93867	2,2					
	128	5254	<b>11,59</b>	91468	2,4					
	147	4671	<b>10,09</b>	91091	2,5	MR872-3G280S/4	133,0	1012	130	IE3
	167	4107	<b>8,87</b>	88460	2,7	NR872-3G280S/4		1017		
	197	3498	<b>7,55</b>	77035	3,0	MR872-2G280S/4	133,0	1012		IE2
	224	3075	<b>6,64</b>	75407	3,3	NR872-2G280S/4		1017		
	248	2775	<b>5,99</b>	74037	3,6					
284	2418	<b>5,22</b>	72130	3,9						
300	2294	<b>4,95</b>	75684	3,9						
344	1999	<b>4,32</b>	73144	4,0						
90 117	50	16421	<b>29,49</b>	104131	1,1	MR973-3G280M/4	158,0	1643	133	IE3
	57	14484	<b>26,03</b>	113862	1,2	NR973-3G280M/4		1693		
	65	12787	<b>22,95</b>	121338	1,4	MR973-2G280M/4	158,0	1643		IE2
	73	11359	<b>20,36</b>	127007	1,6	NR973-2G280M/4		1693		
	82	10141	<b>18,15</b>	130083	1,8					
	92	9140	<b>16,23</b>	128770	2,0	MR972-3G280M/4	158,0	1603	133	IE3
	103	8119	<b>14,40</b>	125414	2,2	NR972-3G280M/4		1653		
	115	7260	<b>12,86</b>	122231	2,5	MR972-2G280M/4	158,0	1603		IE2
	129	6527	<b>11,56</b>	119200	2,8	NR972-2G280M/4		1653		
	149	5645	<b>9,99</b>	114107	2,2					
	168	5014	<b>8,86</b>	110878	2,3					
	188	4483	<b>7,92</b>	107851	2,4					
	209	4031	<b>7,11</b>	104997	2,5					
	73	11031	<b>20,28</b>	74419	1,2	MR873-3G280M/4	158,0	1043	130	IE3
	83	9699	<b>17,83</b>	75752	1,3	NR873-3G280M/4		1048		
	92	8751	<b>16,09</b>	76416	1,5	MR873-2G280M/4	158,0	1043		IE2
	106	7626	<b>14,02</b>	76828	1,7	NR873-2G280M/4		1048		
	112	7235	<b>13,30</b>	90699	1,8					
	128	6305	<b>11,59</b>	88706	2,0					

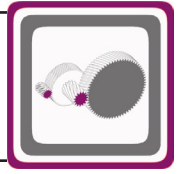
\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



# Motorlu Güç Devir Sayfaları

## Geared Motors Performance Tables

### Leistung und Drehzahlübersicht von Getriebemotoren



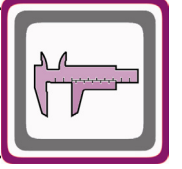
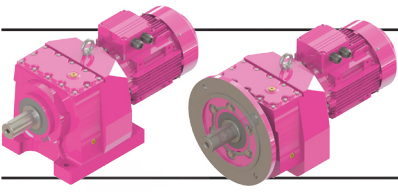
Güç	IE3 Çıkış Devri	IE3 Çıkış Momenti	Çevrim Oranı	IE3 Güv. Rad. Yük Çıkış	IE3 Servis Faktörü	Tipi	Anma Akımı	Ağırlık	Ölçü Sayfası	Motor Verim Sınıfı*	
Power	Output Speeds	Output Torque	Ratio	Per.O. Loads (Output)	Service Factors	Type	Rated Current	Weight	Dim. Page	Motor Eff. Class	
Leistung P <sub>g</sub> [kW] P <sub>g</sub> [HP]	Abtriebswelle Drehzahlen n <sub>2</sub> [r.p.m]	Abtriebswelle Drehmomente M <sub>2</sub> [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) F <sub>qam</sub> [N]	Betriebsfaktor f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-kategorie	
90 117	147	5605	10,09	89112	2,1	MR872-3G280M/4	158,0	1038	130	IE3	
	167	4928	8,87	86721	2,3	NR872-3G280M/4		1043			
	197	4197	7,55	73925	2,5	MR872-2G280M/4	158,0	1038		IE2	
	224	3690	6,64	72672	2,8	NR872-2G280M/4		1043			
	248	3330	5,99	71570	3,0						
	284	2902	5,22	69980	3,3						
	300	2753	4,95	74505	3,3						
	344	2399	4,32	72116	3,6						
110 150	65	15608	22,95	108281	1,2	MR973-3G315S/4	194,0	1899	133	IE3	
	73	13865	20,36	116605	1,3	NR973-3G315S/4		1949			
	82	12378	18,15	122950	1,5	MR973-2G315S/4	195,0	1822		IE2	
						NR973-2G315S/4		1872			
	92	11157	16,23	125205	1,6	MR972-3G315S/4	194,0	1859	133	IE3	
	103	9910	14,40	122246	1,8	NR972-3G315S/4		1909			
	116	8862	12,86	119396	2,0	MR972-2G315S/4	195,0	1782		IE2	
	129	7967	11,56	116650	2,3	NR972-2G315S/4		1832			
	149	6890	9,99	111679	1,8						
	168	6120	8,86	108720	1,9						
	188	5473	7,92	105919	2,0						
	209	4920	7,11	103259	2,0						
	132 180	73	16639	20,36	102822	1,1	MR973-3G315M/4a	230,0	1943	133	IE3
		82	14854	18,15	112011	1,2	NR973-3G315M/4a		1993		
							MR973-2G315M/4a	235,0			IE2
							NR973-2G315M/4a				
92		13388	16,23	118708	1,3	MR972-3G315M/4a	230,0	1903	133	IE3	
103		11893	14,40	118803	1,5	NR972-3G315M/4a		1953			
116		10634	12,86	116321	1,7	MR972-2G315M/4a	235,0	1882		IE2	
129		9561	11,56	113887	1,9	NR972-2G315M/4a		1932			
149		8269	9,99	109049	1,5						
168		7345	8,86	106386	1,6						
188		6567	7,92	103834	1,6						
209		5904	7,11	101386	1,7						
160 218		103	14406	14,40	114086	1,2	MR972-3G315M/4b	275,0	1954	133	IE3
		116	12882	12,86	112393	1,4	NR972-3G315M/4b		2004		
		129	11582	11,56	110358	1,6	MR972-2G315M/4b	280,0	1906		IE2
		149	10016	9,99	105688	1,2	NR972-2G315M/4b		1956		
	168	8897	8,86	103402	1,3						
	188	7956	7,92	101167	1,3						
	209	7152	7,11	98988	1,4						

\*: IE2 ve IE3 motorlu redüktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

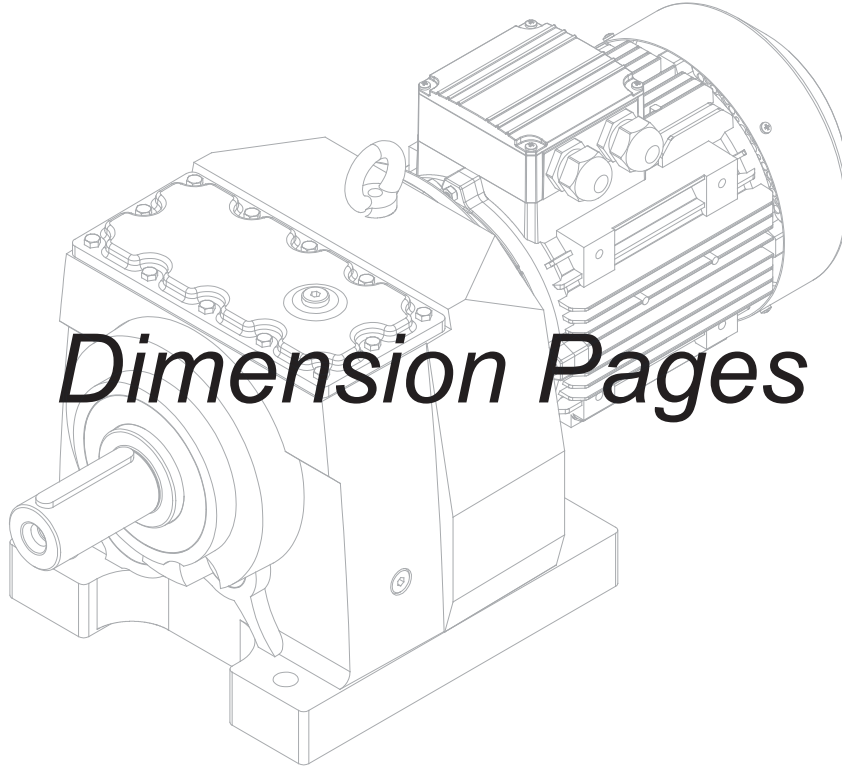




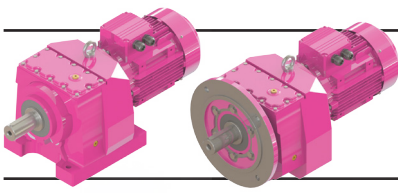




# Ölçü Sayfaları



Abmessungsseiten

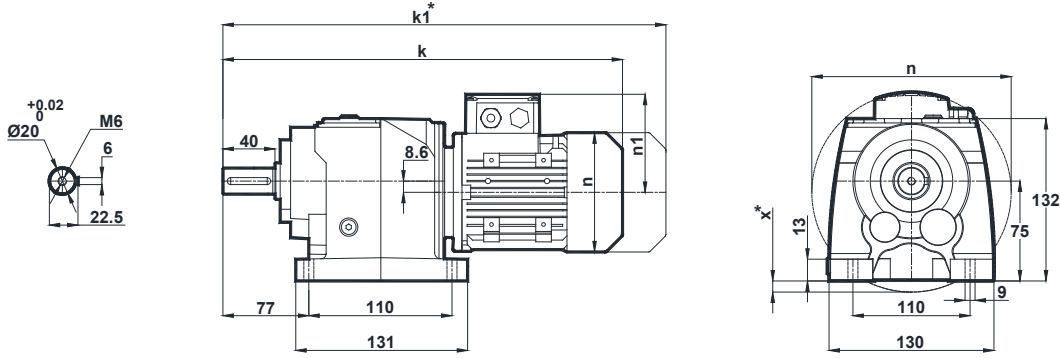


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

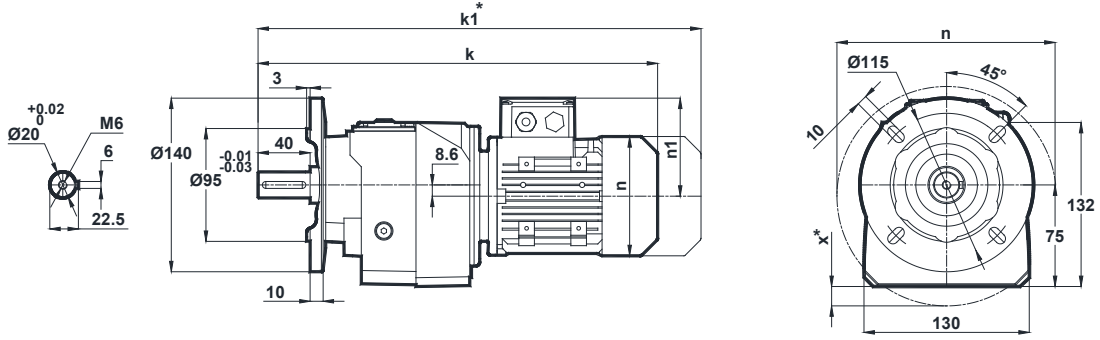


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR002 MR003

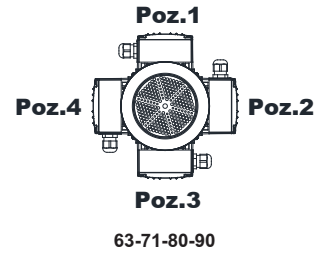


## NR002 NR003

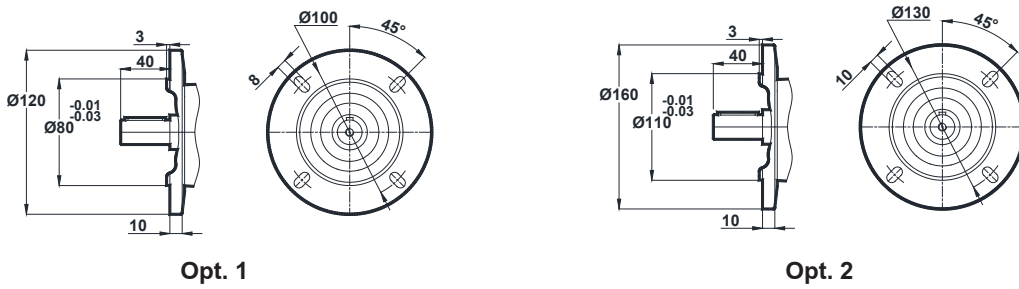


Motor Büyüklüğü / Motor Size / Motorbaugroße					
	63	71	80	90S	90L
k	368.5	397	431	470	470
k1	429.5	488	524	573.5	573.5
n	121	137	155	176	176
n1	97	112	121	132	132
x	-	3	12	22	22

Klemens Kutusu / Terminal Box / Klemmenkasten

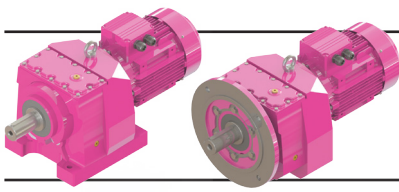


## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

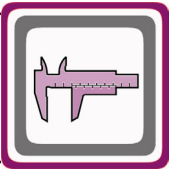


\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

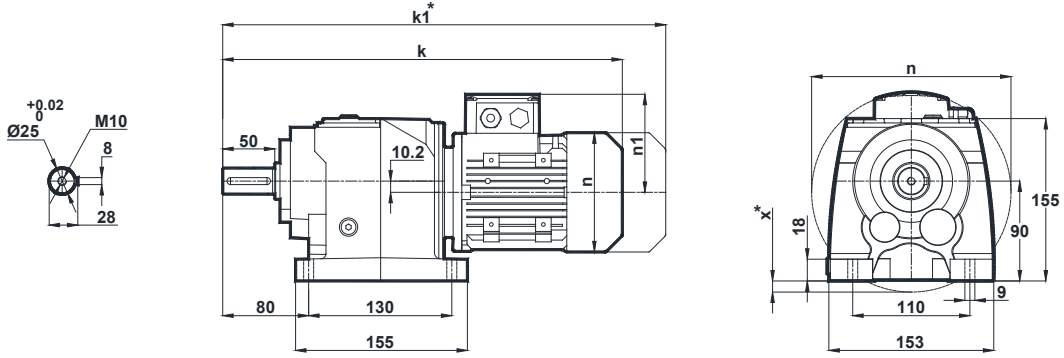


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

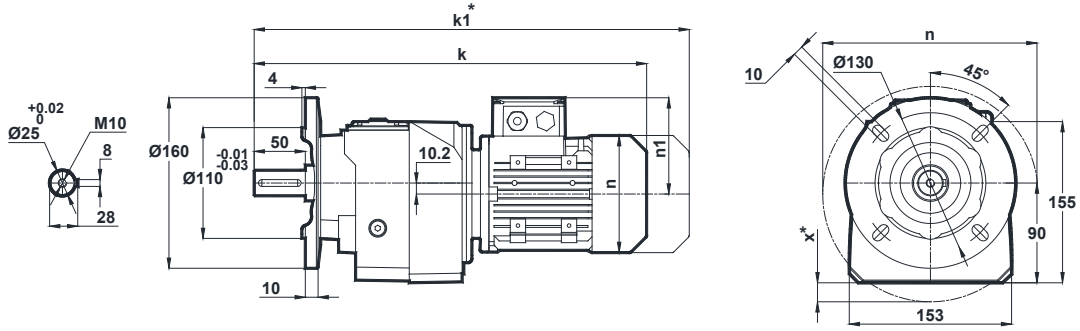


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR102 MR103

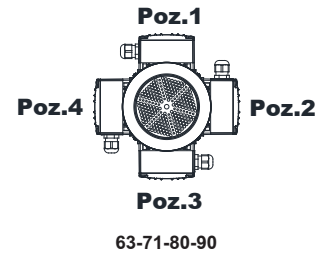


## NR102 NR103

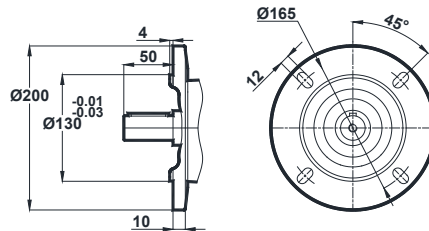


Motor Büyüklüğü / Motor Size / Motorbaugroße	63	71	80	90S	90L
k	398	424	458	497	497
k1	459	515	551	600.5	600.5
n	121	137	155	176	176
n1	97	112	121	132	132
x	-	-	-	9	9

Klemens Kutusu / Terminal Box / Klemmenkasten



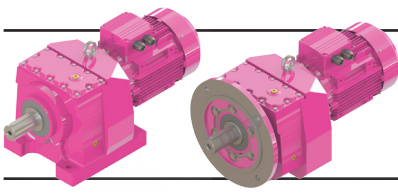
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



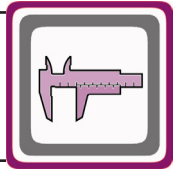
Opt. 1

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

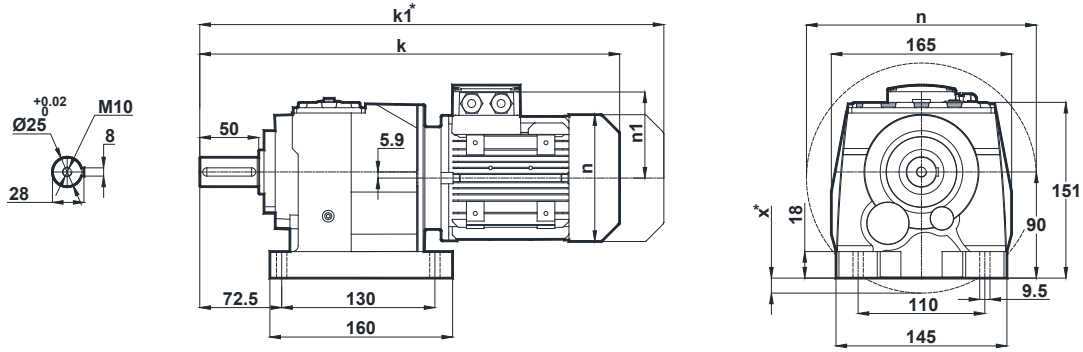


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

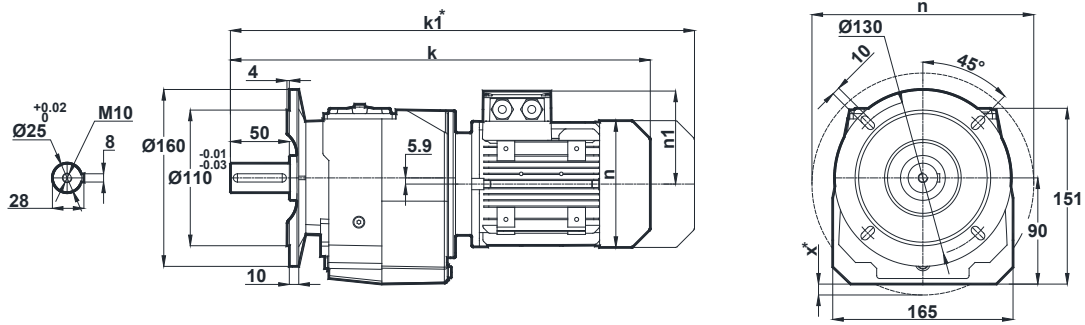


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR172 MR173

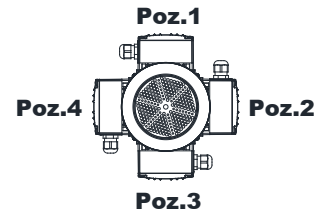


## NR172 NR173



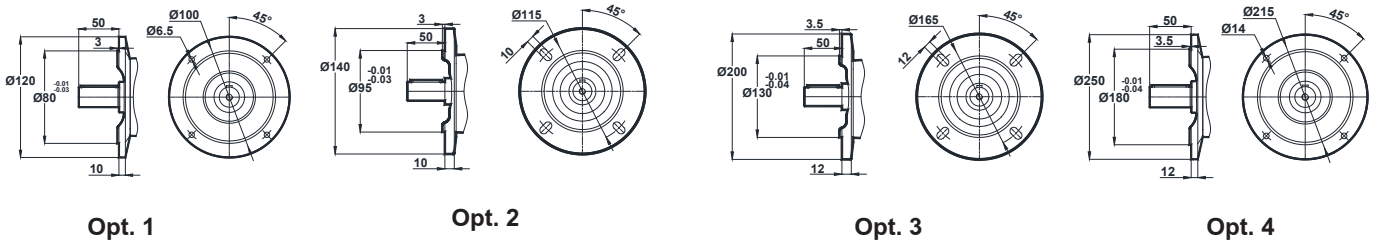
Motor Büyüklüğü / Motor Size / Motorbaugroße							
	63	71	80	90S	90L	100L	112M
<b>k</b>	395.5	424	458	497	497	545	569
<b>k1</b>	456.5	515	551	600.5	600.5	653.5	673.5
<b>n</b>	121	137	155	176	176	193	215
<b>n1</b>	97	112	121	132	132	147	158
<b>x</b>	-	-	-	4	4	13	24

Klemens Kutusu / Terminal Box / Klemmenkasten



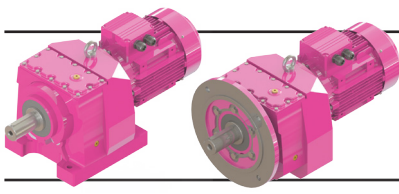
63-71-80-90-100-112

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

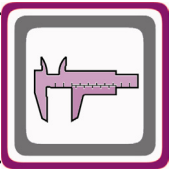


\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

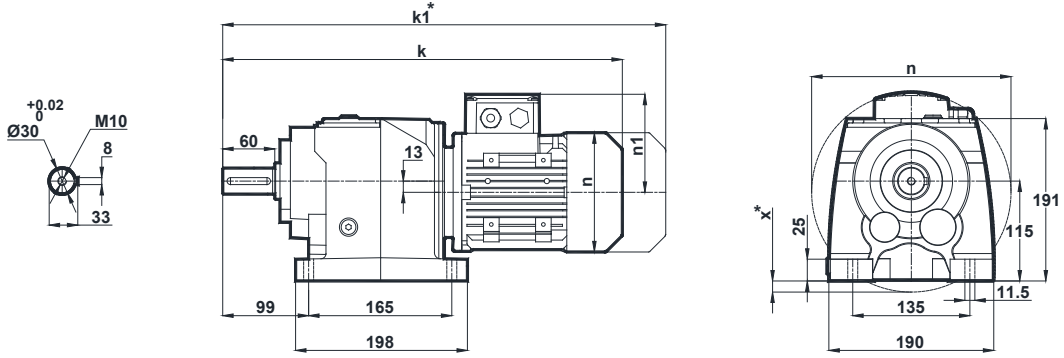


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

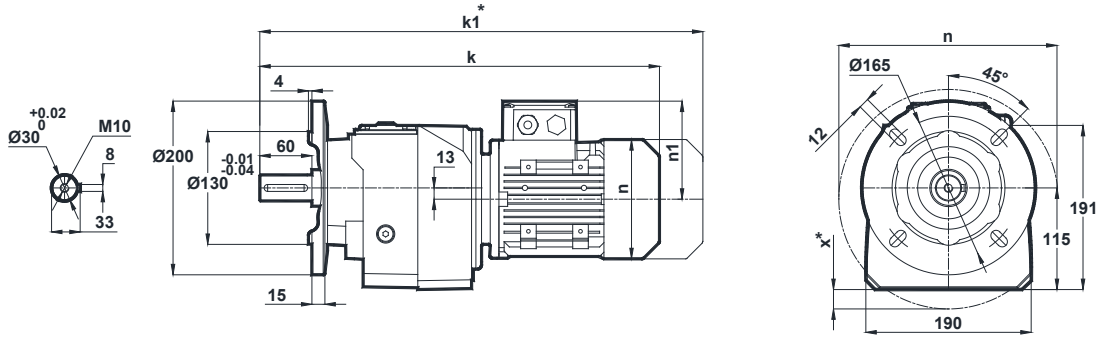


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR202 MR203

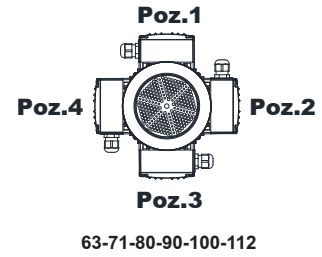


## NR202 NR203

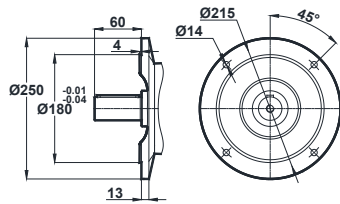


Motor Büyüklüğü / Motor Size / Motorbaugroße							
	63	71	80	90S	90L	100L	112M
k	443	470	504	543	543	591	615
k1	504	561	597	646.5	646.5	699.5	719.5
n	121	137	155	176	176	193	215
n1	97	112	121	132	132	147	158
x	-	-	-	-	-	-	6

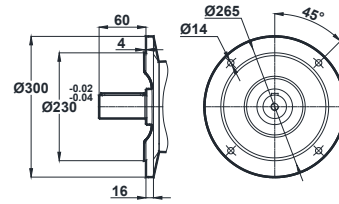
Klemens Kutusu / Terminal Box / Klemmenkasten



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



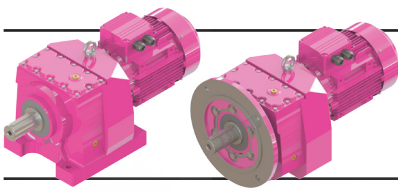
Opt. 1



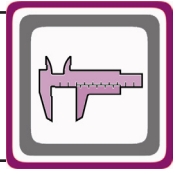
Opt. 2

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

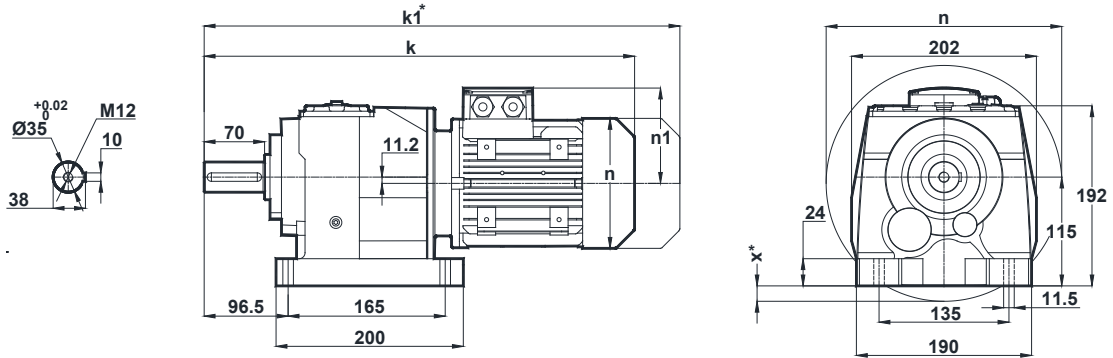


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

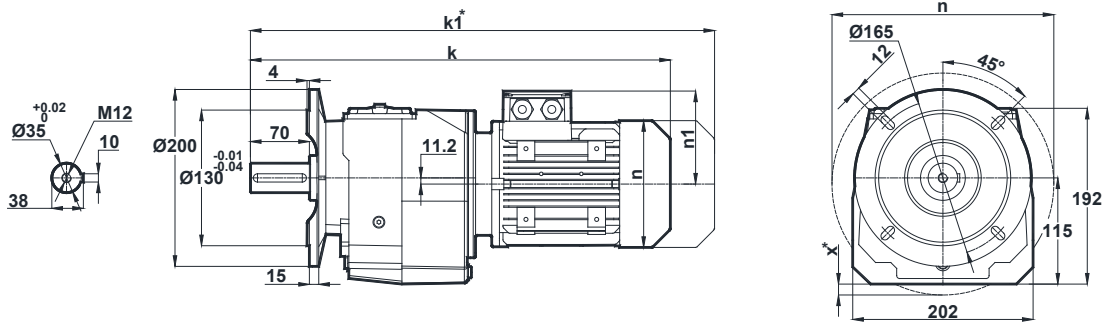


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR272 MR273

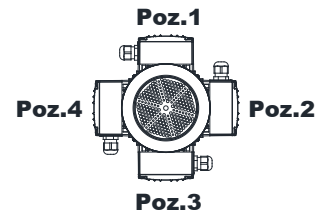


## NR272 NR273



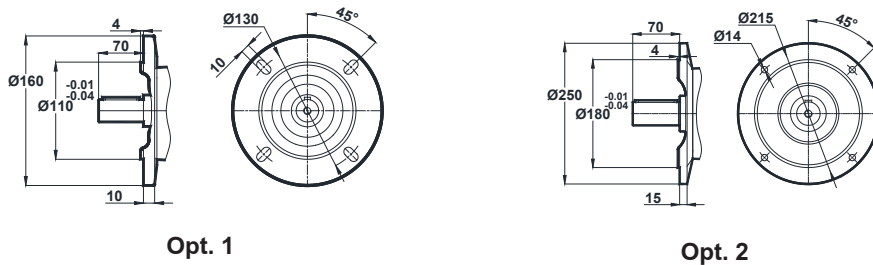
Motor Büyüklüğü / Motor Size / Motorbaugröße									
	63	71	80	90S	90L	100L	112M	132S	132M
k	444	471	505	544	544	592	616	699	699
k1	505	562	598	647.5	647.5	700.5	720.5	829	829
n	121	137	155	176	176	193	215	257	257
n1	97	112	121	132	132	147	158	179	179
x	-	-	-	-	-	-	4	25	25

Klemens Kutusu / Terminal Box / Klemmenkasten



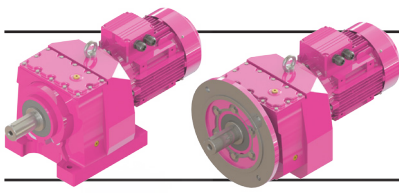
63-71-80-90-100-112-132

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

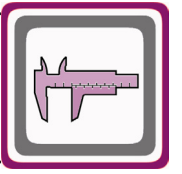


\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

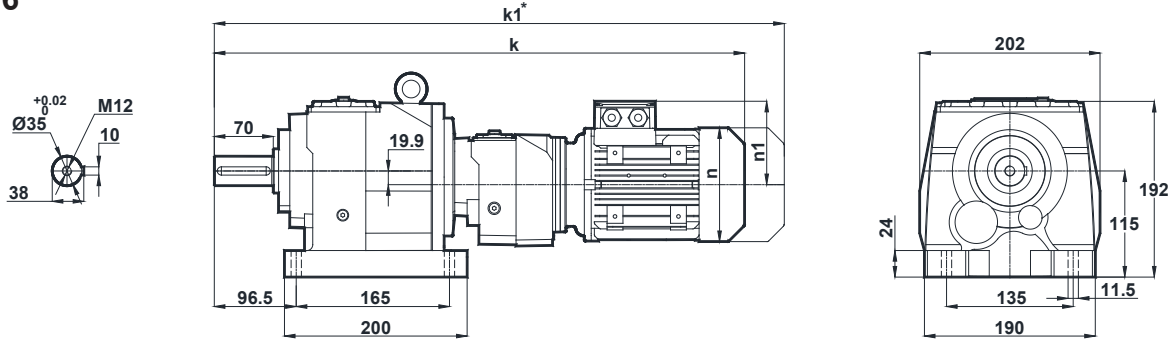


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

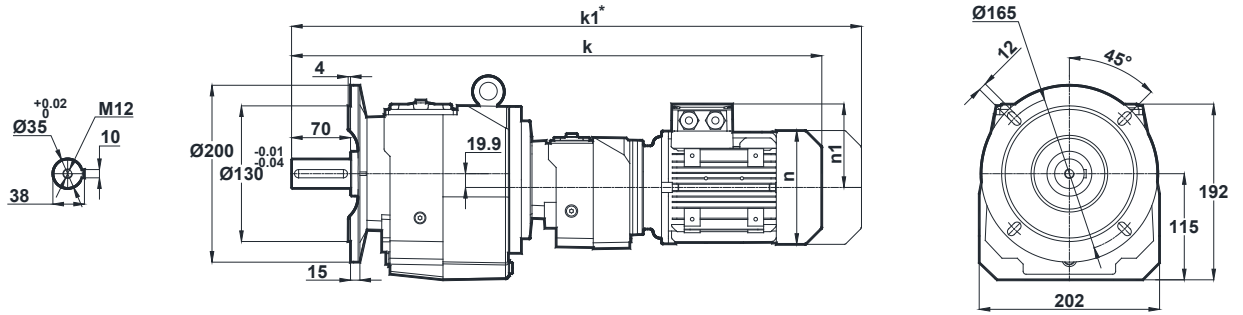


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR275 MR276

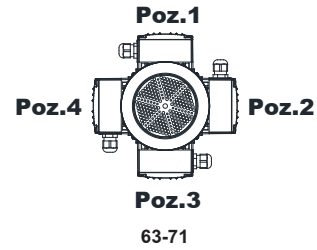


## NR275 NR276

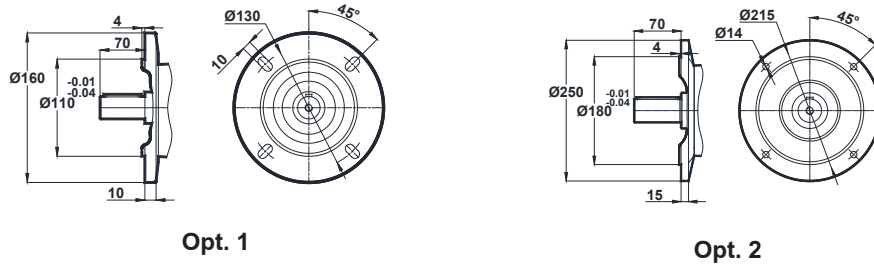


Motor Büyüklüğü / Motor Size / Motorbaugroße	63	71
k	593.5	622
k1	654.5	713
n	121	137
n1	97	112

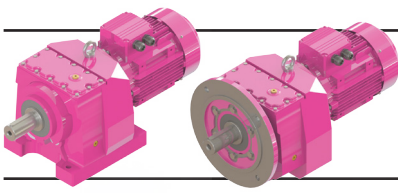
Klemens Kutusu / Terminal Box / Klemmenkasten



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



\* "k1" ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

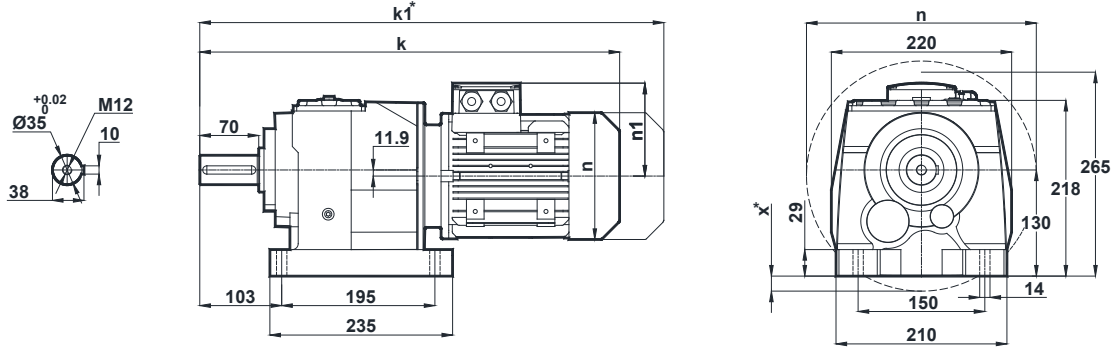


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

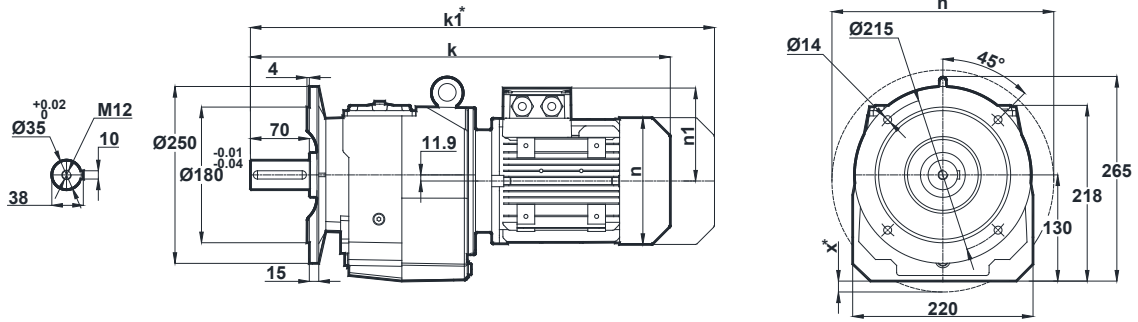


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR282 MR283

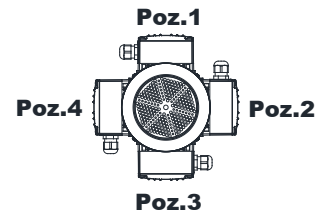


## NR282 NR283



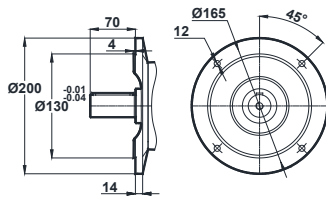
Motor Büyüklüğü / Motor Size / Motorbaugroße								
	71	80	90S	90L	100L	112M	132S	132M
k	488.5	522.5	561.5	561.5	609.5	633.5	720	720
k1	579.5	615.5	665	665	718	738	850	850
n	137	155	176	176	193	215	257	257
n1	112	121	132	132	147	158	179	179
x	-	-	-	-	-	-	11	11

Klemens Kutusu / Terminal Box / Klemmenkasten

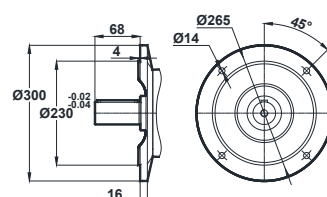


71-80-90-100-112-132

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



Opt. 1

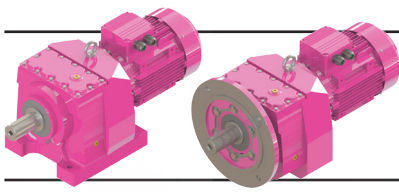


Opt. 2

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

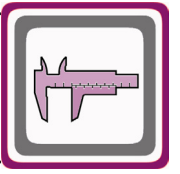




# Ölçü Sayfaları

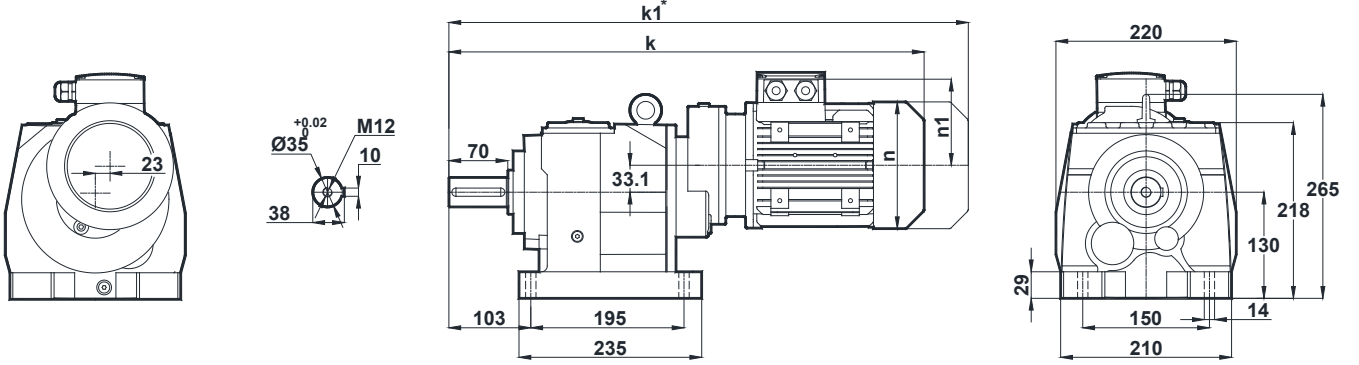
## Dimension Pages

### Abmessungsseiten

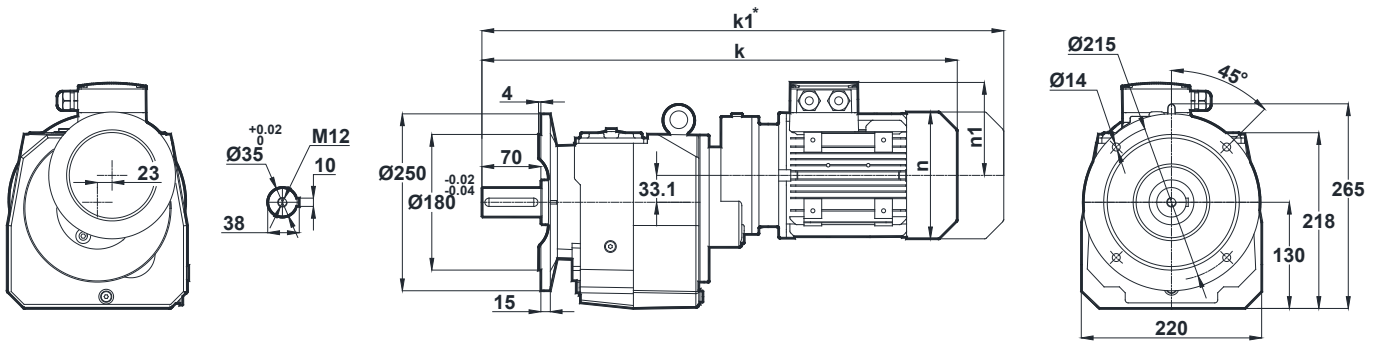


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

### MR284

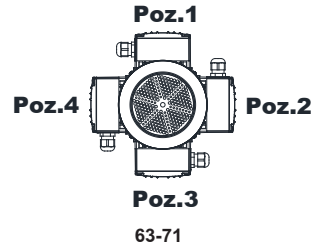


### NR284

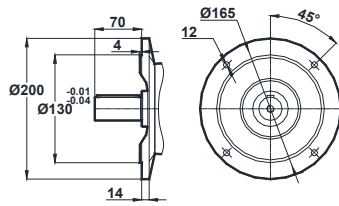


Motor Büyüklüğü / Motor Size / Motorbaugroße	63	71
k	540.5	567.5
k1	601.5	658.5
n	121	137
n1	97	112

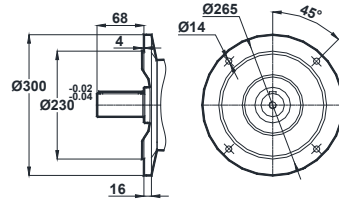
Klemens Kutusu / Terminal Box / Klemmenkasten



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



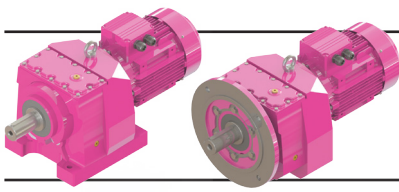
Opt. 1



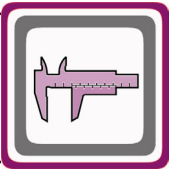
Opt. 2

\* "k1" "Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.



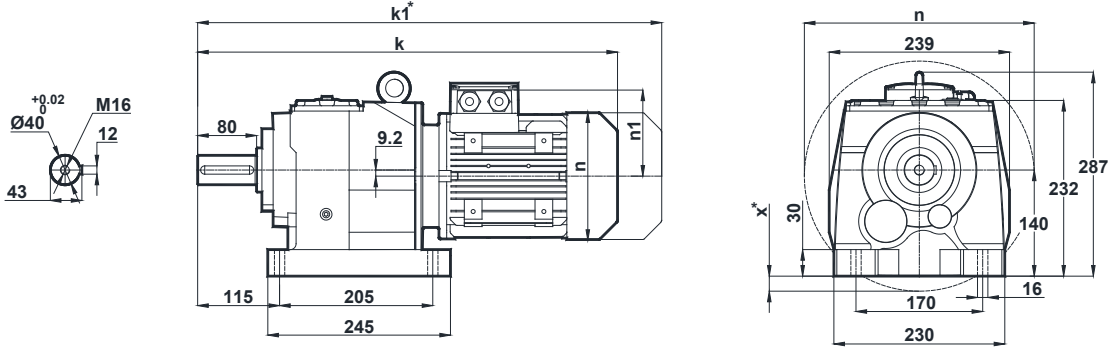


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

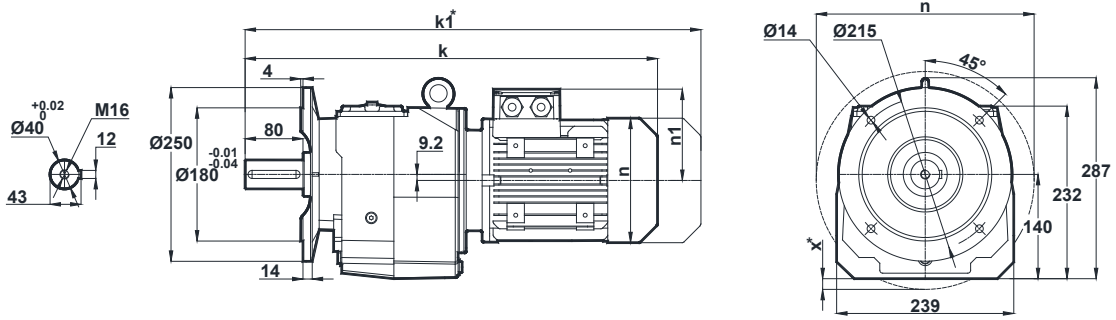


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR372 MR373

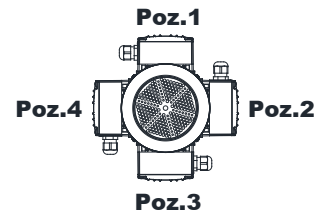


## NR372 NR373



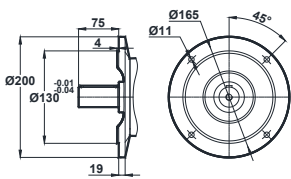
Motor Büyüklüğü / Motor Size / Motorbaugroße								
	71	80	90S	90L	100L	112M	132S	132M
k	509.5	543.5	582.5	582.5	630.5	645.5	741	741
k1	600.5	636.5	686	686	739	759	871	871
n	137	155	176	176	193	215	257	179
n1	112	121	132	132	147	158	257	179
x	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten

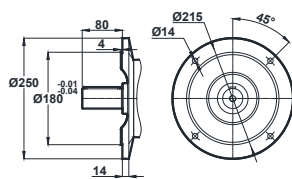


71-80-90-100-112-132

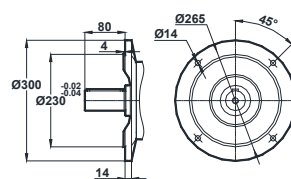
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



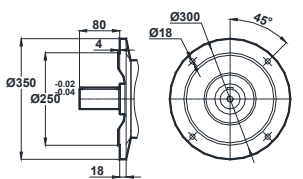
Opt. 1



Opt. 2



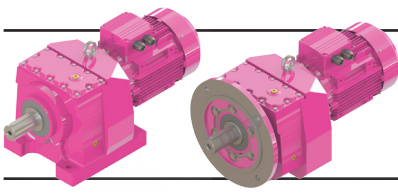
Opt. 3



Opt. 4

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

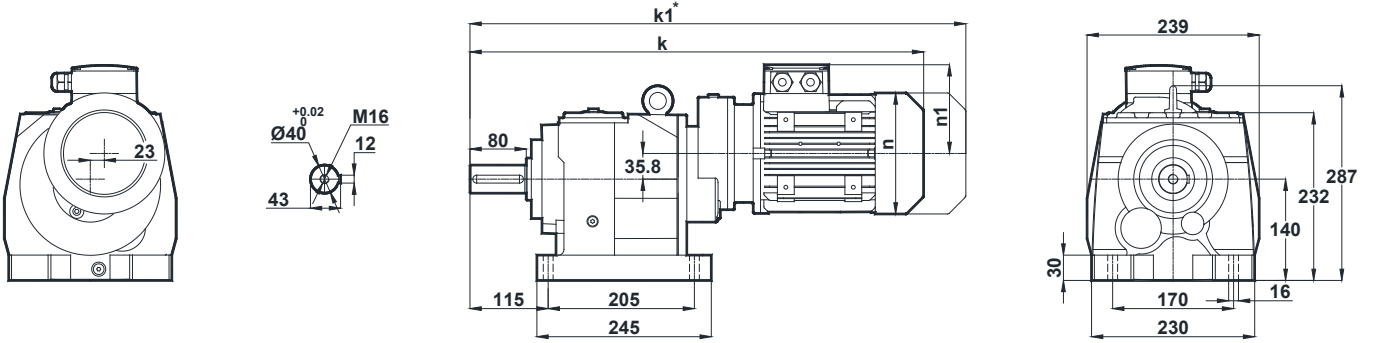
## Dimension Pages

### Abmessungsseiten

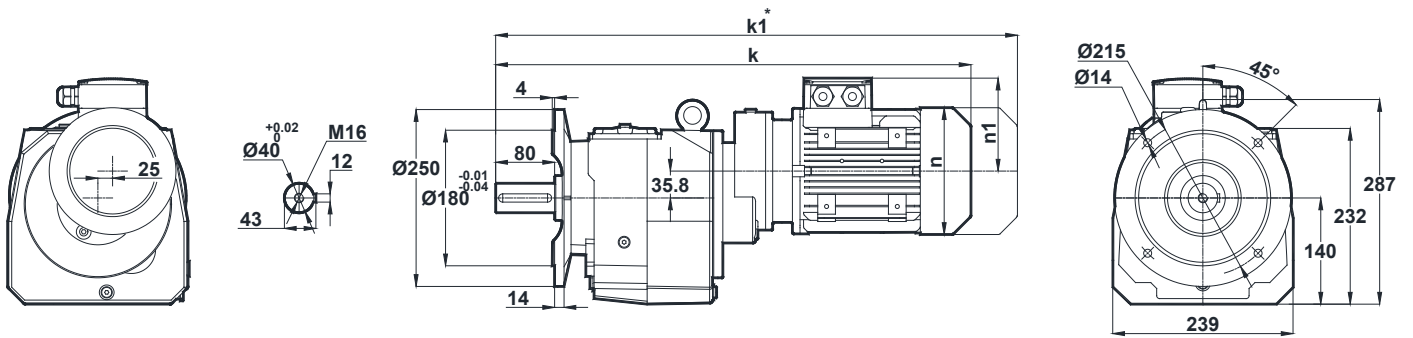


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

### MR374

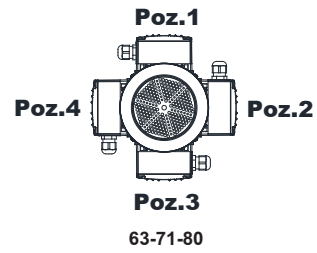


### NR374

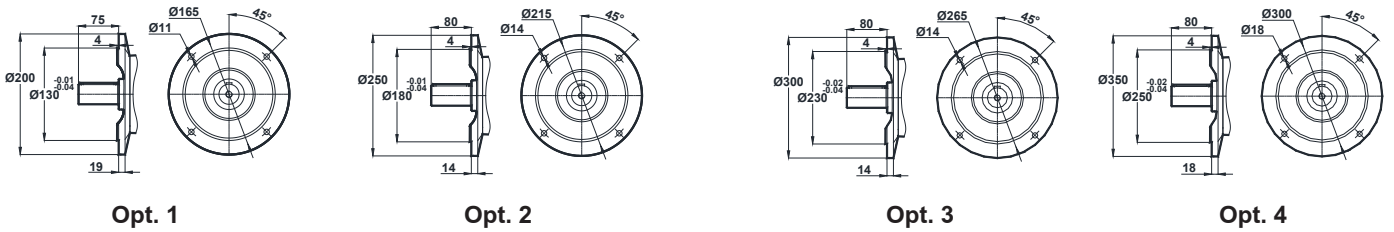


Motor Büyüklüğü / Motor Size / Motorbaugroße	63	71	80
k	561.5	588.5	622.5
k1	622.5	679.5	715.5
n	121	137	155
n1	97	112	121

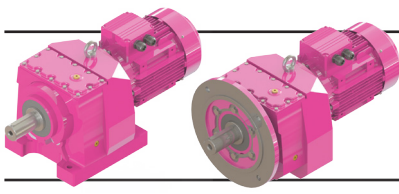
Klemens Kutusu / Terminal Box / Klemmenkasten



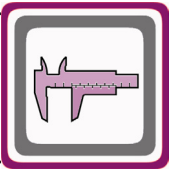
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

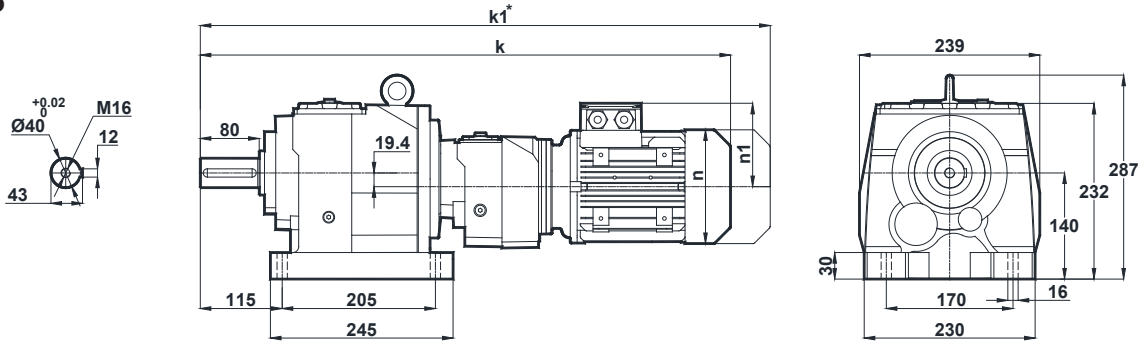


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

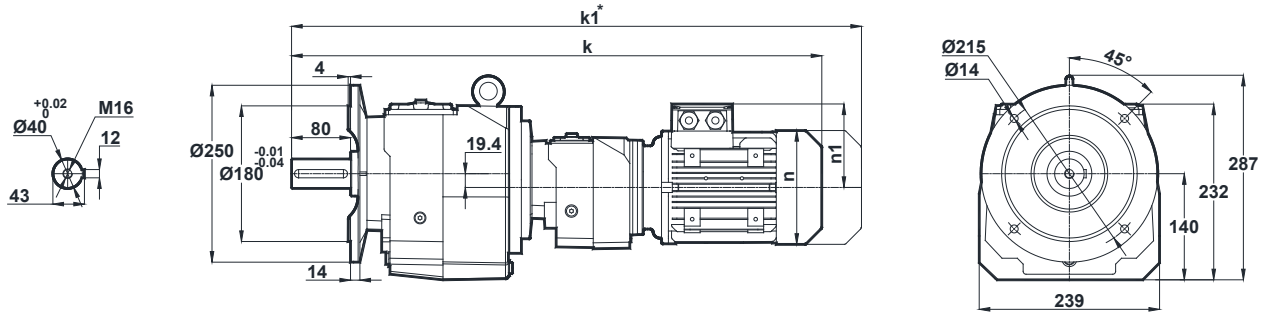


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR375 MR376

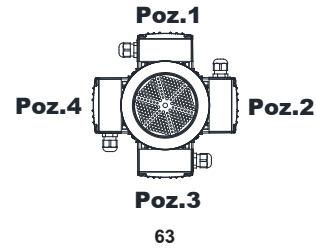


## NR375 NR376

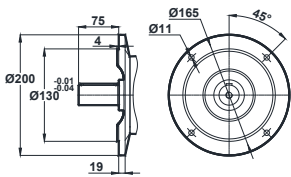


Motor Büyüklüğü / Motor Size / Motorbaugroße	
	63
k	666
k1	727
n	121
n1	97

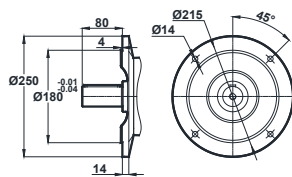
Klemens Kutusu / Terminal Box / Klemmenkasten



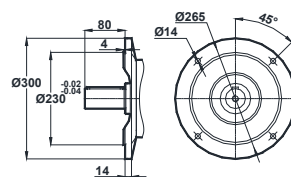
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



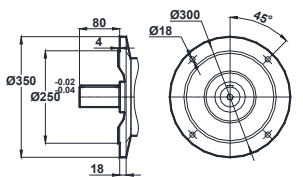
Opt. 1



Opt. 2

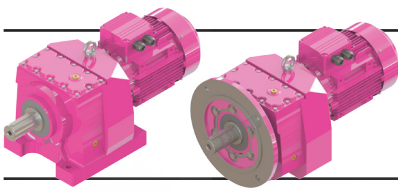


Opt. 3

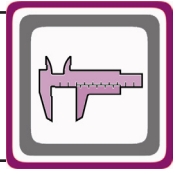


Opt. 4

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

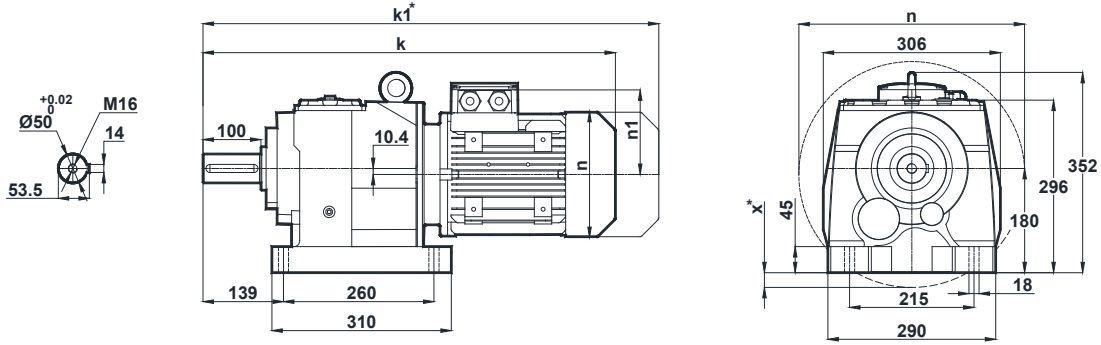


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

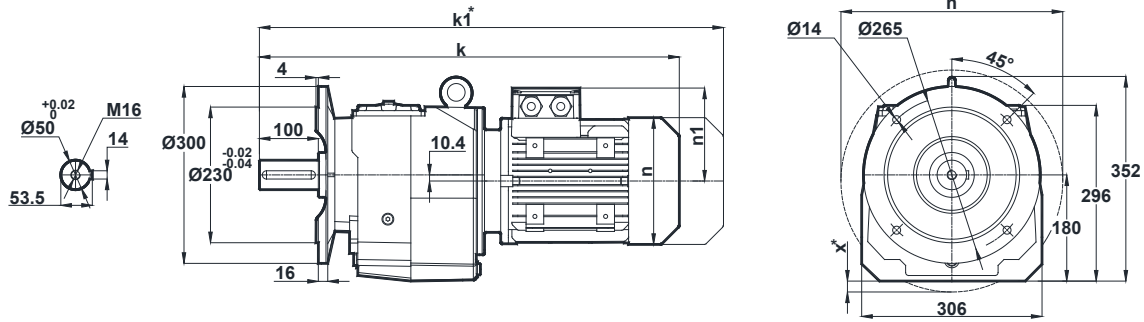


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR472 MR473

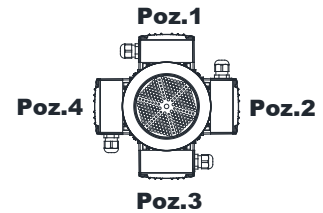


## NR472 NR473



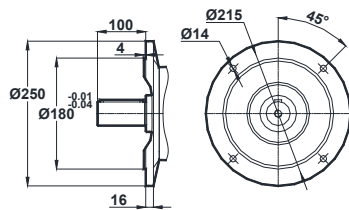
Motor Büyüklüğü / Motor Size / Motorbaugroße											
	80	90S	90L	100L	112M	132S	132M	160M	160L	180M	180L
k	610.5	649.5	649.5	694.5	718.5	803.5	803.5	899.5	899.5	971.5	971.5
k1	703.5	753	753	803	823	933.5	933.5	1047.5	1047.5	1130	1130
n	155	176	176	193	215	257	257	315	315	347	347
n1	121	132	132	147	158	179	179	219	219	234	234
x	-	-	-	-	-	-	-	-	-	3	3

Klemens Kutusu / Terminal Box / Klemmenkasten

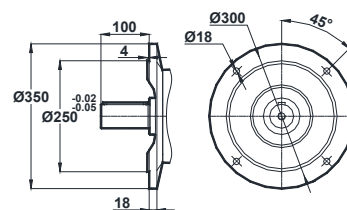


80-90-100-112-132-160-180

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



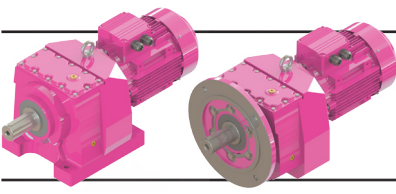
Opt. 1



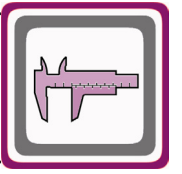
Opt. 2

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

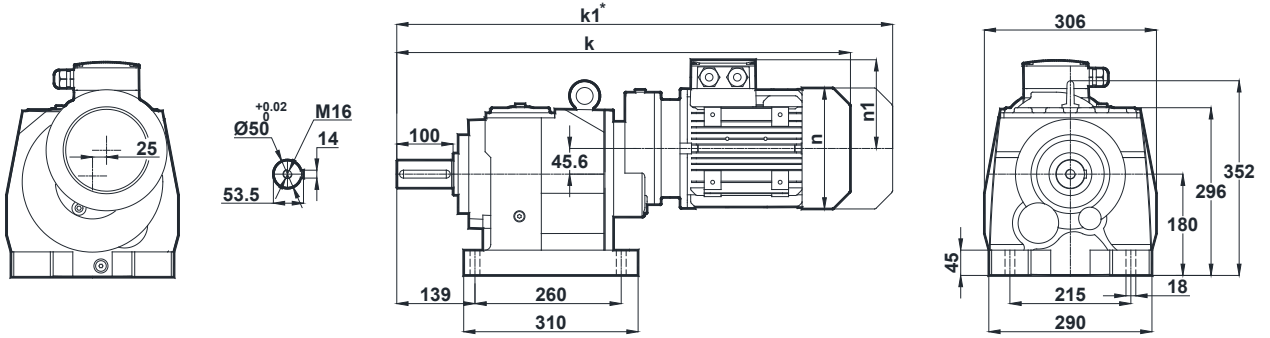


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

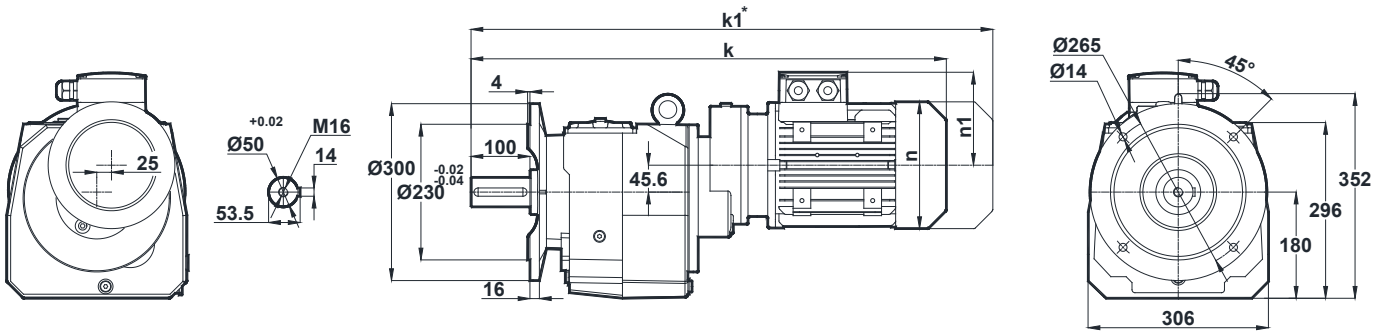


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR474

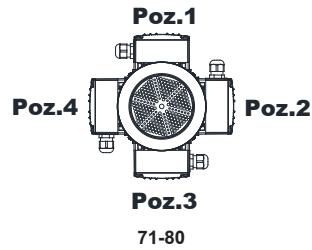


## NR474

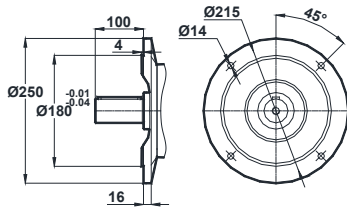


Motor Büyüklüğü / Motor Size / Motorbaugroße	71	80
k	670	704
k1	761	797
n	137	155
n1	112	121

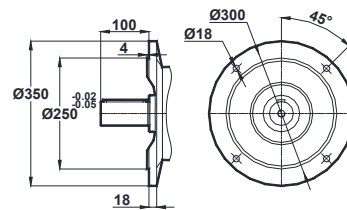
Klemens Kutusu / Terminal Box / Klemmenkasten



Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

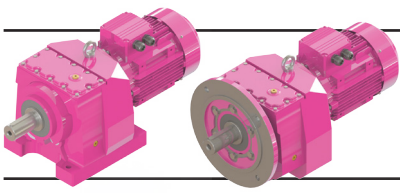


Opt. 1

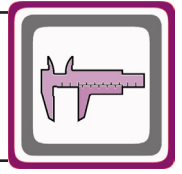


Opt. 2

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

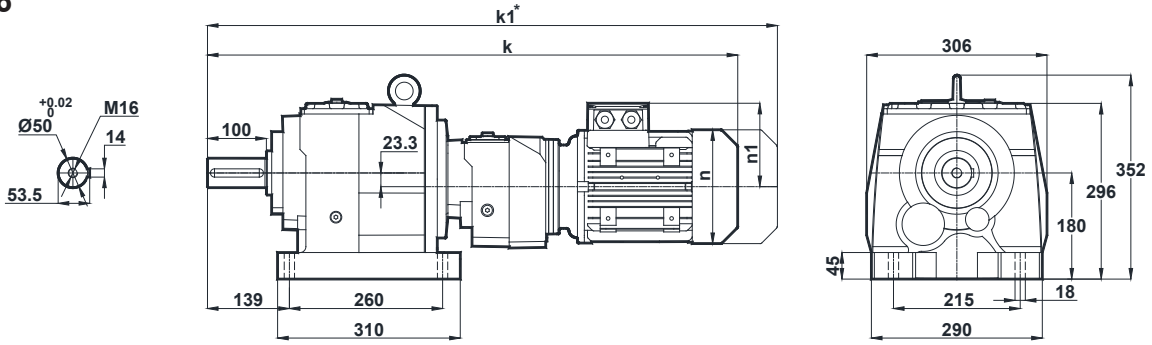


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

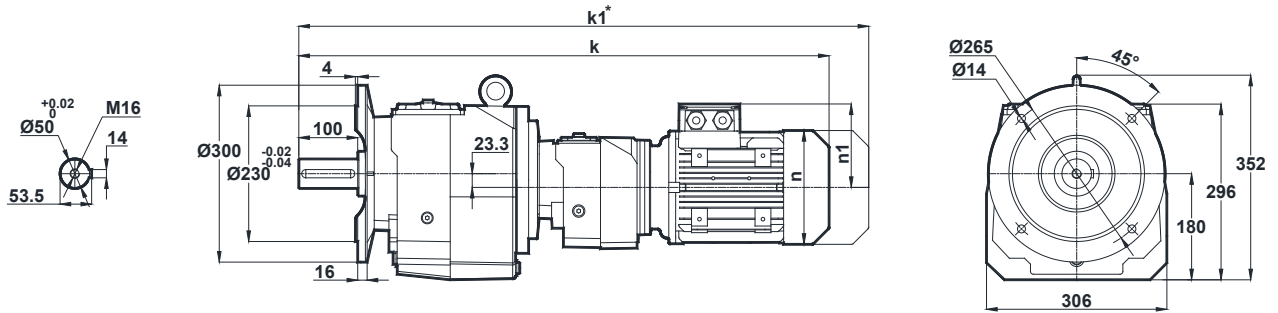


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR475 MR476

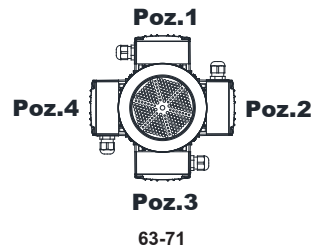


## NR475 NR476

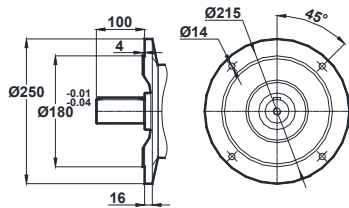


Motor Büyüklüğü / Motor Size / Motorbaugroße	63	71
k	773	800
k1	834	891
n	121	137
n1	97	112

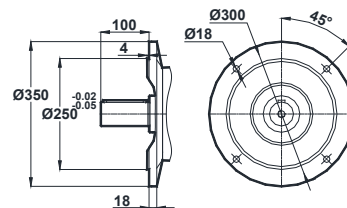
Klemens Kutusu / Terminal Box / Klemmenkasten



Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



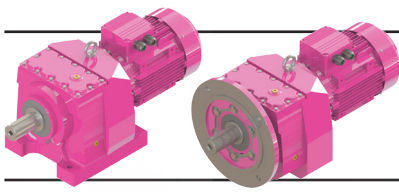
Opt. 1



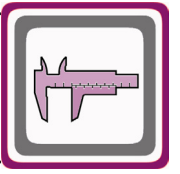
Opt. 2

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.



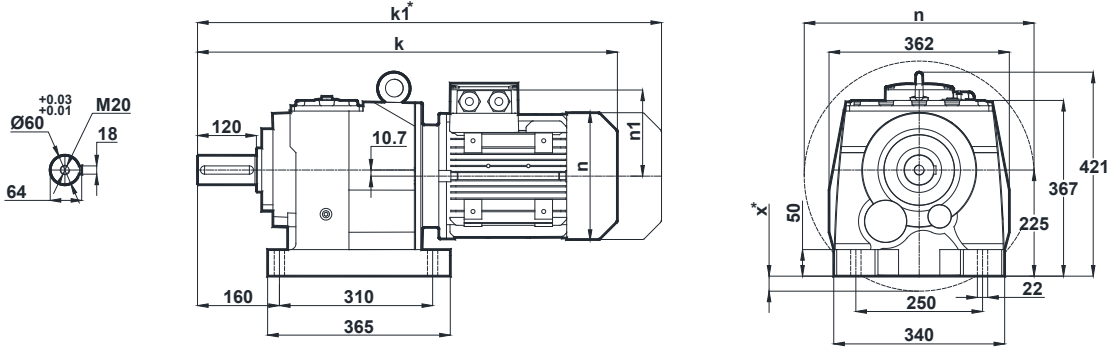


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

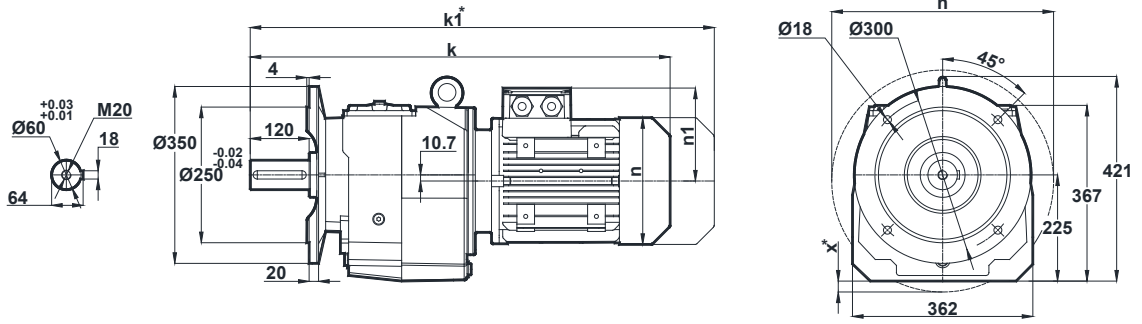


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR572 MR573

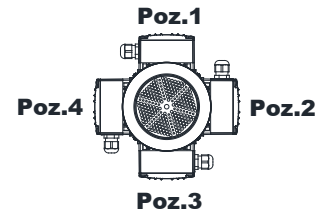


## NR572 NR573



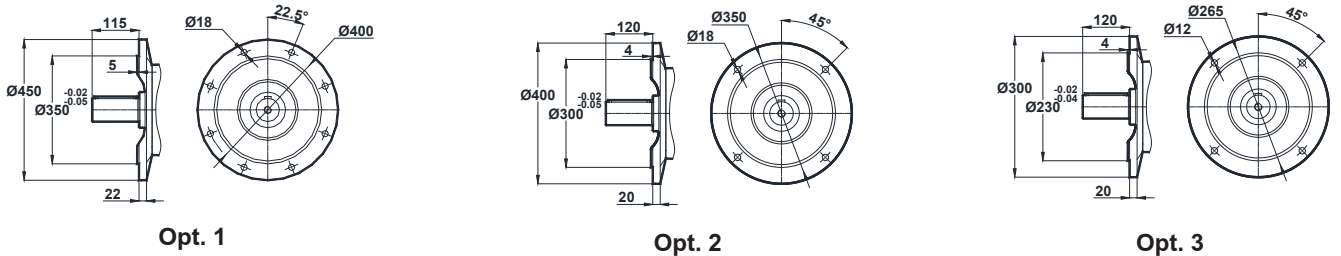
Motor Büyüklüğü / Motor Size / Motorbaugröße									
	100L	112M	132S	132M	160M	160L	180M	180L	200L
k	753	777	863.5	863.5	959.5	959.5	1031.5	1031.5	1077.5
k1	861.5	881.5	993.5	993.5	1107.5	1107.5	1190	1190	1204
n	193	215	257	257	315	315	347	347	390
n1	147	158	179	179	219	219	234	234	275
x	-	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten



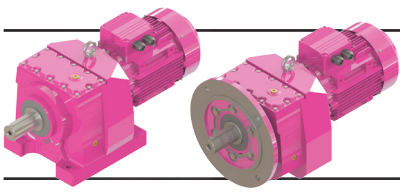
100-112-132-160-180-200

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



\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

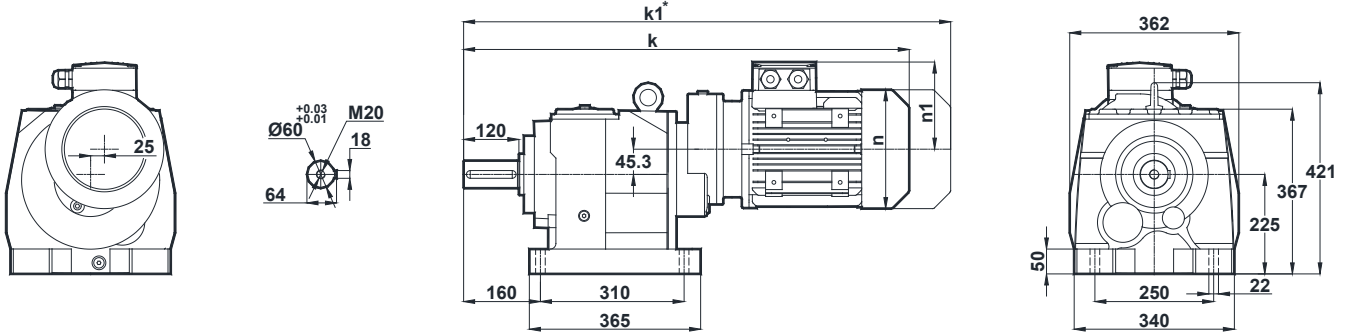


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

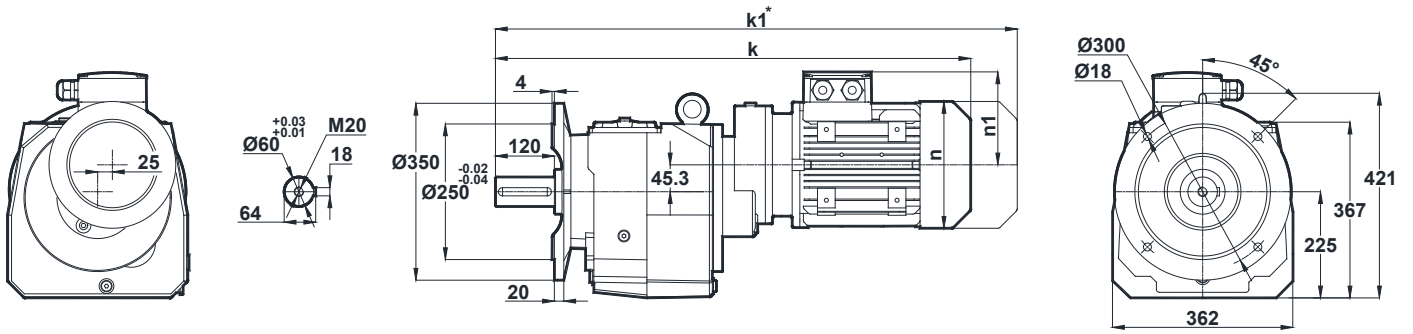


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

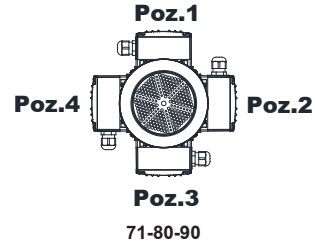
## MR574



## NR574

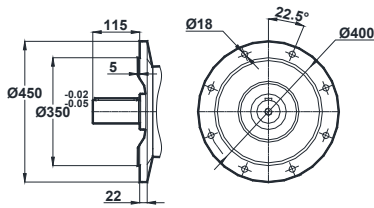


Klemens Kutusu / Terminal Box / Klemmenkasten

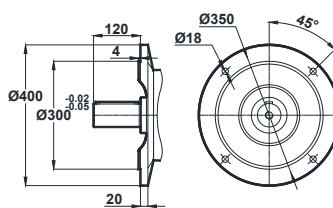


Motor Büyüklüğü / Motor Size / Motorbaugroße	71	80	90S	90L
k	733	767	806	806
k1	824	860	909.5	909.5
n	137	155	176	176
n1	112	121	132	132

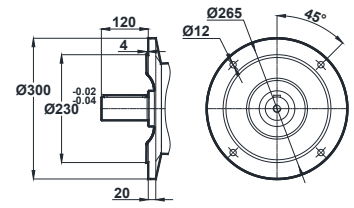
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

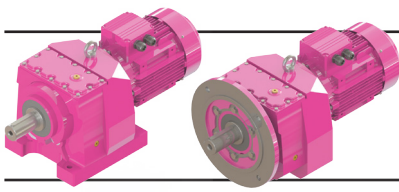


Opt. 2

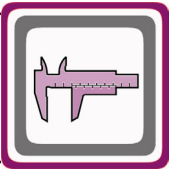


Opt. 3

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

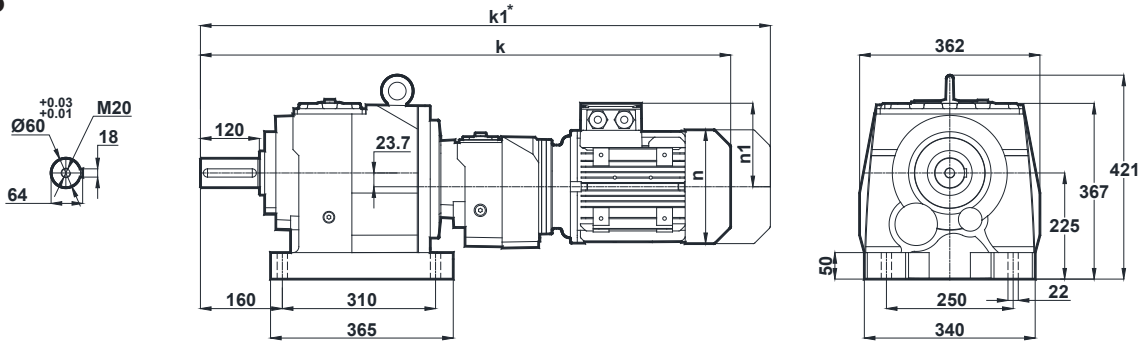


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

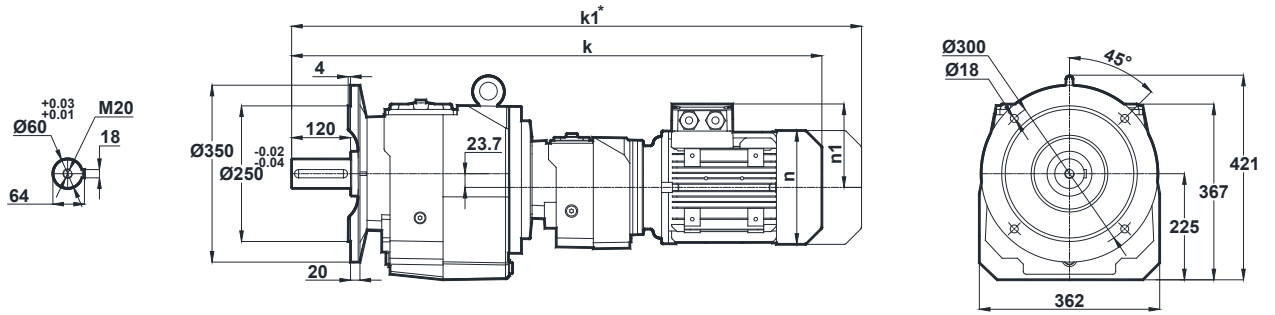


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR575 MR576

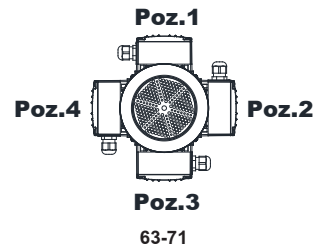


## NR575 NR576

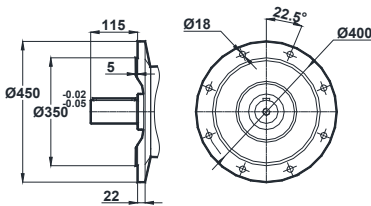


Motor Büyüklüğü / Motor Size / Motorbaugroße	63	71
k	838	865
k1	899	956
n	121	137
n1	97	112

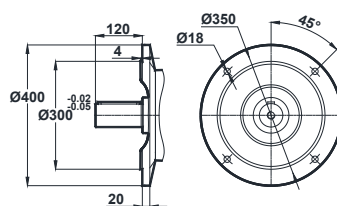
Klemens Kutusu / Terminal Box / Klemmenkasten



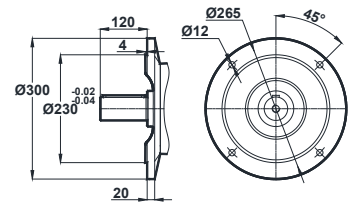
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

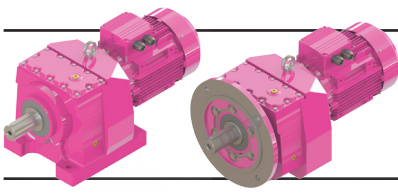


Opt. 2

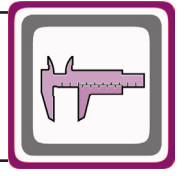


Opt. 3

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

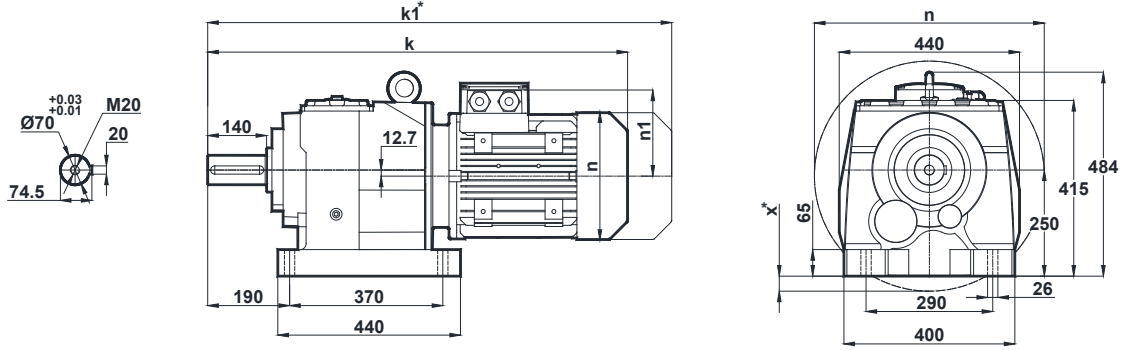


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

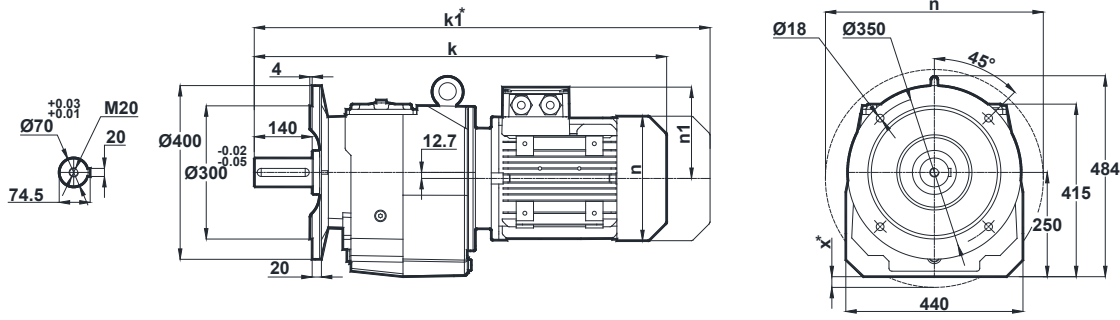


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR672 MR673

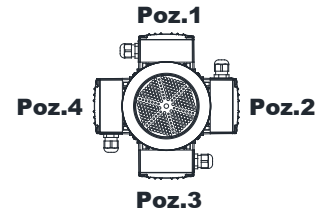


## NR672 NR673



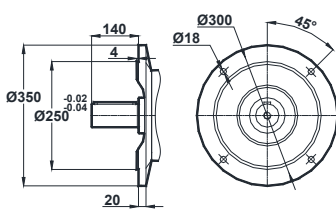
Motor Büyüklüğü / Motor Size / Motorbaugroße										
	112M	132S	132M	160M	160L	180M	180L	200L	225S	225M
k	833	919.5	919.5	1015.5	1015.5	1087.5	1087.5	1133.5	1160	1185
k1	937.5	1049.5	1049.5	1163.5	1163.5	1246	1246	1320	1325	1350
n	215	257	257	315	315	347	347	390	434	434
n1	158	179	179	219	219	234	234	275	285	285
x	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten

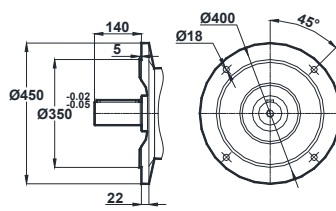


112-132-160-180-200-225

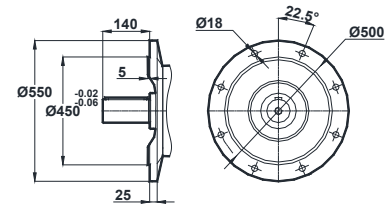
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



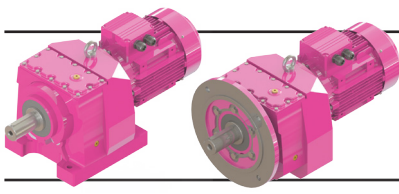
Opt. 2



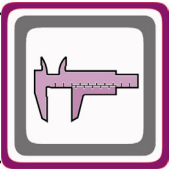
Opt. 3

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

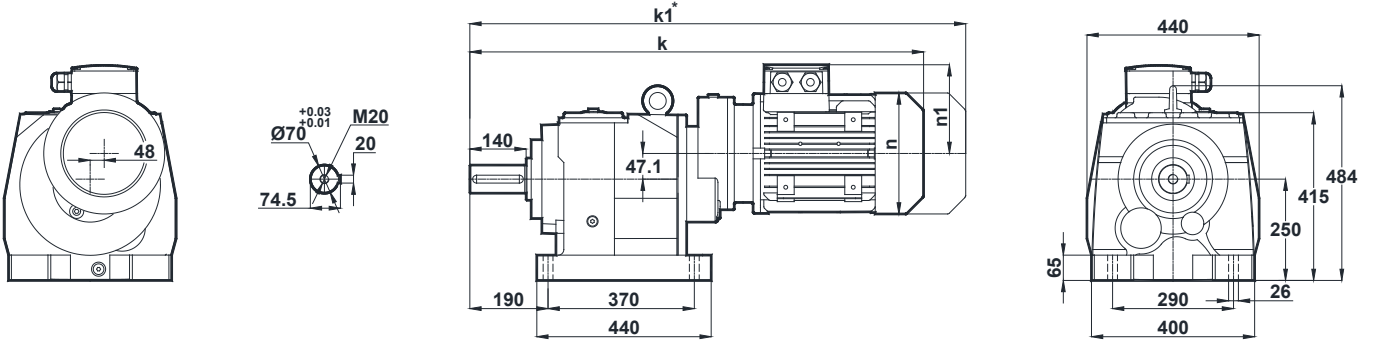


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

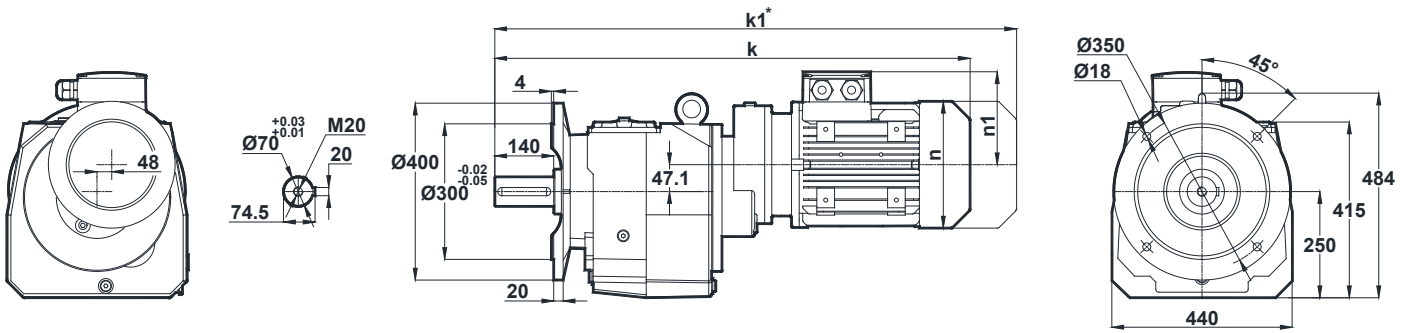


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR674

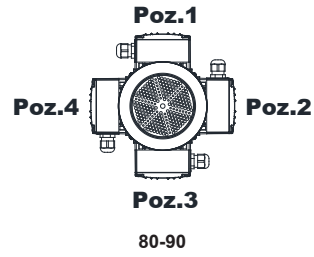


## NR674

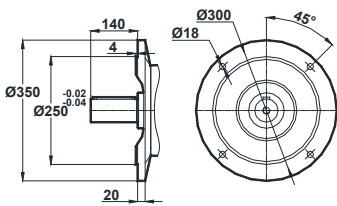


Motor Büyüklüğü / Motor Size / Motorbaugroße			
	80	90S	90L
k	841.5	880.5	880.5
k1	934.5	984	984
n	155	176	176
n1	121	132	132

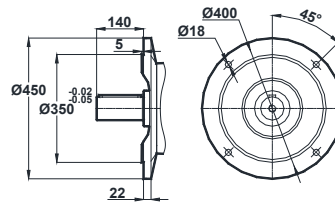
Klemens Kutusu / Terminal Box / Klemmenkasten



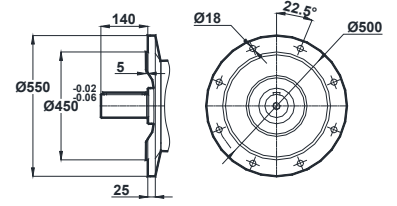
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

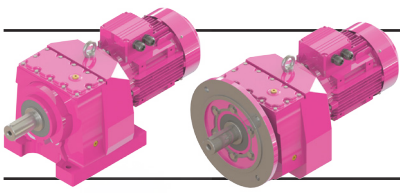


Opt. 2



Opt. 3

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

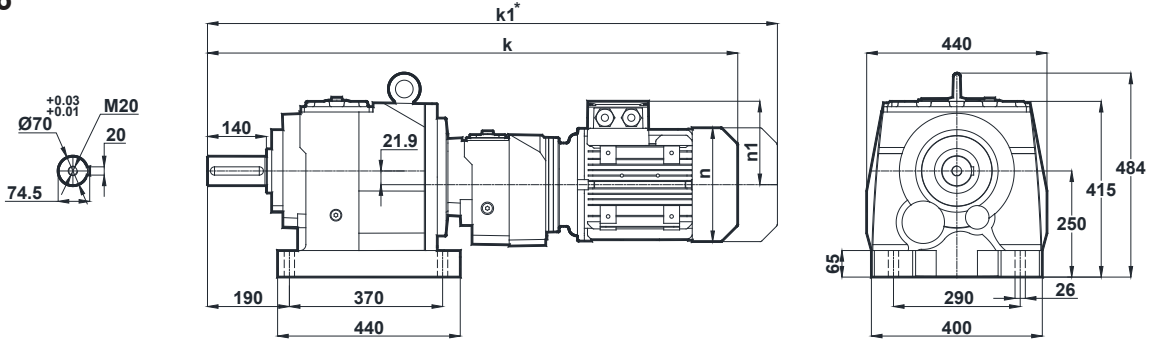


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

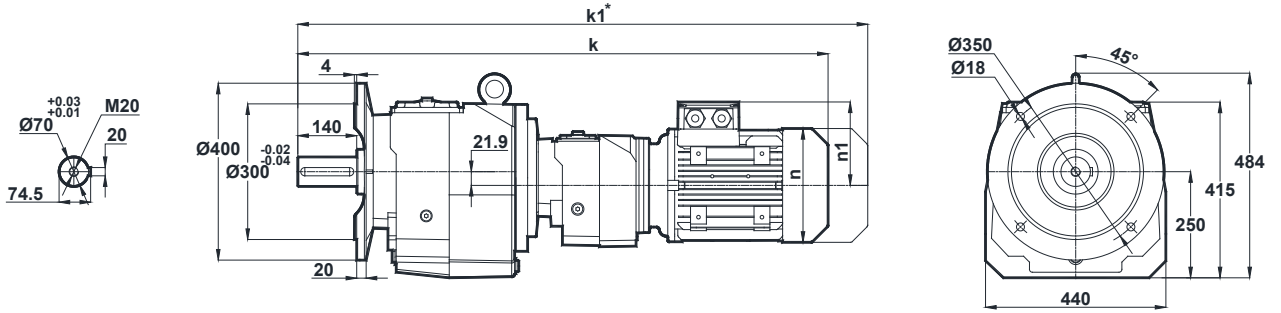


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR675 MR676

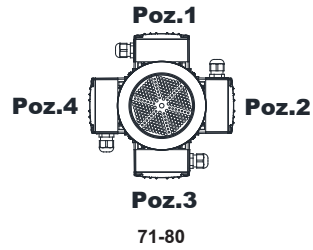


## NR675 NR676

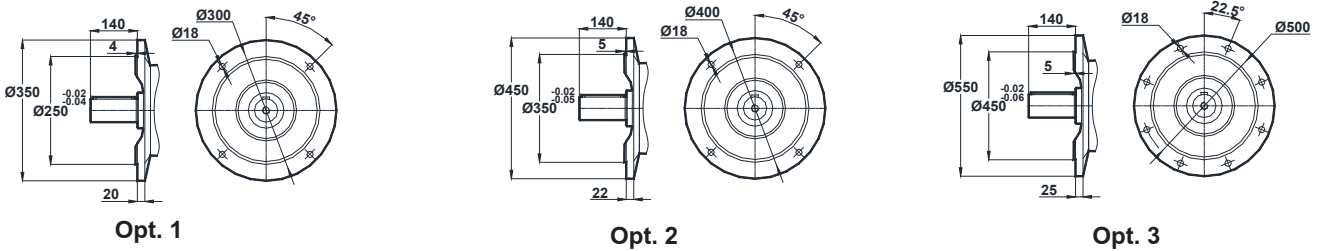


Motor Büyüklüğü / Motor Size / Motorbaugroße		
	71	80
k	953.5	987.5
k1	1044.5	1080.5
n	137	155
n1	112	121

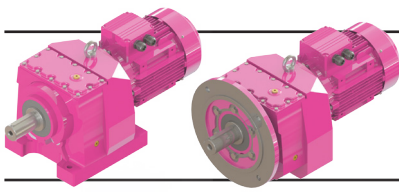
Klemens Kutusu / Terminal Box / Klemmenkasten



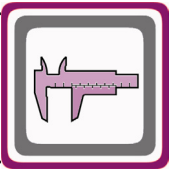
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

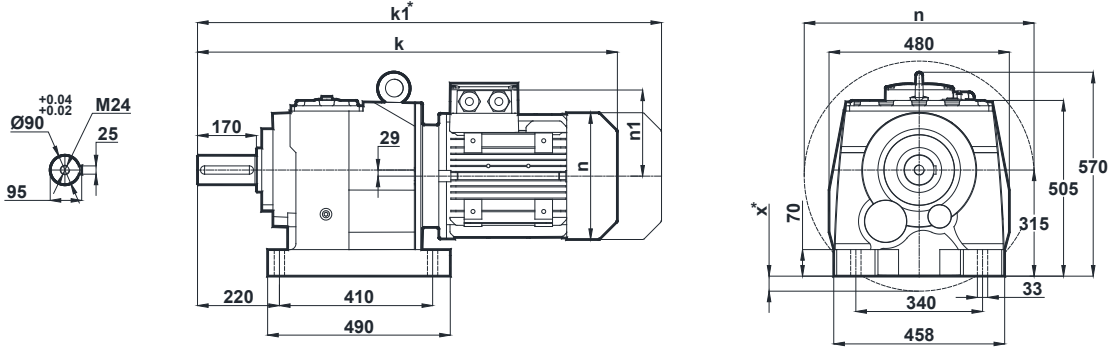


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

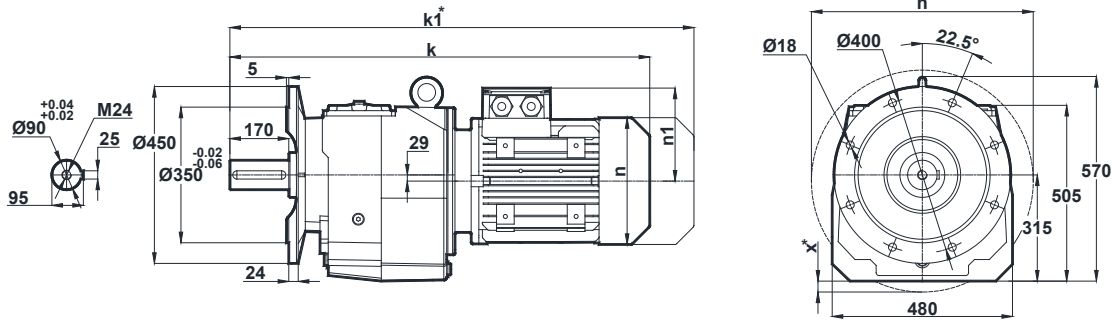


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR772 MR773

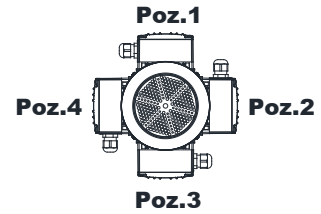


## NR772 NR773



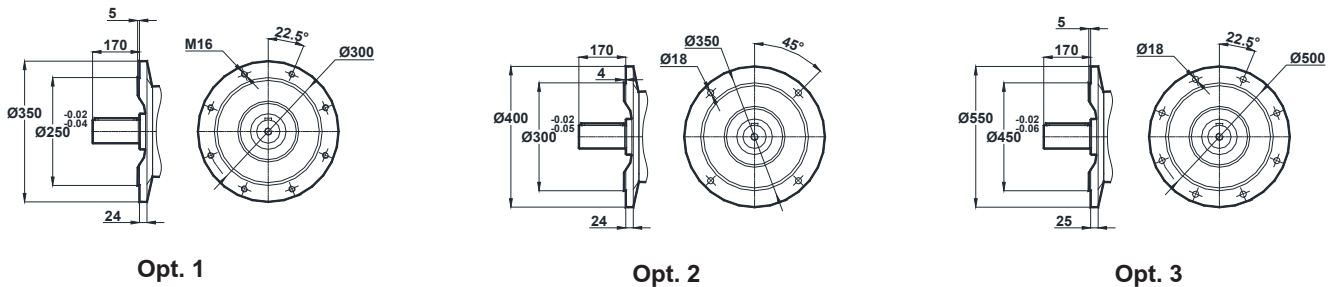
Motor Büyüklüğü / Motor Size / Motorbaugroße										
	132S	132M	160M	160L	180M	180L	200L	225S	225M	250M
k	1000.5	1000.5	1096.5	1096.5	1168.5	1168.5	1214.5	1241.5	1266.5	1358.5
$k_1$	1130.5	1130.5	1244.5	1244.5	1327	1327	1401	1406.5	1431.5	1529
n	257	257	315	315	347	347	390	434	434	480
$n_1$	179	179	219	219	234	234	275	285	285	322
x	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten



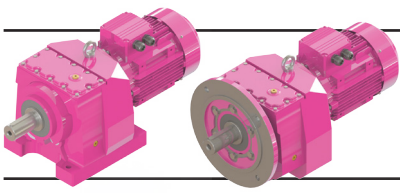
132-160-180-200-225-250

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

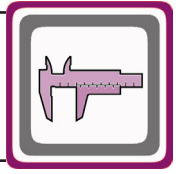


\* "  $k_1$  " Ölçüsü frenli redüktörlere aittir. Dimension "  $k_1$  " is for motors with brake. Maße "  $k_1$  " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

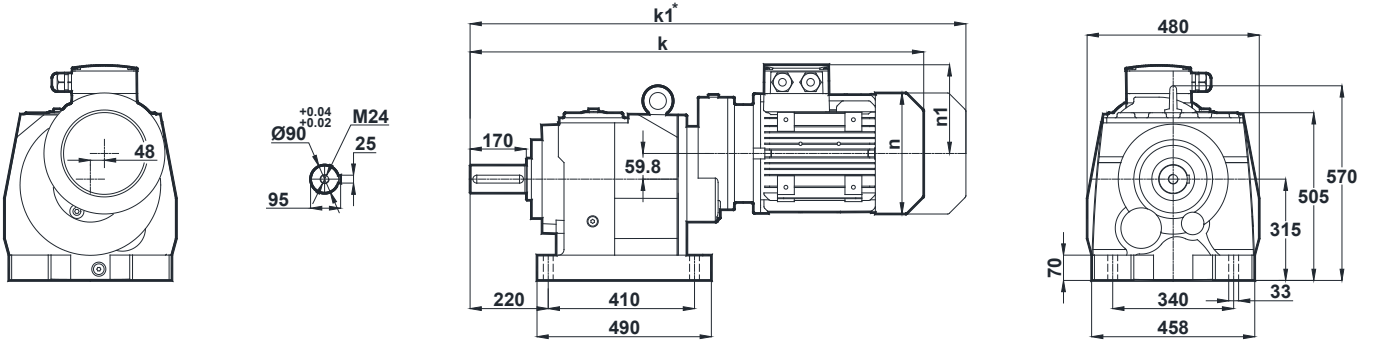


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

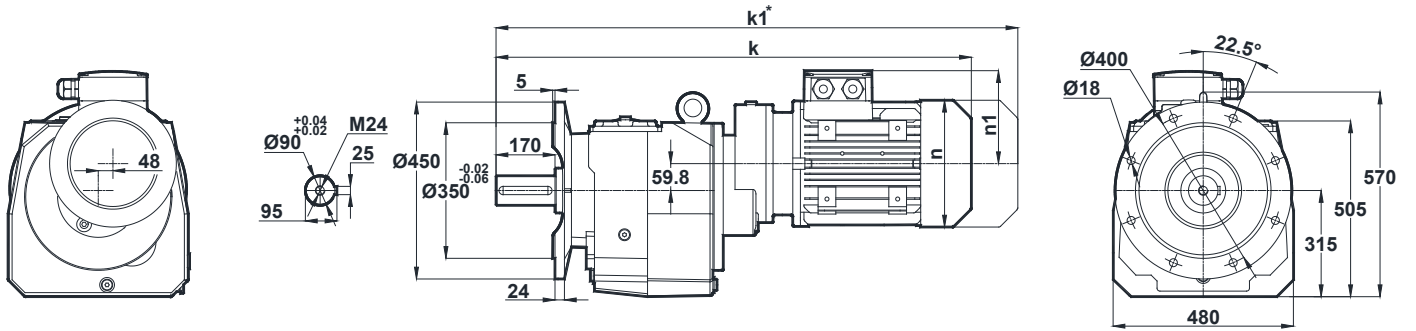


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR774

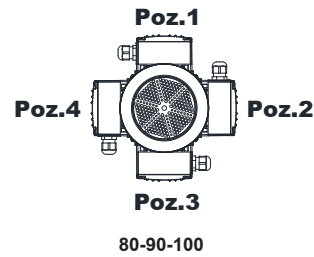


## NR774

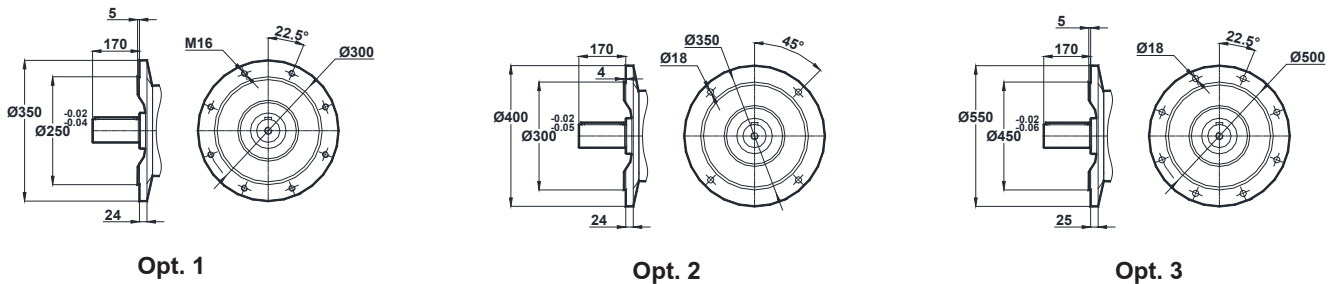


Motor Büyüklüğü / Motor Size / Motorbaugroße	80	90S	90L	100L
k	926.5	965.5	965.5	1010.5
k1	1019.5	1069	1069	1119
n	155	176	176	193
n1	121	132	132	147

Klemens Kutusu / Terminal Box / Klemmenkasten

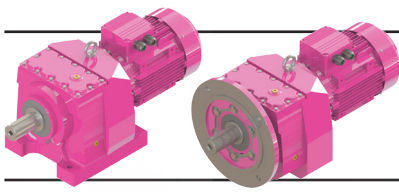


Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

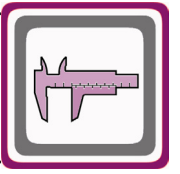


\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.



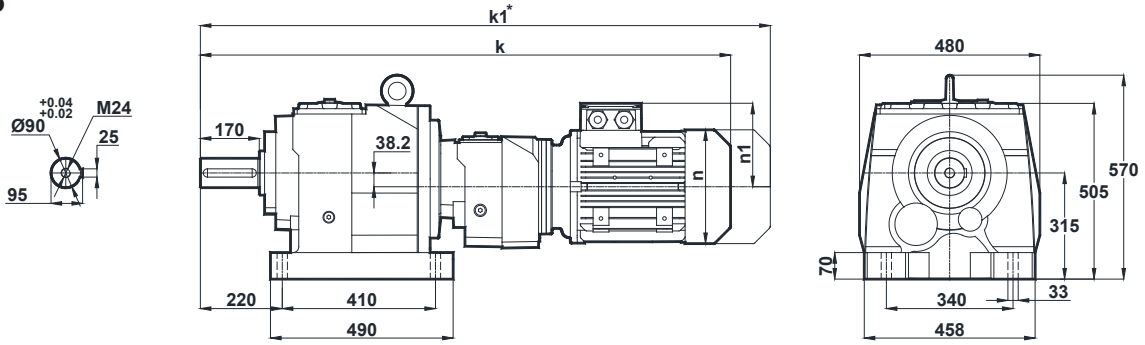


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

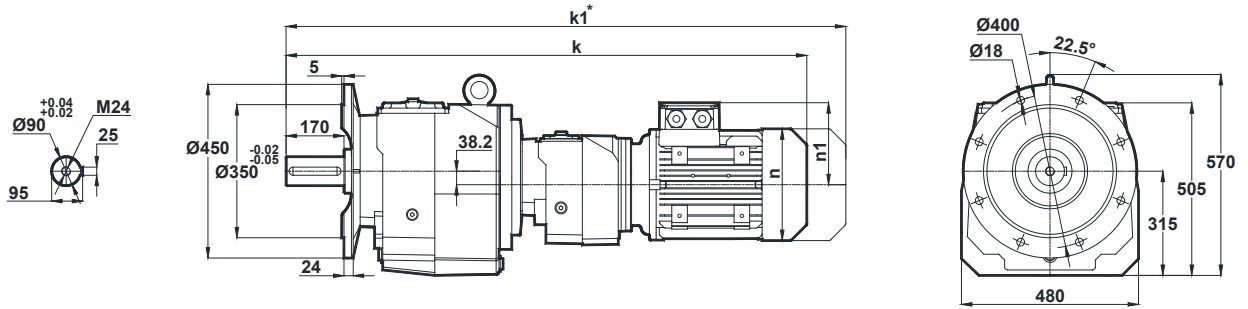


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR775 MR776

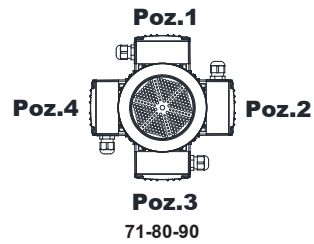


## NR775 NR776

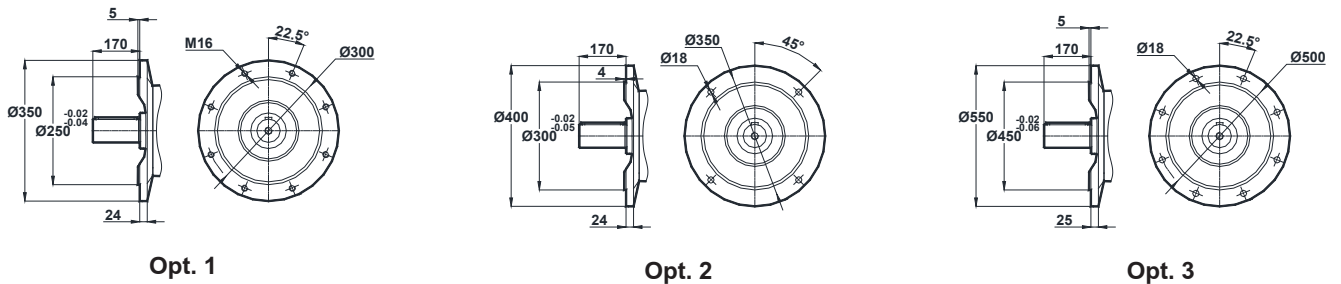


Motor Büyüklüğü / Motor Size / Motorbaugroße	71	80	90S	90L
k	1041.5	1075.5	1114.5	1114.5
k1	1132.5	1168.5	1218	1218
n	137	155	176	176
n1	112	121	132	132

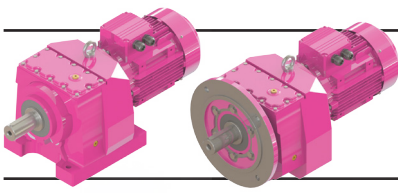
Klemens Kutusu / Terminal Box / Klemmenkasten



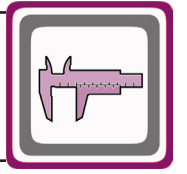
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

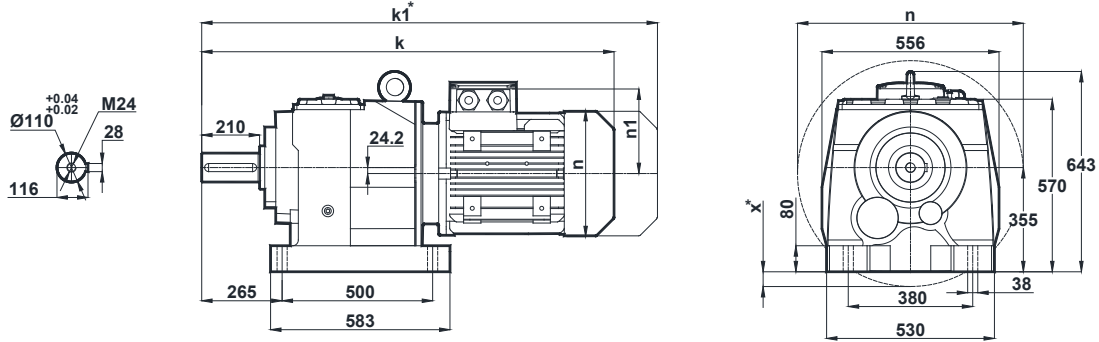


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

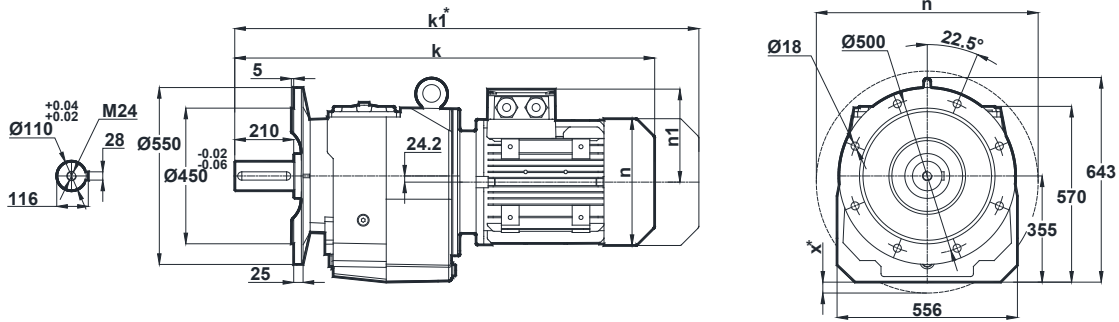


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR872 MR873

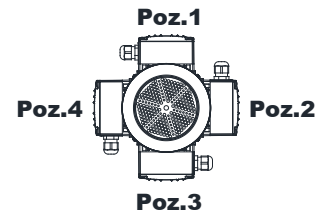


## NR872 NR873



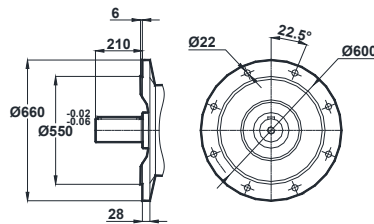
Motor Büyüklüğü / Motor Size / Motorbaugroße											
	132M	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M
k	1109.5	1205.5	1205.5	1277.5	1277.5	1323.5	1353	1378	1468.5	1530.5	1530.5
k1	1239.5	1353.5	1353.5	1436	1436	1510	1518	1543	1639	1703.5	1709.5
n	257	315	315	347	347	390	434	434	480	544	544
n1	179	219	219	234	234	275	285	285	322	350	350
x	-	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten



132-160-180-200-225-250-280

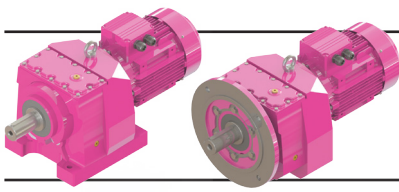
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



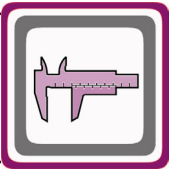
Opt. 1

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

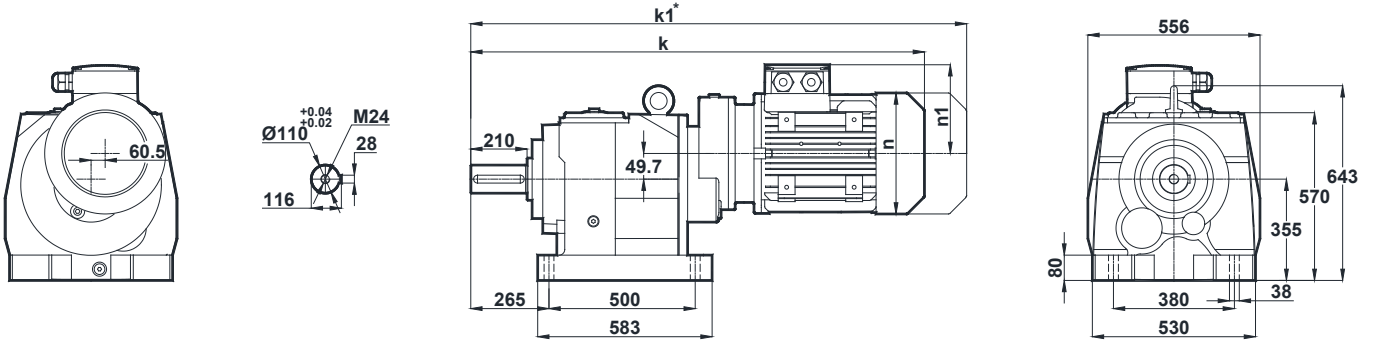


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

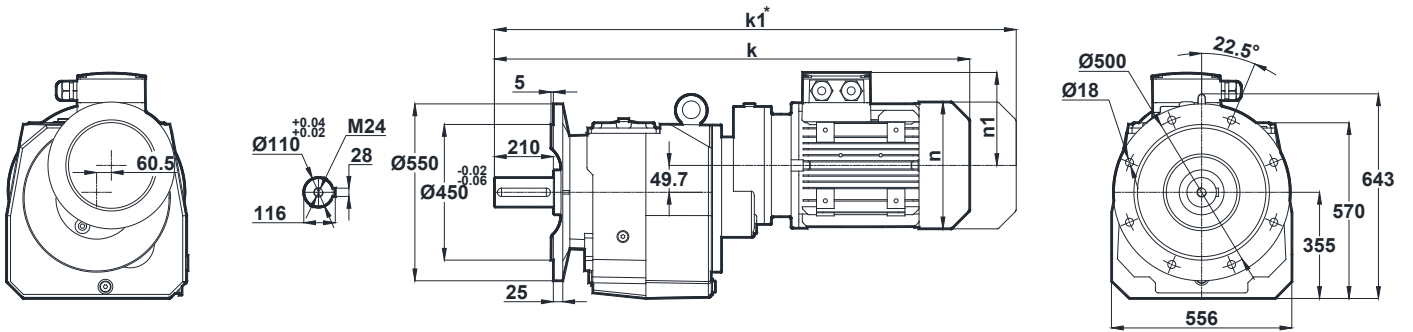


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR874

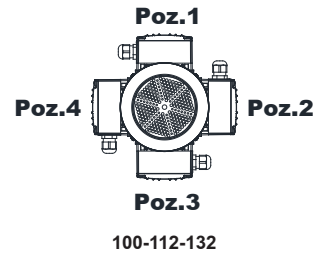


## NR874

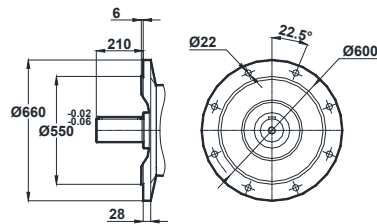


Motor Büyüklüğü / Motor Size / Motorbaugroße	100L	112M	132S	132M
k	1141	1165	1251.5	1251.5
k1	1249.5	1269.5	1381.5	1381.5
n	193	215	257	257
n1	147	158	179	179

Klemens Kutusu / Terminal Box / Klemmenkasten

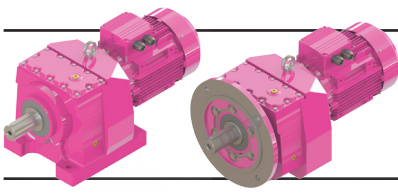


Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

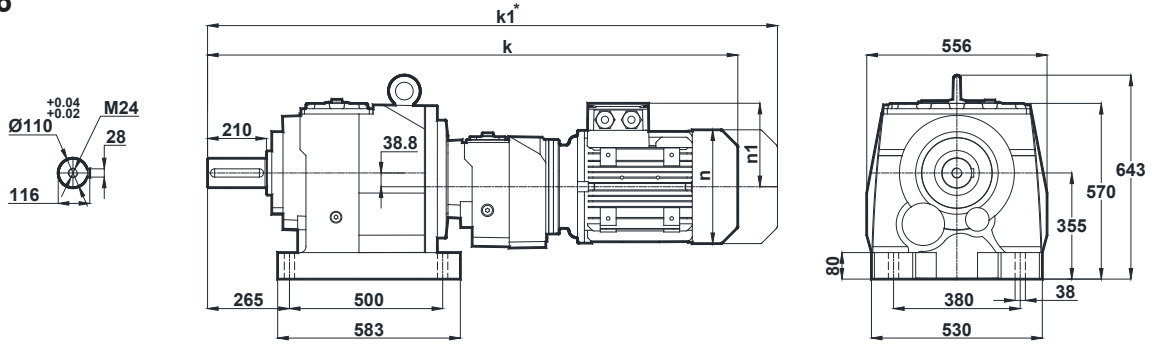


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

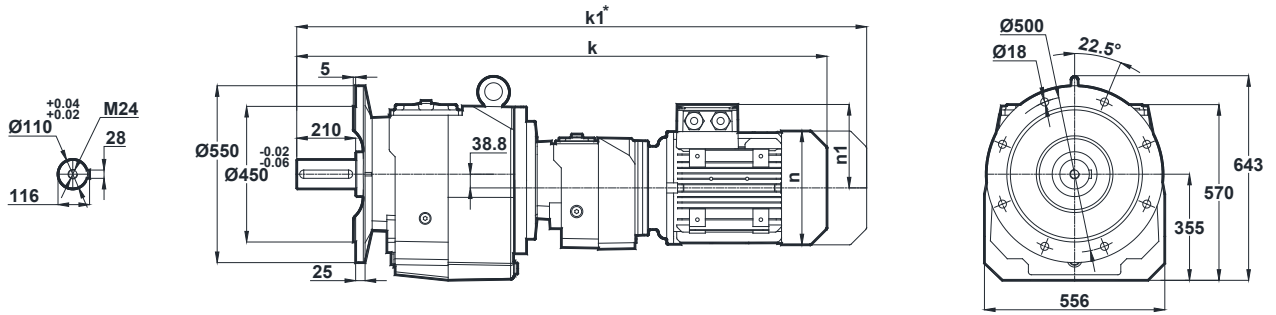


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR875 MR876

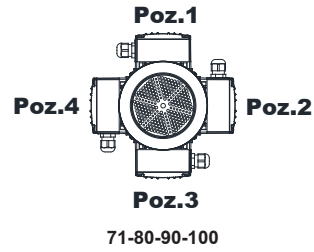


## NR875 NR876

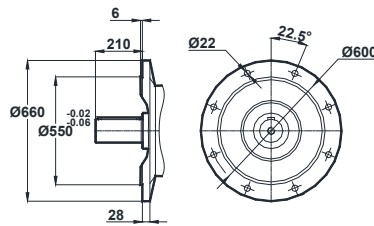


Klemens Kutusu / Terminal Box / Klemmenkasten

Motor Büyüklüğü / Motor Size / Motorbaugroße	71	80	90S	90L	100L
k	1158.5	1192.5	1231.5	1231.5	1279.5
k1	1249.5	1285.5	1335	1335	1388
n	137	155	176	176	193
n1	112	121	132	132	147

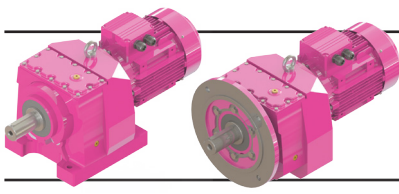


Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

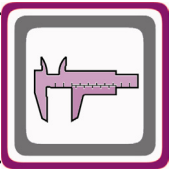


Opt. 1

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

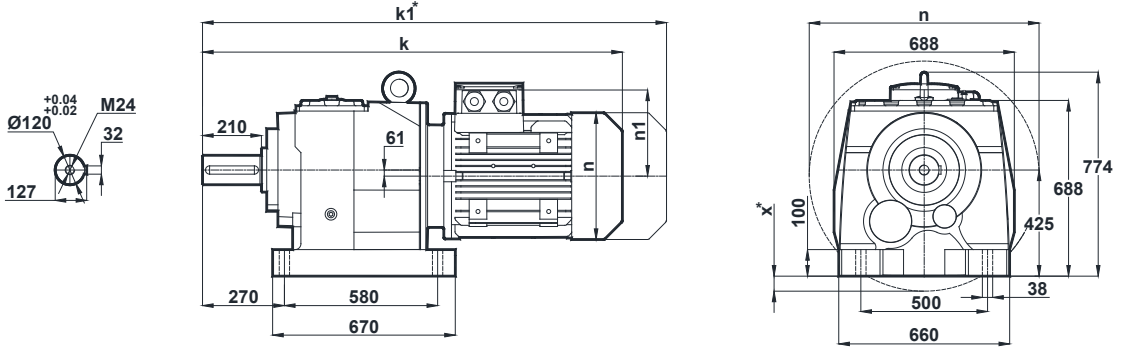


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

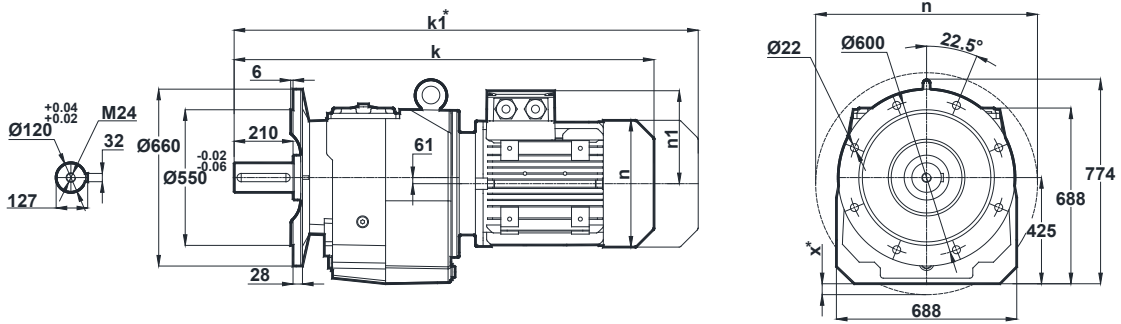


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR972 MR973

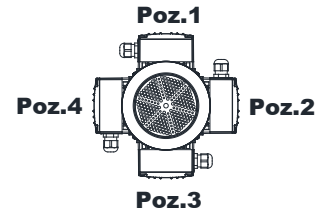


## NR972 NR973



Motor Büyüklüğü / Motor Size / Motorbaugröße												
	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M	315S	315M
k	1271	1271	1343	1343	1389	1402.5	1430.5	1521	1583	1583	1701.5	1753.5
k1	1419	1419	1501.5	1501.5	1575.5	1567.5	1595.5	1691.5	1756	1762	-	-
n	315	315	347	347	390	434	434	480	544	544	614	614
n1	219	219	234	234	275	285	285	322	350	350	510	510
x	-	-	-	-	-	-	-	-	-	-	-	-

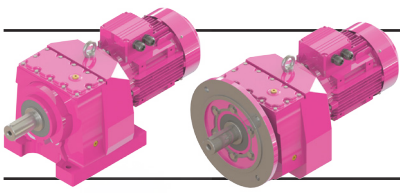
Klemens Kutusu / Terminal Box / Klemmenkasten



160-180-200-225-250-280-315

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

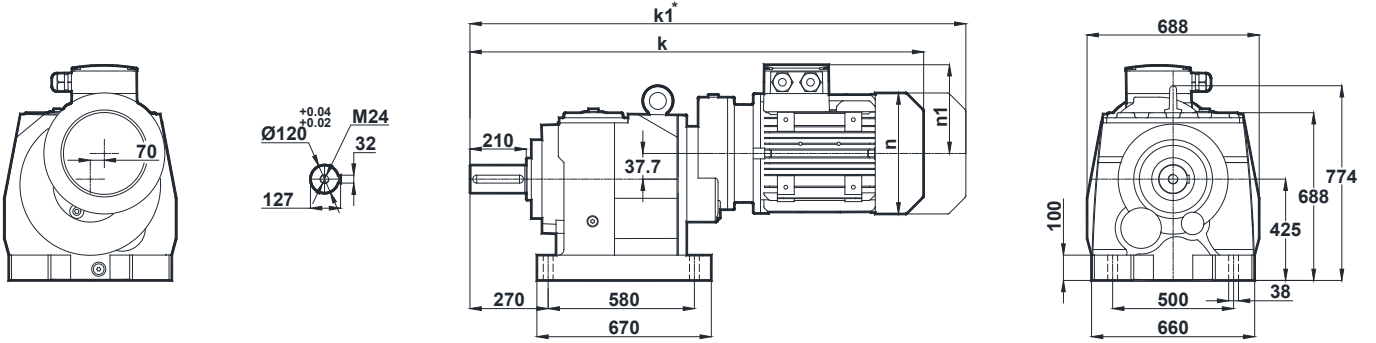
## Dimension Pages

### Abmessungsseiten

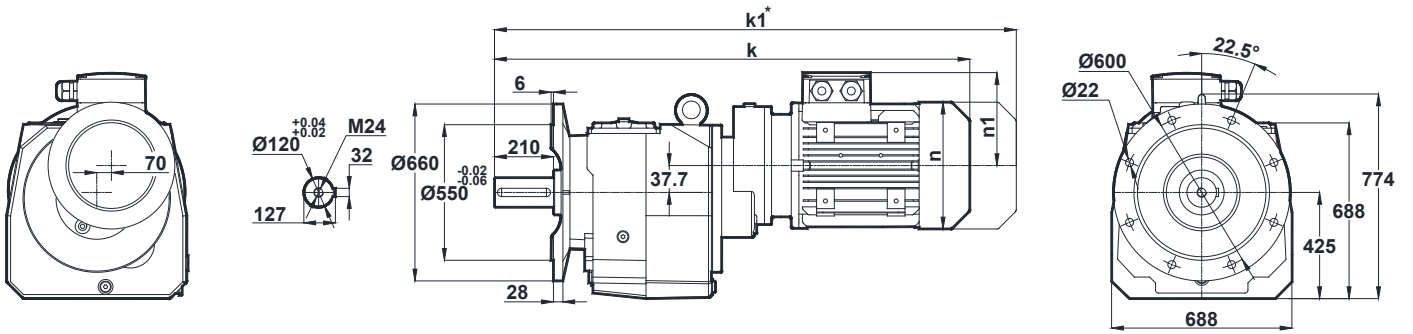


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

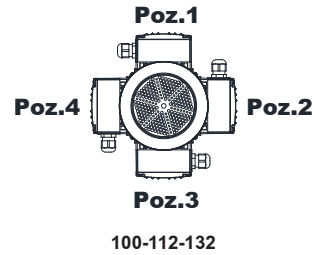
### MR974



### NR974

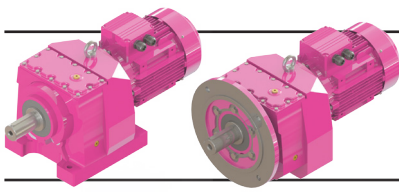


Klemens Kutusu / Terminal Box / Klemmenkasten

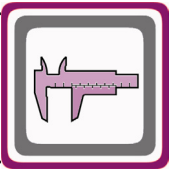


Motor Büyüklüğü / Motor Size / Motorbaugroße	100L	112M	132S	132M
k	1240.5	1264.5	1351	1351
k1	1349	1369	1481	1481
n	193	215	257	257
n1	147	158	179	179

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

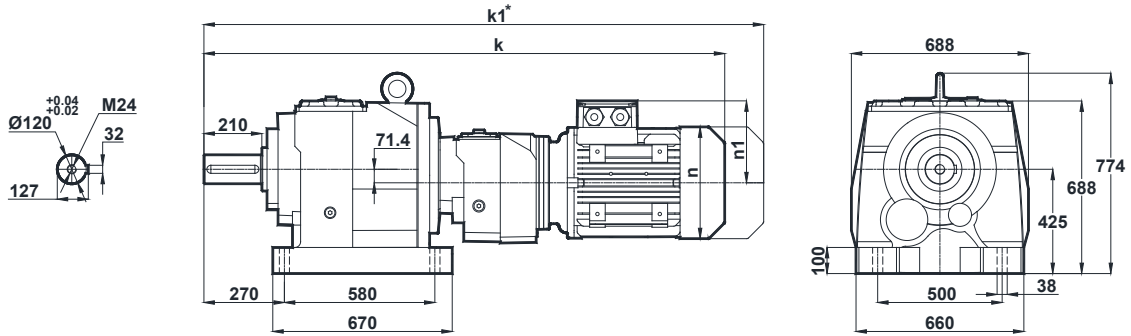


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

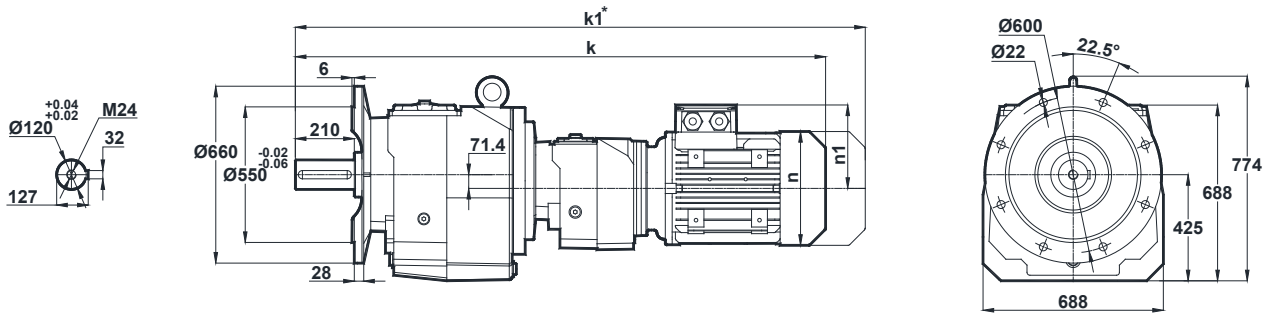


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR975 MR976

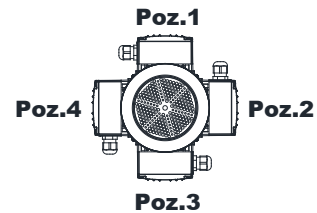


## NR975 NR976



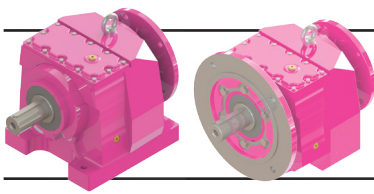
Motor Büyüklüğü / Motor Size / Motorbaugroße						
	80	90S	90L	100L	112M	132S
k	1319	1358	1358	1403	1427	1512
k1	1412	1461.5	1461.5	1511.5	1531.5	1642
n	155	176	176	193	215	257
n1	121	132	132	147	158	179

Klemens Kutusu / Terminal Box / Klemmenkasten



80-90-100-112-132

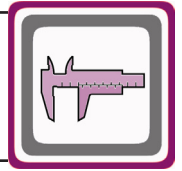
\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.



# Ölçü Sayfaları

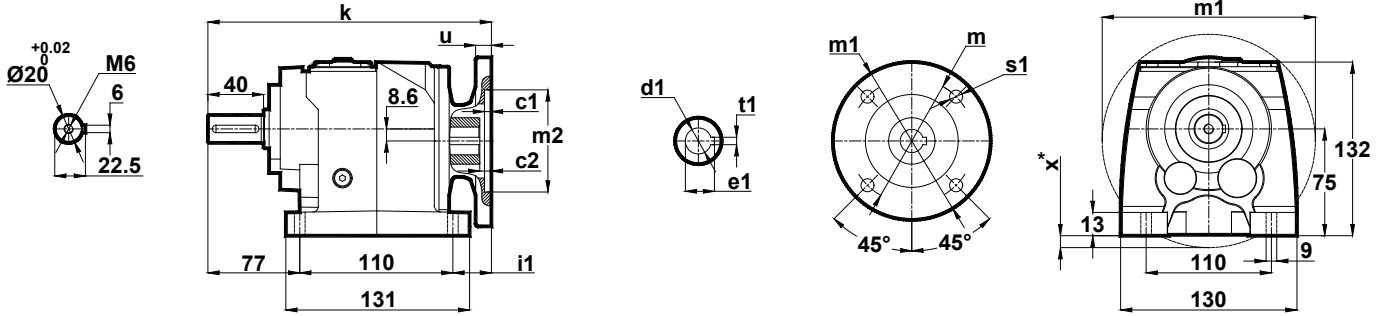
## Dimension Pages

### Abmessungsseiten

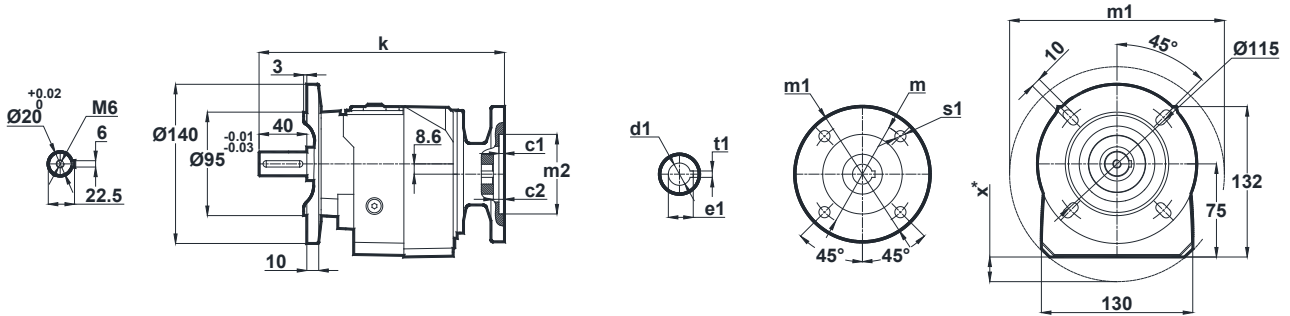


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

### MN002-A.. MN003-A..

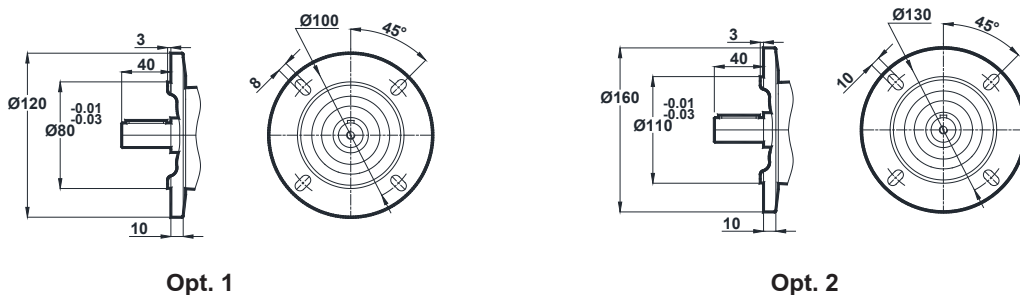


### NN002-A.. NN003-A..



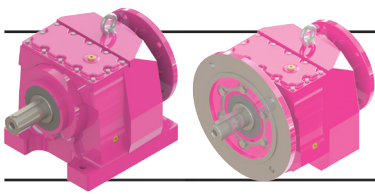
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	3.5	5	10	115	140	95	28	10	214	11	4	12.8	4
71/B5	4	4.5	11	130	160	110	29.5	12	215.5	14	5	16.3	14
80/B5	4	5	12	165	200	130	44.5	12	230.5	19	6	21.8	34
90/B5	4	5	12	165	200	130	44.5	12	230.5	24	8	27.3	34

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

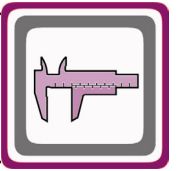


x: Motor flanş, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte



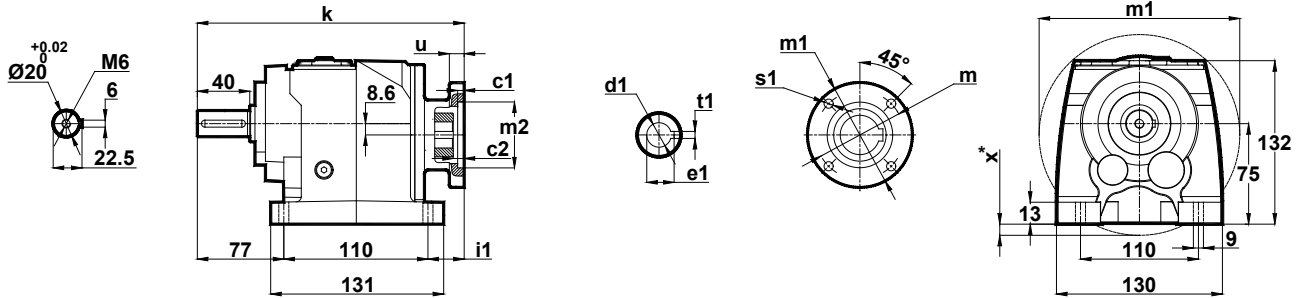


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

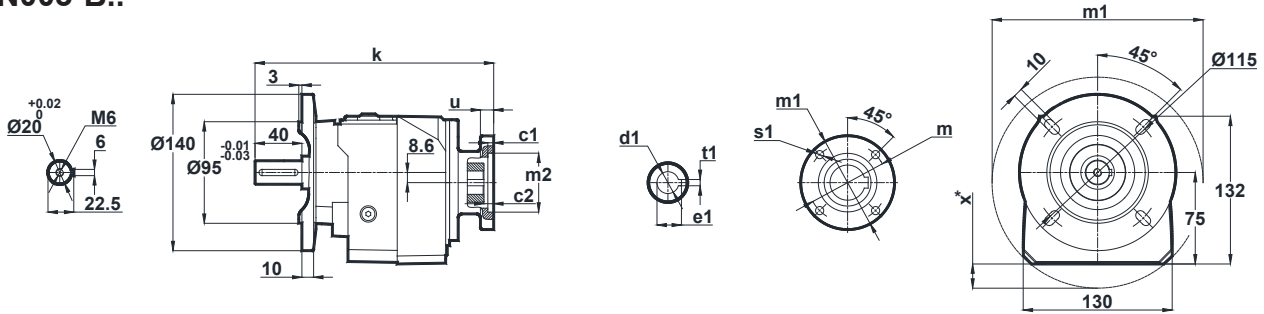


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN002-B..  
MN003-B..**

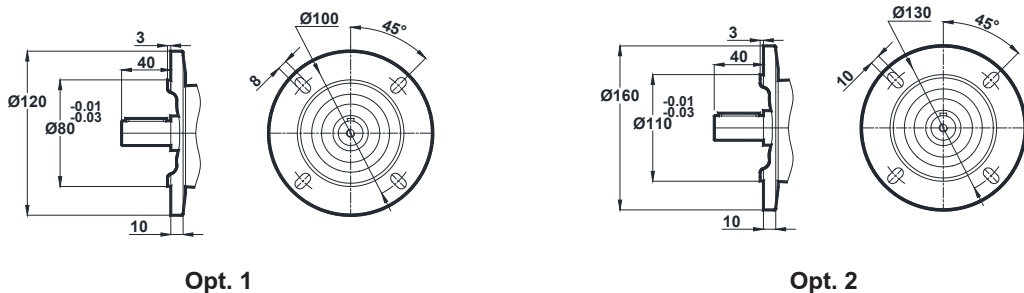


**NN002-B..  
NN003-B..**



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	215.5	14	5	16.3	-
80/B14	4	5	7	100	120	80	44.5	12	230.5	19	6	21.8	-
90/B14	4	5	9	115	140	95	44.5	12	230.5	24	8	27.3	4

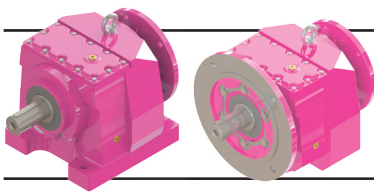
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

Opt. 2

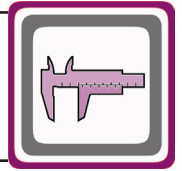
x: Motor flanş, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte



# Ölçü Sayfaları

## Dimension Pages

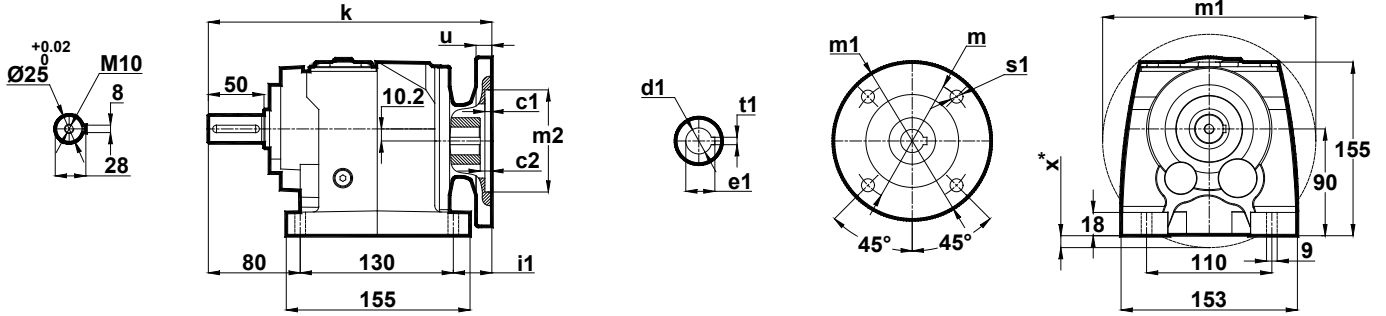
### Abmessungsseiten



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

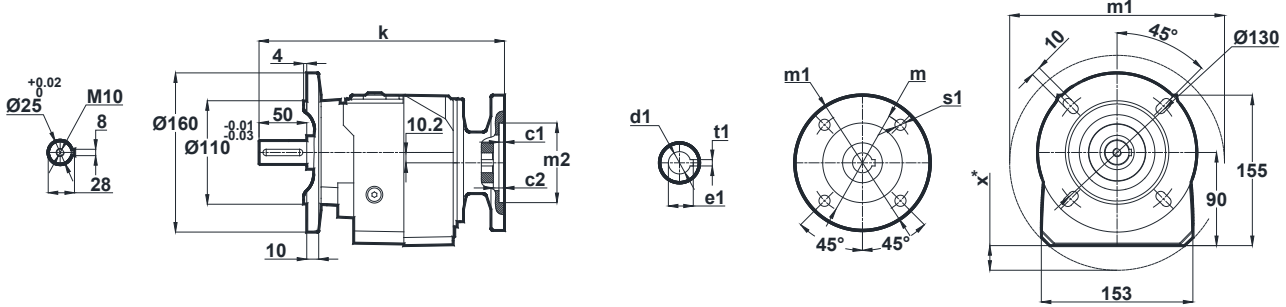
### MN102-A..

### MN103-A..



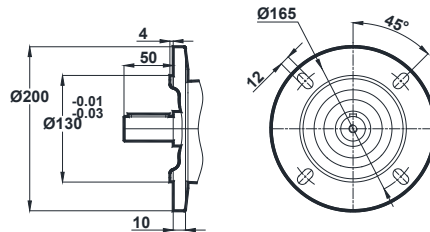
### NN102-A..

### NN103-A..



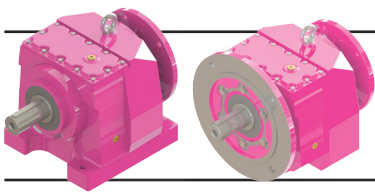
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	3.5	5	10	115	140	95	28.5	12	241	11	4	12.8	-
71/B5	4	4.5	12	130	160	110	28.5	12	242.5	14	5	16.3	0.5
80/B5	4	5	12	165	200	130	43.5	12	257.5	19	6	21.8	20
90/B5	4	5	12	165	200	130	43.5	12	257.5	24	8	27.3	20

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

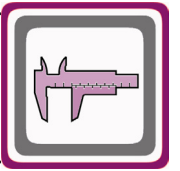


Opt. 1

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

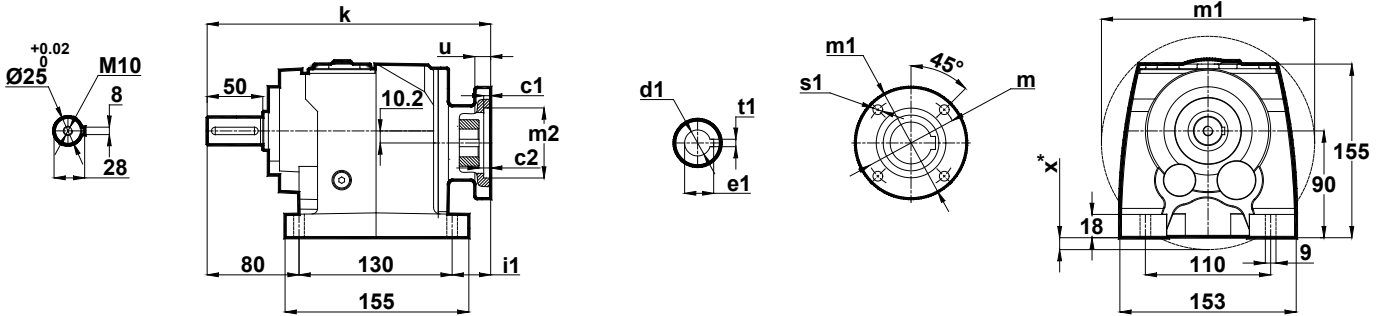


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

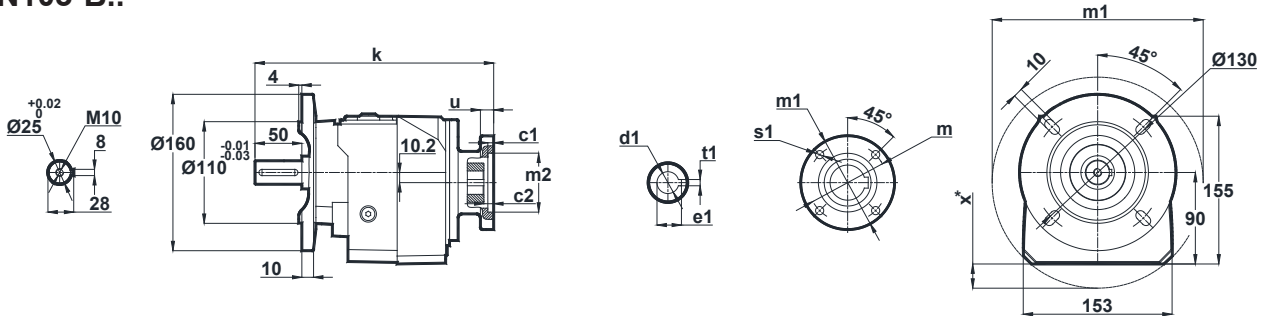


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MN102-B.. MN103-B..

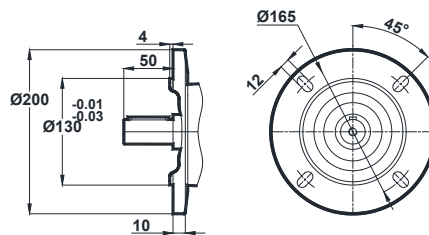


## NN102-B.. NN103-B..



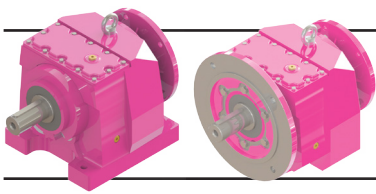
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B14	2.5	5	5.5	75	90	60	28.5	10	241	11	4	12.8	-
71/B14	3	4.5	7	85	105	70	28.5	10	242.5	14	5	16.3	-
80/B14	4	5	7	100	120	80	43.5	12	257.5	19	6	21.8	-
90/B14	4	5	9	115	140	95	43.5	12	257.5	24	8	27.3	-

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



Opt. 1

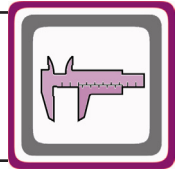
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte



# Ölçü Sayfaları

## Dimension Pages

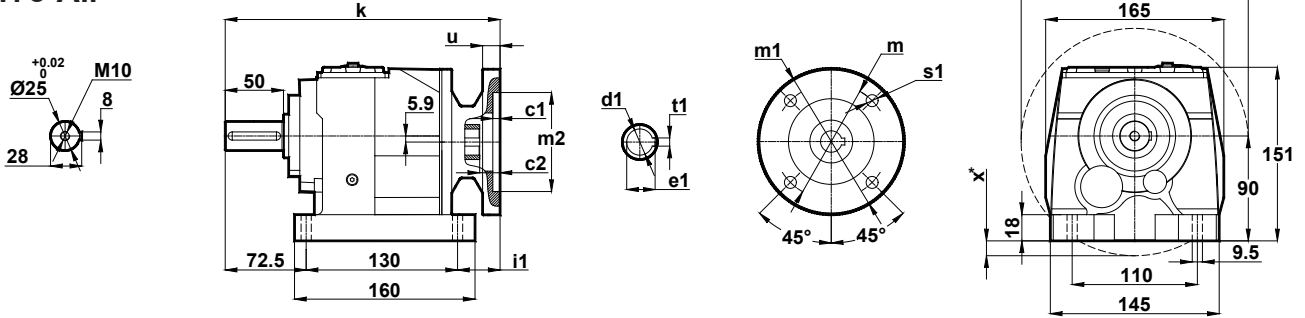
### Abmessungsseiten



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

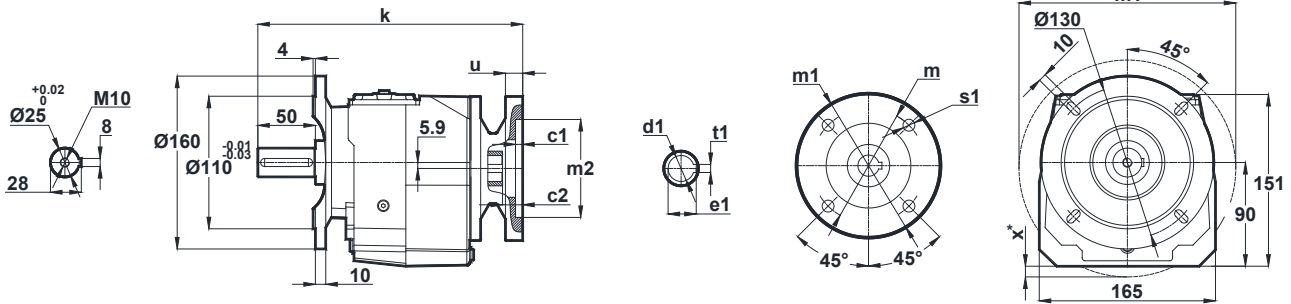
### MN172-A..

### MN173-A..



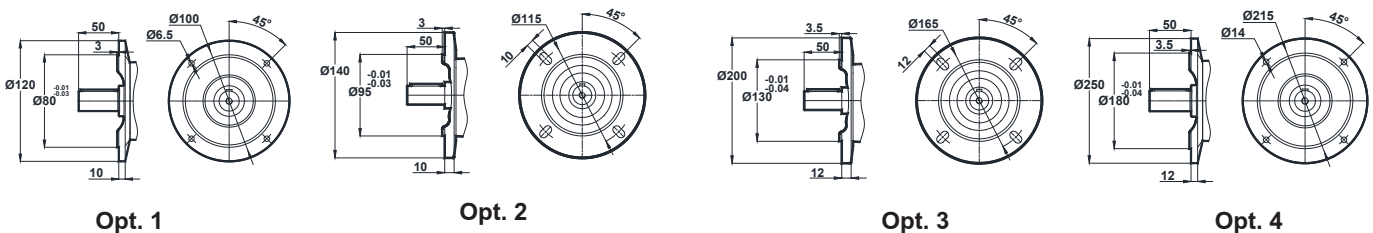
### NN172-A..

### NN173-A..

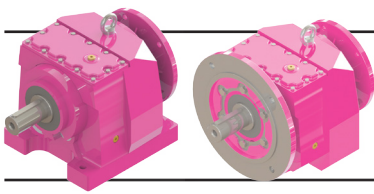


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	3.5	5	10	115	140	95	38.5	10	241	11	4	12.8	-
71/B5	4	4.5	11	130	160	110	40	12	242.5	14	5	16.3	-
80/B5	4	5	12	165	200	130	55	12	257.5	19	6	21.8	16
90/B5	4	5	12	165	200	130	55	12	257.5	24	8	27.3	16
100/B5	4.5	5	15	215	250	180	66	12	268.5	28	8	31.3	41
112/B5	4.5	5	15	215	250	180	66	12	268.5	28	8	31.3	41

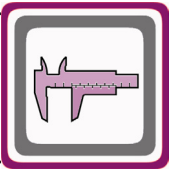
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



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

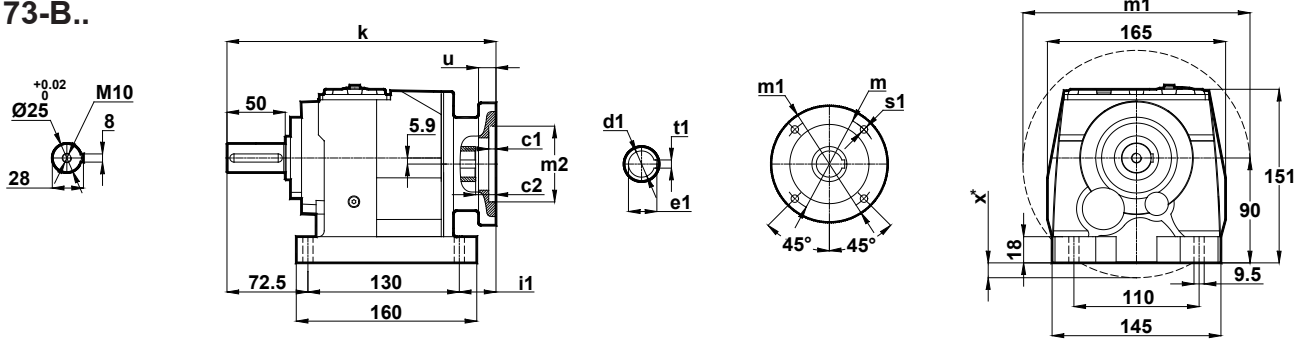


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

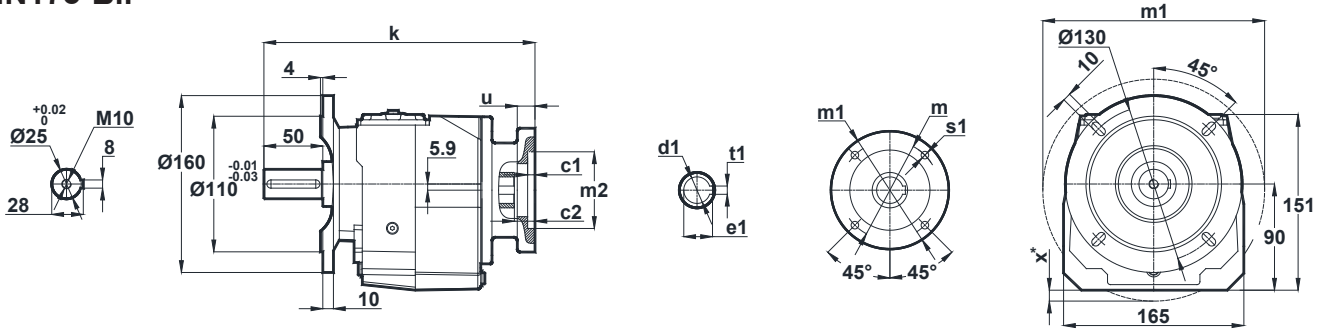


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MN172-B.. MN173-B..

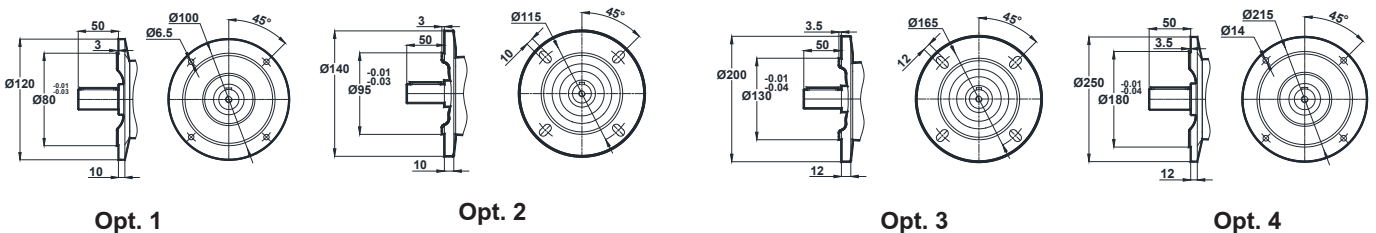


## NN172-B.. NN173-B..

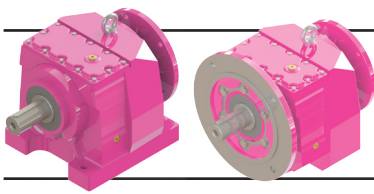


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B14	2.5	5	5.5	75	90	60	28.5	10	241	11	4	12.8	-
71/B14	3	4.5	7	85	105	70	40	10	242.5	14	5	16.3	-
80/B14	4	5	7	100	120	80	55	12	257.5	19	6	21.8	-
90/B14	4	5	9	115	140	95	55	12	257.5	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	66	12	268.5	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	66	12	268.5	28	8	31.3	-

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



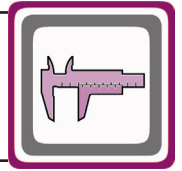
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte



# Ölçü Sayfaları

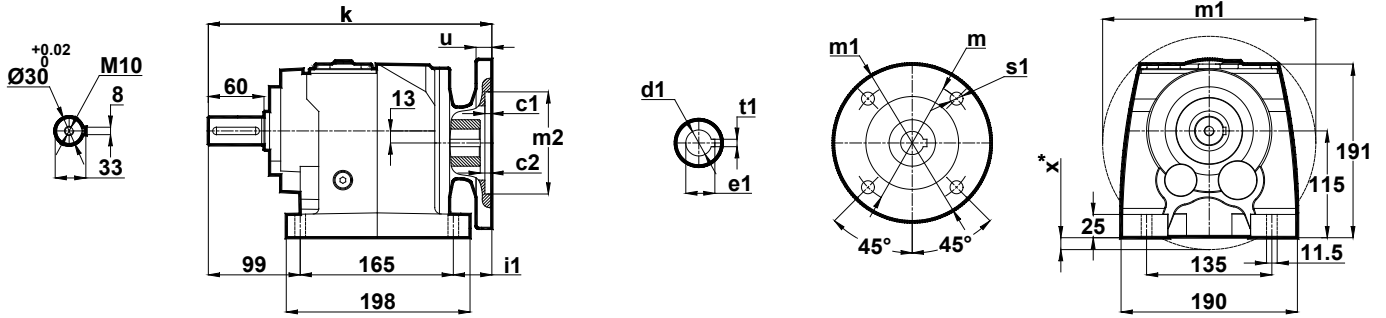
## Dimension Pages

### Abmessungsseiten

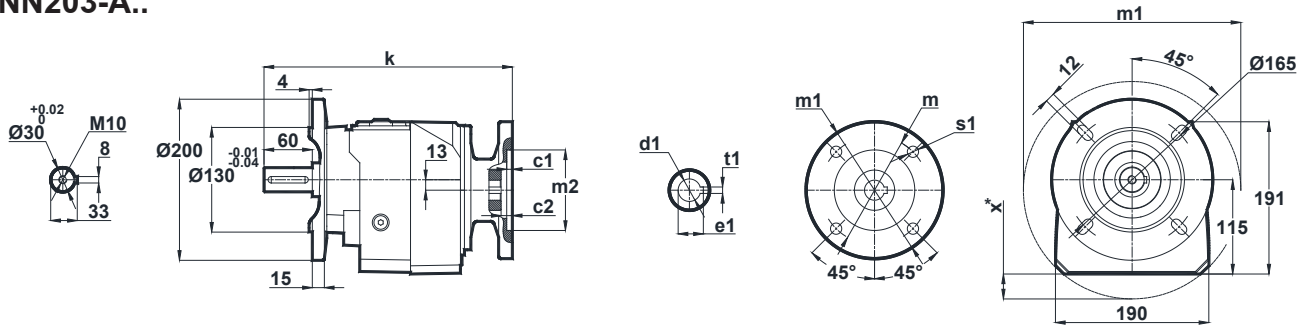


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

### MN202-A.. MN203-A..

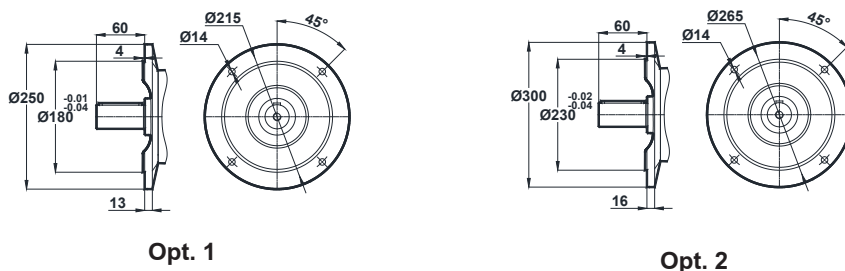


### NN202-A.. NN203-A..

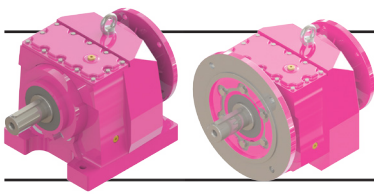


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	4	5	9	115	140	95	58.5	12	322.5	11	4	12.8	-
71/B5	4	8.5	11	130	160	110	29.5	12	293.5	14	5	16.3	-
80/B5	4	5	12	165	200	130	58.5	12	322.5	19	6	21.8	-
90/B5	4	5	12	165	200	130	58.5	12	322.5	24	8	27.3	-
100/B5	4.5	5.5	15	215	250	180	51.5	12	315.5	28	8	31.3	23
112/B5	4.5	5.5	15	215	250	180	51.5	12	315.5	28	8	31.3	23

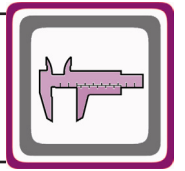
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



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

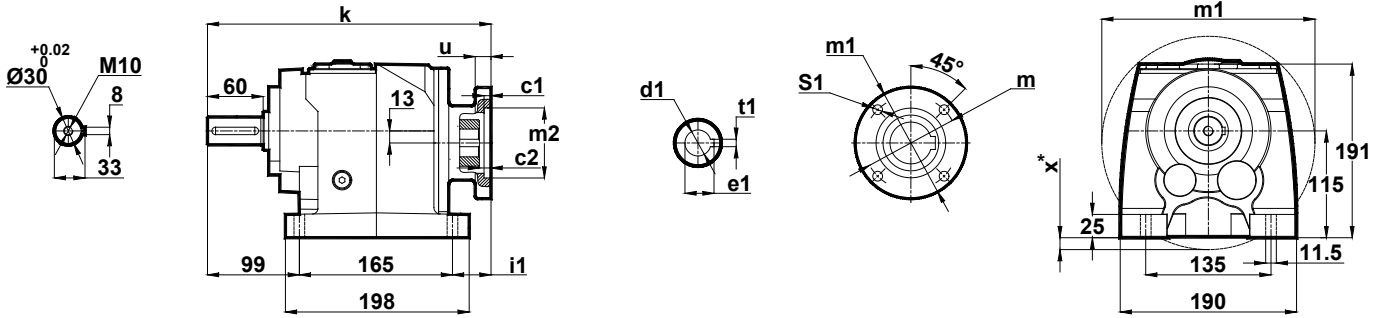


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

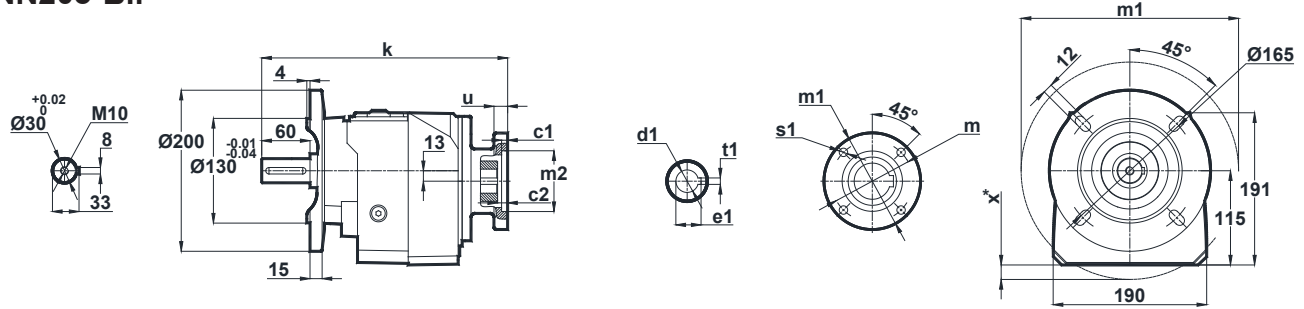


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MN202-B.. MN203-B..

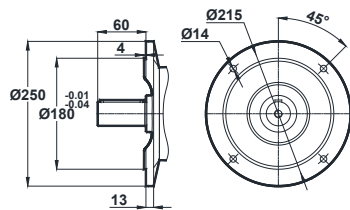


## NN202-B.. NN203-B..

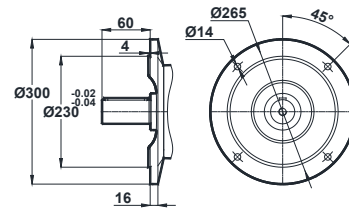


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B14	3	8.5	7	85	105	70	29.5	10	293.5	14	5	16.3	-
80/B14	4	5	7	100	120	80	58.5	12	322.5	19	6	21.8	-
90/B14	4	5	9	115	140	95	58.5	12	322.5	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	51.5	12	315.5	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	51.5	12	315.5	28	8	31.3	-

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

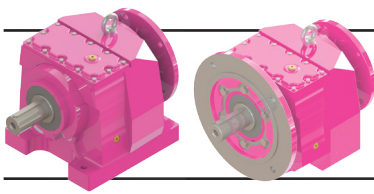


Opt. 1

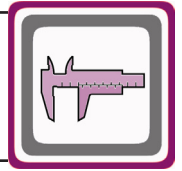


Opt. 2

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

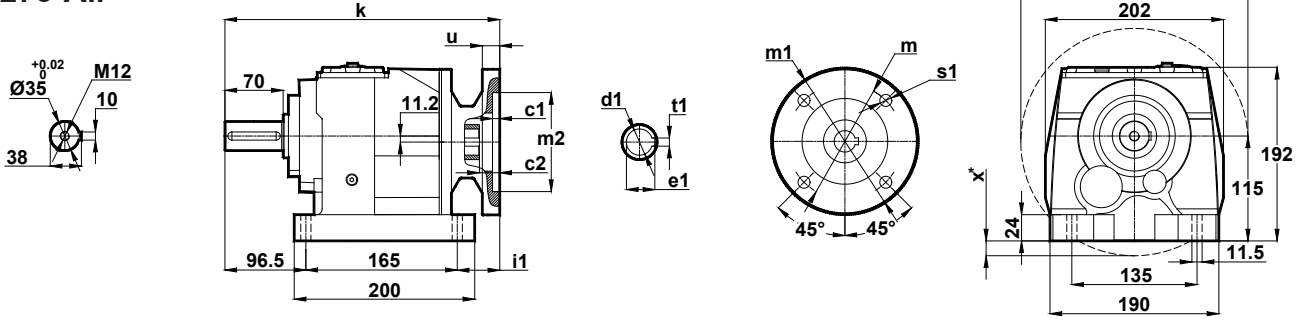


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

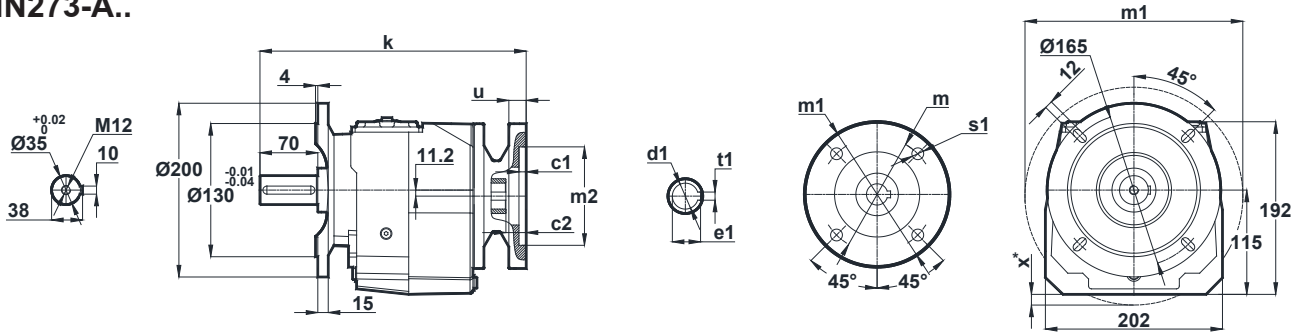


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MN272-A.. MN273-A..

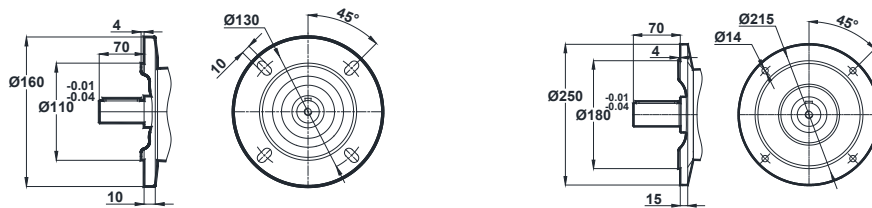


## NN272-A.. NN273-A..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	4	5	9	115	140	95	62	12	323.5	11	4	12.8	-
71/B5	4	8.5	11	130	160	110	33	12	294.5	14	5	16.3	-
80/B5	4	5	12	165	200	130	62	12	323.5	19	6	21.8	-
90/B5	4	5	12	165	200	130	62	12	323.5	24	8	27.3	-
100/B5	4.5	5.5	15	215	250	180	55	12	316.5	28	8	31.3	22
112/B5	4.5	5.5	15	215	250	180	55	12	316.5	28	8	31.3	22
132/B5	4.5	7	15	265	300	230	92	15	363.5	38	10	41.3	47

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

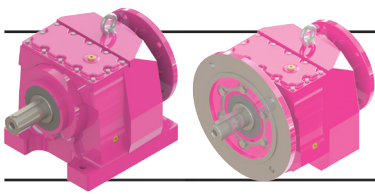


Opt. 1

Opt. 2

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

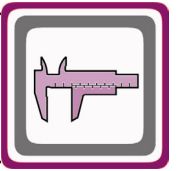




# Ölçü Sayfaları

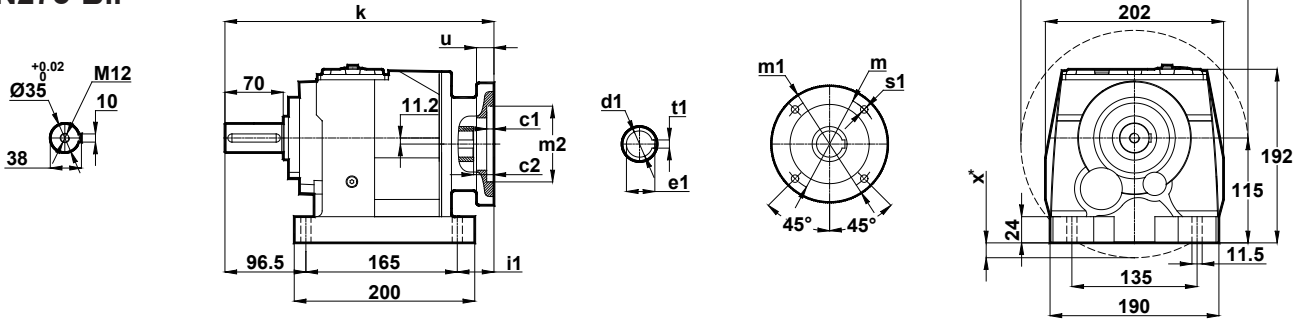
## Dimension Pages

### Abmessungsseiten

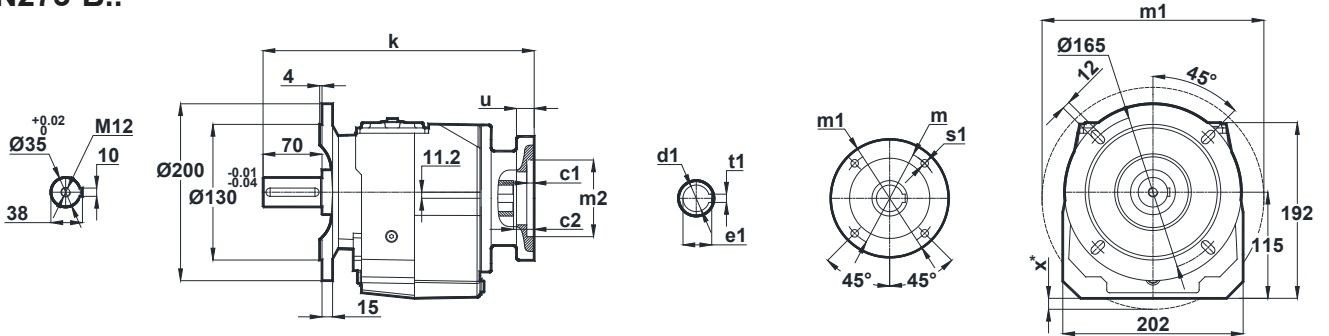


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

### MN272-B.. MN273-B..

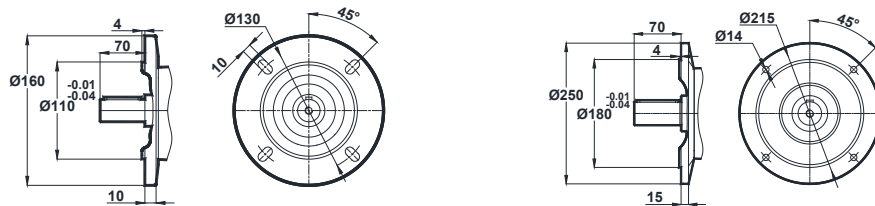


### NN272-B.. NN273-B..



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	294.5	14	5	16.3	-
80/B14	4	5	7	100	120	80	62	12	323.5	19	6	21.8	-
90/B14	4	5	9	115	140	95	62	12	323.5	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	55	12	316.5	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	55	12	316.5	28	8	31.3	-
132/B14	4.5	6	11	165	200	130	92	15	363.5	35	10	41.3	-

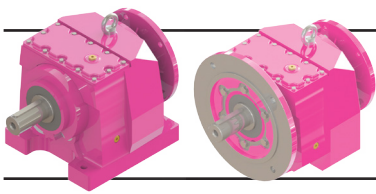
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

Opt. 2

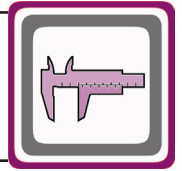
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower than foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

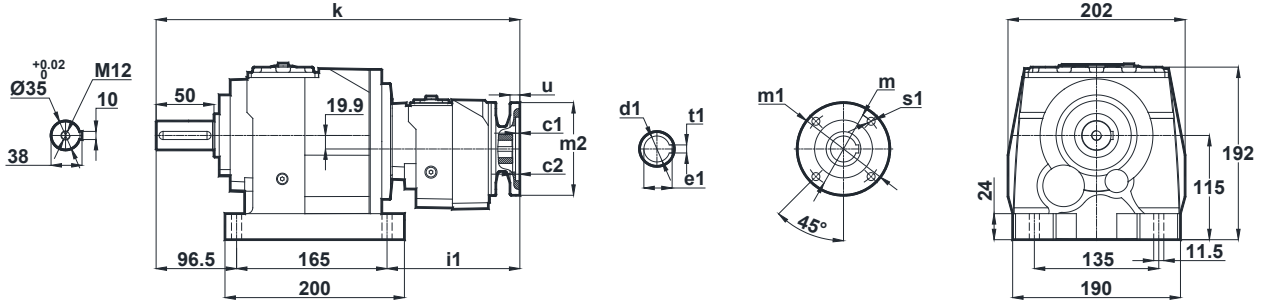
## Dimension Pages

### Abmessungsseiten

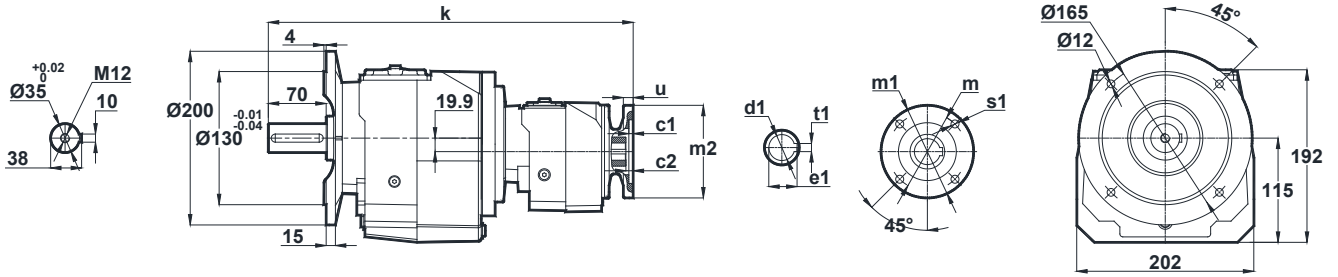


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MN275-A.. MN276-A..

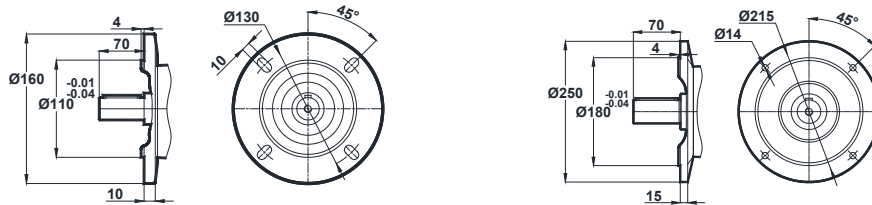


## NN275-A.. NN276-A..



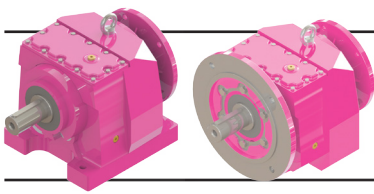
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	177.5	10	439	11	4	12.8
71/B5	4	4.5	11	130	160	110	179	12	440.5	14	5	16.3

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



Opt. 1

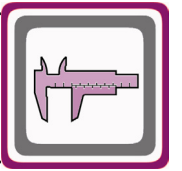
Opt. 2



# Ölçü Sayfaları

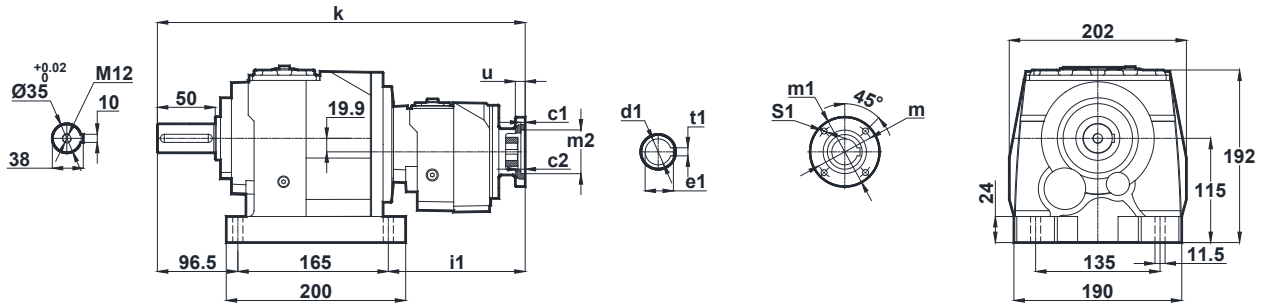
## Dimension Pages

### Abmessungsseiten

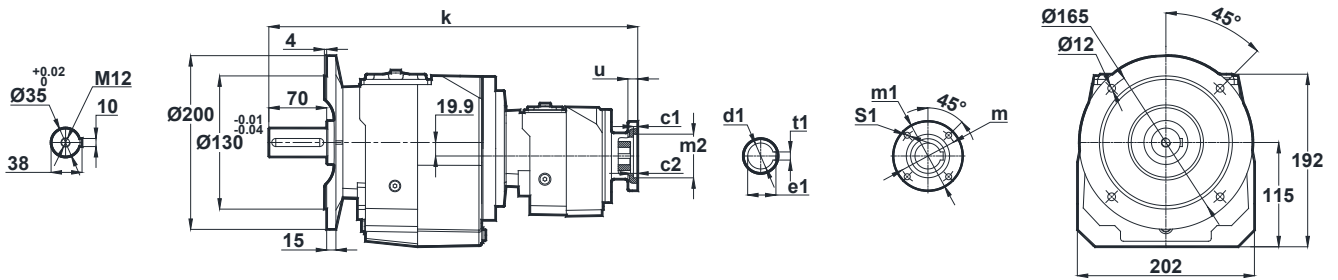


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN275-B..**  
**MN276-B..**

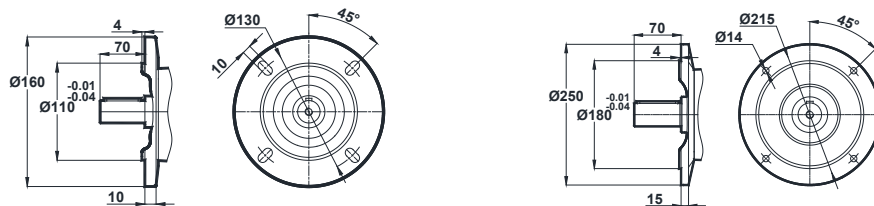


**NN275-B..**  
**NN276-B..**



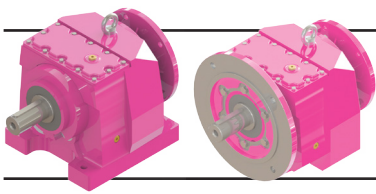
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B14	2.5	5	5.5	75	90	60	177.5	10	439	11	4	12.8
71/B14	3	4.5	7	85	105	70	179	10	440.5	14	5	16.3

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

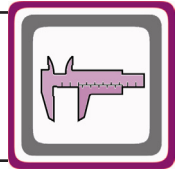


Opt. 1

Opt. 2

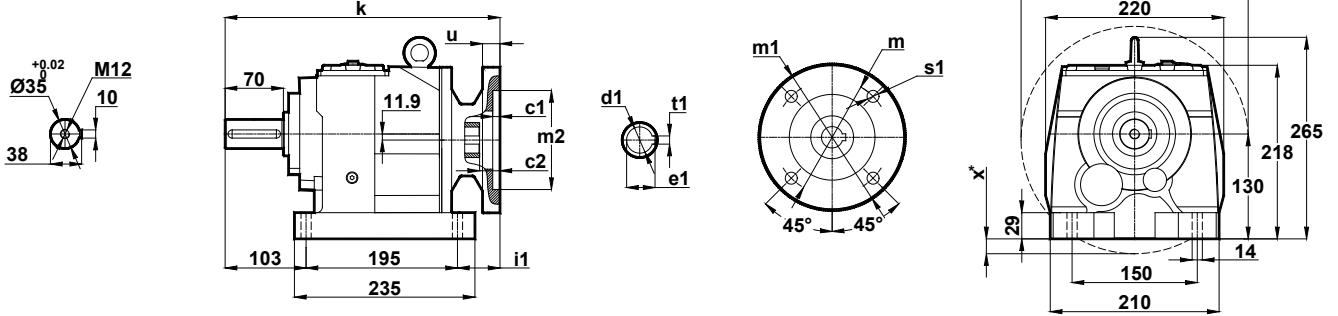


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

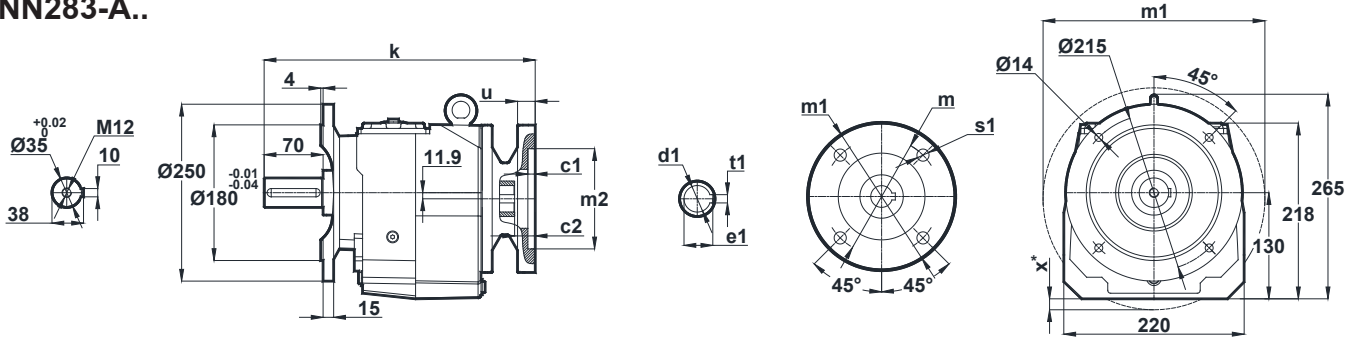


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MN282-A.. MN283-A..

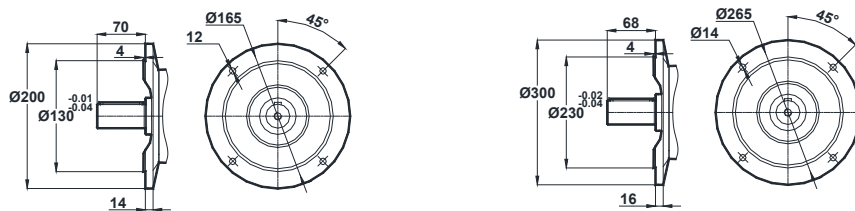


## NN282-A.. NN283-A..



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	12	165	200	130	45	12	343	19	6	21.8	-
90/B5	4	9	12	165	200	130	45	12	343	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	52	15	360	28	8	31.3	7
112/B5	4.5	9	15	215	250	180	52	15	360	28	8	31.3	7
132/B5	4.5	7	15	265	300	230	82	15	380	38	10	41.3	32

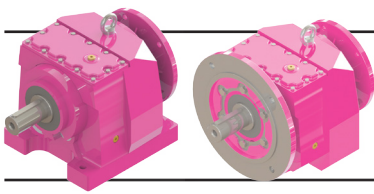
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



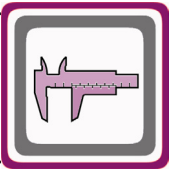
Opt. 1

Opt. 2

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

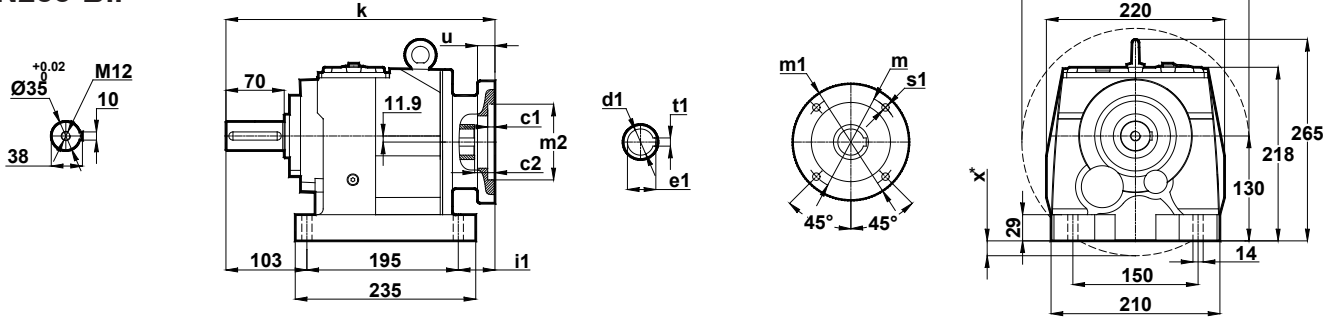


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

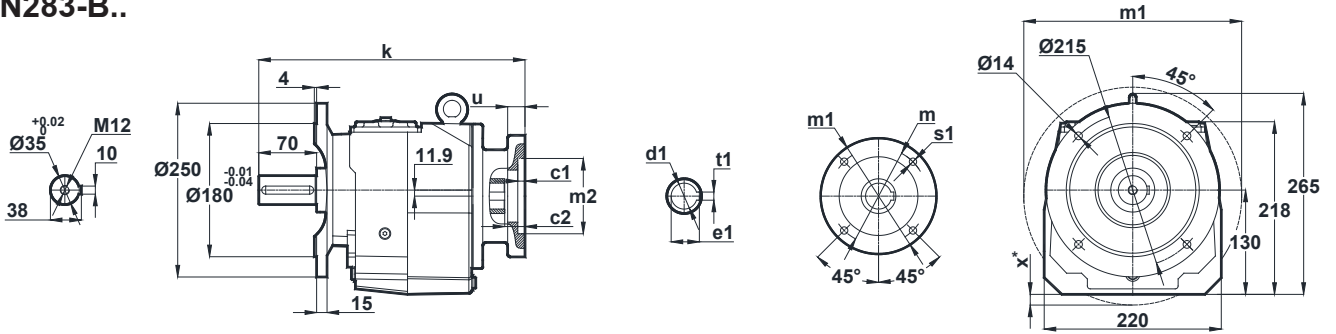


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MN282-B.. MN283-B..

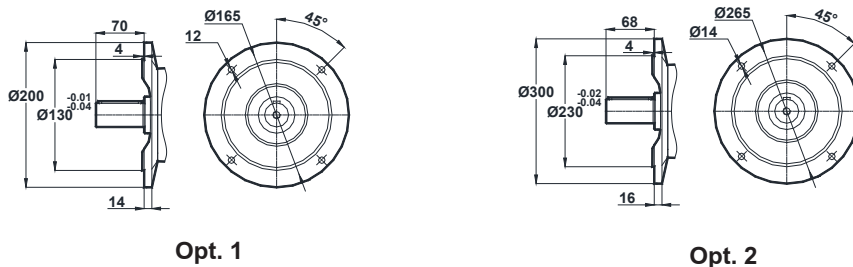


## NN282-B.. NN283-B..



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	360	28	8	31.3	-
112/B14	4	9	9	130	160	110	52	15	360	28	8	31.3	-
132/B14	4.5	7	11	165	200	130	82	15	380	38	10	41.3	-

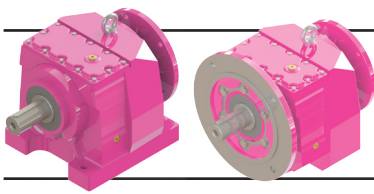
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

Opt. 2

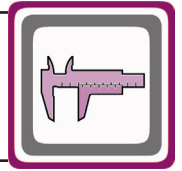
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower than foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte



# Ölçü Sayfaları

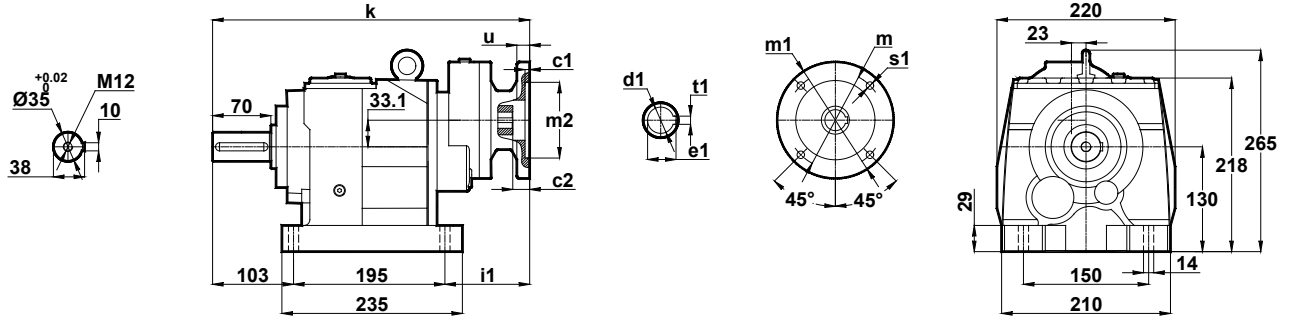
## Dimension Pages

### Abmessungsseiten

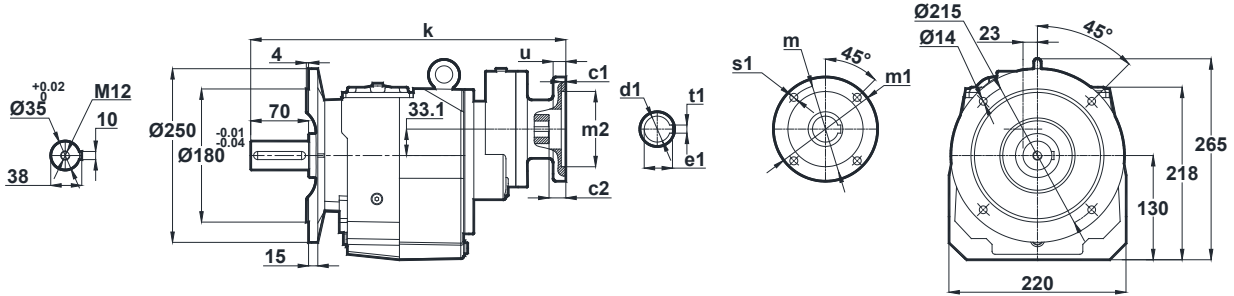


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MN284-A.. MN284-B..

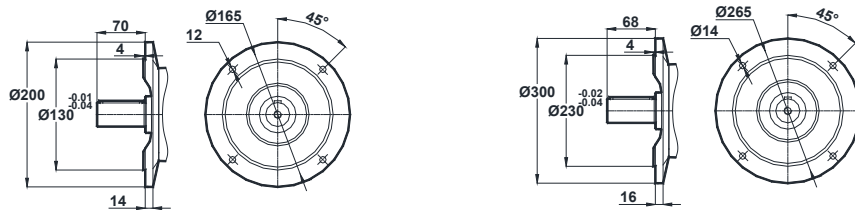


## NN284-A.. NN284-B..



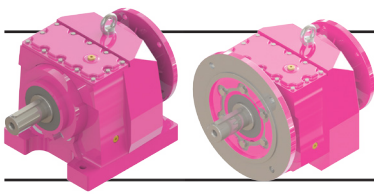
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	122	10	420	11	4	12.8
71/B5	4	4.5	11	130	160	110	93	12	391	14	5	16.3
71/B14	3	4.5	7	85	105	70	93	10	391	14	5	16.3

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



Opt. 1

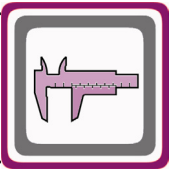
Opt. 2



# Ölçü Sayfaları

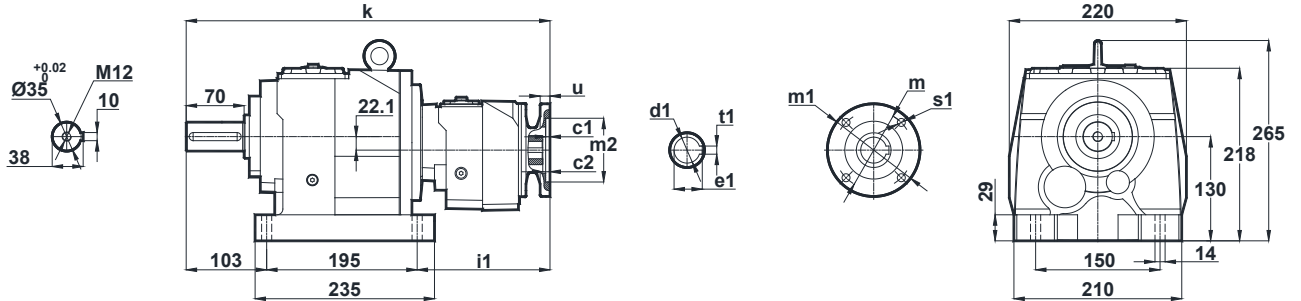
## Dimension Pages

### Abmessungsseiten

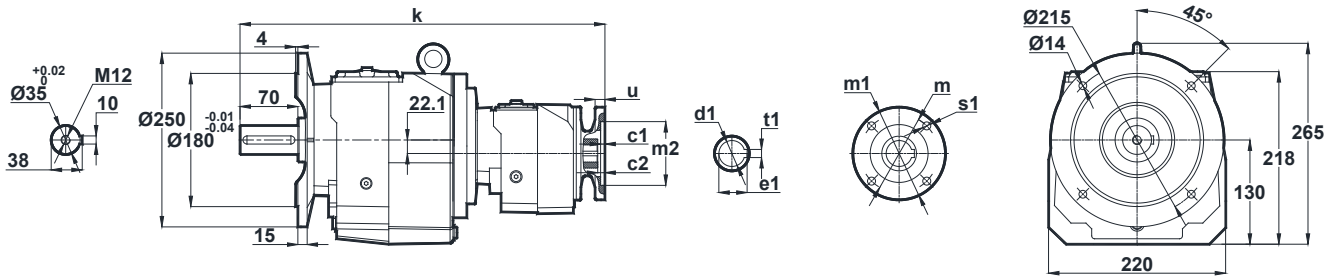


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN285-A.. / B..**  
**MN286-A.. / B..**

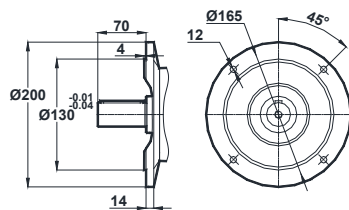


**NN285-A.. / B..**  
**NN286-A.. / B..**

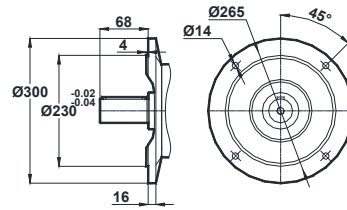


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	188	12	488	11	4	12.8
63/B14	2.5	5	5.5	75	90	60	188	10	488	11	4	12.8

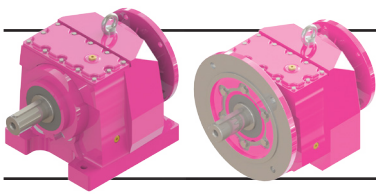
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



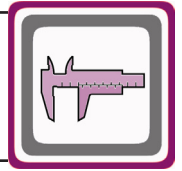
Opt. 1



Opt. 2

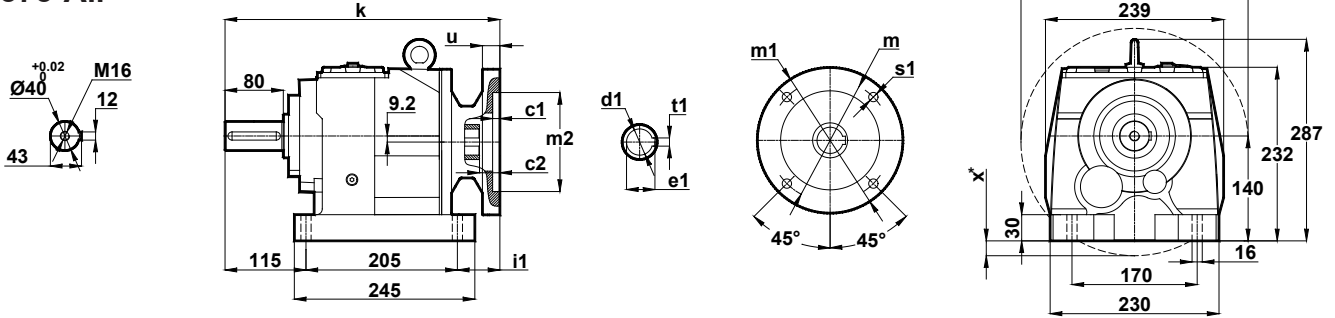


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

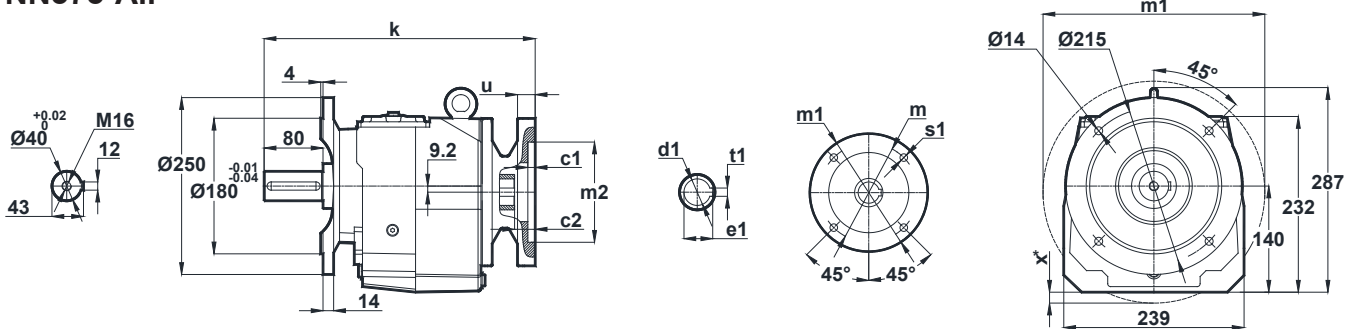


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MN372-A.. MN373-A..

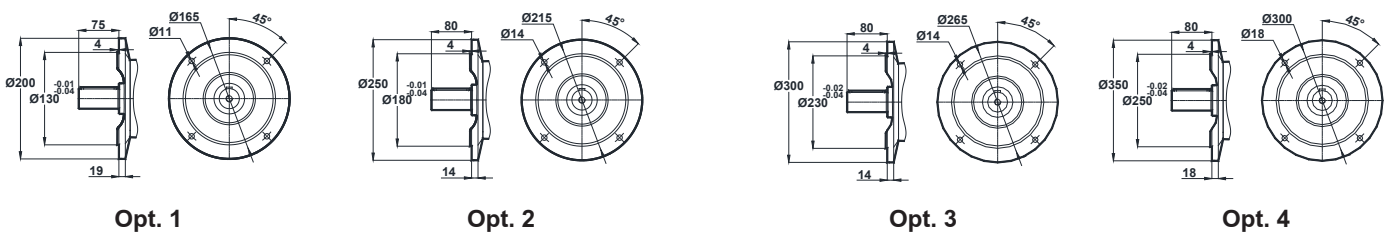


## NN372-A.. NN373-A..



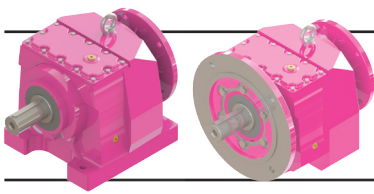
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B5	4	9	11	130	160	110	43.5	12	364	14	5	16.3	-
80/B5	4	9	12	165	200	130	43.5	12	364	19	6	21.8	-
90/B5	4	9	12	165	200	130	43.5	12	364	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	60.5	15	381	28	8	31.3	-
112/B5	4.5	9	15	215	250	180	60.5	15	381	28	8	31.3	-
132/B5	4.5	7	15	265	300	230	80.5	15	401	38	10	41.3	20

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



x: Motor flanş, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte

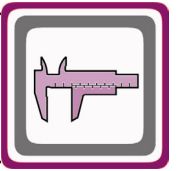




# Ölçü Sayfaları

## Dimension Pages

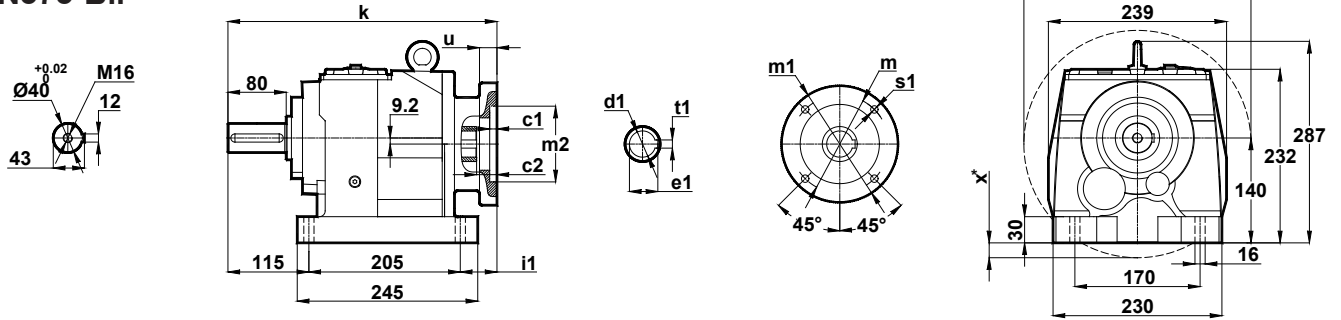
### Abmessungsseiten



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

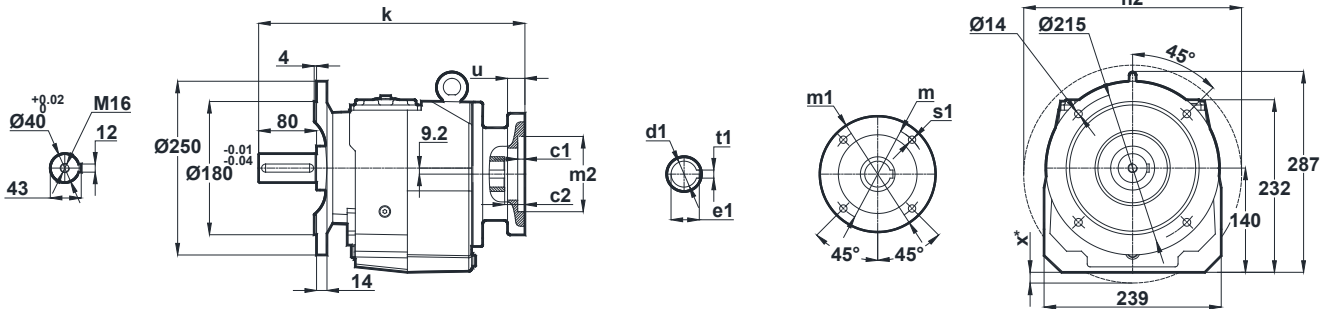
### MN372-B..

### MN373-B..



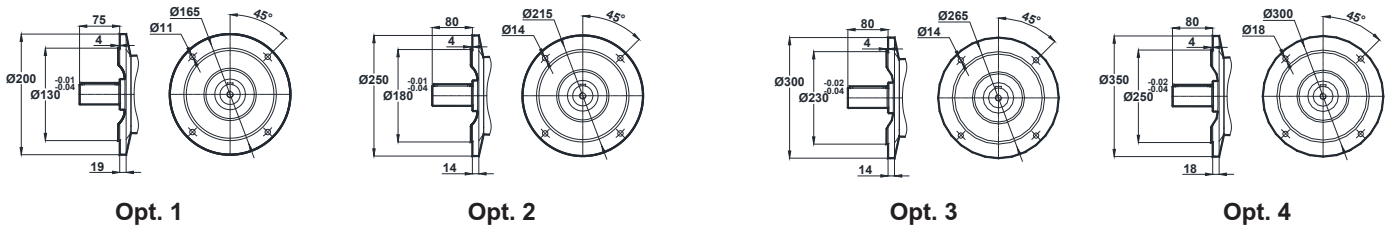
### NN372-B..

### NN373-B..

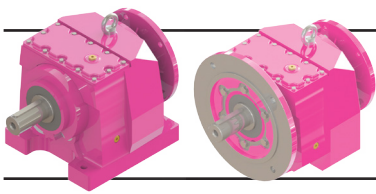


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
80/B14	4	9	7	100	120	80	43.5	12	364	19	6	21.8	-
90/B14	4	9	9	115	140	95	43.5	12	364	24	8	27.3	-
100/B14	4	9	9	130	160	110	60.5	15	381	28	8	31.3	-
112/B14	4	9	9	130	160	110	60.5	15	381	28	8	31.3	-
132/B14	4.5	9	11	165	200	130	80.5	15	401	38	10	41.3	-

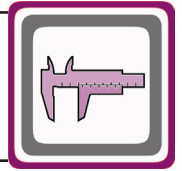
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte

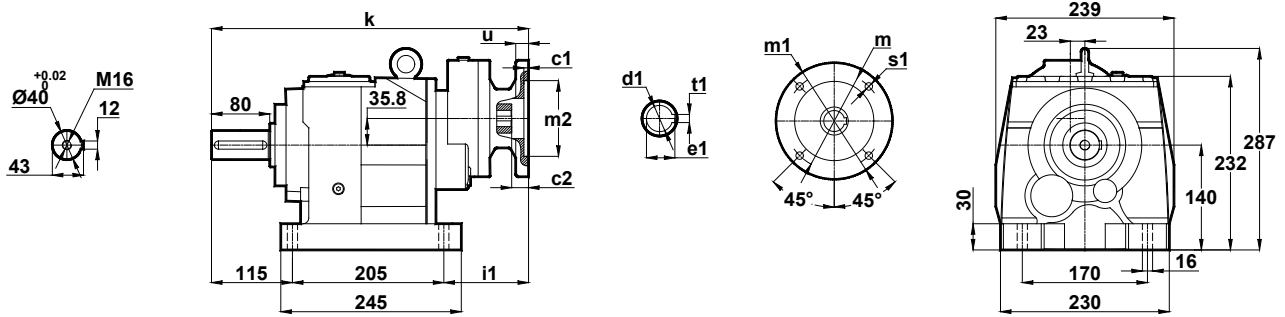


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

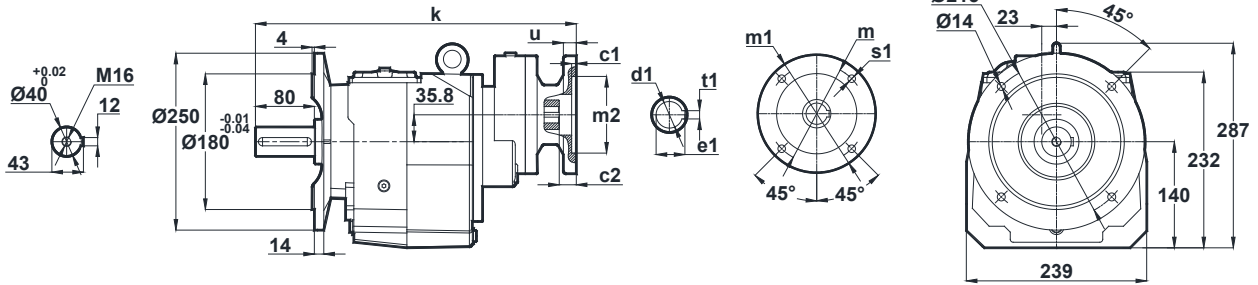


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MN374-A.. MN374-B..

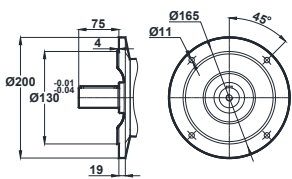


## NN374-A.. NN374-B..

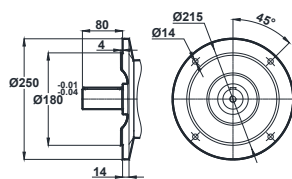


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	120.5	12	441	11	4	12.8
71/B5	4	8.5	11	130	160	110	91.5	12	412	14	5	16.3
80/B5	4	5	12	165	200	130	120.5	12	441	19	6	21.8
71/B14	3	8.5	7	85	105	70	91.5	10	412	14	5	16.3
80/B14	4	5	7	100	120	80	120.5	12	441	19	6	21.8

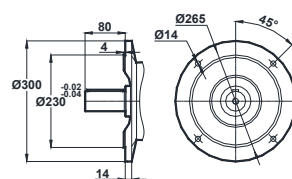
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



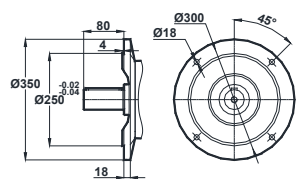
Opt. 1



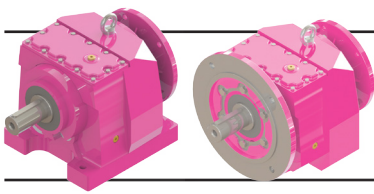
Opt. 2



Opt. 3



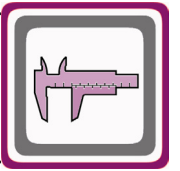
Opt. 4



# Ölçü Sayfaları

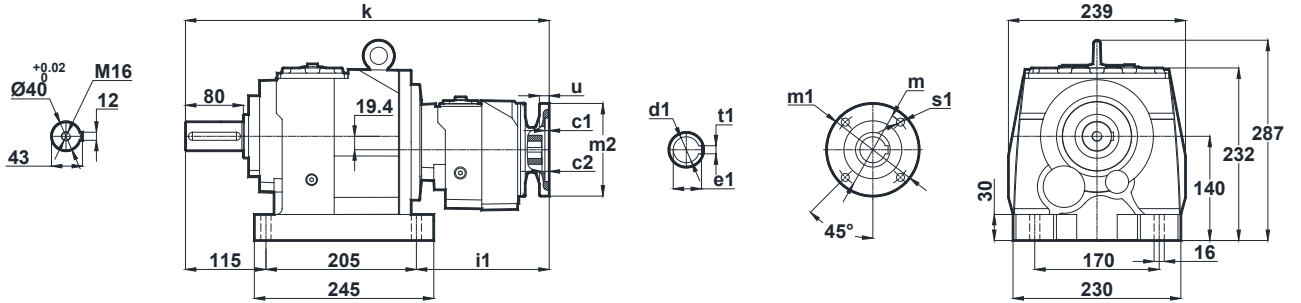
## Dimension Pages

### Abmessungsseiten

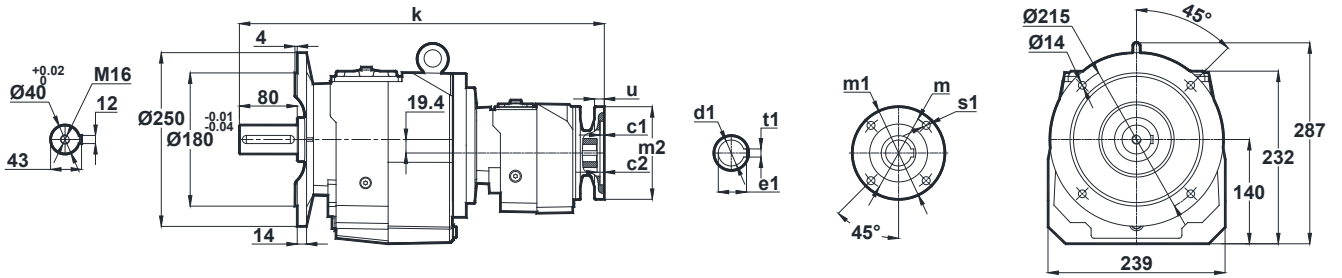


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN375-A.. / B..**  
**MN376-A.. / B..**

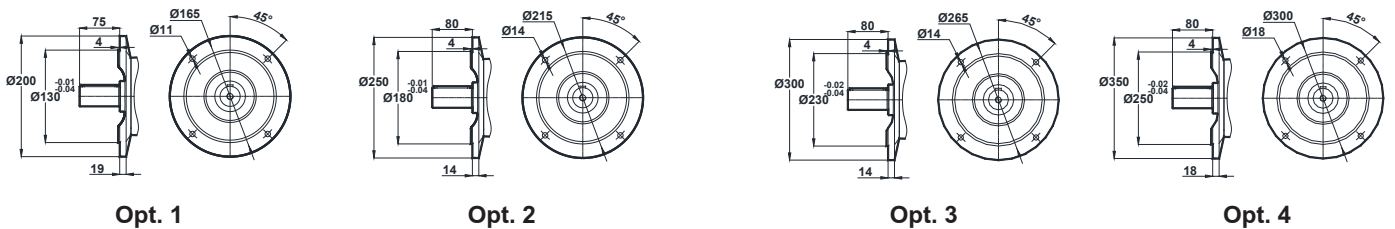


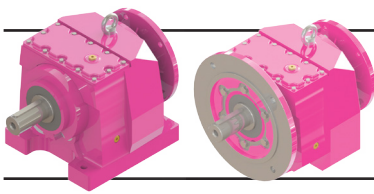
**NN375-A.. / B..**  
**NN376-A.. / B..**



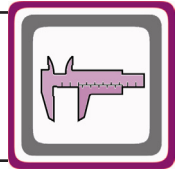
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	186.5	10	509	11	4	12.8
63/B14	2.5	5	5.5	75	90	60	186.5	10	509	11	4	12.8

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



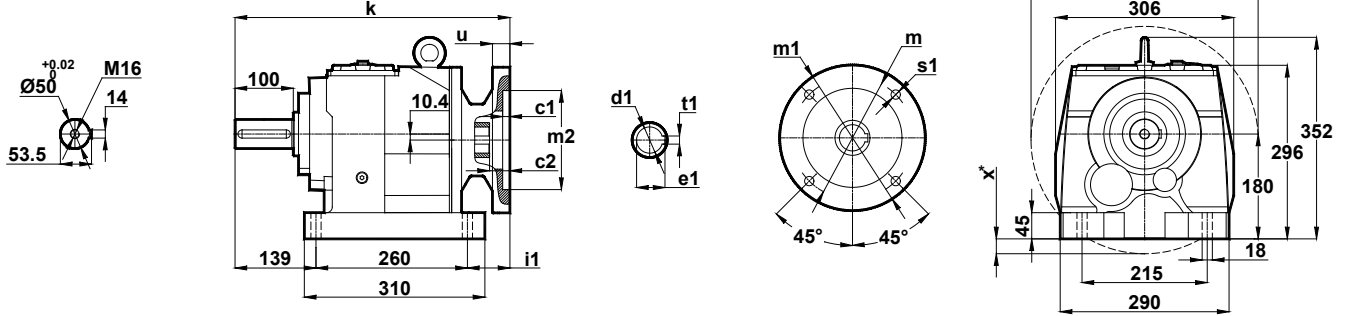


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

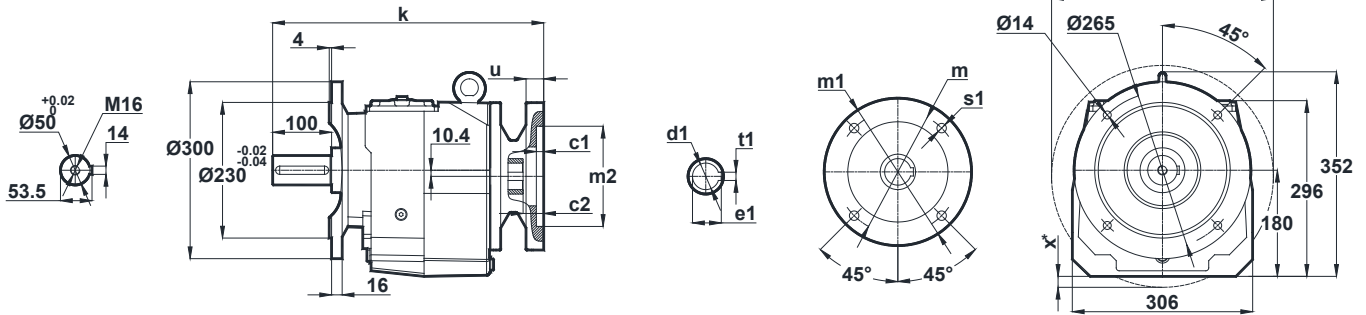


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MN472-A.. MN473-A..

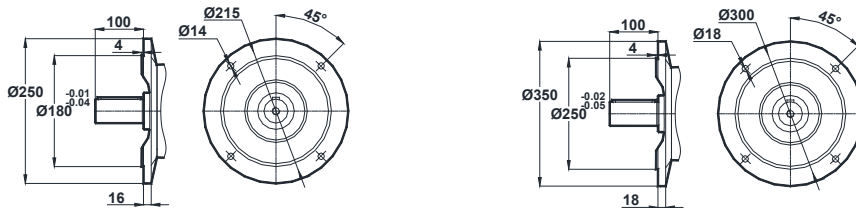


## NN472-A.. NN473-A..



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	426.5	19	6	21.8	-
90/B5	4	5	12	165	200	130	27.5	12	426.5	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	463.5	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

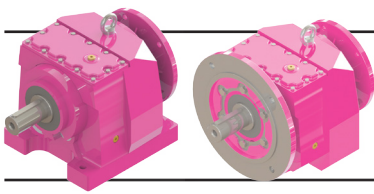
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

Opt. 2

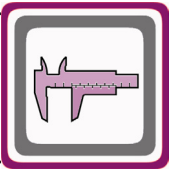
x: Motor flanş, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

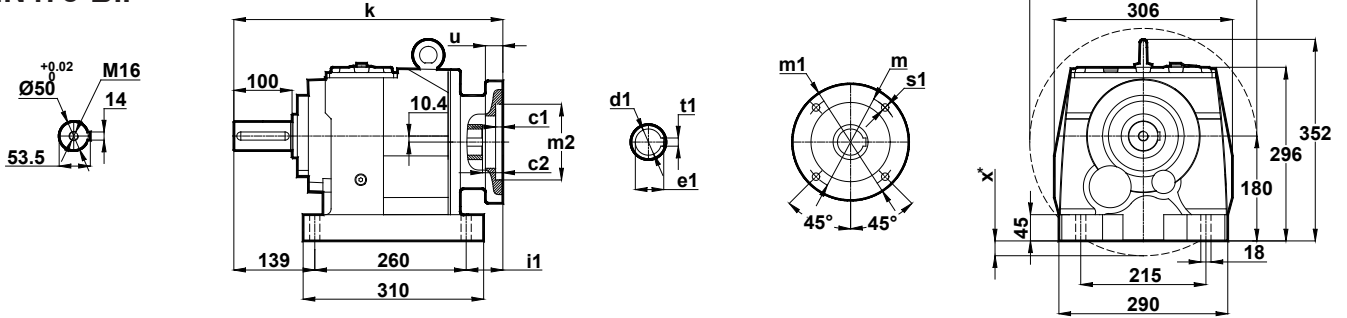
## Dimension Pages

### Abmessungsseiten

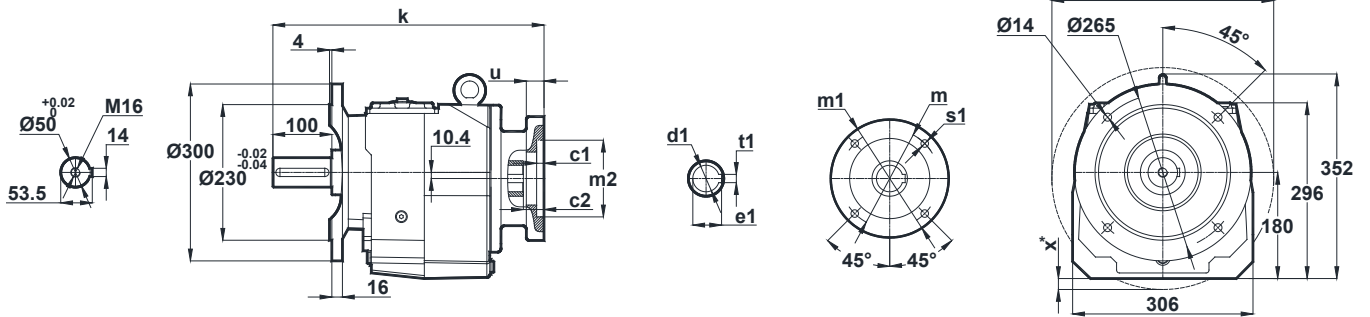


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN472-B..**  
**MN473-B..**

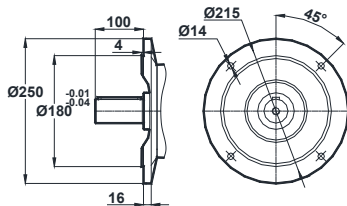


**NN472-B..**  
**NN473-B..**

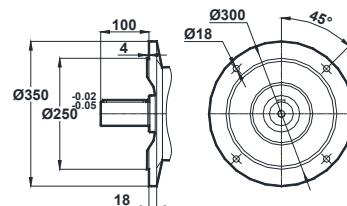


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
90/B14	4	5	9	115	140	95	27.5	12	426.5	24	8	27.3	-
100/B14	4	9	9	130	160	110	46	15	445	28	8	31.3	-
112/B14	4	9	9	130	160	110	46	15	445	28	8	31.3	-
132/B14	4.5	6	11	165	200	130	64.5	15	463.5	38	10	41.3	-

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

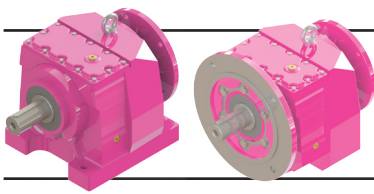


Opt. 1

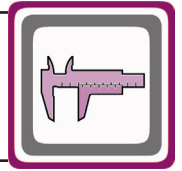


Opt. 2

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

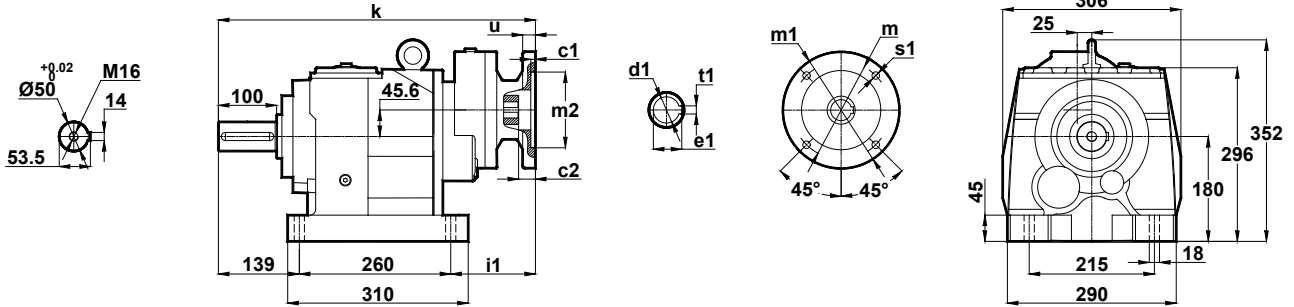


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

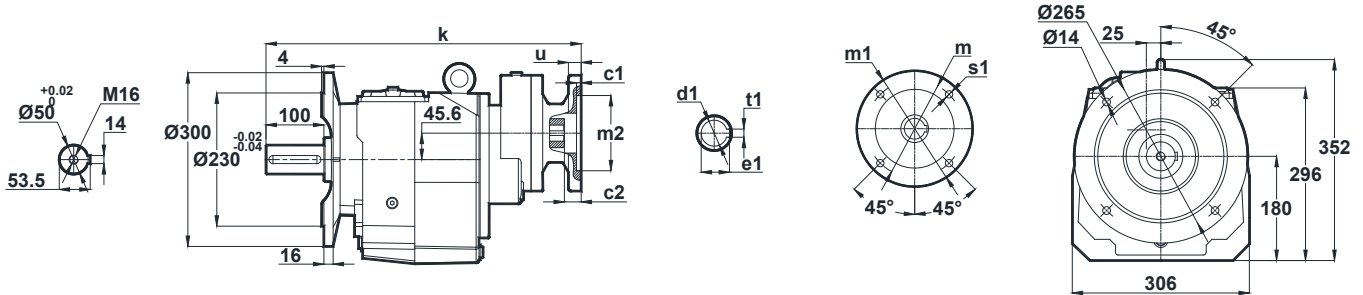


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MN474-A.. MN474-B..

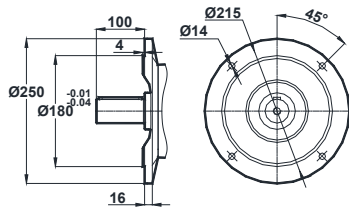


## NN474-A.. NN474-B..

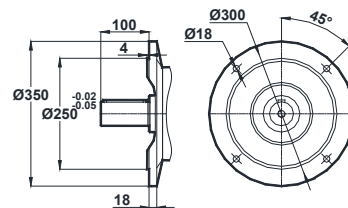


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	125.5	12	524.5	14	5	16.3
80/B5	4	9	12	165	200	130	125.5	12	524.5	19	6	21.8
80/B14	4	9	7	100	120	80	125.5	12	524.5	19	6	21.8

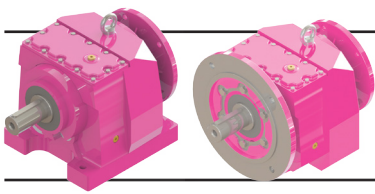
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



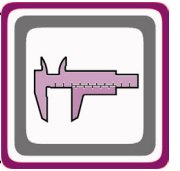
Opt. 2



# Ölçü Sayfaları

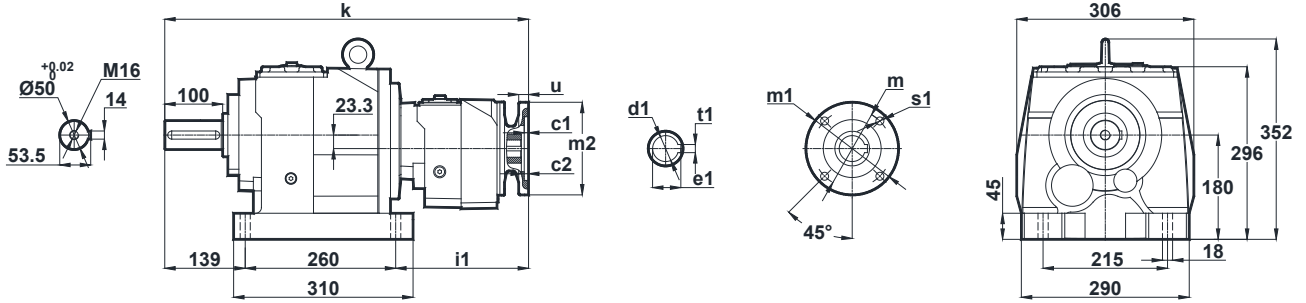
## Dimension Pages

### Abmessungsseiten

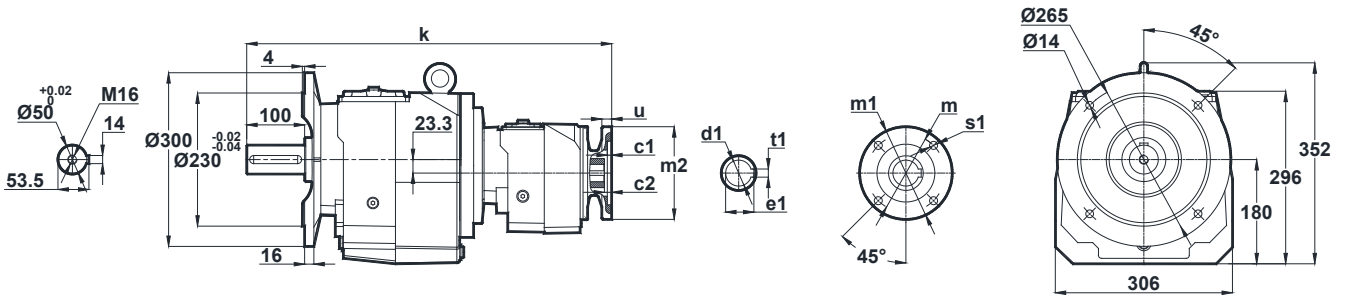


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN475-A.. / B..**  
**MN476-A.. / B..**

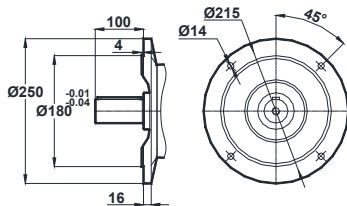


**NN475-A.. / B..**  
**NN476-A.. / B..**

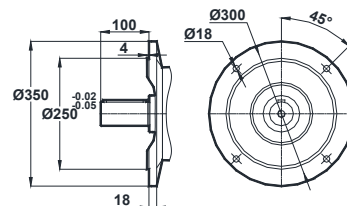


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	253.5	12	652.5	11	4	12.8
71/B5	4	8.5	11	130	160	110	224.5	12	623.5	14	5	16.3
71/B14	3	8.5	7	85	105	70	224.5	10	623.5	14	5	16.3

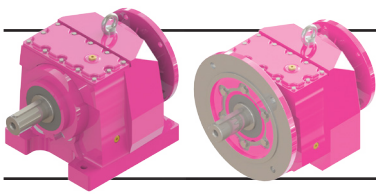
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



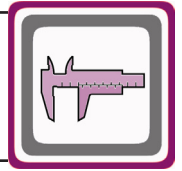
Opt. 1



Opt. 2

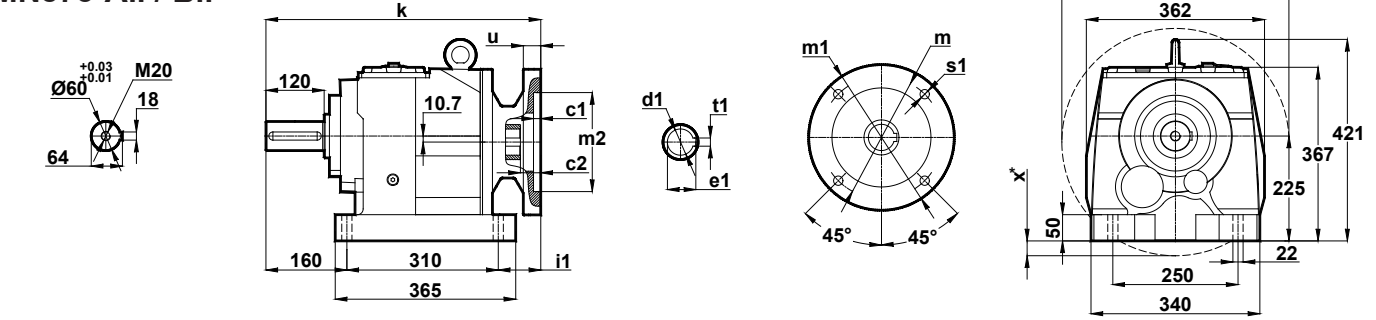


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

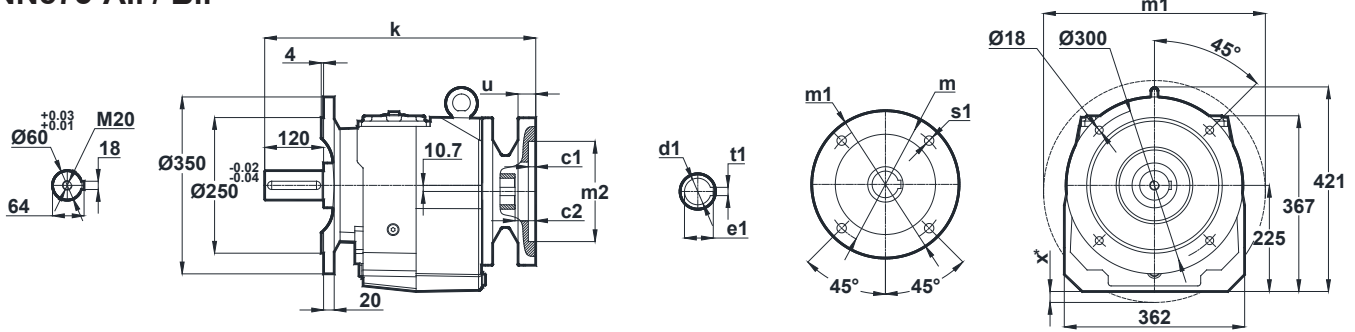


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MN572-A.. / B.. MN573-A.. / B..

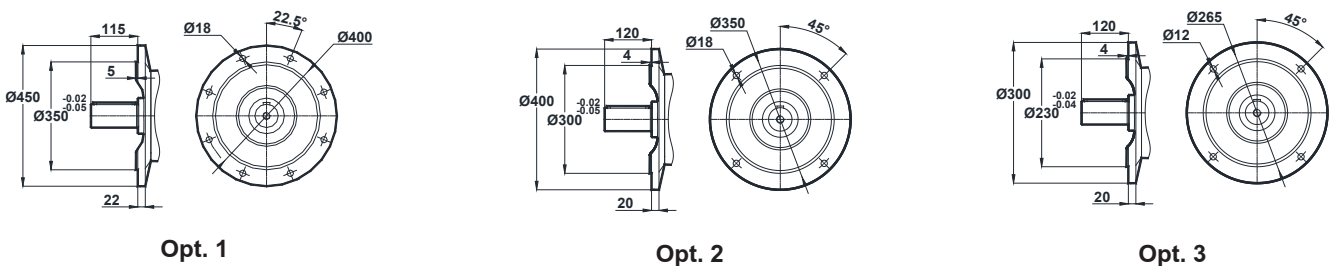


## NN572-A.. / B.. NN573-A.. / B..



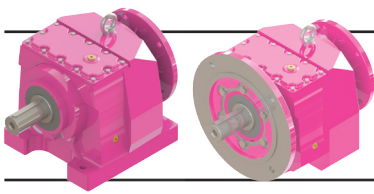
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
100/B5	4.5	9	15	215	250	180	33.5	15	507.5	28	8	31.3	-
112/B5	4.5	9	15	215	250	180	33.5	15	507.5	28	8	31.3	-
132/B5	4.5	9	15	265	300	230	54.5	15	528.5	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	130	18	604	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	130	18	604	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	150	22	624	55	16	59.3	-
132/B14	4.5	9	11	165	200	130	54.5	15	528.5	38	10	41.3	-

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

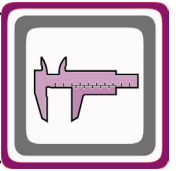


x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte



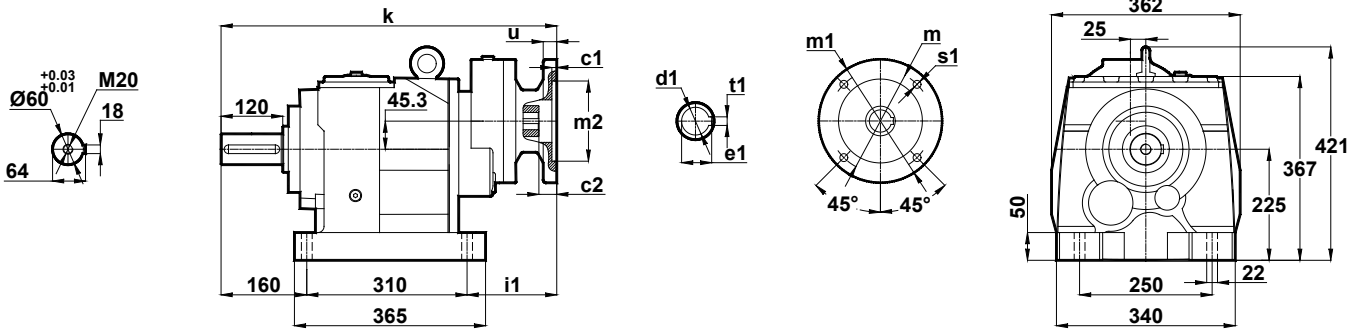


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

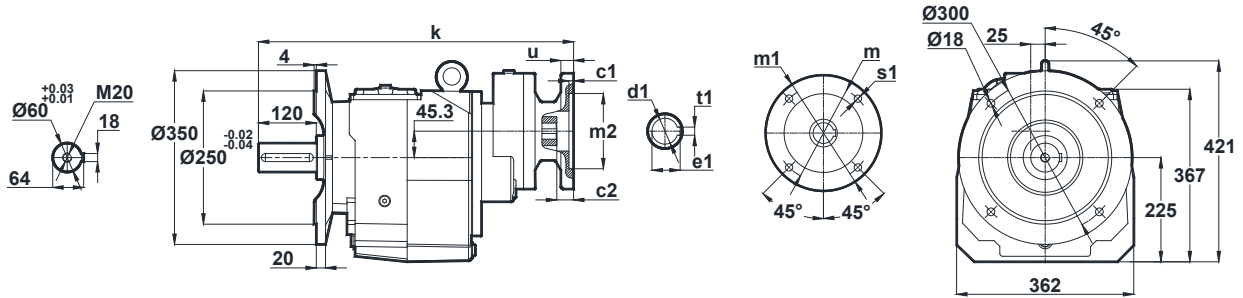


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MN574-A.. MN574-B..

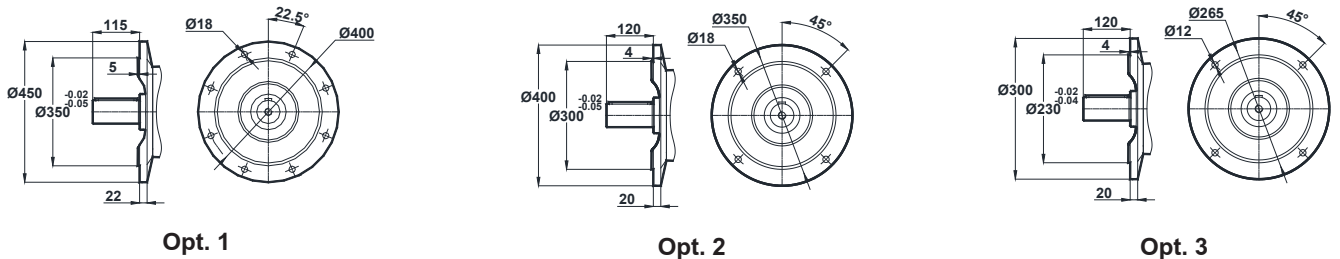


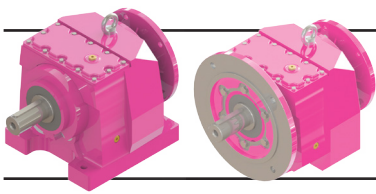
## NN574-A.. NN574-B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	116.5	12	587.5	14	5	16.3
80/B5	4	9	12	165	200	130	116.5	12	587.5	14	6	21.8
90/B5	4	9	12	165	200	130	116.5	12	587.5	19	8	27.3
80/B14	4	9	7	100	120	80	116.5	12	587.5	19	6	21.8
90/B14	4	9	9	115	140	95	116.5	12	587.5	24	8	26.3

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

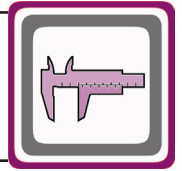




# Ölçü Sayfaları

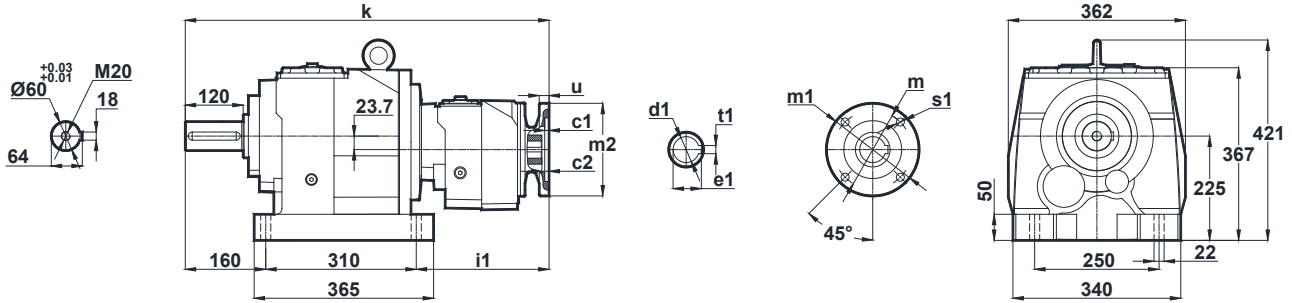
## Dimension Pages

### Abmessungsseiten

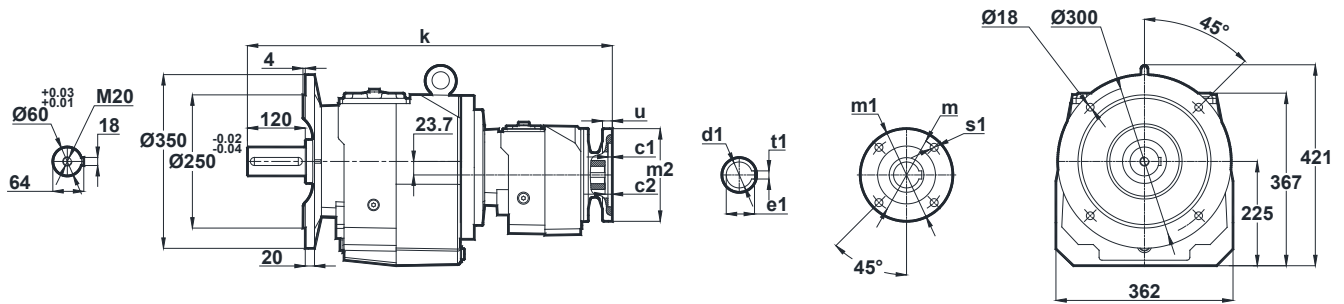


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN575-A.. / B..**  
**MN576-A.. / B..**

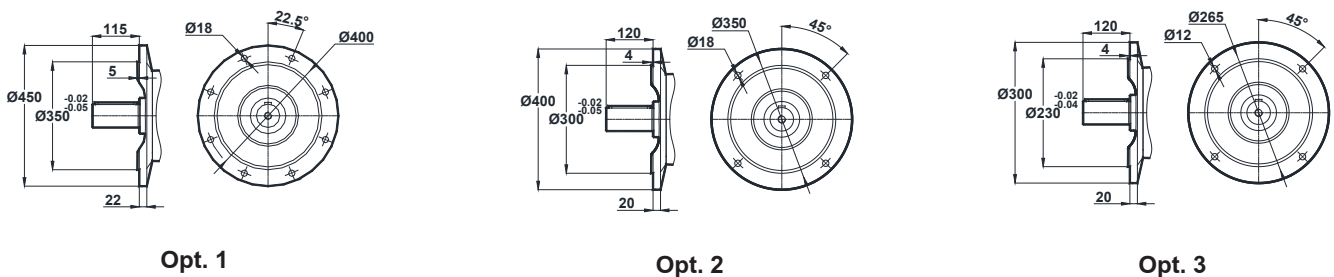


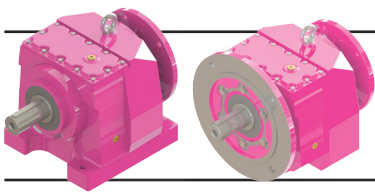
**NN575-A.. / B..**  
**NN576-A.. / B..**



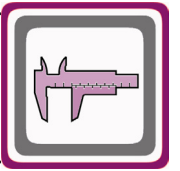
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	246.5	12	717.5	11	4	12.8
71/B5	4	8.5	11	130	160	110	217.5	12	688.5	14	5	16.3
71/B14	3	8.5	7	85	105	70	217.5	10	688.5	14	5	16.3

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



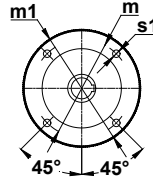
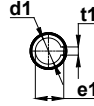
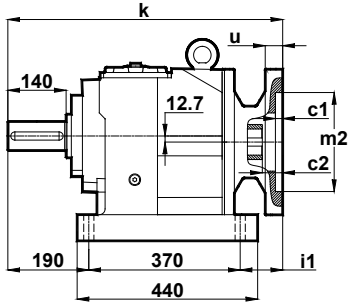
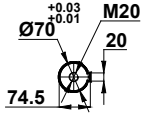


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

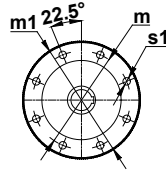


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

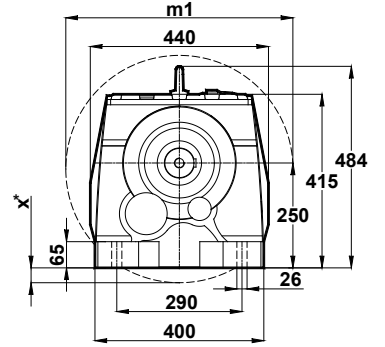
## MN672-A.. / B.. MN673-A.. / B..



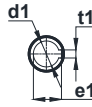
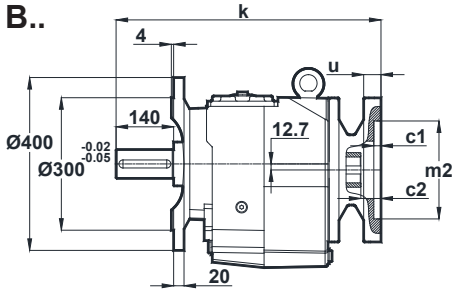
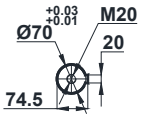
112 - 200 Tip / Type / Typ



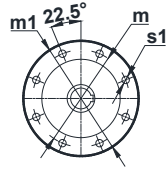
225 Tip / Type / Typ



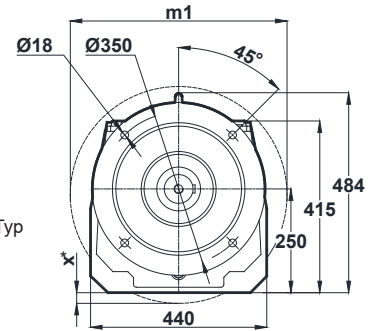
## NN672-A.. / B.. NN673-A.. / B..



112 - 200 Tip / Type / Typ

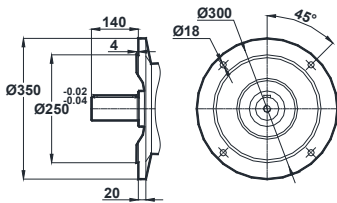


225 Tip / Type / Typ

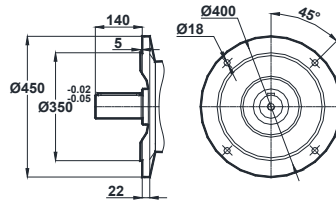


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
112/B5	4.5	14.5	15	215	250	180	7.5	15	567.5	28	8	31.3	-
132/B5	4.5	9	15	265	300	230	22.5	15	582.5	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	97.5	20	657.5	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	97.5	20	657.5	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	118	22	678	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	582.5	38	10	41.3	-

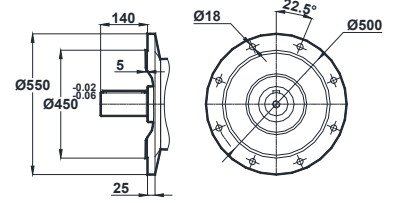
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



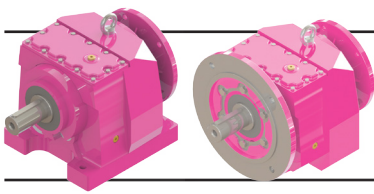
Opt. 2



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

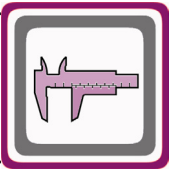




# Ölçü Sayfaları

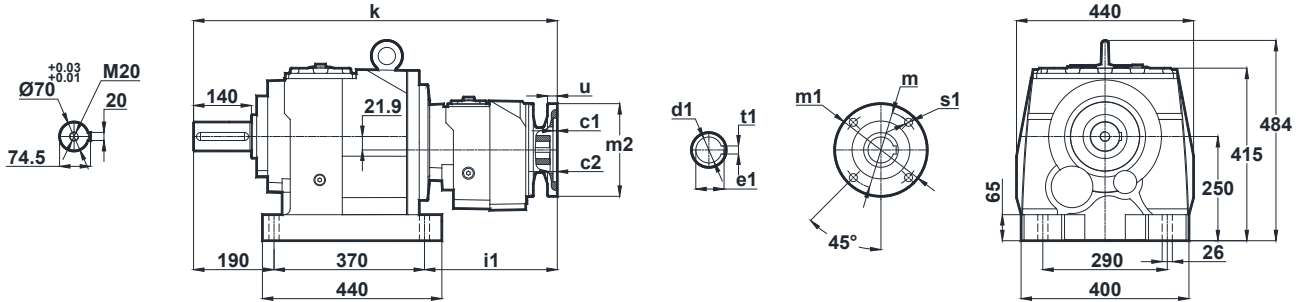
## Dimension Pages

### Abmessungsseiten

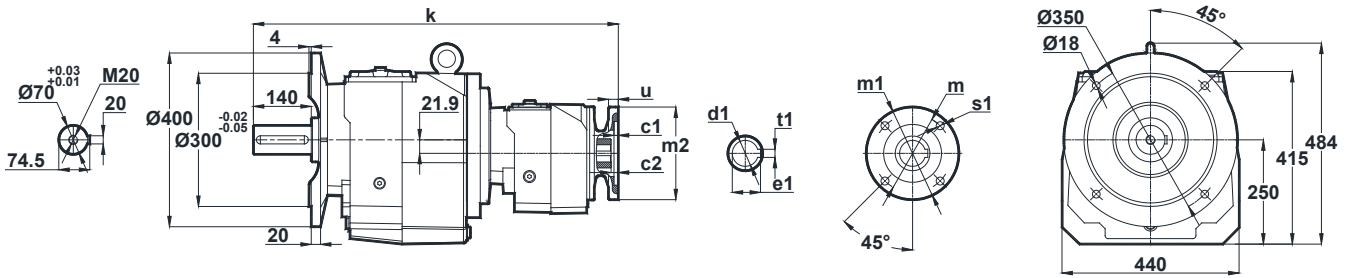


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN675-A.. / B..**  
**MN676-A.. / B..**

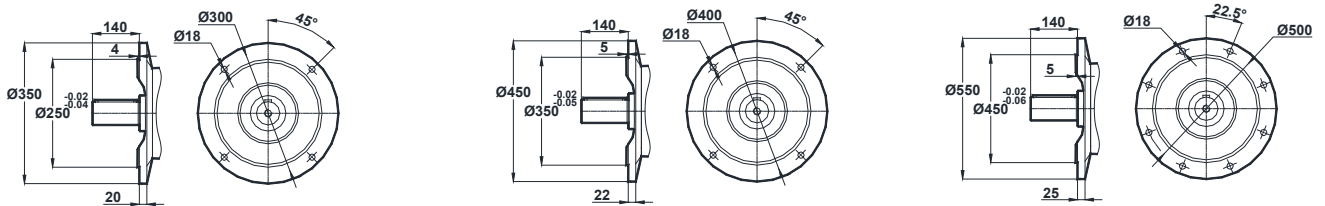


**NN675-A.. / B..**  
**NN676-A.. / B..**



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	12	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

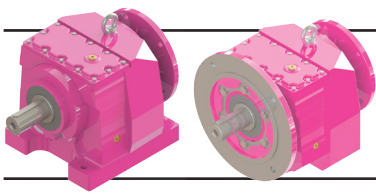
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



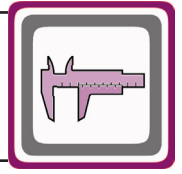
Opt. 1

Opt. 2

Opt. 3

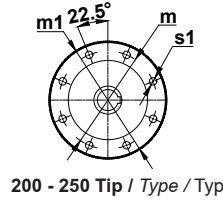
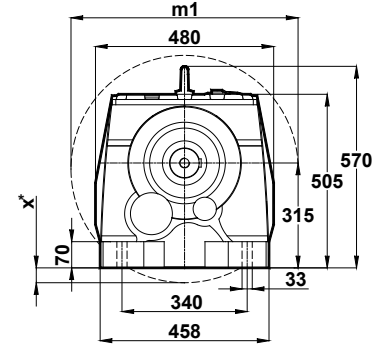
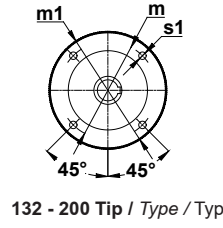
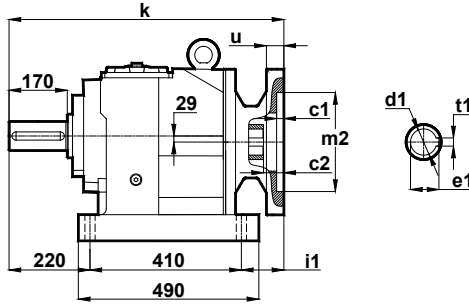
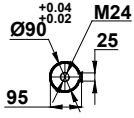


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

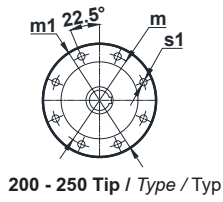
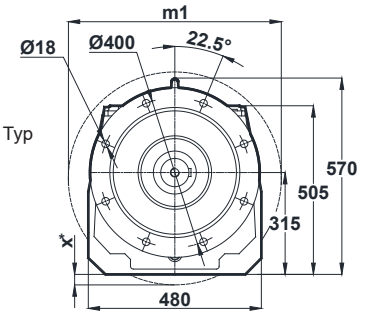
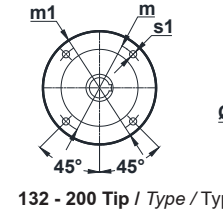
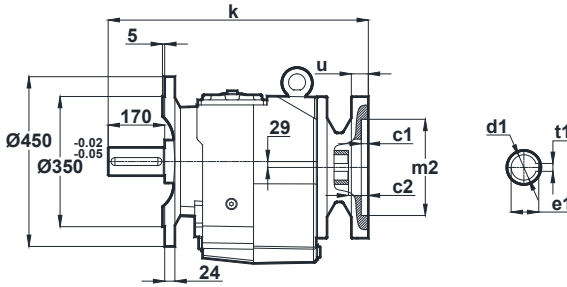
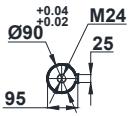


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MN772-A.. MN773-A..

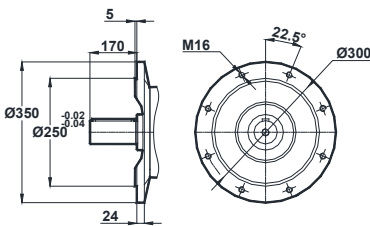


## NN772-A.. NN773-A..

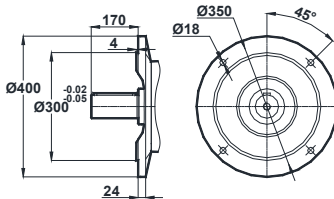


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
132/B5	4.5	15	15	265	300	230	37.5	15	667.5	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	107	20	737	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	107	20	737	43	14	51.8	-
200/B5	5.5	10	19	350	400	300	129	20	759	55	16	59.3	-
225/B5	5.5	10	19	400	450	350	182	24	812	60	18	64.4	-
250/B5	5.5	10	19	500	550	450	182	24	812	65	18	69.4	-

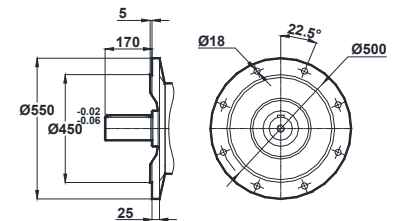
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

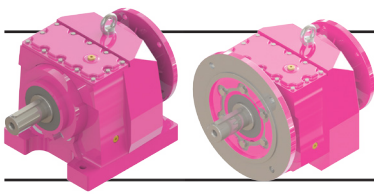


Opt. 2



Opt. 3

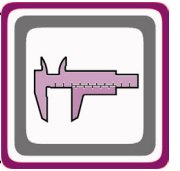
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte



# Ölçü Sayfaları

## Dimension Pages

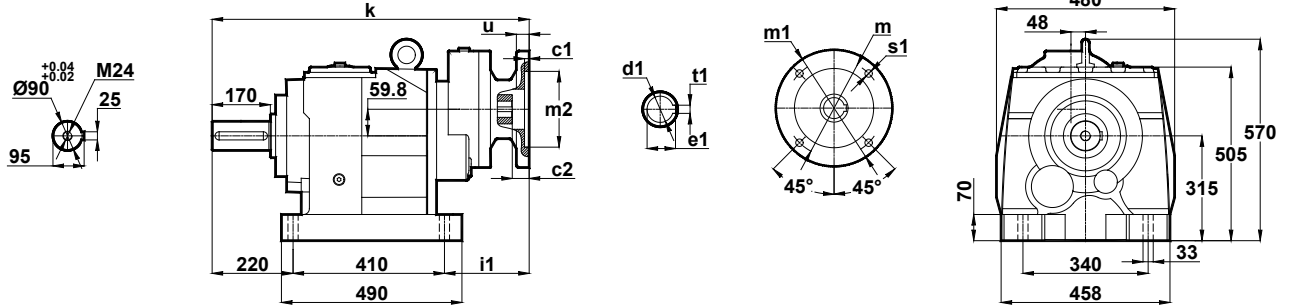
### Abmessungsseiten



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

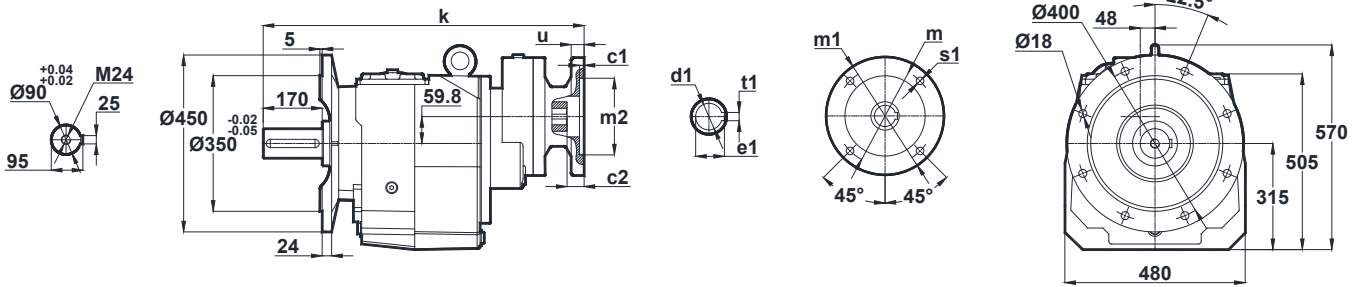
## MN774-A..

## MN774-B..



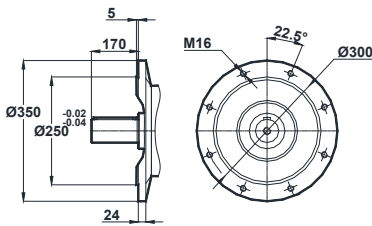
## NN774-A..

## NN774-B..

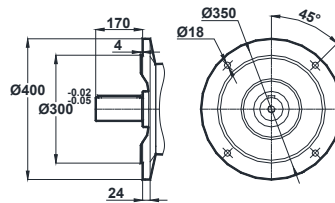


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	112.5	12	742.5	19	6	21.8
90/B5	4	5	12	165	200	130	112.5	12	742.5	24	8	27.3
100/B5	4.5	9	15	215	250	180	131	15	761	28	8	31.3
90/B14	4	5	9	115	140	95	112.5	12	742.5	24	8	27.3
100/B14	4	9	9	130	160	110	131	15	761	28	8	31.3

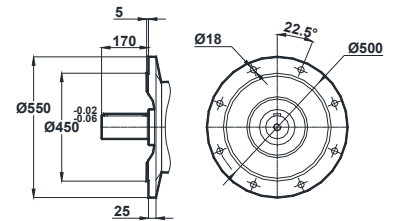
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



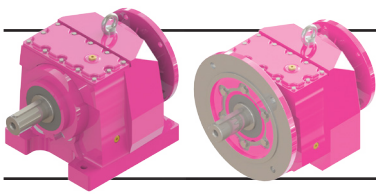
Opt. 1



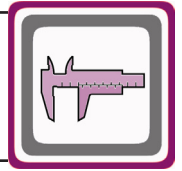
Opt. 2



Opt. 3

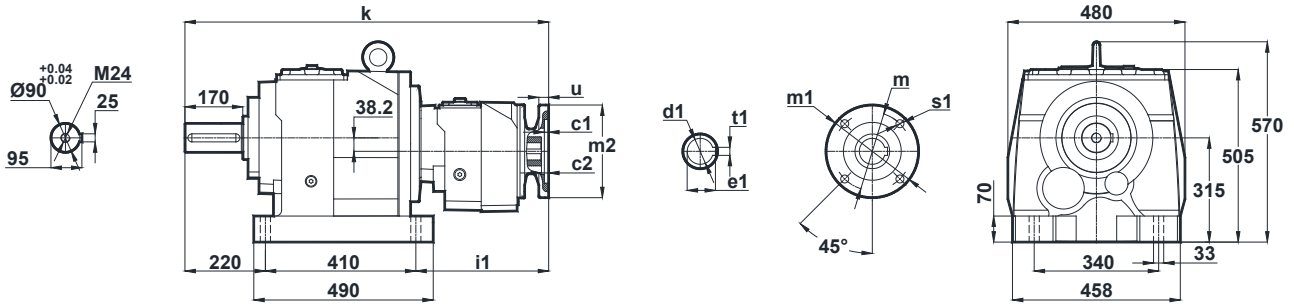


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

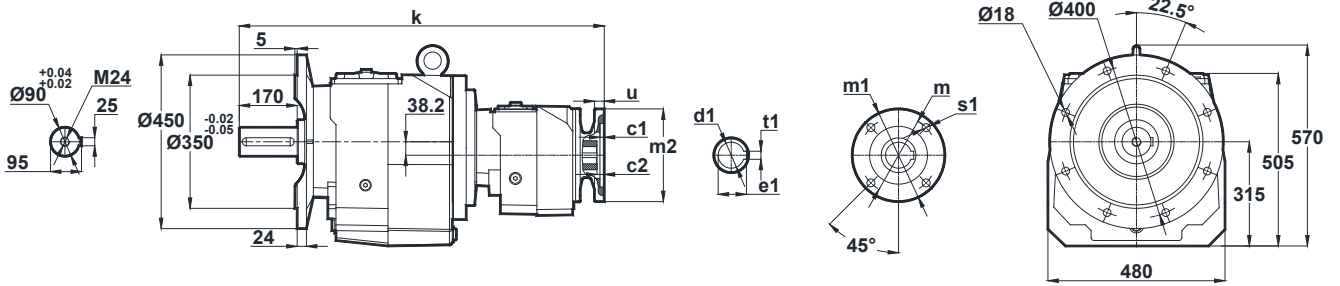


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN775-A.. / B..  
MN776-A.. / B..**

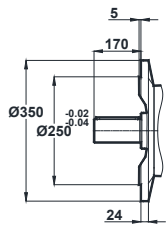


**NN775-A.. / B..  
NN776-A.. / B..**

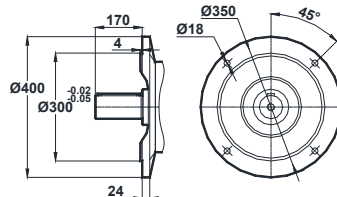


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	266	12	896	14	5	16.3
80/B5	4	9	12	165	200	130	266	12	869	19	6	21.8
90/B5	4	9	12	165	200	130	266	12	896	24	8	27.3
80/B14	4	9	7	100	120	80	266	12	896	19	6	21.8
90/B14	4	9	9	115	140	95	266	12	896	24	8	26.3

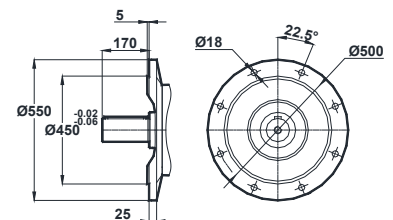
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

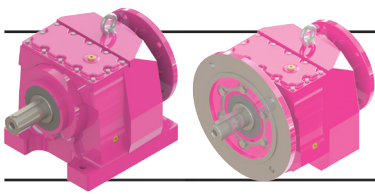


Opt. 2

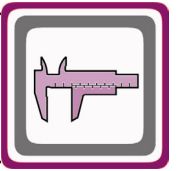


Opt. 3



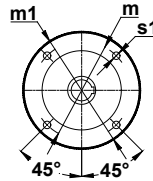
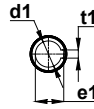
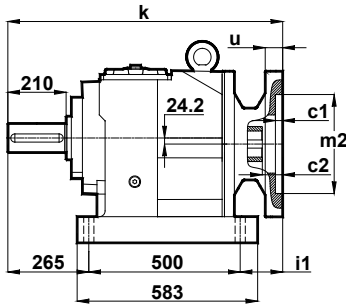
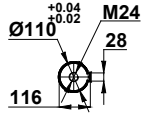


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

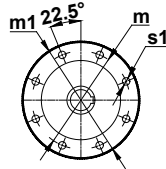


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

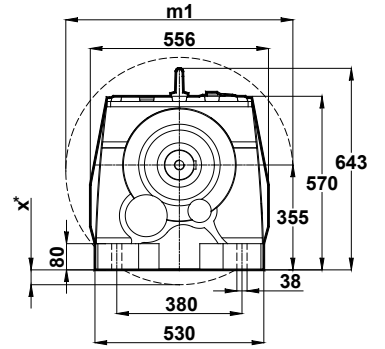
## MN872-A.. MN873-A..



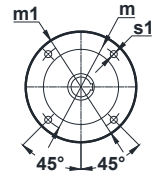
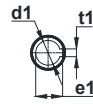
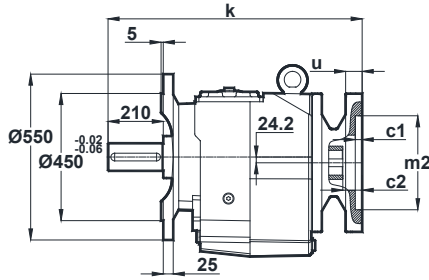
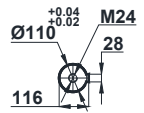
160 - 200 Tip / Type / Typ



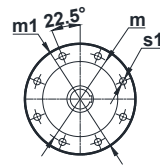
225 - 280 Tip / Type / Typ



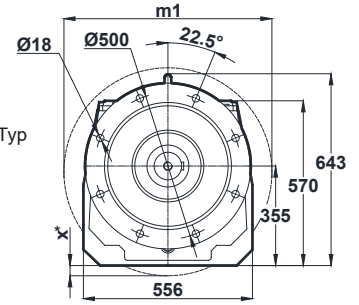
## NN872-A.. NN873-A..



160 - 200 Tip / Type / Typ

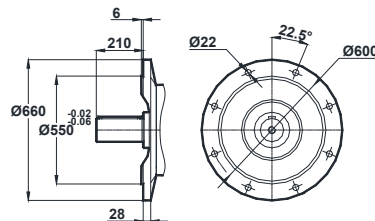


225 - 280 Tip / Type / Typ



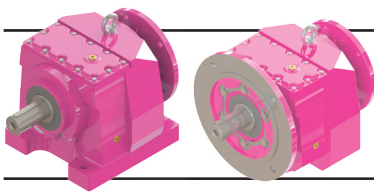
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
160/B5	5.5	10	19	300	350	250	158	20	923	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	158	20	923	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	158	22	923	55	16	59.3	-
225/B5	5.5	10	19	400	450	350	158	24	923	60	18	64.4	-
250/B5	5.5	10	19	500	550	450	158	24	923	65	18	69.4	-
280/B5	5.5	10	19	500	550	450	158	24	923	75	20	79.9	-

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

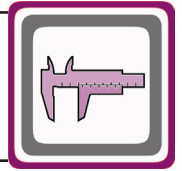


Opt. 1

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

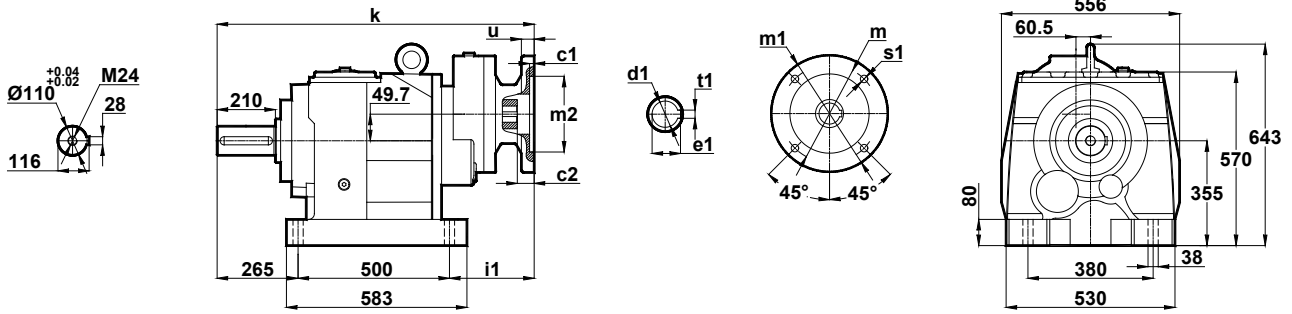


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

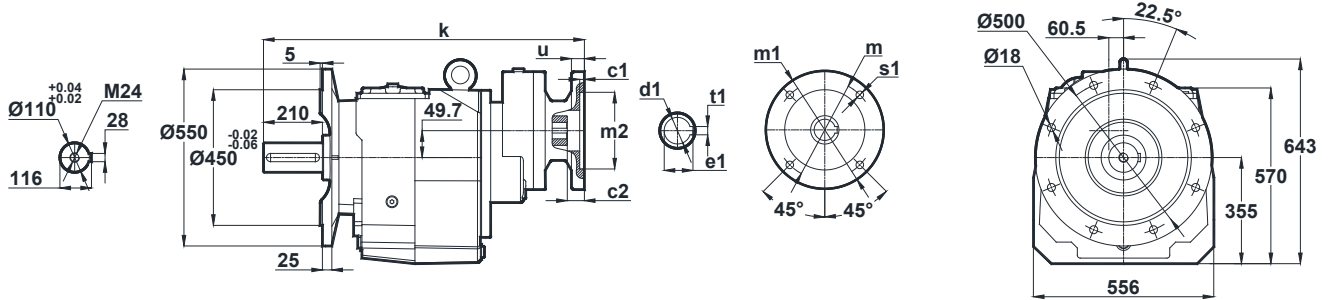


-Mil ucu çekirtme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MN874-A.. MN874-B..

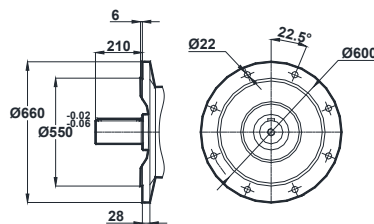


## NN874-A.. NN874-B..

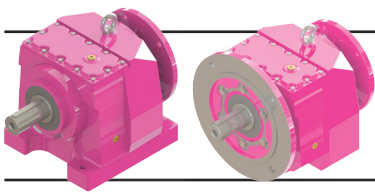


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
100/B5	4.5	9	15	215	250	180	130.5	15	895.5	28	8	31.3
112/B5	4.5	9	15	215	250	180	130.5	15	895.5	28	8	31.3
132/B5	4.5	9	15	265	300	230	151.5	15	916.5	38	10	41.3
132/B14	4.5	9	11	165	200	130	151.5	15	916.5	38	10	41.3

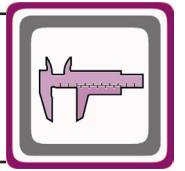
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

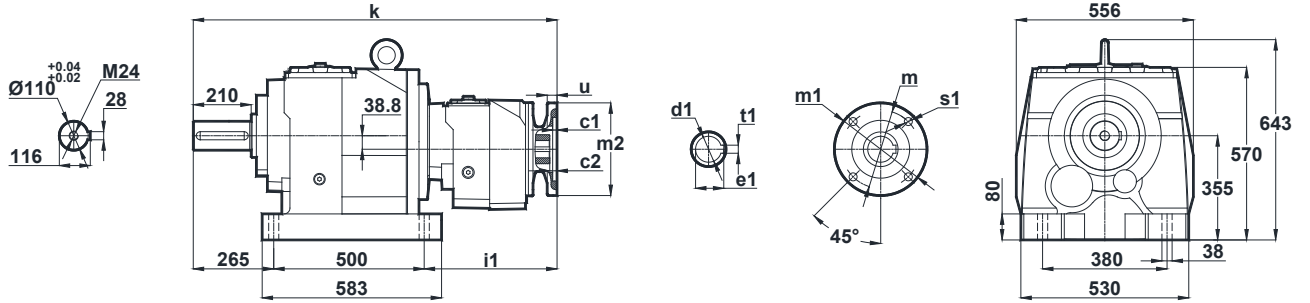


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

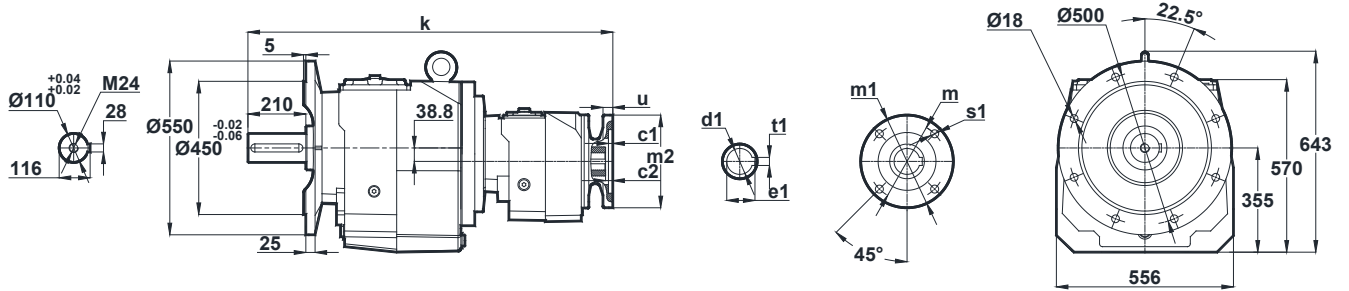


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN875-A.. / B..  
MN876-A.. / B..**

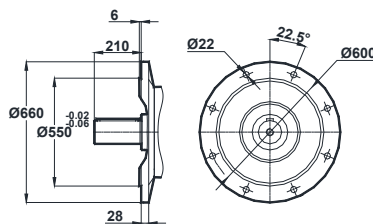


**NN875-A.. / B..  
NN876-A.. / B..**

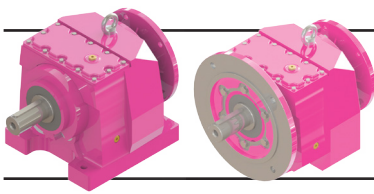


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	248	12	1013	14	5	16.3
80/B5	4	9	12	165	200	130	248	12	1013	19	6	21.8
90/B5	4	9	12	165	200	130	248	12	1013	24	8	27.3
100/B5	4.5	9	15	215	250	180	265	15	1030	28	8	31.3
80/B14	4	9	7	100	120	80	248	12	1013	19	8	21.8
90/B14	4	9	9	115	140	95	248	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**



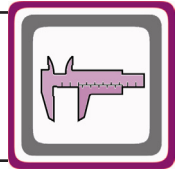
Opt. 1



# Ölçü Sayfaları

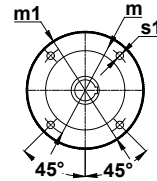
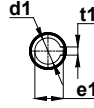
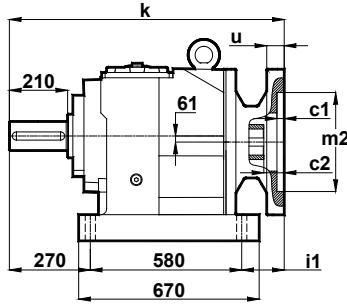
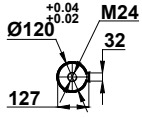
## Dimension Pages

### Abmessungsseiten

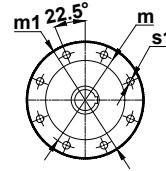


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

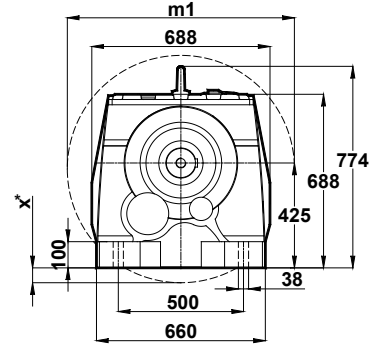
### MN972-A.. MN973-A..



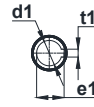
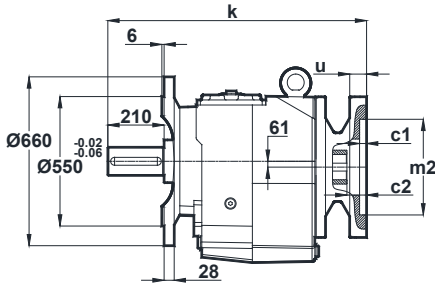
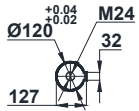
160 - 200 Tip / Type / Typ



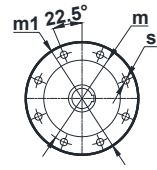
225 - 315 Tip / Type / Typ



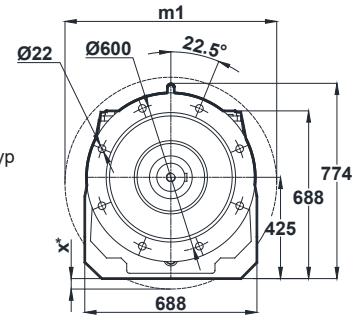
### NN972-A.. NN973-A..



160 - 200 Tip / Type / Typ

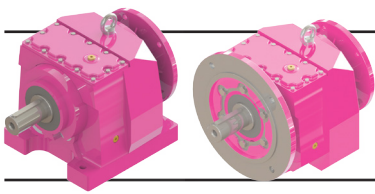


225 - 315 Tip / Type / Typ



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	910.5	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	60.5	20	910.5	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	84.5	22	934.5	55	16	59.3	-
225/B5	5.5	10	19	400	450	350	126.5	24	976.5	60	18	64.4	-
250/B5	5.5	10	19	500	550	450	178.5	24	998.5	65	18	69.4	-
280/B5	5.5	10	19	500	550	450	178.5	24	998.5	75	20	79.9	-
315/B5	6.5	15	24	660	600	550	228.5	24	1078.5	85	22	90.4	-

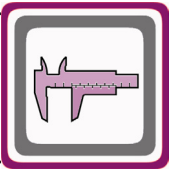
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / x: If Motor flange is lower then foot mounting plane / x: Wenn motorflansch ist niedriger den die Anschlussplatte



# Ölçü Sayfaları

## Dimension Pages

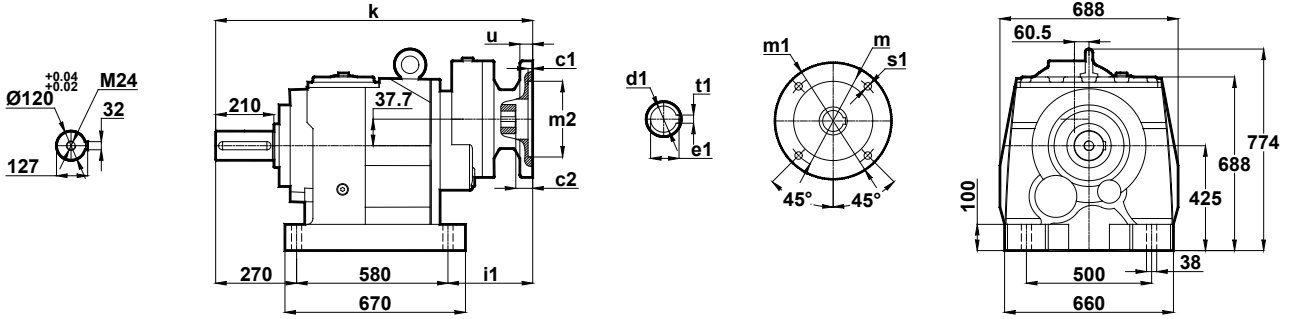
### Abmessungsseiten



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

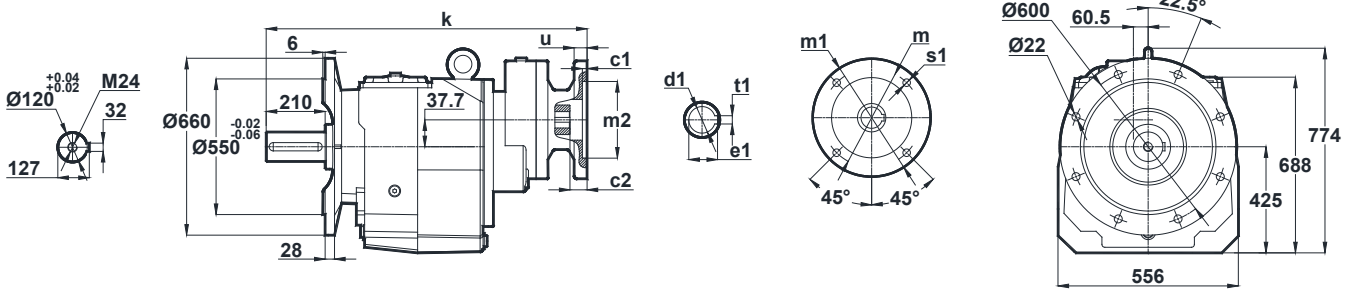
### MN974-A..

### MN974-B..

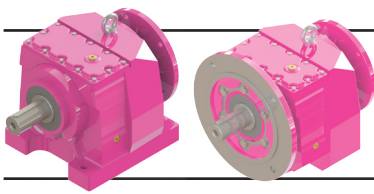


### NN974-A..

### NN974-B..



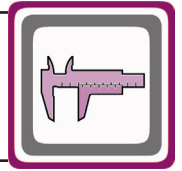
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
100/B5	4.5	14.5	15	215	250	180	149	15	999	28	8	31.3
112/B5	4.5	14.5	15	215	250	180	149	15	999	28	8	31.3
132/B5	4.5	9	15	265	300	230	164	15	1014	38	10	41.3
132/B14	4.5	9	15	165	200	130	164	15	1014	38	10	41.3



# Ölçü Sayfaları

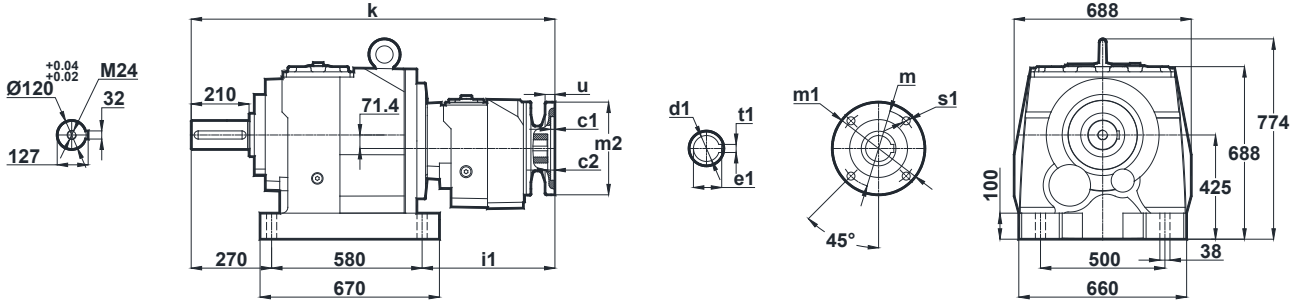
## Dimension Pages

## Abmessungsseiten

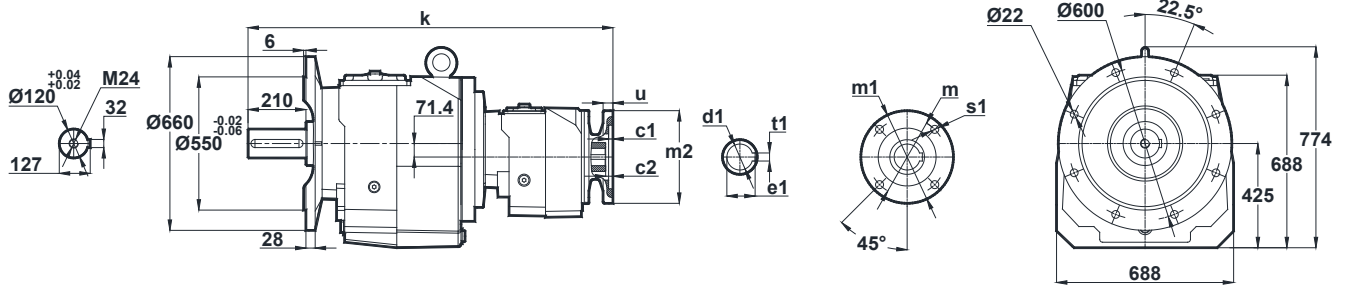


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN975-A.. / B..**  
**MN976-A.. / B..**

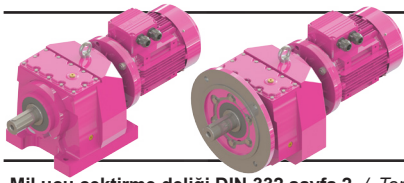


**NN975-A.. / B..**  
**NN976-A.. / B..**



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	285	12	1135	19	6	12.8
90/B5	4	5	12	165	200	130	285	12	1135	24	8	27.3
100/B5	4.5	9	15	215	250	180	303.5	15	1153.5	28	8	31.3
112/B5	4.5	9	15	215	250	180	303.5	15	1153.5	28	8	31.3
132/B5	4.5	6	15	265	300	230	322	15	1172	38	10	41.3
90/B14	4	5	9	115	140	95	285	12	1135	24	8	27.3
100/B14	4	9	9	130	160	110	303.5	15	1153.5	28	8	31.3
112/B14	4	9	9	130	160	110	303.5	15	1153.5	28	8	31.3
132/B14	4.5	6	11	165	200	130	322	15	1172	38	10	41.3



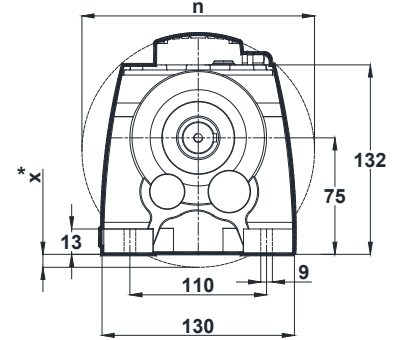
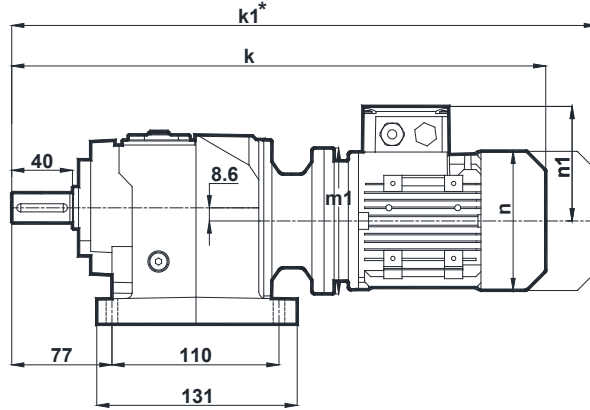
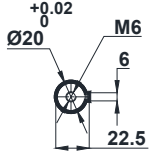


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

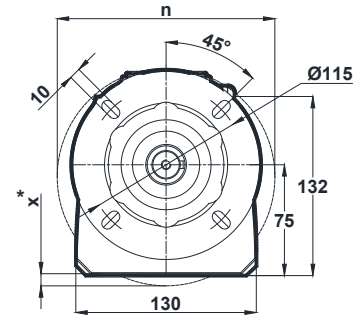
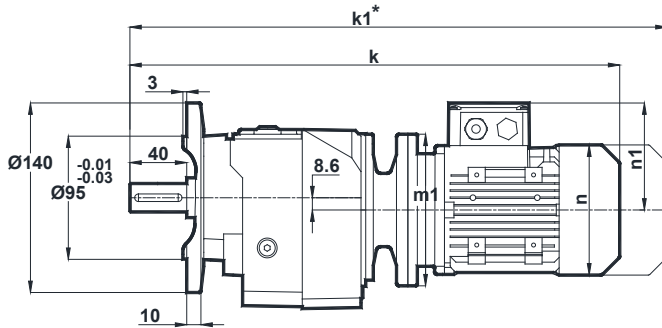
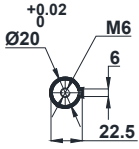


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MV002  
MV003**

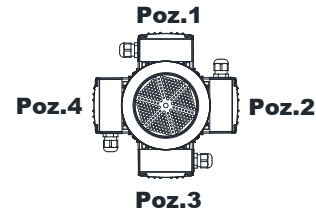


**NV002  
NV003**



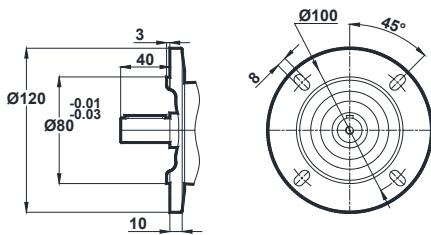
Motor Büyüklüğü / Motor Size / Motorbaugroße					
IEC	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	407	426.5	464.5	505.5	505.5
k1	468	517.5	557.5	609	609
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	140	160	200	200	200
m1 (B14)	90	105	120	140	140
x (B5)	4	14	34	34	34

Klemens Kutusu / Terminal Box / Klemmenkasten

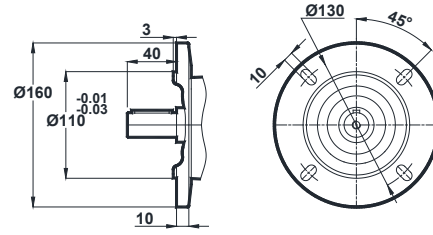


63-71-80-90

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

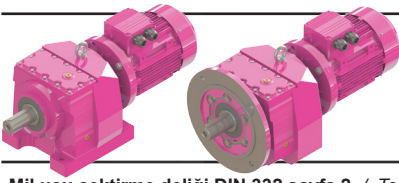


Opt. 2

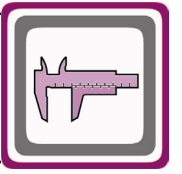
\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



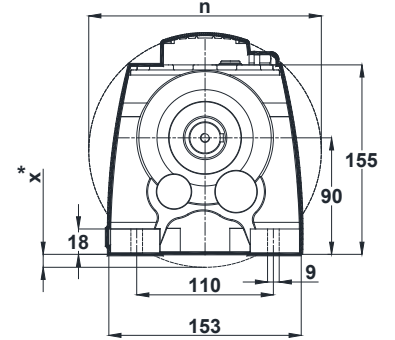
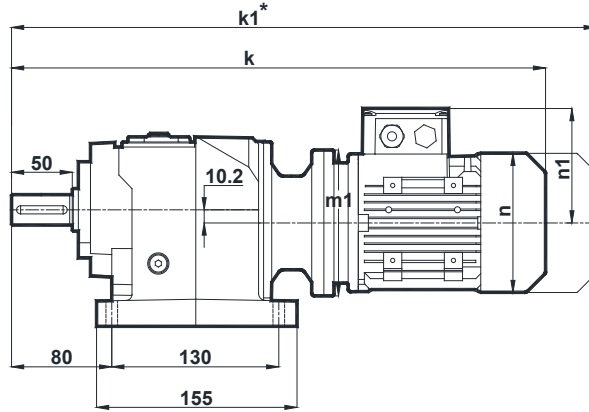
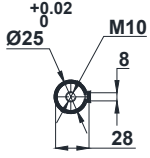


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

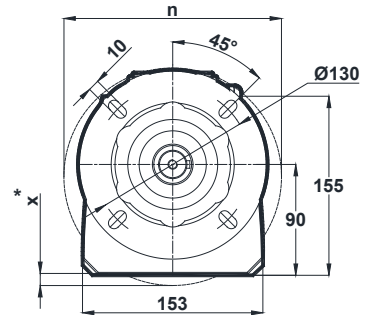
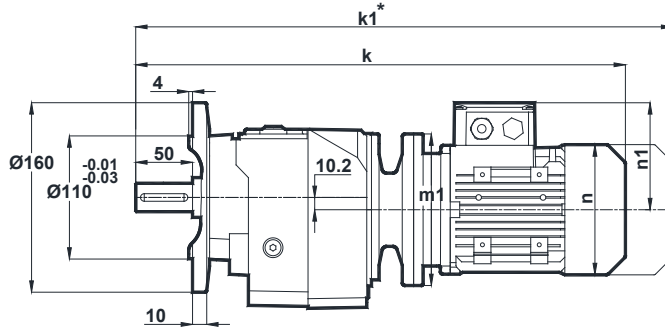
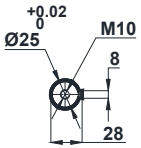


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV102 MV103

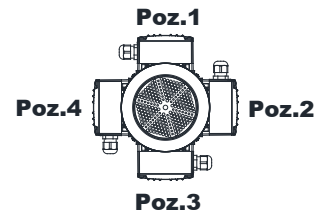


## NV102 NV103



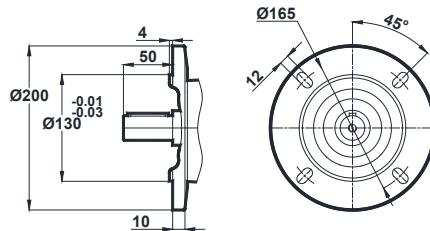
Motor Büyüklüğü / Motor Size / Motorbaugroße					
IEC	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	431	450.5	488.5	529.5	529.5
k1	492	541.5	581.5	633	633
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	140	160	200	200	200
m1 (B14)	90	105	120	140	140
x (B5)	-	1	21	21	21

Klemens Kutusu / Terminal Box / Klemmenkasten



63-71-80-90

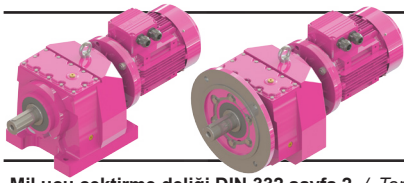
## Opsiyonel Flaş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



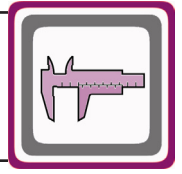
Opt. 1

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

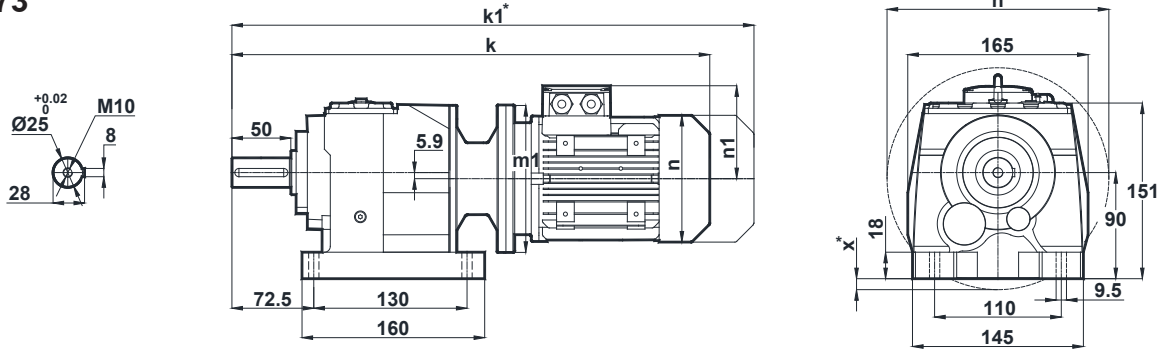


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

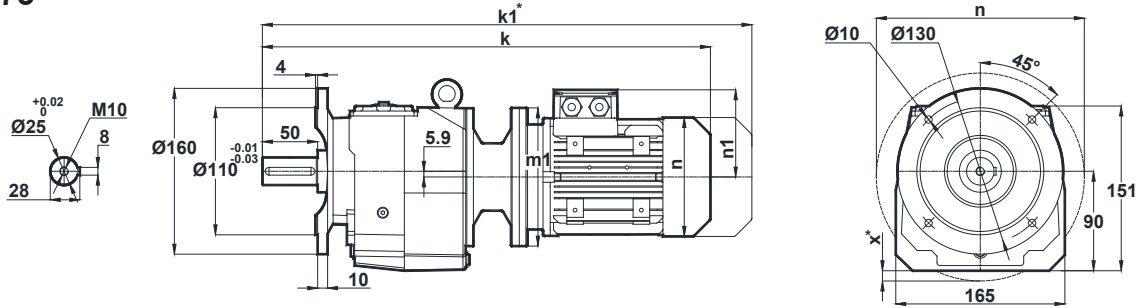


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV172 MV173

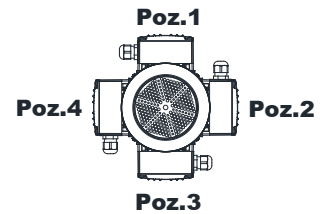


## NV172 NV173



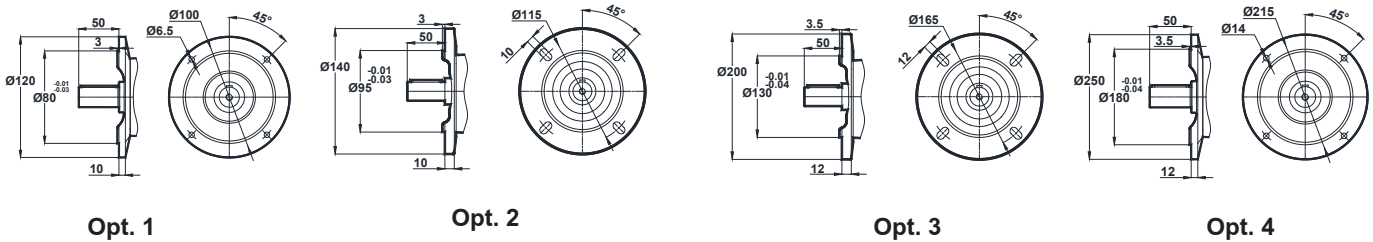
Motor Büyüklüğü / Motor Size / Motorbaugröße							
IEC	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14
<b>k</b>	434	453.5	491.5	532.5	532.5	579	599.5
<b>k1</b>	495	544.5	584.5	636	636	687.5	704
<b>n / n1</b>	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158
<b>m1 (B5)</b>	140	160	200	200	200	250	250
<b>m1 (B14)</b>	-	105	120	140	140	160	160
<b>x (B5)</b>	-	-	16	16	16	41	41

Klemens Kutusu / Terminal Box / Klemmenkasten



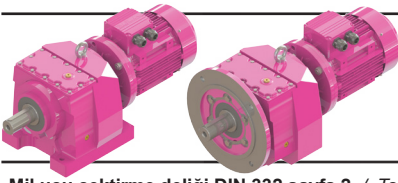
63-71-80-90-100-112

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

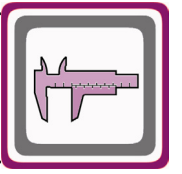


\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

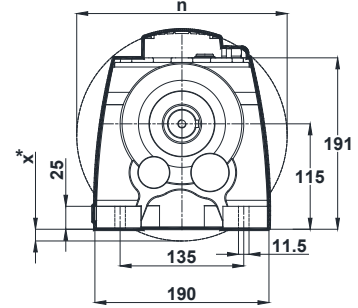
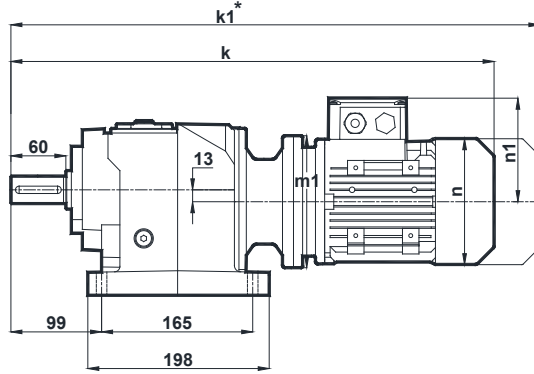
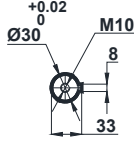


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

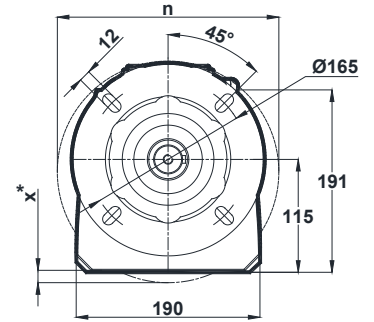
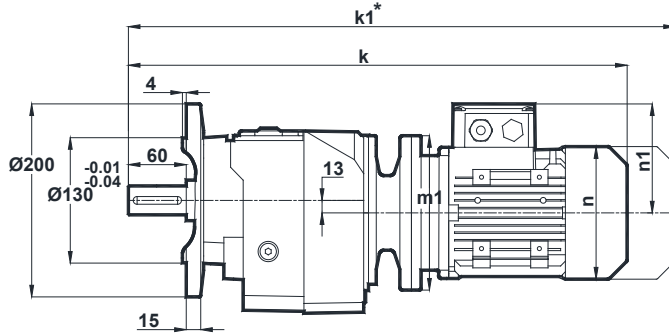
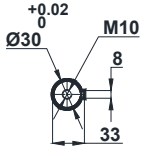


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV202 MV203

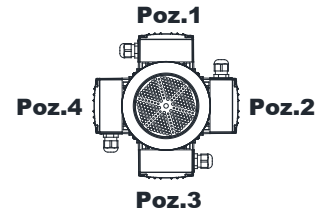


## NV202 NV203



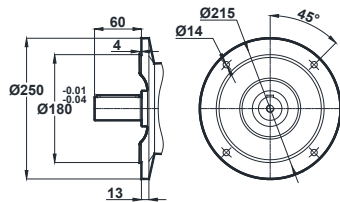
Motor Büyüklüğü / Motor Size / Motorbaugröße							
IEC	63/B5	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14
k	515.5	504.5	556.5	597.5	597.5	626	646.5
k1	576.5	595.5	649.5	701	701	734.5	751
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158
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

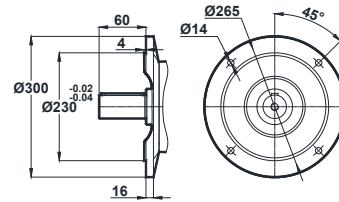


63-71-80-90-100-112

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



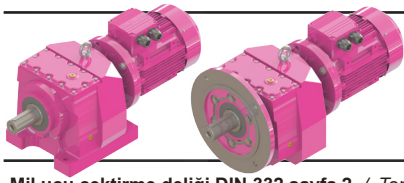
Opt. 1



Opt. 2

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

## Dimension Pages

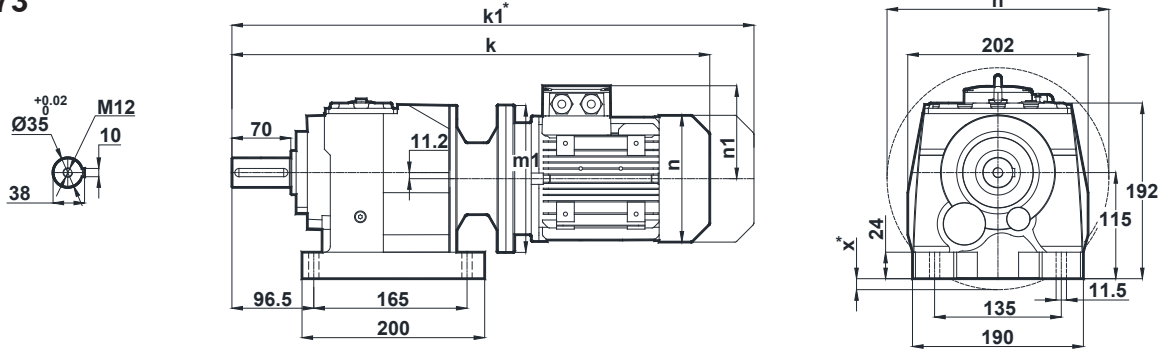
## Abmessungsseiten



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

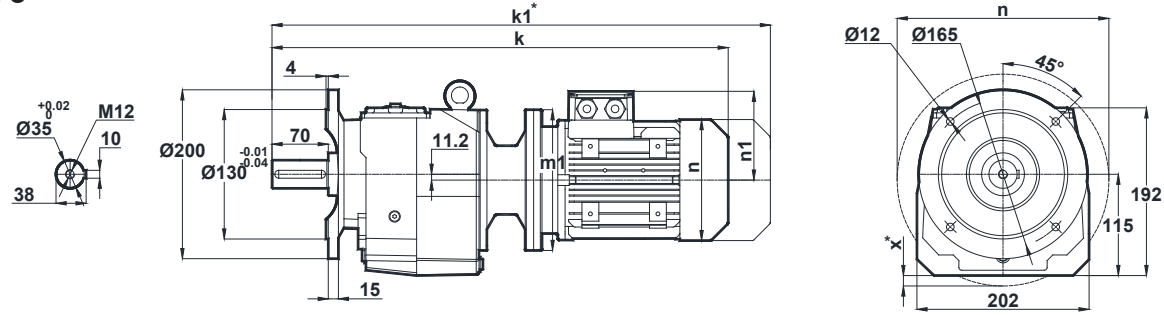
### MV272

### MV273



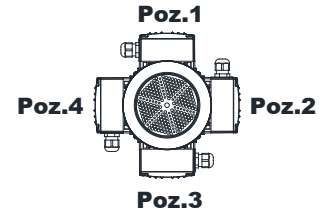
### NV272

### NV273



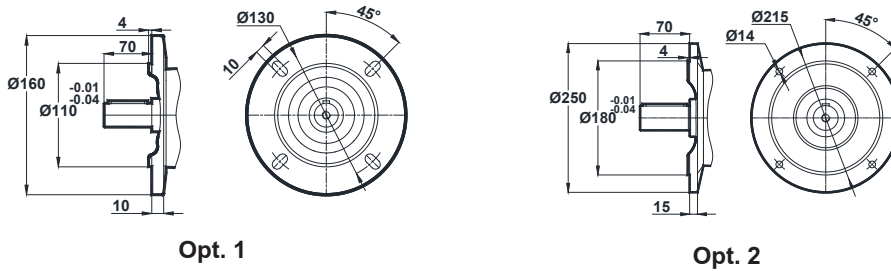
Motor Büyüklüğü / Motor Size / Motorbaugröße									
IEC	63/B5	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	516.5	505.5	557.5	598.5	598.5	627	647.5	778.5	778.5
k1	577.5	596.5	650.5	702	702	735.5	752	908.5	908.5
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	140	160	200	200	200	250	250	300	300
m1 (B14)	-	105	120	140	140	160	160	200	200
x (B5)	-	-	-	-	-	22	22	47	47

Klemens Kutusu / Terminal Box / Klemmenkasten



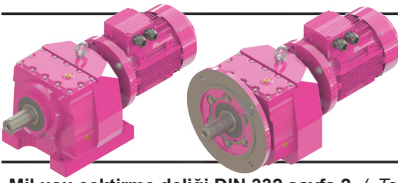
63-71-80-90-100-112-132

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

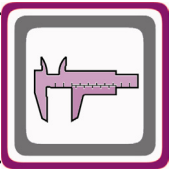


\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

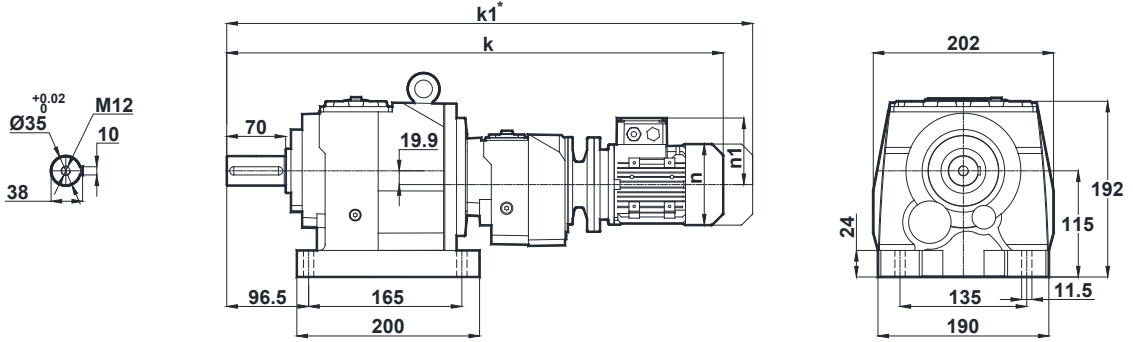


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

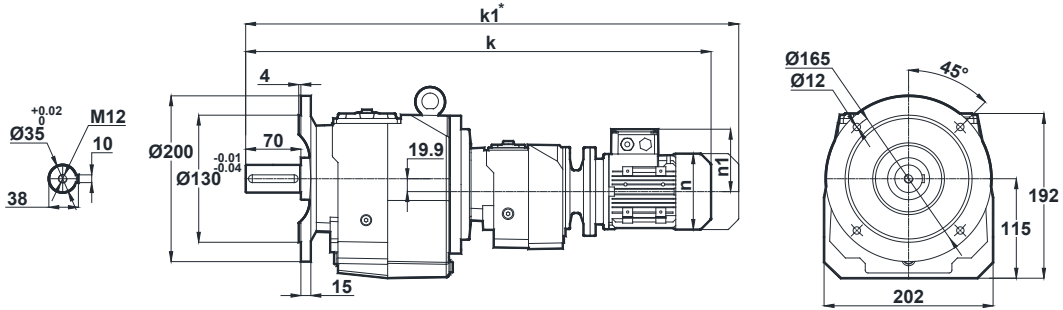


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV275 MV276

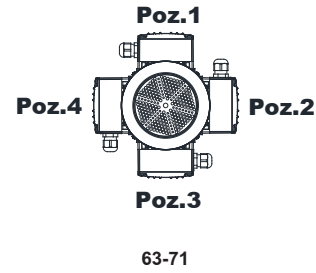


## NV275 NV276

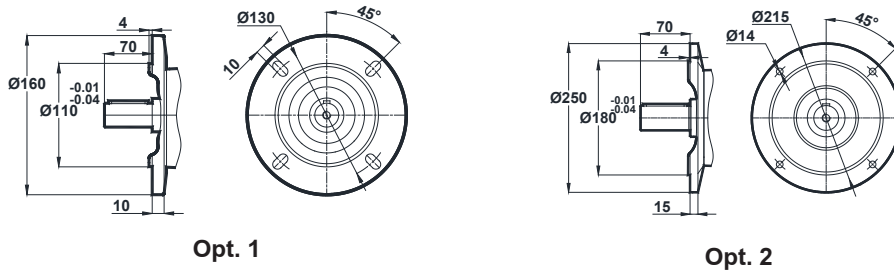


Motor Büyüklüğü / Motor Size / Motorbaugroße		
IEC	63/B5 63/B14	71/B5 71/B14
k	632	651.5
k1	693	742.5
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	90	105

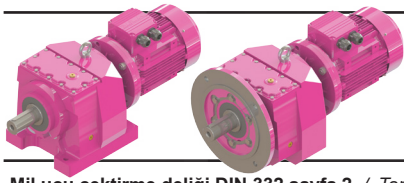
Klemens Kutusu / Terminal Box / Klemmenkasten



Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

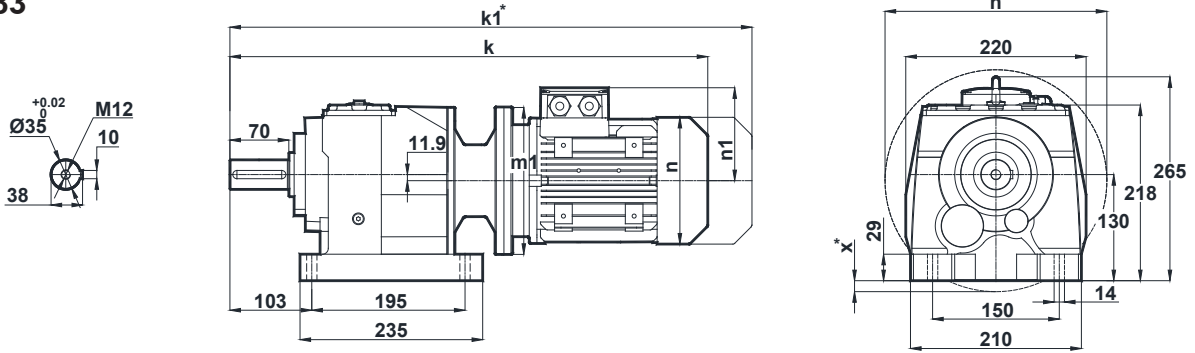


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

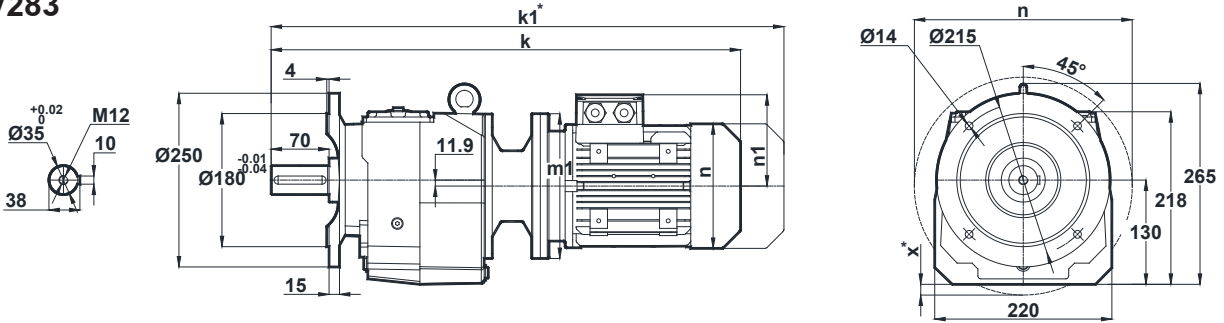


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV282 MV283

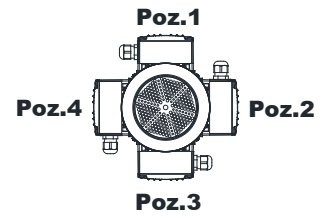


## NV282 NV283



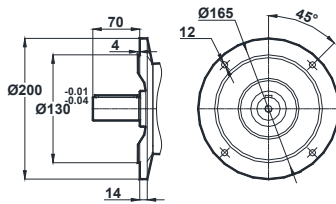
Motor Büyüklüğü / Motor Size / Motorbaugroße								
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
<b>k</b>	554	577	618	618	670.5	691	795	795
<b>k1</b>	645	670	721.5	721.5	779	795.5	925	925
<b>n / n1</b>	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179
<b>m1 (B5)</b>	160	200	200	200	250	250	300	300
<b>m1 (B14)</b>	-	120	140	140	160	160	200	200
<b>x (B5)</b>	-	-	-	-	7	7	32	32

Klemens Kutusu / Terminal Box / Klemmenkasten

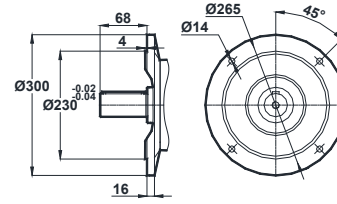


71-80-90-100-112-132

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



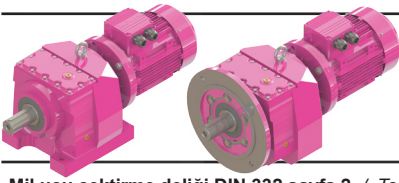
Opt. 1



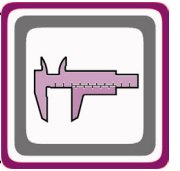
Opt. 2

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

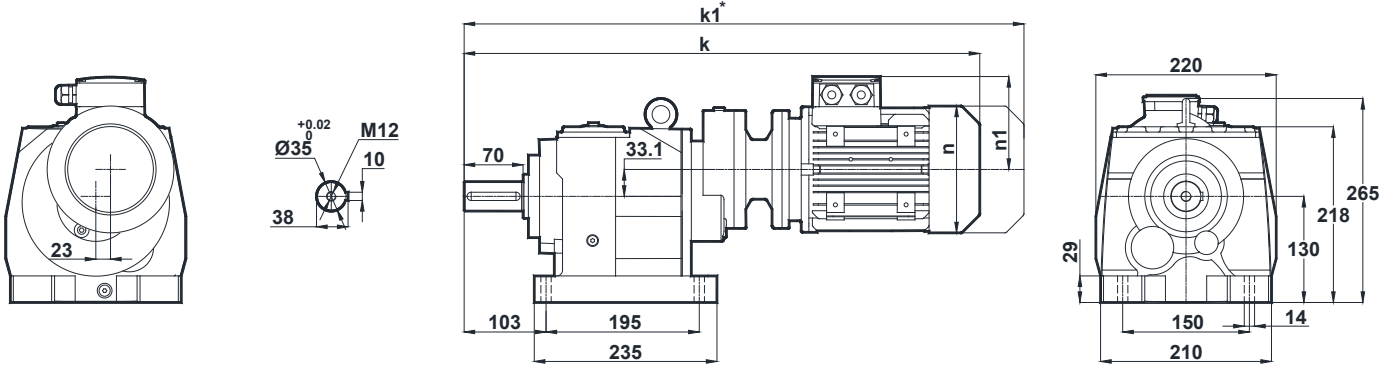


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

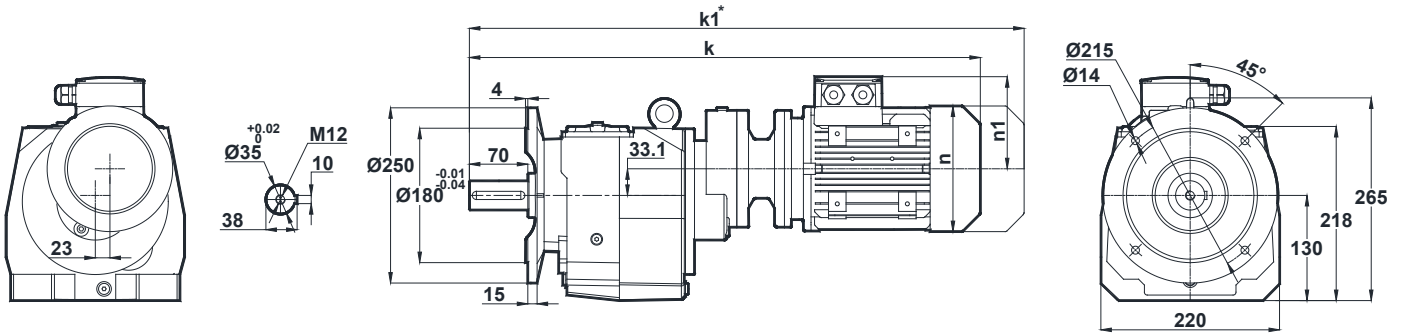


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV284

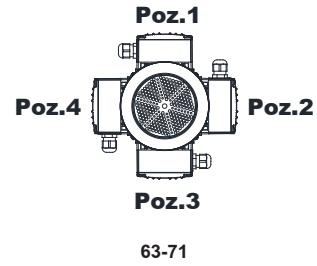


## NV284

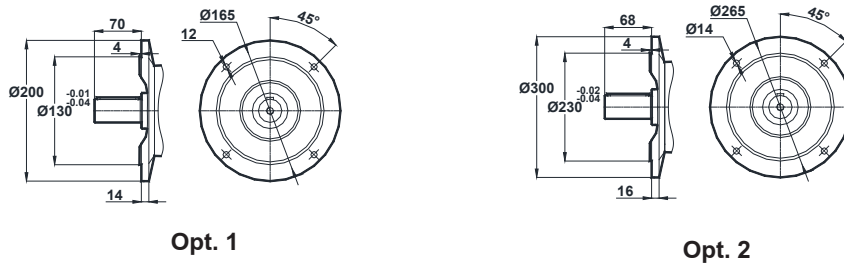


Motor Büyüklüğü / Motor Size / Motorbaugröße		
IEC	63/B5	71/B5 71/B14
k	613	602
k1	674	693
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	-	105

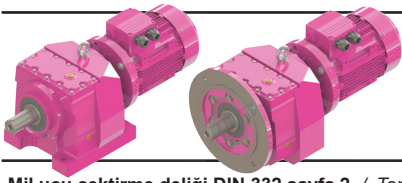
Klemens Kutusu / Terminal Box / Klemmenkasten



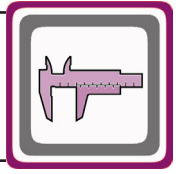
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* "k1" "Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

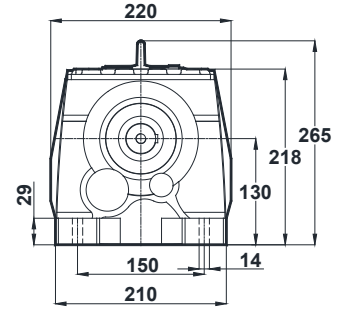
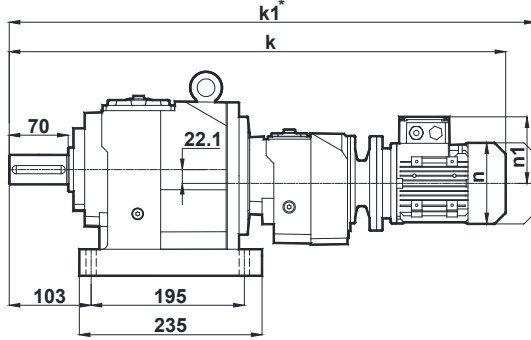
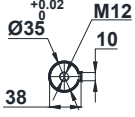


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

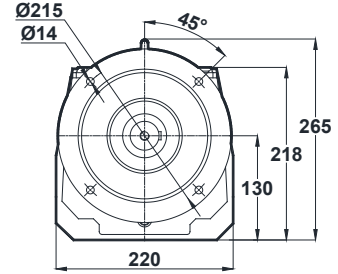
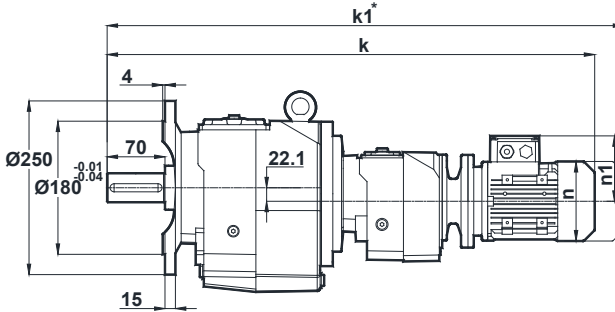
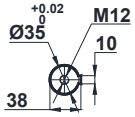


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV285 MV286

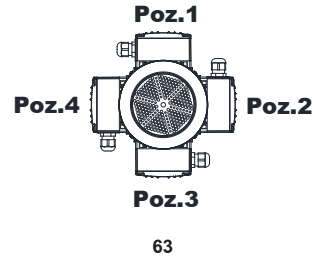


## NV285 NV286

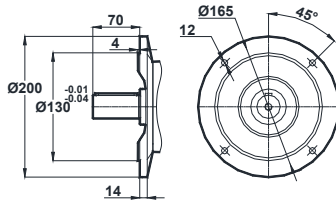


Motor Büyüklüğü / Motor Size / Motorbaugröße	
IEC	63/B5 63/B14
k	681
k1	742
n / n1	121 / 97
m1 (B5)	140
m1 (B14)	90

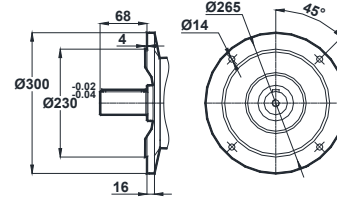
Klemens Kutusu / Terminal Box / Klemmenkasten



Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



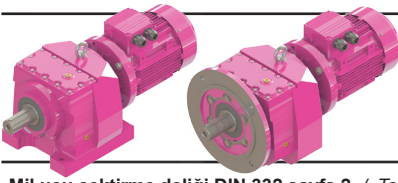
Opt. 1



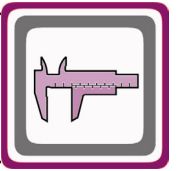
Opt. 2

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.



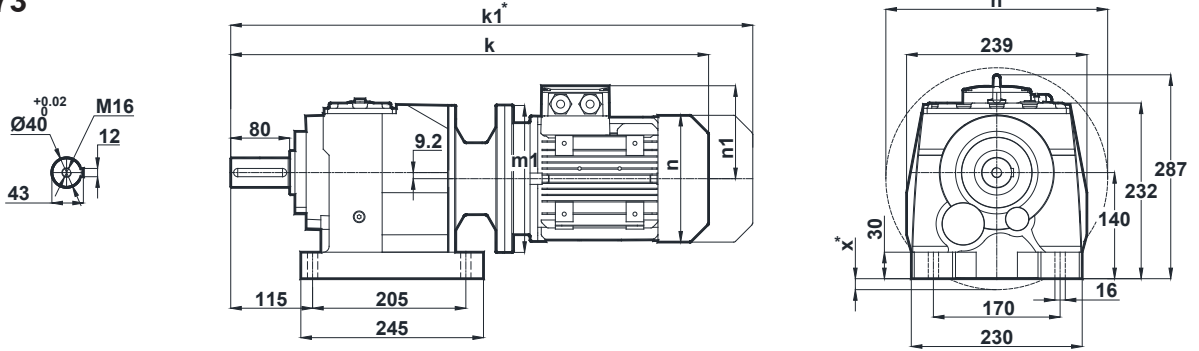


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

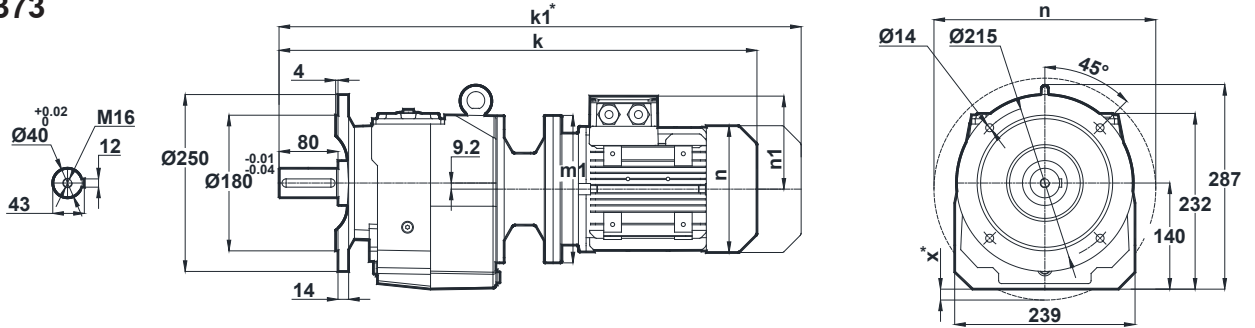


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV372 MV373

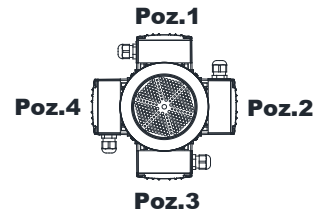


## NV372 NV373



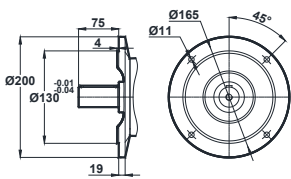
Motor Büyüklüğü / Motor Size / Motorbaugroße								
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	575	598	639	639	691.5	712	816	816
k1	666	691	742.5	742.5	800	816.5	946	946
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179
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

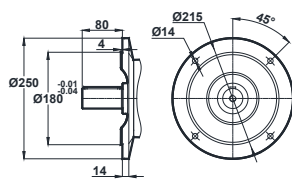


71-80-90-100-112-132

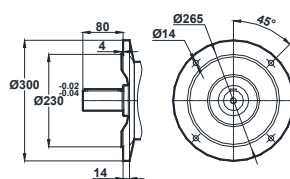
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



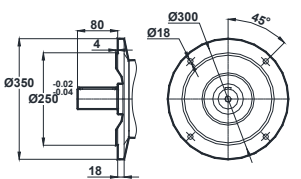
Opt. 1



Opt. 2



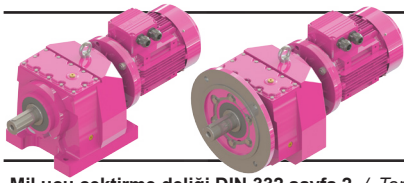
Opt. 3



Opt. 4

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

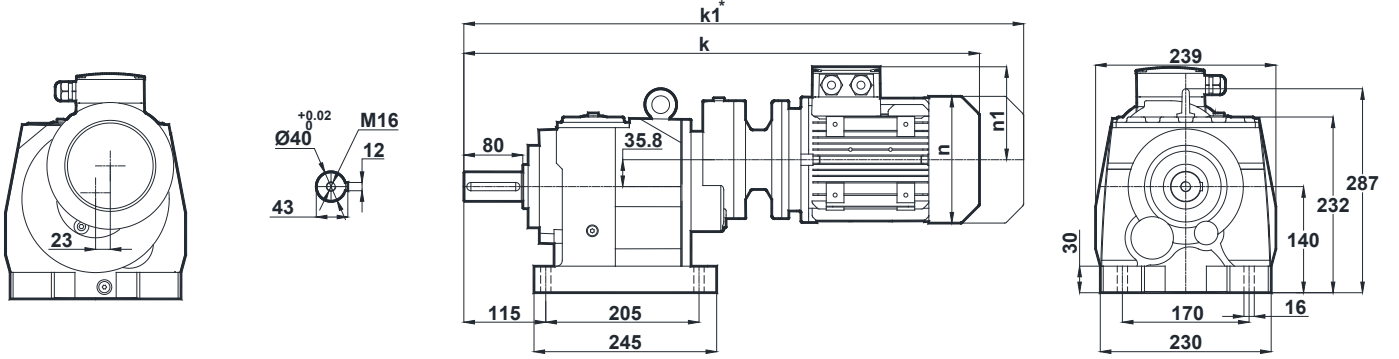


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

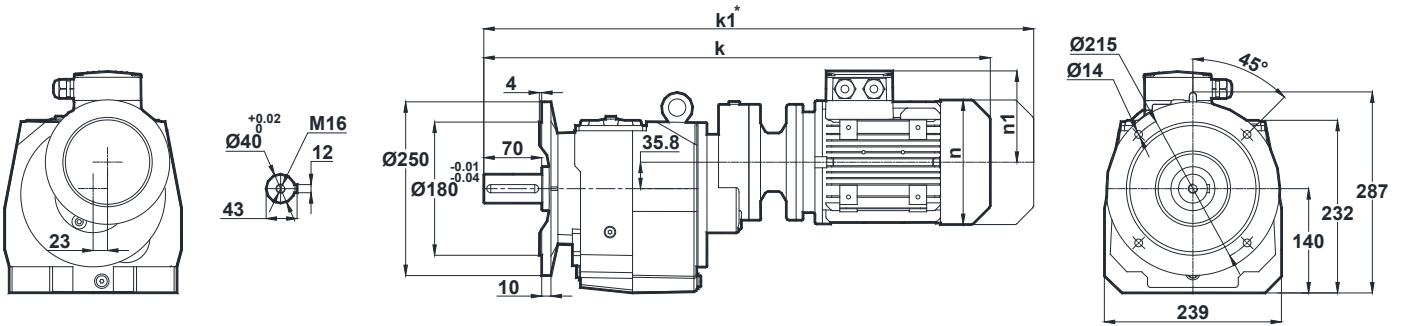


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV374

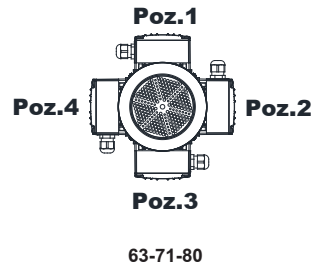


## NV374

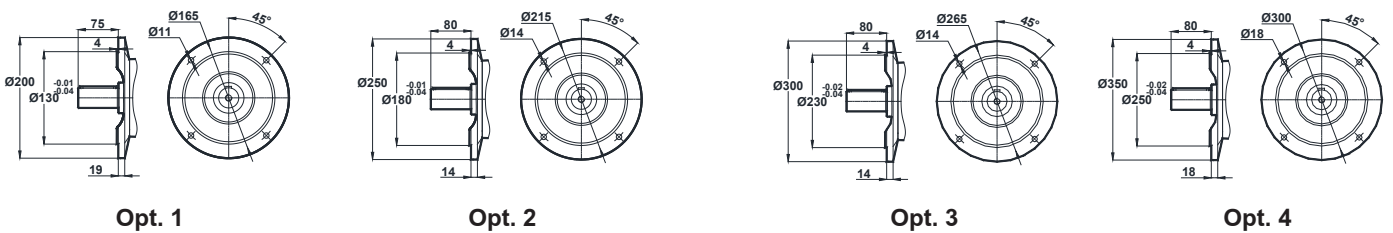


Motor Büyüklüğü / Motor Size / Motorbaugroße	63/B5	71/B5 71/B14	80/B5 80/B14
k	634	623	675
k1	695	714	768
n / n1	121 / 97	137 / 112	155 / 121
m1 (B5)	140	160	200
m1 (B14)	-	105	120

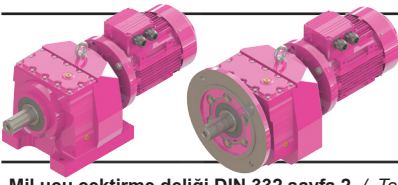
Klemens Kutusu / Terminal Box / Klemmenkasten



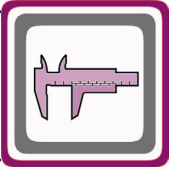
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

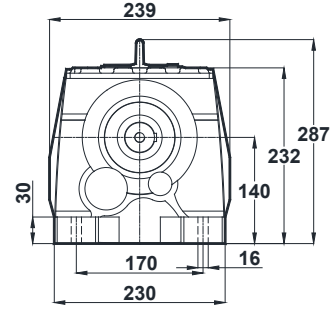
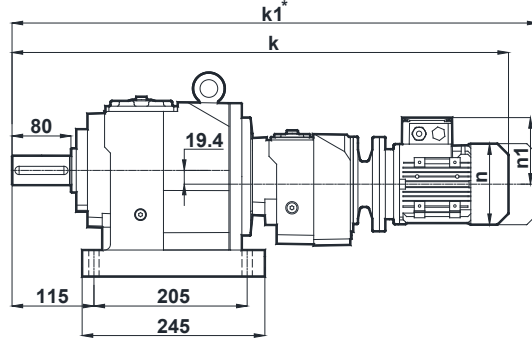
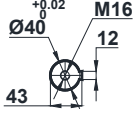


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

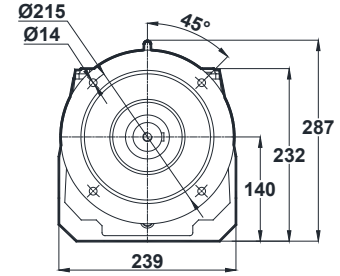
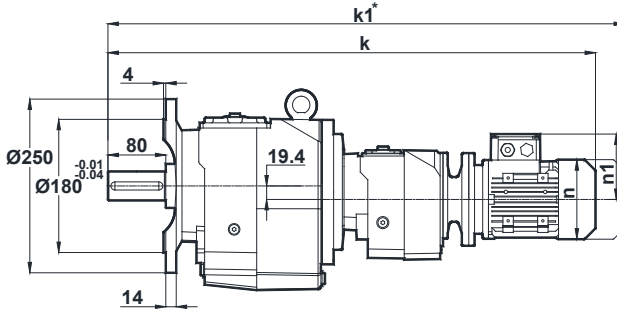
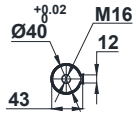


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV375 MV376

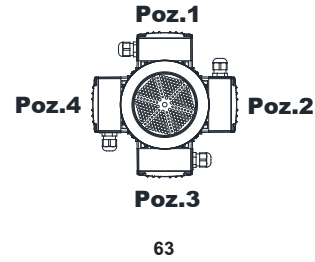


## NV375 NV376

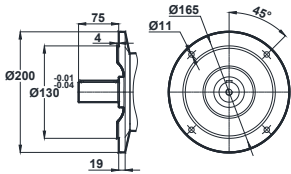


Motor Büyüklüğü / Motor Size / Motorbaugroße	
IEC	63/B5 63/B14
k	702
k1	763
n / n1	121 / 97
m1 (B5)	140
m1 (B14)	90

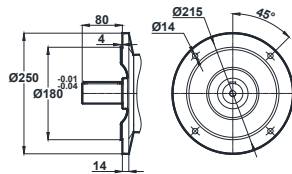
Klemens Kutusu / Terminal Box / Klemmenkasten



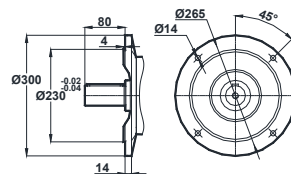
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



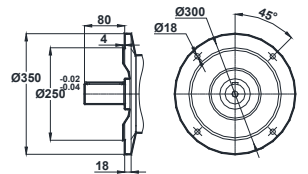
Opt. 1



Opt. 2

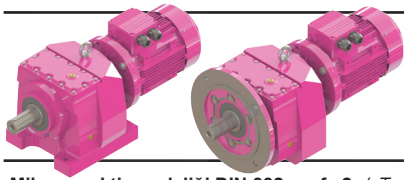


Opt. 3

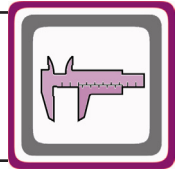


Opt. 4

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

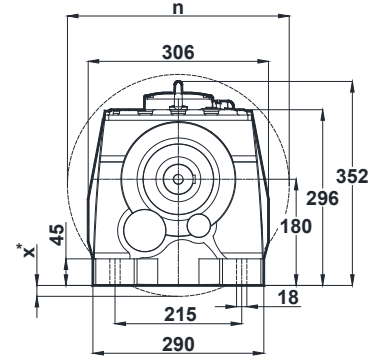
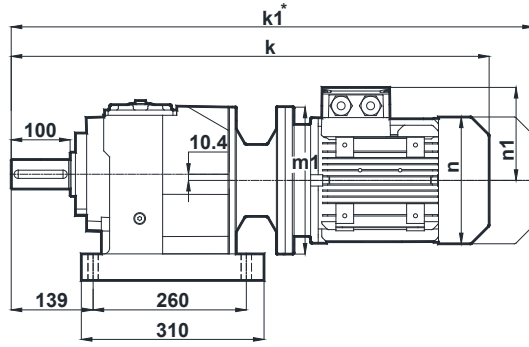
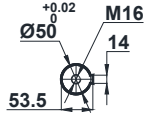


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

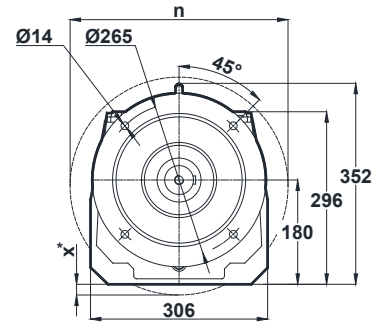
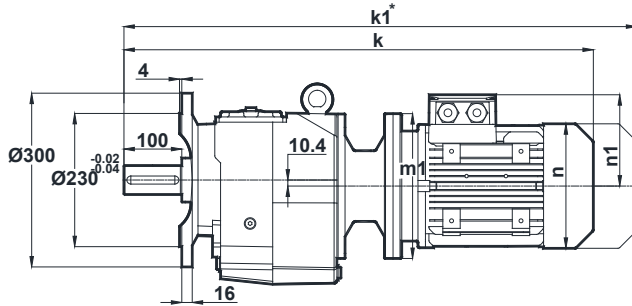
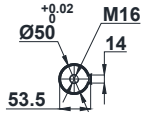


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV472 MV473

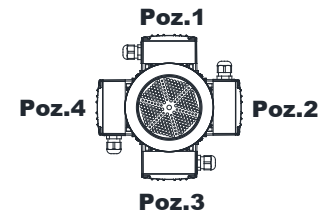


## NV472 NV473



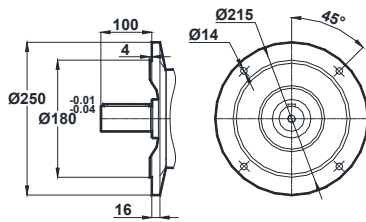
Motor Büyüklüğü / Motor Size / Motorbaugröße											
IEC	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5
k	660.5	701.5	701.5	755.5	776	878.5	878.5	1038	1038	1126	1126
k1	753.5	805	805	864	880.5	1008.5	1008.5	1186	1186	1284.5	1284.5
n / n1	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234
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

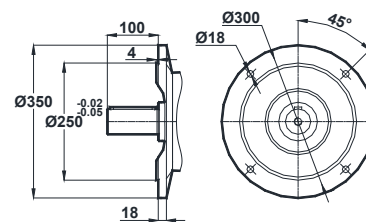


80-90-100-112-132-160-180

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



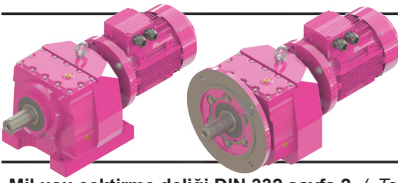
Opt. 1



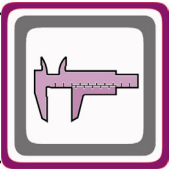
Opt. 2

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

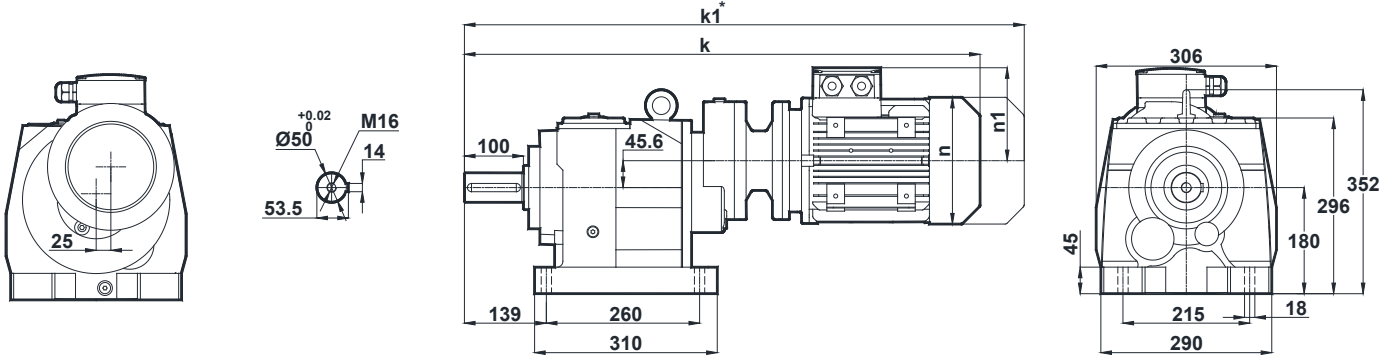


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

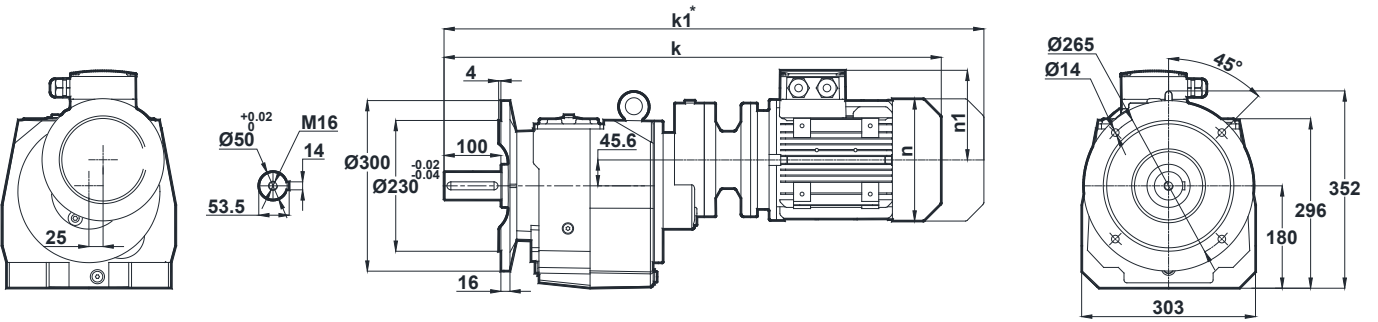


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV474

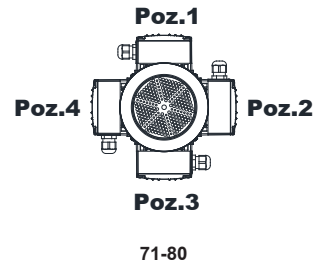


## NV474

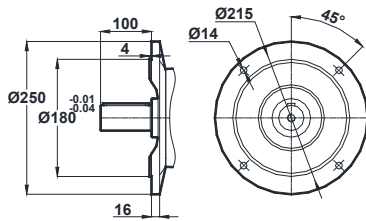


Motor Büyüklüğü / Motor Size / Motorbaugroße		
IEC	71/B5	80/B5 80/B14
k	735.5	758.5
k1	826.5	851.5
n / n1	137 / 112	155 / 121
m1 (B5)	160	200
m1 (B14)	-	120

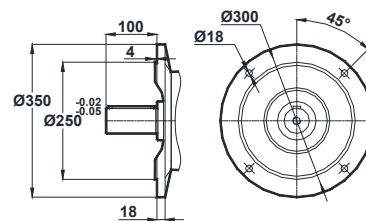
Klemens Kutusu / Terminal Box / Klemmenkasten



Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

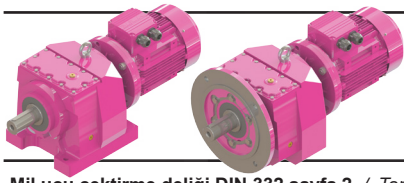


Opt. 1



Opt. 2

\* "k1" ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

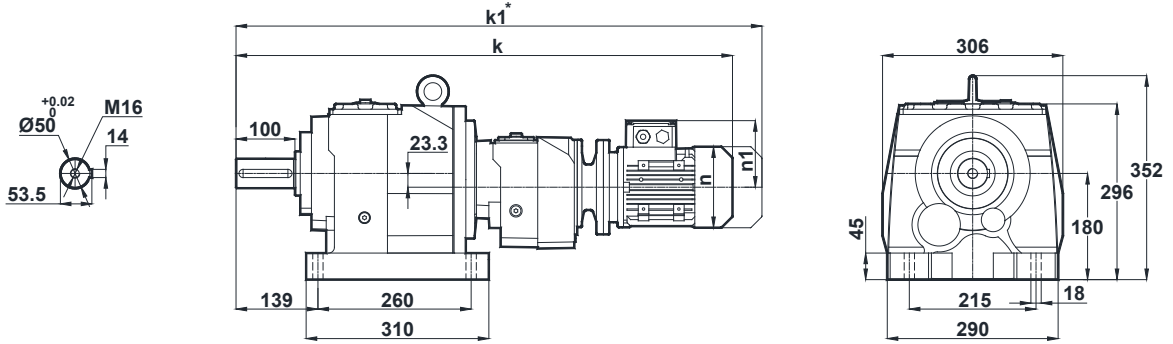


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

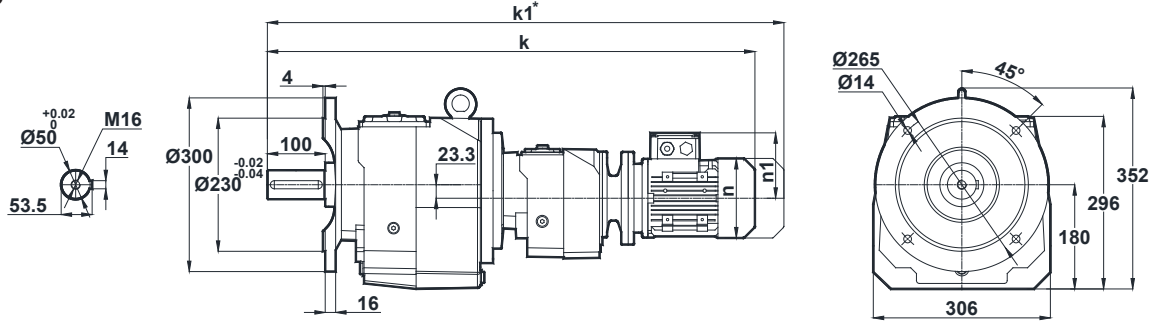


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV475 MV476

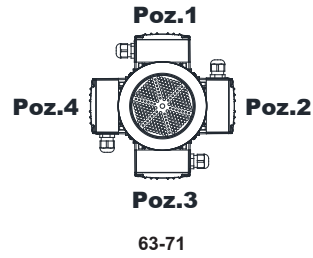


## NV475 NV476

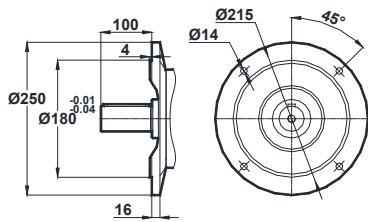


Motor Büyüklüğü / Motor Size / Motorbaugroße		
IEC	63/B5	71/B5 71/B14
k	845.5	834.5
k1	906.5	925.5
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	-	105

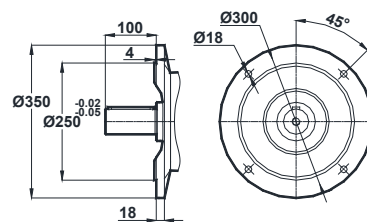
Klemens Kutusu / Terminal Box / Klemmenkasten



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

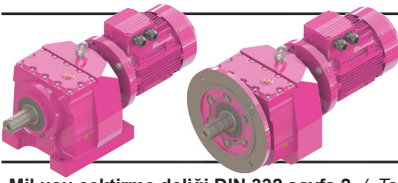


Opt. 1

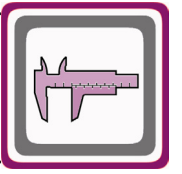


Opt. 2

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

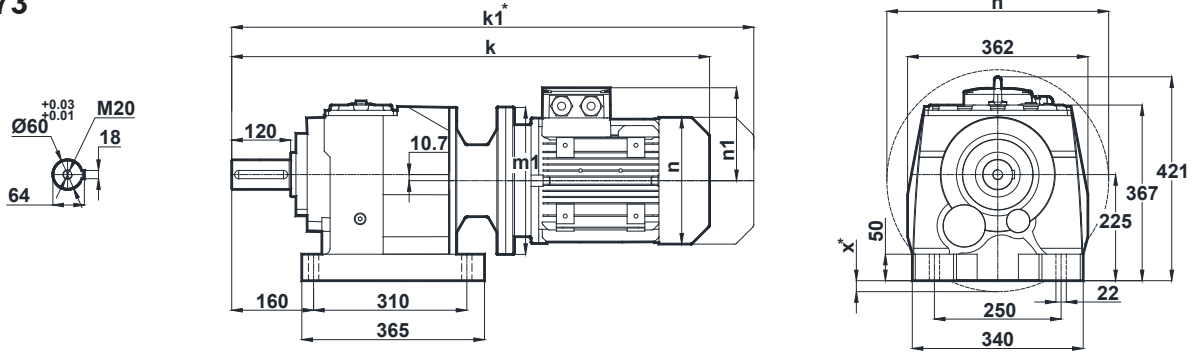


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

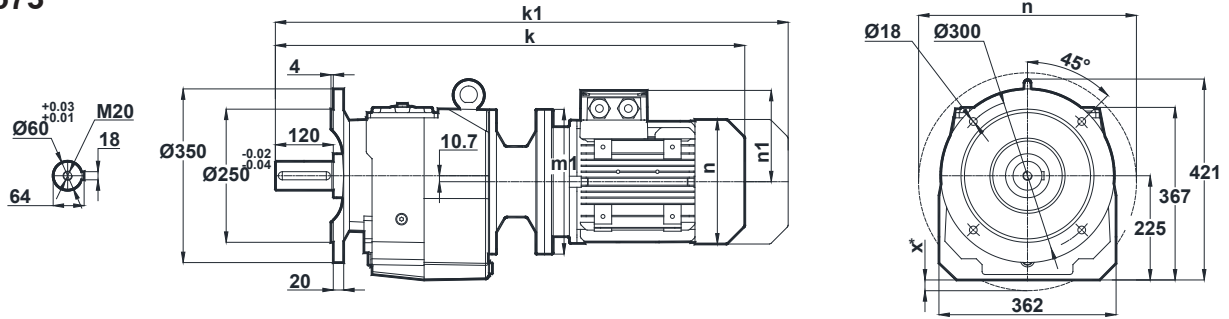


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV572 MV573

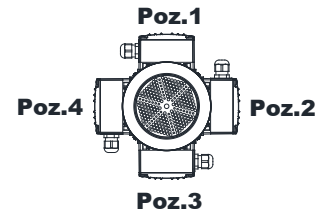


## NV572 NV573



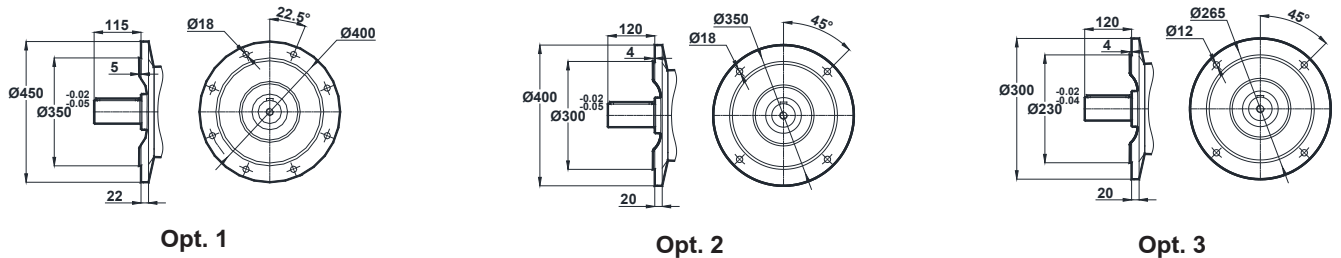
Motor Büyüklüğü / Motor Size / Motorbaugroße									
IEC	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5
k	818	838.5	943.5	943.5	1099	1099	1187	1187	1261
k1	926.5	943	1073.5	1073.5	1247	1247	1345.5	1345.5	1447.5
n / n1	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275
m1 (B5)	250	250	300	300	350	350	350	350	400
m1 (B14)	-	-	200	200	-	-	-	-	-
x (B5)	-	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten



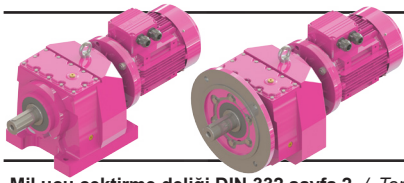
100-112-132-160-180-200

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



\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

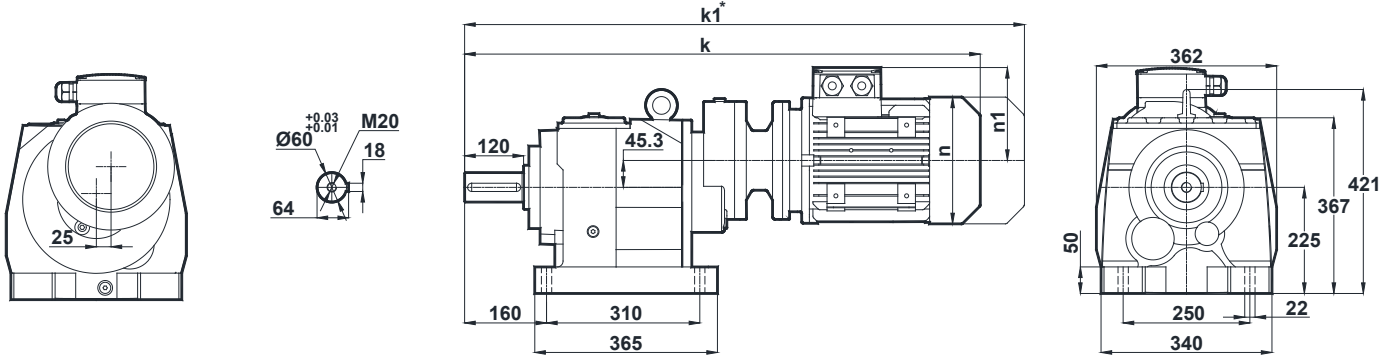


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

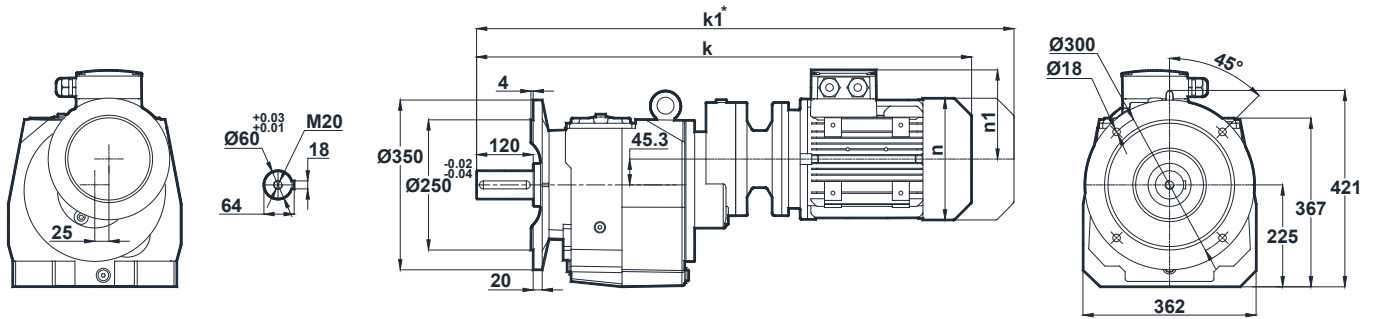


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV574

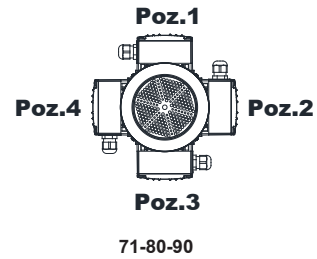


## NV574

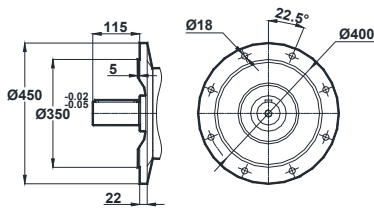


Motor Büyüklüğü / Motor Size / Motorbaugröße				
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	798.5	821.5	862.5	862.5
k1	889.5	914.5	966	966
n / n1	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140

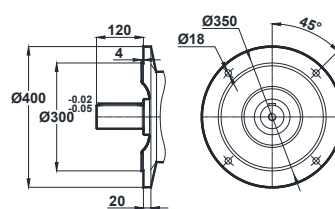
Klemens Kutusu / Terminal Box / Klemmenkasten



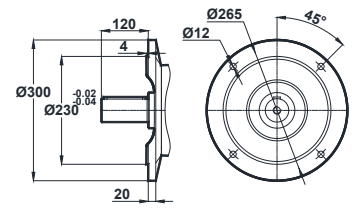
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



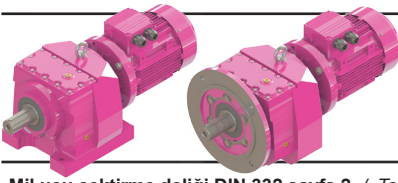
Opt. 2



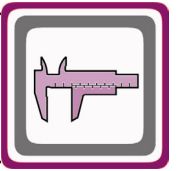
Opt. 3

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.



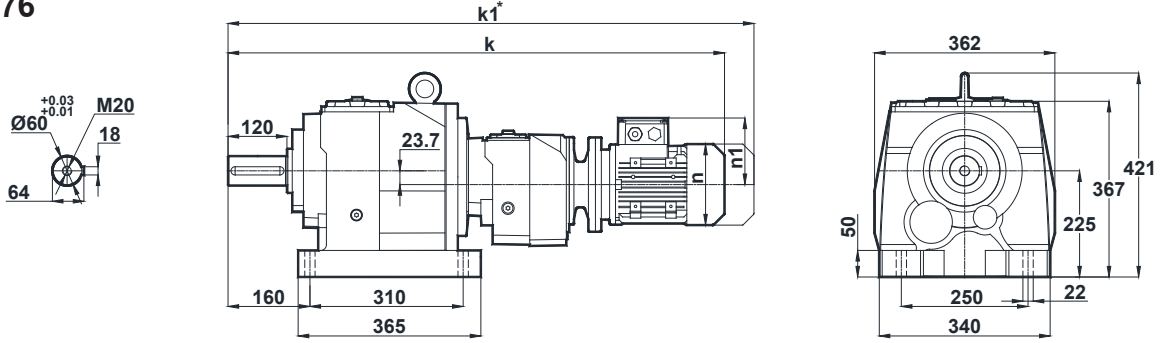


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

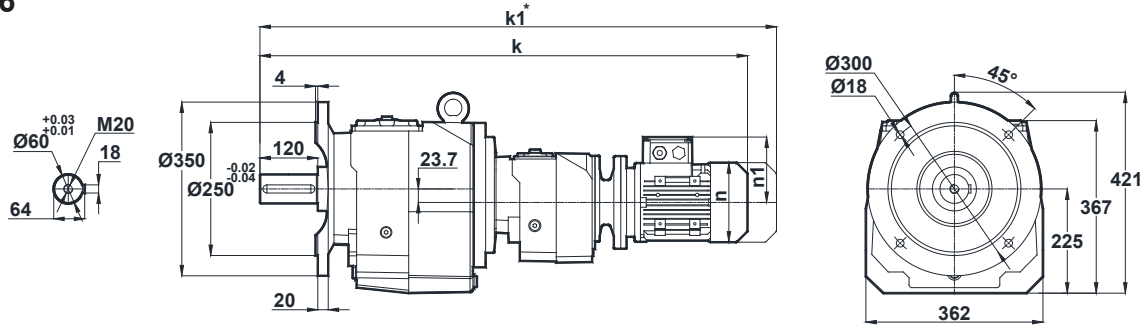


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV575 MV576

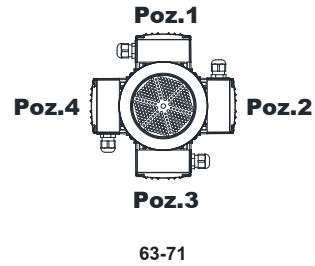


## NV575 NV576

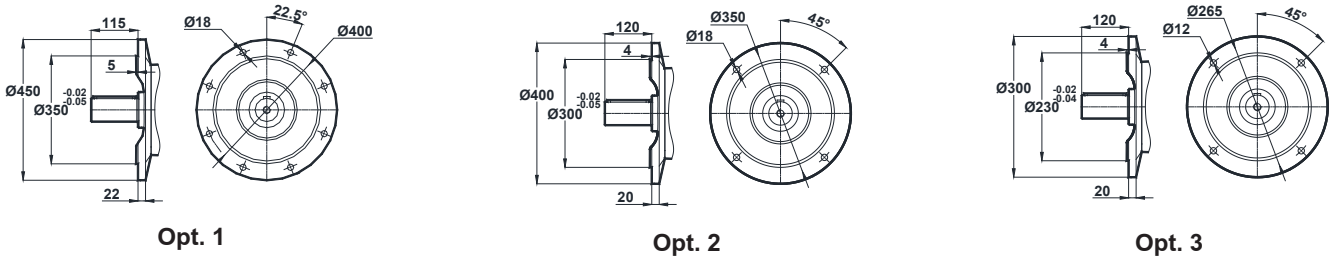


Motor Büyüklüğü / Motor Size / Motorbaugroße		
IEC	63/B5	71/B5 71/B14
k	910.5	899.5
k1	971.5	990.5
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	-	105

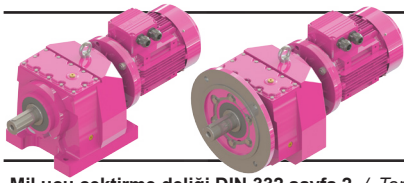
Klemens Kutusu / Terminal Box / Klemmenkasten



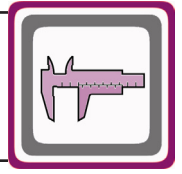
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* "k1" ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

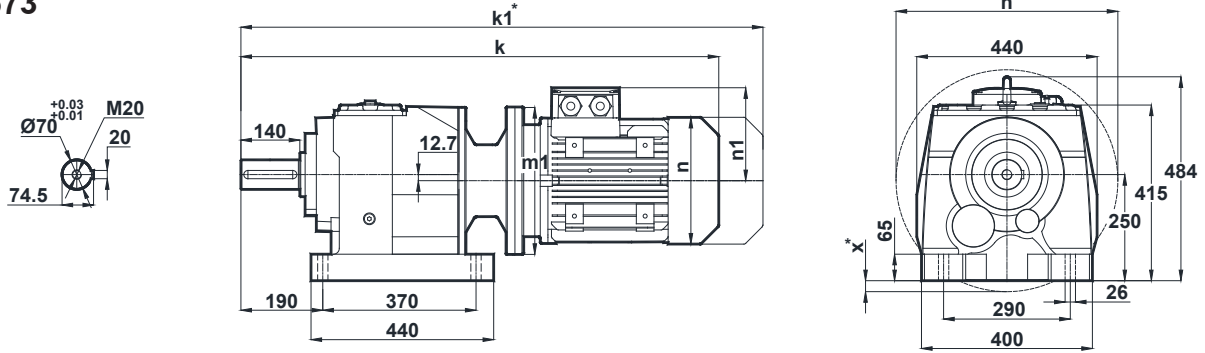


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

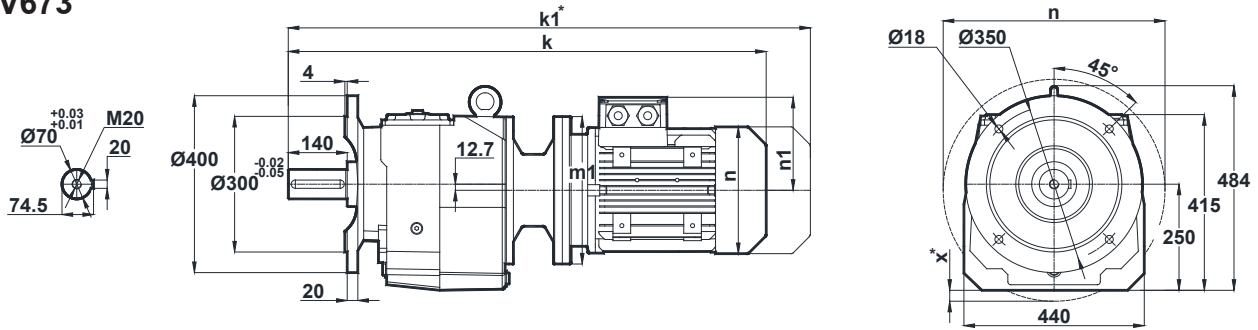


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV672 MV673

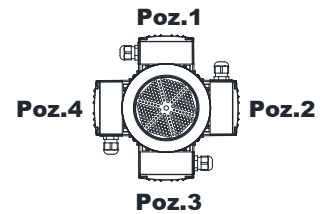


## NV672 NV673



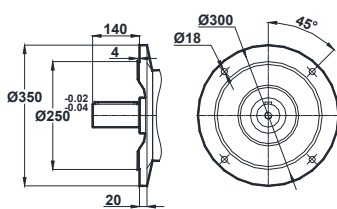
Motor Büyüklüğü / Motor Size / Motorbaugroße										
IEC	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5
k	898.5	997.5	997.5	1152.5	1152.5	1240.5	1240.5	1315	1386	1411
$k_1$	1003	1127.5	1127.5	1300.5	1300.5	1399	1399	1501.5	1551	1576
$n / n_1$	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275	434 / 285	434 / 285
$m_1$ (B5)	250	300	300	350	350	350	350	400	450	450
$m_1$ (B14)	-	200	200	-	-	-	-	-	-	-
$x$ (B5)	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten

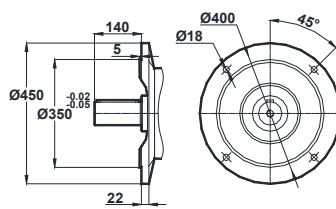


112-132-160-180-200-225

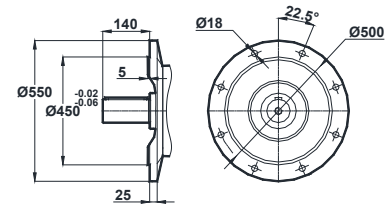
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



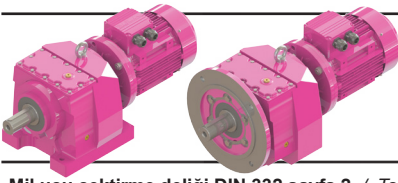
Opt. 2



Opt. 3

\* "  $k_1$  " Ölçüsü frenli redüktörlere aittir. Dimension "  $k_1$  " is for motors with brake. Maße "  $k_1$  " ist für Bremsenmotoren.

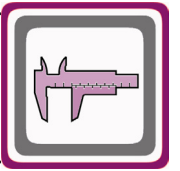
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

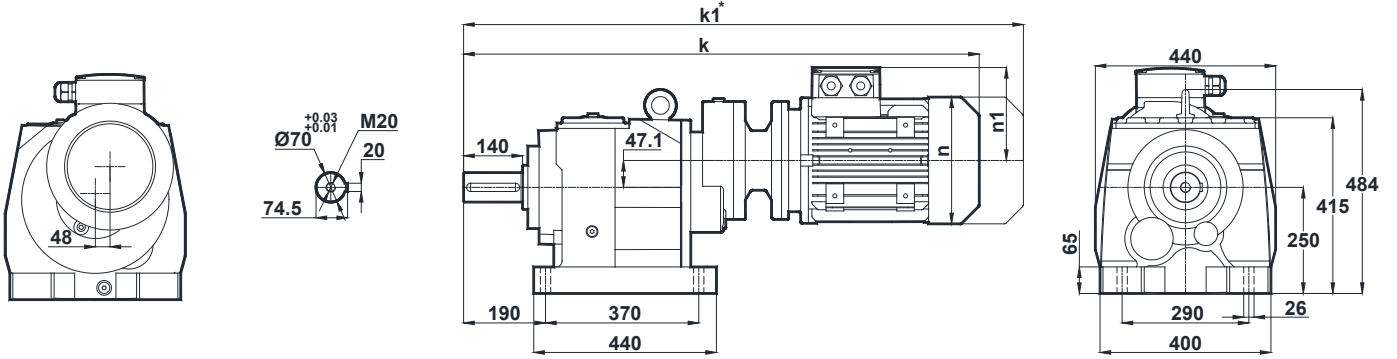
## Dimension Pages

### Abmessungsseiten

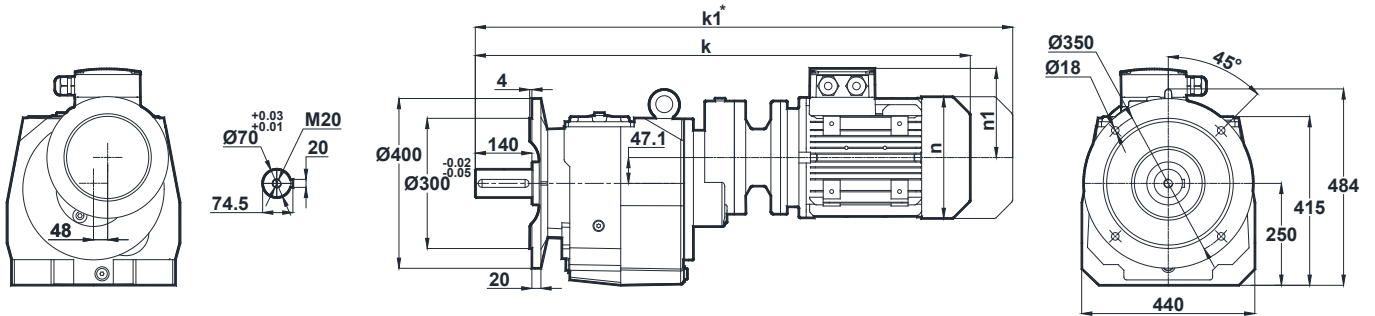


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

### MV674

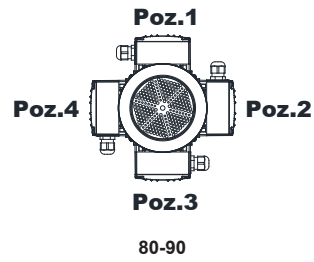


### NV674

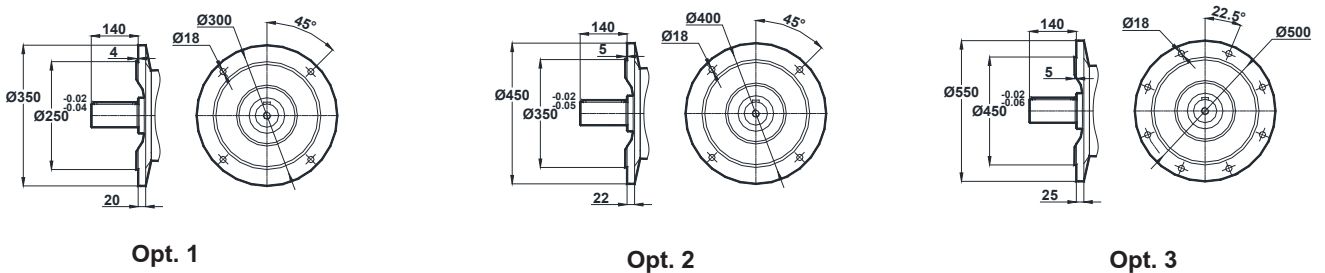


Motor Büyüklüğü / Motor Size / Motorbaugroße			
IEC	80/B5	90S/B5 90S/B14	90L/B5 90L/B14
k	891.5	932.5	932.5
k1	984.5	1036	1036
n / n1	155 / 121	176 / 132	176 / 132
m1 (B5)	200	200	200
m1 (B14)	-	140	140

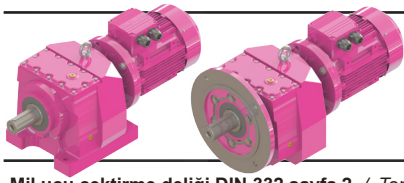
Klemens Kutusu / Terminal Box / Klemmenkasten



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



\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

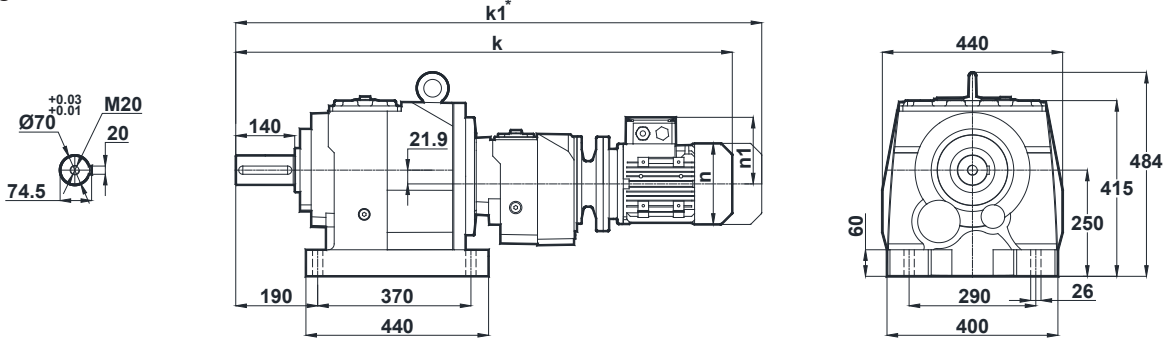


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

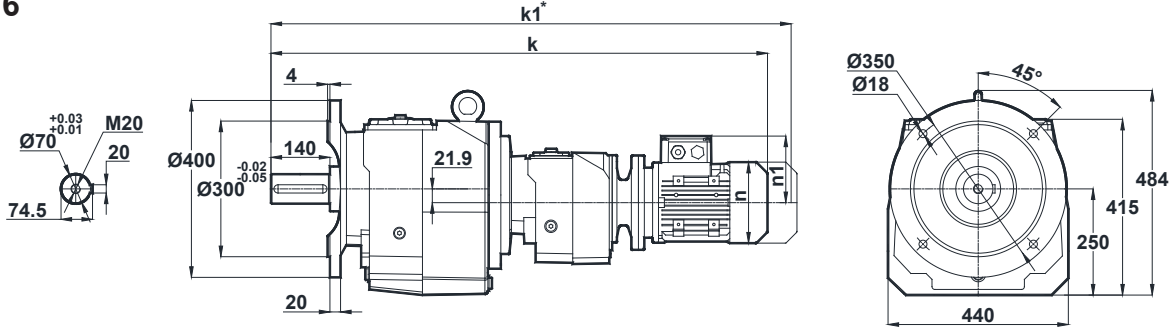


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV675 MV676

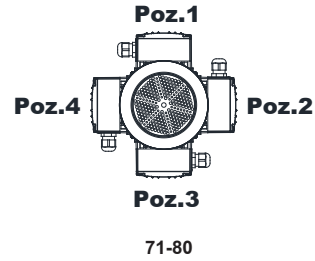


## NV675 NV676

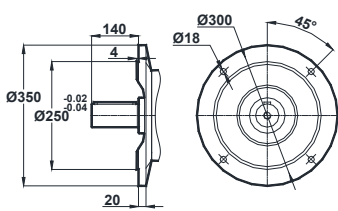


Motor Büyüklüğü / Motor Size / Motorbaugroße		
IEC	71/B5	80/B5 80/B14
k	1019	1042
k1	1110	1135
n / n1	137 / 112	155 / 121
m1 (B5)	160	200
m1 (B14)	-	120

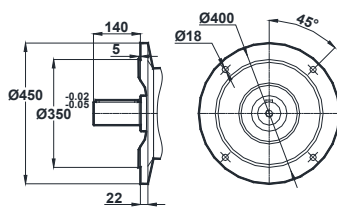
Klemens Kutusu / Terminal Box / Klemmenkasten



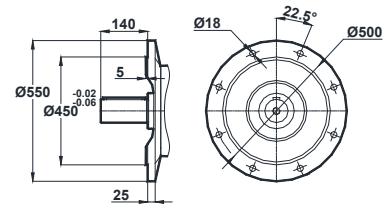
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

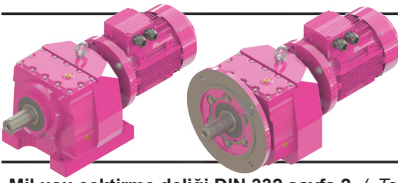


Opt. 2

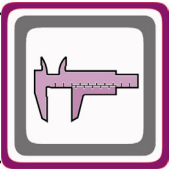


Opt. 3

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

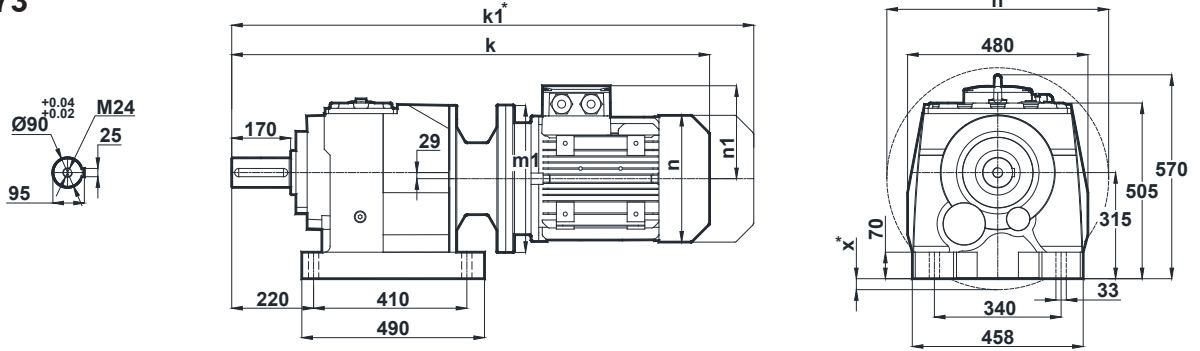


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

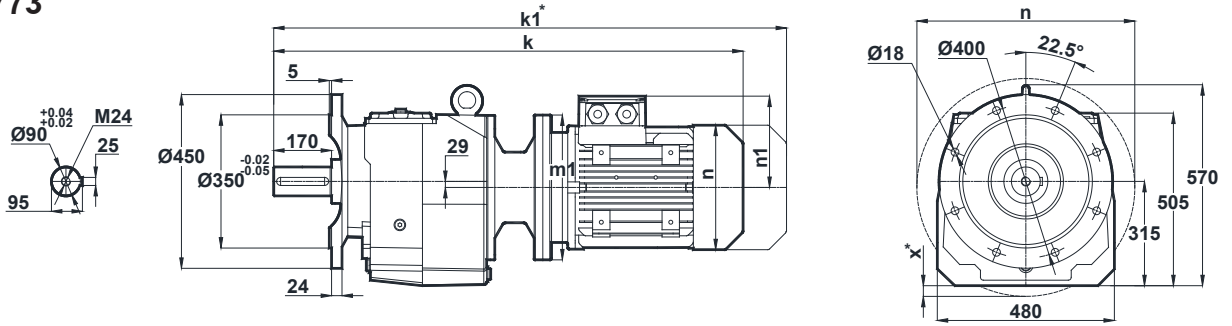


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV772 MV773

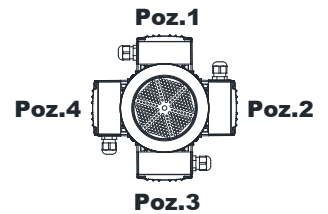


## NV772 NV773



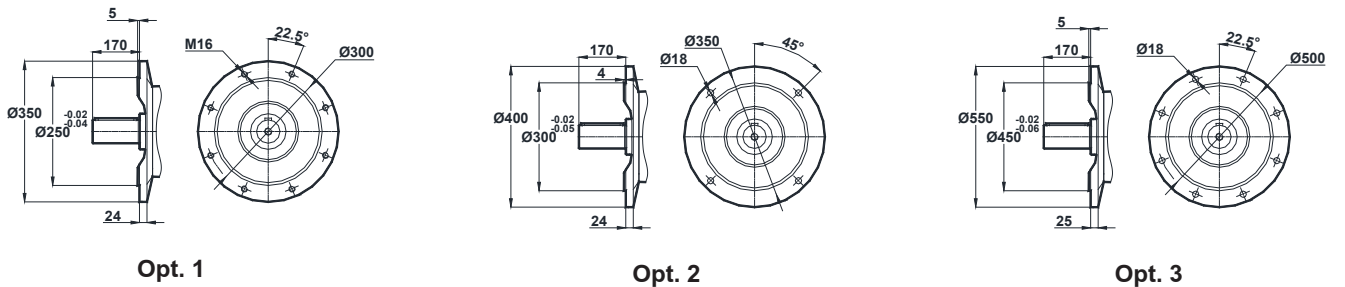
Motor Büyüklüğü / Motor Size / Motorbaugroße										
IEC	132S/B5	132M/B5	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5	250M/B5
k	1082.5	1082.5	1232	1232	1320	1320	1396	1467	1492	1568
k1	1212.5	1212.5	1380	1380	1478.5	1478.5	1582.5	1632	1657	1738.5
n / n1	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275	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



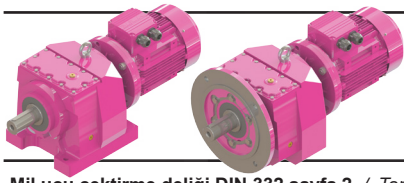
Opt. 1

Opt. 2

Opt. 3

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

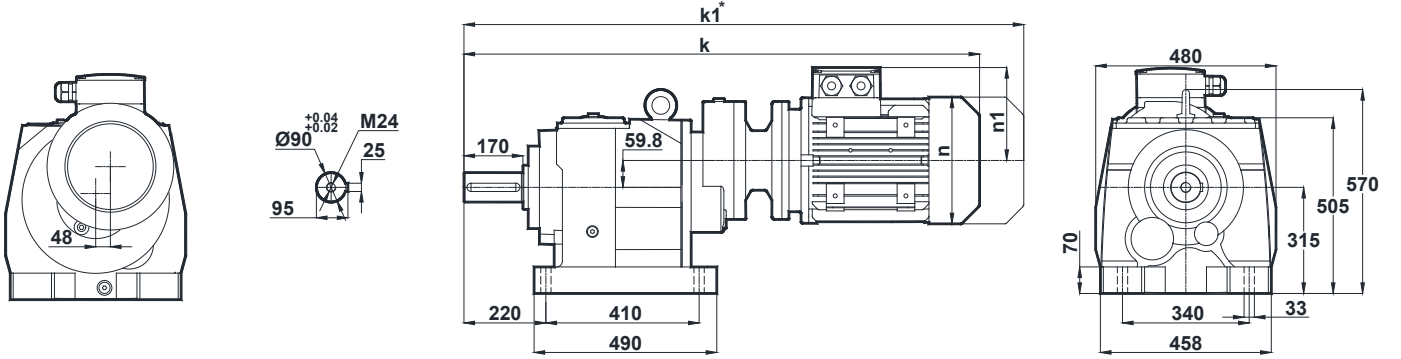


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

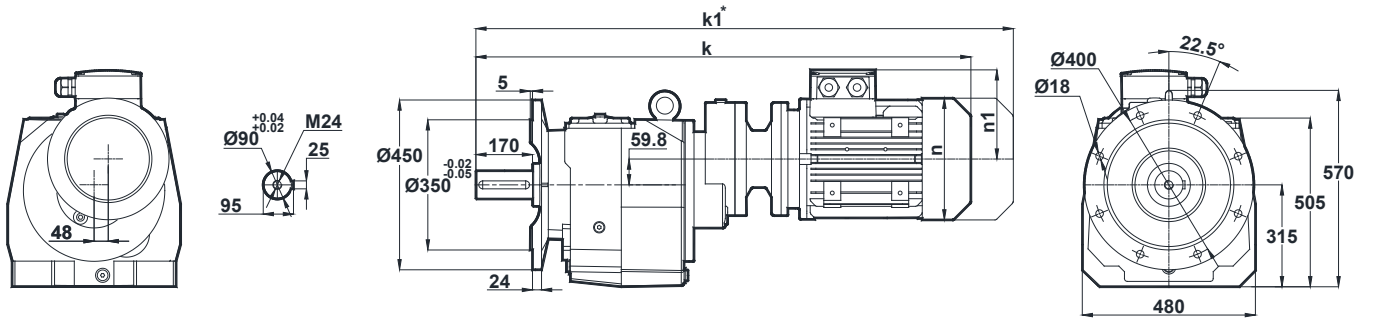


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV774

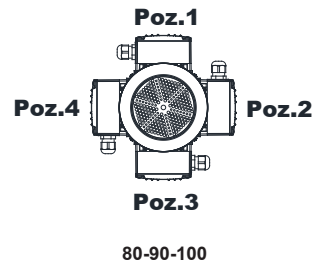


## NV774

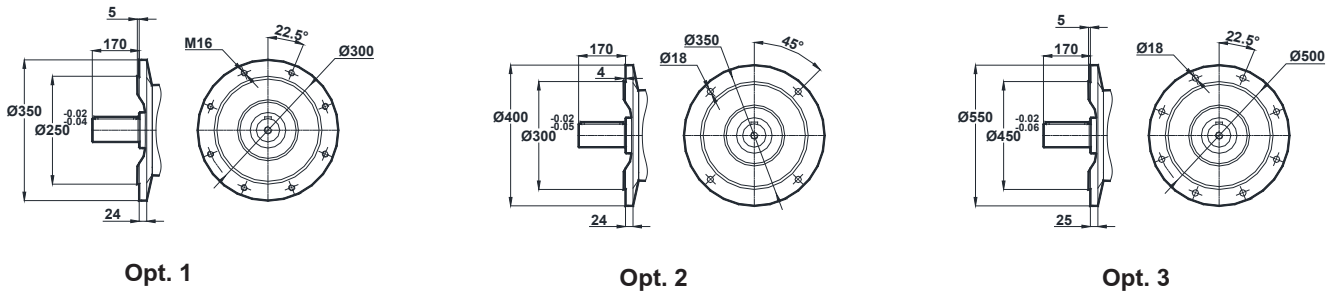


Motor Büyüklüğü / Motor Size / Motorbaugroße				
IEC	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	976.5	1017.5	1017.5	1071.5
k1	1069.5	1121	1121	1180
n / n1	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	200	200	200	250
m1 (B14)	-	140	140	160

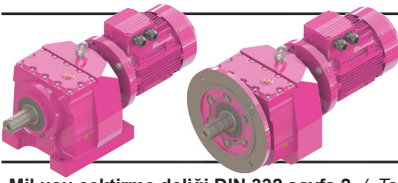
Klemens Kutusu / Terminal Box / Klemmenkasten



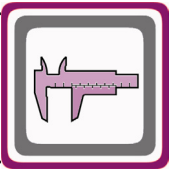
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

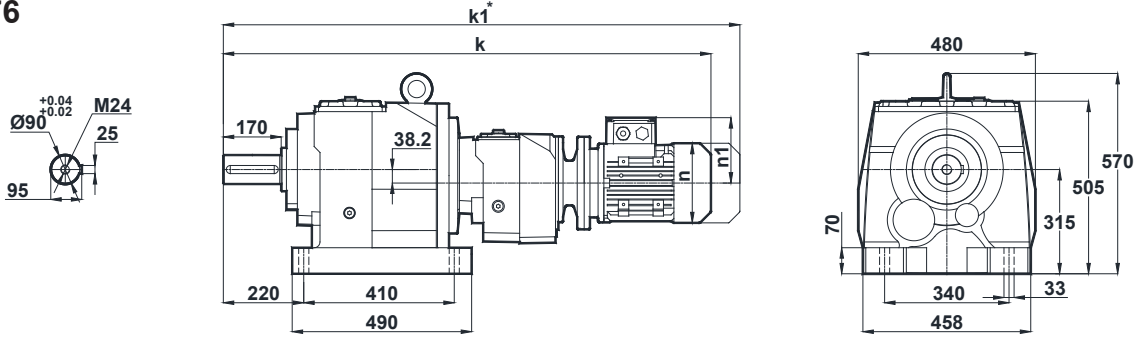


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

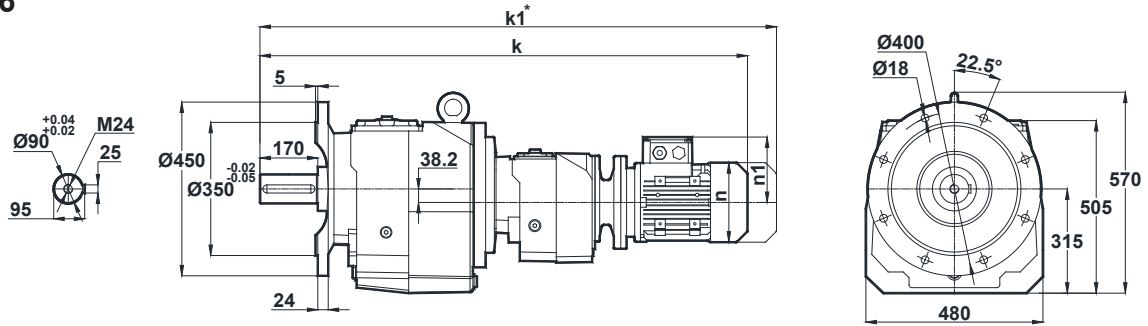


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV775 MV776

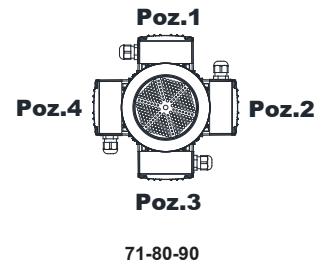


## NV775 NV776

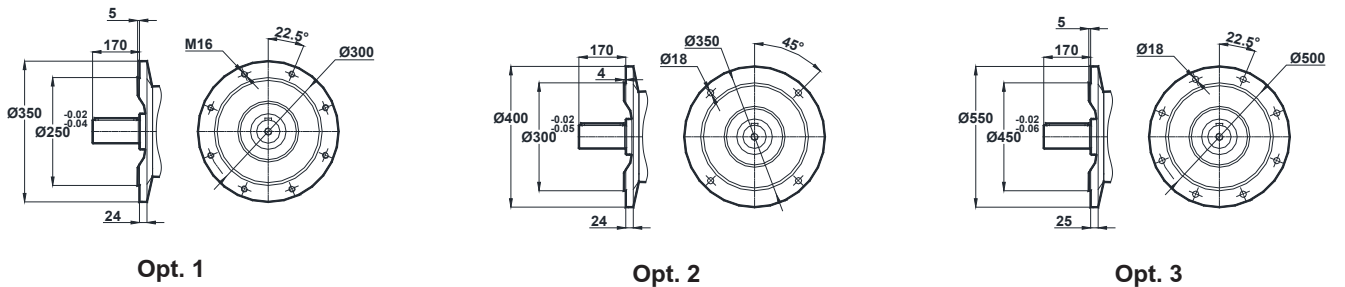


Motor Büyüklüğü / Motor Size / Motorbaugroße				
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	1107	1130	1171	1171
k1	1198	1223	1274.5	1274.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140

Klemens Kutusu / Terminal Box / Klemmenkasten



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

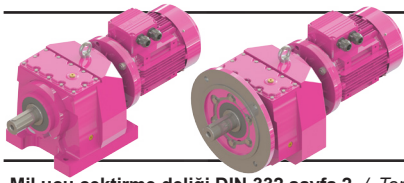


Opt. 1

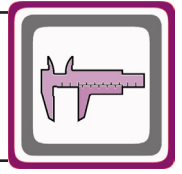
Opt. 2

Opt. 3

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

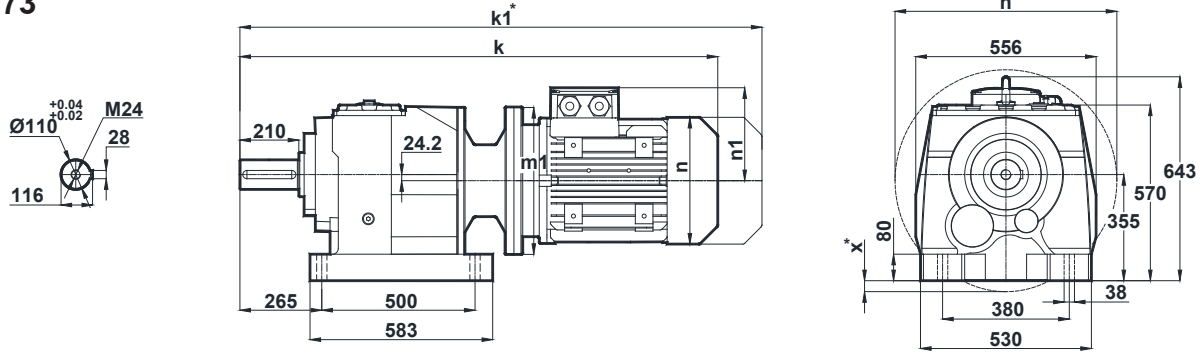


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

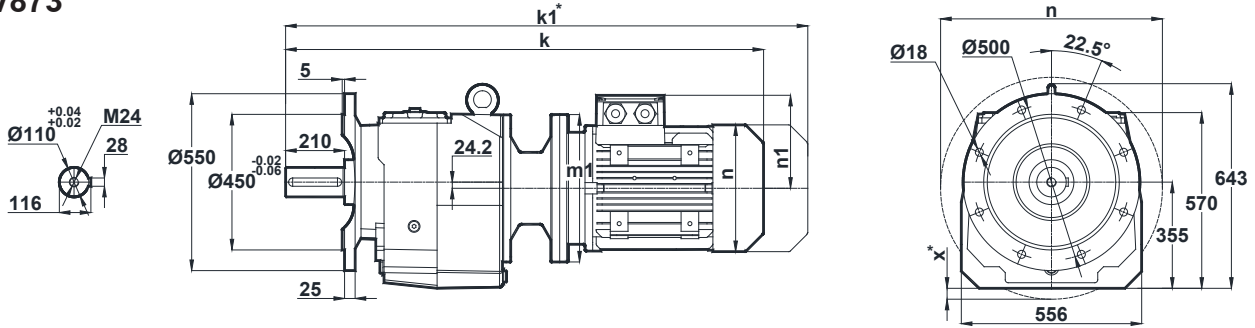


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV872 MV873

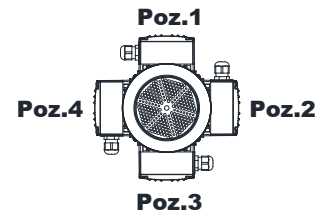


## NV872 NV873



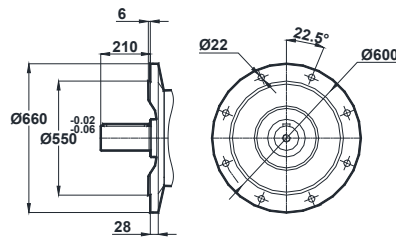
Motor Büyüklüğü / Motor Size / Motorbaugroße										
IEC	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5	250M/B5	280S/B5	280M/B5
k	1418	1418	1506	1506	1560	1578	1603	1679	1741	1741
k1	1566	1566	1664.5	1664.5	1746.5	1743	1768	1849.5	1914	1920
n / n1	315 / 219	315 / 219	347 / 234	347 / 234	390 / 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

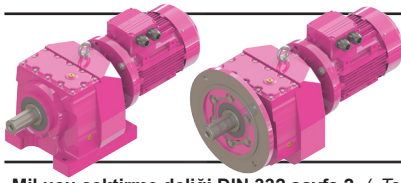


Opt. 1

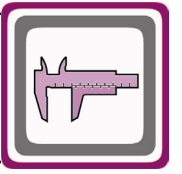
\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



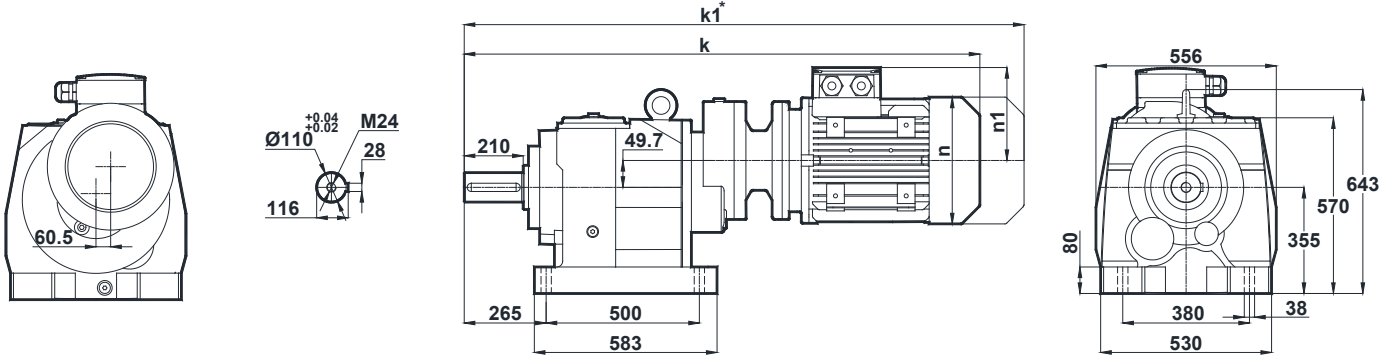


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

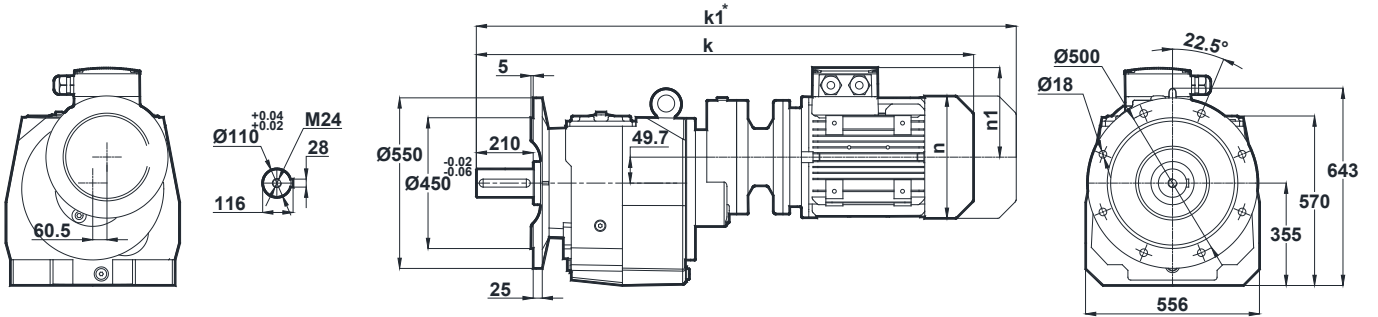


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV874

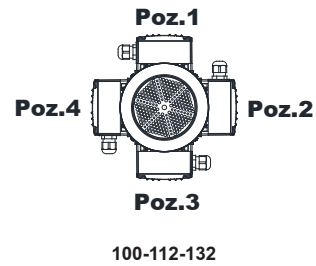


## NV874

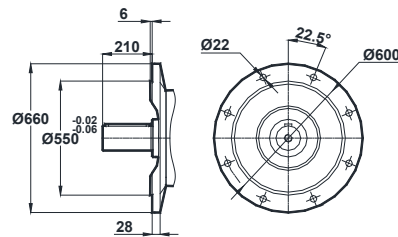


Motor Büyüklüğü / Motor Size / Motorbaugroße				
IEC	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14
k	1206	1226.5	1331.5	1331.5
k1	1314.5	1331	1461.5	1461.5
n / n1	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	250	250	300	300
m1 (B14)	-	-	200	200

Klemens Kutusu / Terminal Box / Klemmenkasten

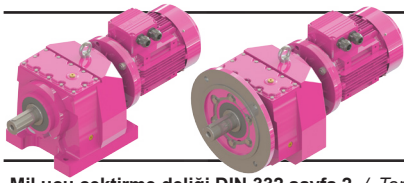


Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

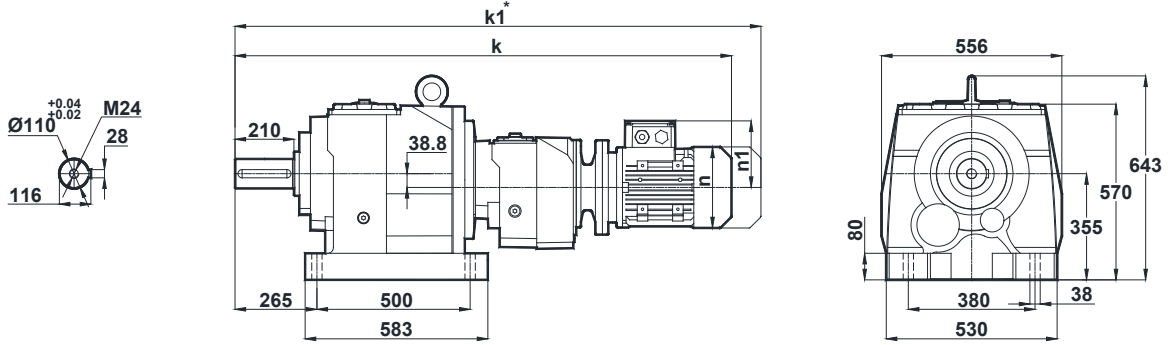


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

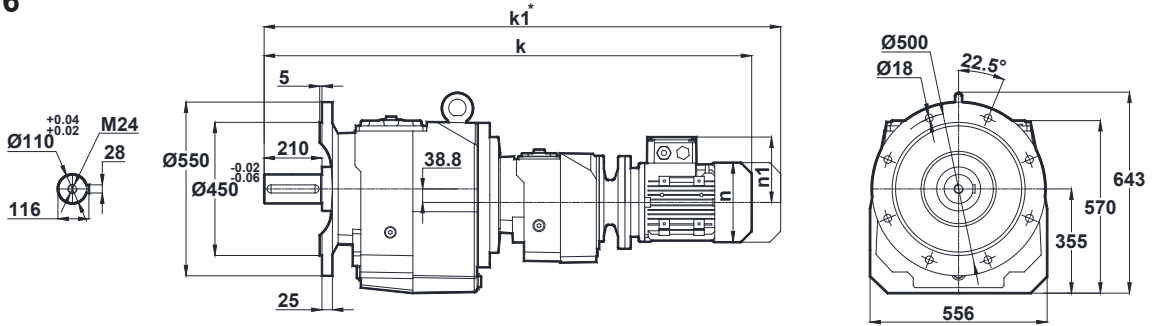


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV875 MV876

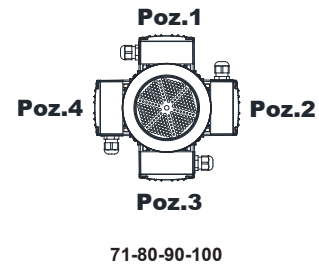


## NV875 NV876

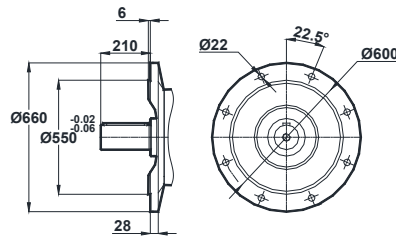


Motor Büyüklüğü / Motor Size / Motorbaugroße					
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	1224	1247	1288	1288	1340.5
k1	1315	1340	1391.5	1391.5	1449
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	160	200	200	200	250
m1 (B14)	-	120	140	140	160

Klemens Kutusu / Terminal Box / Klemmenkasten

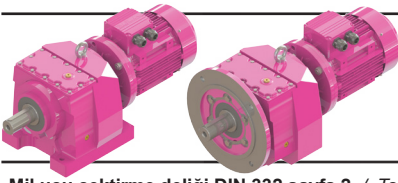


### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

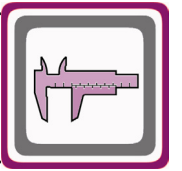


Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

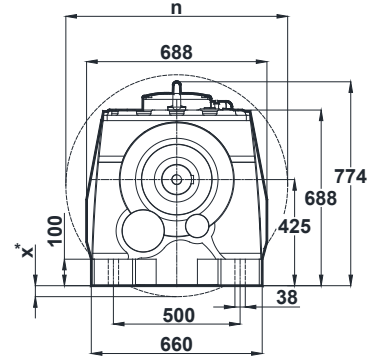
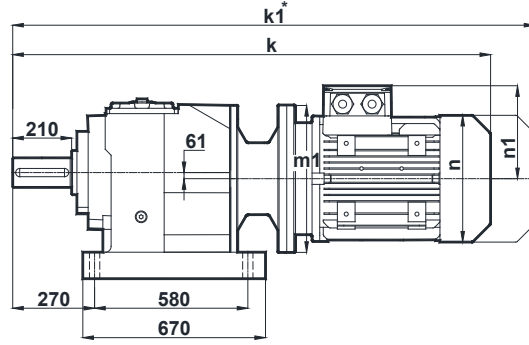
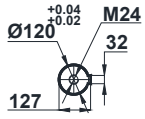


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

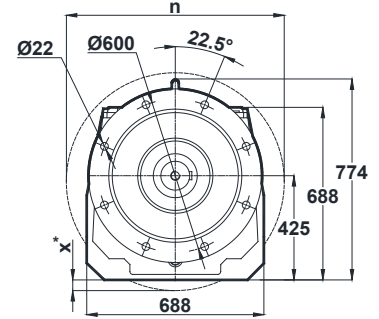
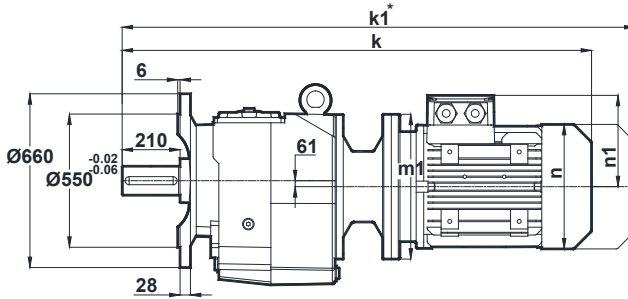
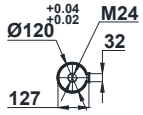


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV972 MV973

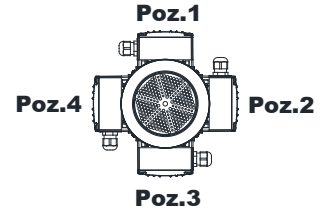


## NV972 NV973



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/B5	315M/B5
k	1405.5	1405.5	1493.5	1493.5	1571.5	1631.5	1656.5	1754.5	1816.5	1816.5	2058.5	2058.5
k1	1553.5	1553.5	1652	1652	1758	1796.5	1821.5	1925	1989.5	1995.5	-	-
n / n1	315 / 219	315 / 219	347 / 234	347 / 234	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)	-	-	-	-	-	-	-	-	-	-	-	-

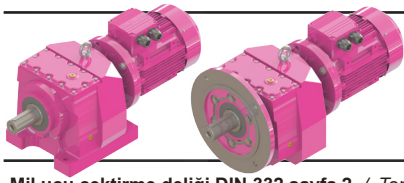
Klemens Kutusu / Terminal Box / Klemmenkasten



160-180-200-225-250-280-315

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

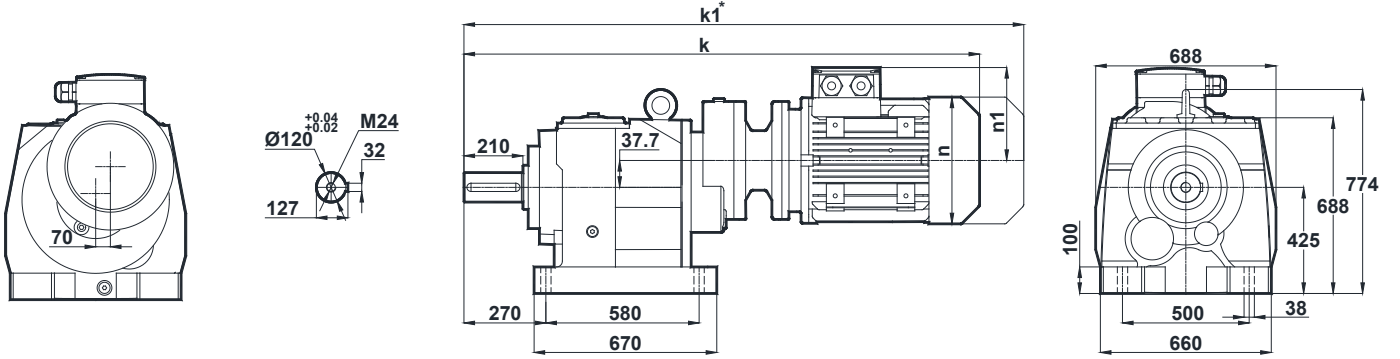
## Dimension Pages

### Abmessungsseiten

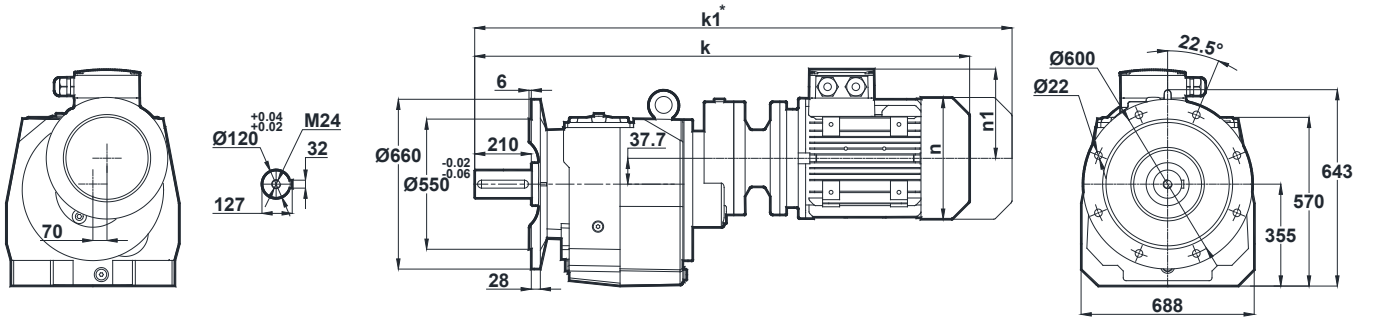


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

### MV974

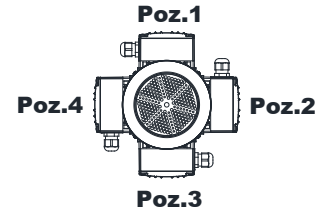


### NV974



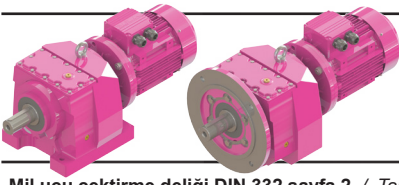
Motor Büyüklüğü / Motor Size / Motorbaugroße				
IEC	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14
k	1309.5	1330	1429	1429
k1	1418	1434.5	1559	1559
n / n1	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	250	250	300	300
m1 (B14)	-	-	200	200

Klemens Kutusu / Terminal Box / Klemmenkasten

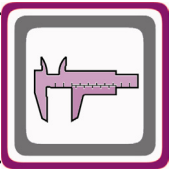


100-112-132

\* " 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.

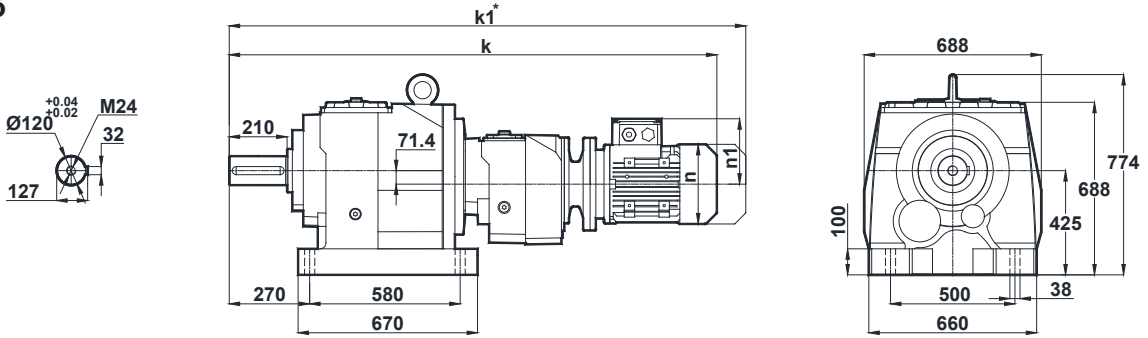


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

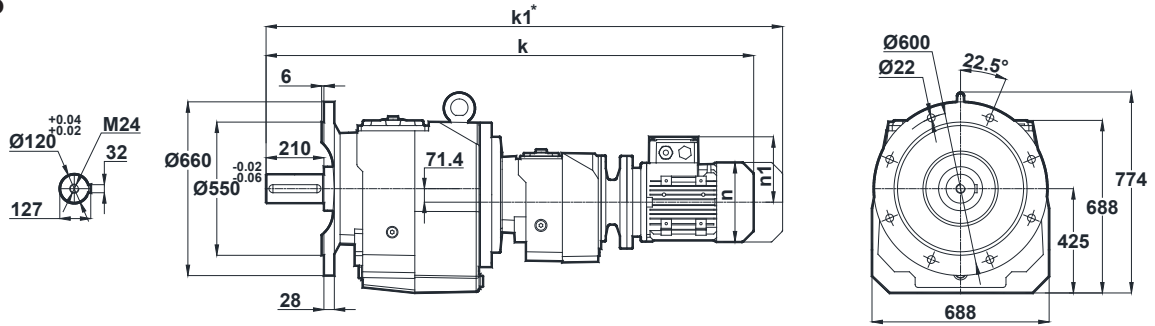


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV975 MV976

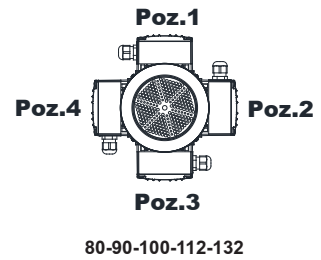


## NV975 NV976



Motor Büyüklüğü / Motor Size / Motorbaugroße						
IEC	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14
k	1369	1410	1410	1464	1484.5	1587
k1	1462	1513.5	1513.5	1572.5	1589	1717
n / n1	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179
m1 (B5)	200	200	200	250	250	300
m1 (B14)	-	140	140	160	160	200

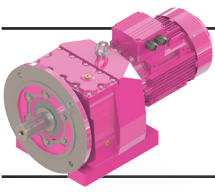
Klemens Kutusu / Terminal Box / Klemmenkasten



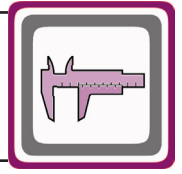
\* "k1" Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.

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.

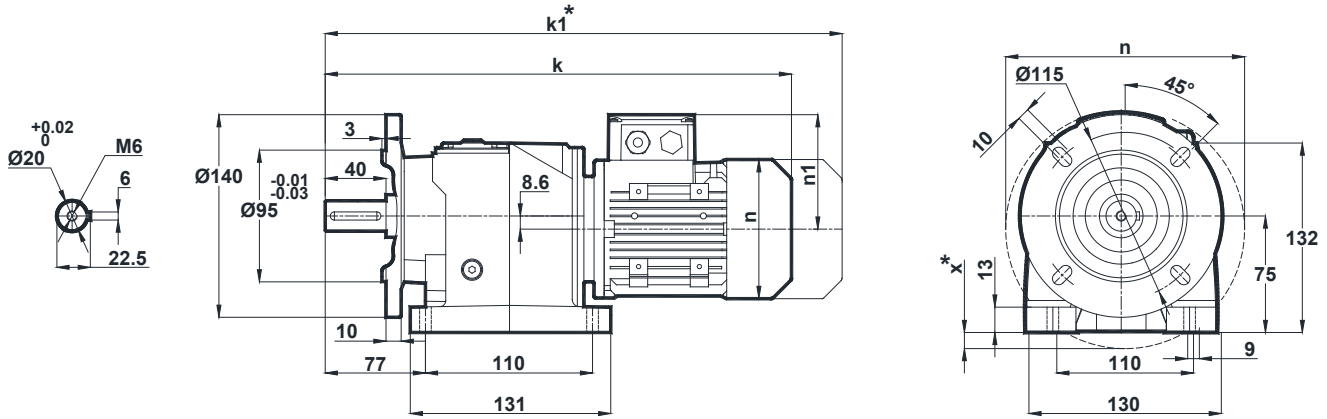


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



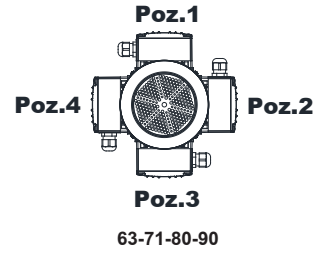
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## MRF002 MRF003

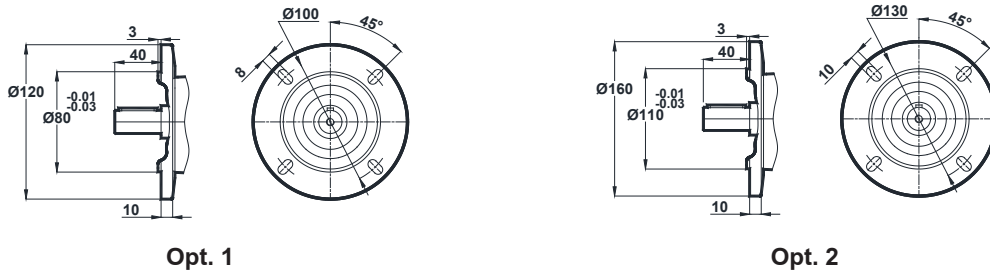


Motor Büyüklüğü / Motor Size / Motorbaugroße					
	63	71	80	90S	90L
k	368.5	397	431	470	470
k1	429.5	488	524	573.5	573.5
n	121	137	155	176	176
n1	97	112	121	132	132
x	-	3	12	22	22

Klemens Kutusu / Terminal Box / Klemmenkasten

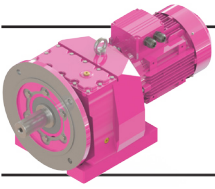


## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

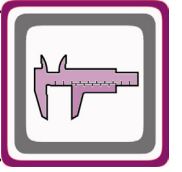


\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

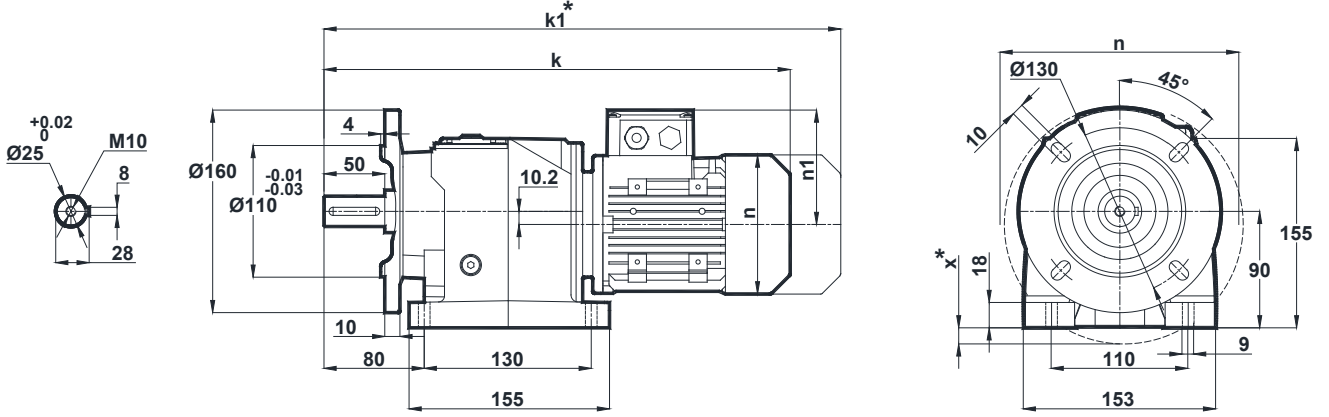


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



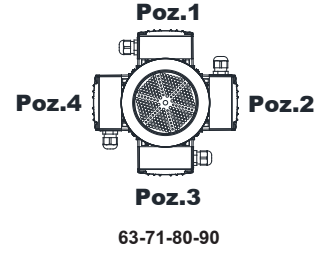
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MRF102 MRF103

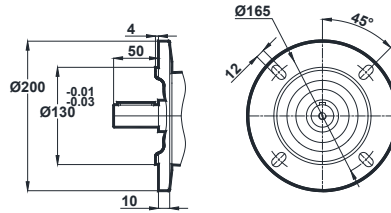


Motor Büyüklüğü / Motor Size / Motorbaugroße	63	71	80	90S	90L
k	398	424	458	497	497
k1	459	515	551	600.5	600.5
n	121	137	155	176	176
n1	97	112	121	132	132
x	-	-	-	9	9

Klemens Kutusu / Terminal Box / Klemmenkasten



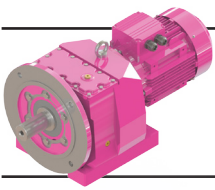
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



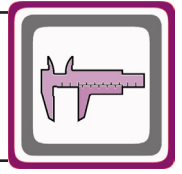
Opt. 1

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

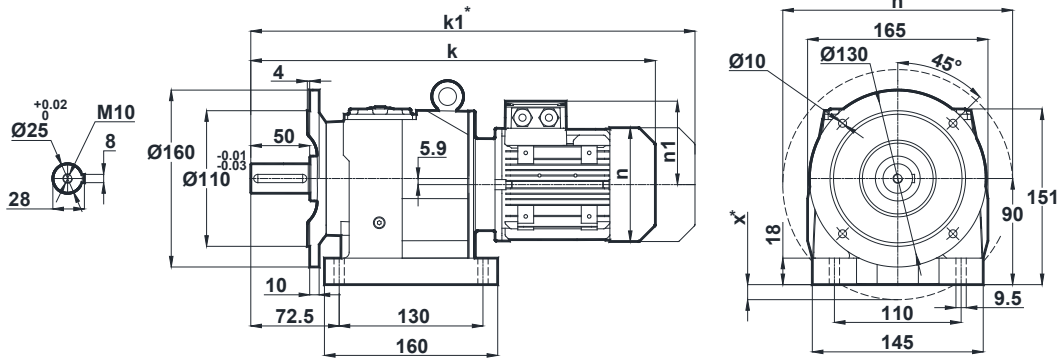


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



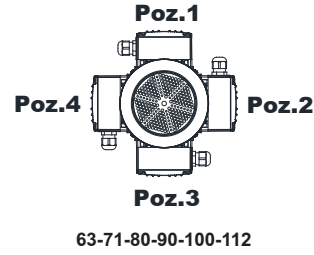
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MRF172**  
**MRF173**

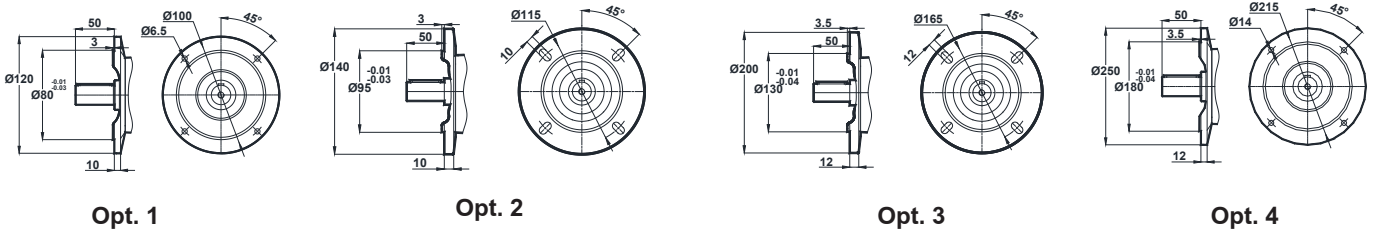


Motor Büyüklüğü / Motor Size / Motorbaugroße							
	63	71	80	90S	90L	100L	112M
k	395.5	424	458	497	497	545	569
k1	456.5	515	551	600.5	600.5	653.5	673.5
n	121	137	155	176	176	193	215
n1	97	112	121	132	132	147	158
x	-	-	-	4	4	13	24

Klemens Kutusu / Terminal Box / Klemmenkasten



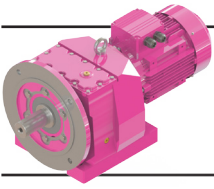
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



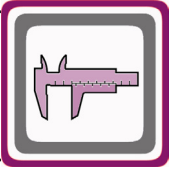
\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



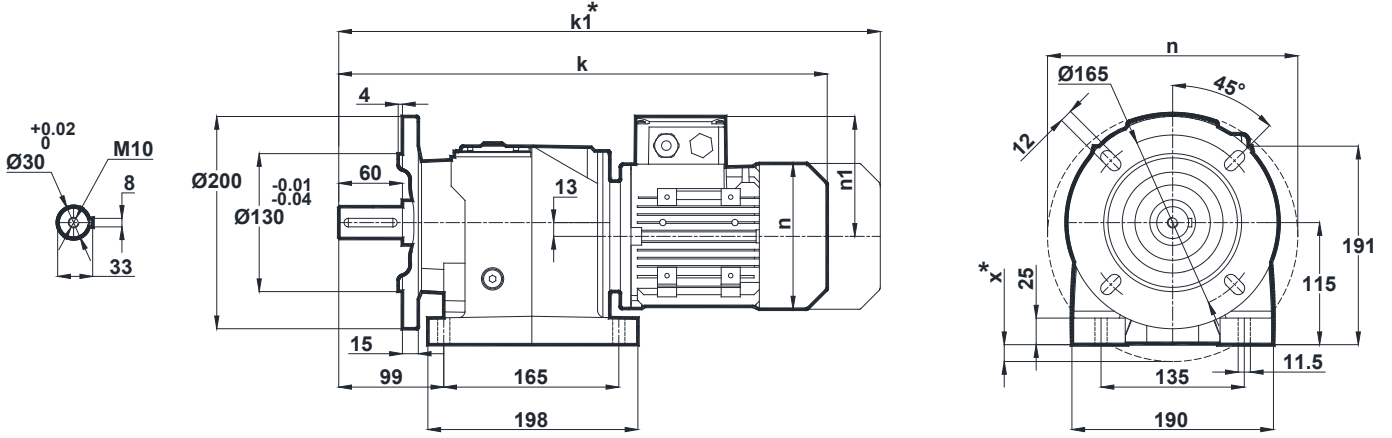


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



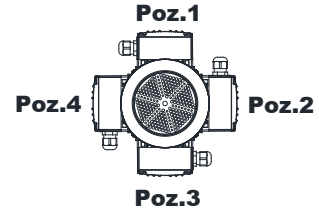
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MRF202 MRF203



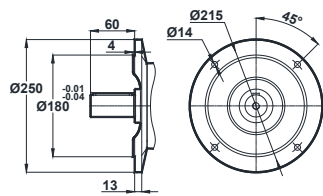
Motor Büyüklüğü / Motor Size / Motorbaugroße							
	63	71	80	90S	90L	100L	112M
k	443	470	504	543	543	591	615
k1	504	561	597	646.5	646.5	699.5	719.5
n	121	137	155	176	176	193	215
n1	97	112	121	132	132	147	158
x	-	-	-	-	-	-	6

Klemens Kutusu / Terminal Box / Klemmenkasten

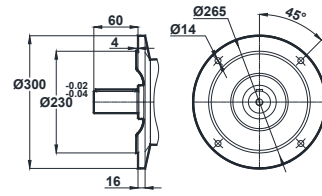


63-71-80-90-100-112

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



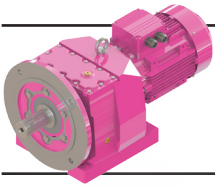
Opt. 1



Opt. 2

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

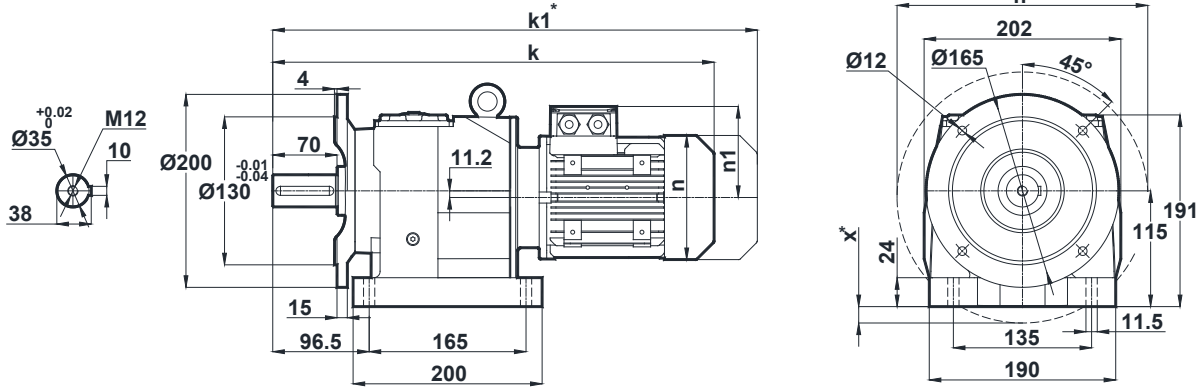


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



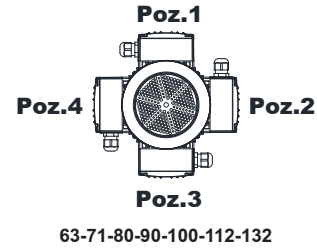
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MRF272**  
**MRF273**

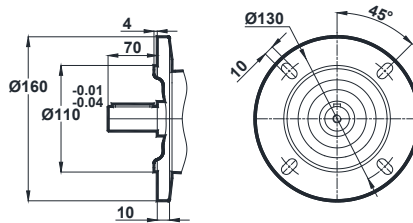


Motor Büyüklüğü / Motor Size / Motorbaugroße									
	63	71	80	90S	90L	100L	112M	132S	132M
k	444	471	505	544	544	592	616	699	699
k1	505	562	598	647.5	647.5	700.5	720.5	829	829
n	121	137	155	176	176	193	215	257	257
n1	97	112	121	132	132	147	158	179	179
x	-	-	-	-	-	-	4	25	25

Klemens Kutusu / Terminal Box / Klemmenkasten



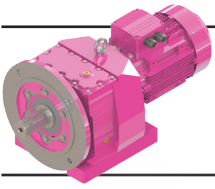
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



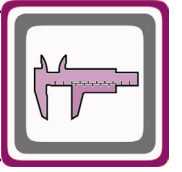
Opt. 1

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

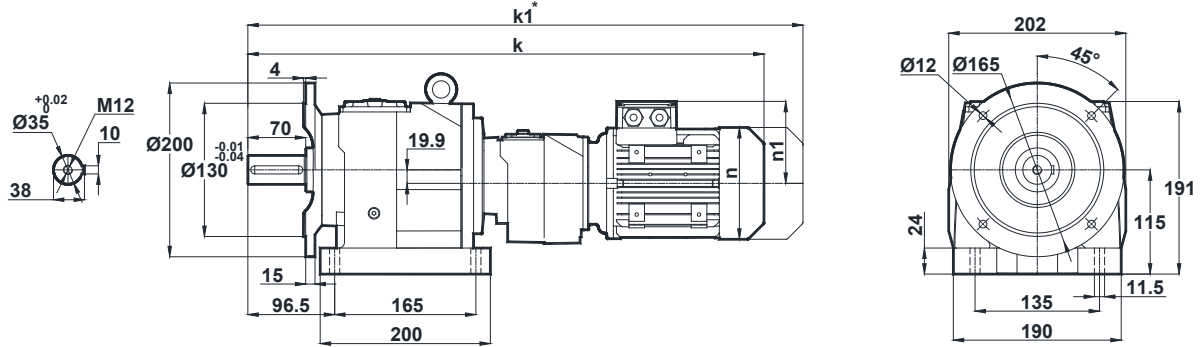


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



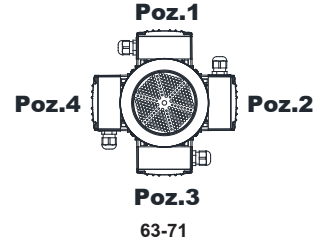
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MRF275 MRF276

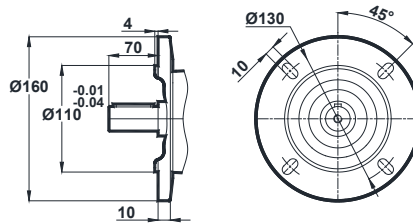


Motor Büyüklüğü / Motor Size / Motorbaugroße		
	63	71
k	593.5	622
k1	645.5	713
n	121	137
n1	97	112

Klemens Kutusu / Terminal Box / Klemmenkasten

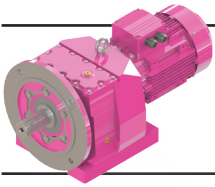


Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

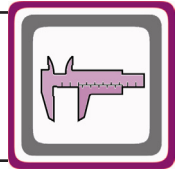


Opt. 1

\* "k1" ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

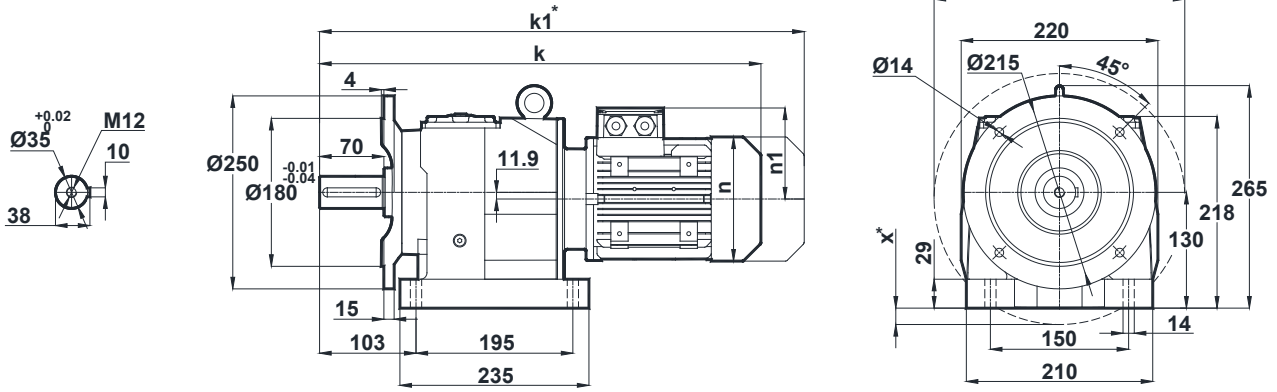


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



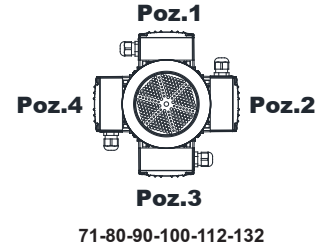
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MRF282 MRF283

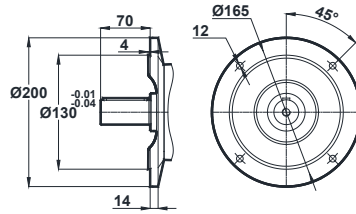


Motor Büyüklüğü / Motor Size / Motorbaugroße								
	71	80	90S	90L	100L	112M	132S	132M
k	488.5	522.5	561.5	561.5	609.5	633.5	720	720
k1	579.5	615.5	665	665	718	738	850	850
n	137	155	176	176	193	215	257	257
n1	112	121	132	132	147	158	179	179
x	-	-	-	-	-	-	11	11

Klemens Kutusu / Terminal Box / Klemmenkasten



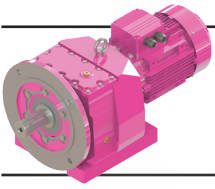
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



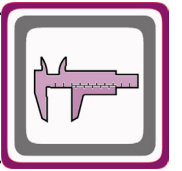
Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

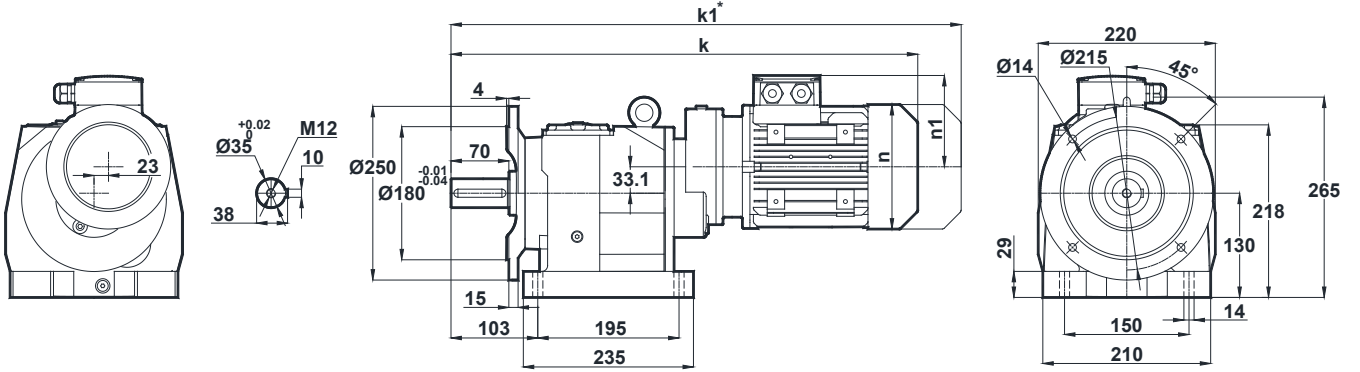


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



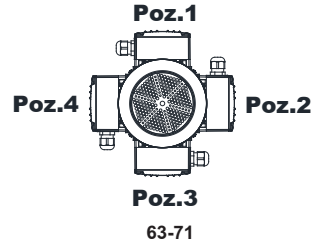
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MRF284

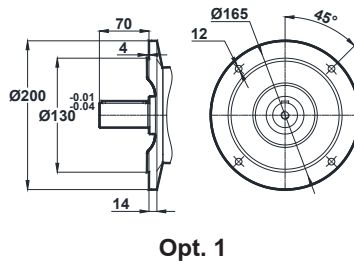


Motor Büyüklüğü / Motor Size / Motorbaugroße	63	71
k	540.5	567.5
k1	601.5	658.5
n	121	137
n1	97	112

Klemens Kutusu / Terminal Box / Klemmenkasten



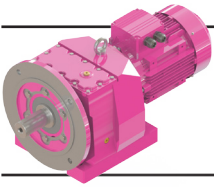
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



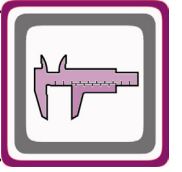
Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.



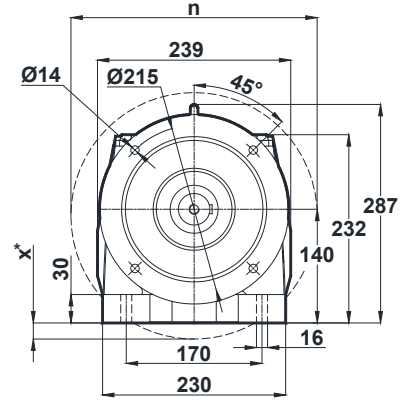
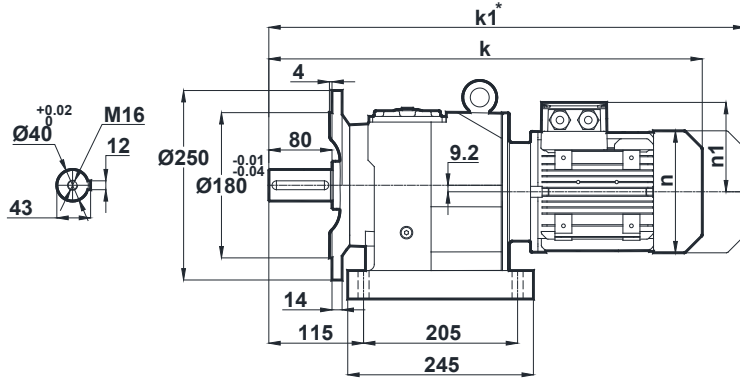


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



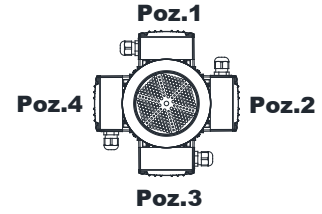
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MRF372 MRF373



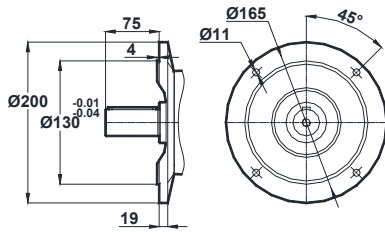
Motor Büyüklüğü / Motor Size / Motorbaugroße								
	71	80	90S	90L	100L	112M	132S	132M
k	509.5	543.5	582.5	582.5	630.5	654.5	741	741
k1	600.5	636.5	686	686	739	759	871	871
n	137	155	176	176	193	215	257	257
n1	112	121	132	132	147	158	179	179
x	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten

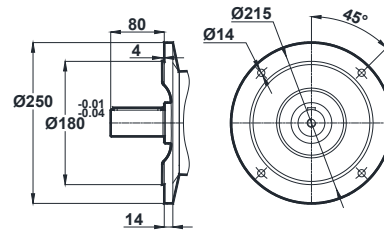


71-80-90-100-112-132

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



Opt. 1



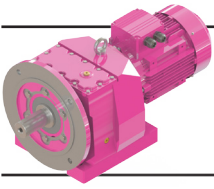
Opt. 2

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

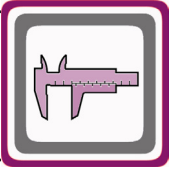
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist





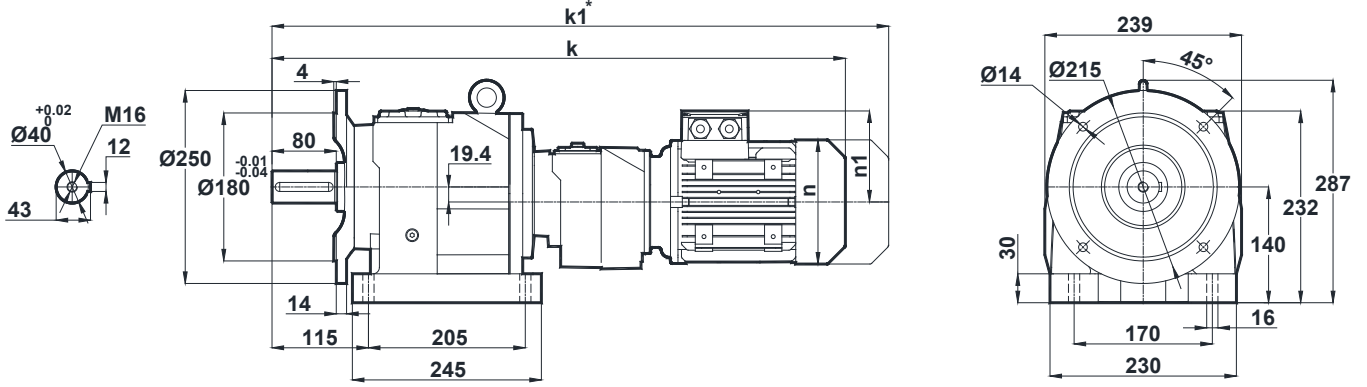


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



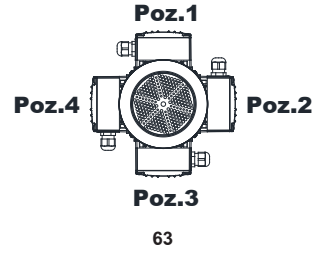
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MRF375 MRF376

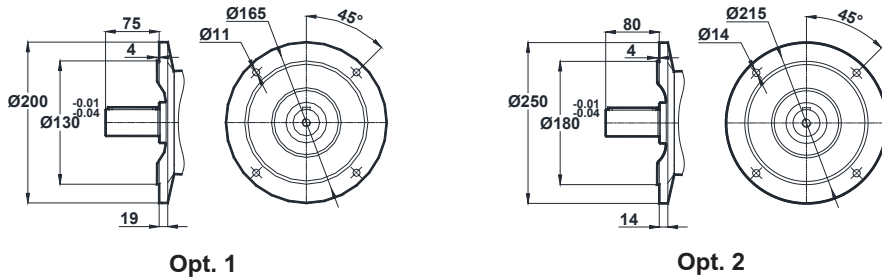


Motor Büyüklüğü / Motor Size / Motorbaugroße	
	63
k	666
k1	727
n	121
n1	97

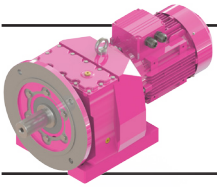
Klemens Kutusu / Terminal Box / Klemmenkasten



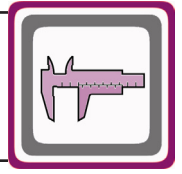
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

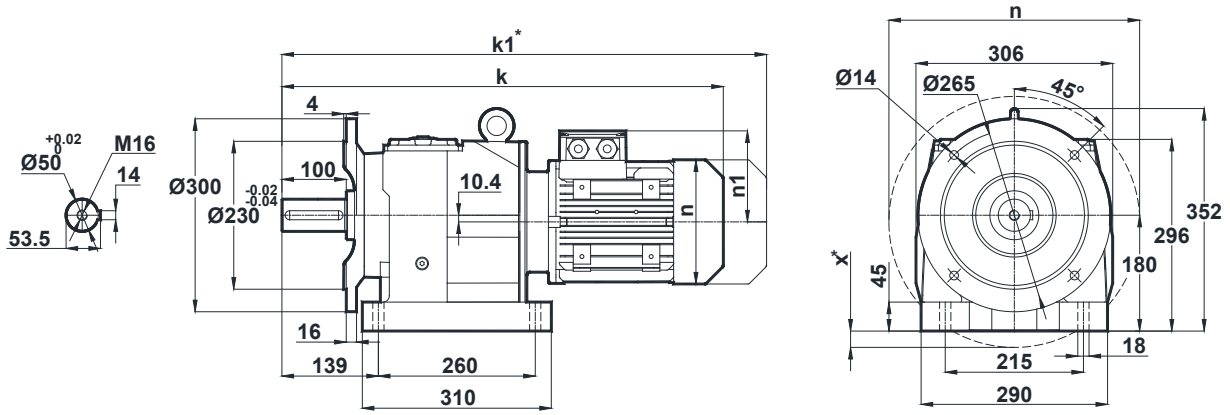


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



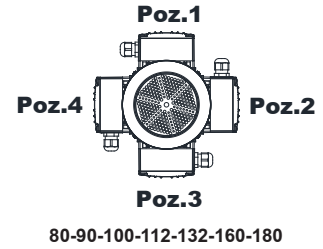
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MRF472**  
**MRF473**

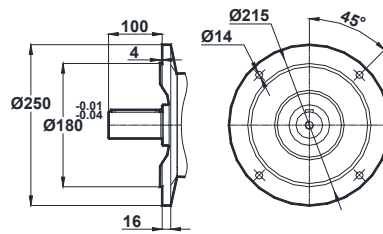


Motor Büyüklüğü / Motor Size / Motorbaugroße											
	80	90S	90L	100L	112M	132S	132M	160M	160L	180M	180L
k	610.5	649.5	649.5	694.5	718.5	803.5	803.5	899.5	899.5	971.5	971.5
k1	703.5	753	753	803	823	933.5	933.5	1047.5	1047.5	1130	1130
n	155	176	176	193	215	257	257	315	315	347	347
n1	121	132	132	147	158	179	179	219	219	234	234
x	-	-	-	-	-	-	-	-	-	3	3

Klemens Kutusu / Terminal Box / Klemmenkasten



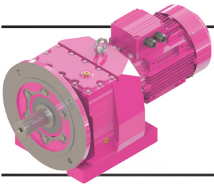
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



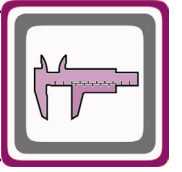
Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

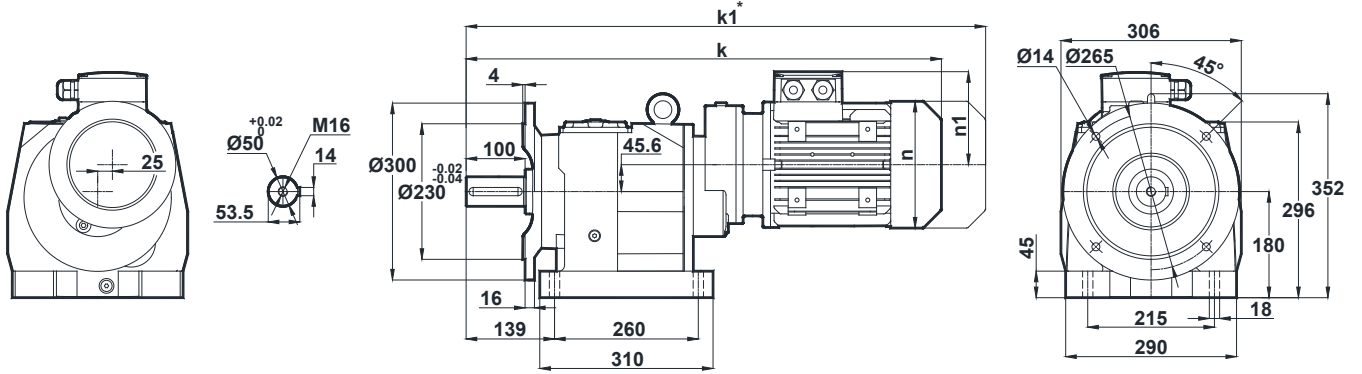


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



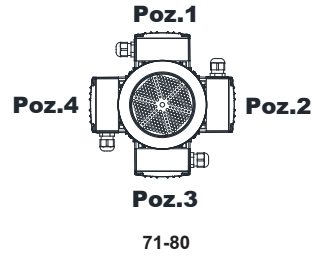
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MRF474

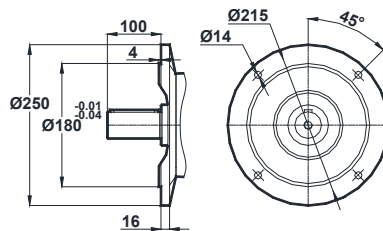


Motor Büyüklüğü / Motor Size / Motorbaugroße		
	71	80
k	670	704
k1	761	797
n	137	155
n1	112	121

Klemens Kutusu / Terminal Box / Klemmenkasten

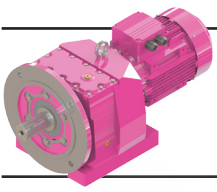


Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

\* "k1" ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

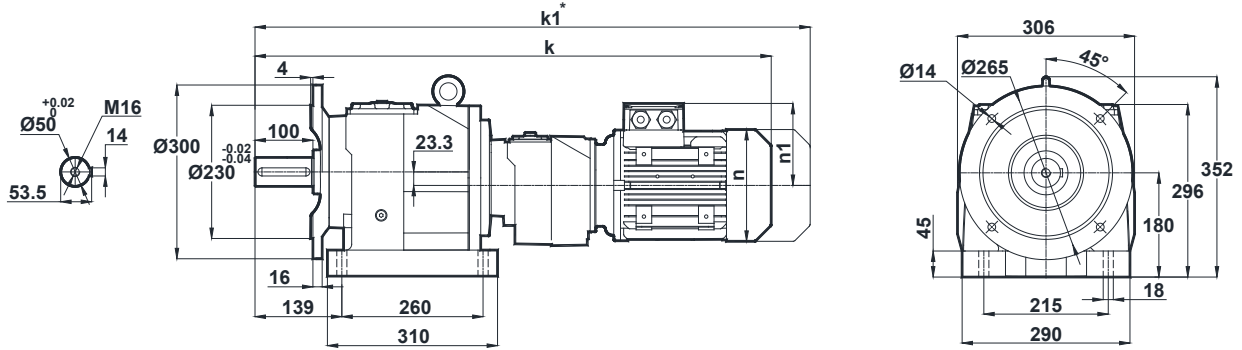


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



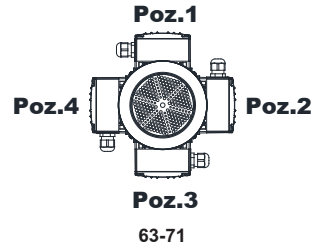
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MRF475**  
**MRF476**

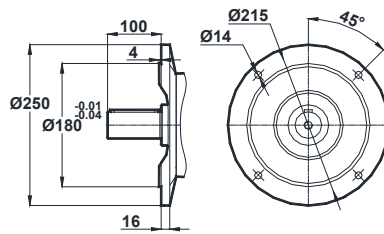


Motor Büyüklüğü / Motor Size / Motorbaugroße		
	63	71
k	773	800
k1	834	891
n	121	137
n1	97	112

Klemens Kutusu / Terminal Box / Klemmenkasten



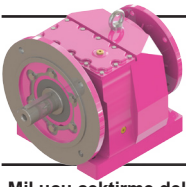
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



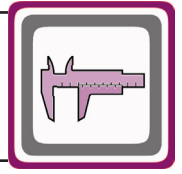
Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.



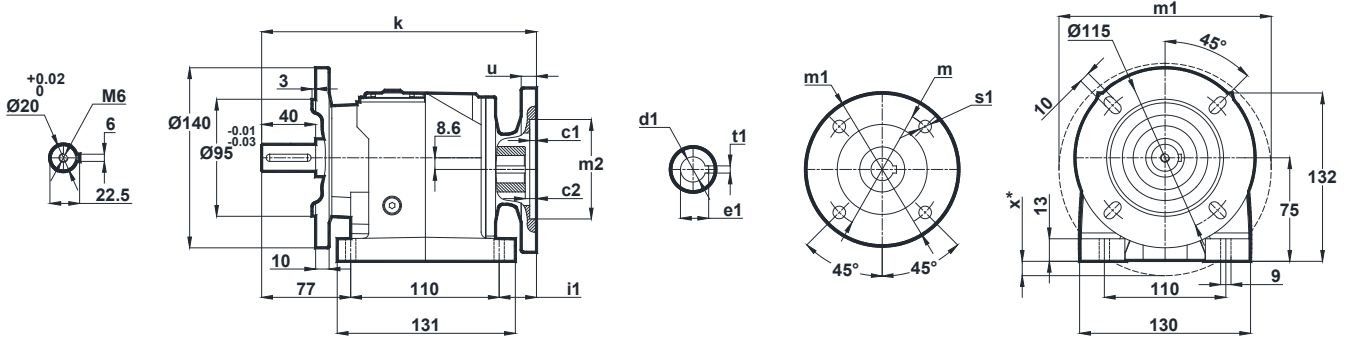


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



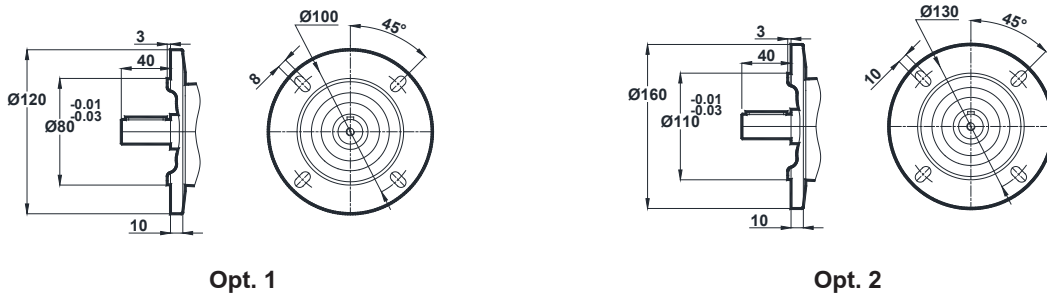
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF002-A..**  
**MNF003-A..**

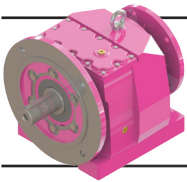


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	3.5	5	10	115	140	95	28	10	214	11	4	12.8	4
71/B5	4	4.5	11	130	160	110	29.5	12	215.5	14	5	16.3	14
80/B5	4	5	12	165	200	130	44.5	12	230.5	19	6	21.8	34
90/B5	4	5	12	165	200	130	44.5	12	230.5	24	8	27.3	34

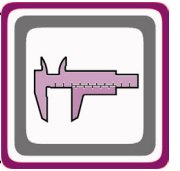
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



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

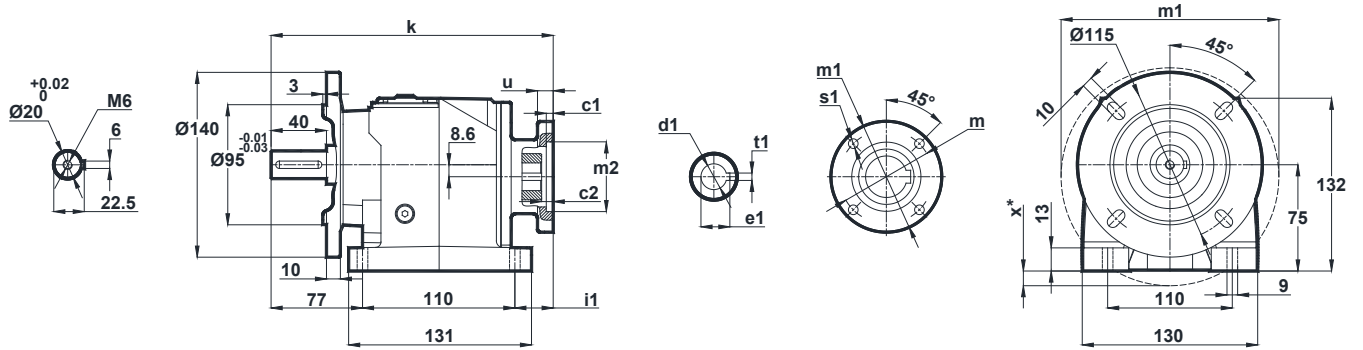


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



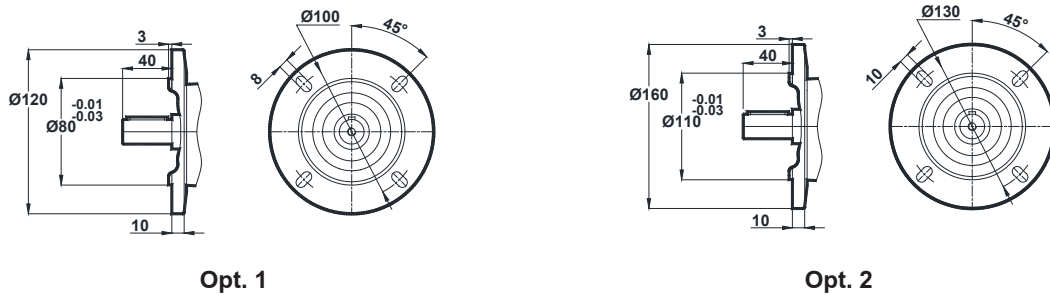
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF002-B..**  
**MNF003-B..**

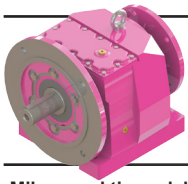


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B14	2.5	5	5.5	75	90	60	28	10	214	11	4	12.8	-
71/B14	3	4.5	7	85	105	70	29.5	10	215.5	14	5	16.3	-
80/B14	4	5	7	100	120	80	44.5	12	230.5	19	6	21.8	-
90/B14	4	5	9	115	140	95	44.5	12	230.5	24	8	27.3	4

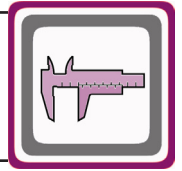
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



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

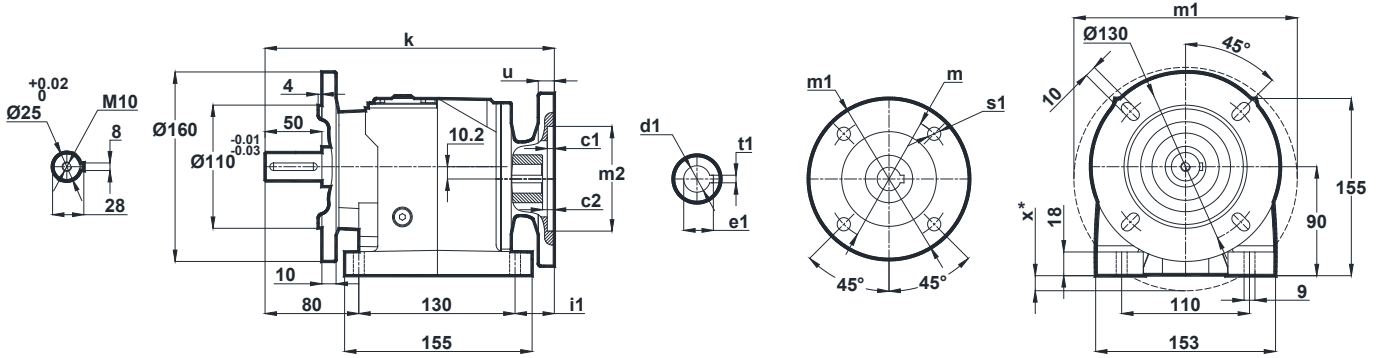


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



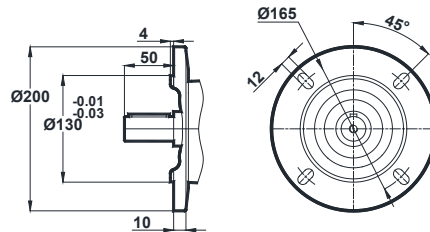
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF102-A..**  
**MNF103-A..**



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	3.5	5	10	115	140	95	28.5	12	241	11	4	12.8	-
71/B5	4	4.5	12	130	160	110	28.5	12	242.5	14	5	16.3	0.5
80/B5	4	5	12	165	200	130	43.5	12	257.5	19	6	21.8	20
90/B5	4	5	12	165	200	130	43.5	12	257.5	24	8	27.3	20

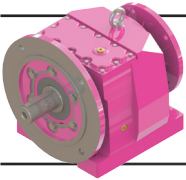
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



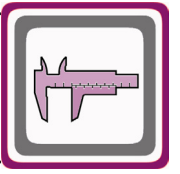
Opt. 1

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



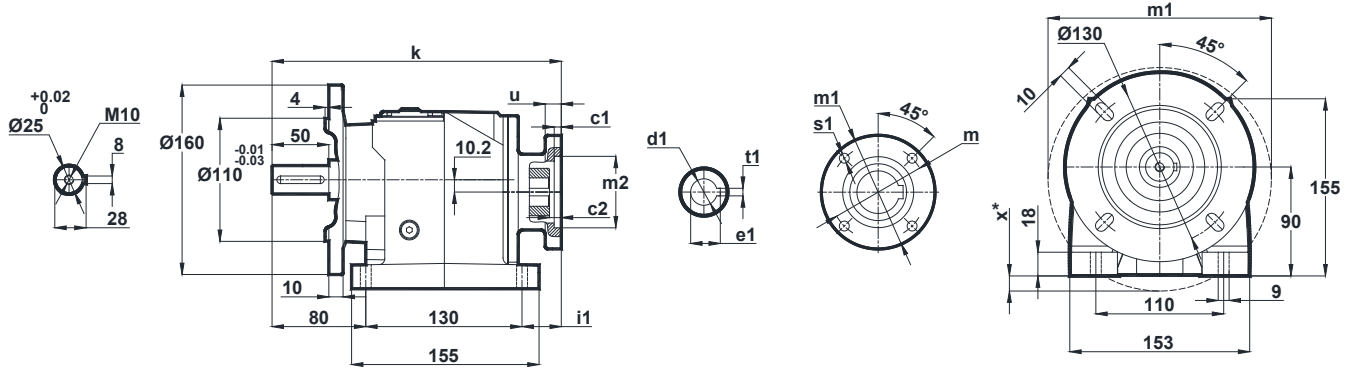


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



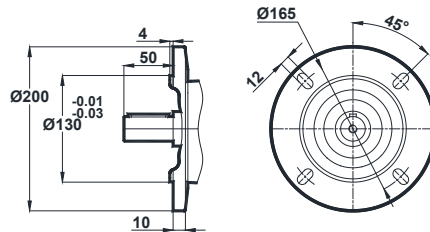
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

MNF102-B..  
MNF103-B..



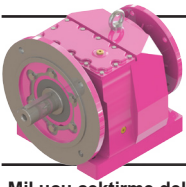
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B14	2.5	5	5.5	75	90	60	28.5	10	241	11	4	12.8	-
71/B14	3	4.5	7	85	105	70	28.5	10	242.5	14	5	16.3	-
80/B14	4	4.7	7	100	120	80	43.5	12	257.5	19	6	21.8	-
90/B14	4	4.7	9	115	140	95	43.5	12	257.5	24	8	27.3	-

## 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

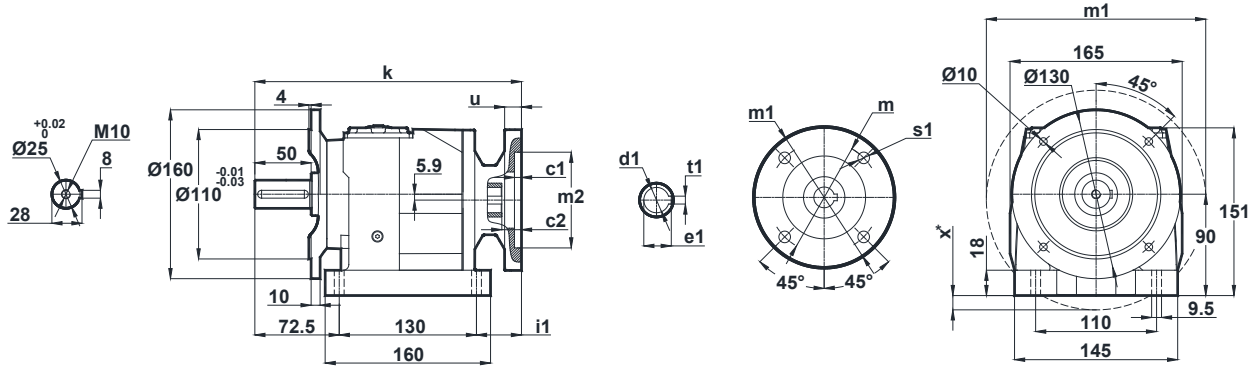


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



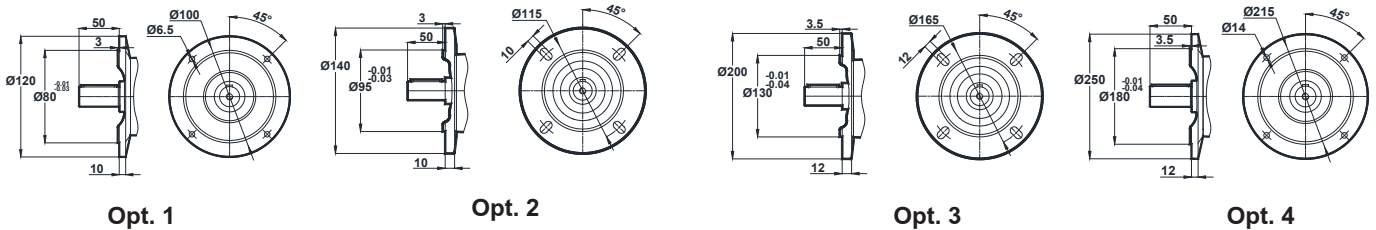
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF172-A..**  
**MNF173-A..**

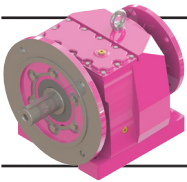


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	3.5	5	10	115	140	95	38.5	10	241	11	4	12.8	-
71/B5	4	4.5	11	130	160	110	40	12	242.5	14	5	16.3	-
80/B5	4	5	12	165	200	130	55	12	257.5	19	6	21.8	16
90/B5	4	5	12	165	200	130	55	12	257.5	24	8	27.3	16
100/B5	4.5	5	15	215	250	180	66	12	268.5	28	8	31.3	41
112/B5	4.5	5	15	215	250	180	66	12	268.5	28	8	31.3	41

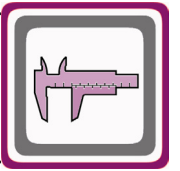
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



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

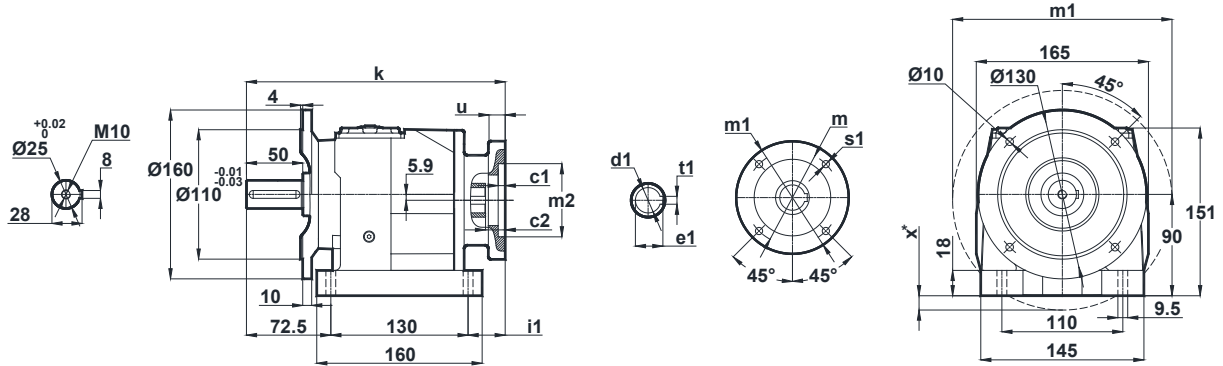


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



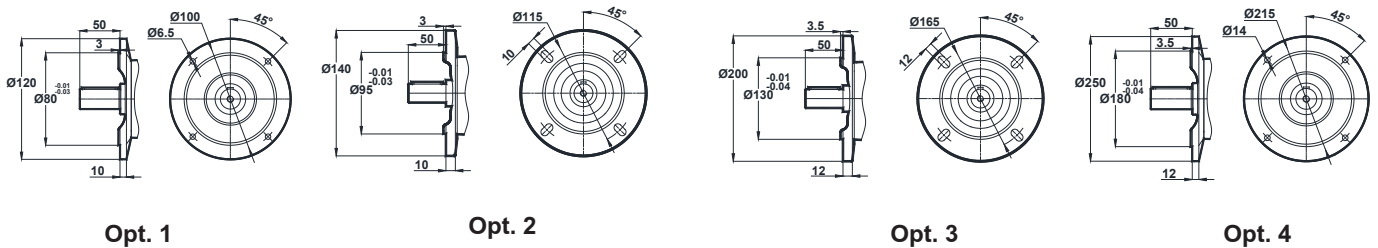
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF172-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	242.5	14	5	16.3	-
80/B14	4	5	7	100	120	80	55	12	257.5	19	6	21.8	-
90/B14	4	5	9	115	140	95	55	12	257.5	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	66	12	268.5	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	66	12	268.5	28	8	31.3	-

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



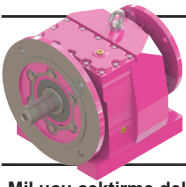
Opt. 1

Opt. 2

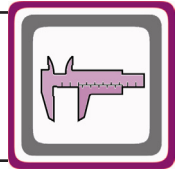
Opt. 3

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

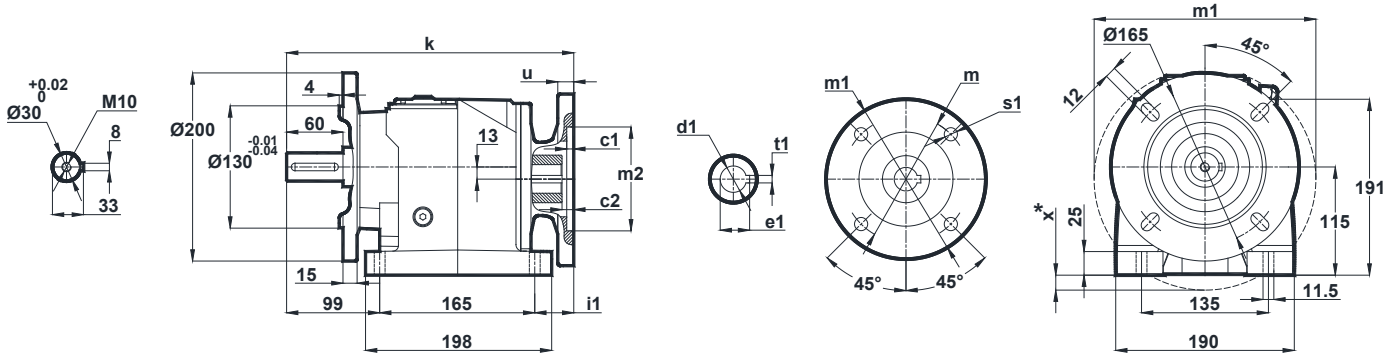


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



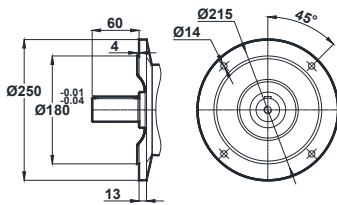
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF202-A..**  
**MNF203-A..**

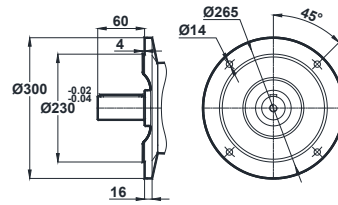


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	4	5	9	115	140	95	58.5	12	322.5	11	4	12.8	-
71/B5	4	8.5	11	130	160	110	29.5	12	293.5	14	5	163	-
80/B5	4	5	12	165	200	130	58.5	12	322.5	19	6	21.8	-
90/B5	4	5	12	165	200	130	58.5	12	322.5	24	8	27.3	-
100/B5	4.5	5.5	15	215	250	180	51.5	12	315.5	28	8	31.3	23
112/B5	4.5	5.5	15	215	250	180	51.5	12	315.5	28	8	31.3	23

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

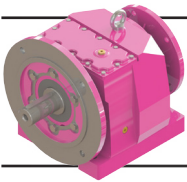


Opt. 1

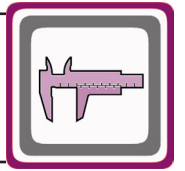


Opt. 2

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

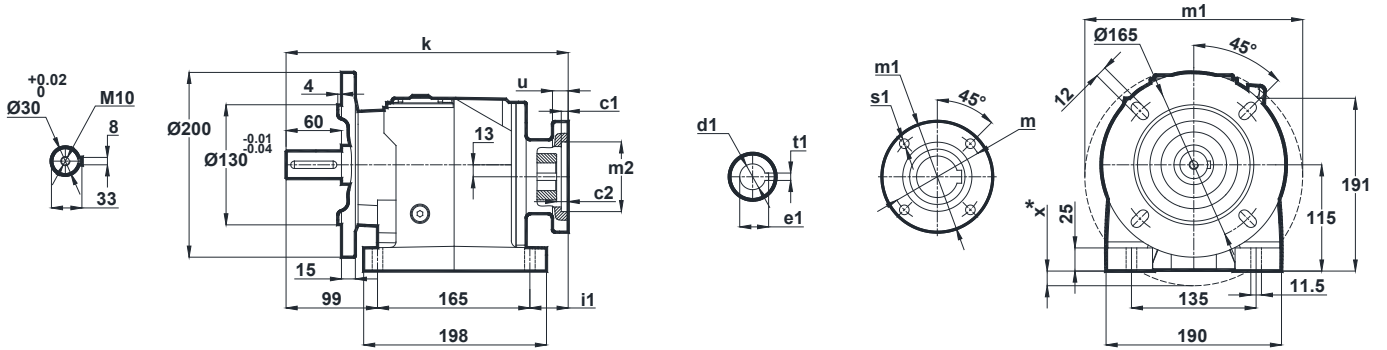


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



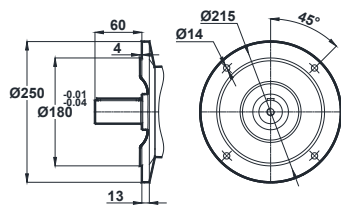
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF202-B..**  
**MNF203-B..**

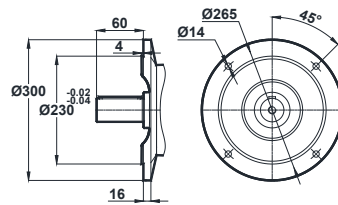


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B14	3	8.5	7	85	105	70	29.5	10	293.5	14	5	16.3	-
80/B14	4	5	7	100	120	80	58.5	12	322.5	19	6	21.8	-
90/B14	4	5	9	115	140	95	58.5	12	322.5	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	51.5	12	315.5	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	51.5	12	315.5	28	8	31.3	-

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



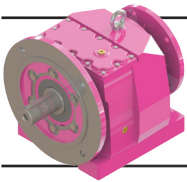
Opt. 1



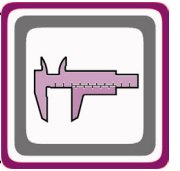
Opt. 2

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



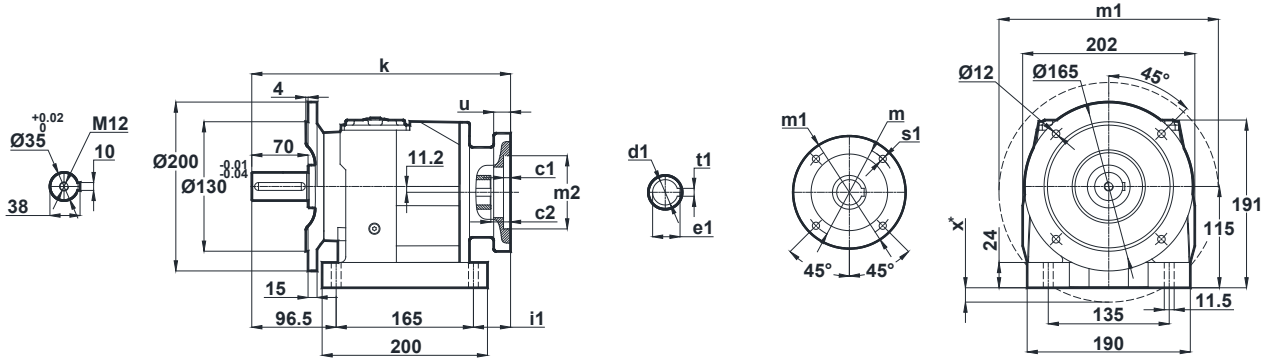


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



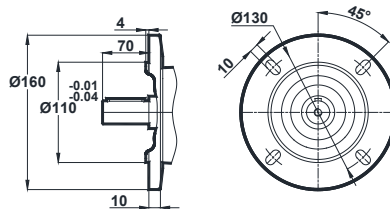
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**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	294.5	14	5	16.3	-
80/B14	4	5	7	100	120	80	62	12	323.5	19	6	21.8	-
90/B14	4	5	9	115	140	95	62	12	323.5	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	55	12	316.5	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	55	12	316.5	28	8	31.3	-
132/B14	4.5	6	11	165	200	130	92	15	363.5	35	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









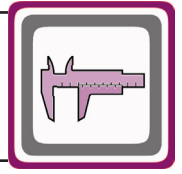






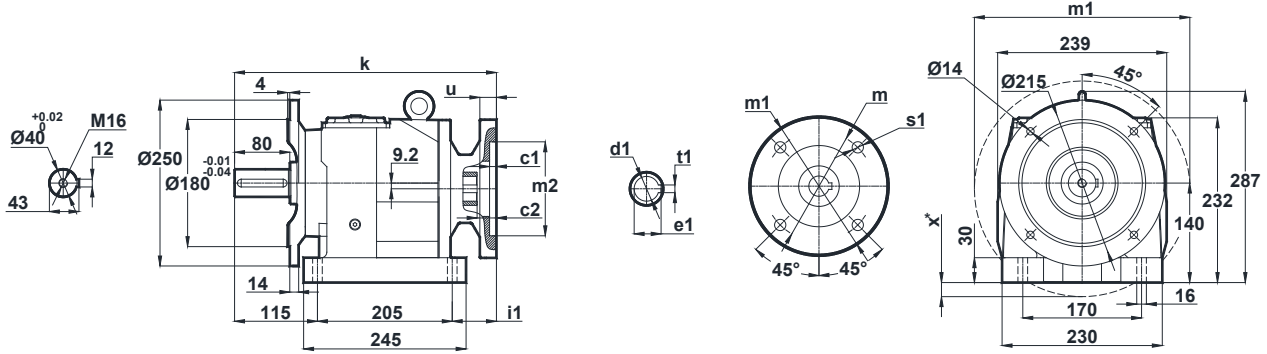


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



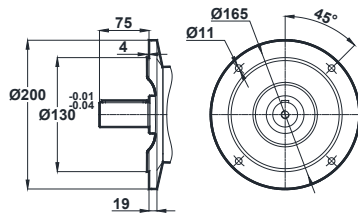
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF372-A..**  
**MNF373-A..**

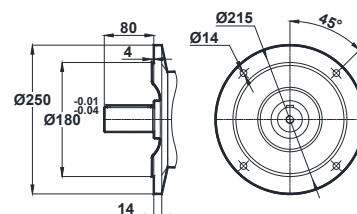


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B5	4	9	11	130	160	110	43.5	12	364	14	5	16.3	-
80/B5	4	9	12	165	200	130	43.5	12	364	19	6	21.8	-
90/B5	4	9	12	165	200	130	43.5	12	364	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	60.5	15	381	28	8	31.3	-
112/B5	4.5	9	15	215	250	180	60.5	15	381	28	8	31.3	-
132/B5	4.5	7	15	265	300	230	80.5	15	401	38	10	41.3	20

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



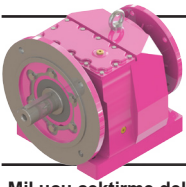
Opt. 1



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



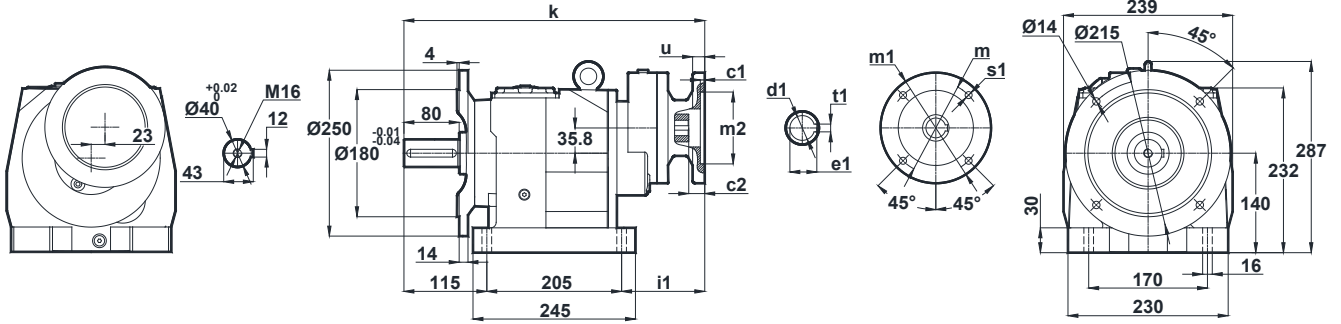


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



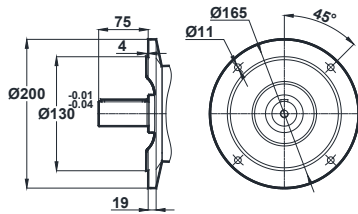
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF374-A..**  
**MNF374-B..**

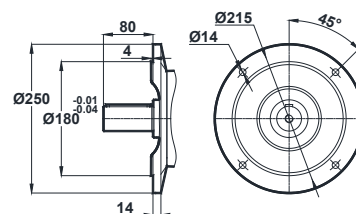


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	120.5	12	441	11	4	12.8
71/B5	4	8.5	11	130	160	110	91.5	12	412	14	5	16.3
80/B5	4	5	12	165	200	130	120.5	12	441	19	6	21.8
71/B14	3	8.5	7	85	105	70	91.5	10	412	14	5	16.3
80/B14	4	5	7	100	120	80	120.5	12	441	19	6	21.8

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

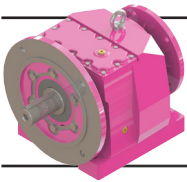


Opt. 1

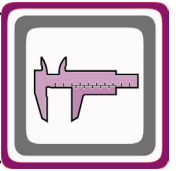


Opt. 2



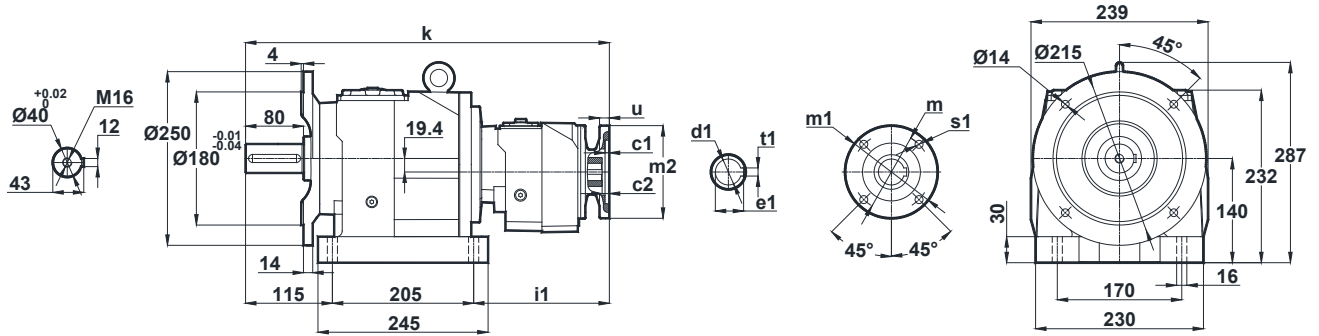


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



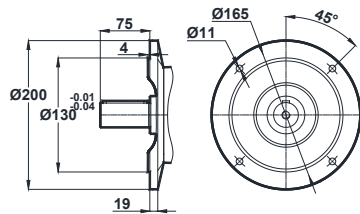
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF375-A.. / B..**  
**MNF376-A.. / B..**

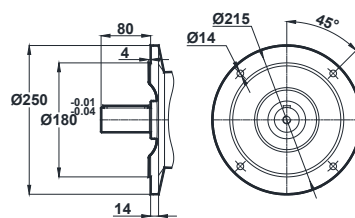


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	186.5	10	509	11	4	12.8
63/B14	2.5	5	5.5	75	90	60	186.5	10	509	11	4	12.8

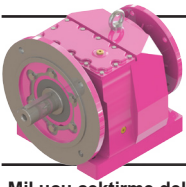
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



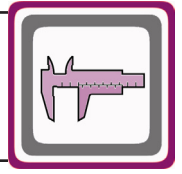
Opt. 1



Opt. 2

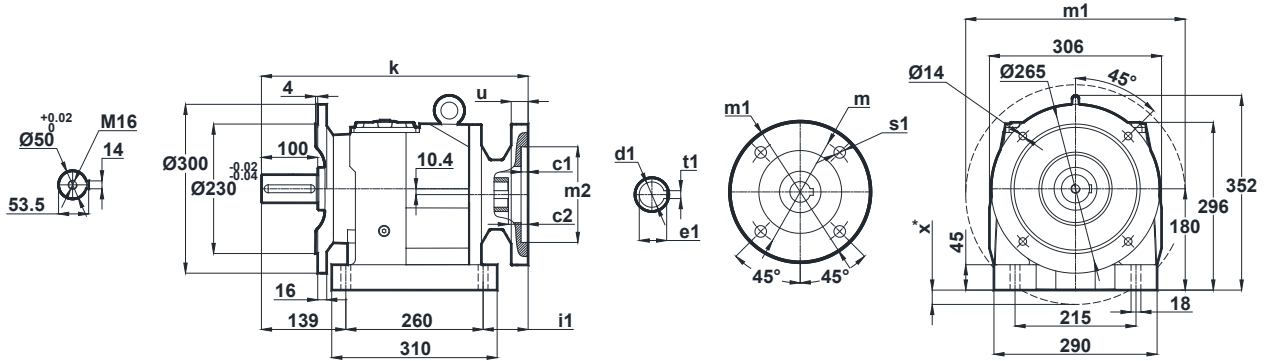


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



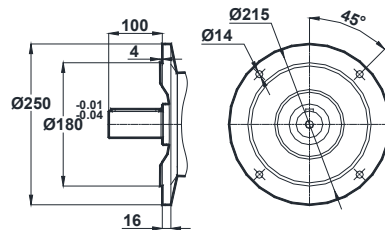
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF472-A..**  
**MNF473-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	426.5	19	6	21.8	-
90/B5	4	5	12	165	200	130	27.5	12	426.5	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	463.5	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

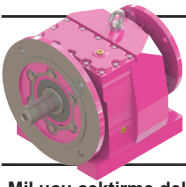
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



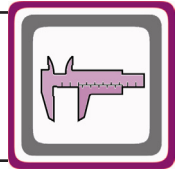
Opt. 1

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



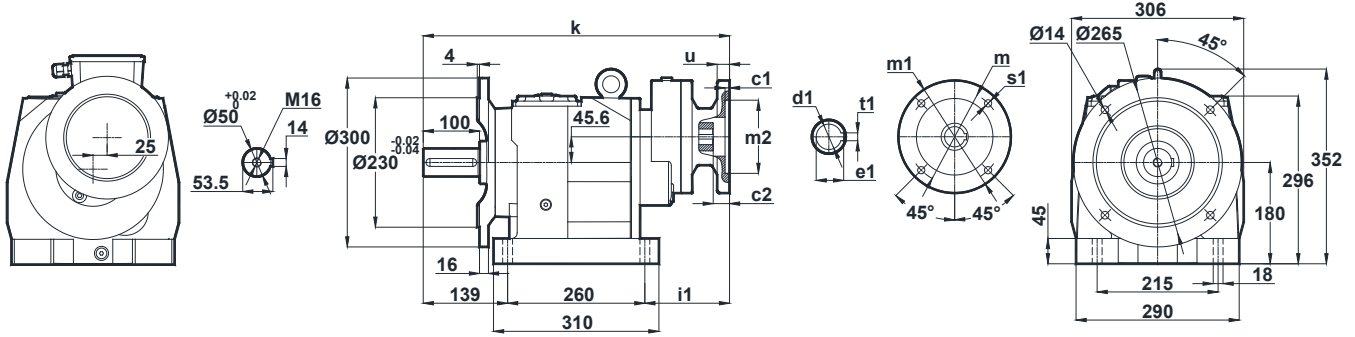


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



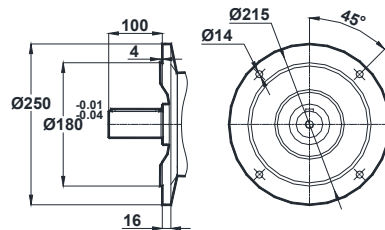
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF474-A..**  
**MNF474-B..**

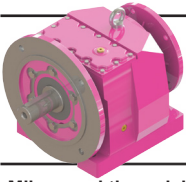


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	125.5	12	524.5	14	5	16.3
80/B5	4	9	12	165	200	130	125.5	12	524.5	19	6	21.8
80/B14	4	9	7	100	120	80	125.5	12	524.5	19	6	21.8

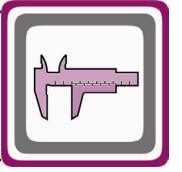
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



**Opt. 1**

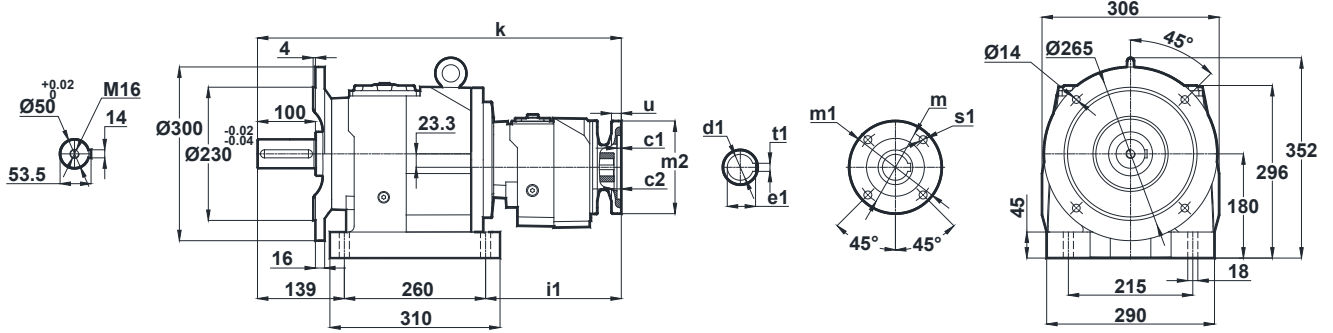


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



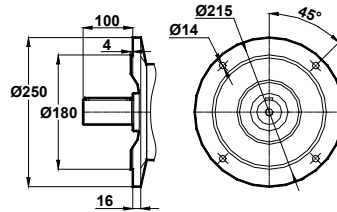
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF475-A.. / B..**  
**MNF476-A.. / B..**

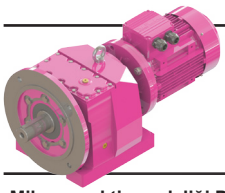


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	253.5	12	652.5	11	4	12.8
71/B5	4	8.5	11	130	160	110	224.5	12	623.5	14	5	16.3
71/B14	3	8.5	7	85	105	70	224.5	10	623.5	14	5	16.3

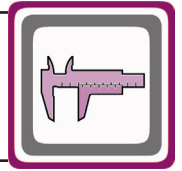
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

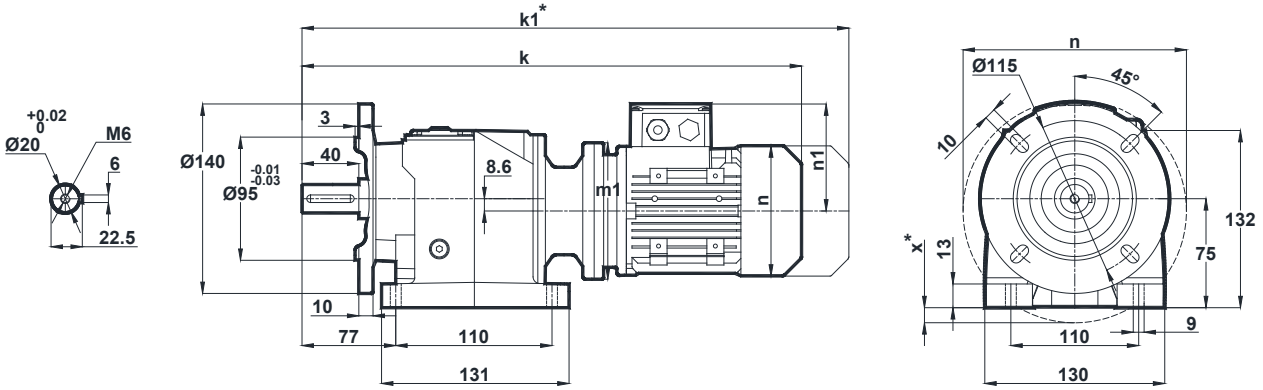


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



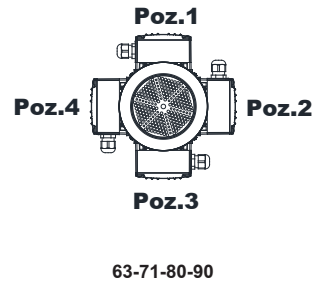
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MVF002**  
**MVF003**

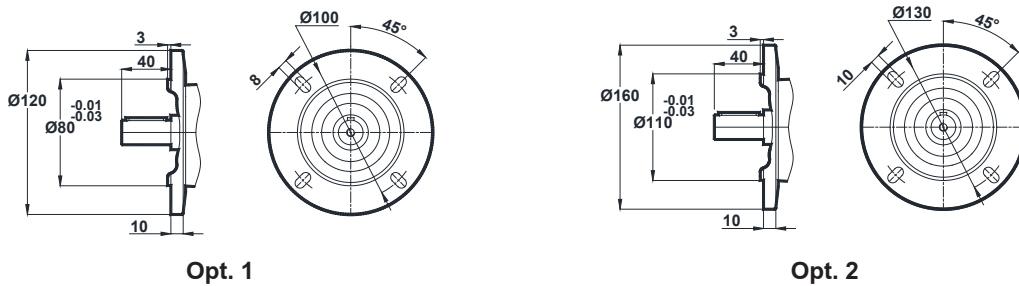


Motor Büyüklüğü / Motor Size / Motorbaugroße					
IEC	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	407	426.5	464.5	505.5	505.5
k1	468	517.5	557.5	609	609
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	140	160	200	200	200
m1 (B14)	90	105	120	140	140
x (B5)	4	14	34	34	34

Klemens Kutusu / Terminal Box / Klemmenkasten

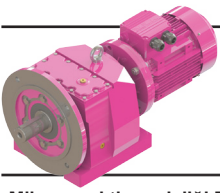


Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

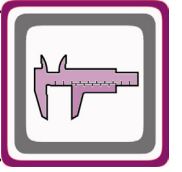


\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

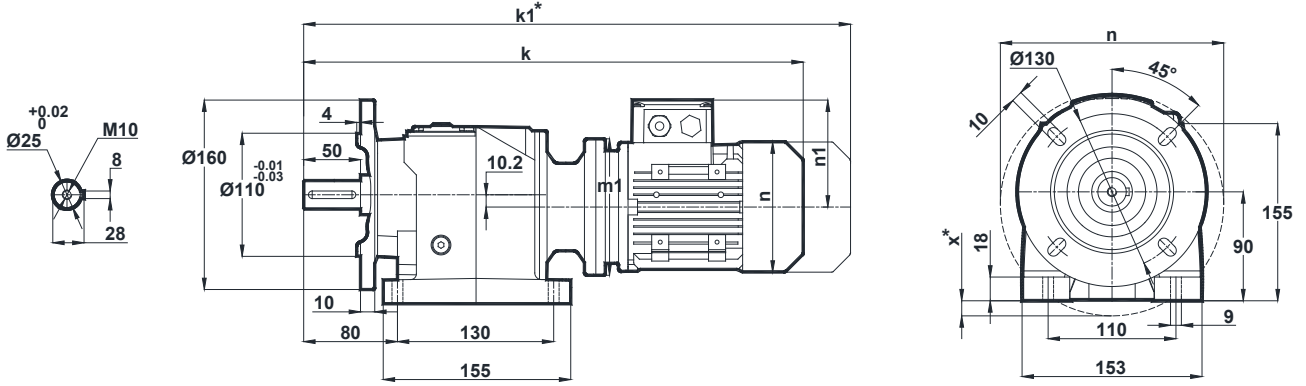


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



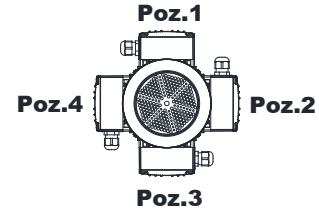
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MVF102 MVF103



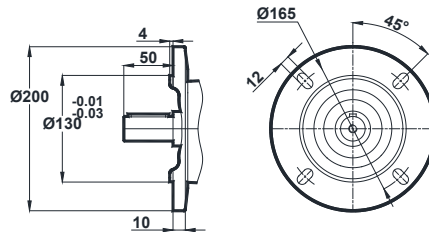
Motor Büyüklüğü / Motor Size / Motorbaugroße					
IEC	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	431	450.5	488.5	529.5	529.5
k1	492	541.5	581.5	633	633
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	140	160	200	200	200
m1 (B14)	90	105	120	140	140
x (B5)	-	1	21	21	21

Klemens Kutusu / Terminal Box / Klemmenkasten



63-71-80-90

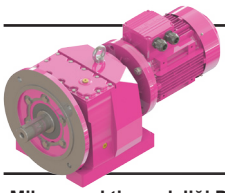
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

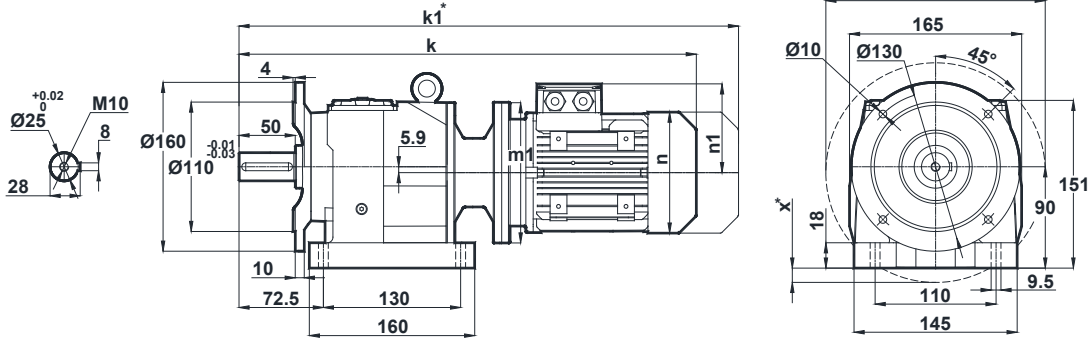


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



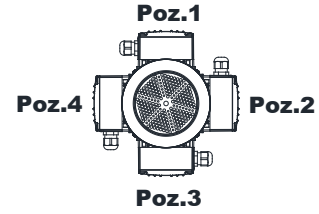
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

MVF172  
MVF173



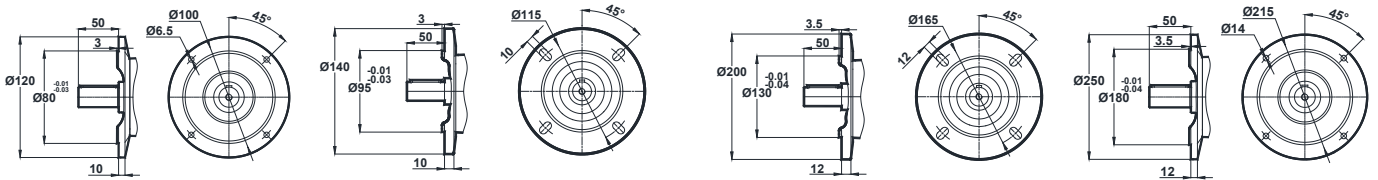
Motor Büyüklüğü / Motor Size / Motorbaugroße							
IEC	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14
k	434	453.5	497.5	532.5	532.5	579	599.5
k1	495	544.5	584.5	636	636	687.5	704
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158
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

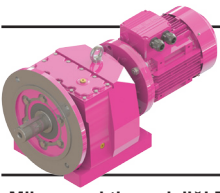
Opt. 3

Opt. 4

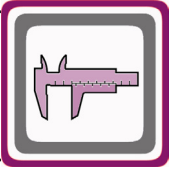
\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



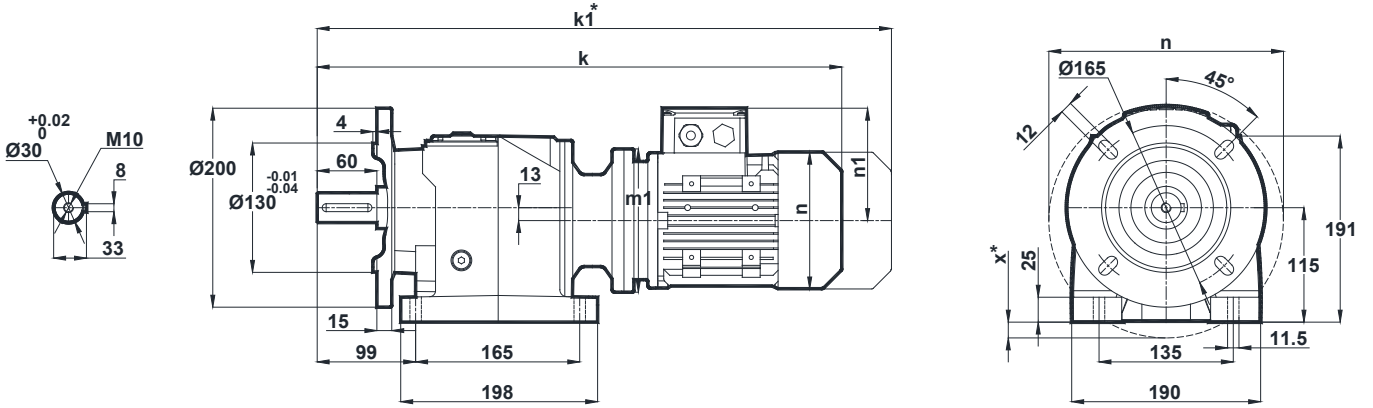


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



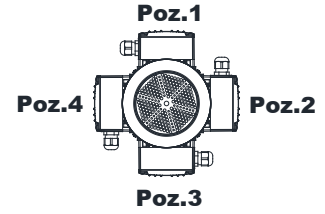
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MVF202 MVF203



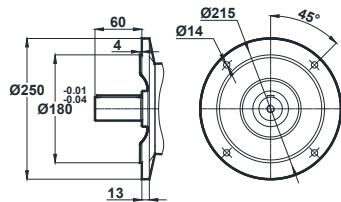
Motor Büyüklüğü / Motor Size / Motorbaugroße							
IEC	63/B5	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14
k	515.5	504.5	556.5	597.5	597.5	626	646.5
k1	576.5	595.5	649.5	701	701	734.5	751
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158
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

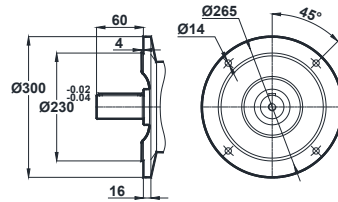


63-71-80-90-100-112

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



Opt. 1

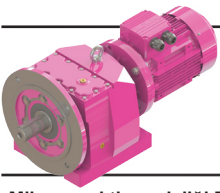


Opt. 2

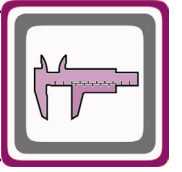
\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



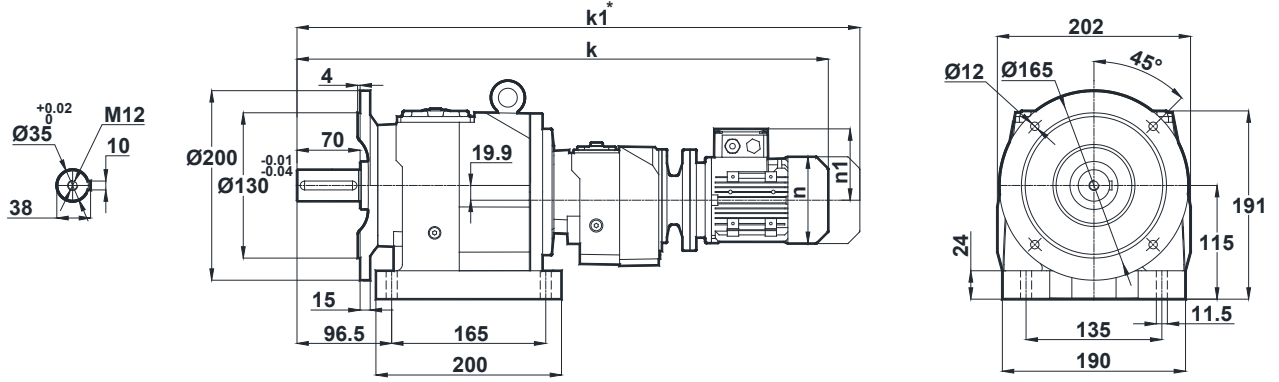


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



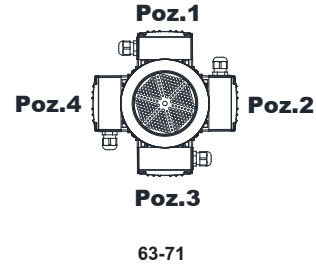
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MVF275**  
**MVF276**

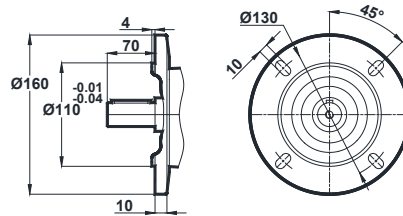


Motor Büyüklüğü / Motor Size / Motorbaugröße		
IEC	63/B5 63/B14	71/B5 71/B14
k	632	651.5
k1	693	742.5
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	90	105

Klemens Kutusu / Terminal Box / Klemmenkasten

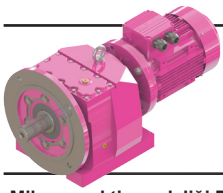


Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

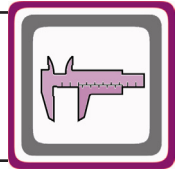


Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

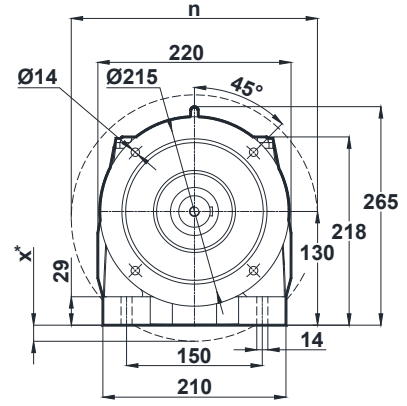
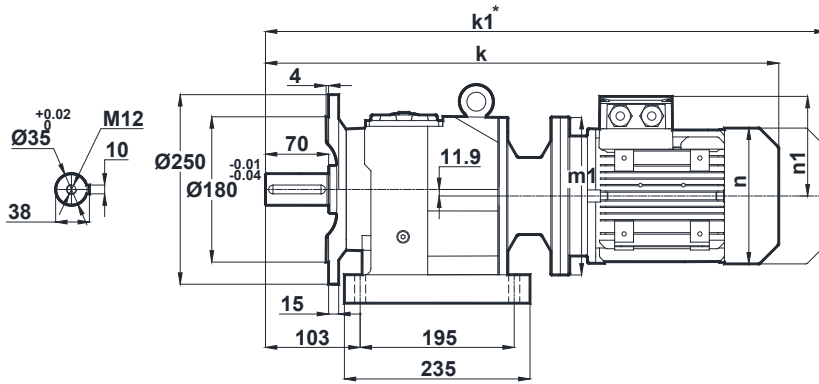


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



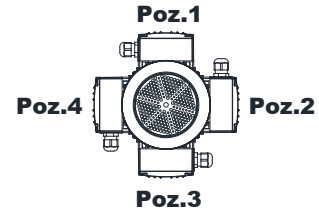
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MVF282**  
**MVF283**



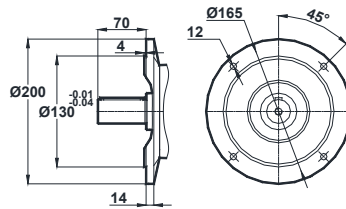
Motor Büyüklüğü / Motor Size / Motorbaugroße								
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	554	577	618	618	670.5	691	795	795
k1	645	670	721.5	721.5	779	795.5	925	925
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179
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

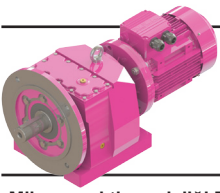
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



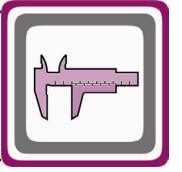
Opt. 1

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

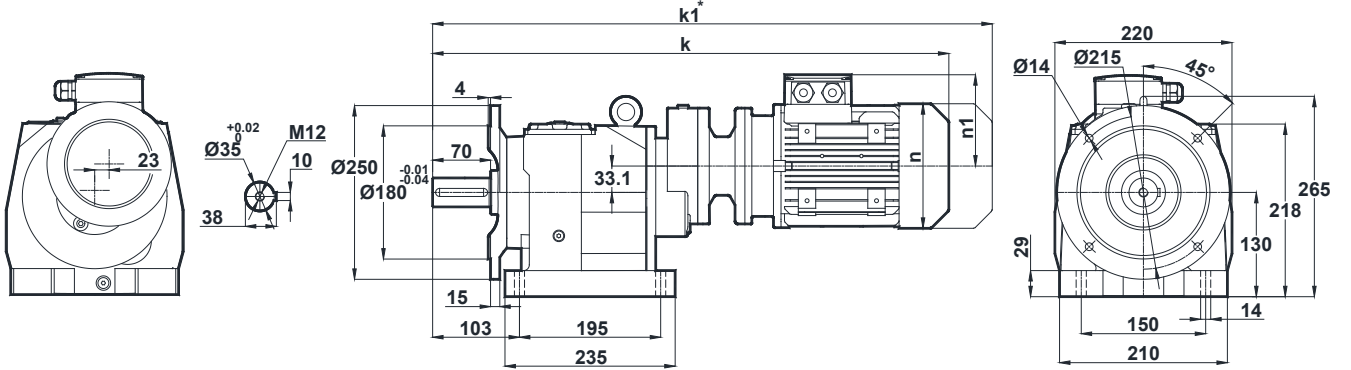


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



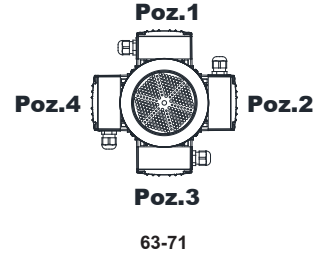
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MVF284

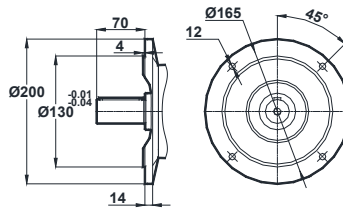


Motor Büyüklüğü / Motor Size / Motorbaugroße		
IEC	63/B5	71/B5 71/B14
k	613	602
k1	674	693
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	-	105

Klemens Kutusu / Terminal Box / Klemmenkasten

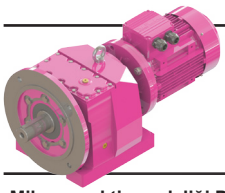


Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

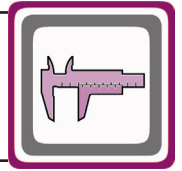
\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.



# Ölçü Sayfaları

## Dimension Pages

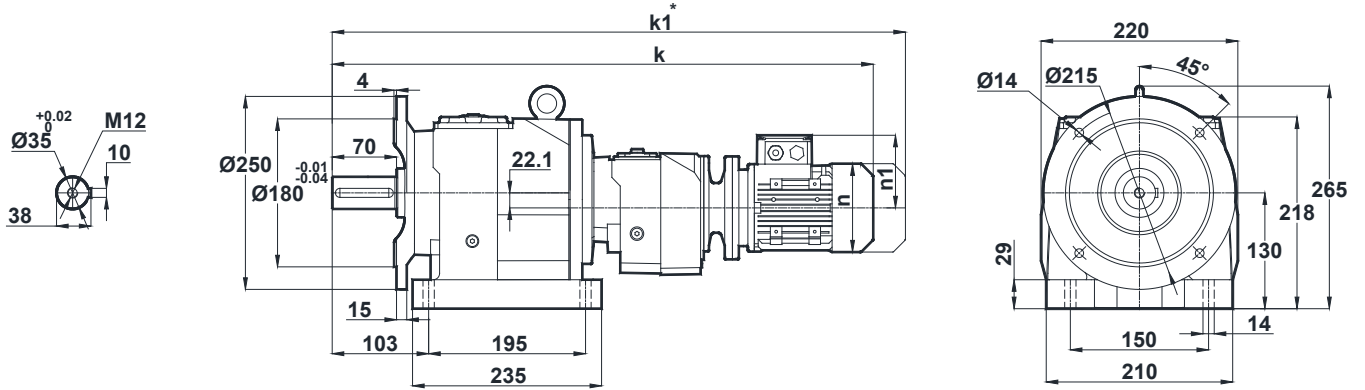
### Abmessungsseiten



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

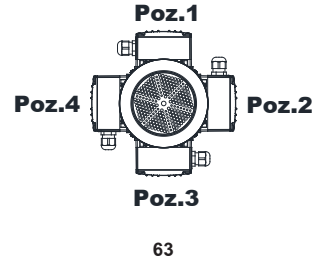
## MVF285

## MVF286

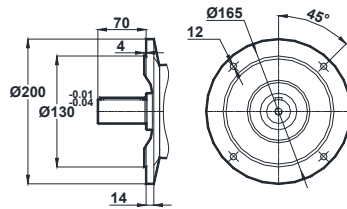


Motor Büyüklüğü / Motor Size / Motorbaugroße	
IEC	63/B5 63/B14
k	681
k1	742
n / n1	121 / 97
m1 (B5)	140
m1 (B14)	90

Klemens Kutusu / Terminal Box / Klemmenkasten



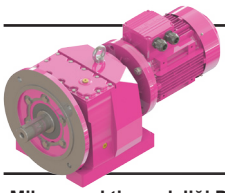
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



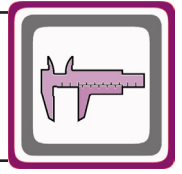
Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.



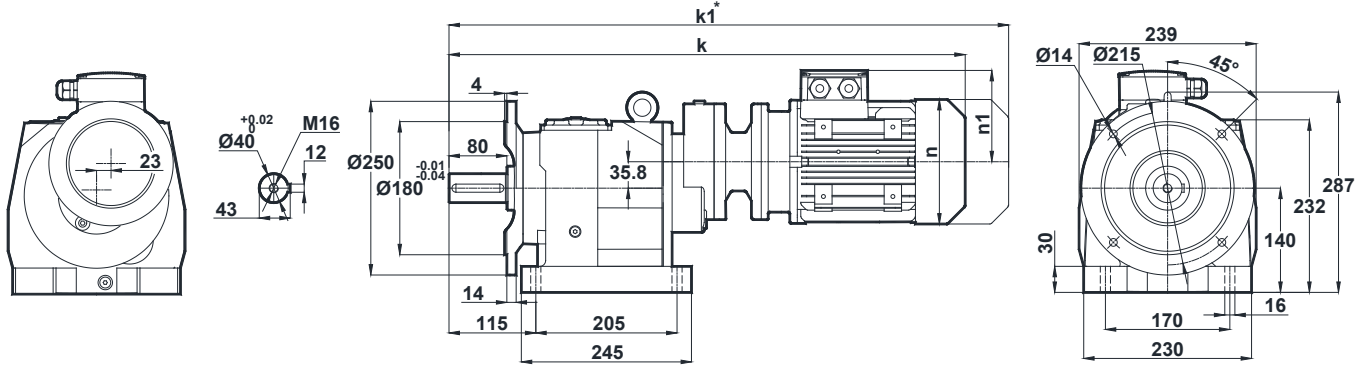


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



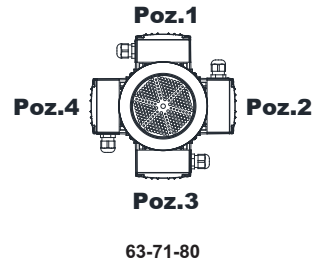
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MVF374

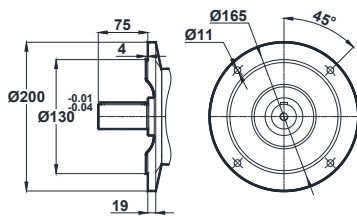


Motor Büyüklüğü / Motor Size / Motorbaugroße			
IEC	63/B5	71/B5 71/B14	80/B5 80/B14
k	634	623	675
k1	695	714	768
n / n1	121 / 97	137 / 112	155 / 121
m1 (B5)	140	160	200
m1 (B14)	-	105	120

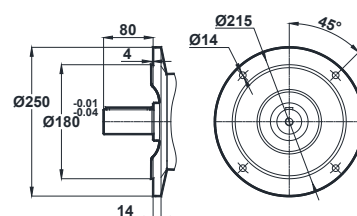
Klemens Kutusu / Terminal Box / Klemmenkasten



Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



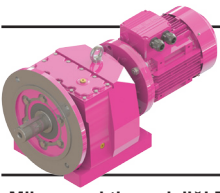
Opt. 1



Opt. 2

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

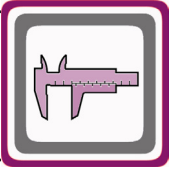




# Ölçü Sayfaları

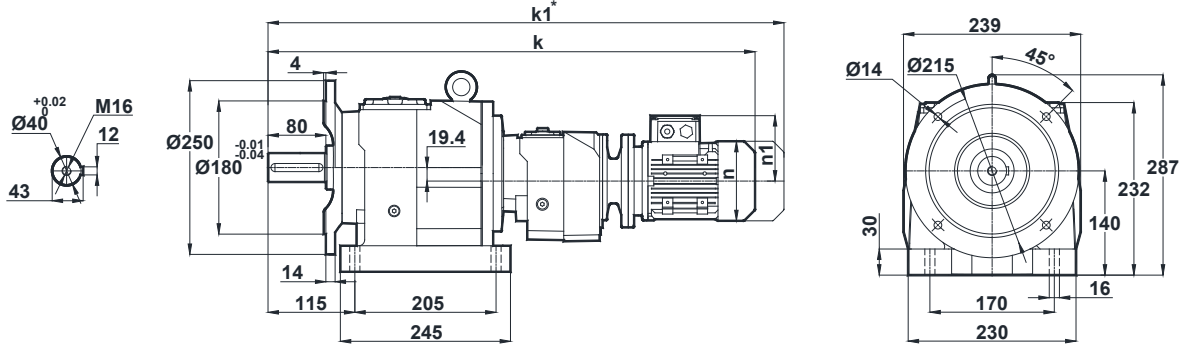
## Dimension Pages

### Abmessungenseiten



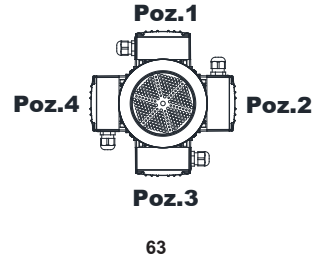
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MVF375**  
**MVF376**

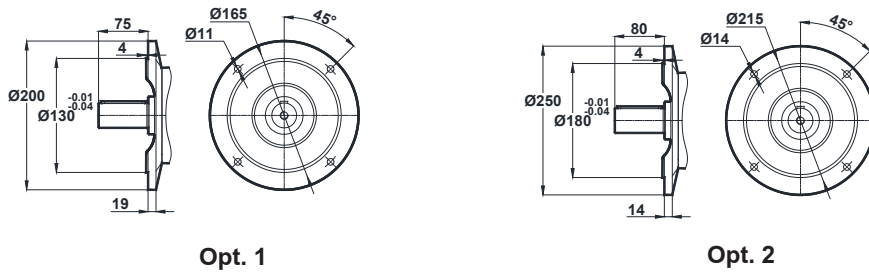


Motor Büyüklüğü / Motor Size / Motorbaugroße	
IEC	63/B5 63/B14
k	702
k1	769
n / n1	121 / 97
m1 (B5)	140
m1 (B14)	90

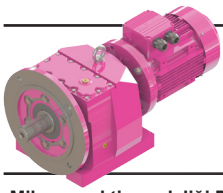
Klemens Kutusu / Terminal Box / Klemmenkasten



Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

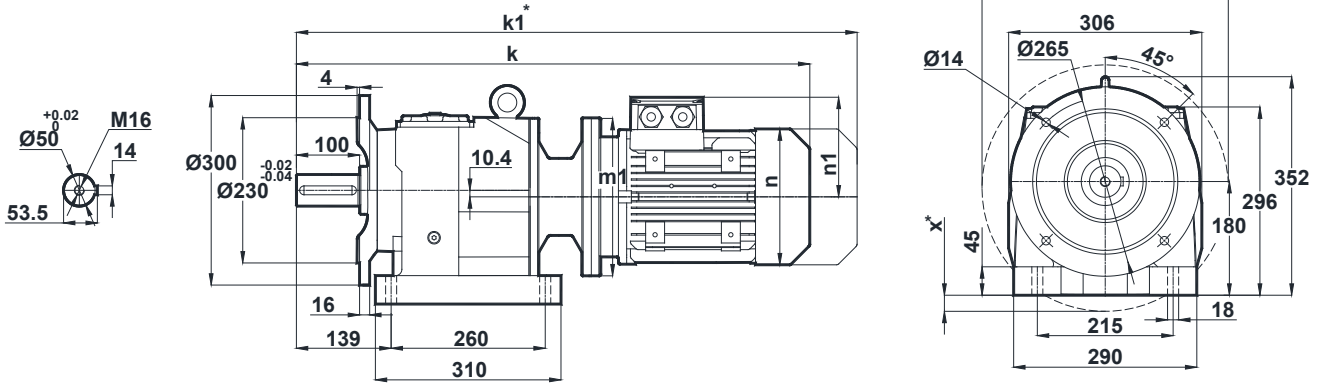


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



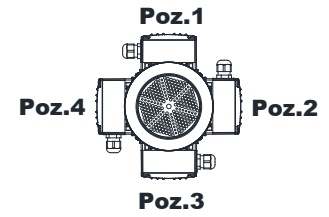
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

MVF472  
MVF473



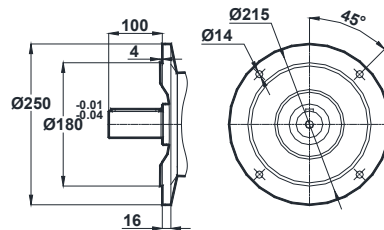
Motor Büyüklüğü / Motor Size / Motorbaugröße											
IEC	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5
k	660.5	701.5	701.5	755.5	776	878.5	878.5	1038	1038	1126	1126
k1	753.5	805	805	864	880.5	1008.5	1008.5	1186	1186	1284.5	1284.5
n / n1	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234
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

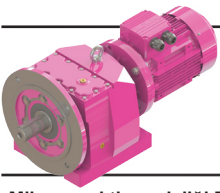
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



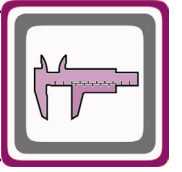
Opt. 1

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

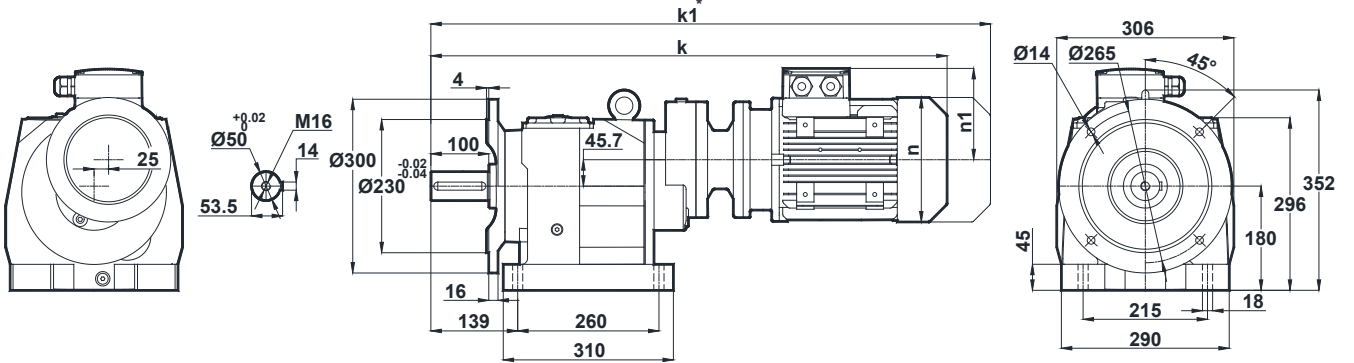


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



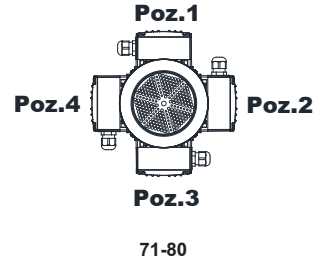
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MVF474

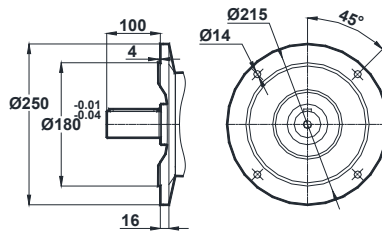


Motor Büyüklüğü / Motor Size / Motorbaugroße		
IEC	71/B5	80/B5 80/B14
k	735.5	758.5
k1	826.5	851.5
n / n1	137 / 112	155 / 121
m1 (B5)	160	200
m1 (B14)	-	120

Klemens Kutusu / Terminal Box / Klemmenkasten

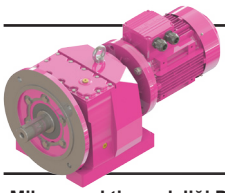


Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

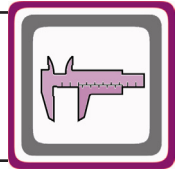


Opt. 1

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

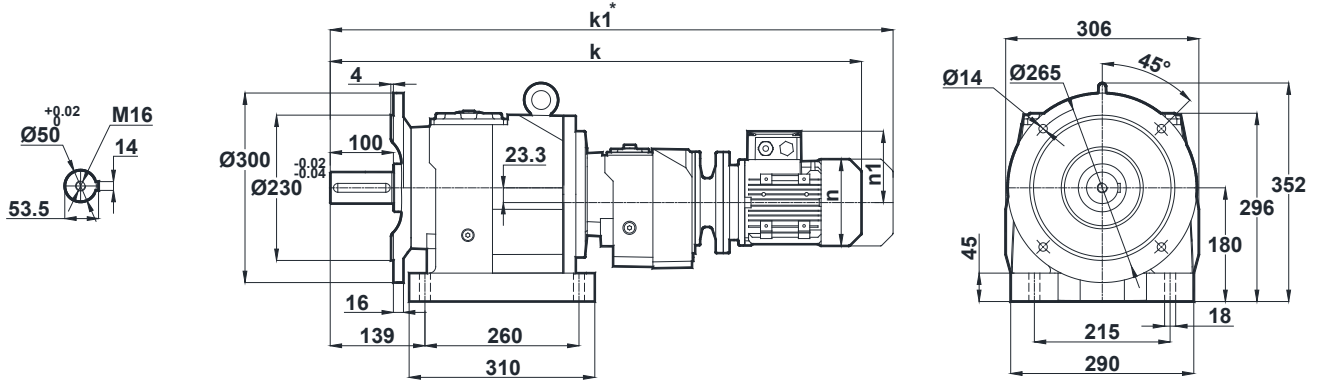


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



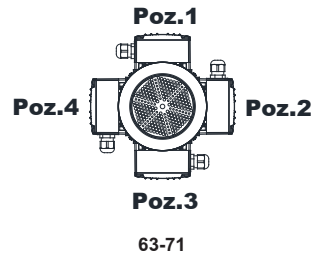
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MVF475 MVF476

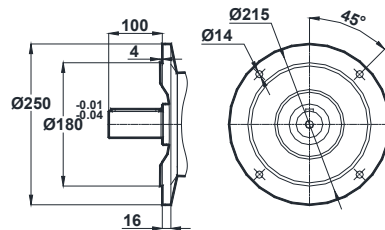


Motor Büyüklüğü / Motor Size / Motorbaugröße		
IEC	63/B5	71/B5 71/B14
k	845.5	834.5
k1	906.5	925.5
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	-	105

Klemens Kutusu / Terminal Box / Klemmenkasten



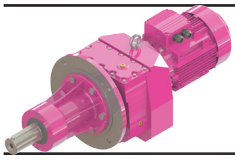
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.



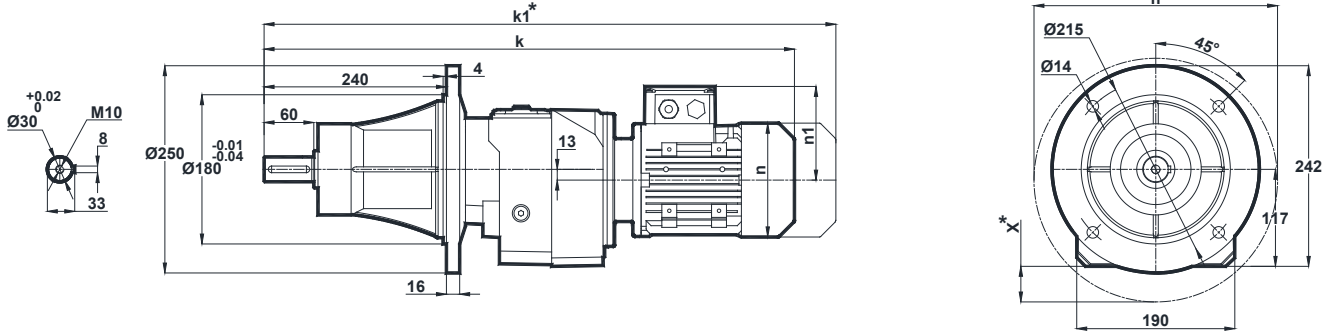


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



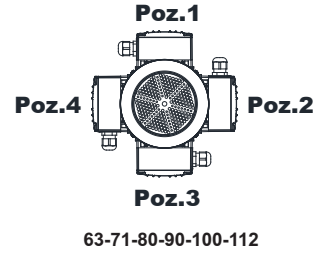
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NRB202 NRB203



Motor Büyüklüğü / Motor Size / Motorbaugroße							
	63	71	80	90S	90L	100L	112M
k	608	635	669	708	708	756	780
k1	669	726	762	811.5	811.5	864.5	884.5
n	121	137	155	176	176	193	215
n1	97	112	121	132	132	147	158
x	-	-	-	-	-	-	10

Klemens Kutusu / Terminal Box / Klemmenkasten



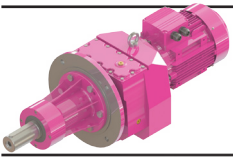
\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

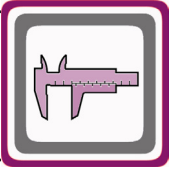






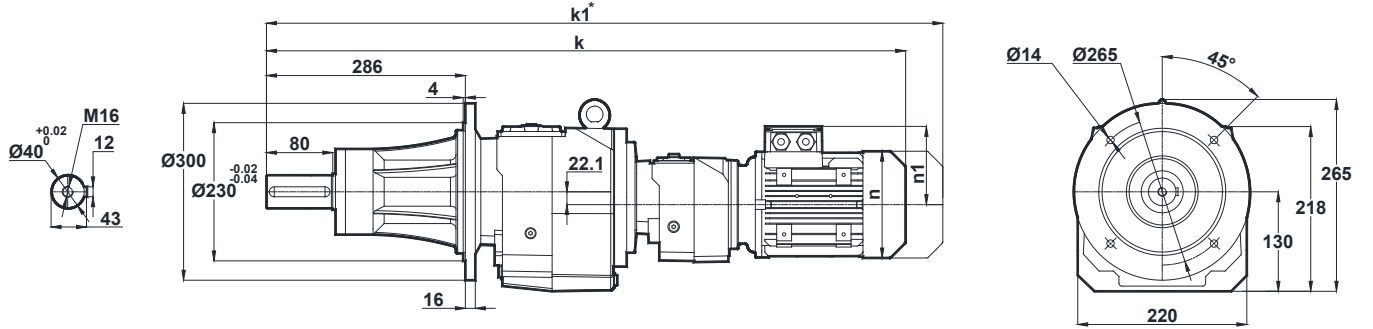


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



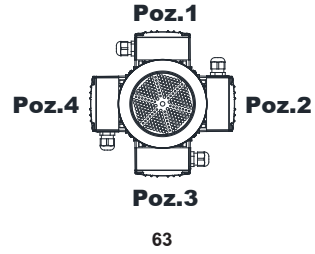
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB285**  
**NRB286**



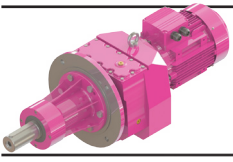
Motor Büyüklüğü / Motor Size / Motorbaugroße	
	63
k	863.5
k1	924.5
n	121
n1	97

Klemens Kutusu / Terminal Box / Klemmenkasten

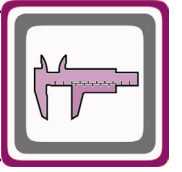


\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.



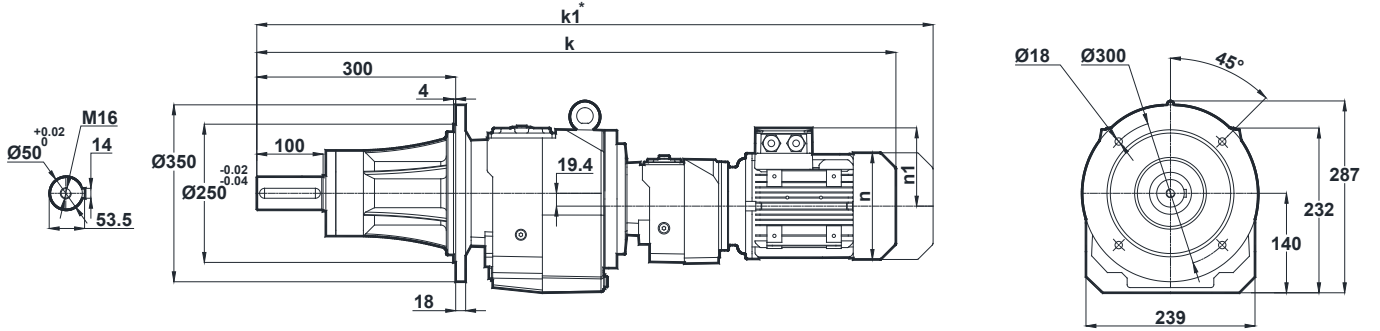


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



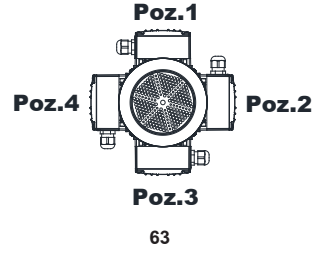
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NRB375 NRB376



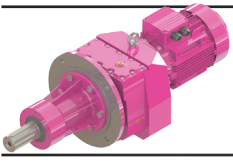
Motor Büyüklüğü / Motor Size / Motorbaugroße	
	63
k	886
k1	947
n	121
n1	97

Klemens Kutusu / Terminal Box / Klemmenkasten

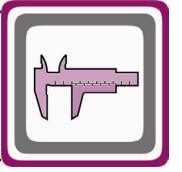


\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.



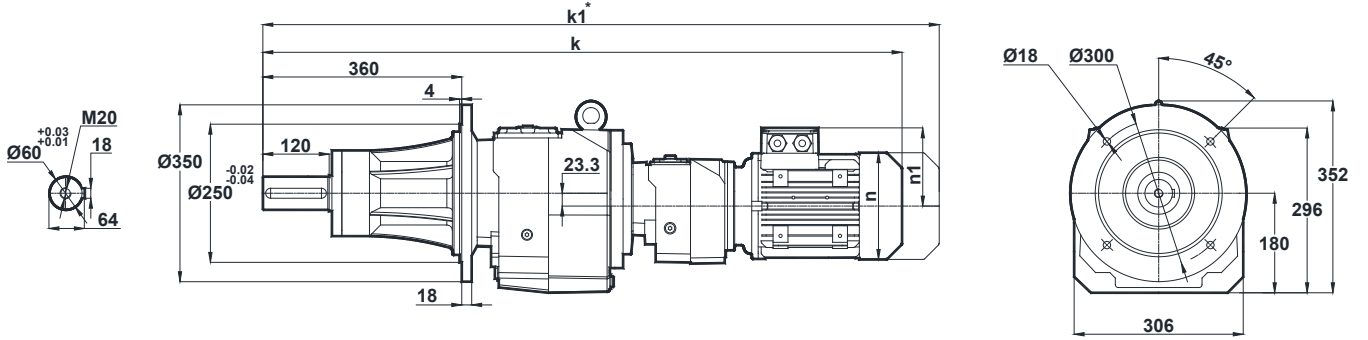


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



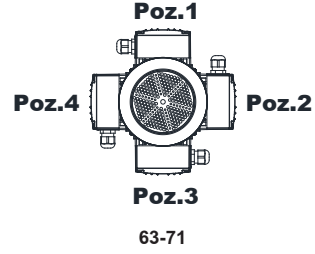
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NRB475 NRB476

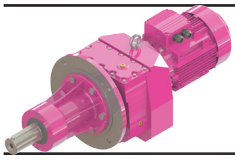


Motor Büyüklüğü / Motor Size / Motorbaugroße		
	63	71
k	1033	1060
k1	1094	1151
n	121	137
n1	97	112

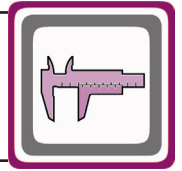
Klemens Kutusu / Terminal Box / Klemmenkasten



\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

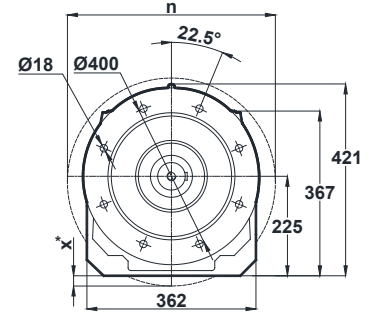
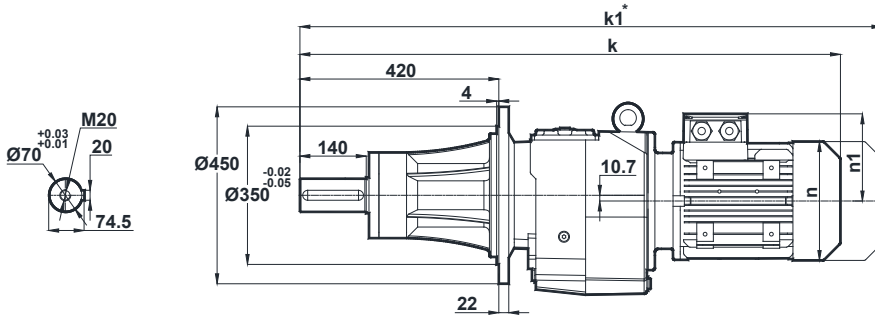


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



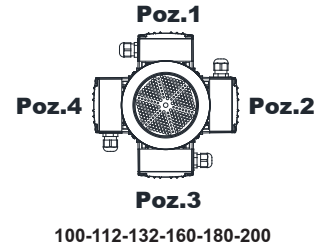
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NRB572 NRB573

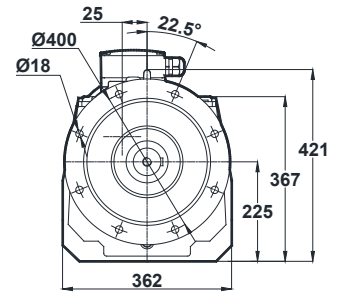
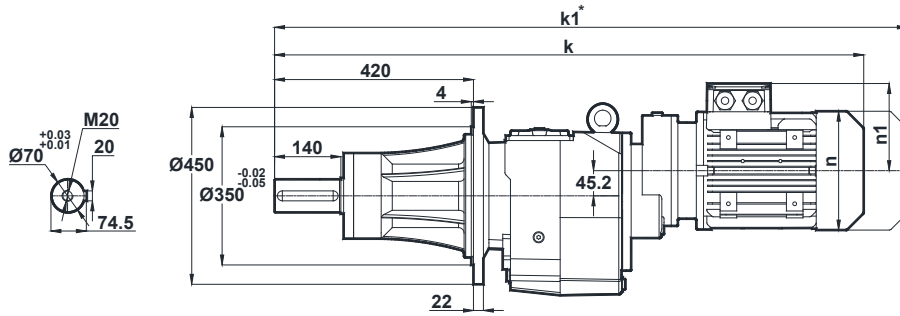


Motor Büyüklüğü / Motor Size / Motorbaugroße									
	100L	112M	132S	132M	160M	160L	180M	180L	200L
k	1057	1081	1167.5	1167.5	1263.5	1263.5	1335.5	1335.5	1381.5
k1	1165.5	1185.5	1297.5	1297.5	1411.5	1411.5	1494	1494	1568
n	193	215	257	257	315	315	347	347	390
n1	147	158	179	179	219	219	234	234	275
x	-	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten

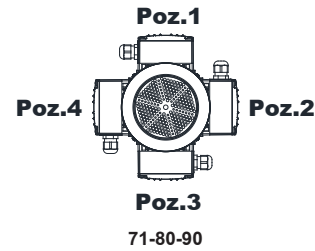


## NRB574



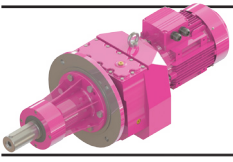
Motor Büyüklüğü / Motor Size / Motorbaugroße				
	71	80	90S	90L
k	1037	1071	1110	1110
k1	1128	1164	1213.5	1213.5
n	137	155	176	176
n1	112	121	132	132

Klemens Kutusu / Terminal Box / Klemmenkasten

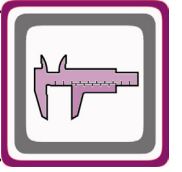


\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

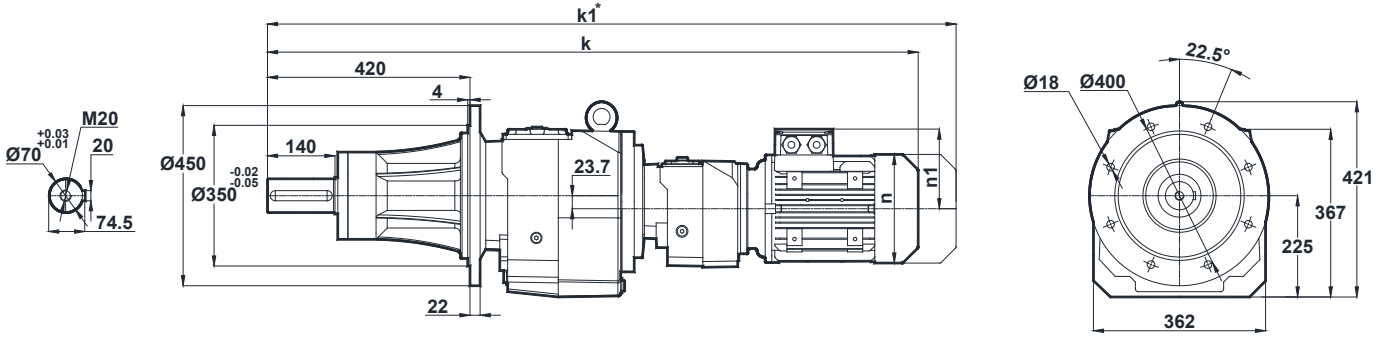


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



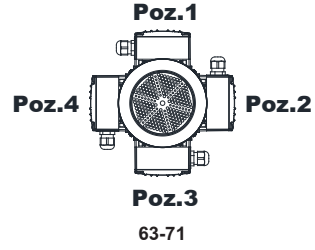
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NRB575 NRB576

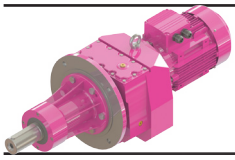


Motor Büyüklüğü / Motor Size / Motorbaugroße		
	63	71
k	1142	1169
k1	1203	1260
n	121	137
n1	97	112

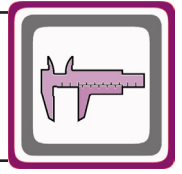
Klemens Kutusu / Terminal Box / Klemmenkasten



\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

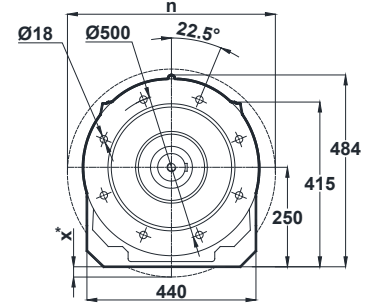
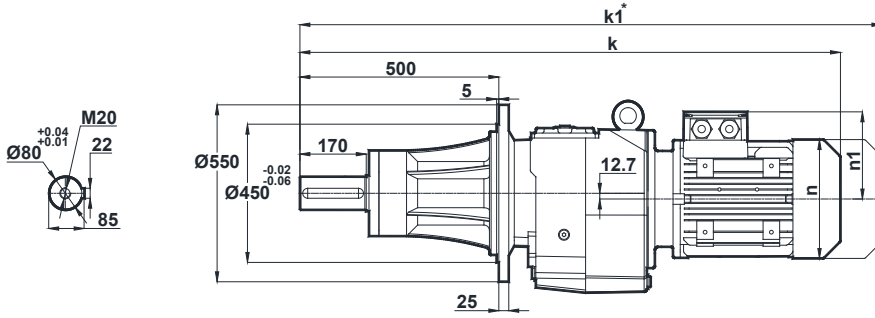


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



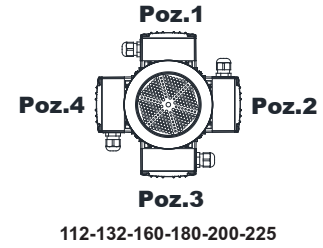
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NRB672 NRB673

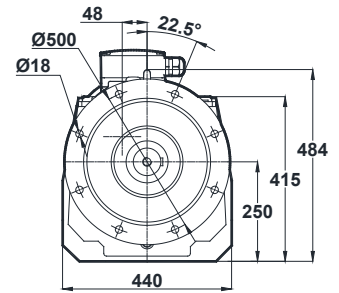
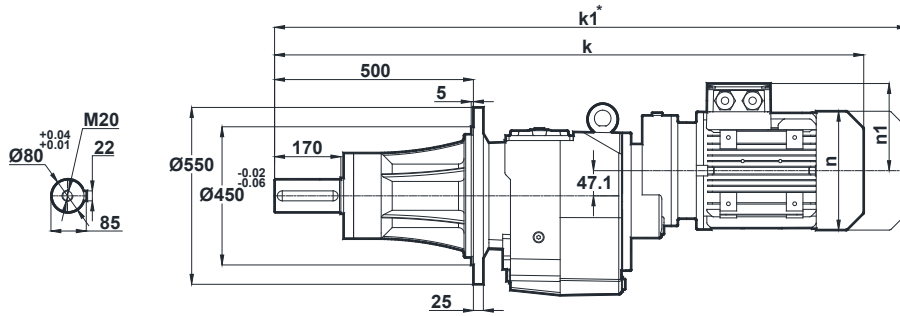


Motor Büyüklüğü / Motor Size / Motorbaugroße										
	112M	132S	132M	160M	160L	180M	180L	200L	225S	225M
k	1198	1284.5	1284.5	1380.5	1380.5	1452.5	1452.5	1498.5	1525	1550
k1	1302.5	1414.5	1414.5	1528.5	1528.5	1611	1611	1685	1690	1715
n	215	257	257	315	315	347	347	390	434	434
n1	158	179	179	219	219	234	234	275	285	285
x	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten

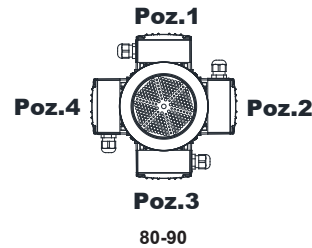


## NRB674



Motor Büyüklüğü / Motor Size / Motorbaugroße			
	80	90S	90L
k	1206.5	1245.5	1245.5
k1	1299.5	1349	1349
n	155	176	176
n1	121	132	132

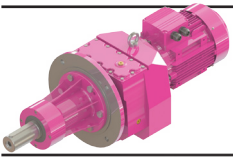
Klemens Kutusu / Terminal Box / Klemmenkasten



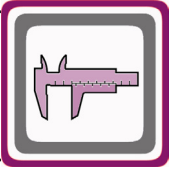
\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



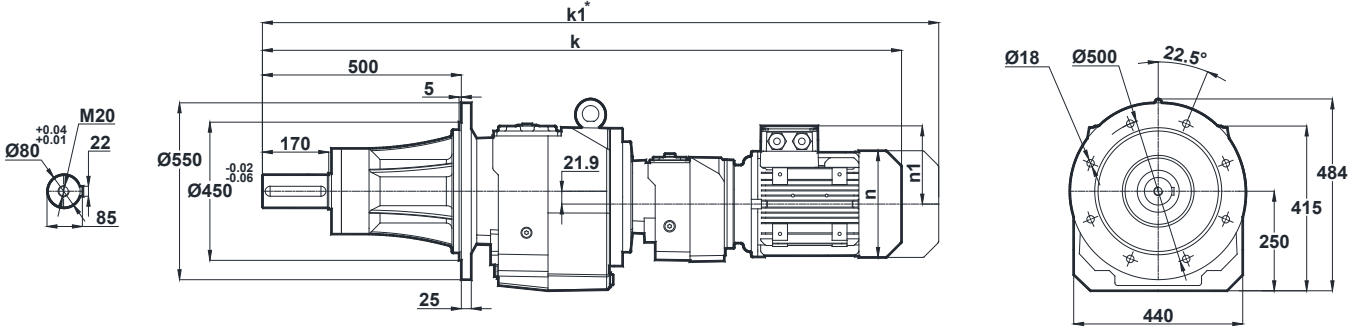


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



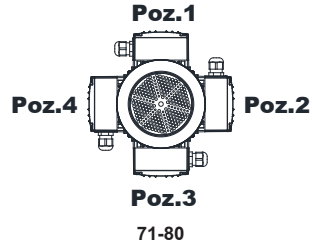
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB675**  
**NRB676**

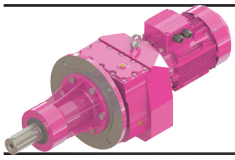


Motor Büyüklüğü / Motor Size / Motorbaugroße		
	71	80
k	1318.5	1352.5
k1	1409.5	1445.5
n	137	155
n1	112	121

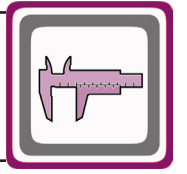
Klemens Kutusu / Terminal Box / Klemmenkasten



\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

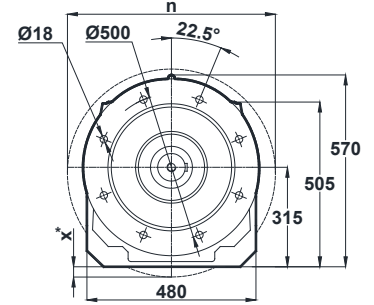
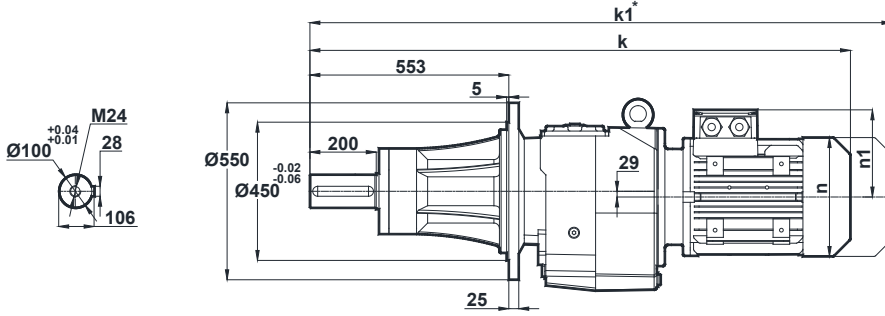


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



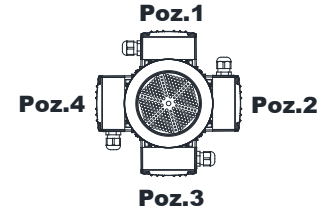
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NRB772 NRB773



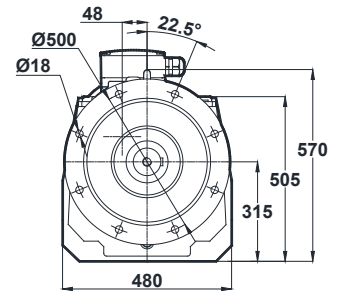
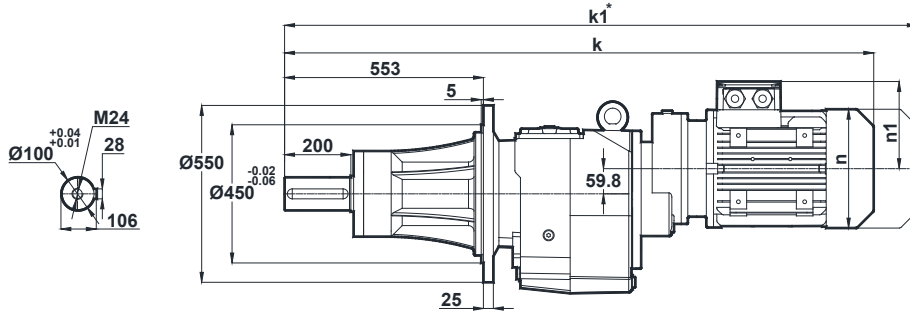
Motor Büyüklüğü / Motor Size / Motorbaugroße										
	132S	132M	160M	160L	180M	180L	200L	225S	225M	250M
k	1383.5	1383.5	1479.5	1479.5	1551.5	1551.5	1597.5	1624.5	1649.5	1741.5
k1	1513.5	1513.5	1627.5	1627.5	1710	1710	1784	1789.5	1814.5	1912
n	257	257	315	315	347	347	390	434	434	480
n1	179	179	219	219	234	234	275	285	285	322
x	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten



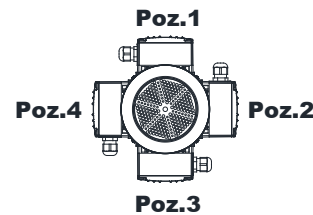
132-160-180-200-225-250

## NRB774



Motor Büyüklüğü / Motor Size / Motorbaugroße				
	80	90S	90L	100L
k	1309.5	1348.5	1348.5	1393.5
k1	1402.5	1452	1452	1502
n	155	176	176	193
n1	121	132	132	147

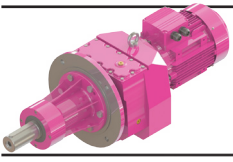
Klemens Kutusu / Terminal Box / Klemmenkasten



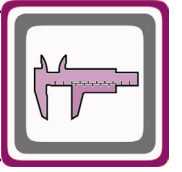
80-90-100

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

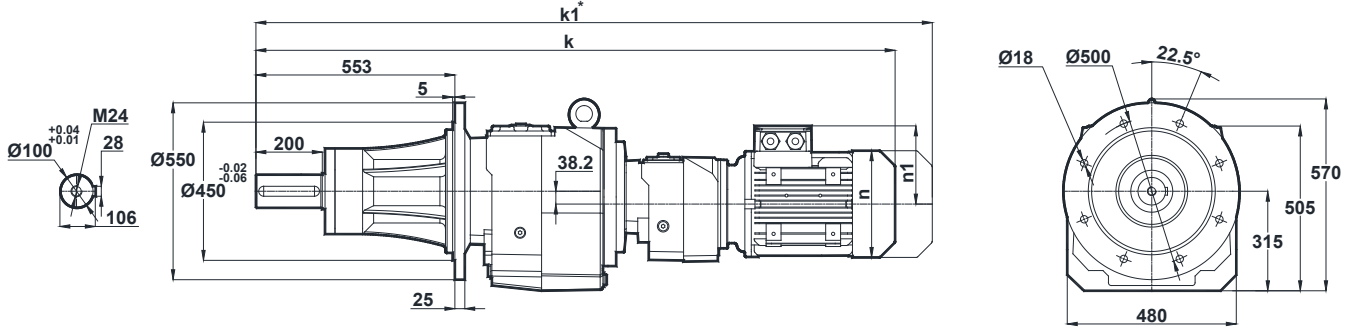


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



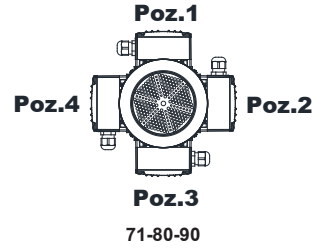
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB775**  
**NRB776**

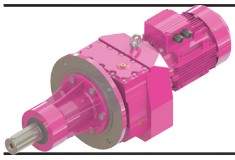


Motor Büyüklüğü / Motor Size / Motorbaugroße				
	71	80	90S	90L
k	1424.5	1458.5	1497.5	1497.5
k1	1515.5	1551.5	1601	1601
n	137	155	176	176
n1	112	121	132	132

Klemens Kutusu / Terminal Box / Klemmenkasten



\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

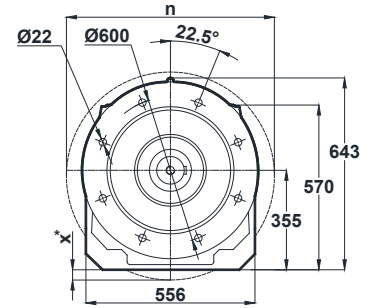
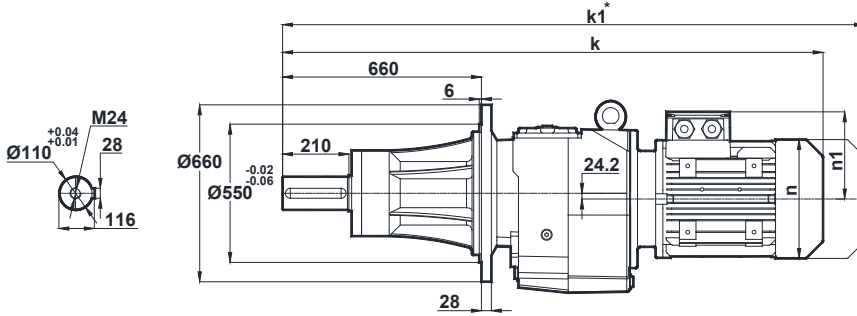


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



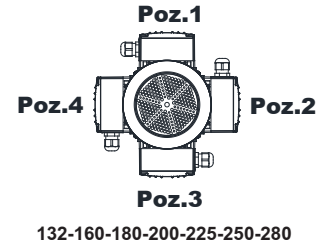
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NRB872 NRB873

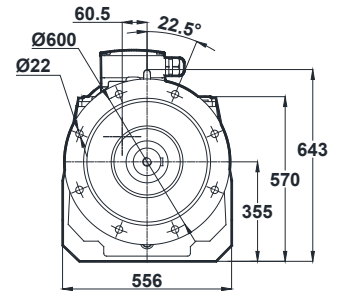
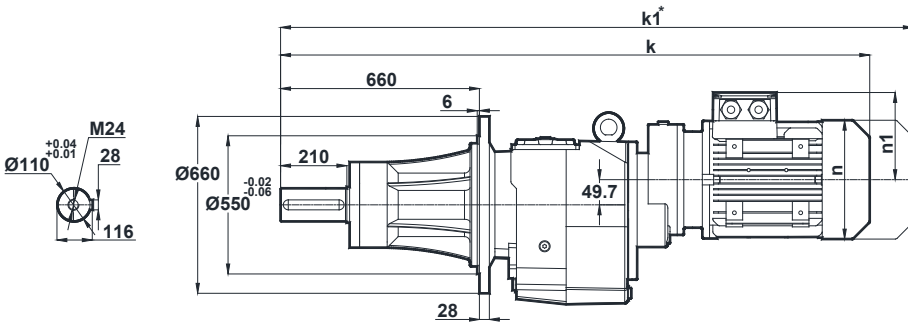


Motor Büyüklüğü / Motor Size / Motorbaugroße											
	132M	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M
k	1559.5	1655.5	1655.5	1727.5	1727.5	1773.5	1803	1828	1918.5	1980.5	1980.5
k1	1689.5	1803.5	1803.5	1886	1886	1960	1968	1993	2089	2153.5	2159.5
n	257	315	315	347	347	390	434	434	480	544	544
n1	179	219	219	234	234	275	285	285	322	350	350
x	-	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten

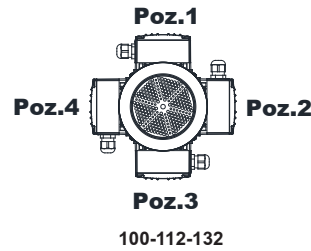


## NRB874



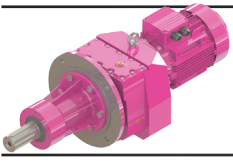
Klemens Kutusu / Terminal Box / Klemmenkasten

Motor Büyüklüğü / Motor Size / Motorbaugroße				
	100L	112M	132S	132M
k	1591	1615	1701.5	1701.5
k1	1699.5	1719.5	1831.5	1831.5
n	193	215	257	257
n1	147	158	179	179

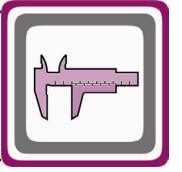


\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

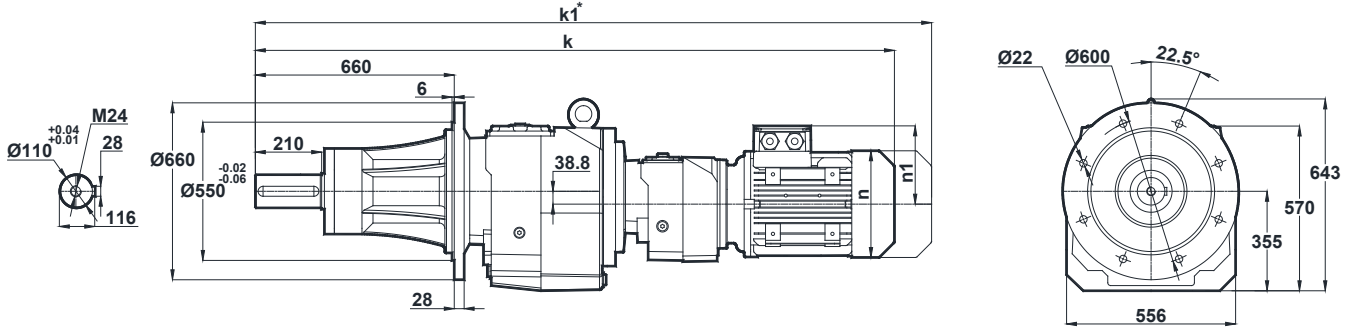


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



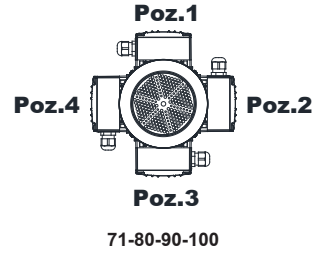
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NRB875 NRB876

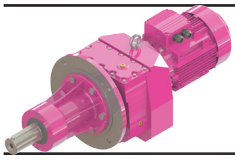


Klemens Kutusu / Terminal Box / Klemmenkasten

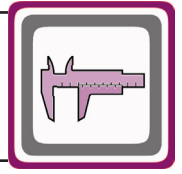
Motor Büyüklüğü / Motor Size / Motorbaugroße	71	80	90S	90L	100L
k	1608.5	1642.5	1681.5	1681.5	1729.5
k1	1699.5	1735.5	1785	1785	1838
n	137	155	176	176	193
n1	112	121	132	132	147



\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

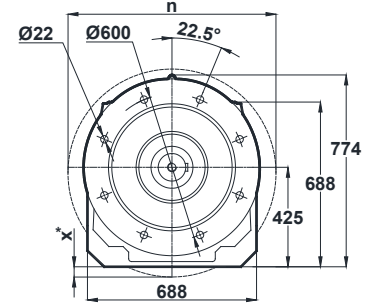
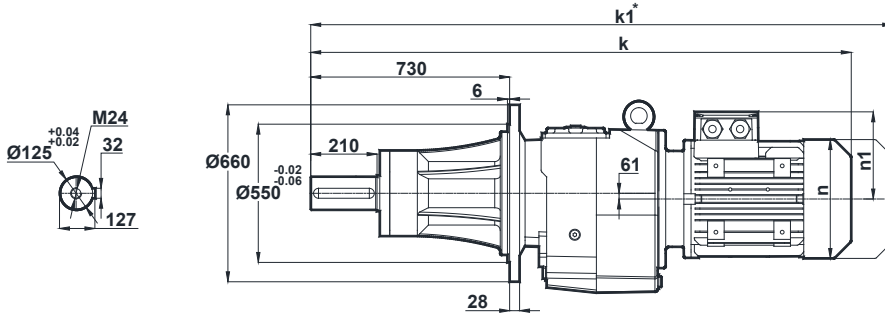


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



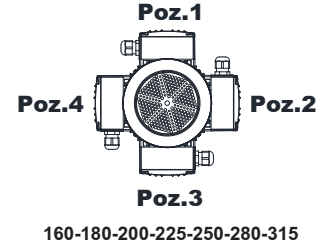
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NRB972 NRB973

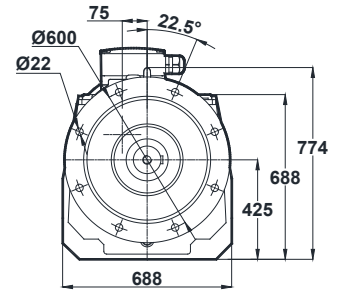
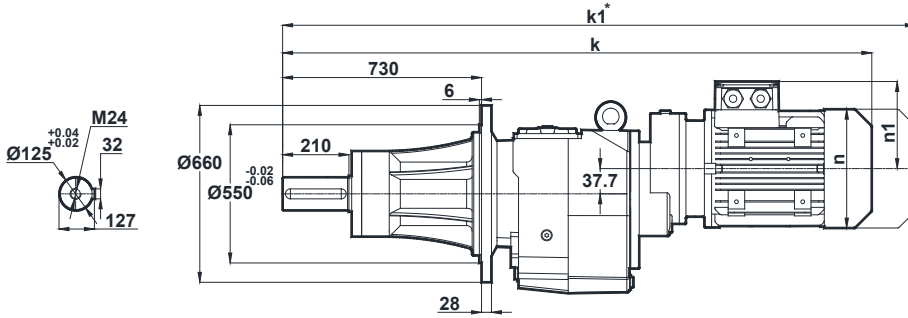


Motor Büyüklüğü / Motor Size / Motorbaugroße												
	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M	315S	315M
k	1791	1791	1863	1863	1909	1922.5	1950.5	2041	2103	2103	2257	2257
k1	1965	1965	2020.5	2020.5	2091.5	2088	2111	2219.5	2283	2289	-	-
n	315	315	347	347	390	434	434	480	544	544	614	614
n1	219	219	234	234	275	285	285	322	350	350	510	510
x	-	-	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten

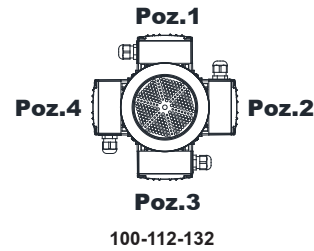


## NRB974



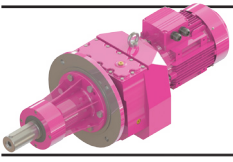
Motor Büyüklüğü / Motor Size / Motorbaugroße				
	100L	112M	132S	132M
k	1760.5	1784.5	1871	1871
k1	1869	1889	2001	2001
n	193	215	257	257
n1	147	158	179	179

Klemens Kutusu / Terminal Box / Klemmenkasten

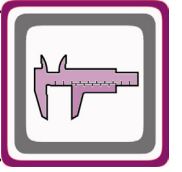


\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

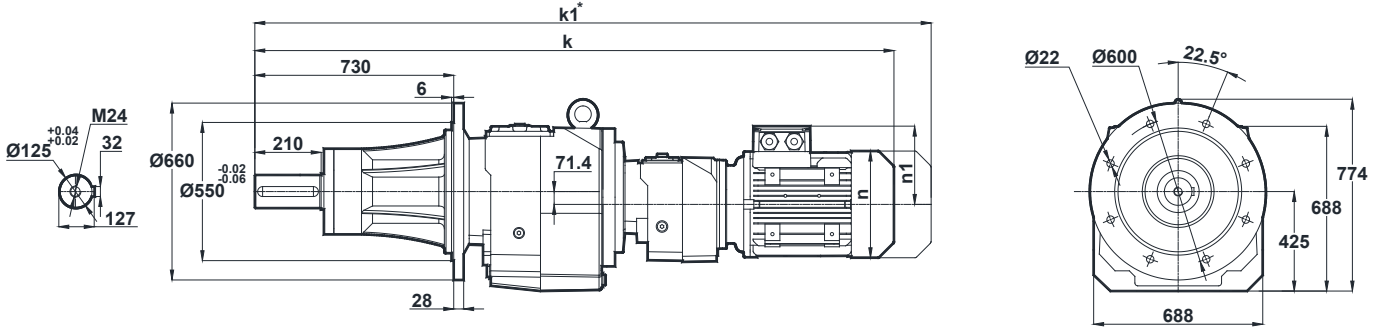


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



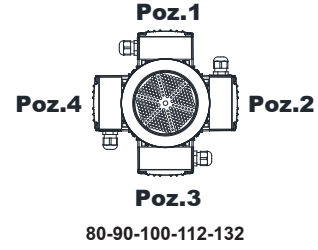
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB975**  
**NRB976**

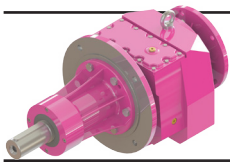


Motor Büyüklüğü / Motor Size / Motorbaugroße						
	80	90S	90L	100L	112M	132S
<b>k</b>	1839	1878	1878	1923	1947	2032
<b>k1</b>	1932	1981.5	1981.5	2031.5	2051.5	2162
<b>n</b>	155	176	176	193	215	257
<b>n1</b>	121	132	132	147	158	179

Klemens Kutusu / Terminal Box / Klemmenkasten



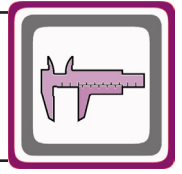
\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.



# Ölçü Sayfaları

## Dimension Pages

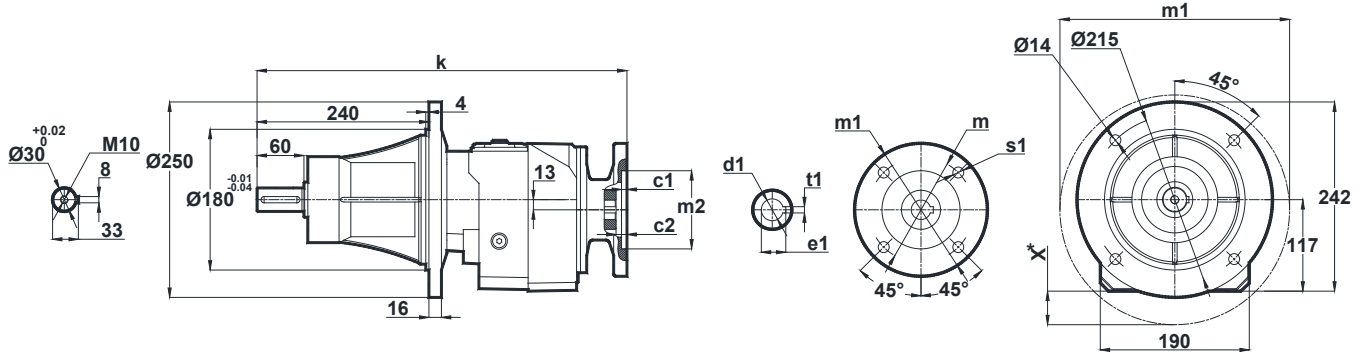
### Abmessungsseiten



-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..

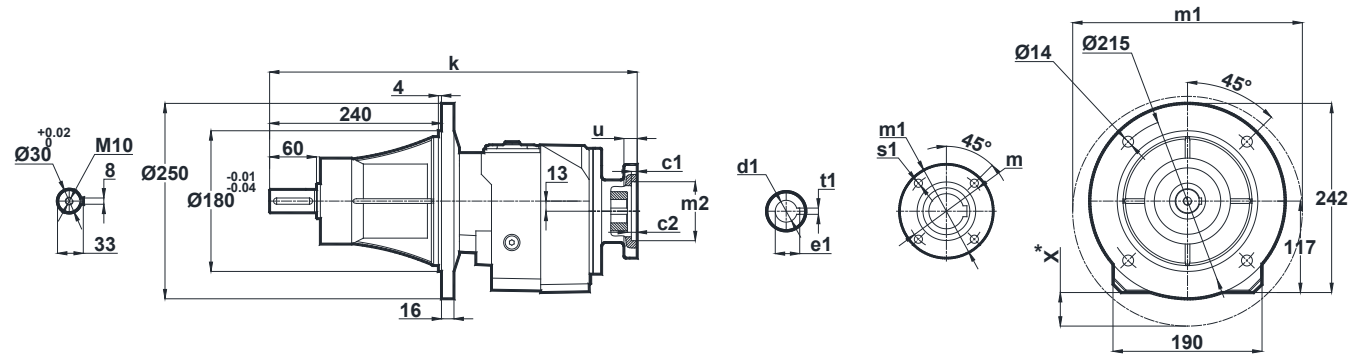
### NNB203-A..



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
63/B5	4	5	9	115	140	95	12	487.5	11	4	12.8	-
71/B5	4	8.5	11	130	160	110	12	458.5	14	5	16.3	-
80/B5	4	5	12	165	200	130	12	487.5	19	6	21.8	-
90/B5	4	5	12	165	200	130	12	487.5	24	8	27.3	-
100/B5	4.5	5.5	15	215	250	180	12	480.5	28	8	31.3	23
112/B5	4.5	5.5	15	215	250	180	12	480.5	28	8	31.3	23

### NNB202-B..

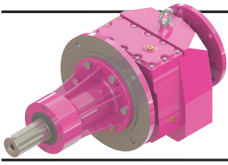
### NNB203-B..



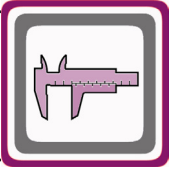
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
71/B14	3	8.5	7	85	105	70	10	458.5	14	5	16.3	-
80/B14	4	5	7	100	120	80	12	487.5	19	6	21.8	-
90/B14	4	5	9	115	140	95	12	487.5	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	12	480.5	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	12	480.5	28	8	31.3	-

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



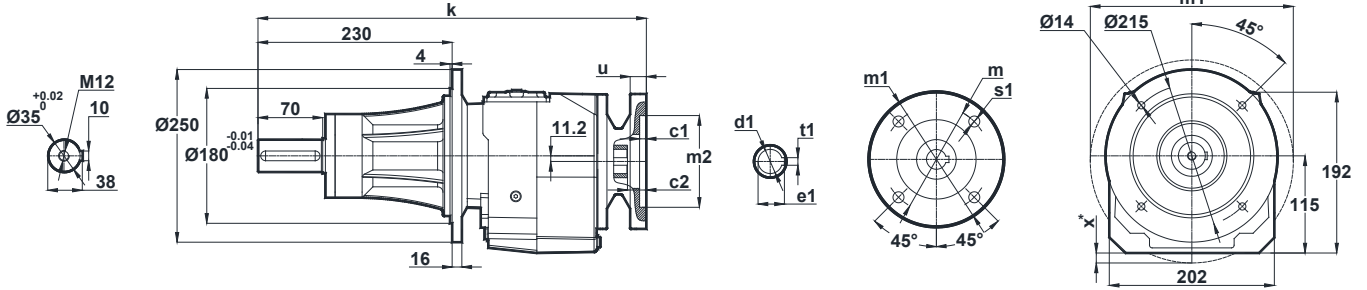


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



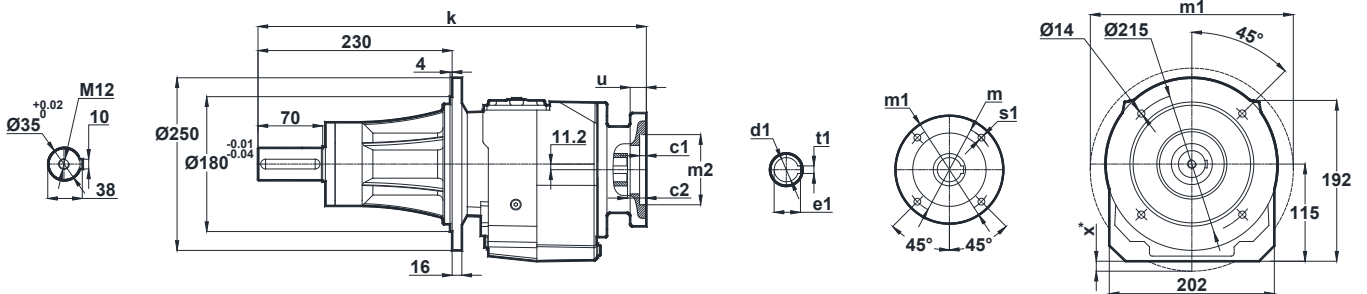
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NNB272-A.. NNB273-A..



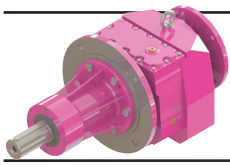
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
63/B5	4	5	9	115	140	95	12	485.5	11	4	12.8	-
71/B5	4	8.5	11	130	160	110	12	456.5	14	5	16.3	-
80/B5	4	5	12	165	200	130	12	488.5	19	6	21.8	-
90/B5	4	5	12	165	200	130	12	485.5	24	8	27.3	-
100/B5	4.5	5.5	15	215	250	180	12	478.5	28	8	31.3	22
112/B5	4.5	5.5	15	215	250	180	12	478.5	28	8	31.3	22
132/B5	4.5	7	15	265	300	230	15	515.5	38	10	41.3	47

## 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	456.5	14	5	16.3	-
80/B14	4	5	7	100	120	80	12	488.5	19	6	21.8	-
90/B14	4	5	9	115	140	95	12	485.5	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	12	478.5	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	12	478.5	28	8	31.3	-
132/B14	4.5	6	11	165	200	130	15	515.5	38	10	41.3	47

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

## Dimension Pages

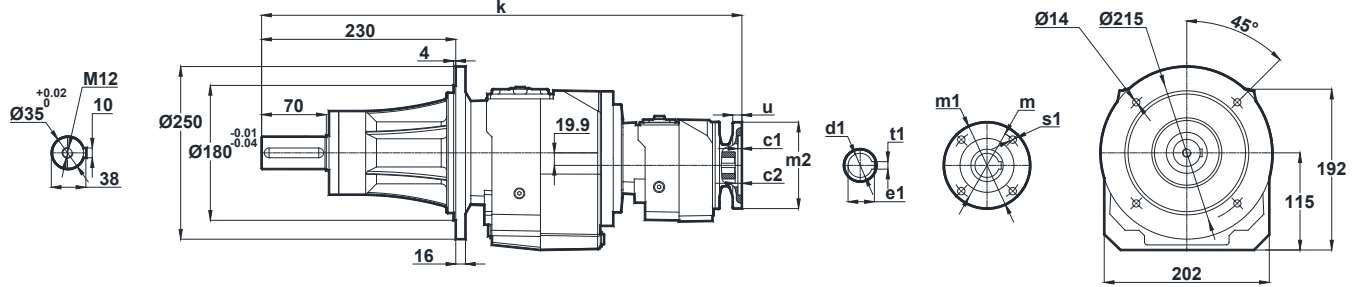
### Abmessungsseiten



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

### NNB275-A..

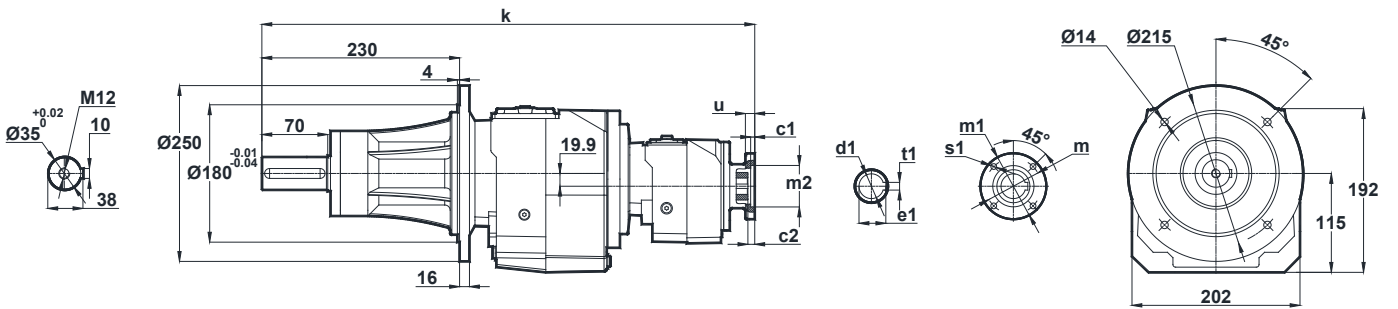
### NNB276-A..



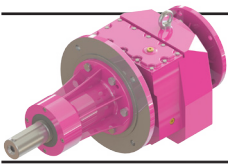
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	10	601	11	4	12.8
71/B5	4	4.5	11	130	160	110	12	602.5	14	5	16.3

### NNB275-B..

### NNB276-B..



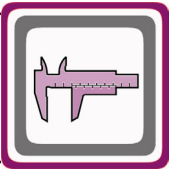
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B14	2.5	5	5.5	75	90	60	10	601	11	4	12.8
71/B14	3	4.5	7	85	105	70	10	602.5	14	5	16.3



# Ölçü Sayfaları

## Dimension Pages

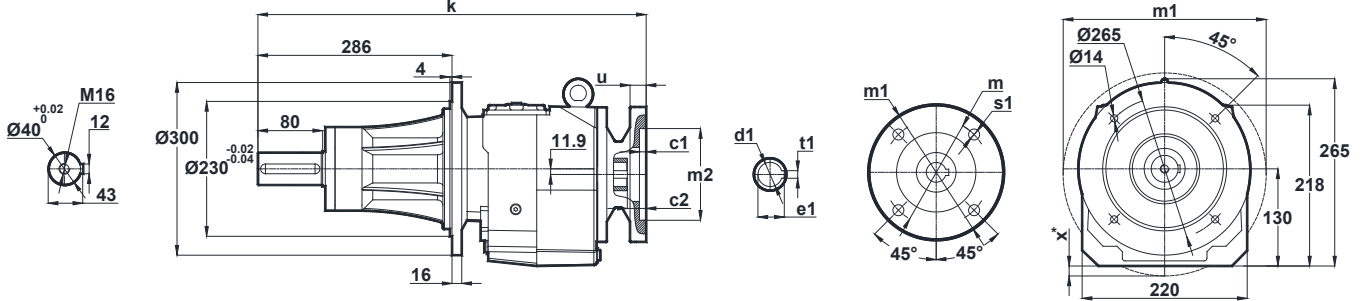
### Abmessungsseiten



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

## NNB282-A..

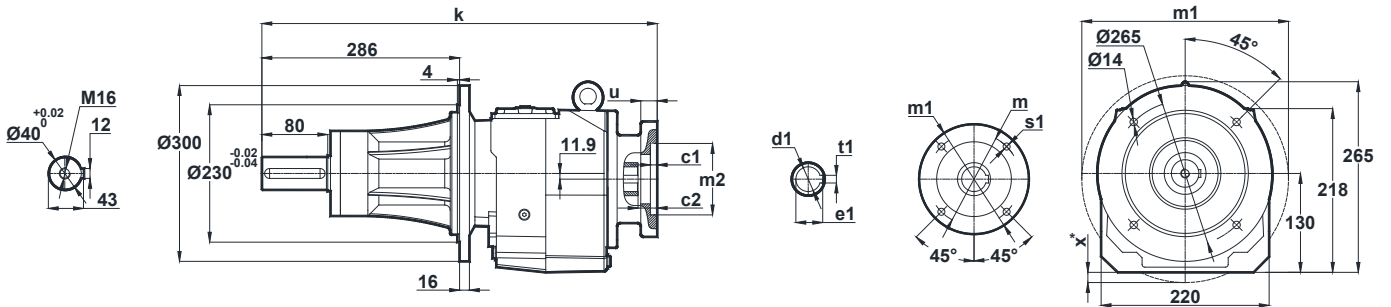
## NNB283-A..



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
71/B5	4	9	11	130	160	110	12	561.5	14	5	16.3	-
80/B5	4	9	12	165	200	130	12	561.5	19	6	21.8	-
90/B5	4	9	12	165	200	130	12	561.5	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	15	578.5	28	8	31.3	7
112/B5	4.5	9	15	215	250	180	15	578.5	28	8	31.3	7
132/B5	4.5	7	15	265	300	230	15	598.5	38	10	41.3	32

## NNB282-B..

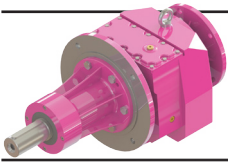
## NNB283-B..



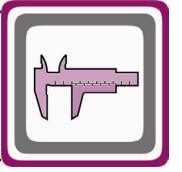
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
80/B14	4	9	7	100	120	80	12	561.5	19	6	21.8	-
90/B14	4	9	9	115	140	95	12	561.5	24	8	26.3	-
100/B14	4	9	9	130	160	110	15	578.5	28	8	31.3	-
112/B14	4	9	9	130	160	110	15	578.5	28	8	31.3	-
132/B14	4.5	7	11	165	200	130	15	598.5	38	10	41.3	-

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



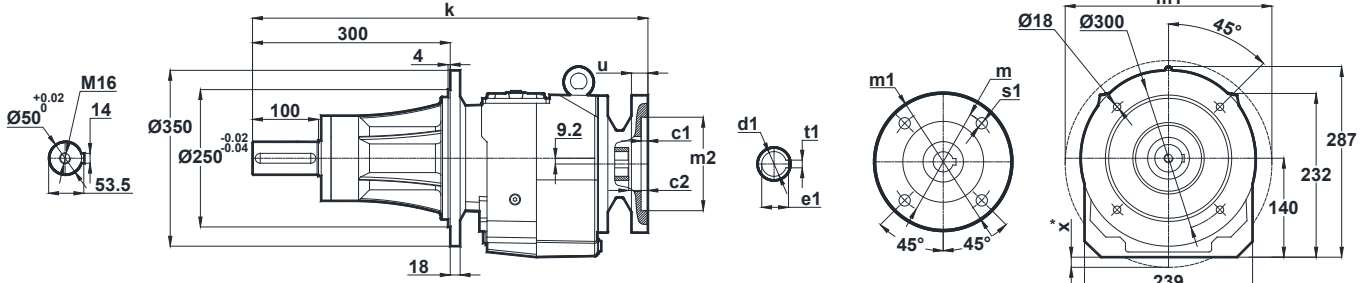


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



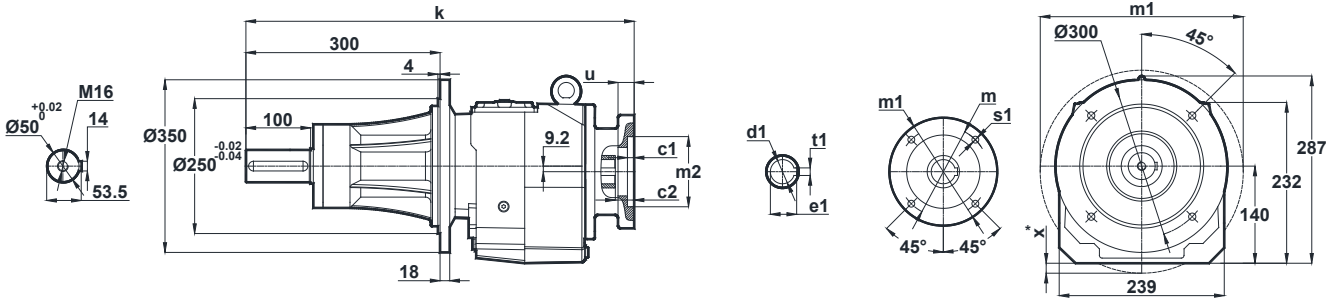
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## 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	12	165	200	130	12	584	19	6	21.8	-
90/B5	4	9	12	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

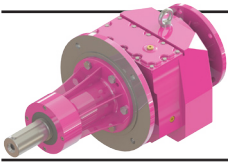
## NNB372-B.. NNB373-B..



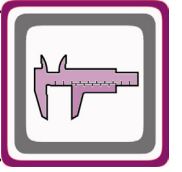
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
80/B14	4	9	7	100	120	80	12	584	19	6	21.8	-
90/B14	4	9	9	115	140	95	12	584	24	8	26.3	-
100/B14	4	9	9	130	160	110	15	601	28	8	31.3	-
112/B14	4	9	9	130	160	110	15	601	28	8	31.3	-
132/B14	4.5	9	11	165	200	130	15	621	38	10	41.3	-

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



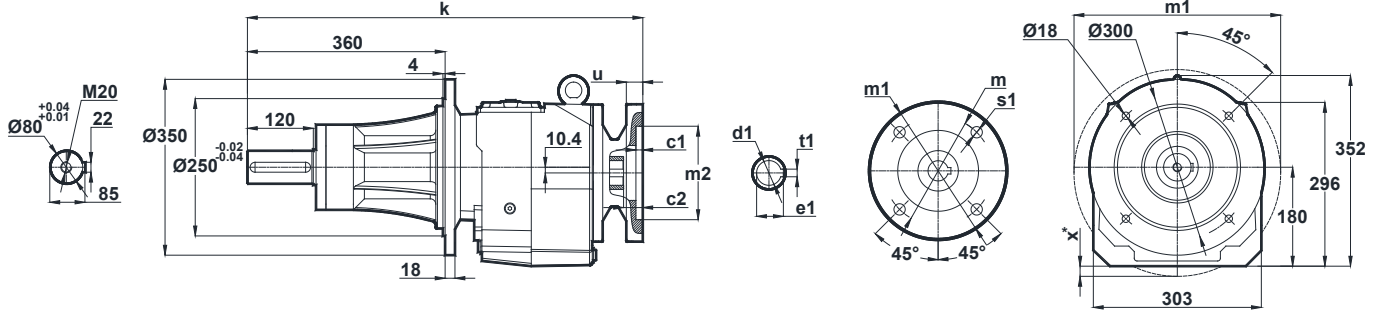


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



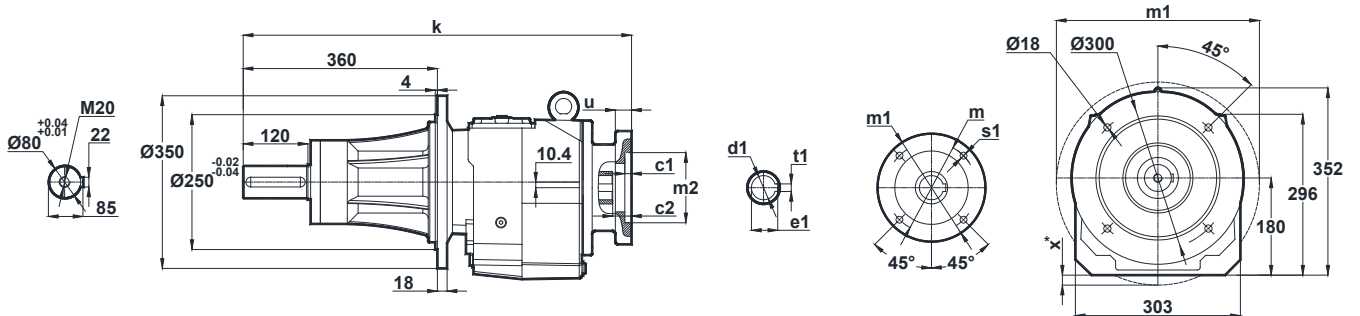
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NNB472-A.. NNB473-A..



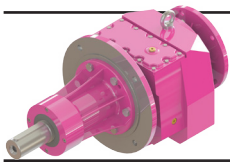
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
80/B5	4	5	12	165	200	130	12	686.5	19	6	21.8	-
90/B5	4	5	12	165	200	130	12	686.5	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	15	705	28	8	31.3	-
112/B5	4.5	9	15	215	250	180	15	705	28	8	31.3	-
132/B5	4.5	6	15	265	300	230	15	723.5	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	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	686.5	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	4.5	6	11	165	200	130	15	723.5	38	10	41.3	-

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

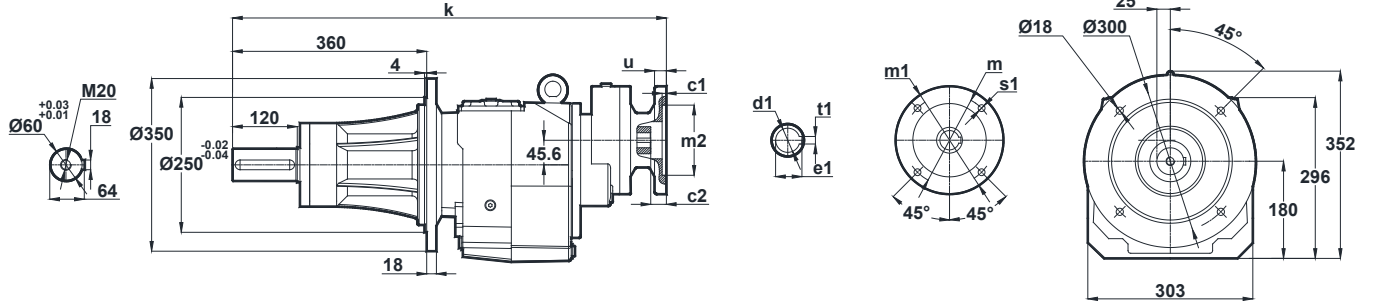
## Dimension Pages

### Abmessungsseiten



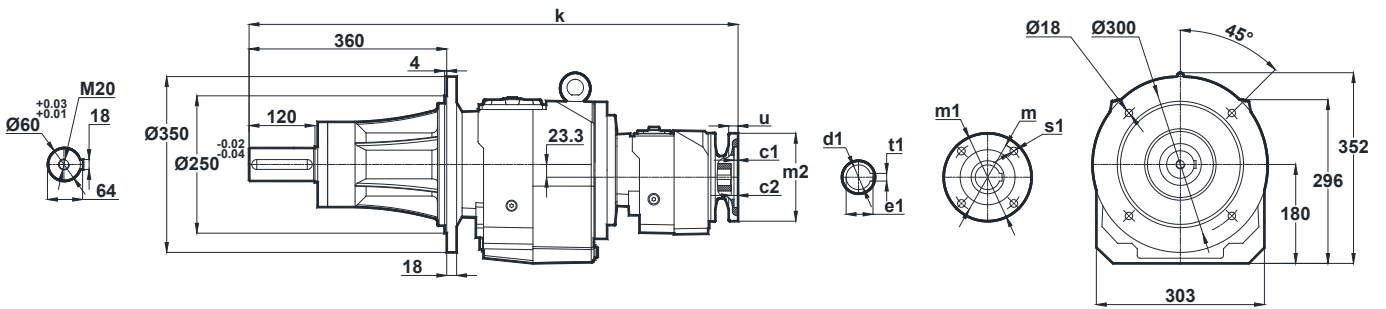
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NNB474-A..**  
**NNB474-B..**



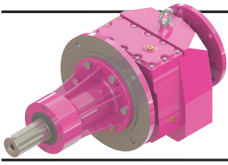
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	12	784.5	14	5	16.3
80/B5	4	9	12	165	200	130	12	784.5	19	6	21.8
80/B14	4	9	7	100	120	80	12	784.5	19	6	21.8

**NNB475-A.. / B..**  
**NNB476-A.. / B..**



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	12	912.5	11	4	12.8
71/B5	4	8.5	11	130	160	110	12	883.5	14	5	16.3
71/B14	3	8.5	7	85	105	70	10	883.5	14	5	16.3

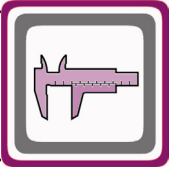




# Ölçü Sayfaları

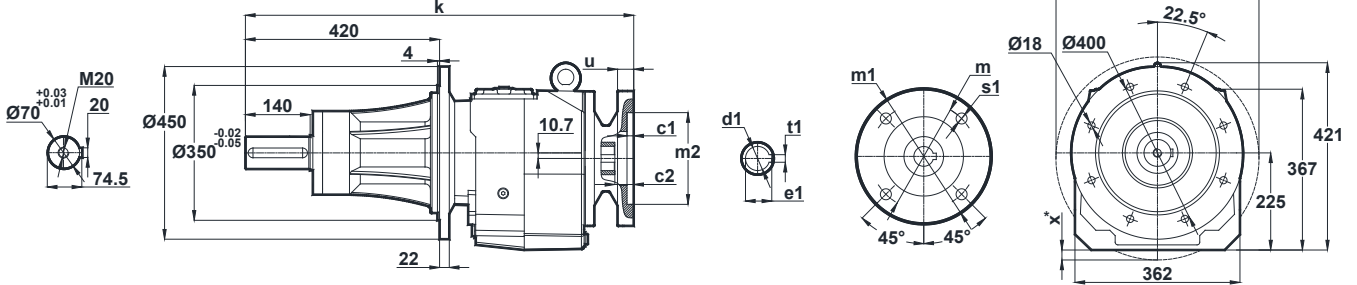
## Dimension Pages

### Abmessungsseiten



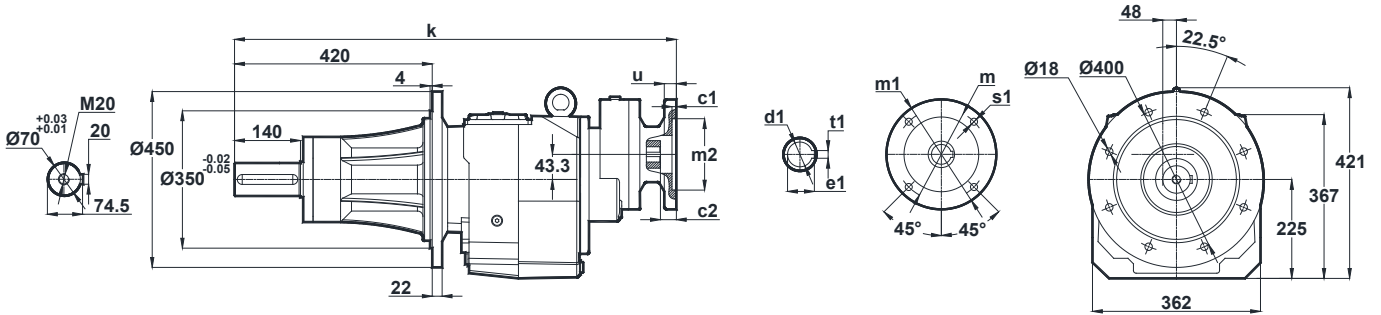
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NNB572-A.. / B.. NNB573-A.. / B..



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
100/B5	4.5	9	15	215	250	180	15	811.5	28	8	31.3	-
112/B5	4.5	9	15	215	250	180	15	811.5	28	8	31.3	-
132/B5	4.5	9	15	265	300	230	15	832.5	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	18	908	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	18	908	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	22	928	55	16	59.3	-
132/B14	4.5	9	11	165	200	130	15	832.5	38	10	41.3	-

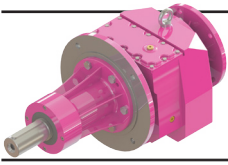
## NNB574-A.. NNB574-B..



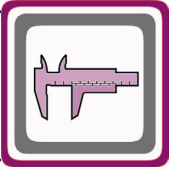
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	12	891.5	14	5	16.3
80/B5	4	9	12	165	200	130	12	891.5	14	6	21.8
90/B5	4	9	12	165	200	130	12	891.5	19	8	27.3
80/B14	4	9	7	100	120	80	12	891.5	19	6	21.8
90/B14	4	9	9	115	140	95	12	891.5	24	8	26.3

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



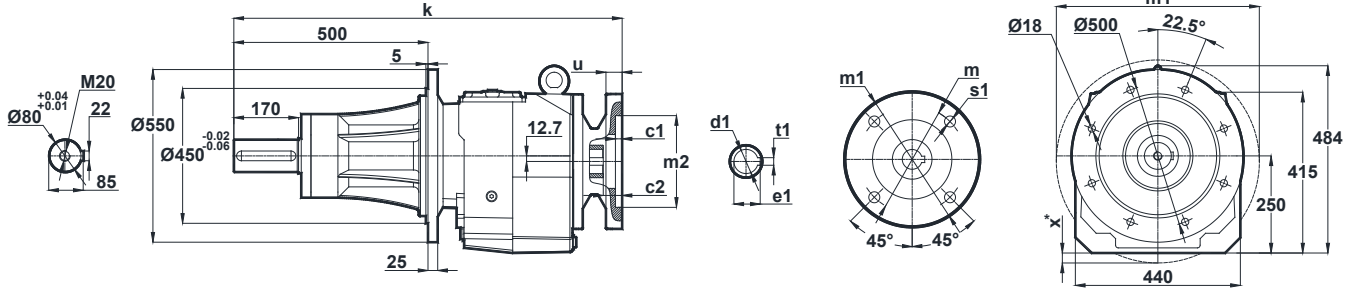


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



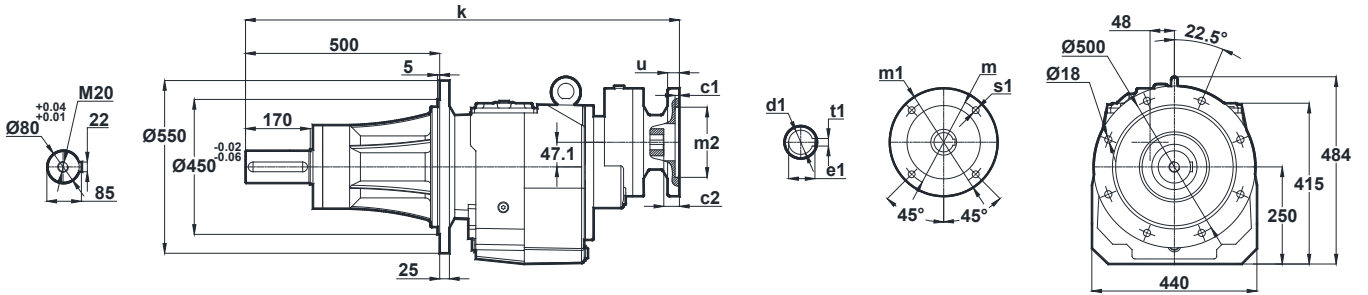
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NNB672-A.. / B.. NNB673-A.. / B..



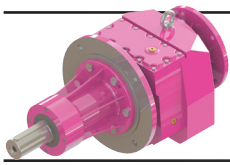
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
112/B5	4.5	14.5	15	215	250	180	15	932.5	28	8	31.3	-
132/B5	4.5	9	15	265	300	230	15	947.5	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	20	1022.5	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	20	1022.5	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	22	1043	55	16	59.3	-
225/B5	5.5	10	19	400	450	350	24	1096	60	18	64.4	-
132/B14	4.5	9	15	165	200	130	15	947.5	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	1022.5	19	6	21.8
90/B5	4	5	12	165	200	130	12	1022.5	24	8	27.3
90/B14	4	5	9	115	140	95	12	1022.5	24	8	27.3

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

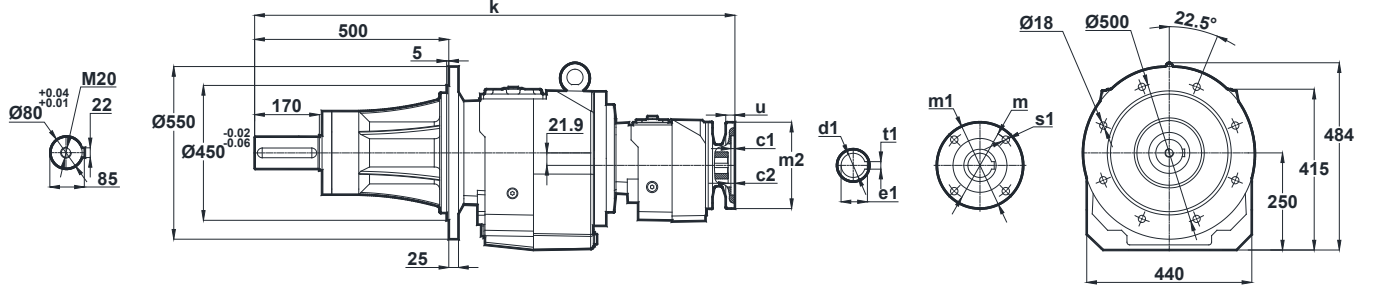


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

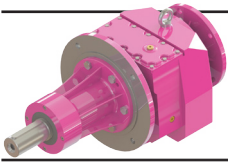


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

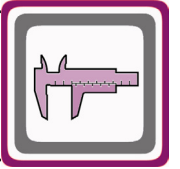
**NNB675-A.. / B..**  
**NNB676-B.. / B..**



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	12	1173	14	5	16.3
80/B5	4	9	12	165	200	130	12	1173	19	6	21.8
80/B14	4	9	7	100	120	80	12	1173	19	6	21.8

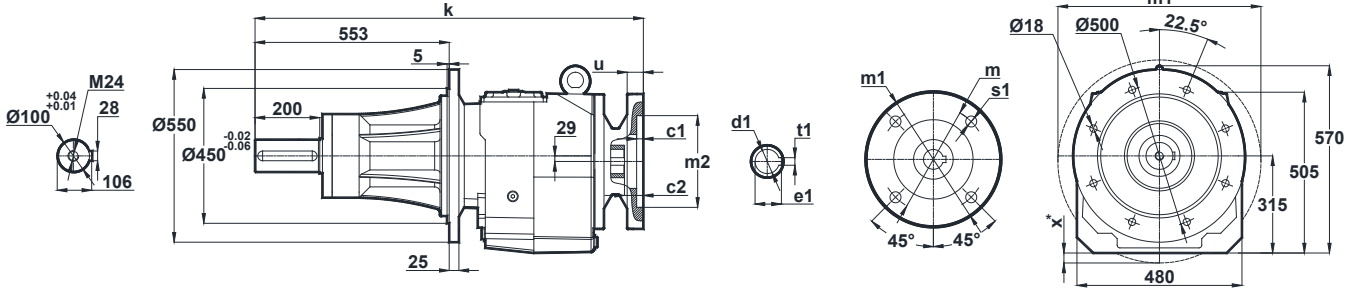


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



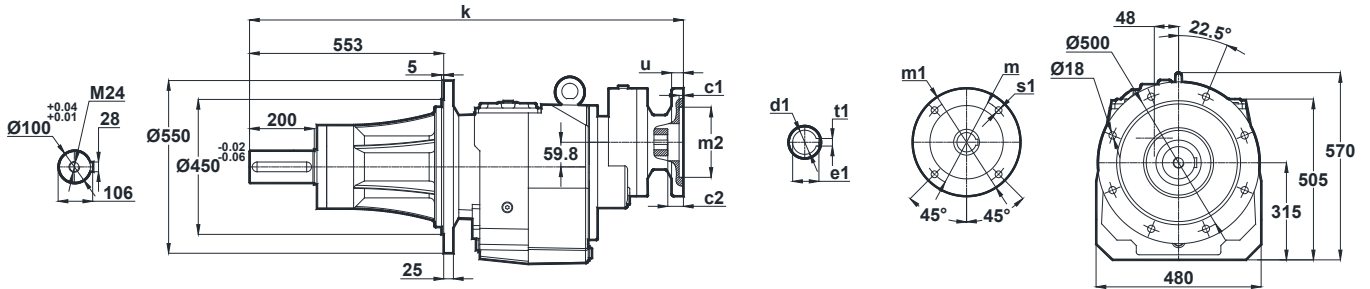
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NNB772-A.. NNB773-A..



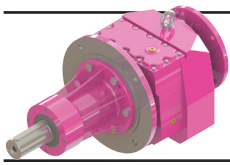
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
132/B5	4.5	15	15	265	300	230	15	1050.5	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	20	1120	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	20	1120	43	14	51.8	-
200/B5	5.5	10	19	350	400	300	20	1142	55	16	59.3	-
225/B5	5.5	10	19	400	450	350	24	1195	60	18	64.4	-
250/B5	5.5	10	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	1125.5	19	6	21.8
90/B5	4	5	12	165	200	130	12	1125.5	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	1125.5	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 der Motor unter der Fußmontageebene ist

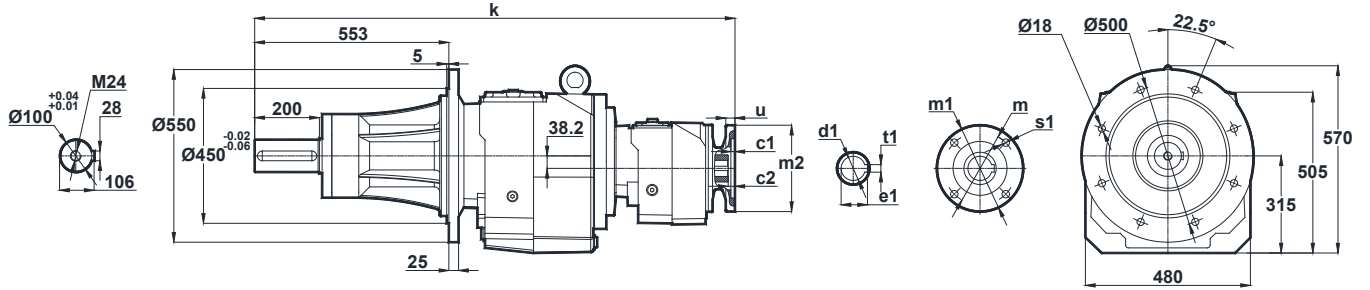


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

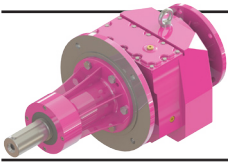


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

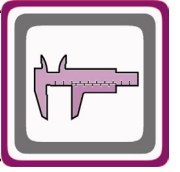
**NNB775-A.. / B..**  
**NNB776-B.. / B..**



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	12	1279	14	5	16.3
80/B5	4	9	12	165	200	130	12	1279	19	6	21.8
90/B5	4	9	12	165	200	130	12	1279	24	8	27.3
80/B14	4	9	7	100	120	80	12	1279	19	6	21.8
90/B14	4	9	9	115	140	95	12	1279	24	8	26.3

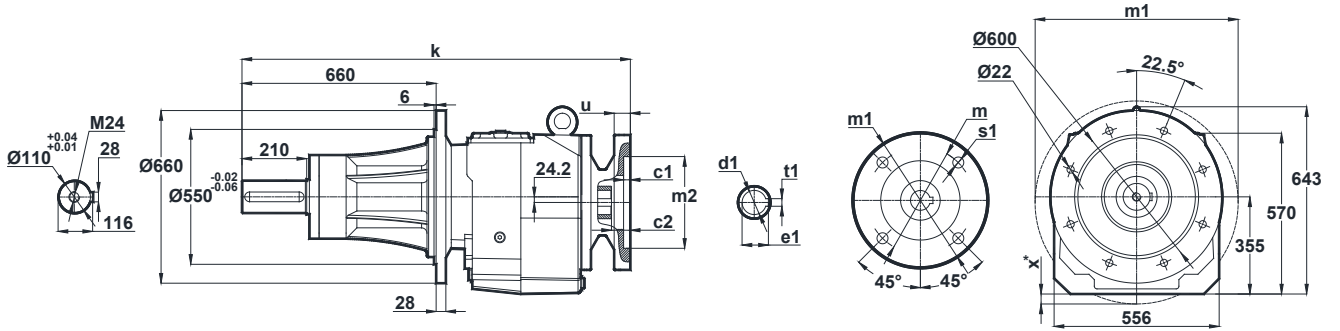


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



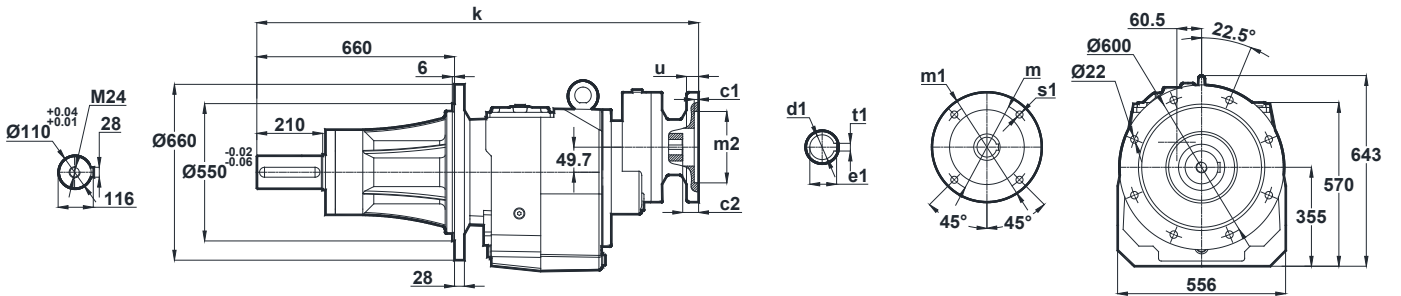
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NNB872-A.. NNB873-A..



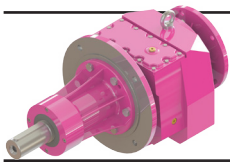
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
160/B5	5.5	10	19	300	350	250	20	1373	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	20	1373	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	22	1373	55	16	59.3	-
225/B5	5.5	10	19	400	450	350	24	1373	60	18	64.4	-
250/B5	5.5	10	19	500	550	450	24	1373	65	18	69.4	-
280/B5	5.5	10	19	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	9	15	215	250	180	15	1345.5	28	8	31.3
112/B5	4.5	9	15	215	250	180	15	1345.5	28	8	31.3
132/B5	4.5	9	15	265	300	230	15	1366.5	38	10	41.3
132/B14	4.5	9	11	165	200	130	15	1366.5	38	10	41.3

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

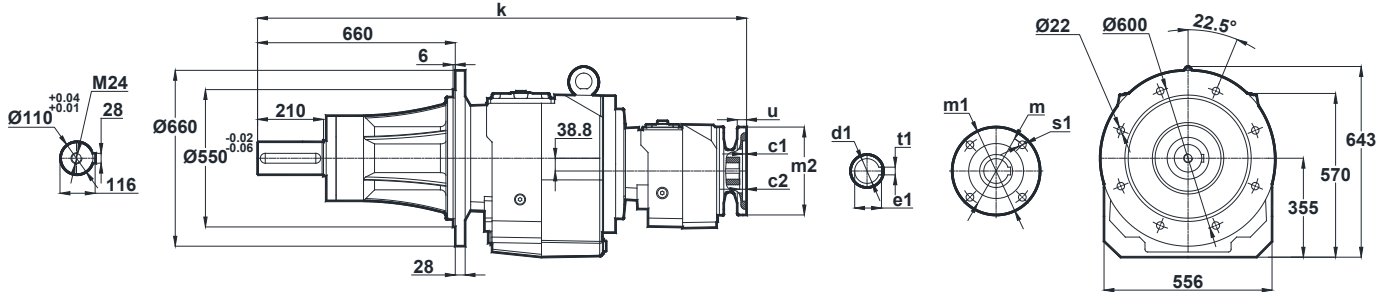


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



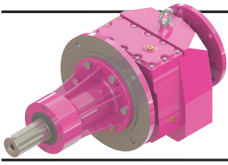
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NNB875-A.. / B..**  
**NNB876-B.. / B..**

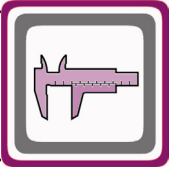


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	12	1463	14	5	16.3
80/B5	4	9	12	165	200	130	12	1463	19	6	21.8
90/B5	4	9	12	165	200	130	12	1463	24	8	27.3
100/B5	4.5	9	15	215	250	180	15	1480	28	8	31.3
80/B14	4	9	7	100	120	80	12	1463	19	8	21.8
90/B14	4	9	9	115	140	95	12	1463	24	8	26.3
100/B14	4	9	9	130	160	110	15	1480	28	8	31.3



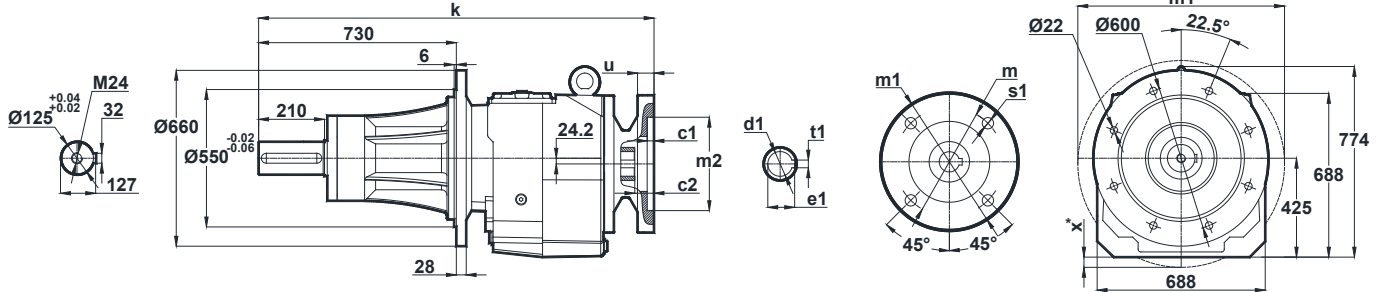


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



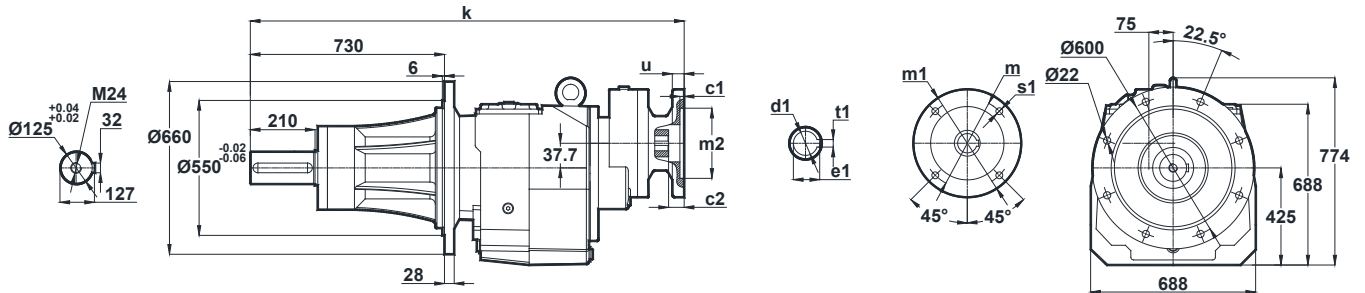
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## 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	1430.5	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	20	1430.5	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	22	1454.5	55	16	59.3	-
225/B5	5.5	10	19	400	450	350	24	1496.5	60	18	64.4	-
250/B5	5.5	10	19	500	550	450	24	1518.5	65	18	69.4	-
280/B5	5.5	10	19	500	550	450	24	1518.5	75	20	79.9	-
315/B5	6.5	15	24	660	600	550	24	1598.5	85	22	90.4	-

## NNB974-A.. NNB974-B..

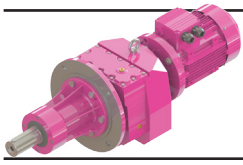


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
100/B5	4.5	14.5	15	215	250	180	15	1519	28	8	31.3
112/B5	4.5	14.5	15	215	250	180	15	1519	28	8	31.3
132/B5	4.5	9	15	265	300	230	15	1534	38	10	41.3
132/B14	4.5	9	15	165	200	130	15	1534	38	10	41.3

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist





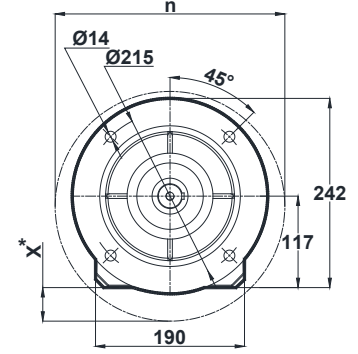
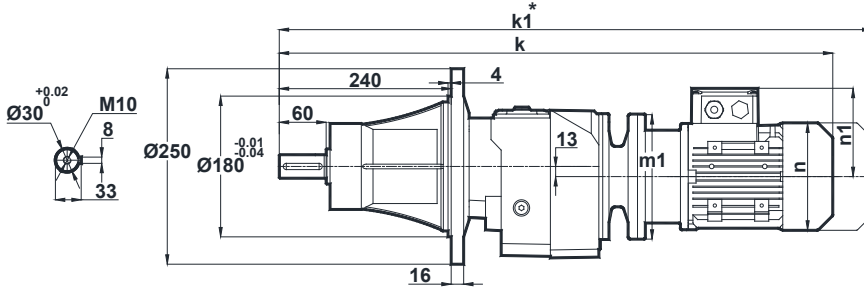


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



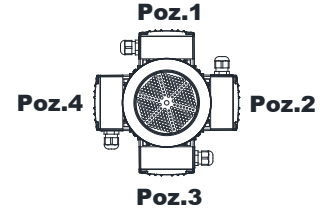
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NVB202**  
**NVB203**



Motor Büyüklüğü / Motor Size / Motorbaugroße							
IEC	63/B5	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14
k	680.5	669.5	721.5	762.5	762.5	791	811.5
k1	741.5	760.5	814.5	866	866	899.5	916
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158
m1 (B5)	140	160	200	200	200	250	250
m1 (B14)	-	105	120	140	140	160	160
x (B5)	-	-	-	-	-	23	23

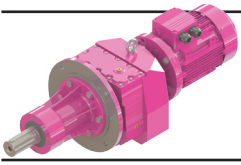
Klemens Kutusu / Terminal Box / Klemmenkasten



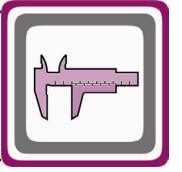
63-71-80-90-100-112

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

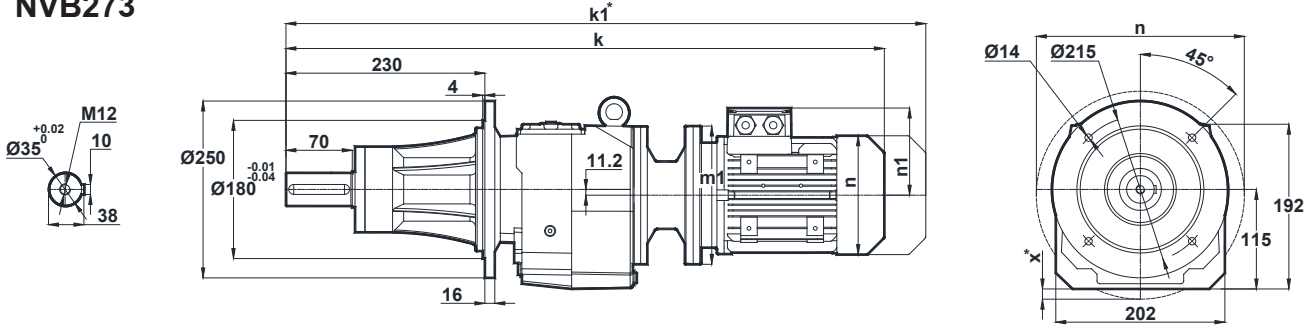


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



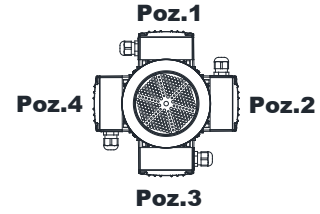
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NVB272 NVB273



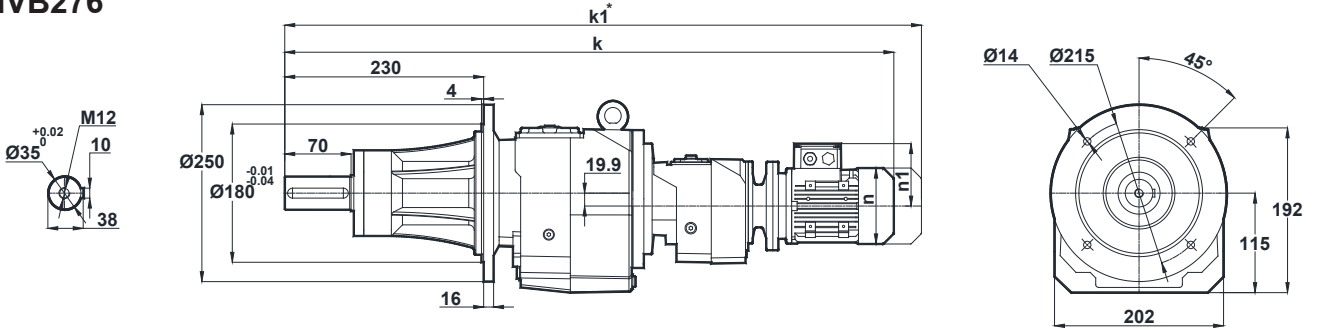
Motor Büyüklüğü / Motor Size / Motorbaugroße					
IEC	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	678.5	667.5	719.5	760.5	760.5
k1	739.5	758.5	812.5	864	864
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	140	160	200	200	200
m1 (B14)	90	105	120	140	140
x (B5)	-	1	21	21	21

Klemens Kutusu / Terminal Box / Klemmenkasten



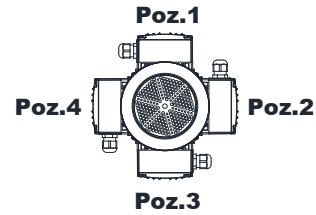
63-71-80-90

## NVB275 NVB276



Motor Büyüklüğü / Motor Size / Motorbaugroße		
IEC	63/B5 63/B14	71/B5 71/B14
k	794	813.5
k1	855	904.5
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	90	105

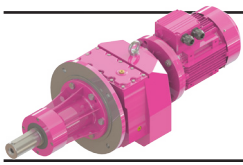
Klemens Kutusu / Terminal Box / Klemmenkasten



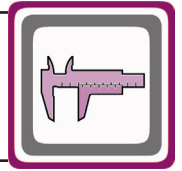
63-71

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

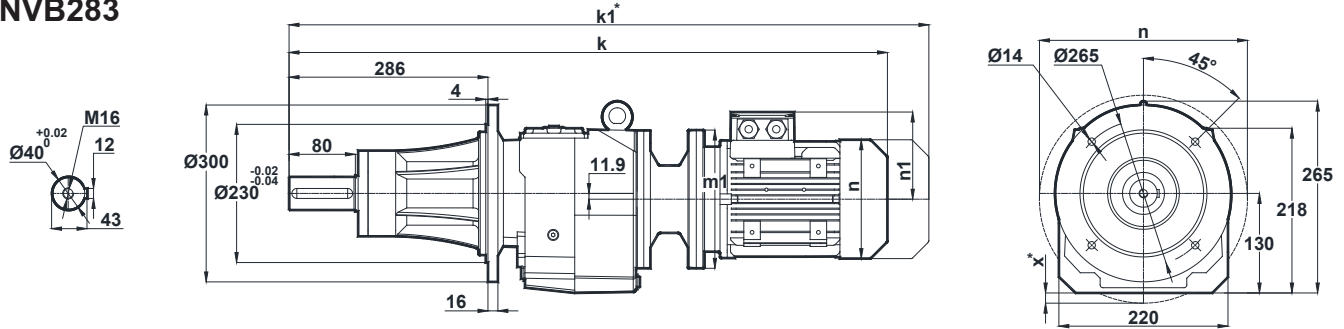


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



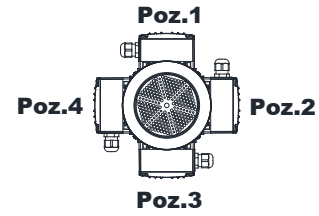
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NVB282 NVB283



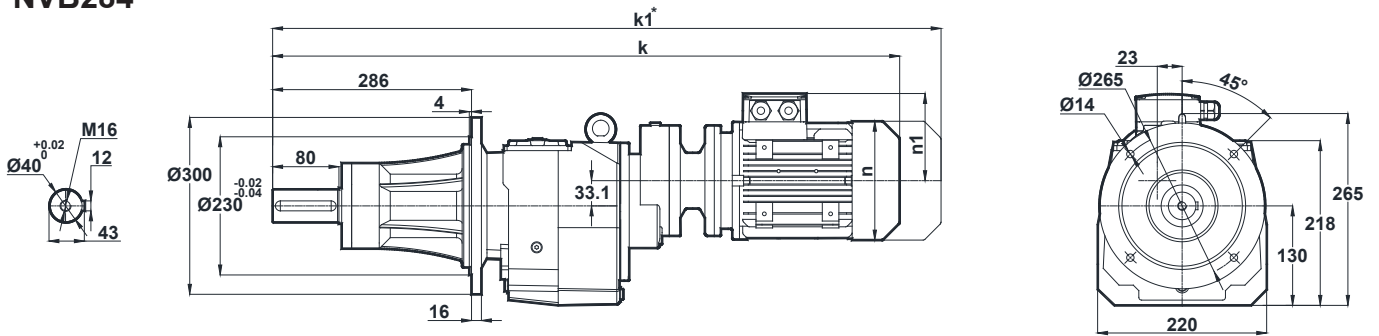
Motor Büyüklüğü / Motor Size / Motorbaugroße								
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	772.5	795.5	836.5	836.5	889	909.5	1013.5	1013.5
k1	863.5	888.5	940	940	997.5	1014	1143.5	1143.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179
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



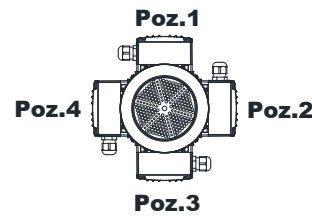
71-80-90-100-112-132

## NVB284



Motor Büyüklüğü / Motor Size / Motorbaugroße		
IEC	63/B5	71/B5 71/B14
k	831.5	820.5
k1	892.5	911.5
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	-	105

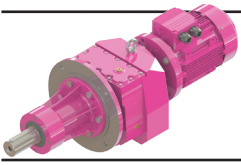
Klemens Kutusu / Terminal Box / Klemmenkasten



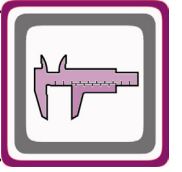
63-71

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

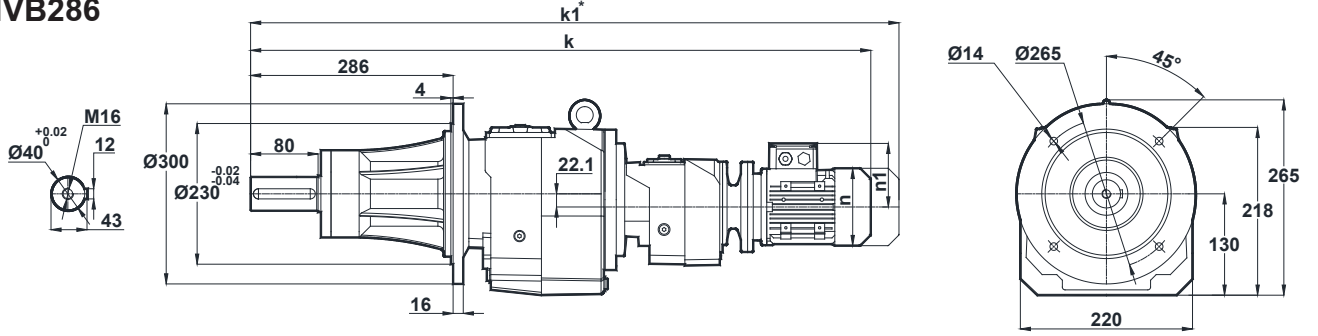


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



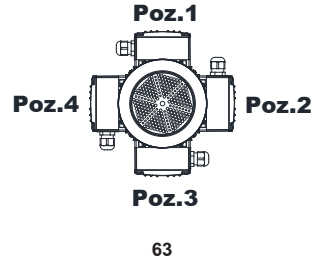
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NVB285 NVB286

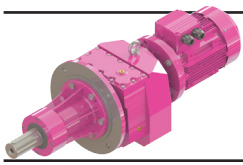


Motor Büyüklüğü / Motor Size / Motorbaugroße	
IEC	63/B5 63/B14
k	899.5
k1	960.5
n / n1	121 / 97
m1 (B5)	140
m1 (B14)	90

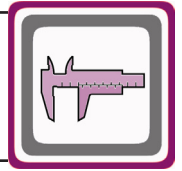
Klemens Kutusu / Terminal Box / Klemmenkasten



\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

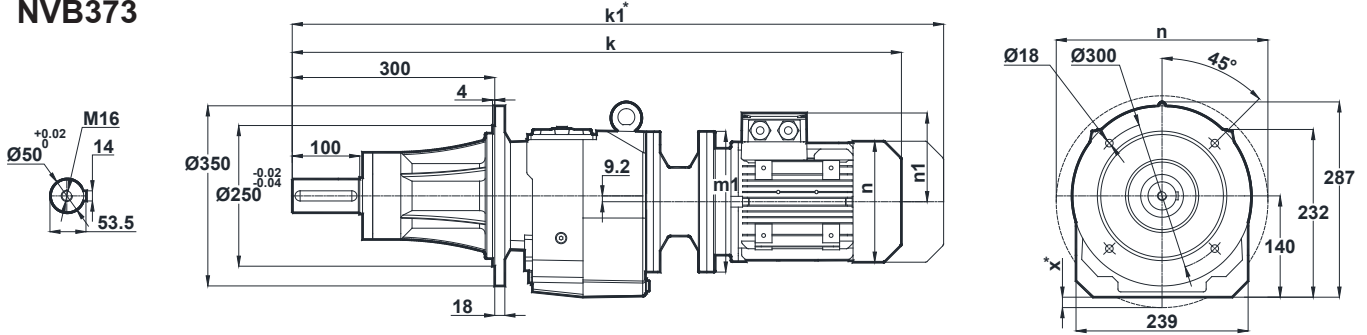


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



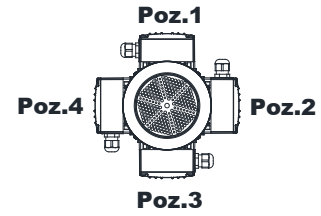
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NVB372 NVB373



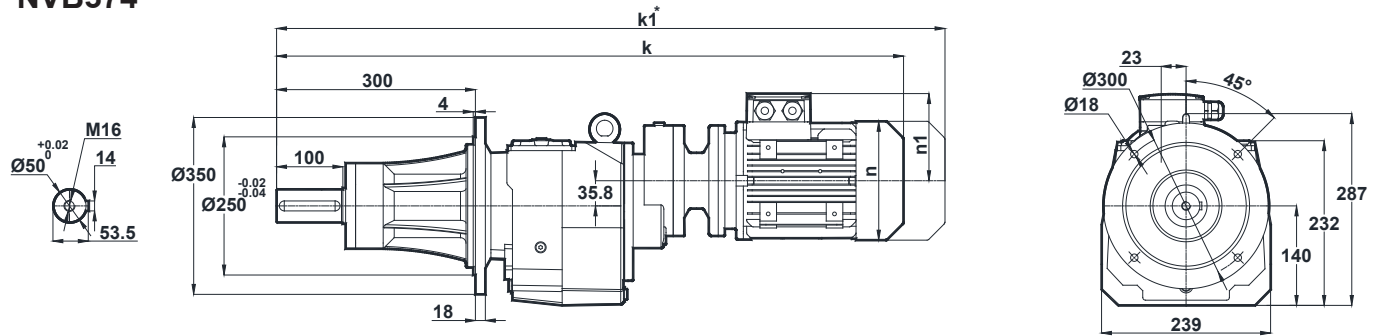
Motor Büyüklüğü / Motor Size / Motorbaugroße								
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	795	818	859	859	911.5	932	1036	1036
k1	886	911	962.5	962.5	1020	1036.5	1166	1166
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179
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



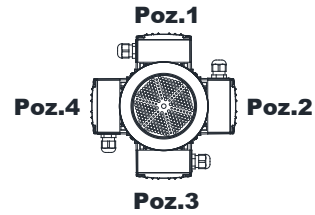
71-80-90-100-112-132

## NVB374



Motor Büyüklüğü / Motor Size / Motorbaugroße			
IEC	63/B5	71/B5 71/B14	80/B5 80/B14
k	854	843	895
k1	915	934	988
n / n1	121 / 97	137 / 112	155 / 121
m1 (B5)	140	160	200
m1 (B14)	-	105	120

Klemens Kutusu / Terminal Box / Klemmenkasten

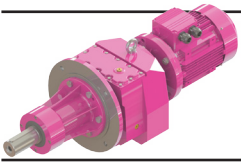


63-71-80

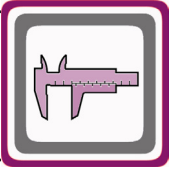
\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



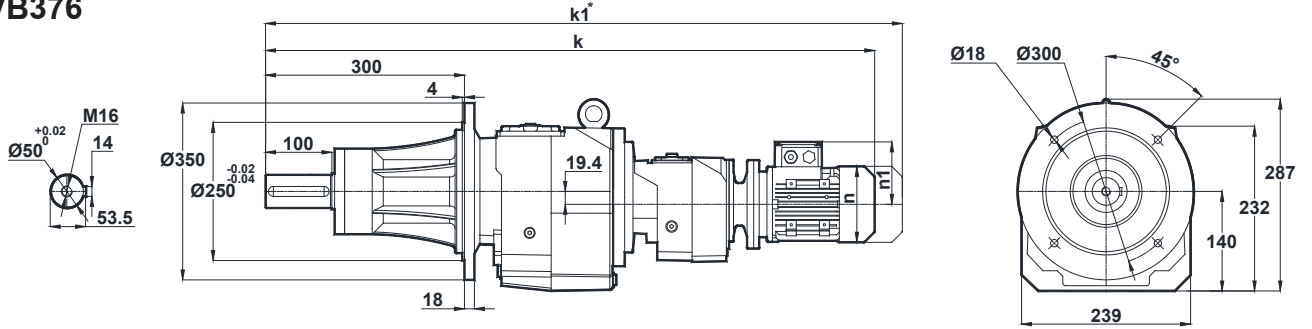


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



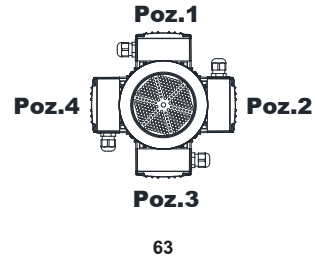
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NVB375 NVB376



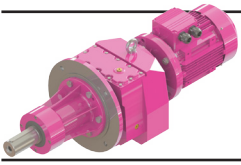
Motor Büyüklüğü / Motor Size / Motorbaugroße	
IEC	63/B5 63/B14
k	922
k1	983
n / n1	121 / 97
m1 (B5)	140
m1 (B14)	90

Klemens Kutusu / Terminal Box / Klemmenkasten

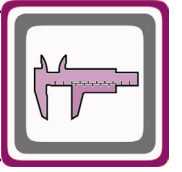


\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.



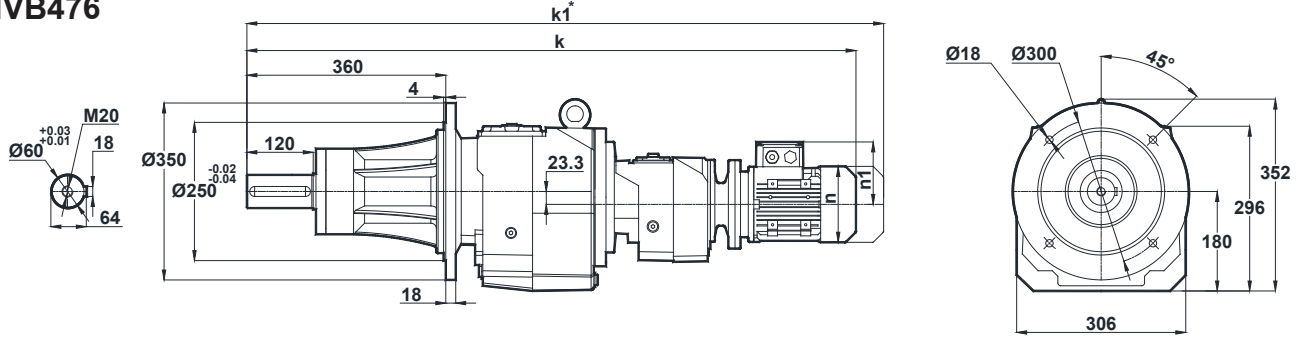


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



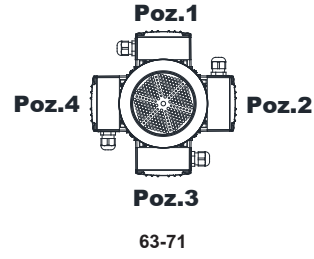
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NVB475 NVB476

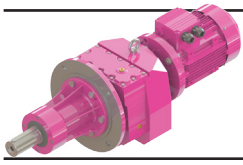


Motor Büyüklüğü / Motor Size / Motorbaugroße		
IEC	63/B5	71/B5 71/B14
k	1105.5	1094.5
k1	1166.5	1185.5
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	-	105

Klemens Kutusu / Terminal Box / Klemmenkasten



\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

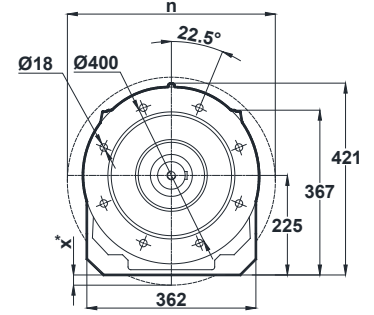
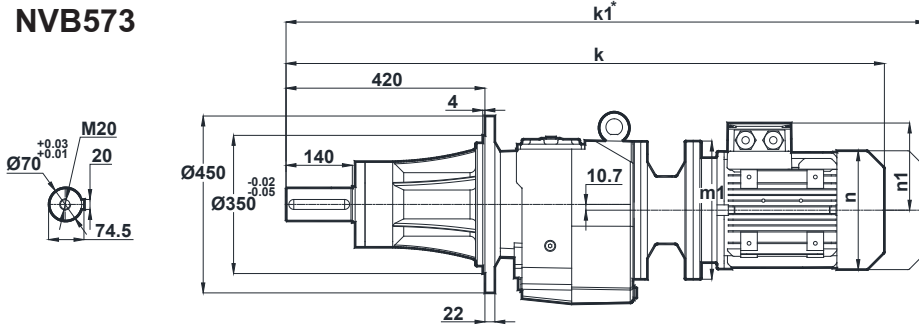


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



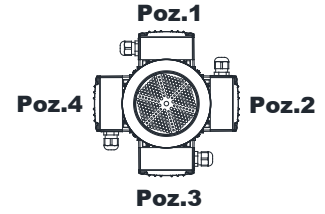
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NVB572 NVB573



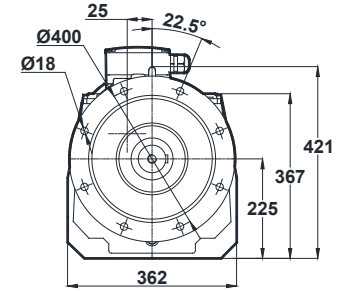
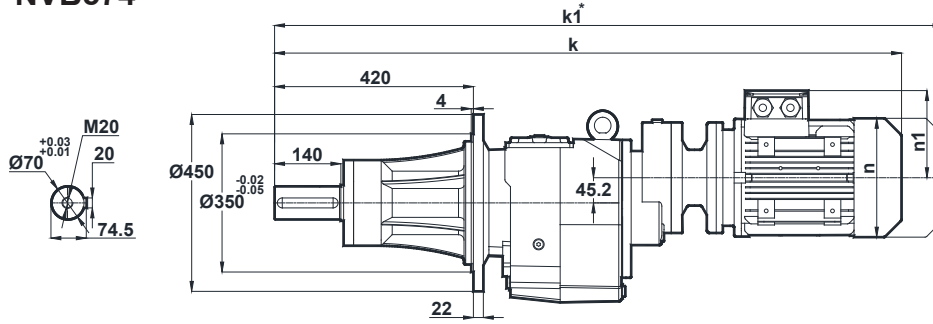
Motor Büyüklüğü / Motor Size / Motorbaugroße									
IEC	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5
k	1122	1142.5	1247.5	1247.5	1403	1403	1491	1491	1565
k1	1230.5	1247	1377.5	1377.5	1551	1551	1649.5	1649.5	1751.5
n / n1	194 / 135	218 / 146	257 / 168	257 / 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



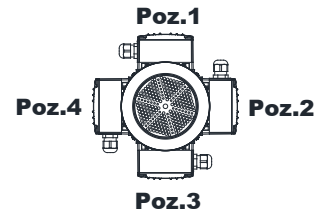
100-112-132-160-180-200

## NVB574



Motor Büyüklüğü / Motor Size / Motorbaugroße				
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	1102.5	1125.5	1166.5	1166.5
k1	1193.5	1218.5	1270	1270
n / n1	138 / 111	156 / 118	176 / 126	176 / 126
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140

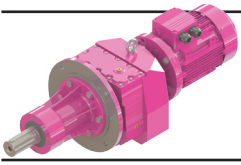
Klemens Kutusu / Terminal Box / Klemmenkasten



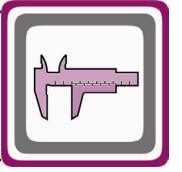
71-80-90

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

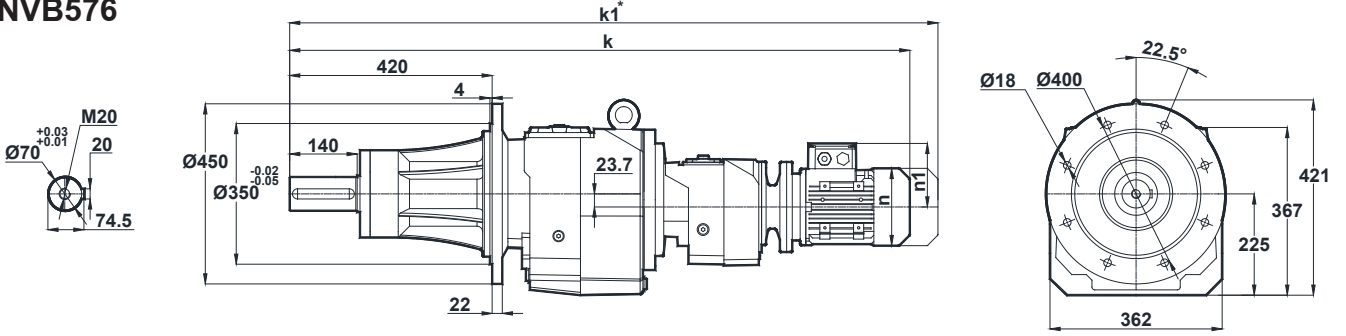


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



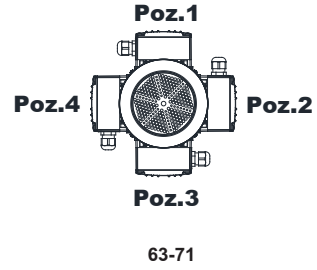
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NVB575 NVB576



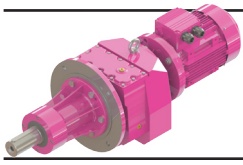
Motor Büyüklüğü / Motor Size / Motorbaugroße		
IEC	63/B5	71/B5 71/B14
k	1214.5	1203.5
k1	1275.5	1294.5
n / n1	121 / 97	138 / 111
m1 (B5)	140	160
m1 (B14)	-	105

Klemens Kutusu / Terminal Box / Klemmenkasten



63-71

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

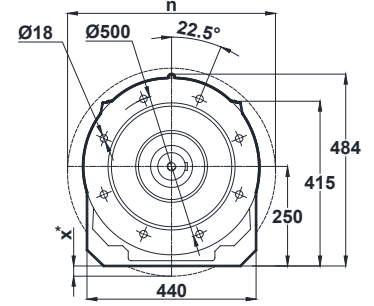
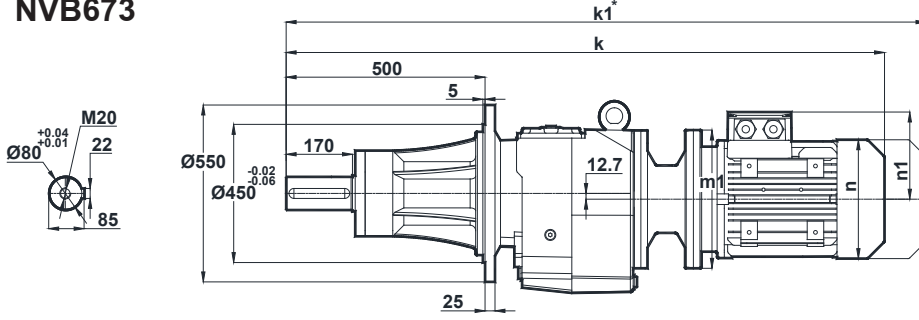


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



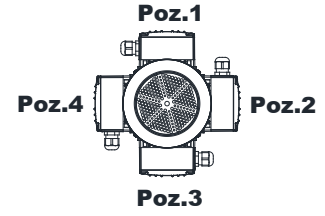
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NVB672 NVB673



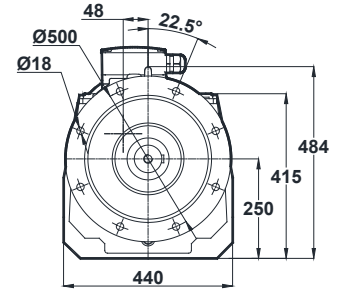
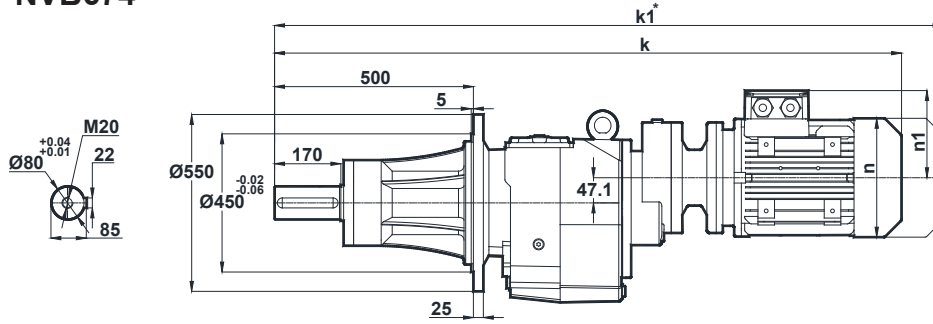
Motor Büyüklüğü / Motor Size / Motorbaugroße										
IEC	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5
k	1263.5	1362.5	1362.5	1517.5	1517.5	1605.5	1605.5	1680	1751	1776
k1	1368	1492.5	1492.5	1665.5	1665.5	1764	1764	1866.5	1916	1941
n / n1	215 / 158	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234	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



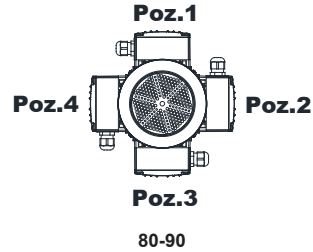
112-132-160-180-200-225

## NVB674



Motor Büyüklüğü / Motor Size / Motorbaugroße			
IEC	80/B5	90S/B5 90S/B14	90L/B5 90L/B14
k	1256.5	1297.5	1297.5
k1	1349.5	1401	1401
n / n1	156 / 118	176 / 126	176 / 126
m1 (B5)	200	200	200
m1 (B14)	-	140	140

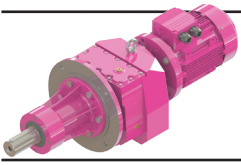
Klemens Kutusu / Terminal Box / Klemmenkasten



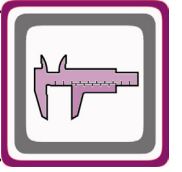
80-90

\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

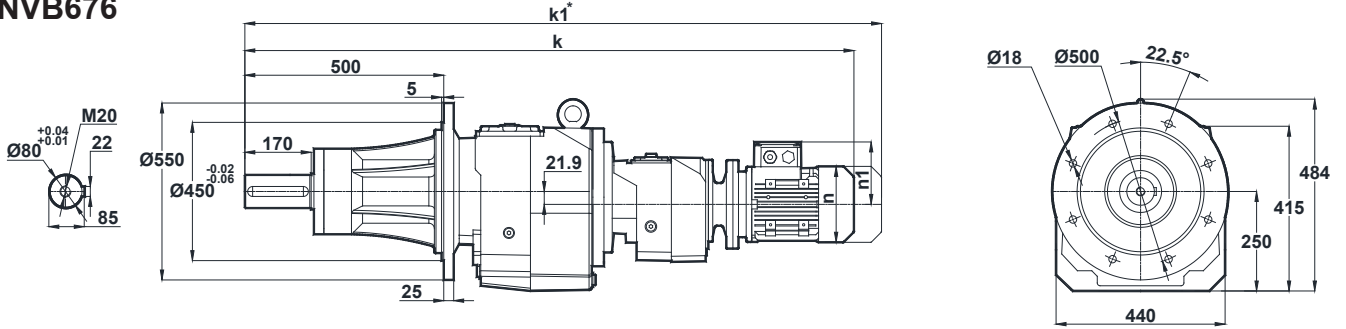


# Ölçü Sayfaları Dimension Pages Abmessungenseiten



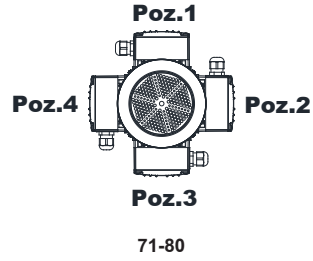
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NVB675  
NVB676**

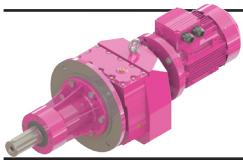


Motor Büyüklüğü / Motor Size / Motorbaugroße		
IEC	71/B5	80/B5 80/B14
k	1384	1407
k1	1475	1500
n / n1	137 / 112	155 / 121
m1 (B5)	160	200
m1 (B14)	-	120

Klemens Kutusu / Terminal Box / Klemmenkasten



\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

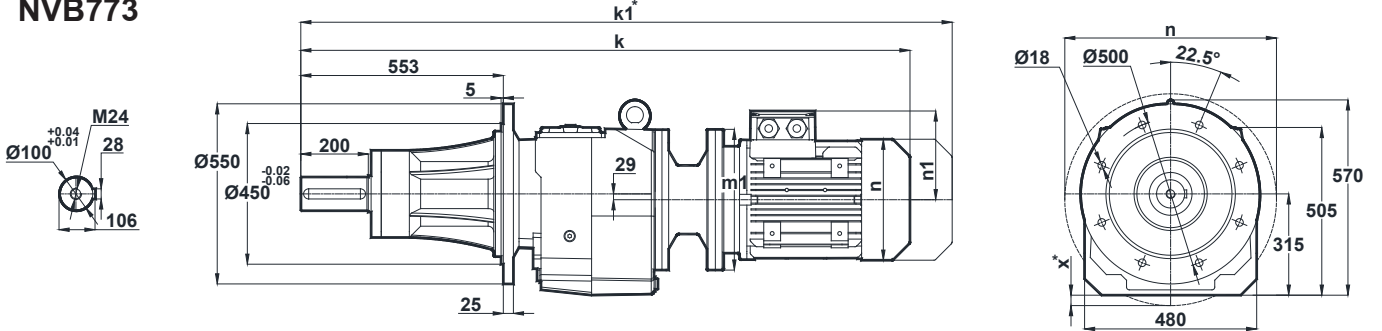


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



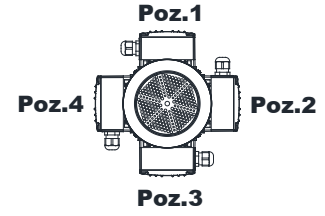
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NVB772 NVB773



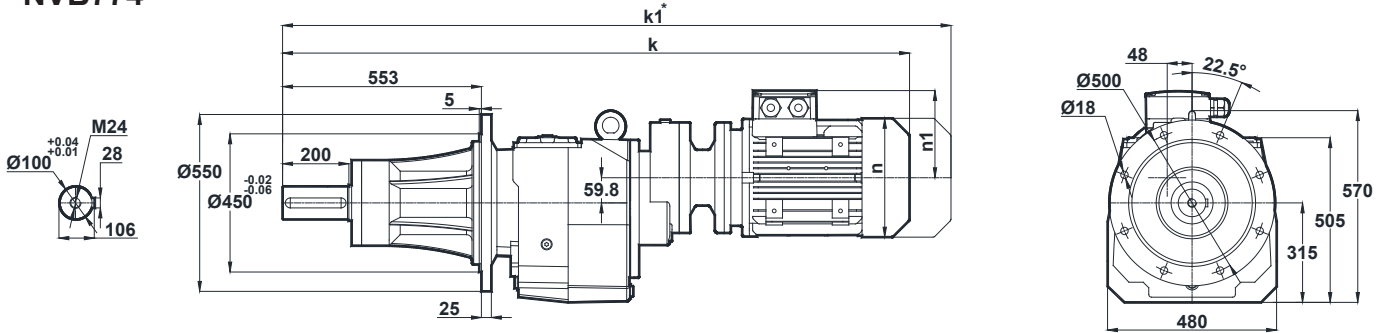
Motor Büyüklüğü / Motor Size / Motorbaugroße										
IEC	132S/B5	132M/B5	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5	250M/B5
k	1465.5	1465.5	1615	1615	1703	1703	1779	1850	1875	1951
k1	1595.5	1595.5	1763	1763	1861.5	1861.5	1965.5	2015	2040	2121.5
n / n1	257 / 179	257 / 179	315 / 219	315 / 219	347 / 234	347 / 234	390 / 275	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



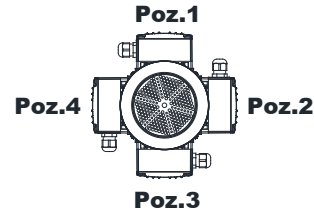
132-160-180-200-225-250

## NVB774



Motor Büyüklüğü / Motor Size / Motorbaugroße				
IEC	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	1359.5	1400.5	1400.5	1454.5
k1	1452.5	1504	1504	1563
n / n1	156 / 118	176 / 126	176 / 126	193 / 147
m1 (B5)	200	200	200	250
m1 (B14)	-	140	140	160

Klemens Kutusu / Terminal Box / Klemmenkasten

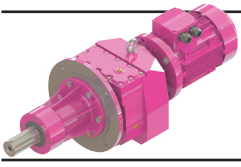


80-90-100

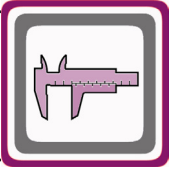
\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



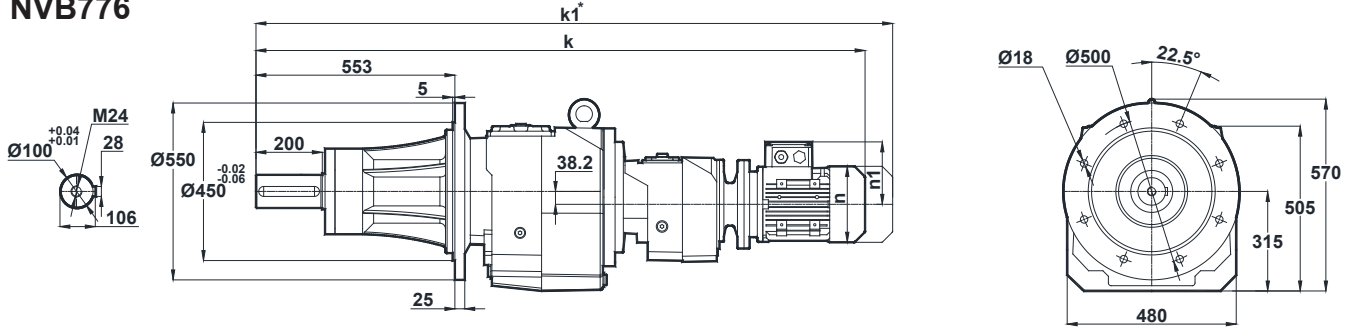


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



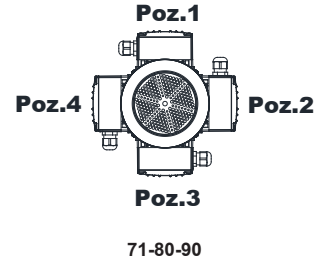
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NVB775  
NVB776**



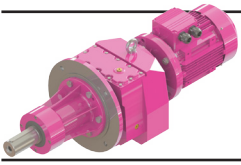
Motor Büyüklüğü / Motor Size / Motorbaugroße				
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	1490	1513	1554	1554
k1	1581	1606	1657.5	1657.5
n / n1	138 / 111	156 / 118	176 / 126	176 / 126
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140

Klemens Kutusu / Terminal Box / Klemmenkasten

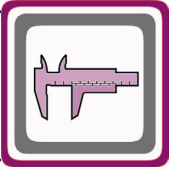


\* “ k1 “ Ölçüsü frenli redüktörlere aittir. Dimension “ k1 ” is for motors with brake. Maße “ k1 ” ist für Bremsenmotoren.



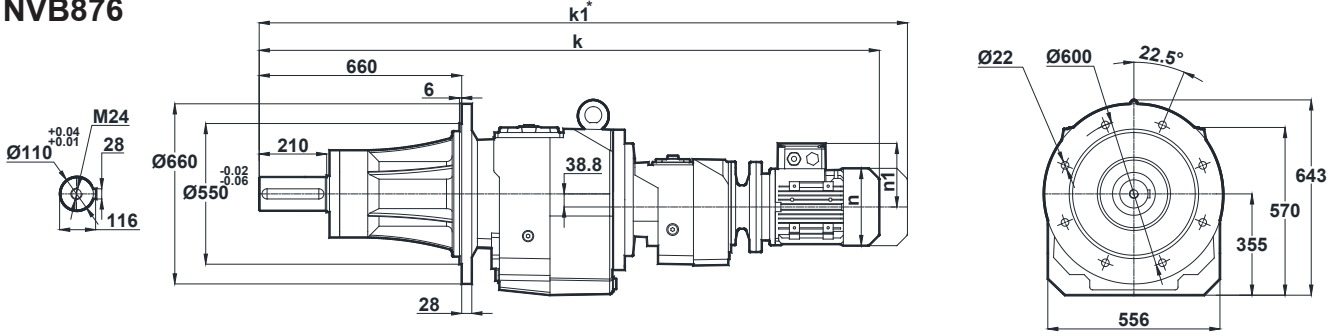


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



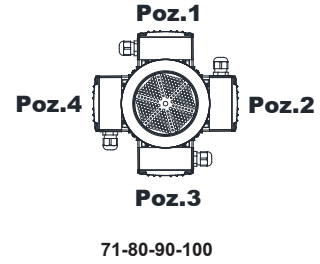
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NVB875 NVB876

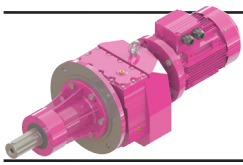


Motor Büyüklüğü / Motor Size / Motorbaugroße					
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	1674	1697	1738	1738	1790.5
k1	1765	1790	1841.5	1841.5	1899
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	160	200	200	200	250
m1 (B14)	-	120	140	140	160

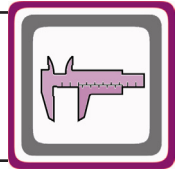
Klemens Kutusu / Terminal Box / Klemmenkasten



\* “ k1 “ Ölçüsü frenli redüktörlere aittir. Dimension “ k1 ” is for motors with brake. Maße “ k1 ” ist für Bremsenmotoren.

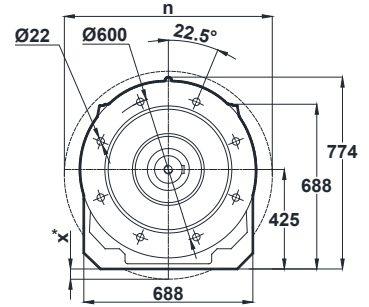
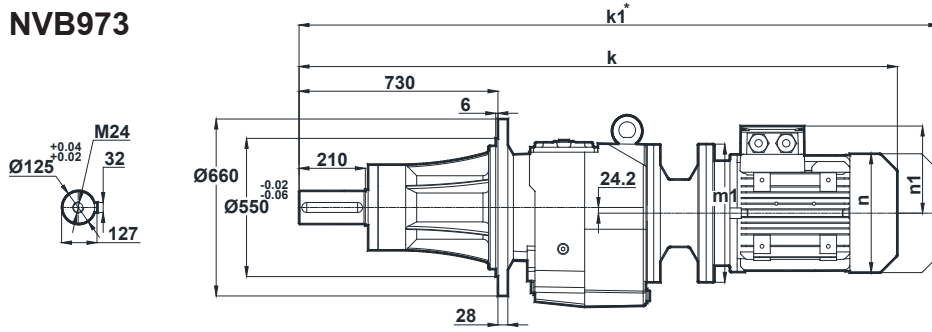


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



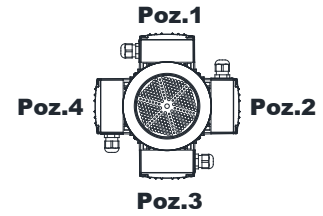
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NVB972 NVB973



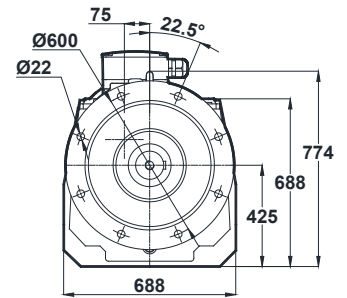
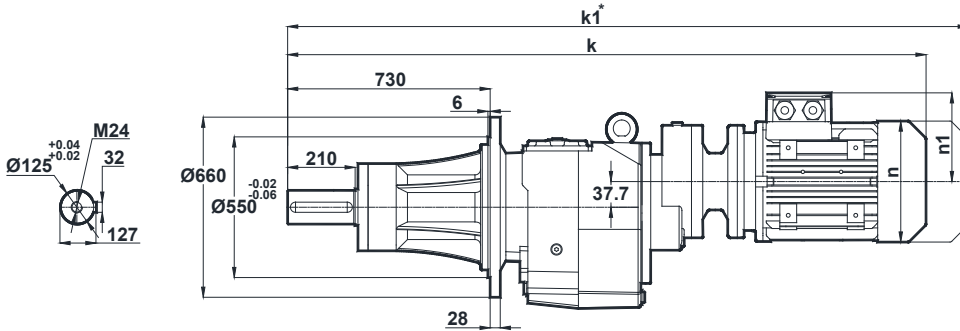
Motor Büyüklüğü / Motor Size / Motorbaugroße												
IEC	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5	250M/B5	280S/B5	280M/B5	315S/B5	315M/B5
k	1925.5	1925.5	2013.5	2013.5	2091.5	2151.5	2176.5	2274.5	2336.5	2336.5	2578.5	2578.5
k1	2073.5	2073.5	2172	2172	2278	2316.5	2341.5	2445	2509.5	2515.5	-	-
n / n1	315 / 219	315 / 219	347 / 234	347 / 234	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



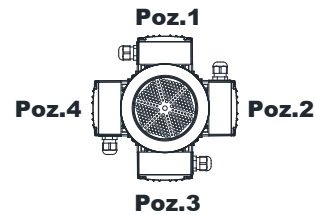
160-180-200-225-250-280-315

## NVB974



Motor Büyüklüğü / Motor Size / Motorbaugroße				
IEC	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14
k	1829.5	1850	1949	1949
k1	1938	1954.5	2079	2079
n / n1	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	250	250	300	300
m1 (B14)	-	-	200	200

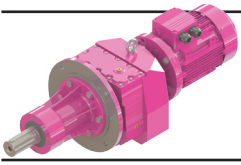
Klemens Kutusu / Terminal Box / Klemmenkasten



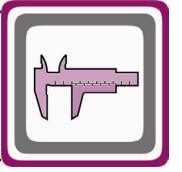
100-112-132

\* " k1 " Ölçüsü frenli redüktörlere aittir. Dimension " k1 " is for motors with brake. Maße " k1 " ist für Bremsenmotoren.

x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist

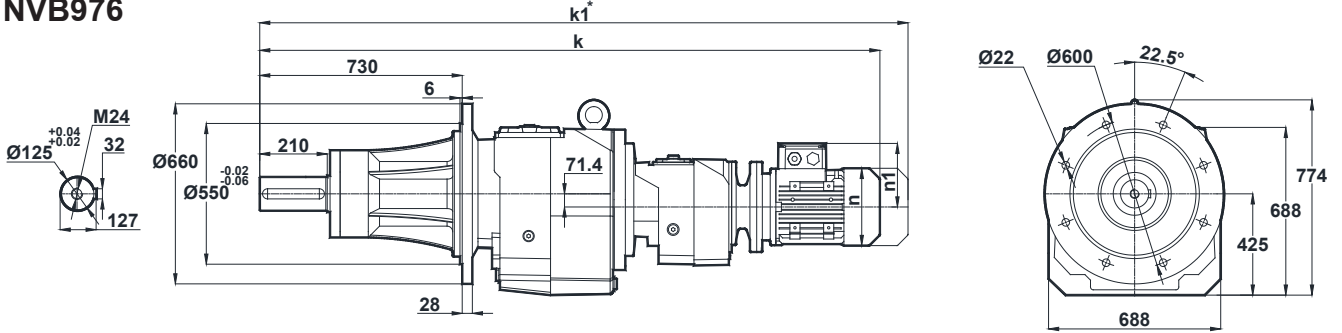


# Ölçü Sayfaları Dimension Pages Abmessungsseiten



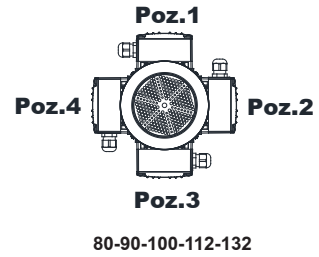
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NVB975  
NVB976**



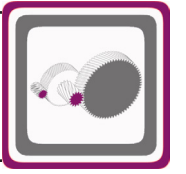
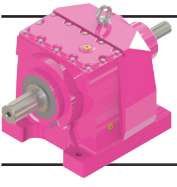
Motor Büyüklüğü / Motor Size / Motorbaugroße						
IEC	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14
k	1889	1930	1930	1984	2004.5	2107
k1	1982	2033.5	2033.5	2092.5	2109	2237
n / n1	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179
m1 (B5)	200	200	200	250	250	300
m1 (B14)	-	140	140	160	160	200

Klemens Kutusu / Terminal Box / Klemmenkasten

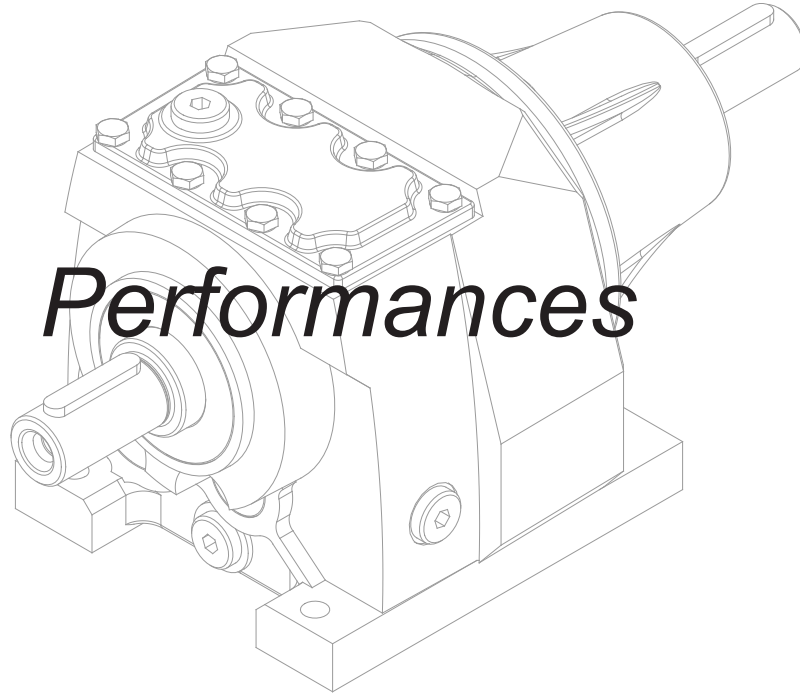


\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.

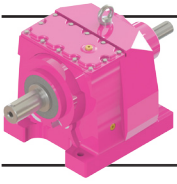




# Güç ve Devir Tabloları



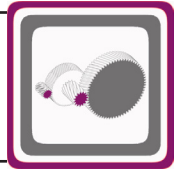
## Leistung und Drehzahlübersicht



# Motorsuz Güç Devir Sayfaları

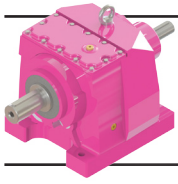
## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



Anma Momenti <i>Nominal Torques</i> Nenn-drehmomente Ma [Nm] (n1=1450rpm)	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
	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
	i	n2 [r.p.m] (n1=1450rpm)		n1=2900	n1=1450	n1=950	n1=725	n1=475	n1=360	Fqam [N] (n1=1450rpm)	Fqem [N] (n1=1450rpm)	[kg]	
53	3,62	401	MT002	3,6	2,3	1,8	1,4	1,1	0,89	359	-	11	334
55	3,90	372	NT002	3,5	2,2	1,7	1,4	1,1	0,83	349	-	12	
58	4,56	318		3,2	2,0	1,5	1,3	0,94	0,71	366	-		
64	5,57	260		2,9	1,8	1,4	1,1	0,77	0,58	566	-		
66	6,00	242		2,7	1,7	1,3	1,1	0,71	0,54	571	-		
69	6,91	210		2,5	1,6	1,2	0,94	0,62	0,47	685	-		
71	7,45	195		2,4	1,5	1,2	0,88	0,58	0,44	697	-		
72	7,84	185		2,3	1,5	1,1	0,83	0,55	0,41	767	-		
74	8,45	172		2,2	1,4	1,0	0,77	0,51	0,38	783	-		
74	8,70	167		2,1	1,4	0,98	0,75	0,49	0,37	752	-		
78	9,87	147		2,0	1,3	0,87	0,66	0,43	0,33	823	-		
65	11,14	130		1,5	0,93	0,73	0,59	0,39	0,29	1244	235		
80	13,61	107	MT003	1,4	0,95	0,64	0,49	0,32	0,24	567	415	12	334
82	14,67	99	NT003	1,4	0,90	0,59	0,45	0,30	0,23	582	418	13	
82	16,89	86		1,4	0,79	0,52	0,40	0,26	0,20	823	552		
82	18,20	80		1,4	0,73	0,48	0,37	0,24	0,18	900	560		
82	19,17	76		1,3	0,69	0,46	0,35	0,23	0,17	1016	589		
82	20,66	70		1,3	0,64	0,42	0,32	0,21	0,16	1097	597		
82	21,26	68		1,2	0,63	0,41	0,32	0,21	0,16	1068	577		
82	24,13	60		1,1	0,55	0,36	0,28	0,18	0,14	1272	611		
82	28,38	51		0,94	0,47	0,31	0,24	0,16	0,12	1465	649		
82	32,02	45		0,76	0,42	0,28	0,21	0,14	0,11	1645	674		
82	40,04	36		0,67	0,34	0,22	0,17	0,11	0,08	1911	670		
82	45,18	32		0,60	0,30	0,20	0,15	0,10	0,07	2108	692		
70	3,94	368	MT102	4,4	2,8	2,1	1,7	1,3	1,1	1041	-	13	335
75	4,57	317	NT102	4,1	2,6	1,9	1,7	1,3	1,0	1084	-	14	
80	5,01	289		3,8	2,5	1,9	1,5	1,2	0,98	1101	-		
80	5,47	265		3,7	2,3	1,8	1,5	1,1	0,94	1149	-		
85	6,48	224		3,4	2,1	1,6	1,3	1,0	0,79	1213	-		
90	6,93	209		3,2	2,1	1,5	1,3	0,98	0,74	1221	-		
90	8,01	181		2,8	1,8	1,4	1,1	0,85	0,69	1369	520		
95	9,29	156		2,6	1,6	1,2	1,0	0,79	0,60	1435	531		
100	10,18	142		2,3	1,6	1,2	0,94	0,72	0,54	1468	516		
100	11,12	130		2,3	1,4	1,1	0,90	0,66	0,50	1529	600		
105	13,15	110		2,0	1,3	0,99	0,82	0,56	0,42	1622	597		
110	14,08	103		1,91	1,2	0,96	0,77	0,52	0,40	1644	535		
115	15,95	91		1,79	1,2	0,89	0,70	0,46	0,35	1712	476		
110	17,33	84	MT103	1,6	1,0	0,80	0,66	0,43	0,33	1735	816	14	335
120	20,51	71	NT103	1,4	0,95	0,73	0,56	0,36	0,28	1812	804	15	
120	21,96	66		1,4	0,89	0,68	0,52	0,34	0,26	1871	811		
130	24,86	58		1,3	0,85	0,60	0,46	0,30	0,23	1919	791		
140	29,40	49		1,2	0,77	0,51	0,39	0,26	0,19	2105	924		
140	32,25	45		1,1	0,70	0,46	0,35	0,23	0,18	2196	934		
140	35,21	41		1,1	0,65	0,43	0,33	0,21	0,16	2286	942		
140	41,66	35		0,93	0,55	0,36	0,28	0,18	0,14	2464	953		
140	44,60	33		0,91	0,51	0,34	0,26	0,17	0,13	2540	957		
140	50,51	29		0,84	0,45	0,30	0,23	0,15	0,11	2682	961		
110	3,38	429	MT172	7,8	5,1	4,1	3,3	2,6	2,1	575	-	15	336
120	4,09	355	NT172	7,6	4,6	3,8	3,1	2,4	1,9	555	-	16	
130	4,78	303		7,2	4,3	3,7	3,0	2,2	1,7	734	-		
135	5,78	251		6,5	3,7	3,4	2,7	1,8	1,4	848	-		
145	6,60	220		5,9	3,5	3,1	2,4	1,6	1,2	814	-		
160	7,60	191		5,6	3,3	2,7	2,1	1,4	1,0	702	-		
165	8,94	162		4,9	2,9	2,3	1,8	1,2	0,88	814	-		
170	9,53	152		4,8	2,8	2,2	1,7	1,1	0,83	805	-		
180	11,08	131		4,1	2,6	1,9	1,4	0,94	0,71	1207	-		
190	12,66	115		3,7	2,4	1,6	1,3	0,82	0,62	1232	-		

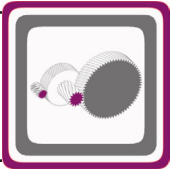




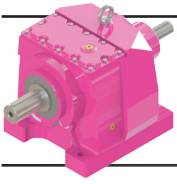
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



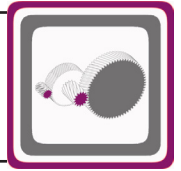
Anma Momenti <i>Nominal Torques</i> Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı	Çıkış Devri	Tipi	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)						Güv. Rad.Yük Çıkış	Güv.Rad.Yük Giriş	Ağırlık	Ölçü Sayfası
	Ratio	Output Speeds		Type	Pe= Nominal Power [kW] (For Service Factor fs=1,0)						Per.O.Loads (Output)		
	Übersetzung	Abtriebs-drehzahlen	Typ	Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]						Zul.Querkräfte (Abtrieb)	Zul.Querkräfte (Antrieb)	Gewicht	Maße Seite
	i	n2 [r.p.m] (n1=1450rpm)		n1=2900	n1=1450	n1=950	n1=725	n1=475	n1=360	Fqam [N] (n1=1450rpm)	Fqem [N] (n1=1450rpm)	[kg]	
<b>195</b>	14,57	99	<b>MT172</b>	3,4	<b>2,1</b>	1,4	1,1	0,72	0,54	1360	-	15	336
<b>200</b>	17,14	85	<b>NT172</b>	3,0	<b>1,9</b>	1,2	0,93	0,61	0,46	1534	-	16	
<b>200</b>	18,28	79		2,9	<b>1,7</b>	1,1	0,87	0,57	0,43	1639	-		
<b>200</b>	20,92	69		2,6	<b>1,5</b>	1,00	0,76	0,50	0,38	1869	-		
<b>200</b>	26,10	56	<b>MT173</b>	1,5	<b>1,2</b>	0,81	0,62	0,41	0,31	2811	813	16	336
<b>200</b>	30,26	48	<b>NT173</b>	1,4	<b>1,1</b>	0,70	0,54	0,35	0,27	3008	834	17	
<b>200</b>	36,24	40		1,3	<b>0,90</b>	0,59	0,45	0,30	0,22	3262	860		
<b>200</b>	42,87	34		1,2	<b>0,76</b>	0,50	0,38	0,25	0,19	3514	874		
<b>200</b>	45,90	32		1,2	<b>0,71</b>	0,47	0,36	0,23	0,18	3620	880		
<b>200</b>	49,81	29		1,1	<b>0,65</b>	0,43	0,33	0,22	0,16	3750	975		
<b>200</b>	57,76	25		1,0	<b>0,57</b>	0,37	0,28	0,19	0,14	3995	986		
<b>200</b>	69,16	21		0,94	<b>0,47</b>	0,31	0,24	0,16	0,12	4310	999		
<b>200</b>	81,82	18		0,80	<b>0,40</b>	0,26	0,20	0,13	0,10	4622	1007		
<b>200</b>	87,60	17		0,75	<b>0,38</b>	0,25	0,19	0,12	0,09	4753	1010		
<b>200</b>	99,21	15		0,66	<b>0,33</b>	0,22	0,17	0,11	0,08	5001	1013		
<b>125</b>	3,50	414	<b>MT202</b>	8,9	<b>5,6</b>	4,4	3,5	2,7	2,3	2223	-	20	337
<b>145</b>	4,20	345	<b>NT202</b>	8,6	<b>5,4</b>	4,1	3,3	2,6	2,2	2061	-	22	
<b>150</b>	4,50	322		8,3	<b>5,2</b>	4,0	3,2	2,5	2,1	2072	-		
<b>160</b>	5,08	286		7,7	<b>5,0</b>	3,8	3,1	2,4	2,0	2061	-		
<b>175</b>	5,80	250		7,3	<b>4,8</b>	3,6	2,9	2,3	1,9	1965	-		
<b>185</b>	7,04	206		6,5	<b>4,1</b>	3,2	2,6	2,0	1,6	2876	606		
<b>200</b>	8,40	173		5,8	<b>3,8</b>	2,8	2,3	1,7	1,3	2972	619		
<b>210</b>	10,07	144		5,2	<b>3,3</b>	2,5	2,1	1,5	1,1	3208	719		
<b>215</b>	10,81	134		4,9	<b>3,1</b>	2,4	1,9	1,4	1,0	3283	725		
<b>225</b>	12,18	119		4,7	<b>2,9</b>	2,2	1,8	1,2	0,91	3392	723		
<b>235</b>	13,92	104		4,2	<b>2,7</b>	2,1	1,6	1,1	0,80	3551	726		
<b>240</b>	14,86	98		4,0	<b>2,6</b>	2,0	1,5	0,98	0,75	3633	716		
<b>245</b>	16,03	90		3,8	<b>2,4</b>	1,8	1,4	0,91	0,69	3749	728		
<b>260</b>	18,85	77		3,4	<b>2,2</b>	1,6	1,2	0,78	0,59	3928	663		
<b>260</b>	20,10	72		3,3	<b>2,1</b>	1,5	1,1	0,73	0,55	4129	722		
<b>280</b>	23,01	63		3,0	<b>1,9</b>	1,3	0,97	0,64	0,48	4154	556		
<b>270</b>	23,23	62	<b>MT203</b>	2,9	<b>1,9</b>	1,3	0,98	0,64	0,49	3314	1142	21	337
<b>275</b>	24,77	59	<b>NT203</b>	2,8	<b>1,8</b>	1,2	0,92	0,60	0,46	3406	1141	23	
<b>280</b>	28,35	51		2,6	<b>1,6</b>	1,1	0,80	0,53	0,40	3751	1151		
<b>280</b>	36,02	40		2,0	<b>1,3</b>	0,82	0,63	0,41	0,31	5277	1482		
<b>280</b>	41,16	35		1,8	<b>1,1</b>	0,72	0,55	0,36	0,28	5576	1498		
<b>280</b>	43,94	33		1,8	<b>1,0</b>	0,68	0,52	0,34	0,26	5728	1504		
<b>280</b>	47,39	31		1,7	<b>0,96</b>	0,63	0,48	0,32	0,27	5907	1512		
<b>280</b>	55,74	26		1,5	<b>0,82</b>	0,54	0,41	0,27	0,23	6308	1525		
<b>280</b>	59,43	24		1,4	<b>0,77</b>	0,50	0,39	0,25	0,21	6472	1530		
<b>280</b>	68,03	21		1,3	<b>0,67</b>	0,44	0,34	0,25	0,19	6830	1540		
<b>195</b>	3,16	459	<b>MT272</b>	15	<b>9,6</b>	7,3	6,0	4,7	3,8	566	-	25	338
<b>205</b>	3,69	393	<b>NT272</b>	14	<b>8,7</b>	6,7	5,4	4,2	3,5	602	-	27	
<b>230</b>	4,53	320		12	<b>8,0</b>	5,9	4,9	3,8	3,1	863	-		
<b>265</b>	5,28	274		12	<b>7,9</b>	5,9	4,9	3,5	2,9	479	-		
<b>330</b>	6,21	233		14	<b>8,3</b>	6,2	5,2	3,8	2,9	-	-		
<b>360</b>	8,71	167		10	<b>6,5</b>	4,7	4,0	2,7	2,0	474	-		
<b>375</b>	10,16	143		9,1	<b>5,8</b>	4,4	3,5	2,3	1,7	566	-		
<b>390</b>	11,95	121		8,1	<b>5,1</b>	3,9	3,0	2,0	1,5	695	-		
<b>410</b>	14,21	102		7,2	<b>4,6</b>	3,3	2,5	1,7	1,3	788	-		
<b>425</b>	16,07	90		6,7	<b>4,2</b>	2,9	2,2	1,5	1,1	858	-		
<b>445</b>	18,33	79		6,0	<b>3,8</b>	2,6	2,0	1,3	0,97	880	-		
<b>450</b>	21,43	68		5,4	<b>3,3</b>	2,2	1,7	1,1	0,83	1239	-		
<b>450</b>	25,89	56		4,8	<b>2,8</b>	1,8	1,4	0,91	0,69	1805	-		
<b>435</b>	19,00	76	<b>MT273</b>	5,6	<b>3,7</b>	2,5	1,9	1,3	0,95	190	275	26	338
<b>435</b>	25,55	57	<b>NT273</b>	4,2	<b>2,7</b>	1,9	1,4	0,93	0,71	2013	1276	28	



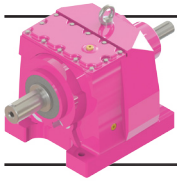
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



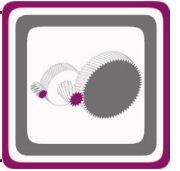
Anma Momenti <i>Nominal Torques</i> Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı <i>Ratio</i> Übersetzung i	Çıkış Devri <i>Output Speeds</i> Abtriebs-drehzahlen n2 [r.p.m] (n1=1450rpm)	Tipi <i>Type</i> Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için) <i>Pe= Nominal Power [kW] (For Service Factor fs=1,0)</i> Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0)						Güv. Rad.Yük Çıkış <i>Per.O.Loads (Output)</i>	Güv.Rad.Yük Giriş <i>Per.O.Loads (Input)</i>	Ağırlık <i>Weight</i> Gewicht [kg]	Ölçü Sayfası <i>Dim. Page</i> Maße Seite
				Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]									
				n1=2900	n1=1450	n1=950	n1=725	n1=475	n1=360				
450	30,48	48	MT273	3,7	2,4	1,6	1,2	0,78	0,59	2323	1303	26	338
450	36,55	40	NT273	3,3	2,0	1,3	1,0	0,65	0,50	2933	1343	28	
450	42,41	34		3,0	1,7	1,1	0,86	0,56	0,43	3461	1480		
450	50,59	29		2,7	1,4	0,94	0,72	0,47	0,36	4123	1508		
450	60,66	24		2,4	1,2	0,79	0,60	0,40	0,30	4845	1532		
450	73,35	20		2,0	0,99	0,65	0,50	0,33	0,28	5650	1552		
450	83,83	17		1,7	0,87	0,57	0,44	0,29	0,24	6247	1565		
450	96,52	15		1,5	0,76	0,50	0,38	0,25	0,21	6700	1576		
450	113,52	13		1,3	0,65	0,43	0,33	0,24	0,18	6700	1586		
450	121,03	12		1,2	0,61	0,40	0,31	0,22	0,17	6700	1590		
450	138,55	10		1,1	0,53	0,35	0,27	0,20	0,15	6700	1598		
450	149,02	9,7	MT275	1,0	0,51	0,34	0,26	0,19	0,14	6700	684	39	339
450	180,21	8,0	NT275	0,85	0,42	0,28	0,24	0,15	0,12	6700	716	41	
450	205,95	7,0		0,74	0,37	0,27	0,21	0,14	0,10	6700	735		
450	215,91	6,7		0,71	0,35	0,26	0,20	0,13	0,10	6700	736		
450	252,20	5,7		0,61	0,30	0,22	0,17	0,11	0,08	6700	743		
450	332,52	4,4		0,51	0,26	0,19	0,14	0,09	0,07	6700	786		
450	358,33	4,0		0,47	0,24	0,17	0,13	0,09	0,07	6700	789		
450	418,57	3,5		0,41	0,20	0,15	0,11	0,07	0,06	6700	793		
450	499,32	2,9		0,34	0,17	0,12	0,09	0,06	0,05	6700	806		
450	598,70	2,4		0,29	0,14	0,10	0,08	0,05	0,04	6700	816		
450	724,01	2,0		0,26	0,12	0,09	0,07	0,04	0,03	6700	825		
450	827,44	1,8		0,23	0,10	0,08	0,06	0,04	0,03	6700	831		
450	952,64	1,5		0,20	0,09	0,07	0,05	0,03	0,02	6700	836		
450	1120,49	1,3		0,17	0,08	0,06	0,04	0,03	0,02	6700	841		
450	1194,61	1,2		0,16	0,07	0,05	0,04	0,03	0,02	6700	843		
450	1463,49	0,99	MT276	0,13	0,06	0,04	0,03	0,02	0,02	6700	848	40	339
450	1769,80	0,82	NT276	0,11	0,05	0,04	0,03	0,02	0,01	6700	851	42	
450	2022,63	0,72		0,10	0,04	0,03	0,02	0,02	0,01	6700	854		
450	2328,68	0,62		0,08	0,04	0,03	0,02	0,01	0,01	6700	856		
450	2738,97	0,53		0,07	0,03	0,02	0,02	0,01	0,01	6700	858		
450	2920,17	0,50		0,07	0,03	0,02	0,02	0,01	0,01	6700	859		
220	3,15	460	MT282	17	11	8,2	6,5	5,3	4,4	2212	-	37	340
240	3,64	398	NT282	16	10	7,9	6,5	4,8	4,1	2153	-	39	
260	4,20	345		16	9,7	7,8	6,2	4,8	3,9	2106	-		
280	4,62	314		16	9,5	7,8	6,1	4,6	3,8	1960	-		
320	5,35	271		15	9,4	7,7	6,1	4,6	3,8	1584	-		
360	6,25	232		15	9,1	6,9	5,7	4,4	3,7	1247	-		
370	7,21	201		13	8,1	6,2	5,0	4,0	3,2	2419	-		
390	8,33	174		11	7,4	5,6	4,6	3,5	2,8	2509	-		
400	9,61	151		10	6,5	4,9	4,0	3,1	2,5	2774	102		
410	10,57	137		9,49	6,1	4,6	3,7	3,0	2,2	2907	156		
420	12,24	118		8,71	5,4	4,1	3,4	2,6	1,9	3220	289		
440	14,31	101		7,69	4,9	3,8	3,1	2,2	1,7	3429	301		
470	16,91	86		6,89	4,4	3,3	2,7	1,9	1,4	3550	208		
480	19,06	76		6,29	4,0	3,1	2,5	1,6	1,3	3837	251		
500	21,66	67		5,83	3,7	2,8	2,2	1,5	1,1	4018	193		
530	25,23	57		5,26	3,3	2,5	1,9	1,2	0,94	4167	64		
560	30,37	48		4,59	2,9	2,1	1,6	1,0	0,78	4493	-		
270	18,33	79	MT283	3,6	2,4	1,9	1,6	1,2	1,1	6793	1822	38	340
290	20,25	72	NT283	3,5	2,3	1,8	1,5	1,2	0,99	7049	1811	40	
320	23,63	61		3,2	2,2	1,7	1,4	1,1	0,90	7456	1796		
340	27,80	52		2,9	2,0	1,5	1,3	1,0	0,83	5566	1795		
480	30,82	47		3,8	2,5	2,0	1,6	1,0	0,79	5446	1857		
515	35,98	40		3,5	2,3	1,8	1,4	0,89	0,67	5697	1860		
550	41,96	35		3,3	2,1	1,5	1,2	0,76	0,58	5967	1867		
570	46,37	31		3,0	2,0	1,4	1,1	0,69	0,52	6164	1869		



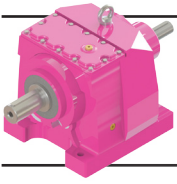
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



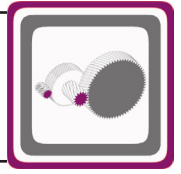
Anma Momenti <i>Nominal Torques</i> Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı <i>Ratio</i> Übersetzung i	Çıkış Devri <i>Output Speeds</i> Abtriebs-drehzahlen n2 [r.p.m] (n1=1450rpm)	Tipi <i>Type</i> Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için) <i>Pe= Nominal Power [kW] (For Service Factor fs=1,0)</i> Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0)						Güv. Rad.Yük Çıkış <i>Per.O.Loads (Output)</i> Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1450rpm)	Güv.Rad.Yük Giriş <i>Per.O.Loads (Input)</i> Zul.Querkräfte (Antrieb) Fqem [N] (n1=1450rpm)	Ağırlık <i>Weight</i> Gewicht [kg]	Ölçü Sayfası <i>Dim. Page</i> Maße Seite
				Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]									
				n1=2900	n1=1450	n1=950	n1=725	n1=475	n1=360				
600	54,12	27	MT283	2,7	1,8	1,2	0,90	0,59	0,45	6490	1874	38	340
600	63,65	23	NT283	2,5	1,5	1,0	0,77	0,50	0,38	6979	1894	40	
600	75,68	19		2,3	1,3	0,85	0,65	0,42	0,32	7530	1913		
600	85,60	17		2,1	1,1	0,75	0,57	0,38	0,29	7942	1924		
600	97,62	15		1,9	1,0	0,66	0,50	0,33	0,25	8400	1934		
600	114,14	13		1,7	0,86	0,56	0,43	0,28	0,24	8973	1945		
600	137,91	11		1,4	0,71	0,47	0,36	0,26	0,20	9150	1956		
600	158,52	9,1	MT284	1,3	0,63	0,41	0,31	0,23	0,17	9150	1581	39	341
600	175,17	8,3	NT284	1,1	0,57	0,37	0,28	0,21	0,16	9150	1603	41	
600	204,44	7,1		0,97	0,49	0,32	0,27	0,18	0,13	9150	1635		
600	240,47	6,0		0,83	0,41	0,27	0,23	0,15	0,11	9150	1663		
600	285,89	5,1		0,70	0,35	0,25	0,19	0,13	0,10	9150	1688		
600	323,39	4,5		0,62	0,31	0,22	0,17	0,11	0,09	9150	1703		
600	368,77	3,9		0,54	0,27	0,20	0,15	0,10	0,07	9150	1718		
600	431,18	3,4		0,51	0,26	0,19	0,14	0,09	0,07	9150	1778		
600	376,94	3,8	MT285	0,54	0,27	0,20	0,15	0,10	0,07	9150	1053	58	342
600	443,37	3,3	NT285	0,51	0,26	0,19	0,14	0,09	0,07	9150	1068	60	
600	491,50	3,0		0,46	0,23	0,17	0,13	0,08	0,06	9150	1077		
600	573,81	2,5		0,40	0,20	0,14	0,11	0,07	0,05	9150	1089		
600	669,25	2,2		0,34	0,17	0,12	0,09	0,06	0,05	9150	1098		
600	739,53	2,0		0,31	0,15	0,11	0,09	0,06	0,04	9150	1104		
600	863,11	1,7		0,26	0,13	0,10	0,07	0,05	0,04	9150	1111		
600	1015,21	1,4		0,25	0,11	0,08	0,06	0,04	0,03	9150	1118		
600	1206,98	1,2		0,21	0,09	0,07	0,05	0,03	0,03	9150	1124		
600	1365,28	1,1		0,19	0,08	0,06	0,05	0,03	0,02	9150	1128		
600	1817,07	0,80	MT286	0,14	0,06	0,05	0,04	0,02	0,02	9150	1135	59	342
600	2119,30	0,68	NT286	0,12	0,06	0,04	0,03	0,02	0,02	9150	1138	61	
600	2341,83	0,62		0,11	0,05	0,04	0,03	0,02	0,01	9150	1140		
600	2733,17	0,53		0,09	0,04	0,03	0,02	0,02	0,01	9150	1143		
600	3214,82	0,45		0,08	0,04	0,03	0,02	0,01	0,01	9150	1145		
385	3,28	443	MT372	29	18	14	11	8,8	7,3	882	-	45	343
410	3,74	388	NT372	27	17	13	11	8,4	6,9	782	-	48	
445	4,29	338		25	16	12	10	7,8	6,4	531	-		
475	4,96	292		24	15	12	9,3	7,3	6,0	411	-		
510	5,23	277		24	15	12	9,5	7,3	6,1	955	-		
530	5,97	243		22	14	11	8,7	6,8	5,4	1046	-		
560	6,84	212		20	13	9,8	8,0	6,2	4,7	1012	-		
560	8,25	176		17	11	8,1	6,6	5,2	3,9	2345	-		
590	9,41	154		15	9,9	7,5	6,0	4,5	3,4	2379	-		
620	10,80	134		14	9,0	6,8	5,6	3,9	3,0	2456	-		
650	12,48	116		13	8,2	6,3	5,1	3,4	2,6	2586	-		
670	13,53	107		12	7,8	5,9	4,8	3,2	2,4	2623	-		
710	16,20	90		11	6,9	5,3	4,0	2,6	2,0	2807	-		
740	18,45	79		10	6,3	4,6	3,5	2,3	1,8	2952	-		
770	20,62	70		9,3	5,9	4,1	3,2	2,1	1,6	3033	-		
805	23,33	62		8,5	5,5	3,7	2,8	1,8	1,4	3122	-		
650	18,68	78	MT373	8,6	5,5	4,2	3,4	2,3	1,8	4992	1054	47	343
650	20,64	70	NT373	7,8	5,0	3,9	3,2	2,1	1,6	5243	1219	50	
650	21,65	67		7,5	4,8	3,8	3,0	2,0	1,5	5509	1550		
710	25,27	57		6,8	4,5	3,4	2,6	1,7	1,3	5712	1545		
750	29,47	49		6,1	4,1	2,9	2,2	1,5	1,1	6004	1564		
780	35,25	41		5,4	3,5	2,5	1,9	1,2	0,94	6429	1730		
820	41,16	35		4,8	3,2	2,1	1,6	1,1	0,80	6774	1745		
820	48,00	30		4,3	2,7	1,8	1,4	0,91	0,69	7281	1784		
820	53,04	27		4,1	2,5	1,6	1,3	0,82	0,62	7623	1803		
820	61,91	23		3,5	2,1	1,4	1,1	0,71	0,54	8177	1830		



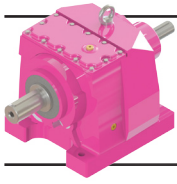
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



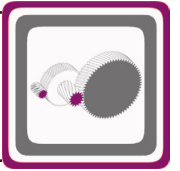
Anma Momenti <i>Nominal Torques</i> Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı	Çıkış Devri	Tipi	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)						Güv. Rad.Yük Çıkış	Güv.Rad.Yük Giriş	Ağırlık	Ölçü Sayfası
	Ratio	Output Speeds		Ttype	Pe= Nominal Power [kW] (For Service Factor fs=1,0)						Per.O.Loads (Output)		
	Übersetzung	Abtriebs-drehzahlen	Typ		Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]						Zul.Querkräfte (Abtrieb)	Zul.Querkräfte (Antrieb)	Gewicht
	i	n2 [r.p.m] (n1=1450rpm)		n1=2900	n1=1450	n1=950	n1=725	n1=475	n1=360	Fqam [N] (n1=1450rpm)	Fqem [N] (n1=1450rpm)	[kg]	
<b>820</b>	72,81	20	<b>MT373</b>	3,2	<b>1,8</b>	1,2	0,92	0,60	0,46	8790	1854	47	343
<b>820</b>	86,57	17	<b>NT373</b>	2,8	<b>1,5</b>	1,0	0,77	0,51	0,39	9481	1876	50	
<b>820</b>	97,92	15		2,6	<b>1,4</b>	0,89	0,68	0,45	0,34	9999	1889		
<b>820</b>	111,67	13		2,4	<b>1,2</b>	0,79	0,60	0,40	0,30	10574	1902		
<b>820</b>	138,72	10		1,9	<b>0,97</b>	0,64	0,49	0,32	0,27	11581	1919		
<b>820</b>	157,76	9,2		1,7	<b>0,85</b>	0,56	0,43	0,28	0,24	11600	1928		
<b>820</b>	181,34	8,0	<b>MT374</b>	1,5	<b>0,75</b>	0,49	0,37	0,27	0,21	11600	745	57	344
<b>820</b>	200,38	7,2	<b>NT374</b>	1,4	<b>0,68</b>	0,44	0,34	0,25	0,19	11600	885	60	
<b>820</b>	233,86	6,2		1,2	<b>0,58</b>	0,38	0,29	0,21	0,16	11600	1598		
<b>820</b>	275,08	5,3		0,99	<b>0,49</b>	0,32	0,27	0,18	0,14	11600	1632		
<b>820</b>	327,04	4,4		0,83	<b>0,42</b>	0,27	0,23	0,15	0,11	11600	1662		
<b>820</b>	369,93	3,9		0,74	<b>0,37</b>	0,27	0,20	0,13	0,10	11600	1680		
<b>820</b>	421,85	3,4		0,65	<b>0,32</b>	0,24	0,18	0,12	0,09	11600	1698		
<b>820</b>	524,07	2,8		0,52	<b>0,26</b>	0,19	0,14	0,09	0,07	11600	1722		
<b>820</b>	488,82	3,0	<b>MT375</b>	0,57	<b>0,28</b>	0,21	0,16	0,10	0,08	11600	1076	63	345
<b>820</b>	533,70	2,7	<b>NT375</b>	0,52	<b>0,26</b>	0,19	0,15	0,10	0,07	11600	1080	66	
<b>820</b>	631,45	2,3		0,49	<b>0,25</b>	0,18	0,14	0,09	0,07	11600	1084		
<b>820</b>	676,02	2,1		0,46	<b>0,23</b>	0,17	0,13	0,08	0,06	11600	1085		
<b>820</b>	765,58	1,9		0,41	<b>0,20</b>	0,15	0,11	0,07	0,06	11600	1087		
<b>820</b>	845,97	1,7		0,37	<b>0,18</b>	0,13	0,10	0,07	0,05	11600	1094		
<b>820</b>	987,33	1,5		0,32	<b>0,16</b>	0,11	0,09	0,06	0,04	11600	1103		
<b>820</b>	1161,33	1,2		0,27	<b>0,13</b>	0,10	0,07	0,05	0,04	11600	1111		
<b>820</b>	1380,71	1,1		0,25	<b>0,11</b>	0,08	0,06	0,04	0,03	11600	1118		
<b>820</b>	1561,78	0,93		0,22	<b>0,10</b>	0,07	0,06	0,04	0,03	11600	1123		
<b>820</b>	1690,05	0,86	<b>MT376</b>	0,21	<b>0,09</b>	0,07	0,05	0,03	0,03	11600	1132	65	345
<b>820</b>	1999,59	0,73	<b>NT376</b>	0,18	<b>0,08</b>	0,06	0,04	0,03	0,02	11600	1134	68	
<b>820</b>	2140,73	0,68		0,17	<b>0,07</b>	0,05	0,04	0,03	0,02	11600	1134		
<b>820</b>	2424,34	0,60		0,15	<b>0,07</b>	0,05	0,04	0,02	0,02	11600	1135		
<b>820</b>	2678,89	0,54		0,13	<b>0,06</b>	0,04	0,03	0,02	0,02	11600	1137		
<b>820</b>	3126,56	0,46		0,11	<b>0,05</b>	0,04	0,03	0,02	0,01	11600	1140		
<b>820</b>	3677,53	0,39		0,10	<b>0,04</b>	0,03	0,02	0,02	0,01	11600	1142		
<b>820</b>	4372,24	0,33		0,08	<b>0,04</b>	0,03	0,02	0,01	0,01	11600	1145		
<b>820</b>	4945,64	0,29		0,07	<b>0,03</b>	0,02	0,02	0,01	0,01	11600	1146		
<b>590</b>	3,27	444	<b>MT472</b>	-	<b>28</b>	22	18	14	11	5155	-	76	346
<b>650</b>	3,83	378	<b>NT472</b>	41	<b>26</b>	20	16	13	11	5346	-	80	
<b>710</b>	4,54	320		38	<b>24</b>	19	15	12	9,8	5578	-		
<b>800</b>	4,89	297		41	<b>26</b>	19	16	12	9,8	5471	-		
<b>925</b>	5,66	256		-	<b>26</b>	20	16	12	9,9	5775	-		
<b>985</b>	6,65	218		38	<b>23</b>	17	14	11	8,8	6065	-		
<b>1020</b>	7,87	184		33	<b>20</b>	15	12	9,5	7,8	6482	-		
<b>1025</b>	8,47	171		31	<b>19</b>	14	12	8,8	7,2	6706	-		
<b>1050</b>	9,53	152		28	<b>17</b>	13	11	8,1	6,4	7024	-		
<b>1100</b>	10,79	134		26	<b>16</b>	12	9,7	7,4	5,7	7304	-		
<b>1165</b>	12,05	120		25	<b>15</b>	11	9,2	6,7	5,1	7668	-		
<b>1205</b>	13,56	107		23	<b>14</b>	10	8,5	5,9	4,5	7994	-		
<b>1250</b>	15,35	94		21	<b>13</b>	9,6	7,7	5,2	4,0	8350	-		
<b>1295</b>	17,25	84		19	<b>12</b>	8,9	7,1	4,7	3,5	8693	-		
<b>1450</b>	18,72	77		20	<b>12</b>	8,6	6,5	4,3	3,3	8586	-		
<b>1455</b>	22,15	65		18	<b>10</b>	7,3	5,5	3,6	2,8	9311	-		
<b>1550</b>	18,04	80	<b>MT473</b>	14	<b>14</b>	9,0	6,9	4,5	3,4	7923	-	78	346
<b>1550</b>	21,74	67	<b>NT473</b>	13	<b>11</b>	7,5	5,7	3,8	2,9	8734	-	82	
<b>1550</b>	25,67	56		14	<b>9,6</b>	6,3	4,8	3,2	2,4	9717	501		
<b>1550</b>	30,93	47		13	<b>8,0</b>	5,2	4,0	2,6	2,0	10629	932		
<b>1550</b>	37,45	39		11	<b>6,6</b>	4,3	3,3	2,2	1,7	11627	1297		
<b>1550</b>	42,75	34		9,7	<b>5,8</b>	3,8	2,9	1,9	1,5	12354	1511		



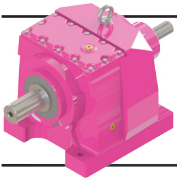
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



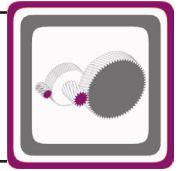
Anma Momenti <i>Nominal Torques</i> Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı	Çıkış Devri	Tipi	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)						Güv. Rad.Yük Çıkış	Güv.Rad.Yük Giriş	Ağırlık	Ölçü Sayfası
	Ratio	Output Speeds		Type	Pe= Nominal Power [kW] (For Service Factor fs=1,0)						Per.O.Loads (Output)		
	Übersetzung	Abtriebs-drehzahlen	Typ	Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]						Zul.Querkräfte (Abtrieb)	Zul.Querkräfte (Antrieb)	Gewicht	Maße Seite
	i	n2 [r.p.m] (n1=1450rpm)		n1=2900	n1=1450	n1=950	n1=725	n1=475	n1=360	Fqam [N] (n1=1450rpm)	Fqem [N] (n1=1450rpm)	[kg]	
1550	49,05	30	MT473	8,8	5,1	3,3	2,6	1,7	1,3	13146	1585	78	346
1550	55,82	26	NT473	8,0	4,4	2,9	2,2	1,5	1,1	13924	1819	82	
1550	63,70	23		7,3	3,9	2,6	2,0	1,3	0,98	14755	1857		
1550	73,09	20		6,8	3,4	2,2	1,7	1,1	0,86	15600	1891		
1550	84,46	17		5,9	3,0	2,0	1,5	0,98	0,74	15600	1922		
1550	86,52	17		5,7	2,9	1,9	1,5	0,95	0,72	15600	1930		
1550	91,58	16		5,4	2,7	1,8	1,4	0,90	0,68	15600	1941		
1550	109,64	13		4,5	2,3	1,5	1,2	0,76	0,57	15600	1971		
1550	124,85	12		4,0	2,0	1,3	1,0	0,66	0,50	15600	1989		
1550	139,54	10		3,6	1,8	1,2	0,91	0,60	0,45	15600	2006		
1550	157,90	9,2		3,2	1,6	1,1	0,80	0,53	0,40	15600	2020		
1550	194,05	7,5		2,6	1,3	0,86	0,66	0,43	0,33	15600	2039		
1550	219,00	6,6		2,3	1,2	0,76	0,58	0,38	0,29	15600	2047		
1550	229,46	6,3	MT474	2,2	1,1	0,73	0,56	0,36	0,28	15600	1470	72	347
1550	259,55	5,6	NT474	2,0	0,98	0,64	0,49	0,32	0,27	15600	1480	76	
1550	295,98	4,9		1,7	0,86	0,57	0,43	0,28	0,24	15600	1489		
1550	346,07	4,2		1,5	0,74	0,48	0,37	0,27	0,20	15600	1498		
1550	418,16	3,5		1,2	0,61	0,40	0,31	0,22	0,17	15600	1507		
1550	442,61	3,3		1,2	0,58	0,38	0,29	0,21	0,16	15600	1519		
1550	529,93	2,7		0,97	0,49	0,32	0,27	0,18	0,13	15600	1553		
1550	603,46	2,4		0,85	0,43	0,28	0,24	0,16	0,12	15600	1574		
1550	674,46	2,1		0,76	0,38	0,28	0,21	0,14	0,11	15600	1590		
1550	726,85	2,0	MT475	0,72	0,36	0,26	0,20	0,13	0,10	15600	1751	88	348
1550	871,52	1,7	NT475	0,60	0,30	0,22	0,17	0,11	0,08	15600	1756	92	
1550	934,94	1,6		0,56	0,28	0,20	0,16	0,10	0,08	15600	1758		
1550	1053,93	1,4		0,56	0,28	0,20	0,15	0,10	0,08	15600	1761		
1550	1204,49	1,2		0,49	0,24	0,18	0,14	0,09	0,07	15600	1764		
1550	1285,79	1,1		0,46	0,23	0,17	0,13	0,08	0,06	15600	1765		
1550	1386,75	1,0		0,42	0,21	0,15	0,12	0,08	0,06	15600	1767		
1550	1631,08	0,89		0,36	0,18	0,13	0,10	0,07	0,05	15600	1769		
1550	1738,98	0,83		0,34	0,17	0,12	0,09	0,06	0,05	15600	1770		
1550	1990,76	0,73		0,30	0,15	0,11	0,08	0,05	0,04	15600	1772		
1550	2107,15	0,69		0,28	0,14	0,10	0,08	0,05	0,04	15600	1775		
1550	2522,85	0,57		0,26	0,12	0,09	0,06	0,04	0,03	15600	1782		
1550	3115,96	0,47	MT476	0,21	0,10	0,07	0,05	0,03	0,03	15600	1801	90	348
1550	3561,10	0,41	NT476	0,19	0,08	0,06	0,05	0,03	0,02	15600	1802	94	
1550	3801,48	0,38		0,18	0,08	0,06	0,04	0,03	0,02	15600	1802		
1550	4099,95	0,35		0,16	0,07	0,05	0,04	0,03	0,02	15600	1803		
1550	4822,33	0,30		0,14	0,06	0,05	0,03	0,02	0,02	15600	1804		
1550	5141,34	0,28		0,13	0,06	0,04	0,03	0,02	0,02	15600	1804		
1550	5885,71	0,25		0,11	0,05	0,04	0,03	0,02	0,01	15600	1805		
1550	6229,83	0,23		0,11	0,05	0,04	0,03	0,02	0,01	15600	1806		
1550	7458,85	0,19		0,09	0,04	0,03	0,02	0,01	0,01	15600	1808		
1830	4,37	332	MT572	-	65	49	40	31	27	7606	-	109	349
1910	4,95	293	NT572	-	60	46	37	29	24	7923	-	119	
1980	5,63	258		-	55	42	34	26	21	8305	-		
2080	6,43	225		-	51	38	31	24	18	8663	-		
2180	7,41	196		-	46	35	28	21	16	9083	-		
2160	8,34	174		-	41	30	25	19	14	10086	-		
2200	9,48	153		-	36	27	22	16	13	10654	-		
2250	10,85	134		-	33	24	20	14	11	11258	-		
2320	12,50	116		-	29	22	18	13	9,4	11892	-		
2390	14,54	100		42	26	19	16	11	8,1	12621	-		
2460	17,07	85		37	23	17	14	9,1	6,9	13454	-		
2520	19,15	76		34	21	16	12	8,1	6,2	14065	-		
2650	23,02	63		29	18	13	10	6,8	5,1	15021	-		
2750	27,00	54		26	16	12	8,8	5,8	4,4	15943	-		



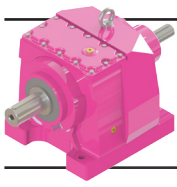
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



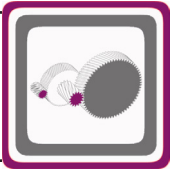
Anma Momenti <i>Nominal Torques</i> Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı	Çıkış Devri	Tipi	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)						Güv. Rad.Yük Çıkış	Güv.Rad.Yük Giriş	Ağırlık	Ölçü Sayfası
	Ratio	Output Speeds		Type	Pe= Nominal Power [kW] (For Service Factor fs=1,0)						Per.O.Loads (Output)		
	Übersetzung	Abtriebs-drehzahlen	Typ		Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]						Zul.Querkräfte (Abtrieb)	Zul.Querkräfte (Antrieb)	Gewicht
	i	n2 [r.p.m] (n1=1450rpm)		n1=2900	n1=1450	n1=950	n1=725	n1=475	n1=360	Fqam [N] (n1=1450rpm)	Fqem [N] (n1=1450rpm)	[kg]	
<b>2390</b>	22,64	64	<b>MT573</b>	27	17	13	10	7,0	5,3	15500	470	111	349
<b>2520</b>	26,54	55	<b>NT573</b>	24	15	11	9,0	5,9	4,5	16343	538	121	
<b>2650</b>	31,38	46		21	13	10	7,7	5,0	3,8	17314	601		
<b>2750</b>	35,31	41		20	12	8,9	6,8	4,5	3,4	18022	595		
<b>2860</b>	39,98	36		18	11	7,9	6,0	4,0	3,0	18799	559		
<b>3000</b>	48,74	30		16	10	6,5	4,9	3,3	2,5	19500	2621		
<b>3000</b>	54,74	26		14	8,8	5,8	4,4	2,9	2,2	19500	2960		
<b>3000</b>	64,72	22		13	7,4	4,9	3,7	2,5	1,9	19500	3030		
<b>3000</b>	72,81	20		12	6,6	4,3	3,3	2,2	1,7	19500	3073		
<b>3000</b>	82,45	18		11	5,8	3,8	2,9	1,9	1,5	19500	3112		
<b>3000</b>	100,53	14		9,5	4,8	3,2	2,4	1,6	1,2	19500	3165		
<b>3000</b>	118,95	12		8,1	4,1	2,7	2,1	1,3	1,0	19500	3202		
<b>3000</b>	134,45	11		7,2	3,6	2,4	1,8	1,2	0,90	19500	3226		
<b>3000</b>	153,61	9,4		6,3	3,2	2,1	1,6	1,0	0,79	19500	3248		
<b>3000</b>	167,32	8,7		5,8	2,9	1,9	1,5	0,96	0,73	19500	3262		
<b>3000</b>	194,15	7,5	<b>MT574</b>	5,1	2,5	1,7	1,3	0,83	0,63	19500	1601	128	350
<b>3000</b>	221,40	6,5	<b>NT574</b>	4,5	2,2	1,5	1,1	0,73	0,55	19500	1623	138	
<b>3000</b>	258,87	5,6		3,8	1,9	1,3	0,96	0,63	0,47	19500	1647		
<b>3000</b>	291,25	5,0		3,4	1,7	1,1	0,85	0,56	0,42	19500	1712		
<b>3000</b>	301,59	4,8		3,3	1,6	1,1	0,82	0,54	0,41	19500	1826		
<b>3000</b>	343,91	4,2		2,9	1,4	0,94	0,72	0,47	0,36	19500	1840		
<b>3000</b>	402,12	3,6		2,5	1,2	0,81	0,62	0,40	0,31	19500	1855		
<b>3000</b>	485,89	3,0		2,1	1,0	0,67	0,51	0,34	0,25	19500	1871		
<b>3000</b>	574,90	2,5		1,7	0,87	0,57	0,43	0,28	0,24	19500	1927		
<b>3000</b>	620,62	2,3	<b>MT575</b>	1,7	0,82	0,54	0,41	0,27	0,23	19500	1514	132	351
<b>3000</b>	698,26	2,1	<b>NT575</b>	1,5	0,73	0,48	0,37	0,27	0,20	19500	1548	142	
<b>3000</b>	790,68	1,8		1,3	0,65	0,42	0,32	0,24	0,18	19500	1580		
<b>3000</b>	964,05	1,5		1,1	0,53	0,35	0,27	0,19	0,15	19500	1623		
<b>3000</b>	1140,65	1,3		0,90	0,45	0,29	0,25	0,16	0,12	19500	1564		
<b>3000</b>	1259,61	1,2		0,81	0,41	0,27	0,23	0,15	0,11	19500	1670		
<b>3000</b>	1489,14	0,97		0,69	0,34	0,25	0,19	0,13	0,10	19500	1693		
<b>3000</b>	1675,43	0,87		0,61	0,31	0,22	0,17	0,11	0,08	19500	1708		
<b>3000</b>	1897,20	0,76		0,54	0,27	0,20	0,15	0,10	0,07	19500	1721		
<b>3000</b>	2313,18	0,63		0,49	0,25	0,18	0,14	0,09	0,07	19500	1739		
<b>3000</b>	2736,94	0,53		0,42	0,21	0,15	0,12	0,08	0,06	19500	1752		
<b>3000</b>	2850,22	0,51	<b>MT576</b>	0,41	0,20	0,15	0,11	0,07	0,06	19500	1754	134	351
<b>3000</b>	3372,36	0,43	<b>NT576</b>	0,35	0,17	0,13	0,10	0,06	0,05	19500	1765	144	
<b>3000</b>	4402,68	0,33		0,27	0,13	0,10	0,07	0,05	0,04	19500	1778		
<b>3000</b>	4953,44	0,29		0,26	0,12	0,09	0,07	0,04	0,03	19500	1783		
<b>3000</b>	6838,96	0,21		0,19	0,09	0,06	0,05	0,03	0,02	19500	1794		
<b>3000</b>	8091,82	0,18		0,16	0,07	0,05	0,04	0,03	0,02	19500	1798		
<b>2150</b>	3,29	440	<b>MT672</b>	-	101	76	62	47	39	8750	-	171	352
<b>2400</b>	3,79	383	<b>NT672</b>	-	99	74	60	46	38	8825	-	181	
<b>2670</b>	4,37	332		-	95	71	58	44	36	8909	-		
<b>2700</b>	4,53	320		-	93	70	56	43	35	9023	-		
<b>2920</b>	5,08	285		-	90	67	54	42	33	9112	-		
<b>3170</b>	5,73	253		-	86	65	52	39	29	9182	-		
<b>2870</b>	6,88	211		-	65	49	40	30	24	11622	-		
<b>2920</b>	7,91	183		-	58	43	35	27	21	12348	-		
<b>2990</b>	9,13	159		-	51	39	31	24	18	13103	-		
<b>3030</b>	9,47	153		-	50	38	30	23	18	13256	-		
<b>3090</b>	10,62	137		-	46	34	28	21	16	13891	-		
<b>3170</b>	11,97	121		-	42	31	25	19	14	14551	-		
<b>3250</b>	13,58	107		-	38	28	23	16	12	15290	-		
<b>3350</b>	15,53	93		55	34	25	21	14	11	16087	-		
<b>3470</b>	17,93	81		49	30	23	18	12	9,5	16969	-		
<b>3580</b>	20,74	70		44	27	20	16	11	8,2	17939	-		



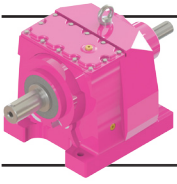
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



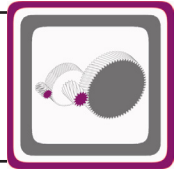
Anma Momenti <i>Nominal Torques</i> Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı <i>Ratio</i> Übersetzung i	Çıkış Devri <i>Output Speeds</i> Abtriebs-drehzahlen n2 [r.p.m] (n1=1450rpm)	Tipi <i>Type</i> Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için) <i>Pe= Nominal Power [kW] (For Service Factor fs=1,0)</i> Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0)						Güv. Rad.Yük Çıkış <i>Per.O.Loads (Output)</i>	Güv.Rad.Yük Giriş <i>Per.O.Loads (Input)</i>	Ağırlık <i>Weight</i> Gewicht [kg]	Ölçü Sayfası <i>Dim. Page</i> Maße Seite
				Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]									
				n1=2900	n1=1450	n1=950	n1=725	n1=475	n1=360				
<b>3680</b>	23,18	63	<b>MT672</b> <b>NT672</b>	40	<b>25</b>	19	15	9,6	7,3	18689	-	171 181	352
<b>3530</b>	26,66	54	<b>MT673</b>	-	<b>20</b>	16	13	8,5	6,4	20248	2575	199	352
<b>3670</b>	30,20	48	<b>NT673</b>	-	<b>19</b>	15	11	7,5	5,7	21127	2680	209	
<b>3820</b>	34,36	42		-	<b>18</b>	13	10	6,6	5,0	22076	2754		
<b>3990</b>	39,30	37		-	<b>16</b>	11	8,8	5,8	4,4	23099	2779		
<b>4160</b>	45,29	32		23	<b>15</b>	10	7,6	5,0	3,8	24263	2802		
<b>4300</b>	52,68	28		21	<b>13</b>	8,6	6,6	4,3	3,3	25671	2882		
<b>4300</b>	53,99	27		20	<b>13</b>	8,4	6,4	4,2	3,2	25956	3607		
<b>4300</b>	61,42	24		19	<b>11</b>	7,4	5,6	3,7	2,8	26500	3673		
<b>4300</b>	70,26	21		17	<b>9,8</b>	6,5	4,9	3,3	2,5	26500	3733		
<b>4300</b>	80,96	18		16	<b>8,5</b>	5,6	4,3	2,8	2,2	26500	3788		
<b>4300</b>	94,17	15		14	<b>7,4</b>	4,8	3,7	2,4	1,9	26500	3838		
<b>4300</b>	110,55	13		12	<b>6,3</b>	4,1	3,2	2,1	1,6	26500	3903		
<b>4300</b>	124,07	12		11	<b>5,6</b>	3,7	2,8	1,9	1,4	26500	3931		
<b>4300</b>	149,11	9,7		9,3	<b>4,7</b>	3,1	2,4	1,5	1,2	26500	3966		
<b>4300</b>	174,89	8,3		7,9	<b>4,0</b>	2,6	2,0	1,3	1,0	26500	3994		
<b>4300</b>	196,61	7,4		7,1	<b>3,6</b>	2,3	1,8	1,2	0,89	26500	4011		
<b>4300</b>	215,97	6,7	<b>MT674</b>	6,6	<b>3,3</b>	2,2	1,6	1,1	0,81	26500	1707	205	353
<b>4300</b>	245,67	5,9	<b>NT674</b>	5,8	<b>2,9</b>	1,9	1,4	0,95	0,72	26500	1815	215	
<b>4300</b>	281,02	5,2		5,1	<b>2,5</b>	1,7	1,3	0,83	0,63	26500	1913		
<b>4300</b>	323,82	4,5		4,4	<b>2,2</b>	1,4	1,1	0,72	0,55	26500	2004		
<b>4300</b>	376,69	3,8		3,8	<b>1,9</b>	1,2	0,95	0,62	0,47	26500	2088		
<b>4300</b>	442,20	3,3		3,2	<b>1,6</b>	1,1	0,80	0,53	0,40	26500	2164		
<b>4300</b>	500,39	2,9		2,9	<b>1,4</b>	0,93	0,71	0,47	0,35	26500	2176		
<b>4300</b>	583,04	2,5	<b>MT675</b>	2,5	<b>1,3</b>	0,82	0,62	0,41	0,31	26500	2037	214	354
<b>4300</b>	673,70	2,2	<b>NT675</b>	2,2	<b>1,1</b>	0,71	0,54	0,35	0,27	26500	2047	225	
<b>4300</b>	730,46	2,0		2,0	<b>1,0</b>	0,65	0,50	0,33	0,28	26500	2053		
<b>4300</b>	874,56	1,7		1,7	<b>0,84</b>	0,55	0,42	0,27	0,23	26500	2063		
<b>4300</b>	995,91	1,5		1,5	<b>0,74</b>	0,48	0,37	0,27	0,20	26500	2069		
<b>4300</b>	1113,08	1,3		1,3	<b>0,66</b>	0,43	0,33	0,24	0,18	26500	2074		
<b>4300</b>	1259,54	1,2		1,2	<b>0,58</b>	0,38	0,29	0,21	0,16	26500	2079		
<b>4300</b>	1432,74	1,01		1,0	<b>0,51</b>	0,34	0,26	0,19	0,14	26500	2097		
<b>4300</b>	1638,93	0,88		0,90	<b>0,45</b>	0,29	0,25	0,16	0,12	26500	2114		
<b>4300</b>	1888,53	0,77		0,78	<b>0,39</b>	0,26	0,22	0,14	0,11	26500	2130		
<b>4300</b>	2196,86	0,66		0,67	<b>0,33</b>	0,24	0,19	0,12	0,09	26500	2144		
<b>4300</b>	2578,93	0,56		0,57	<b>0,28</b>	0,21	0,16	0,10	0,08	26500	2157		
<b>4300</b>	2863,86	0,51	<b>MT676</b>	0,52	<b>0,26</b>	0,19	0,15	0,10	0,07	26500	2191	217	354
<b>4300</b>	3342,43	0,43	<b>NT676</b>	0,50	<b>0,25</b>	0,18	0,14	0,09	0,07	26500	2193	229	
<b>4300</b>	3931,45	0,37		0,43	<b>0,21</b>	0,15	0,12	0,08	0,06	26500	2196		
<b>4300</b>	4674,12	0,31		0,36	<b>0,18</b>	0,13	0,10	0,07	0,05	26500	2198		
<b>4300</b>	5287,12	0,27		0,32	<b>0,16</b>	0,12	0,09	0,06	0,04	26500	2199		
<b>4300</b>	6029,17	0,24		0,28	<b>0,14</b>	0,10	0,08	0,05	0,04	26500	2200		
<b>4300</b>	7490,08	0,19		0,25	<b>0,11</b>	0,08	0,06	0,04	0,03	26500	2202		
<b>4300</b>	8518,13	0,17		0,22	<b>0,10</b>	0,07	0,05	0,04	0,03	26500	2203		
<b>4300</b>	9689,49	0,15		0,19	<b>0,09</b>	0,06	0,05	0,03	0,02	26500	2206		
<b>4300</b>	11083,95	0,13		0,17	<b>0,08</b>	0,06	0,04	0,03	0,02	26500	2210		
<b>4300</b>	12771,99	0,11		0,15	<b>0,07</b>	0,05	0,04	0,02	0,02	26500	2213		
<b>4300</b>	14857,21	0,10		0,13	<b>0,06</b>	0,04	0,03	0,02	0,02	26500	2215		
<b>4300</b>	17441,07	0,08		0,11	<b>0,05</b>	0,04	0,03	0,02	0,01	26500	2218		
<b>3680</b>	4,73	307	<b>MT772</b>	-	<b>121</b>	91	73	56	46	46915	-	296	355
<b>3990</b>	5,38	269	<b>NT772</b>	-	<b>115</b>	87	70	54	44	47449	-	365	
<b>4330</b>	6,15	236		-	<b>110</b>	82	67	51	42	48003	-		
<b>4490</b>	6,52	222		-	<b>107</b>	81	65	50	41	48160	-		
<b>4770</b>	7,26	200		-	<b>102</b>	77	62	48	39	48690	-		
<b>6200</b>	8,46	171		-	<b>114</b>	87	71	49	37	46092	-		



# Motorsuz Güç Devir Sayfaları

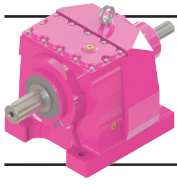
## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



Anma Momenti <i>Nominal Torques</i>  Nenn-drehmomente  Ma [Nm] (n1=1450rpm)	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	
	Ratio	Output Speeds		Type	Pe= Nominal Power [kW] (For Service Factor fs=1,0)						Per.O.Loads (Output)			Per.O.Loads (Input)
	Übersetzung	Abtriebs-drehzahlen	Typ		Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]						Zul.Querkräfte (Abtrieb)	Zul.Querkräfte (Antrieb)	Gewicht	Maße Seite
	i	n2 [r.p.m] (n1=1450rpm)			n1=2900	n1=1450	n1=950	n1=725	n1=475	n1=360	Fqam [N] (n1=1450rpm)	Fqem [N] (n1=1450rpm)		
<b>6470</b>	9,62	151	<b>MT772</b>	-	<b>105</b>	80	65	43	33	47757	-	296	355	
<b>6770</b>	11,00	132	<b>NT772</b>	-	<b>96</b>	73	57	38	29	49515	-	365		
<b>6900</b>	11,65	124		-	<b>93</b>	70	54	35	27	50302	-			
<b>7140</b>	12,98	112		-	<b>86</b>	63	48	32	24	51890	-			
<b>7420</b>	14,54	100		-	<b>80</b>	57	43	28	22	53475	-			
<b>7710</b>	16,39	88		-	<b>74</b>	50	38	25	19	51626	-			
<b>7520</b>	17,40	83	<b>MT773</b>	-	<b>68</b>	48	37	24	18	52000	-	259	355	
<b>7810</b>	19,52	74	<b>NT773</b>	-	<b>63</b>	43	33	21	16	50500	-	320		
<b>8000</b>	22,62	64		-	<b>56</b>	37	28	19	14	48500	-			
<b>8000</b>	25,99	56		-	<b>49</b>	32	25	16	12	48500	-			
<b>8000</b>	30,00	48		-	<b>42</b>	28	21	14	11	48500	-			
<b>8000</b>	31,11	47		-	<b>41</b>	27	21	14	10	48500	-			
<b>8000</b>	34,89	42		-	<b>36</b>	24	18	12	9,2	48500	-			
<b>8000</b>	39,33	37		-	<b>32</b>	21	16	11	8,1	48500	-			
<b>8000</b>	44,17	33		-	<b>29</b>	19	15	9,5	7,3	48500	4355			
<b>8000</b>	50,75	29		-	<b>25</b>	17	13	8,3	6,3	48500	4494			
<b>8000</b>	58,59	25		-	<b>22</b>	14	11	7,2	5,5	48500	4619			
<b>8000</b>	60,76	24		-	<b>21</b>	14	11	7,0	5,3	48500	4629			
<b>8000</b>	68,15	21		-	<b>19</b>	12	9,4	6,2	4,7	48500	4714			
<b>8000</b>	76,81	19		-	<b>17</b>	11	8,4	5,5	4,2	48500	4792			
<b>8000</b>	87,13	17		-	<b>15</b>	9,7	7,4	4,9	3,7	48500	4865			
<b>8000</b>	99,63	15		26	<b>13</b>	8,5	6,5	4,3	3,2	48500	1932			
<b>8000</b>	115,06	13		22	<b>11</b>	7,4	5,6	3,7	2,8	48500	1995			
<b>8000</b>	133,05	11		19	<b>9,7</b>	6,4	4,9	3,2	2,4	48500	5070			
<b>8000</b>	148,73	9,7		17	<b>8,7</b>	5,7	4,4	2,9	2,2	48500	5106			
<b>8000</b>	178,78	8,1		14	<b>7,2</b>	4,8	3,6	2,4	1,8	48500	5159			
<b>8000</b>	208,82	6,9		12	<b>6,2</b>	4,1	3,1	2,1	1,6	48500	5195			
<b>8000</b>	190,96	7,6	<b>MT774</b>	14	<b>6,9</b>	4,5	3,4	2,3	1,7	48500	-	269	356	
<b>8000</b>	214,17	6,8	<b>NT774</b>	12	<b>6,1</b>	4,0	3,1	2,0	1,5	48500	-	330		
<b>8000</b>	241,42	6,0		11	<b>5,5</b>	3,6	2,7	1,8	1,4	48500	546			
<b>8000</b>	273,85	5,3		9,6	<b>4,8</b>	3,2	2,4	1,6	1,2	48500	1188			
<b>8000</b>	313,11	4,6		8,4	<b>4,2</b>	2,8	2,1	1,4	1,1	48500	1634			
<b>8000</b>	361,62	4,0		7,3	<b>3,7</b>	2,4	1,8	1,2	0,91	48500	1764			
<b>8000</b>	418,17	3,5		6,3	<b>3,2</b>	2,1	1,6	1,0	0,78	48500	1877			
<b>8000</b>	467,43	3,1		5,7	<b>2,8</b>	1,9	1,4	0,93	0,70	48500	1953			
<b>8000</b>	532,29	2,7		5,0	<b>2,5</b>	1,6	1,2	0,82	0,62	48500	1976			
<b>8000</b>	594,92	2,4		4,5	<b>2,2</b>	1,5	1,1	0,73	0,55	48500	1997			
<b>8000</b>	641,40	2,3	<b>MT775</b>	4,2	<b>2,1</b>	1,4	1,1	0,69	0,52	48500	1721	328	357	
<b>8000</b>	725,80	2,0	<b>NT775</b>	3,7	<b>1,9</b>	1,2	0,94	0,61	0,46	48500	1736	400		
<b>8000</b>	822,02	1,8		3,3	<b>1,7</b>	1,1	0,82	0,54	0,41	48500	1935			
<b>8000</b>	984,18	1,5		2,8	<b>1,4</b>	0,90	0,69	0,45	0,34	48500	1952			
<b>8000</b>	1120,74	1,3		2,4	<b>1,2</b>	0,80	0,61	0,40	0,30	48500	1962			
<b>8000</b>	1252,60	1,2		2,2	<b>1,1</b>	0,71	0,54	0,36	0,27	48500	1971			
<b>8000</b>	1417,41	1,0		1,9	<b>0,96</b>	0,63	0,48	0,32	0,27	48500	1978			
<b>8000</b>	1589,68	0,91		1,7	<b>0,86</b>	0,56	0,43	0,28	0,24	48500	2006			
<b>8000</b>	1791,91	0,81		1,5	<b>0,76</b>	0,50	0,38	0,28	0,21	48500	2031			
<b>8000</b>	2032,66	0,71		1,4	<b>0,67</b>	0,44	0,34	0,24	0,19	48500	2055			
<b>8000</b>	2324,10	0,62		1,2	<b>0,59</b>	0,39	0,29	0,21	0,16	48500	2077			
<b>8000</b>	2684,10	0,54		1,0	<b>0,51</b>	0,33	0,26	0,19	0,14	48500	2098			
<b>8000</b>	3103,85	0,47		0,88	<b>0,44</b>	0,29	0,24	0,16	0,12	48500	2116			
<b>8000</b>	3814,39	0,38		0,72	<b>0,36</b>	0,26	0,20	0,13	0,10	48500	2121			
<b>8000</b>	4263,81	0,34		0,64	<b>0,32</b>	0,23	0,18	0,12	0,09	48500	2133			
<b>8000</b>	4812,09	0,30		0,57	<b>0,29</b>	0,21	0,16	0,10	0,08	48500	2135			
<b>8000</b>	2916,59	0,50	<b>MT776</b>	0,96	<b>0,48</b>	0,31	0,27	0,17	0,13	48500	2160	332	357	
<b>8000</b>	3222,83	0,45	<b>NT776</b>	0,87	<b>0,43</b>	0,28	0,24	0,16	0,12	48500	2164	405		
<b>8000</b>	3761,39	0,39		0,74	<b>0,37</b>	0,27	0,21	0,14	0,10	48500	2168			

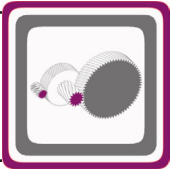




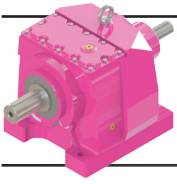
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



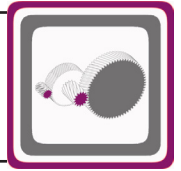
Anma Momenti <i>Nominal Torques</i> Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı	Çıkış Devri	Tipi	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)						Güv. Rad.Yük Çıkış	Güv.Rad.Yük Giriş	Ağırlık	Ölçü Sayfası
	Ratio	Output Speeds		Type	Pe= Nominal Power [kW] (For Service Factor fs=1,0)						Per.O.Loads (Output)		
	Übersetzung	Abtriebs-drehzahlen	Typ	Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]						Zul.Querkräfte (Abtrieb)	Zul.Querkräfte (Antrieb)	Gewicht	Maße Seite
	i	n2 [r.p.m] (n1=1450rpm)		n1=2900	n1=1450	n1=950	n1=725	n1=475	n1=360	Fqam [N] (n1=1450rpm)	Fqem [N] (n1=1450rpm)	[kg]	
<b>8000</b>	4424,24	0,33	<b>MT776</b>	0,63	<b>0,32</b>	0,23	0,18	0,12	0,09	48500	2172	332	357
<b>8000</b>	5260,00	0,28	<b>NT776</b>	0,53	<b>0,27</b>	0,19	0,15	0,10	0,07	48500	2175	405	
<b>8000</b>	5949,83	0,24		0,52	<b>0,26</b>	0,19	0,15	0,10	0,07	48500	2177		
<b>8000</b>	6784,90	0,21		0,46	<b>0,23</b>	0,17	0,13	0,08	0,06	48500	2179		
<b>8000</b>	8428,93	0,17		0,37	<b>0,19</b>	0,14	0,10	0,07	0,05	48500	2182		
<b>8000</b>	9585,84	0,15		0,33	<b>0,16</b>	0,12	0,09	0,06	0,05	48500	2184		
<b>8000</b>	10750,89	0,13		0,29	<b>0,15</b>	0,11	0,08	0,05	0,04	48500	2189		
<b>8000</b>	12118,56	0,12		0,26	<b>0,13</b>	0,09	0,07	0,05	0,04	48500	2194		
<b>8000</b>	13746,73	0,11		0,25	<b>0,11</b>	0,08	0,06	0,04	0,03	48500	2198		
<b>8000</b>	15717,68	0,09		0,22	<b>0,10</b>	0,07	0,06	0,04	0,03	48500	2203		
<b>8000</b>	18152,38	0,08		0,19	<b>0,09</b>	0,06	0,05	0,03	0,02	48500	2207		
<b>8000</b>	20991,08	0,07		0,17	<b>0,07</b>	0,05	0,04	0,03	0,02	48500	2210		
<b>8000</b>	23464,25	0,06		0,15	<b>0,07</b>	0,05	0,04	0,02	0,02	48500	2212		
<b>8700</b>	4,32	336	<b>MT872</b>	-	<b>319</b>	238	192	146	118	57369	-	550	358
<b>9000</b>	4,95	293	<b>NT872</b>	-	<b>287</b>	215	173	133	103	59951	-	560	
<b>9550</b>	5,22	278		-	<b>289</b>	216	175	129	98	42712	-		
<b>9900</b>	5,99	242		-	<b>261</b>	196	158	112	85	44736	-		
<b>10200</b>	6,64	218		-	<b>243</b>	182	146	101	77	46180	-		
<b>10600</b>	7,55	192		-	<b>222</b>	166	133	89	68	48005	-		
<b>11200</b>	8,87	163		-	<b>200</b>	149	116	76	58	75086	-		
<b>11500</b>	10,09	144		-	<b>180</b>	134	102	67	51	78329	-		
<b>12700</b>	11,59	125	<b>MT873</b>	-	<b>177</b>	119	91	59	45	74662	-	555	358
<b>13000</b>	13,30	109	<b>NT873</b>	-	<b>158</b>	103	79	52	39	72000	-	565	
<b>13000</b>	14,02	103		-	<b>150</b>	98	75	49	37	56769	-		
<b>13000</b>	16,09	90		-	<b>131</b>	86	65	43	32	61500	-		
<b>13000</b>	17,83	81		-	<b>118</b>	77	59	39	29	65164	-		
<b>13000</b>	20,28	72		-	<b>104</b>	68	52	34	26	69914	-		
<b>13000</b>	23,87	61		-	<b>88</b>	58	44	29	22	72000	-		
<b>13000</b>	27,39	53		-	<b>77</b>	50	38	25	19	72000	-		
<b>13000</b>	30,36	48		-	<b>69</b>	45	35	23	17	72000	-		
<b>13000</b>	34,53	42		-	<b>61</b>	40	30	20	15	72000	-		
<b>13000</b>	40,55	36		-	<b>52</b>	34	26	17	13	72000	570		
<b>13000</b>	46,12	31		-	<b>46</b>	30	23	15	11	72000	1722		
<b>13000</b>	52,86	27		-	<b>40</b>	26	20	13	9,9	72000	2253		
<b>13000</b>	56,54	26		74	<b>37</b>	24	19	12	9,2	72000	-		
<b>13000</b>	64,77	22		65	<b>32</b>	21	16	11	8,1	72000	-		
<b>13000</b>	75,51	19		56	<b>28</b>	18	14	9,1	6,9	72000	3485		
<b>13000</b>	86,51	17		49	<b>24</b>	16	12	8,0	6,0	72000	3895		
<b>13000</b>	99,81	15		42	<b>21</b>	14	11	6,9	5,2	72000	4492		
<b>13000</b>	110,17	13		38	<b>19</b>	12	9,5	6,2	4,7	72000	4631		
<b>13000</b>	107,60	13	<b>MT874</b>	39	<b>20</b>	13	9,9	6,5	4,9	72000	569	590	359
<b>13000</b>	125,70	12	<b>NT874</b>	34	<b>17</b>	11	8,5	5,5	4,2	72000	1172	600	
<b>13000</b>	147,61	9,8		29	<b>14</b>	9,5	7,2	4,7	3,6	72000	1704		
<b>13000</b>	174,68	8,3		24	<b>12</b>	8,0	6,1	4,0	3,0	72000	2176		
<b>13000</b>	188,08	7,7		23	<b>11</b>	7,4	5,7	3,7	2,8	72000	2568		
<b>13000</b>	211,60	6,9		20	<b>10</b>	6,6	5,0	3,3	2,5	72000	2638		
<b>13000</b>	239,61	6,1		18	<b>8,9</b>	5,8	4,5	2,9	2,2	72000	2697		
<b>13000</b>	292,15	5,0		15	<b>7,3</b>	4,8	3,7	2,4	1,8	72000	2774		
<b>13000</b>	345,67	4,2		12	<b>6,2</b>	4,1	3,1	2,0	1,5	72000	2831		
<b>13000</b>	390,74	3,7		11	<b>5,5</b>	3,6	2,8	1,8	1,4	72000	2867		
<b>13000</b>	446,42	3,2		9,6	<b>4,8</b>	3,2	2,4	1,6	1,2	72000	2901		
<b>13000</b>	495,97	2,9	<b>MT875</b>	8,9	<b>4,4</b>	2,9	2,2	1,5	1,1	72000	1470	618	360
<b>13000</b>	537,75	2,7	<b>NT875</b>	8,2	<b>4,1</b>	2,7	2,0	1,3	1,0	72000	1494	628	
<b>13000</b>	643,84	2,3		6,8	<b>3,4</b>	2,2	1,7	1,1	0,85	72000	1535		
<b>13000</b>	718,74	2,0		6,1	<b>3,1</b>	2,0	1,5	1,0	0,76	72000	1607		
<b>13000</b>	807,91	1,8		5,5	<b>2,7</b>	1,8	1,4	0,89	0,68	72000	1676		
<b>13000</b>	915,85	1,6		4,8	<b>2,4</b>	1,6	1,2	0,79	0,60	72000	1742		



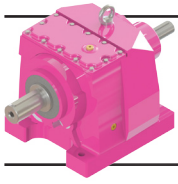
# Motorsuz Güç Devir Sayfaları

## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe



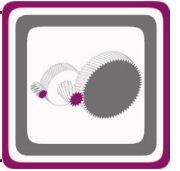
Anma Momenti <i>Nominal Torques</i> Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı	Çıkış Devri	Tipi	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)						Güv. Rad.Yük Çıkış	Güv.Rad.Yük Giriş	Ağırlık	Ölçü Sayfası
	Ratio	Output Speeds		Type	Pe= Nominal Power [kW] (For Service Factor fs=1,0)						Per.O.Loads (Output)		
	Übersetzung	Abtriebs-drehzahlen	Typ		Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]						Zul.Querkräfte (Abtrieb)	Zul.Querkräfte (Antrieb)	Gewicht
	i	n2 [r.p.m] (n1=1450rpm)		n1=2900	n1=1450	n1=950	n1=725	n1=475	n1=360	Fqam [N] (n1=1450rpm)	Fqem [N] (n1=1450rpm)	[kg]	
<b>13000</b>	1049,18	1,4	<b>MT875</b>	4,2	<b>2,1</b>	1,4	1,1	0,69	0,52	72000	1804	618	360
<b>13000</b>	1210,51	1,2	<b>NT875</b>	3,6	<b>1,8</b>	1,2	0,91	0,60	0,45	72000	1861	628	
<b>13000</b>	1336,15	1,1		3,3	<b>1,7</b>	1,1	0,83	0,54	0,41	72000	1896		
<b>13000</b>	1521,55	0,95		2,9	<b>1,5</b>	0,95	0,73	0,48	0,36	72000	1908		
<b>13000</b>	1700,56	0,85		2,6	<b>1,3</b>	0,85	0,65	0,43	0,32	72000	1919		
<b>13000</b>	1924,32	0,75		2,3	<b>1,2</b>	0,75	0,58	0,38	0,29	72000	1928		
<b>13000</b>	2108,33	0,69	<b>MT876</b>	2,1	<b>1,1</b>	0,70	0,54	0,35	0,27	72000	2061	620	360
<b>13000</b>	2460,65	0,59	<b>NT876</b>	1,8	<b>0,92</b>	0,60	0,46	0,30	0,25	72000	2072	630	
<b>13000</b>	2894,28	0,50		1,6	<b>0,78</b>	0,51	0,39	0,26	0,22	72000	2082		
<b>13000</b>	3441,02	0,42		1,3	<b>0,66</b>	0,43	0,33	0,24	0,18	72000	2090		
<b>13000</b>	3892,30	0,37		1,2	<b>0,58</b>	0,38	0,29	0,21	0,16	72000	2096		
<b>13000</b>	4438,59	0,33		1,0	<b>0,51</b>	0,34	0,26	0,19	0,14	72000	2101		
<b>13000</b>	4954,95	0,29		0,92	<b>0,46</b>	0,30	0,26	0,17	0,13	72000	2114		
<b>13000</b>	5569,66	0,26		0,82	<b>0,41</b>	0,27	0,23	0,15	0,11	72000	2127		
<b>13000</b>	6313,78	0,23		0,72	<b>0,36</b>	0,26	0,20	0,13	0,10	72000	2140		
<b>13000</b>	7233,00	0,20		0,63	<b>0,32</b>	0,23	0,18	0,12	0,09	72000	2152		
<b>13000</b>	8345,18	0,17		0,55	<b>0,27</b>	0,20	0,15	0,10	0,08	72000	2162		
<b>13000</b>	11443,34	0,13		0,44	<b>0,22</b>	0,16	0,12	0,08	0,06	72000	2172		
<b>13000</b>	13014,00	0,11		0,39	<b>0,20</b>	0,14	0,11	0,07	0,05	72000	2174		
<b>13000</b>	14977,32	0,10		0,34	<b>0,17</b>	0,12	0,09	0,06	0,05	72000	2176		
<b>13000</b>	17501,59	0,08		0,29	<b>0,15</b>	0,11	0,08	0,05	0,04	72000	2177		
<b>9950</b>	7,11	204	<b>MT972</b>	-	<b>217</b>	163	131	101	83	94943	23900	960	361
<b>10700</b>	7,92	183	<b>NT972</b>	-	<b>210</b>	157	127	97	80	97294	20793	1010	
<b>11450</b>	8,86	164		-	<b>201</b>	151	122	94	77	99973	15969		
<b>12350</b>	9,99	145		-	<b>192</b>	144	116	89	70	102771	9691		
<b>18000</b>	11,56	125		-	<b>243</b>	159	122	80	61	94500	11034		
<b>18000</b>	12,86	113		-	<b>218</b>	143	110	72	55	94500	15627		
<b>18000</b>	14,40	101		-	<b>195</b>	128	98	64	49	94500	19933		
<b>18000</b>	16,23	89		-	<b>173</b>	114	87	57	43	94500	23900		
<b>18000</b>	18,15	80	<b>MT973</b>	-	<b>156</b>	102	78	52	39	94500	23900	1000	361
<b>18000</b>	20,36	71	<b>NT973</b>	-	<b>139</b>	91	70	46	35	94500	23900	1050	
<b>18000</b>	22,95	63		-	<b>123</b>	81	62	41	31	94500	23900		
<b>18000</b>	26,03	56		-	<b>109</b>	72	55	36	27	94500	23900		
<b>18000</b>	29,49	49		-	<b>96</b>	63	48	32	24	94500	23900		
<b>18000</b>	33,08	44		-	<b>86</b>	57	43	28	22	94500	23900		
<b>18000</b>	37,29	39		-	<b>76</b>	50	38	25	19	94500	23900		
<b>18000</b>	42,30	34		-	<b>67</b>	44	34	22	17	94500	23900		
<b>18000</b>	48,86	30		-	<b>58</b>	38	29	19	15	94500	23900		
<b>18000</b>	54,80	26		-	<b>52</b>	34	26	17	13	94500	23900		
<b>18000</b>	61,77	23		-	<b>46</b>	30	23	15	12	94500	23900		
<b>18000</b>	70,07	21		-	<b>41</b>	27	21	14	10	94500	23900		
<b>18000</b>	82,20	18		-	<b>35</b>	23	18	12	8,8	94500	23900		
<b>18000</b>	91,56	16		-	<b>31</b>	21	16	10	7,9	94500	23900		
<b>18000</b>	102,69	14		-	<b>28</b>	18	14	9,3	7,1	94500	23900		
<b>18000</b>	116,17	12		-	<b>25</b>	16	13	8,2	6,2	94500	23900		
<b>18000</b>	132,83	11		43	<b>22</b>	14	11	7,2	5,5	94500	23900		
<b>18000</b>	150,02	9,7		38	<b>19</b>	13	9,7	6,4	4,8	94500	23900		
<b>18000</b>	166,73	8,7		35	<b>17</b>	11	8,7	5,8	4,4	94500	23900		
<b>18000</b>	186,95	7,8		31	<b>16</b>	10	7,8	5,1	3,9	94500	23900		
<b>18000</b>	172,08	8,4	<b>MT974</b>	34	<b>17</b>	11	8,5	5,6	4,2	94500	-	1050	362
<b>18000</b>	193,13	7,5	<b>NT974</b>	30	<b>15</b>	10	7,6	5,0	3,8	94500	333	1100	
<b>18000</b>	216,03	6,7		27	<b>14</b>	8,9	6,8	4,5	3,4	94500	496		
<b>18000</b>	272,24	5,3		22	<b>11</b>	7,1	5,4	3,6	2,7	94500	1009		
<b>18000</b>	305,33	4,7		19	<b>9,7</b>	6,3	4,8	3,2	2,4	94500	2129		
<b>18000</b>	344,17	4,2		17	<b>8,6</b>	5,6	4,3	2,8	2,1	94500	3134		
<b>18000</b>	390,41	3,7		15	<b>7,6</b>	5,0	3,8	2,5	1,9	94500	3339		
<b>18000</b>	457,99	3,2		13	<b>6,5</b>	4,2	3,2	2,1	1,6	94500	3565		



# Motorsuz Güç Devir Sayfaları

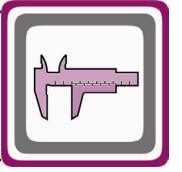
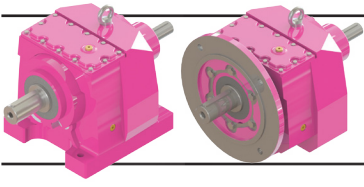
## Gear Units Performance Tables

### Leistung und Drehzahlübersicht von Getriebe

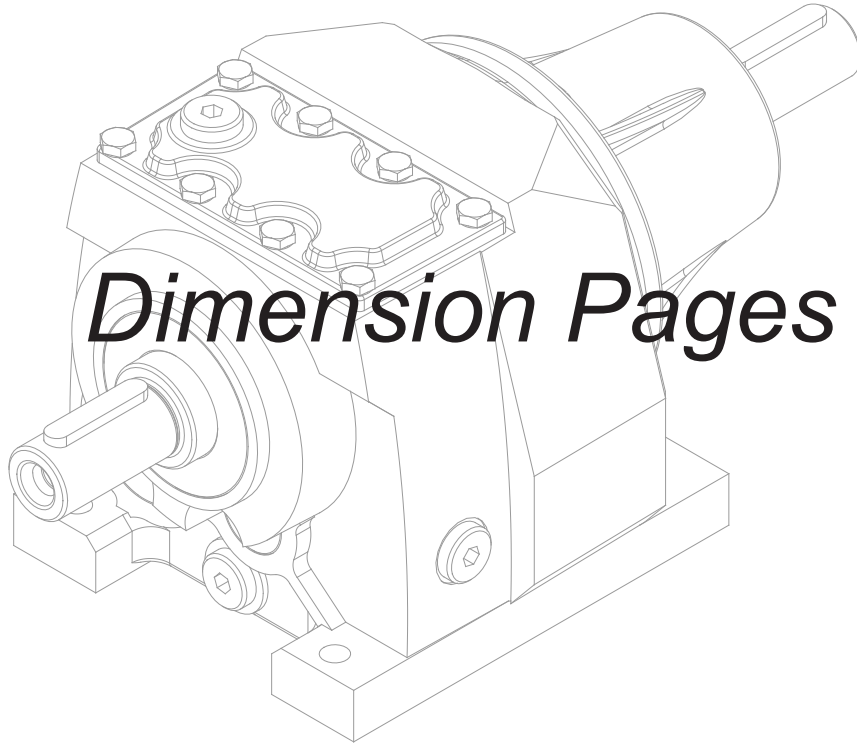


Anma Momenti <i>Nominal Torques</i> Nenn-drehmomente Ma [Nm] (n1=1450rpm)	Çevrim Oranı	Çıkış Devri	Tipi	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)						Güv. Rad.Yük Çıkış	Güv.Rad.Yük Giriş	Ağırlık	Ölçü Sayfası
	Ratio	Output Speeds		Type	Pe= Nominal Power [kW] (For Service Factor fs=1,0)						Per.O.Loads (Output)		
	Übersetzung	Abtriebs-drehzahlen	Typ	Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]						Zul.Querkräfte (Abtrieb)	Zul.Querkräfte (Antrieb)	Gewicht	Maße Seite
	i	n2 [r.p.m] (n1=1450rpm)		n1=2900	n1=1450	n1=950	n1=725	n1=475	n1=360	Fqam [N] (n1=1450rpm)	Fqem [N] (n1=1450rpm)	[kg]	
<b>18000</b>	510,11	2,8	<b>MT974</b> <b>NT974</b>	11	<b>5,6</b>	3,6	3,0	1,8	1,4	94500	3755	1050 1100	362
<b>18000</b>	462,18	3,1	<b>MT975</b>	13	<b>6,5</b>	4,3	3,3	2,1	1,6	94500	1743	1100	363
<b>18000</b>	546,94	2,7	<b>NT975</b>	11	<b>5,5</b>	3,6	2,8	1,8	1,4	94500	1801	1150	
<b>18000</b>	588,87	2,5		10	<b>5,1</b>	3,4	2,6	1,7	1,3	94500	1844		
<b>18000</b>	662,54	2,2		9,1	<b>4,6</b>	3,0	2,3	1,5	1,1	94500	1876		
<b>18000</b>	750,24	1,9		8,1	<b>4,0</b>	2,7	2,0	1,3	1,0	94500	1905		
<b>18000</b>	842,80	1,7		7,2	<b>3,6</b>	2,4	1,8	1,2	0,90	94500	1922		
<b>18000</b>	914,74	1,6		6,6	<b>3,3</b>	2,2	1,7	1,1	0,82	94500	1943		
<b>18000</b>	1082,31	1,3		5,6	<b>2,8</b>	1,8	1,4	0,92	0,70	94500	1971		
<b>18000</b>	1213,85	1,2		5,0	<b>2,5</b>	1,7	1,3	0,82	0,62	94500	2040		
<b>18000</b>	1368,27	1,1		4,5	<b>2,2</b>	1,5	1,1	0,73	0,55	94500	2103		
<b>18000</b>	1552,10	0,93		3,9	<b>2,0</b>	1,3	0,98	0,64	0,49	94500	2162		
<b>18000</b>	1820,78	0,80		3,4	<b>1,7</b>	1,1	0,84	0,55	0,42	94500	2226		
<b>18000</b>	2027,97	0,71		3,0	<b>1,5</b>	0,99	0,75	0,49	0,37	94500	2265		
<b>18000</b>	2836,64	0,51	<b>MT976</b>	2,2	<b>1,1</b>	0,72	0,55	0,36	0,27	94500	2396	1105	363
<b>18000</b>	3594,81	0,40	<b>NT976</b>	1,7	<b>0,87</b>	0,57	0,43	0,28	0,24	94500	2411	1155	
<b>18000</b>	4227,50	0,34		1,5	<b>0,74</b>	0,48	0,37	0,27	0,20	94500	2463		
<b>18000</b>	4474,67	0,32		1,4	<b>0,70</b>	0,46	0,35	0,25	0,19	94500	2466		
<b>18000</b>	5357,43	0,27		1,2	<b>0,59</b>	0,38	0,29	0,21	0,16	94500	2473		
<b>18000</b>	6842,29	0,21		0,92	<b>0,46</b>	0,30	0,26	0,17	0,13	94500	2491		
<b>18000</b>	8620,11	0,17		0,73	<b>0,36</b>	0,27	0,20	0,13	0,10	94500	2506		
<b>18000</b>	11064,86	0,13		0,57	<b>0,28</b>	0,21	0,16	0,10	0,08	94500	2520		
<b>18000</b>	15951,72	0,09		0,44	<b>0,22</b>	0,16	0,12	0,08	0,06	94500	2535		
<b>18000</b>	20051,59	0,07		0,35	<b>0,18</b>	0,13	0,10	0,06	0,05	94500	2542		

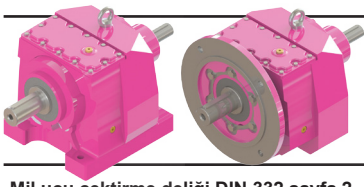




# Ölçü Sayfaları



Abmessungsseiten

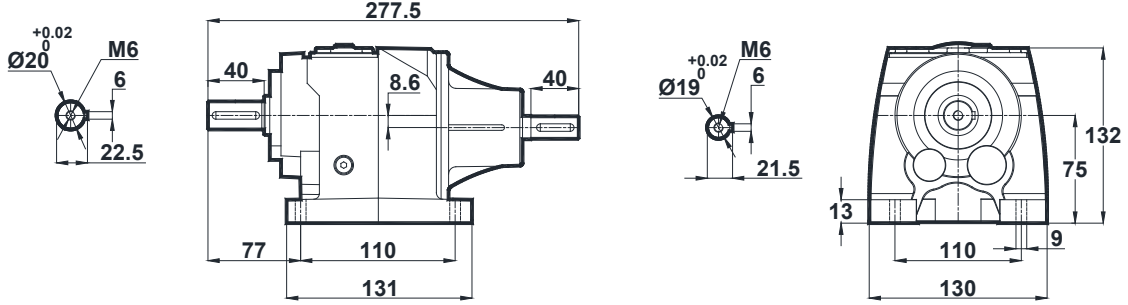


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

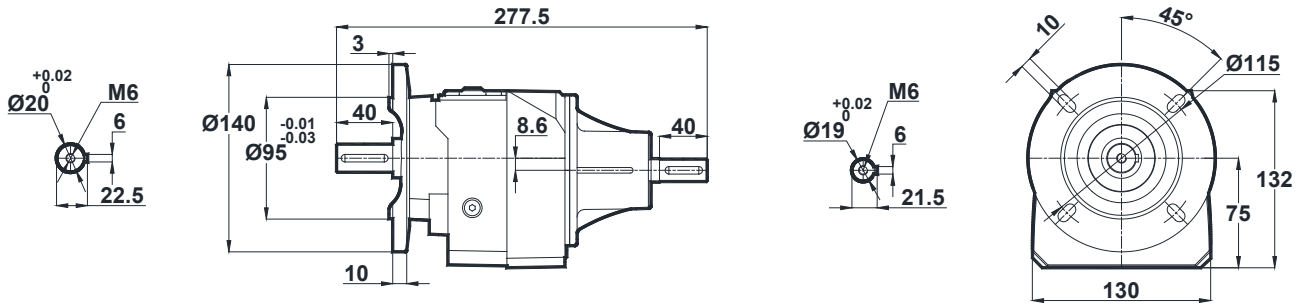


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

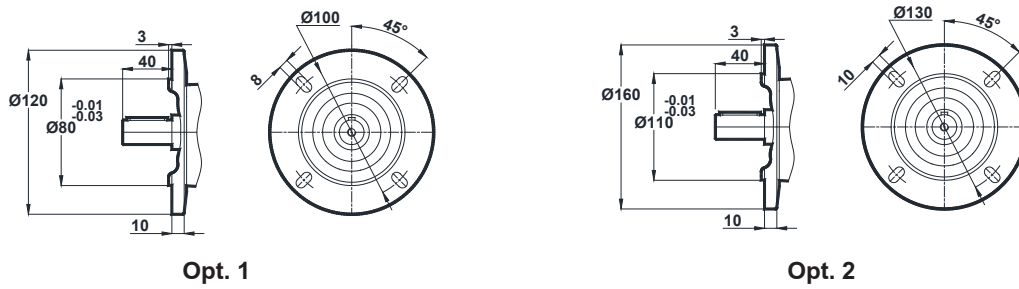
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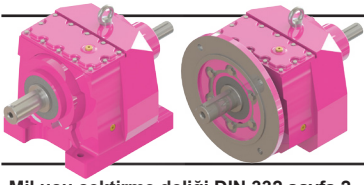


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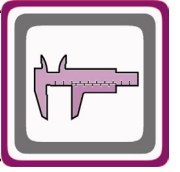


### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



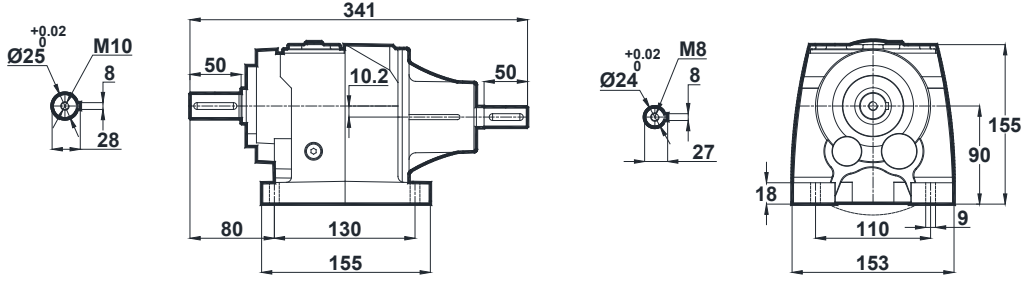


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

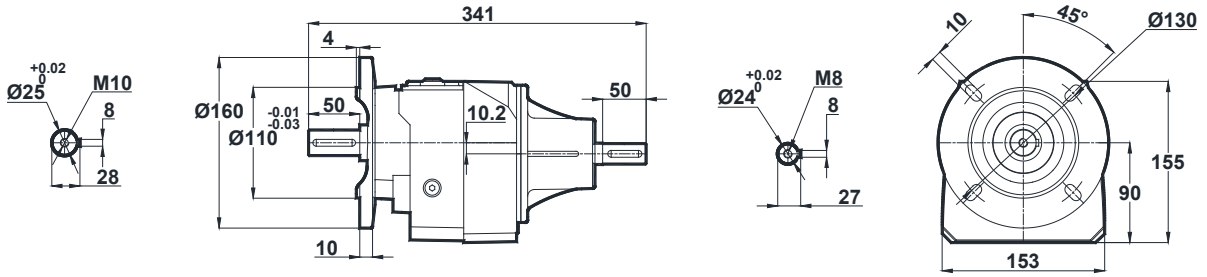


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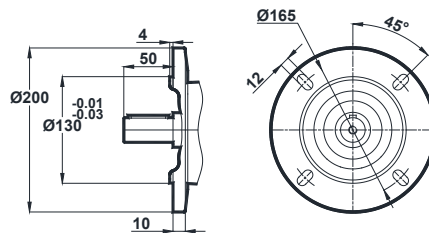
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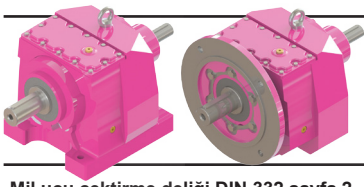
## NT102 NT103



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



Opt. 1

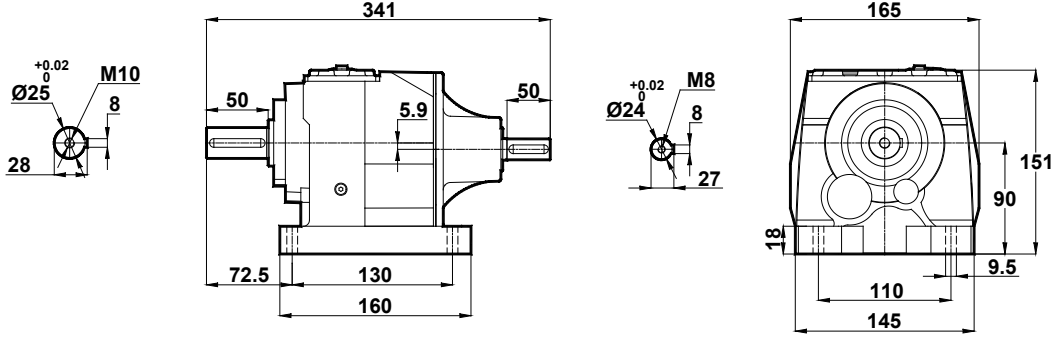


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

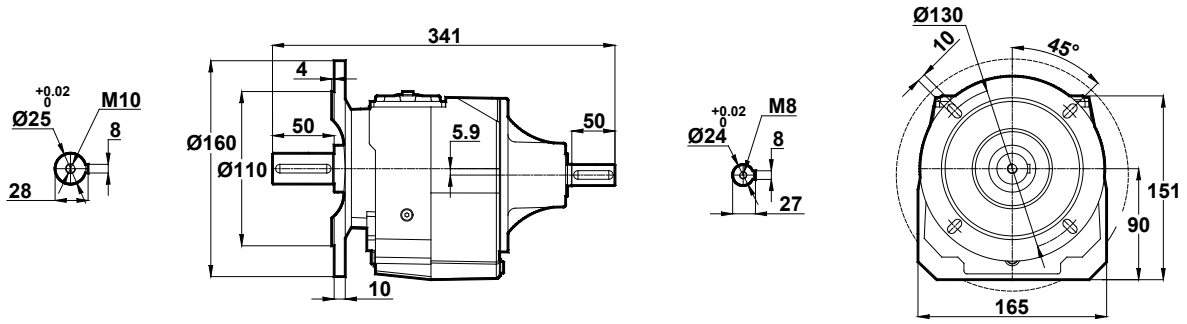


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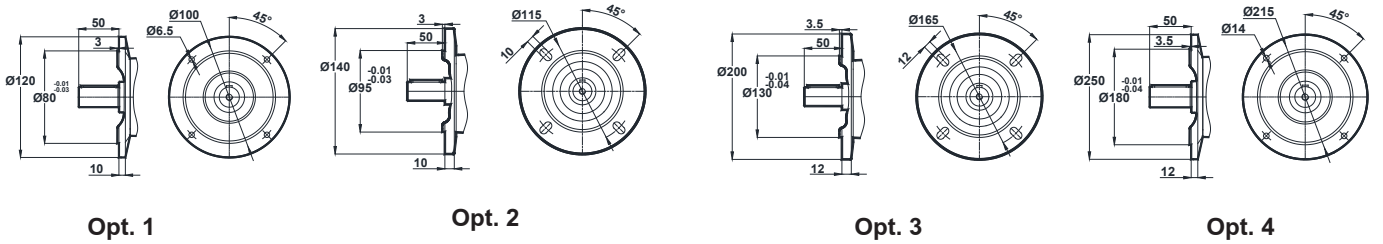
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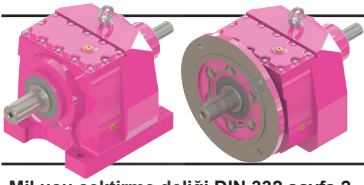
## NT172 NT173



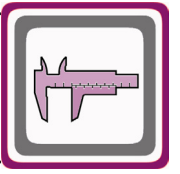
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen





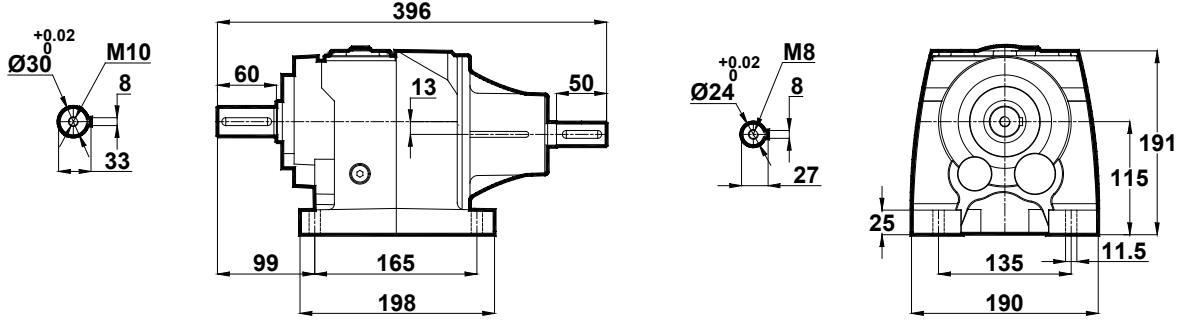


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

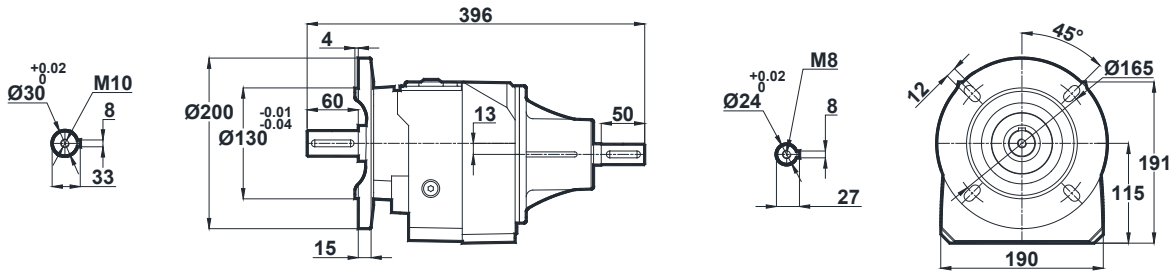


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

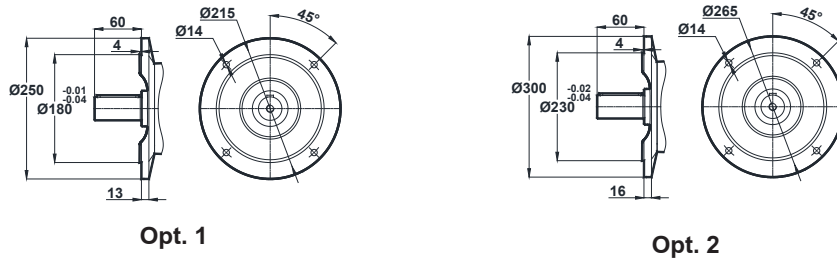
## MT202 MT203

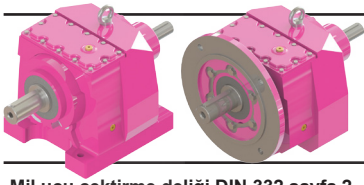


## NT202 NT203



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



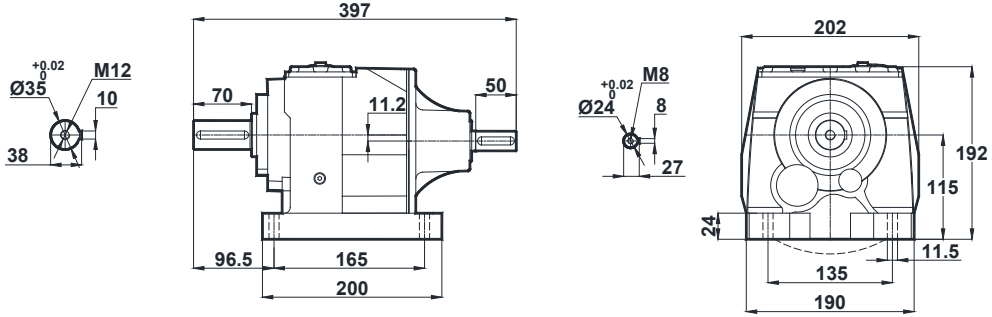


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

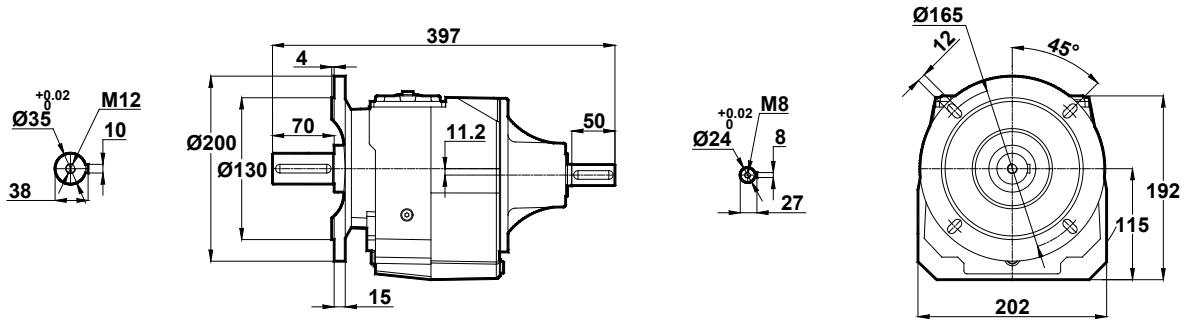


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

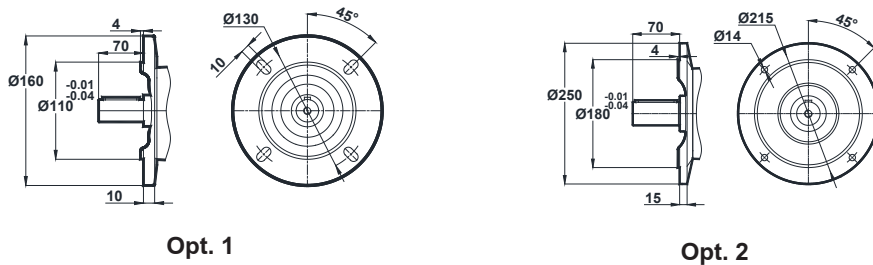
## MT272 MT273



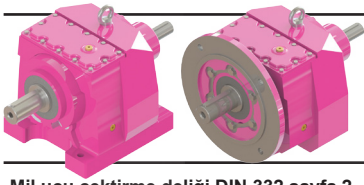
## NT272 NT273



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





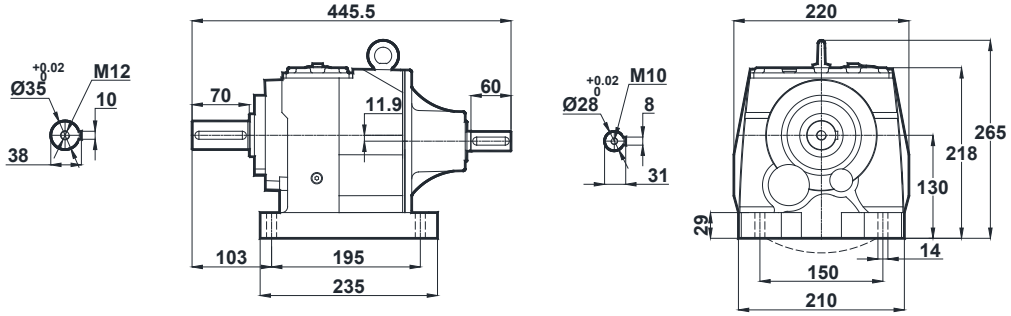


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

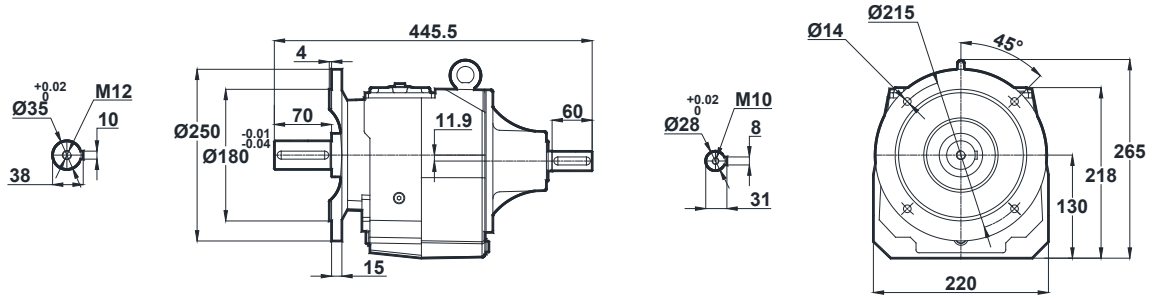


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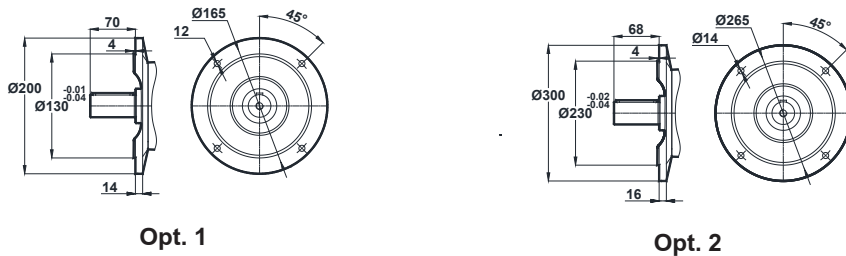
## MT282 MT283

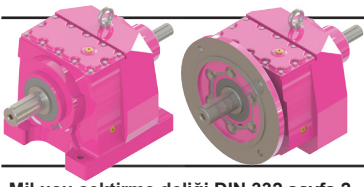


## NT282 NT283

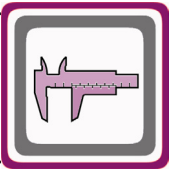


### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



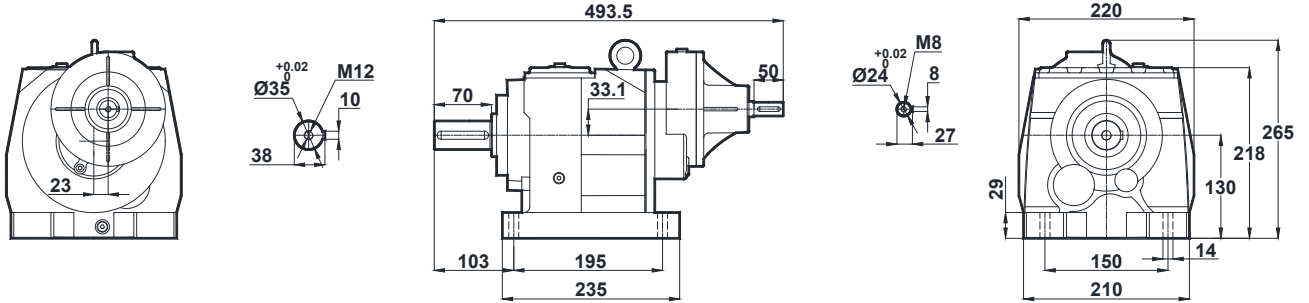


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

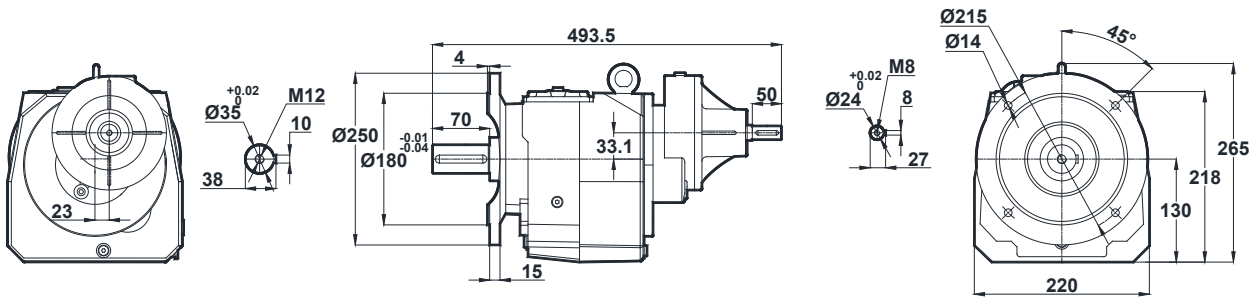


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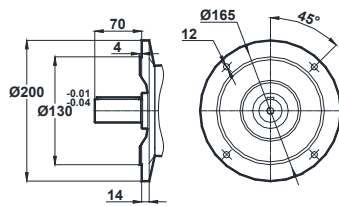
## MT284



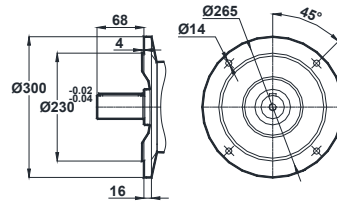
## NT284



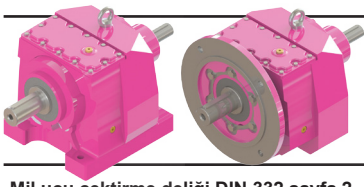
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



Opt. 2

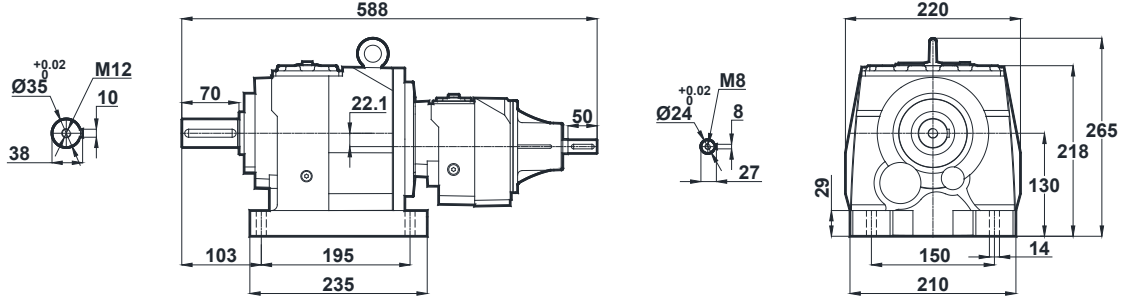


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

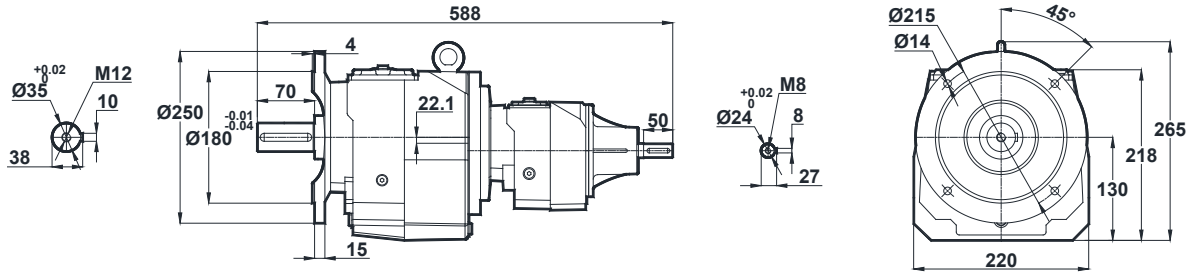


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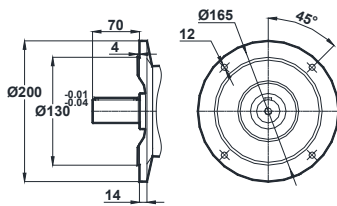
## MT285 MT286



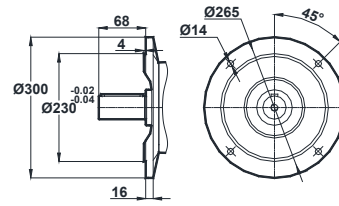
## NT285 NT286



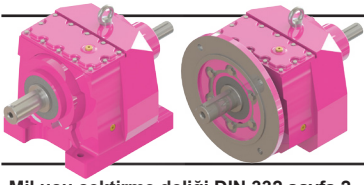
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



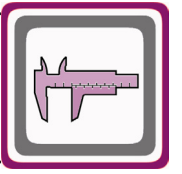
Opt. 1



Opt. 2

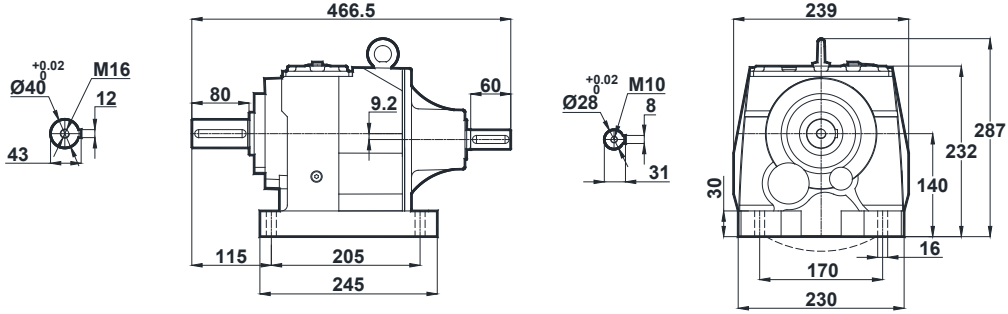


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

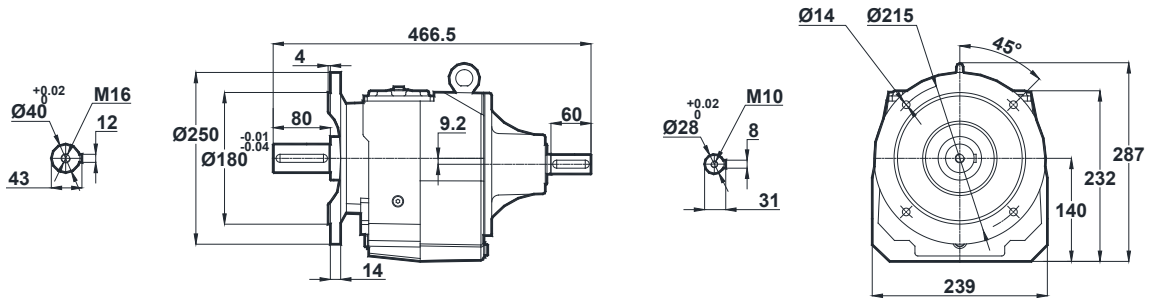


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

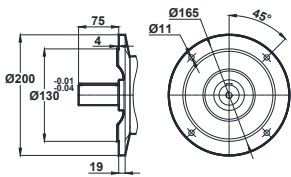
## MT372 MT373



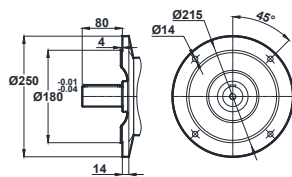
## NT372 NT373



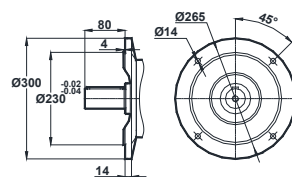
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



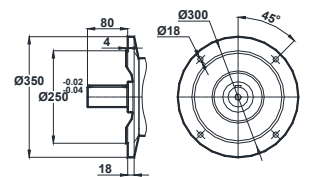
Opt. 1



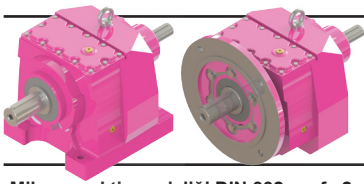
Opt. 2



Opt. 3



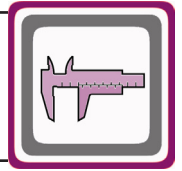
Opt. 4



# Ölçü Sayfaları

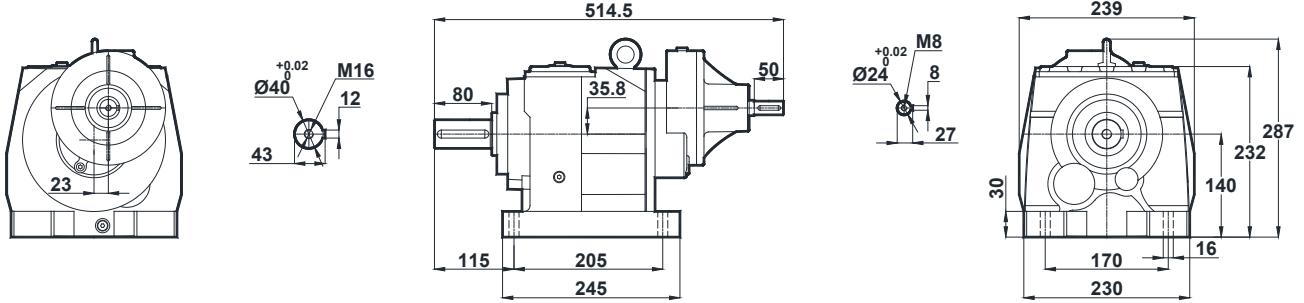
## Dimension Pages

### Abmessungsseiten

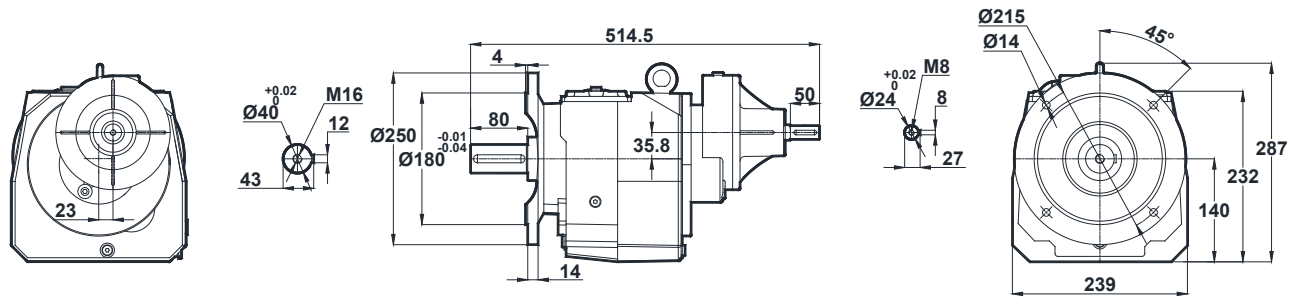


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

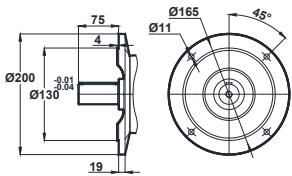
## MT374



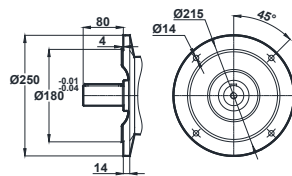
## NT374



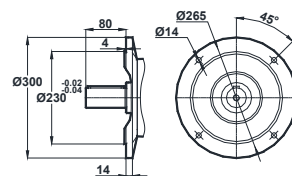
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



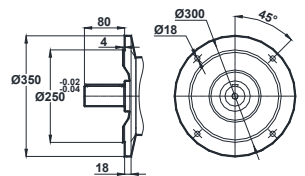
Opt. 1



Opt. 2

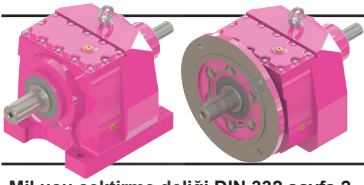


Opt. 3

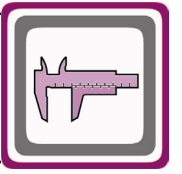


Opt. 4



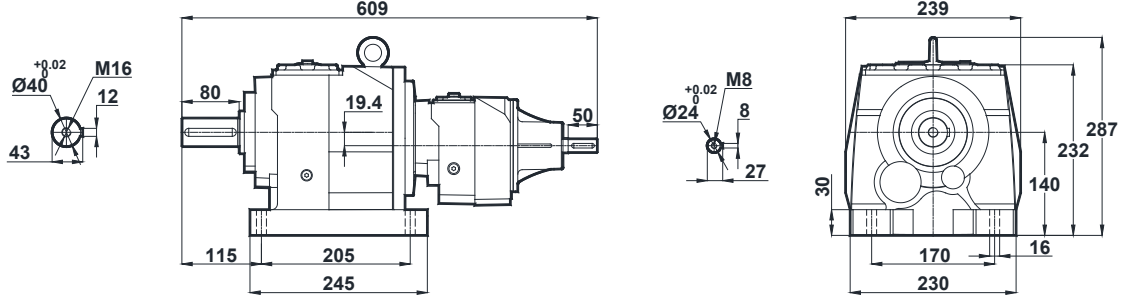


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

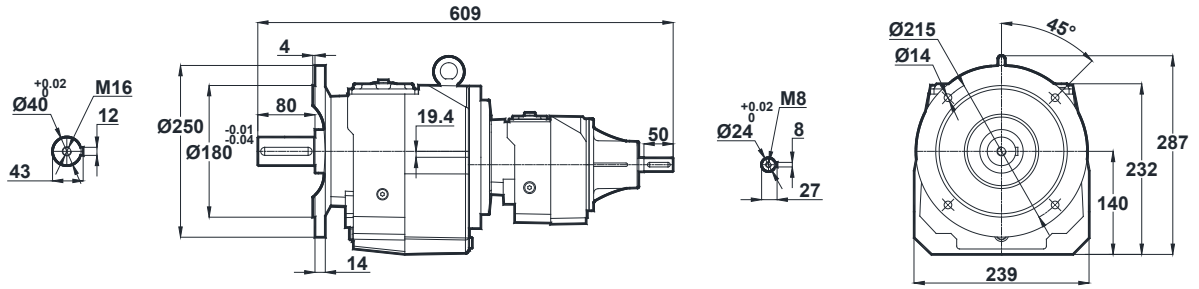


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

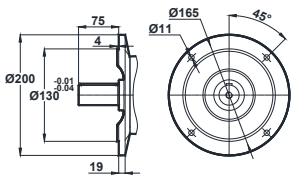
## MT375 MT376



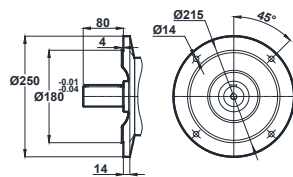
## NT375 NT376



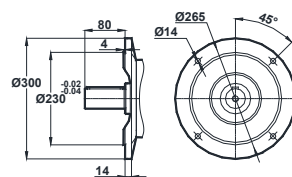
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



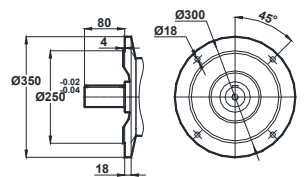
Opt. 1



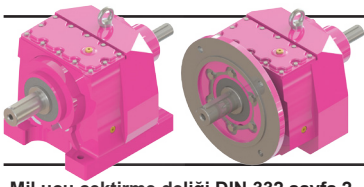
Opt. 2



Opt. 3



Opt. 4

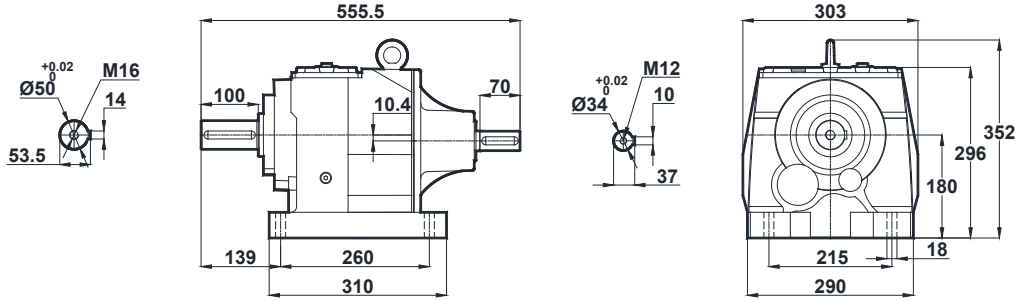


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

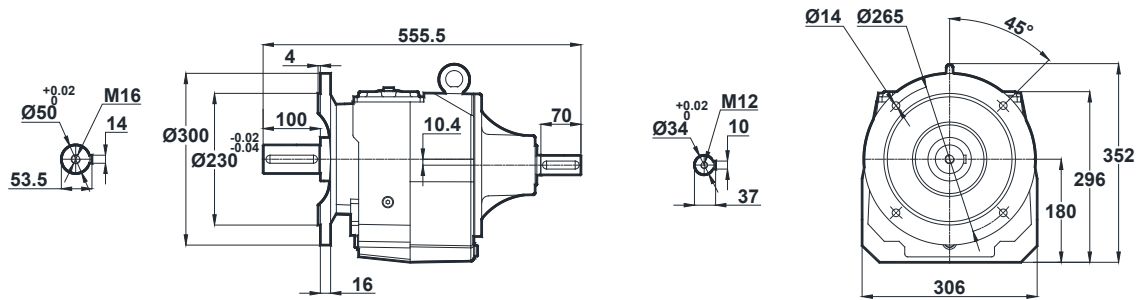


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

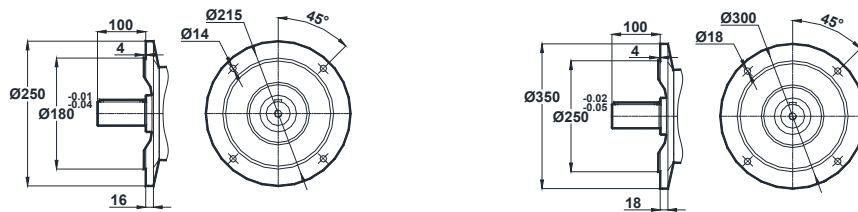
## MT472 MT473



## NT472 NT473

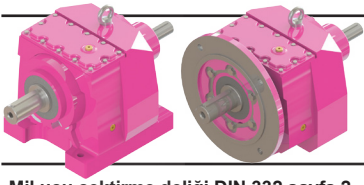


### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

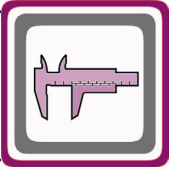
Opt. 2



# Ölçü Sayfaları

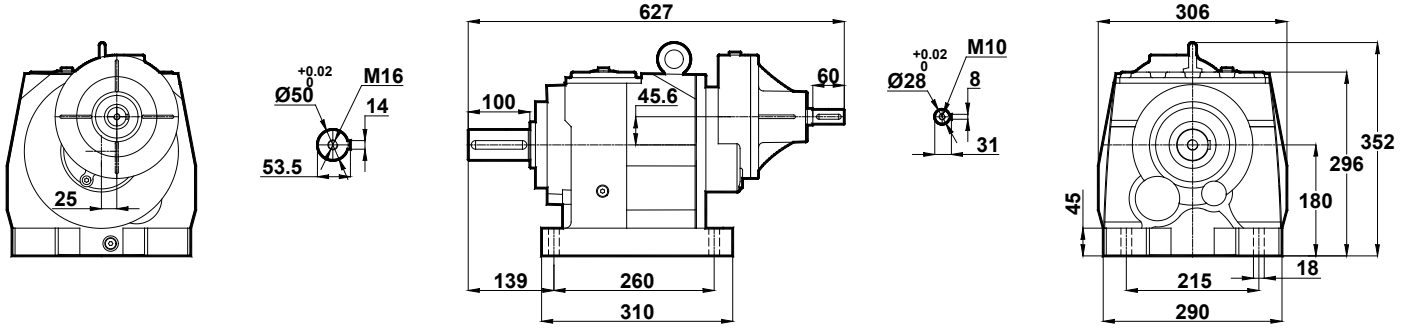
## Dimension Pages

### Abmessungsseiten

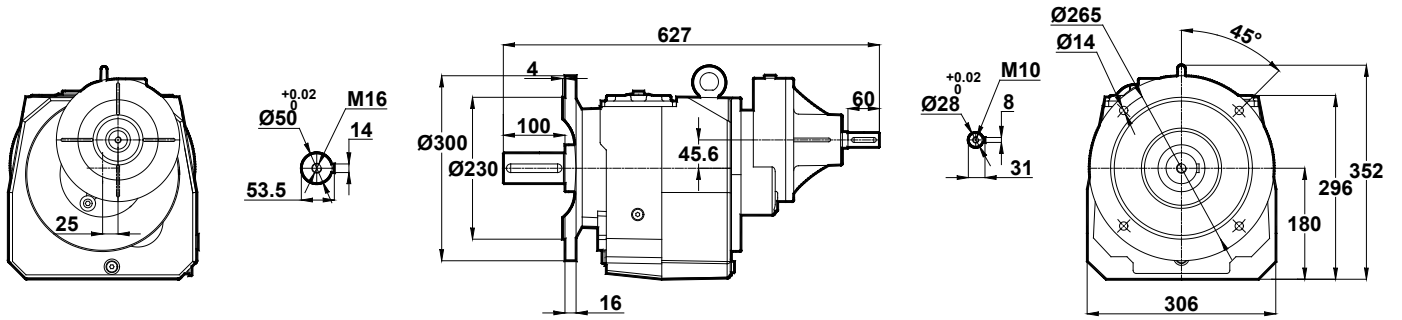


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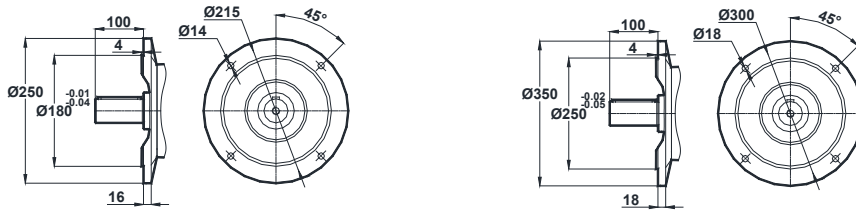
## MT474



## NT474

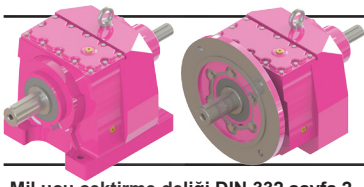


### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

Opt. 2

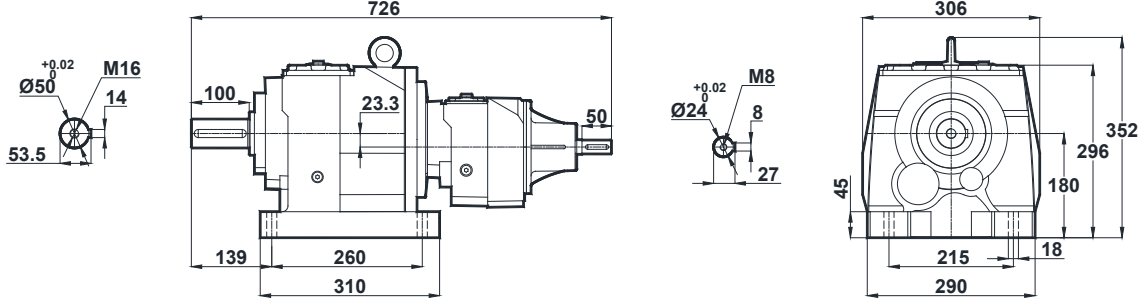


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

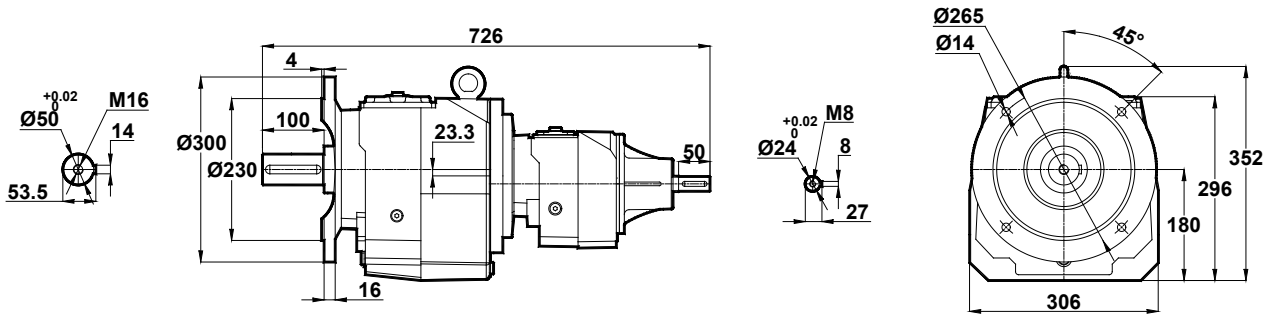


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

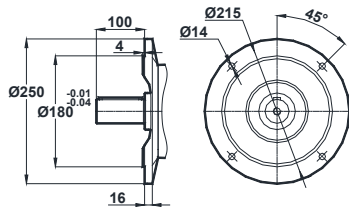
## MT475 MT476



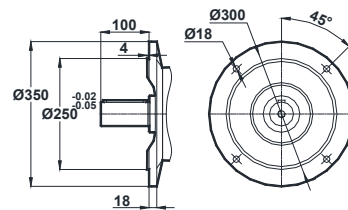
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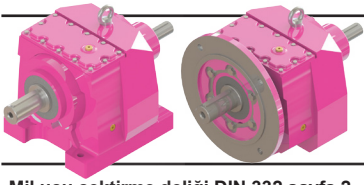
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



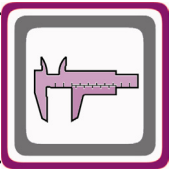
Opt. 1



Opt. 2

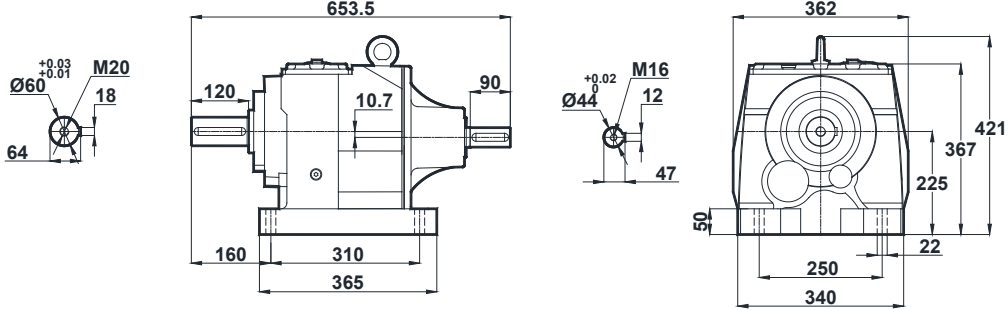


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

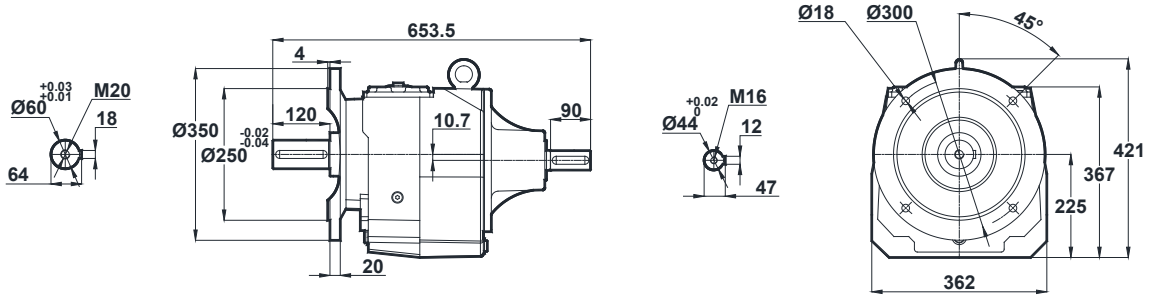


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

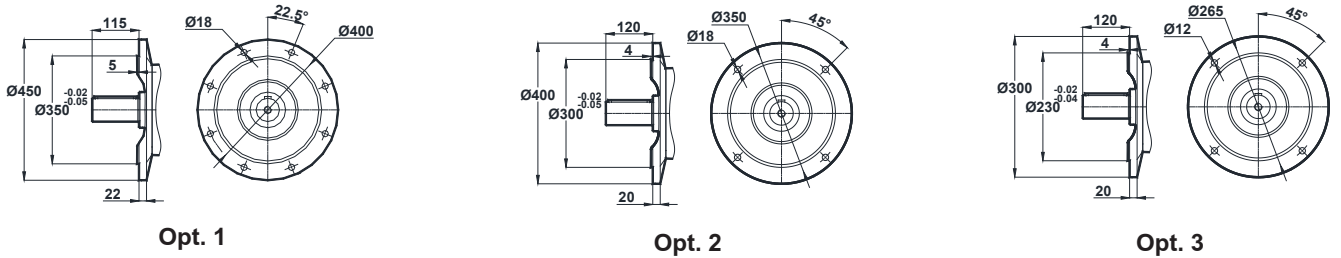
## MT572 MT573

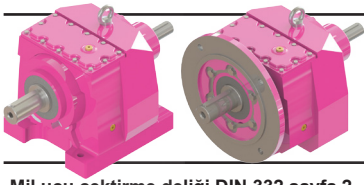


## NT572 NT573



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



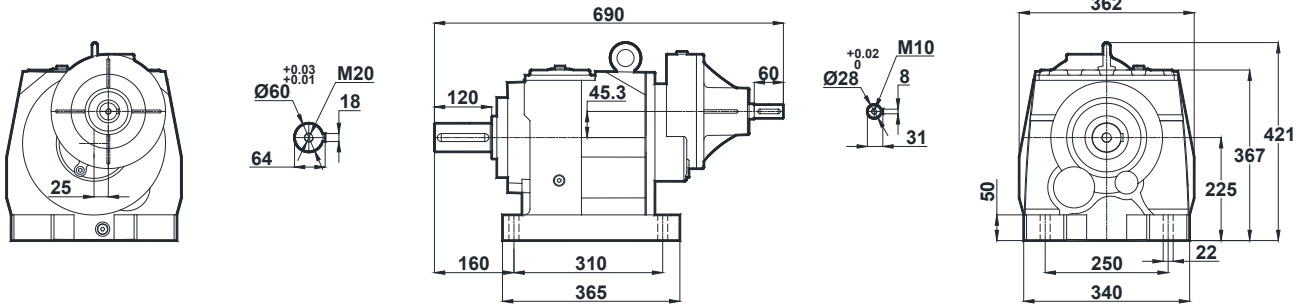


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

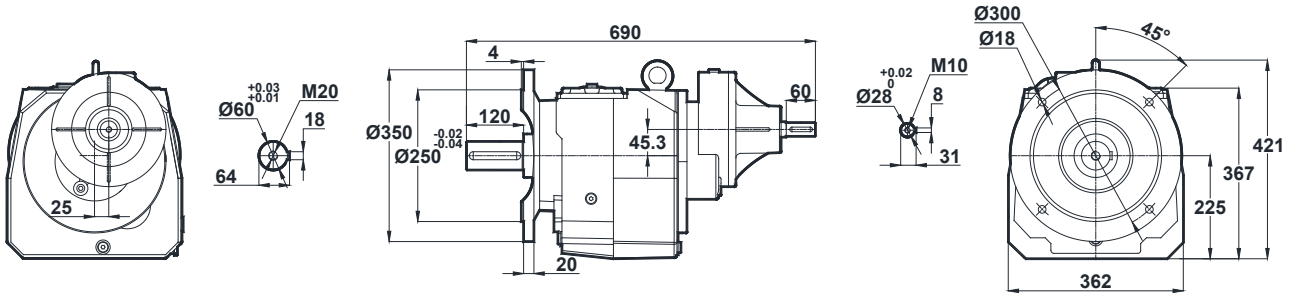


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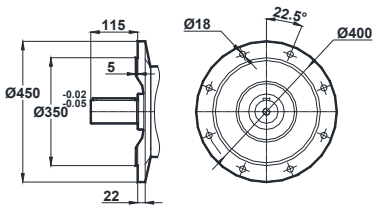
## MT574



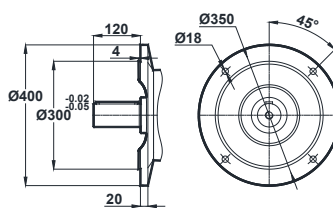
## NT574



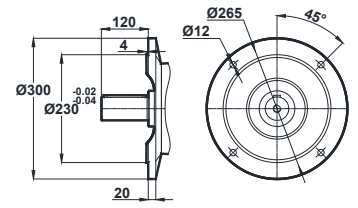
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



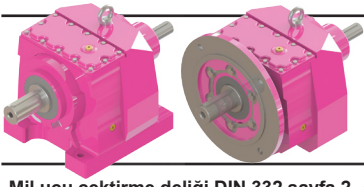
Opt. 1



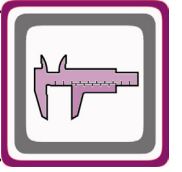
Opt. 2



Opt. 3

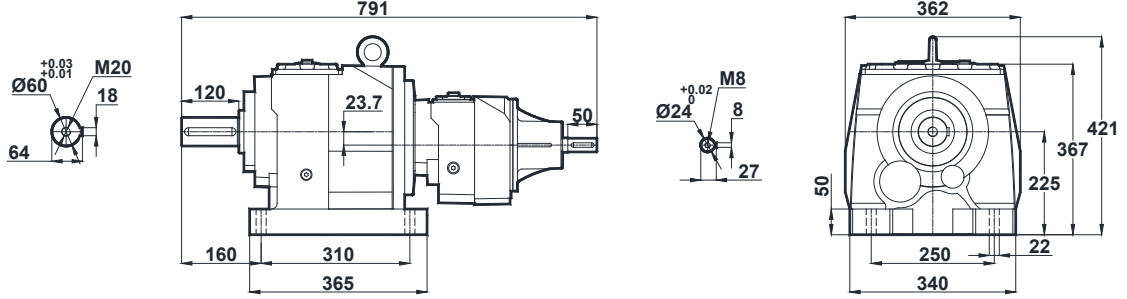


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

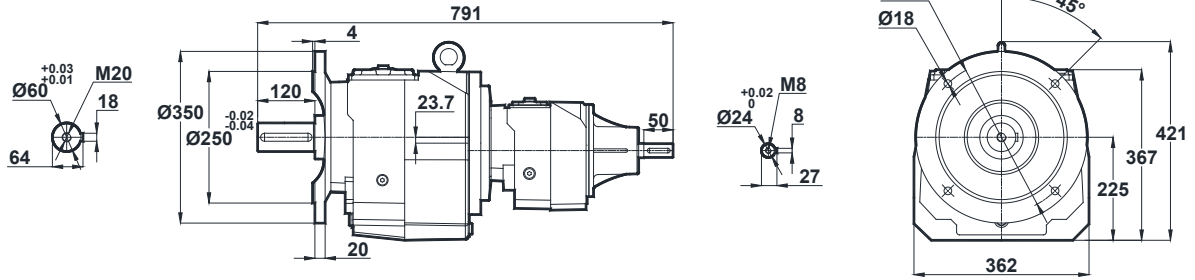


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

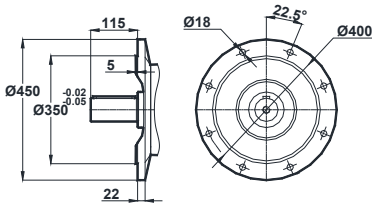
## MT575 MT576



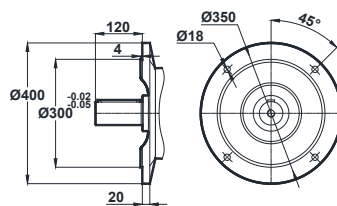
## NT575 NT576



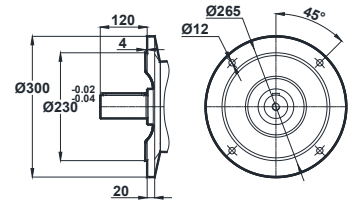
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



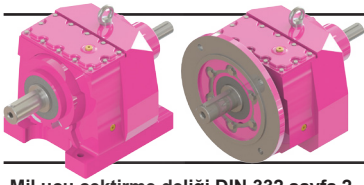
Opt. 1



Opt. 2



Opt. 3

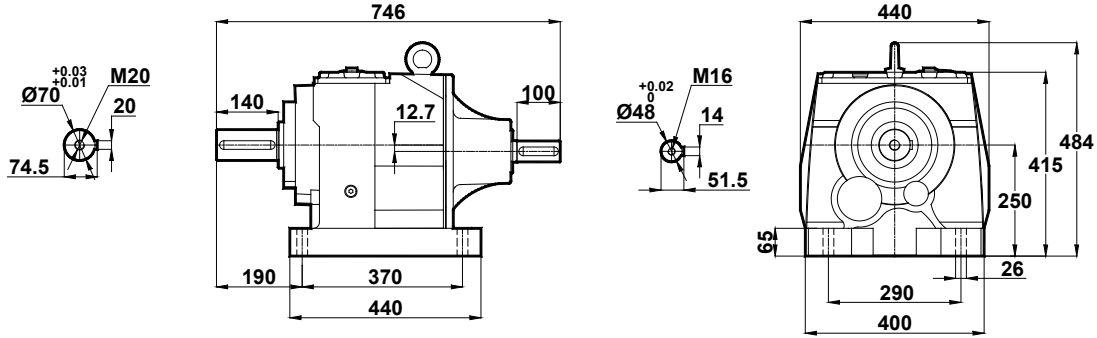


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

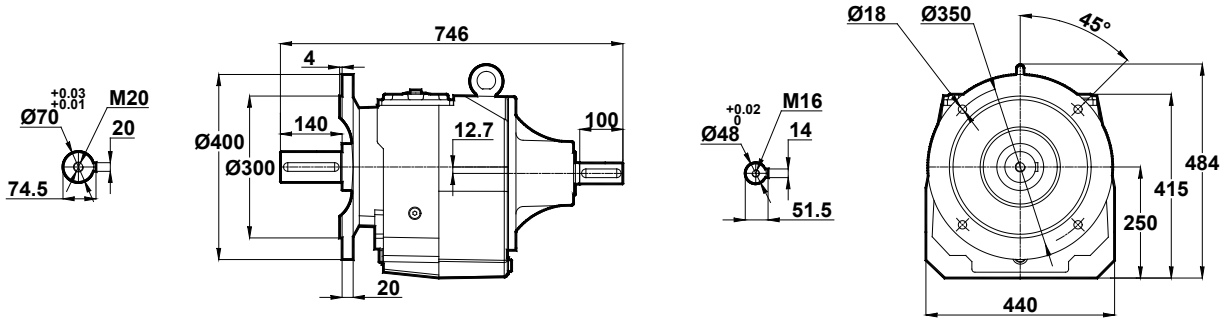


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

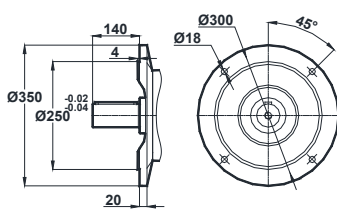
## MT672 MT673



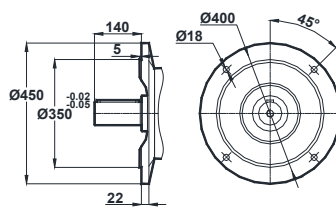
## NT672 NT673



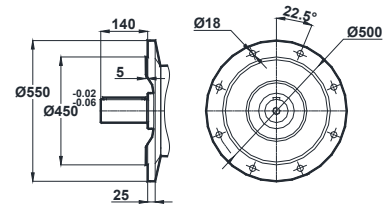
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

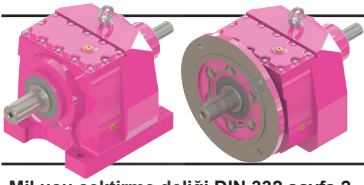


Opt. 2

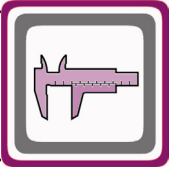


Opt. 3



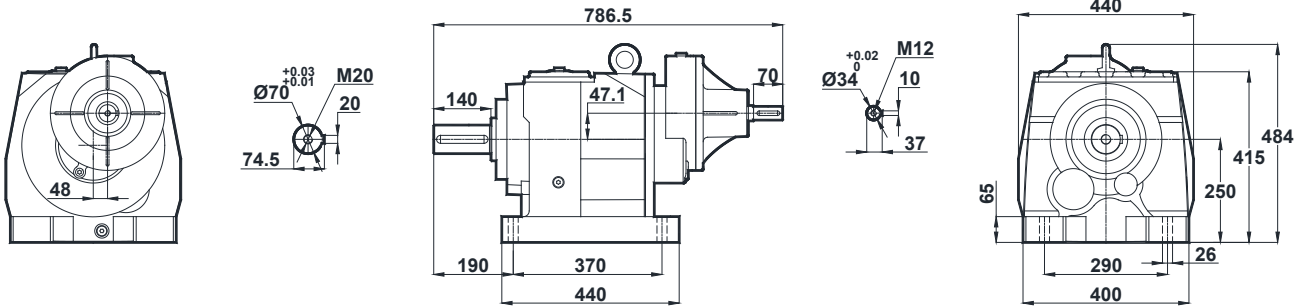


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

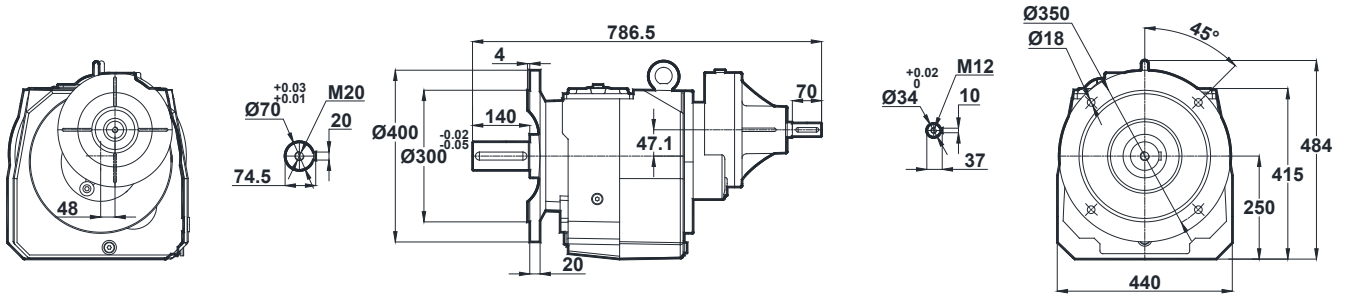


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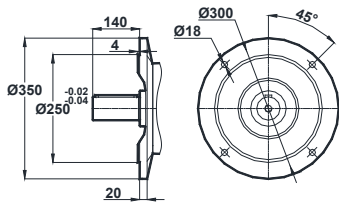
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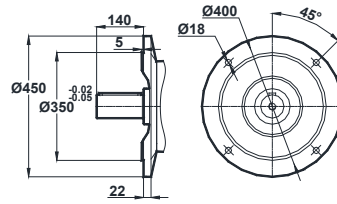
## NT674



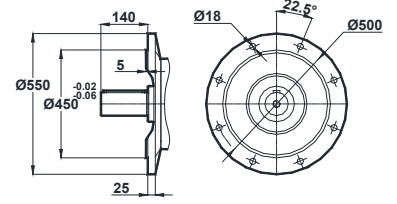
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



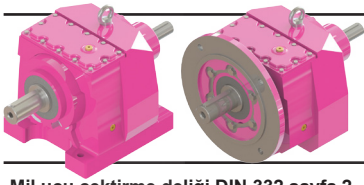
Opt. 1



Opt. 2



Opt. 3

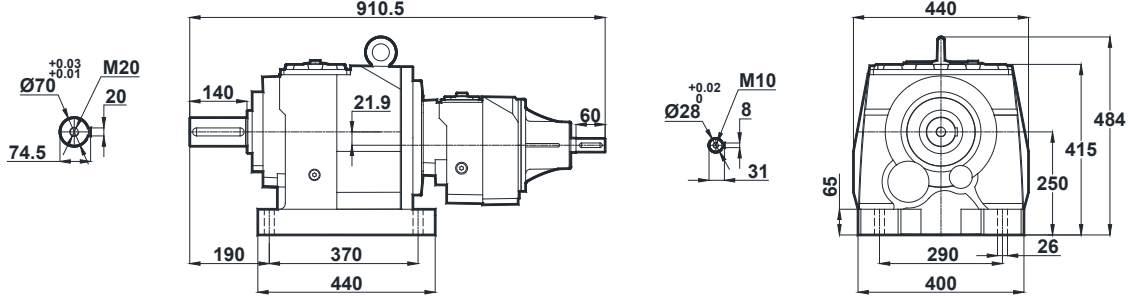


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

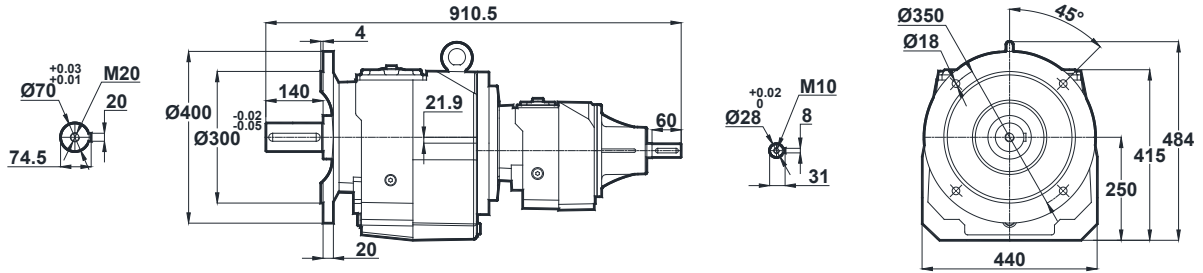


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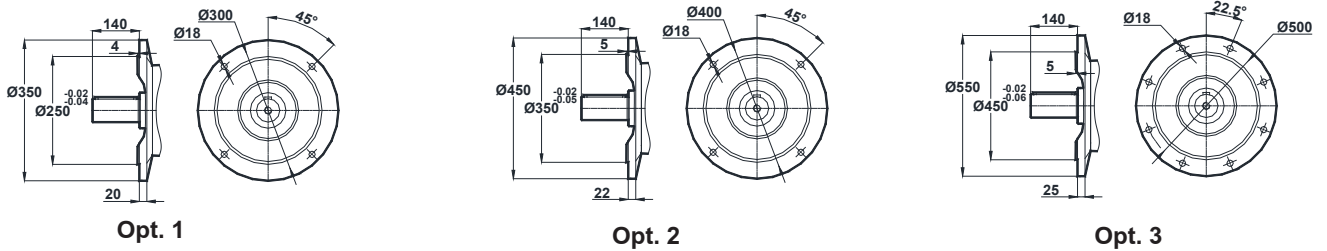
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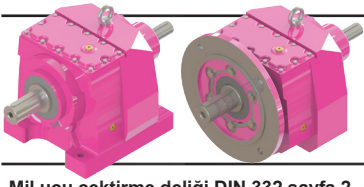


## NT675 NT676

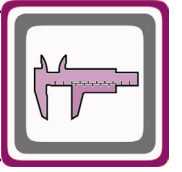


### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



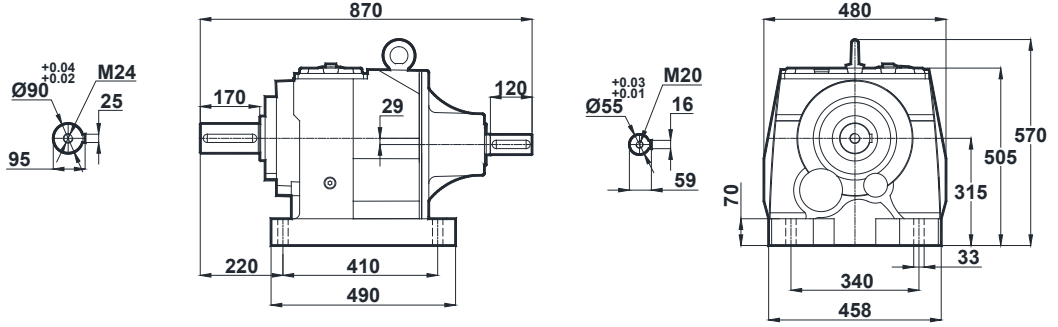


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

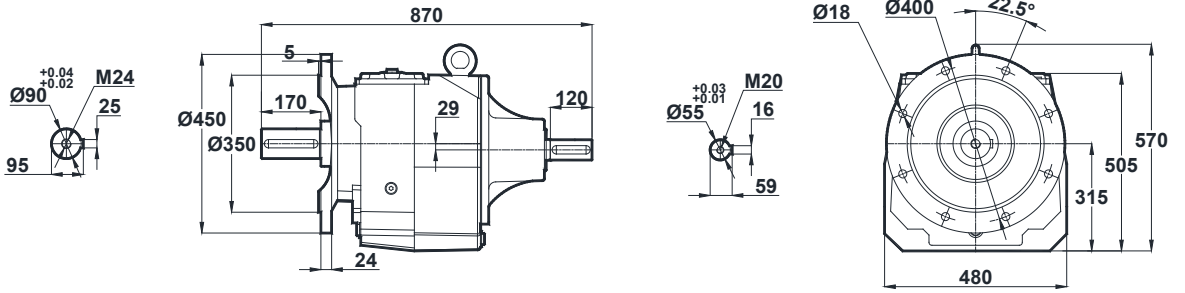


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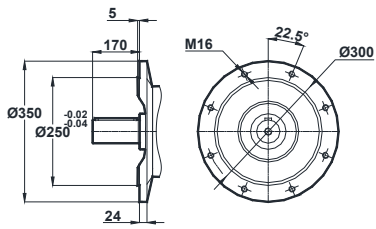
**MT772  
MT773**



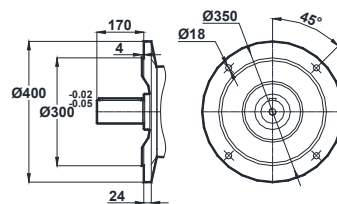
**NT772  
NT773**



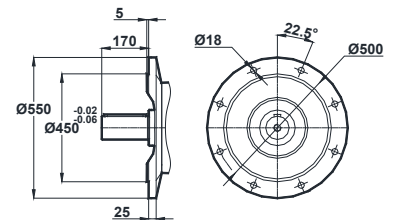
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



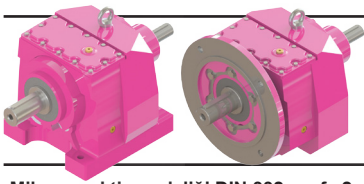
**Opt. 1**



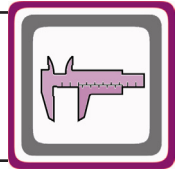
**Opt. 2**



**Opt. 3**

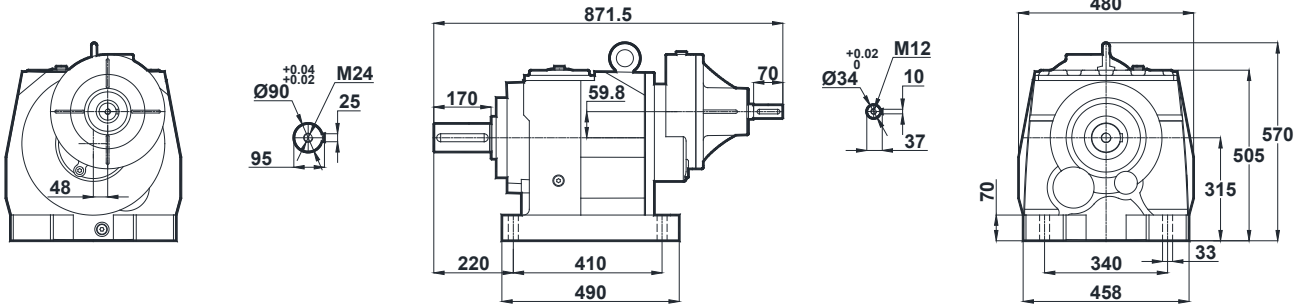


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

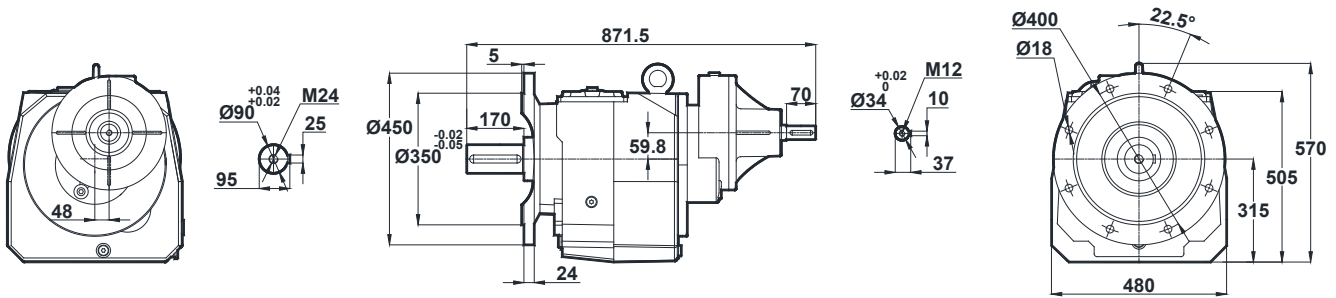


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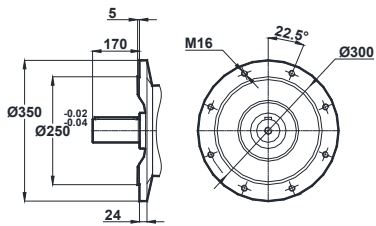
## MT774



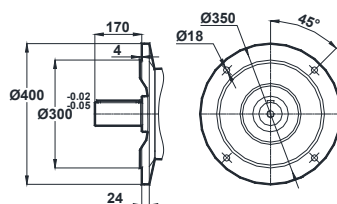
## NT774



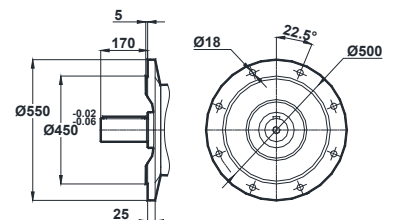
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



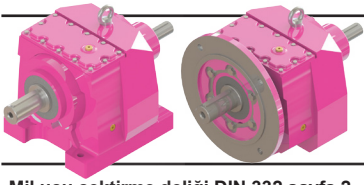
Opt. 1



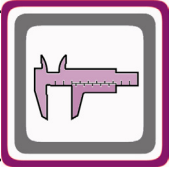
Opt. 2



Opt. 3

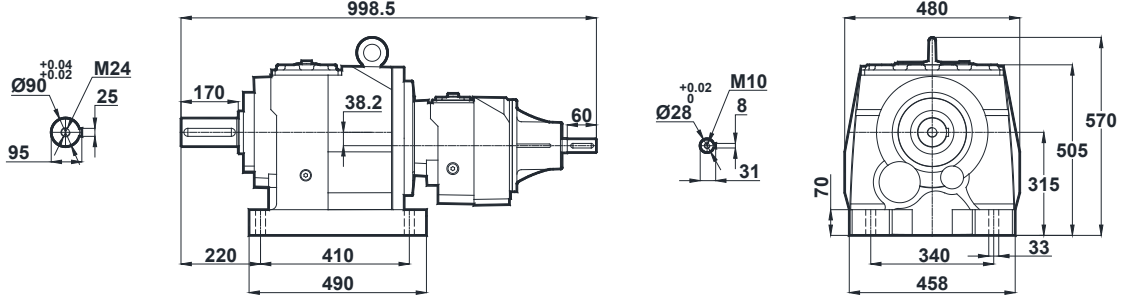


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

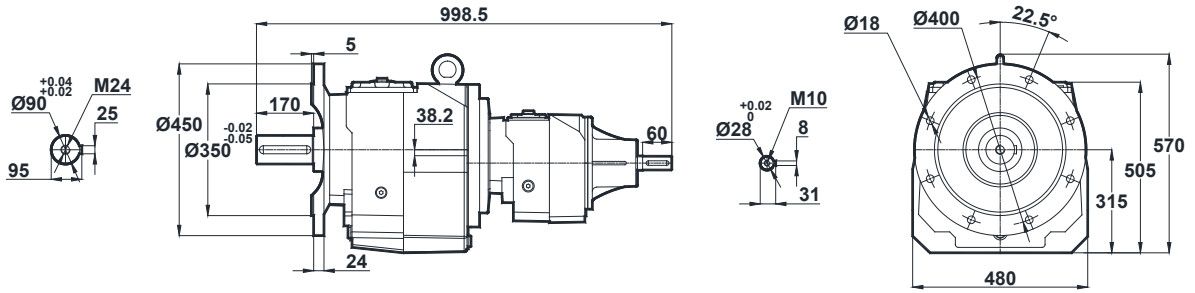


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

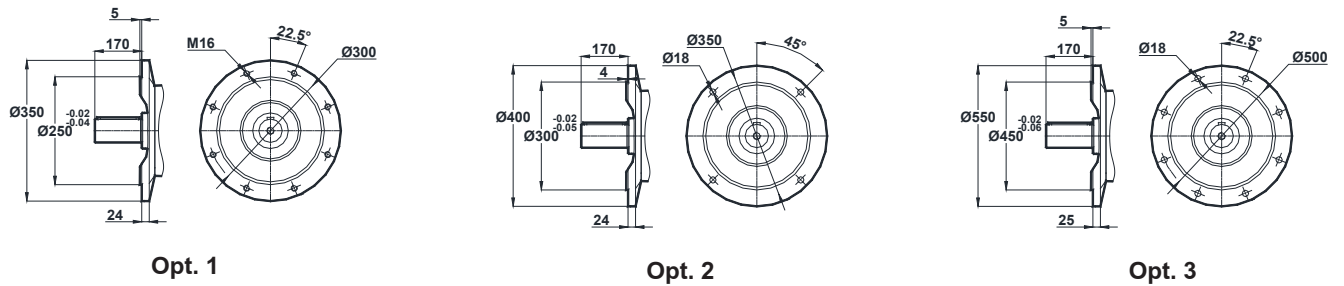
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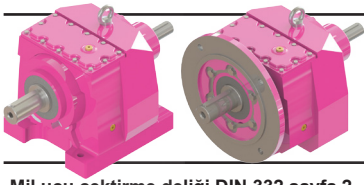


## NT775 NT776



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



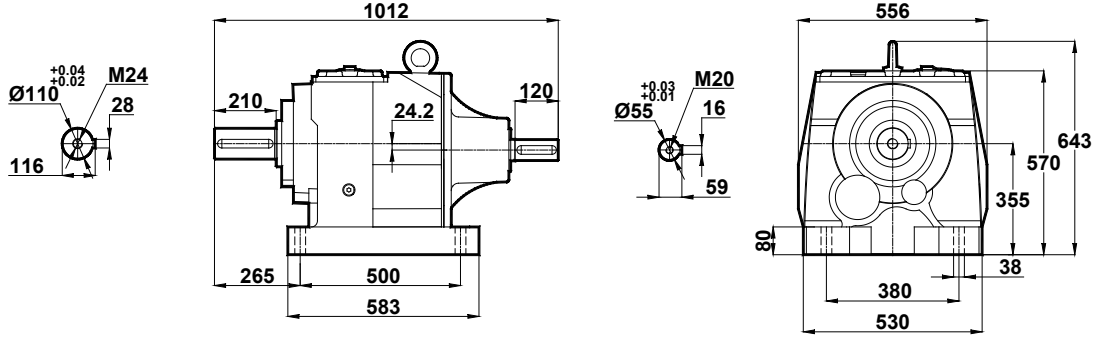


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

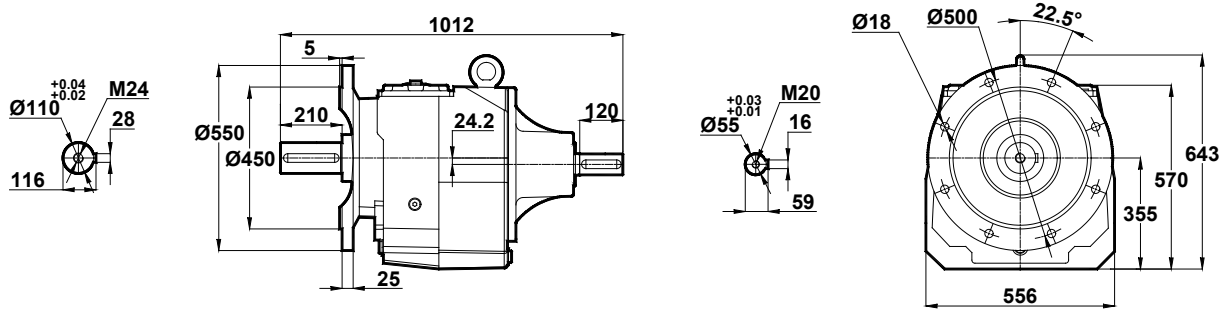


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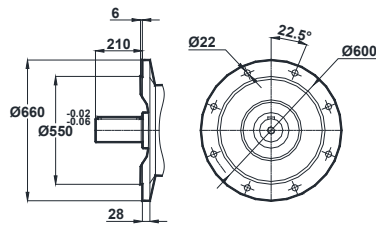
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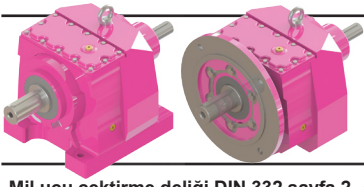
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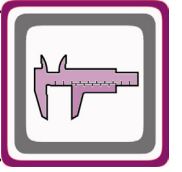
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

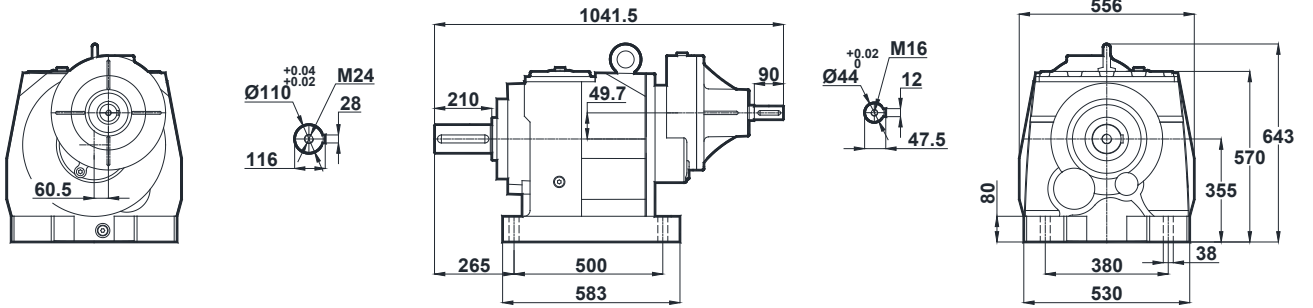


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

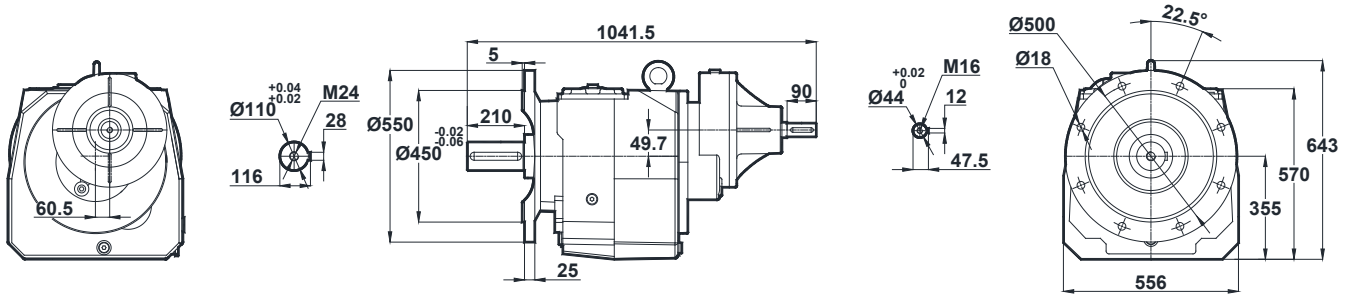


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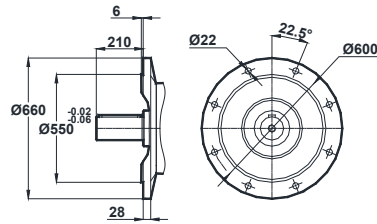
## MT874



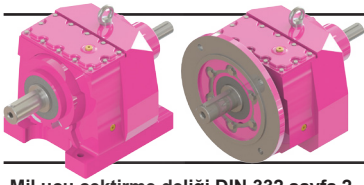
## NT874



Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

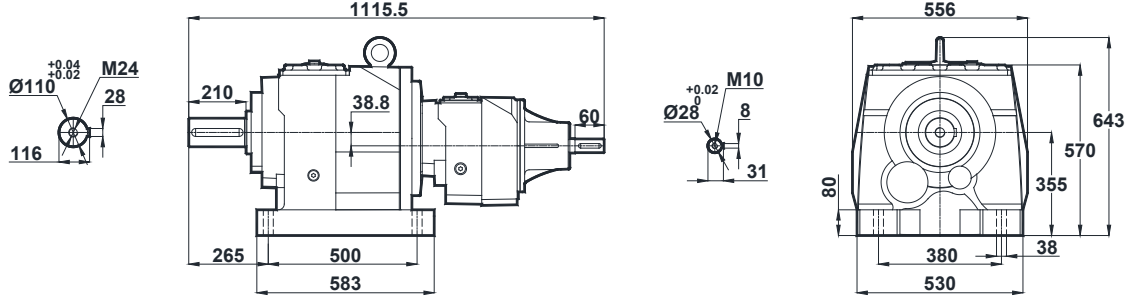


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

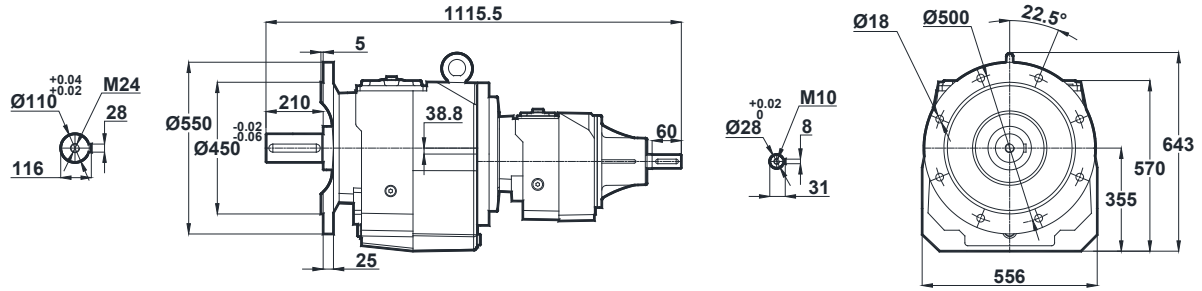


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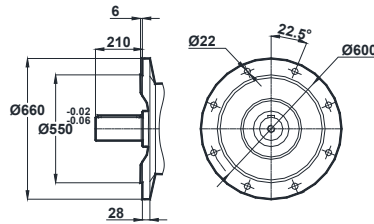
## MT875 MT876



## NT875 NT876

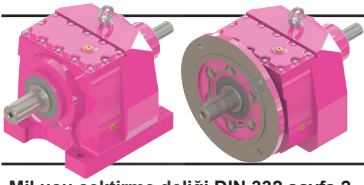


### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

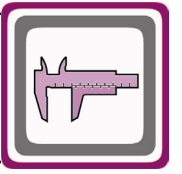




# Ölçü Sayfaları

## Dimension Pages

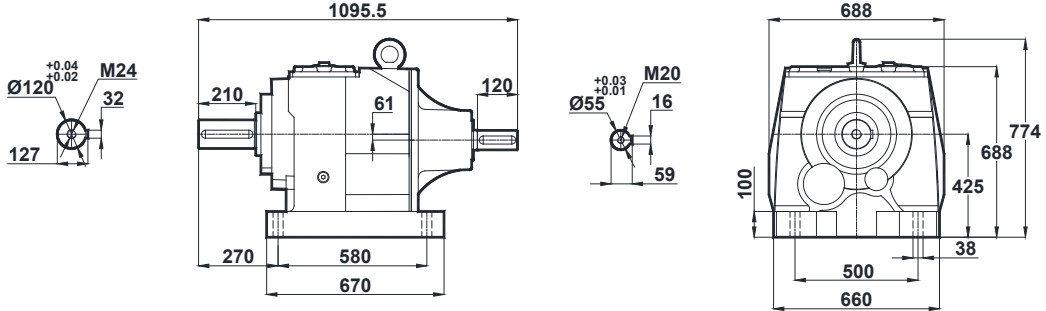
### Abmessungsseiten



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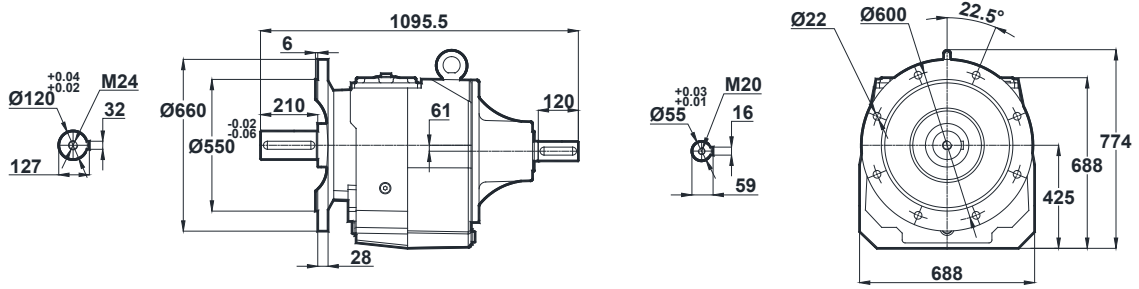
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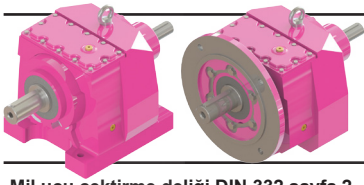
## MT973



## NT972

## NT973



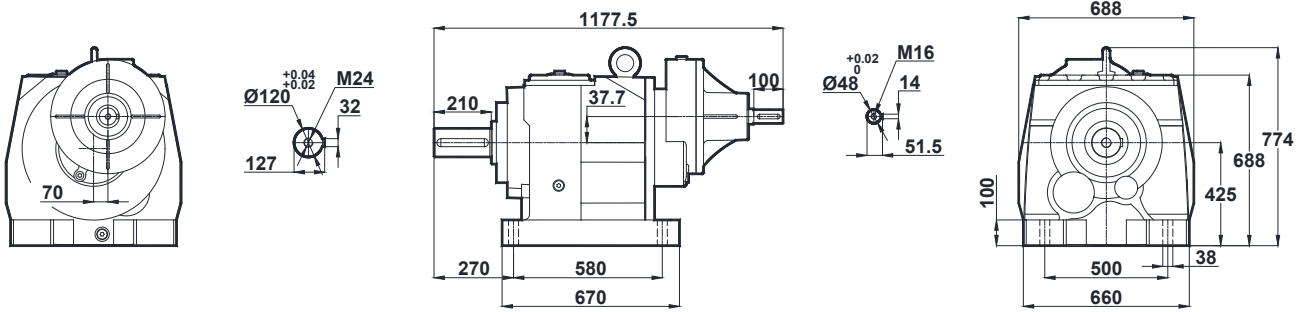


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

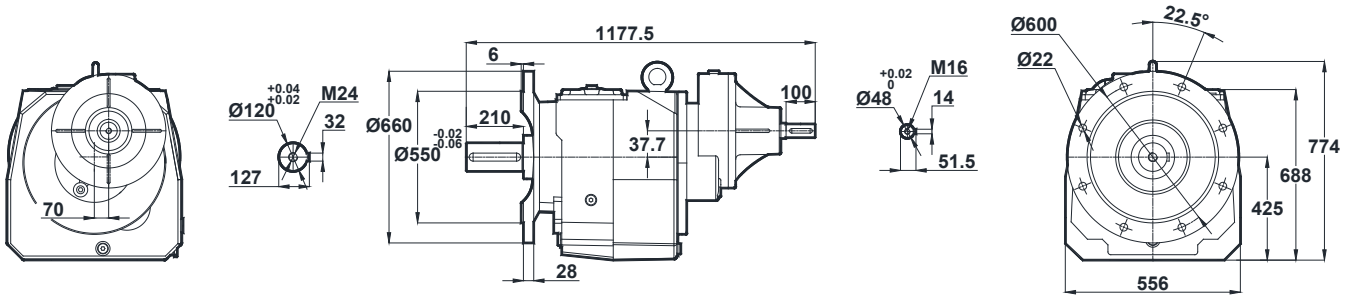


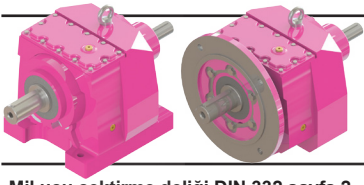
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## MT974



## NT974

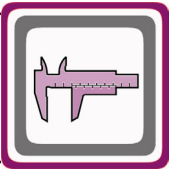




# Ölçü Sayfaları

## Dimension Pages

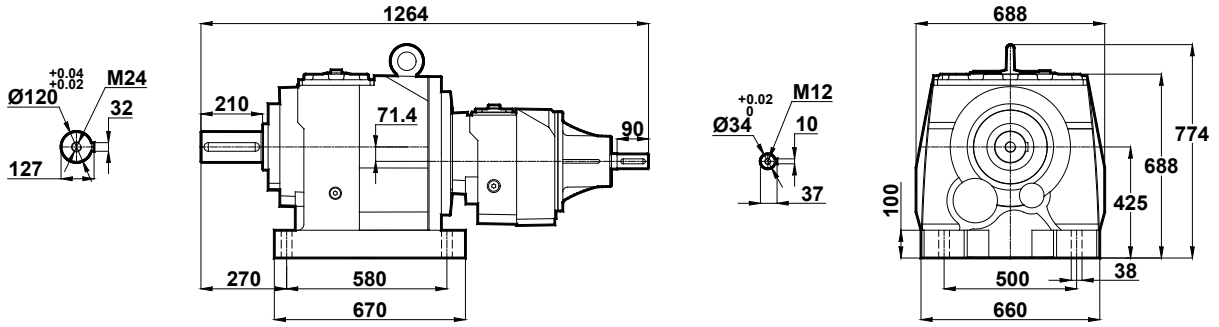
### Abmessungsseiten



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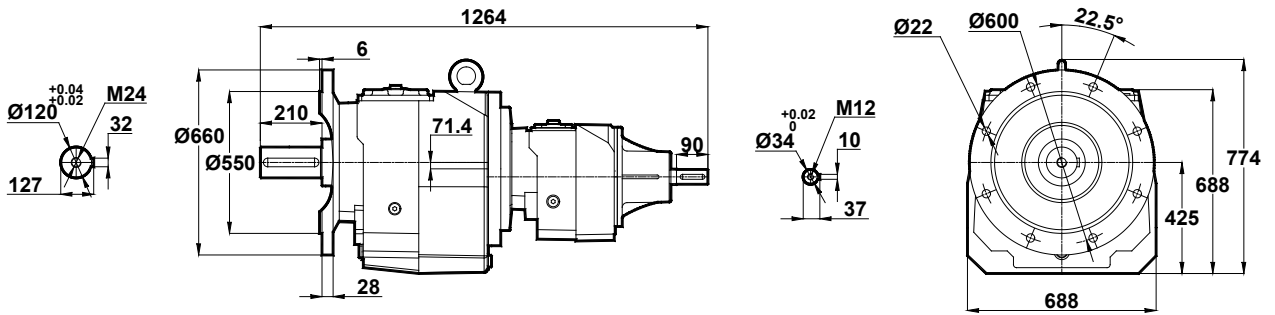
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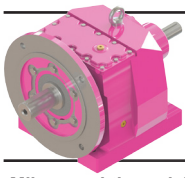
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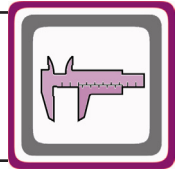
### NT975

### NT976



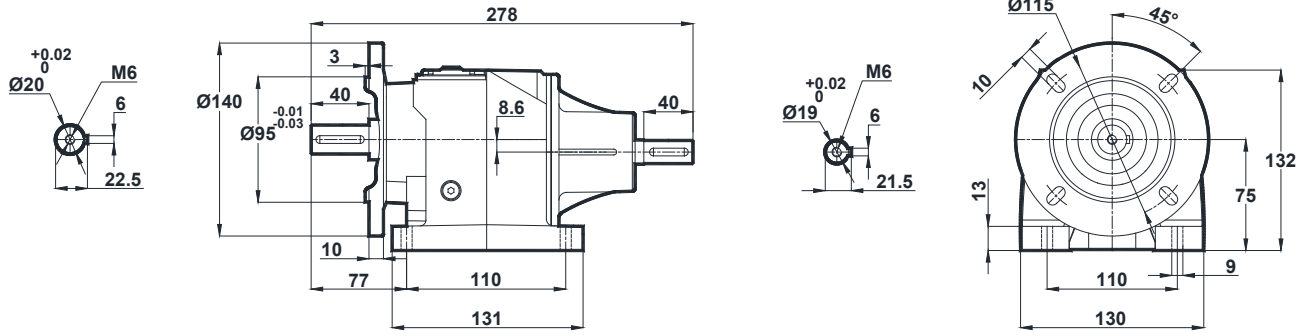


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

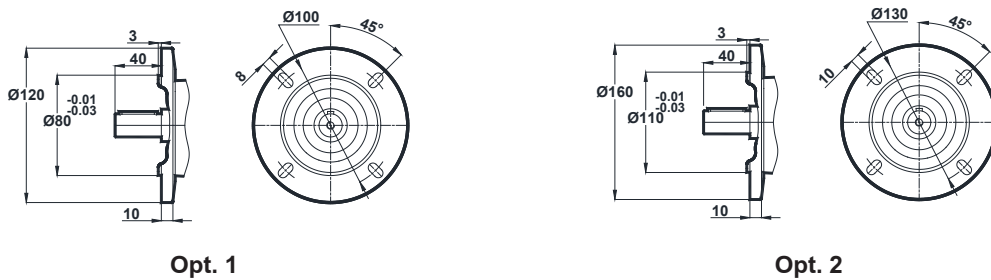


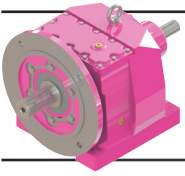
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**MTF002**  
**MTF003**

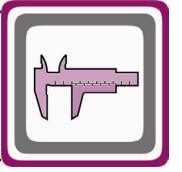


**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



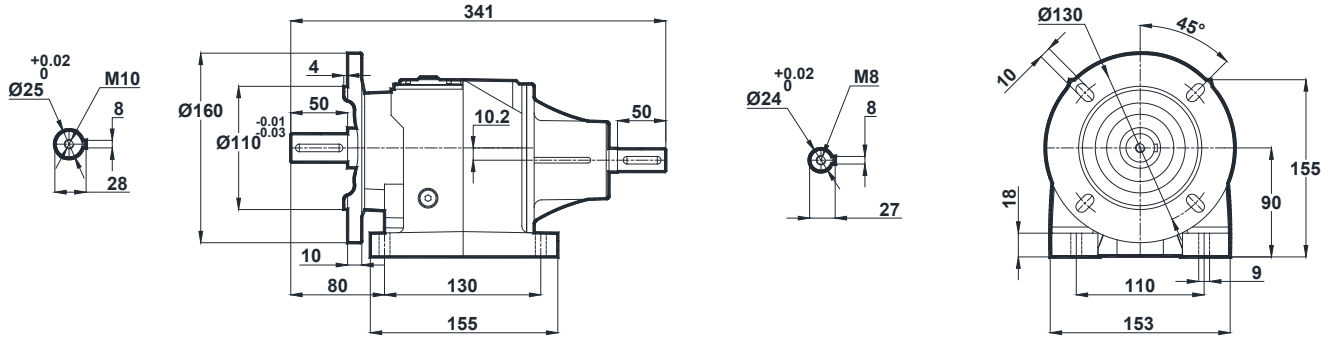


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

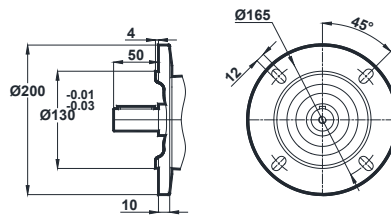


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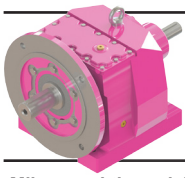
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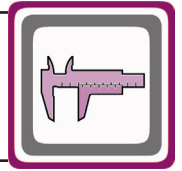
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

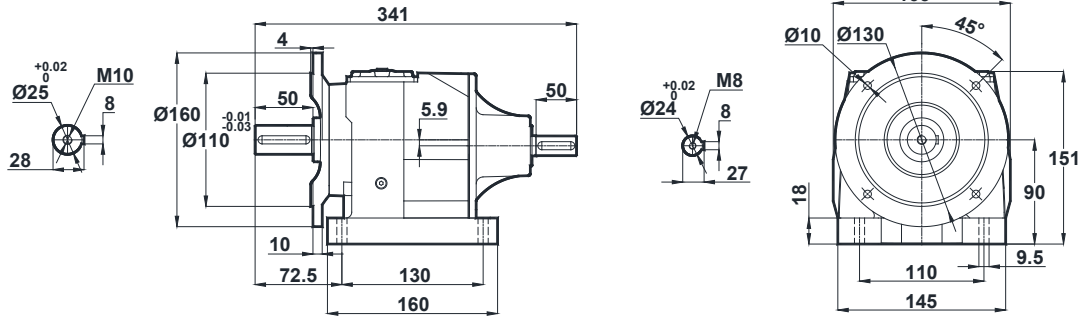


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

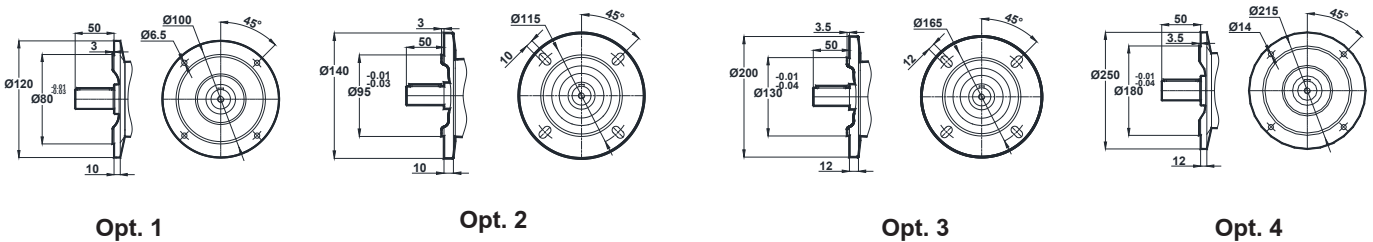


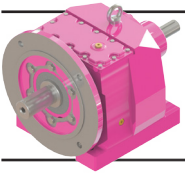
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MTF172  
MTF173

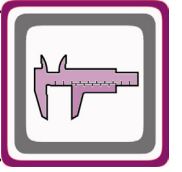


## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



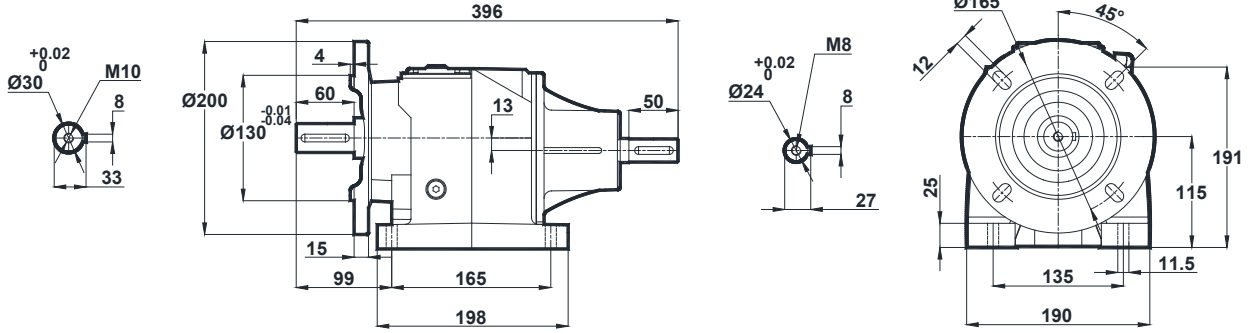


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

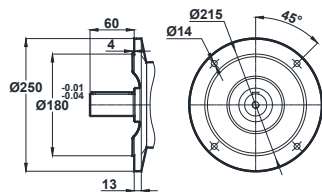


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

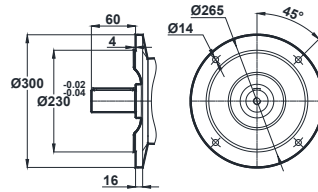
MTF202  
MTF203



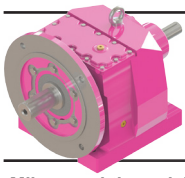
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



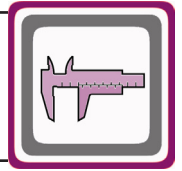
Opt. 1



Opt. 2

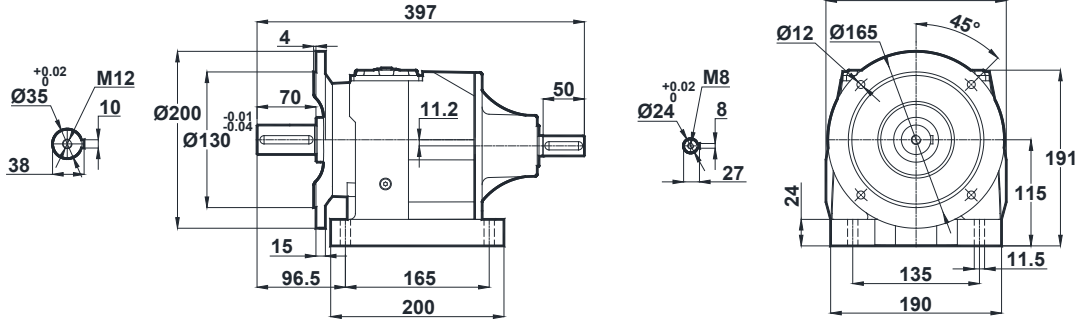


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

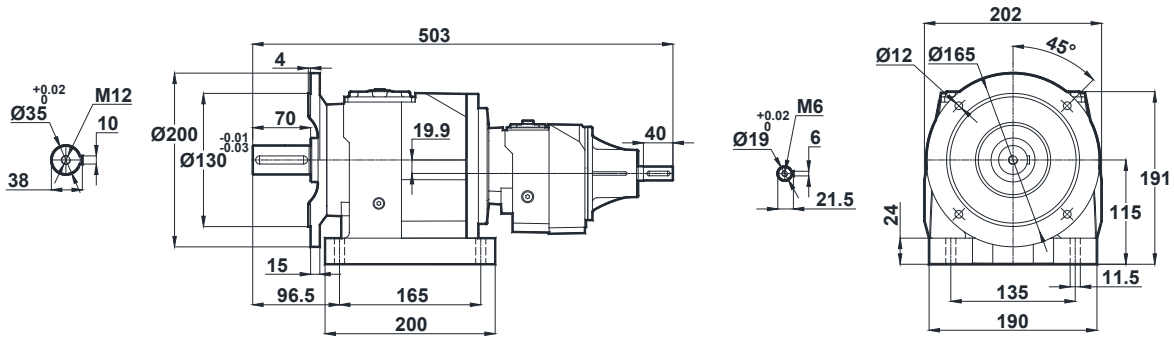


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

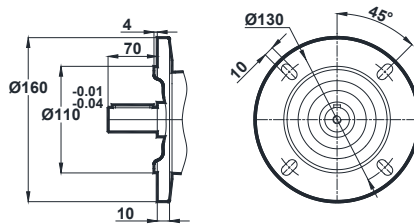
## MTF272 MTF273



## MTF275 MTF276

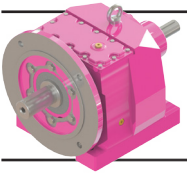


### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

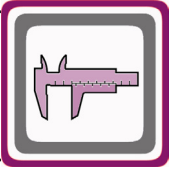


Opt. 1



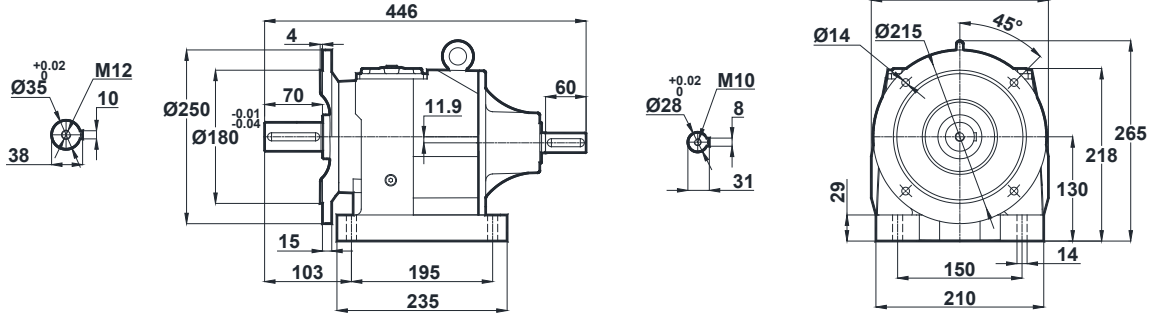


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

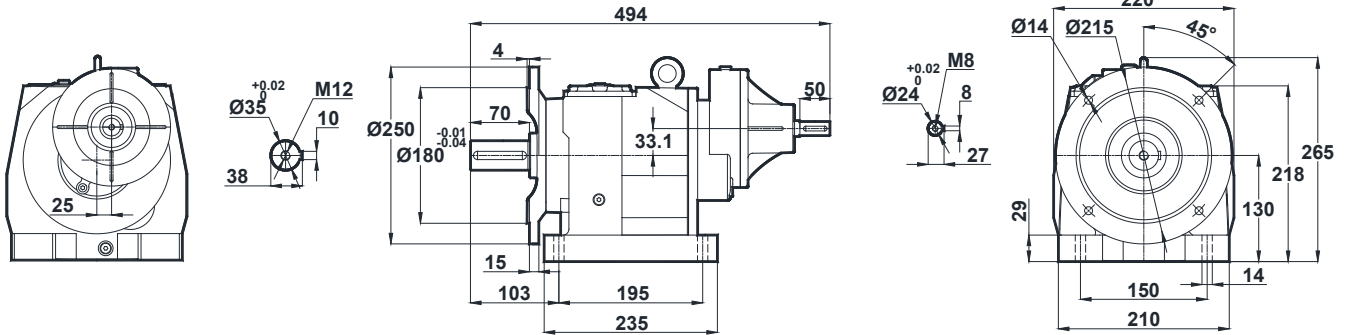


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

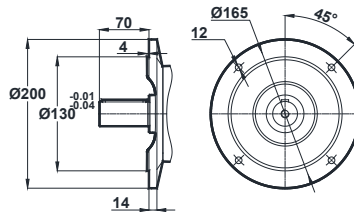
## MTF282 MTF283



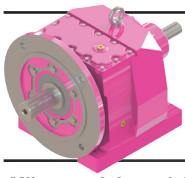
## MTF284



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



Opt. 1

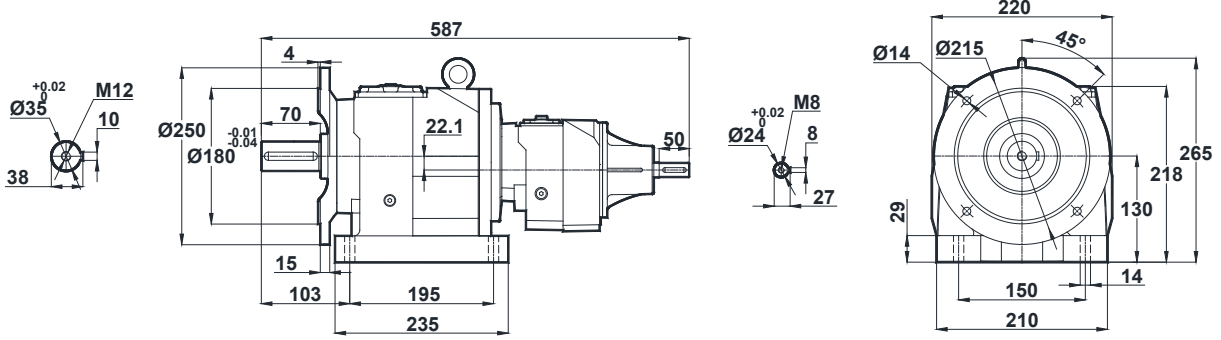


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

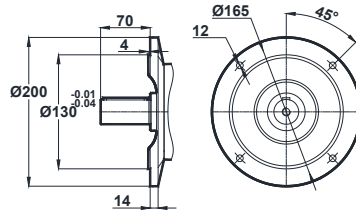


-Mil ucu çekirtme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

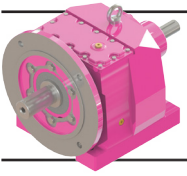
**MTF285**  
**MTF286**



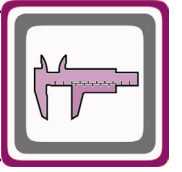
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

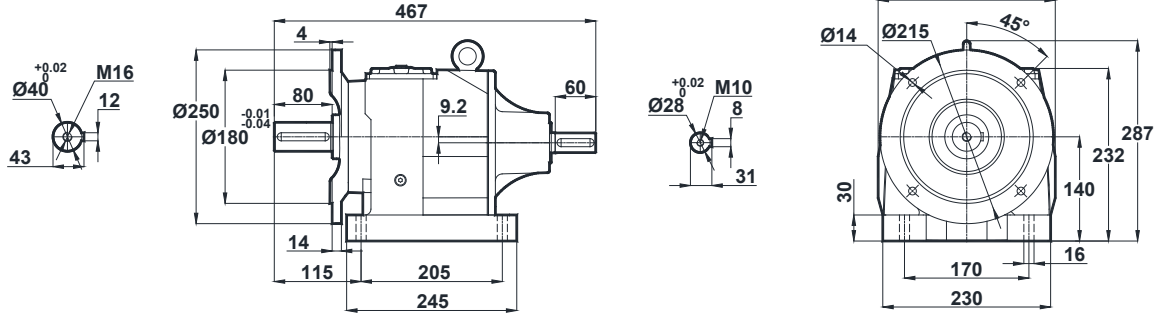


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

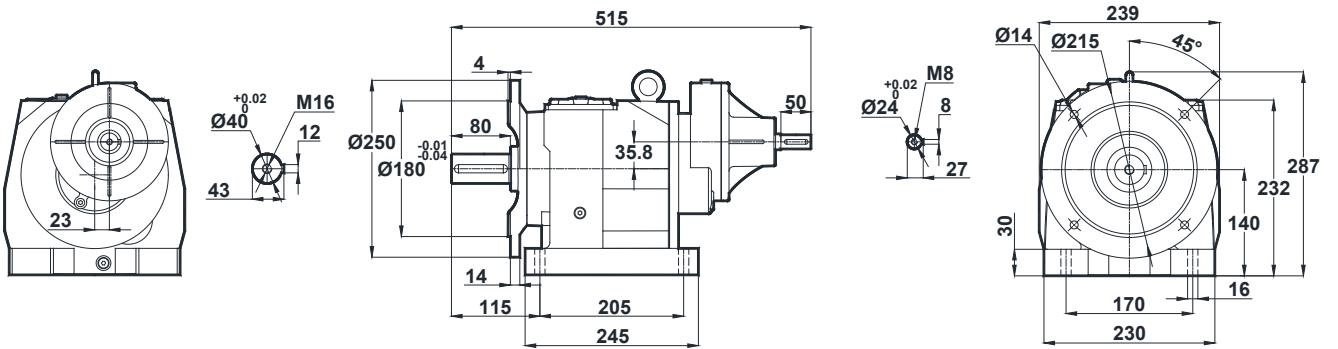


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

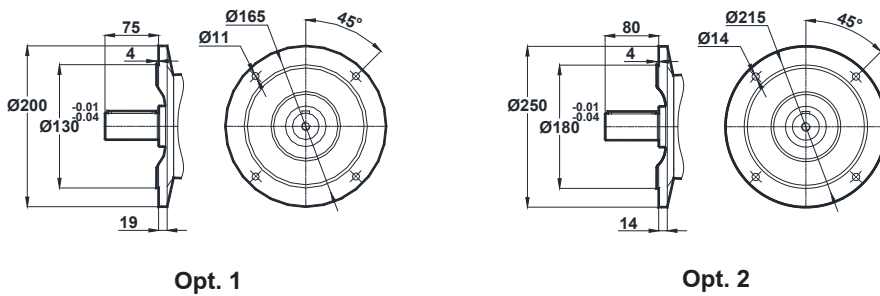
## MTF372 MTF373

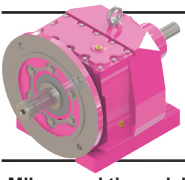


## MTF374



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



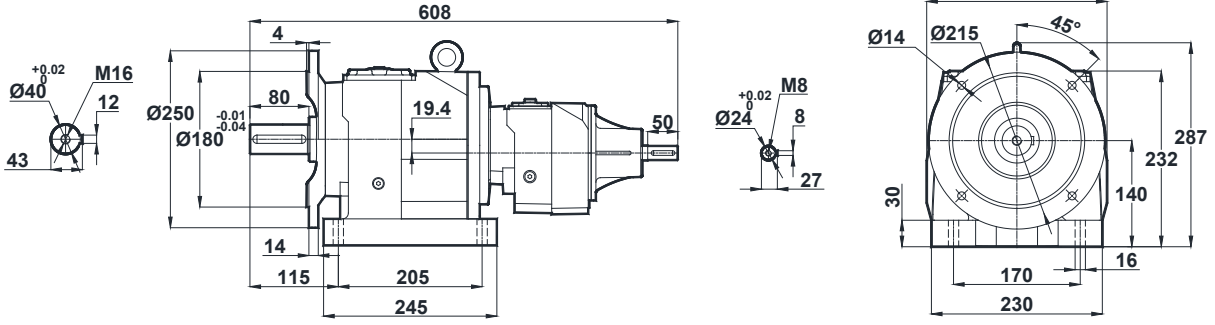


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

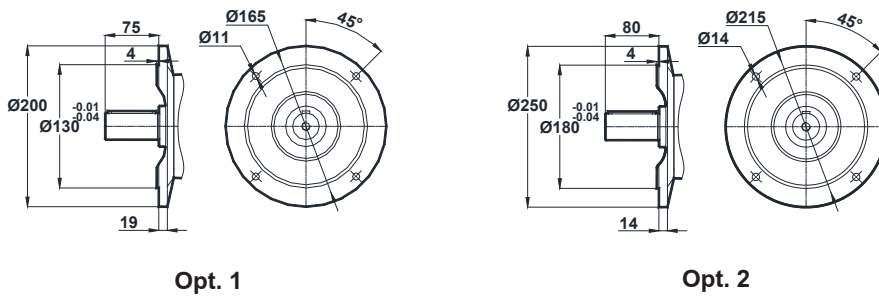


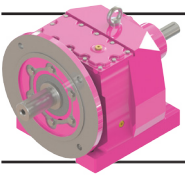
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MTF375  
MTF376**

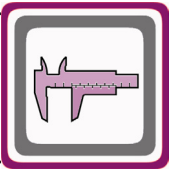


## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



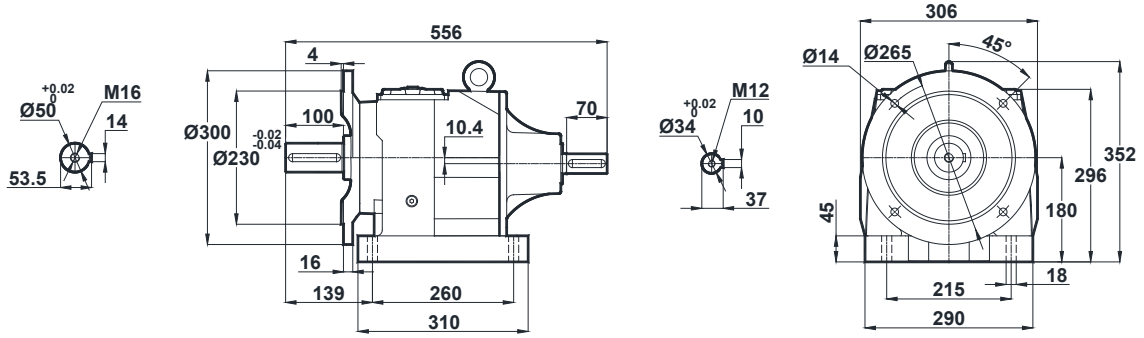


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

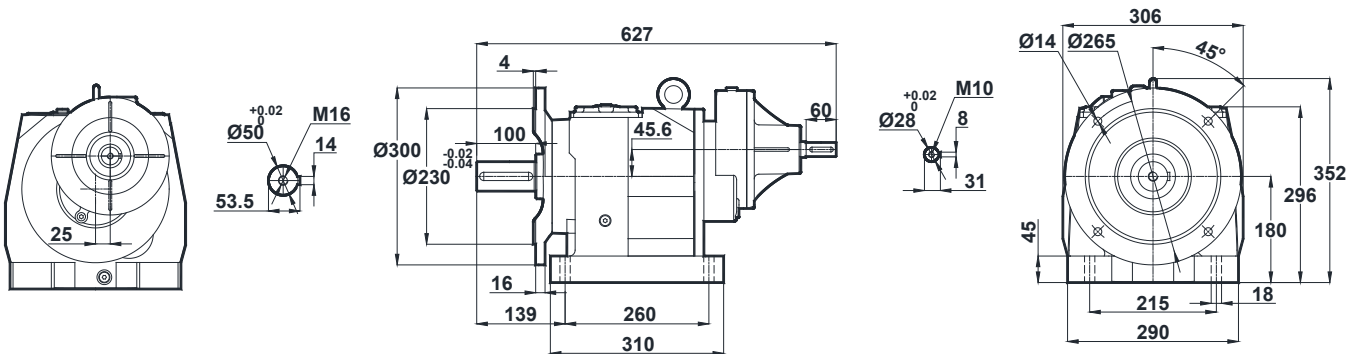


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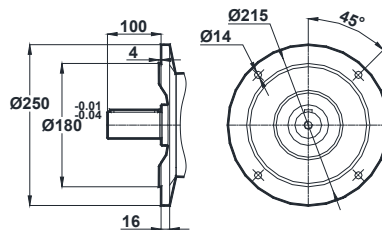
## MTF472 MTF473



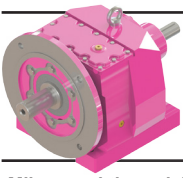
## MTF474



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



Opt. 1

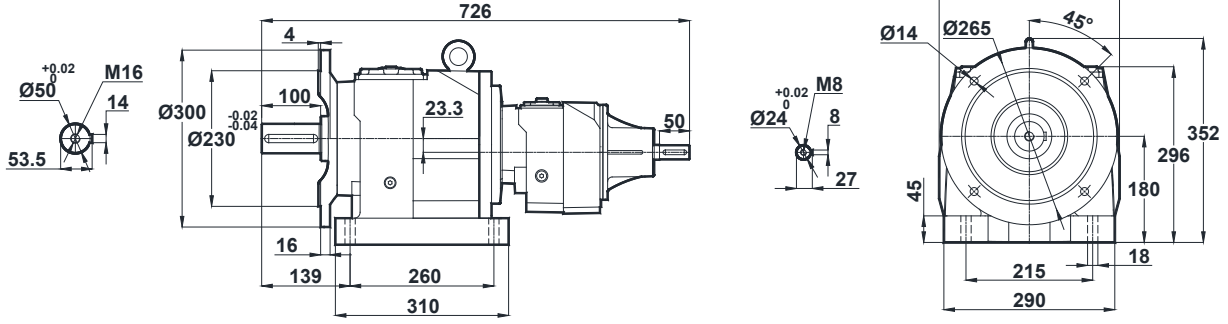


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

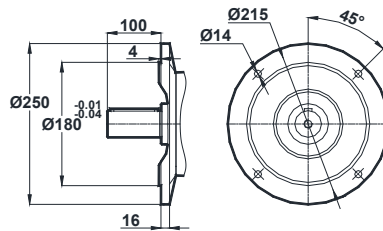


-Mil ucu çekirtme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MTF475**  
**MTF476**

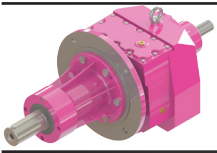


**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



**Opt. 1**



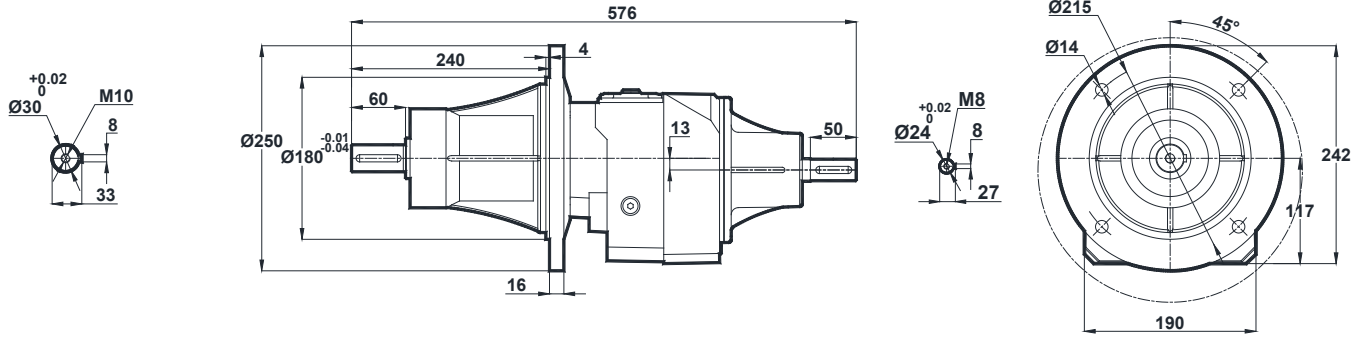


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

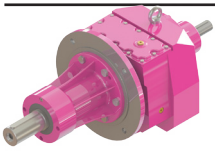


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

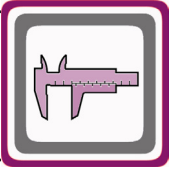
NTB202  
NTB203





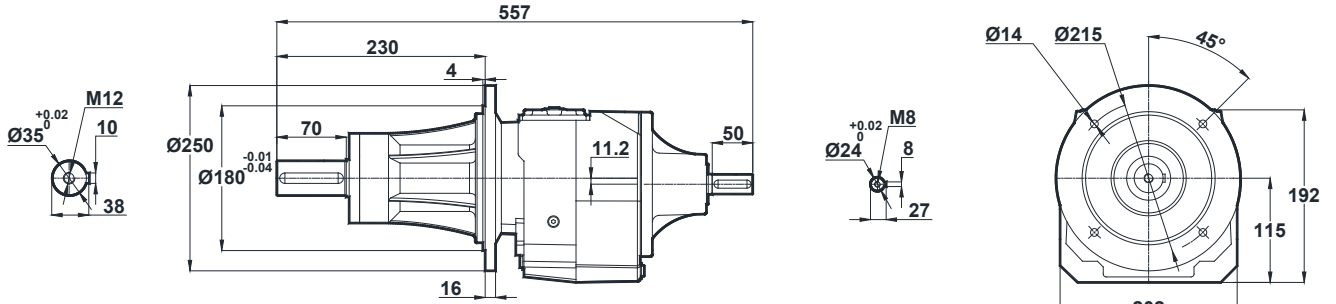


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

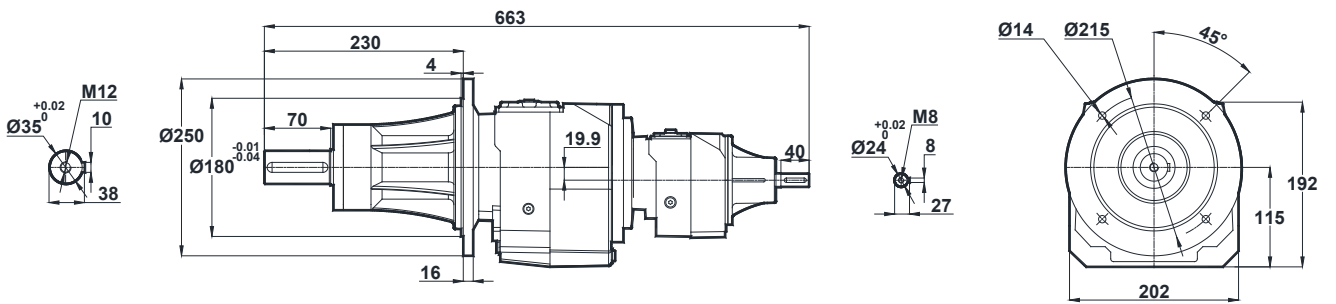


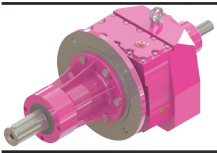
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NTB272 NTB273



## NTB275 NTB276



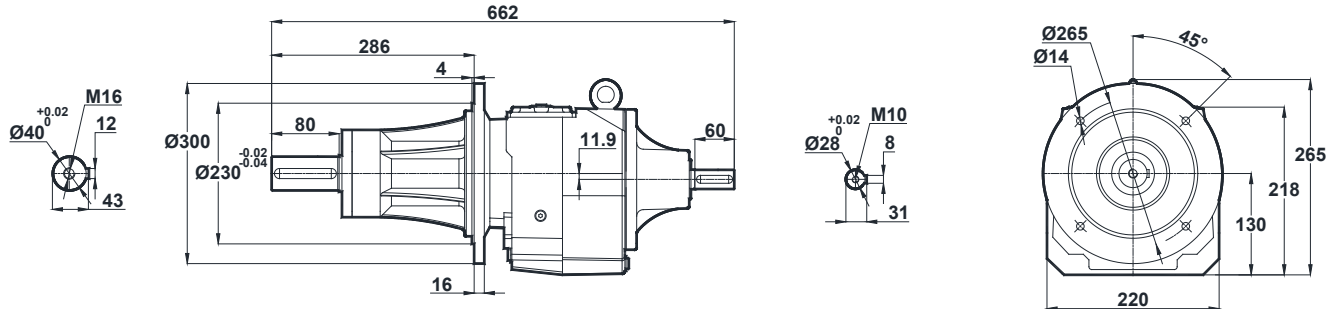


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

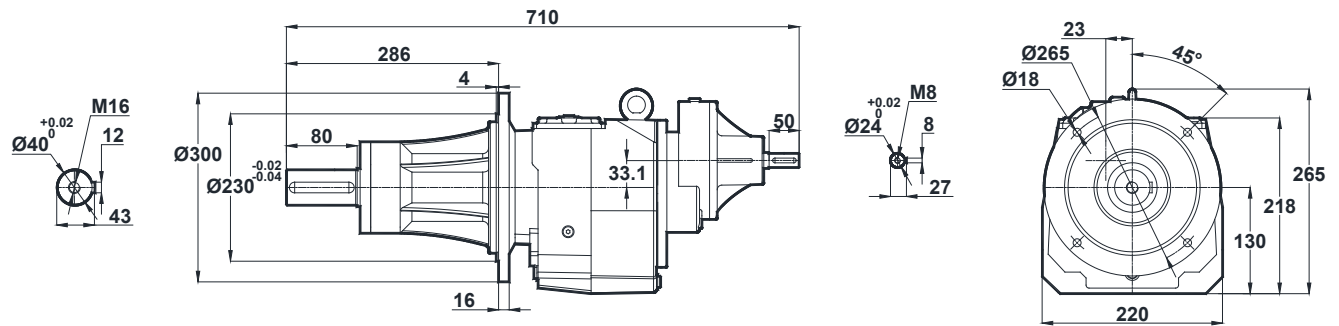


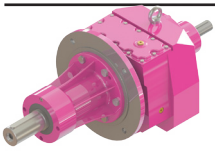
-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NTB282 NTB283

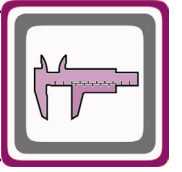


## NTB284



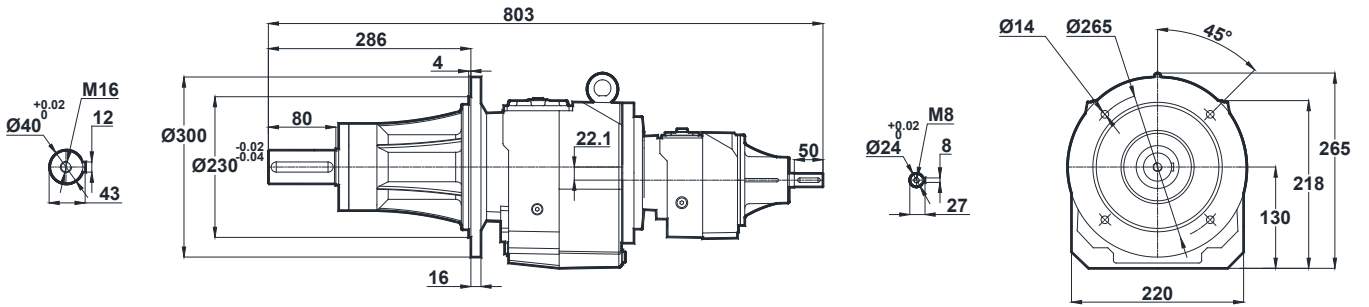


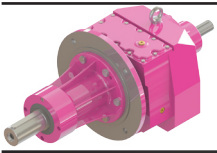
# Ölçü Sayfaları Dimension Pages Abmessungenseiten



-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

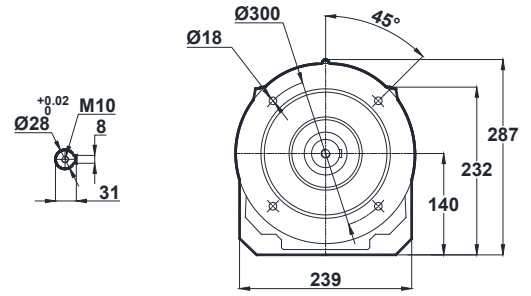
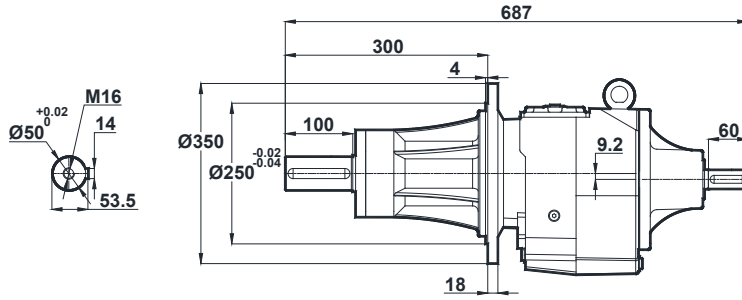
### Abmessungsseiten



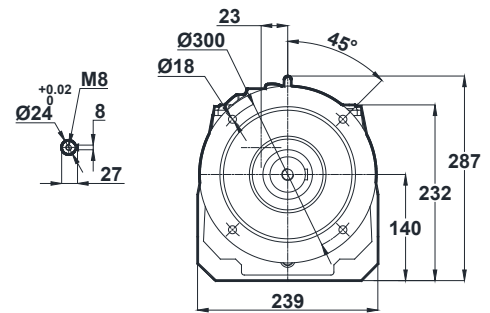
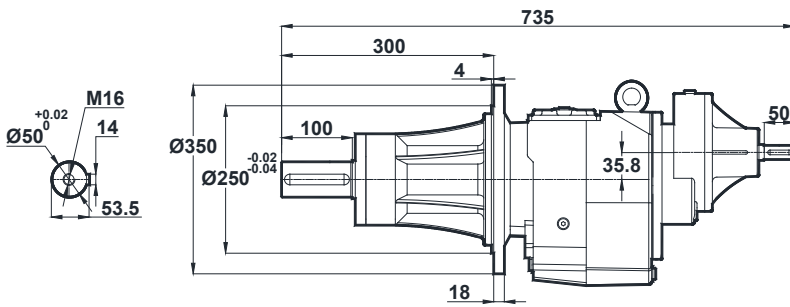
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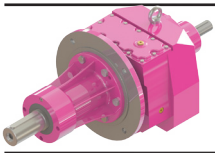
## NTB372

## NTB373

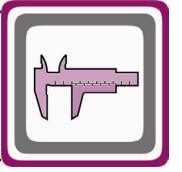


## NTB374



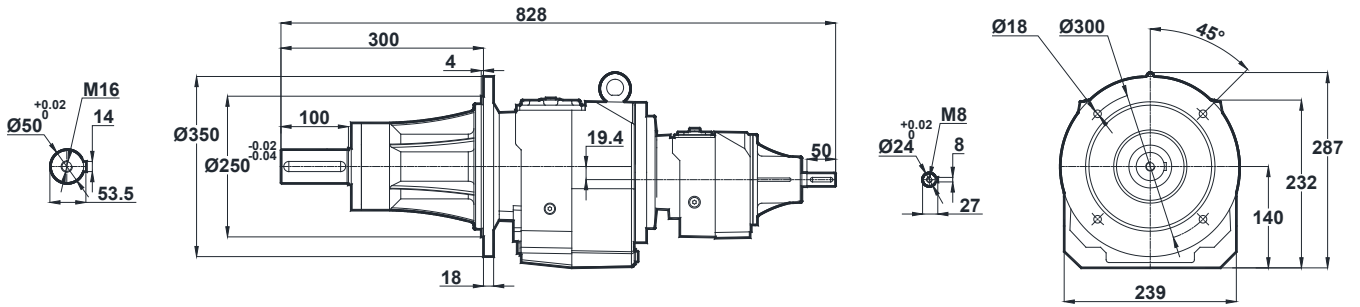


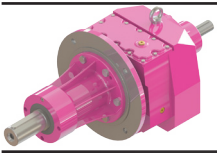
# Ölçü Sayfaları Dimension Pages Abmessungsseiten



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

NTB375  
NTB376



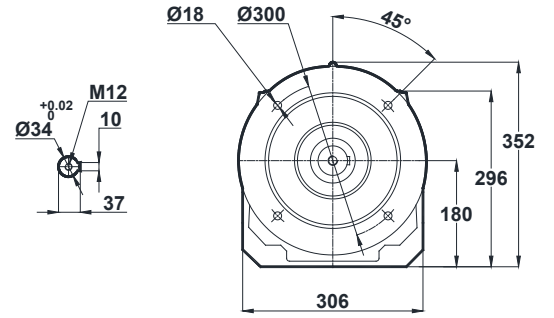
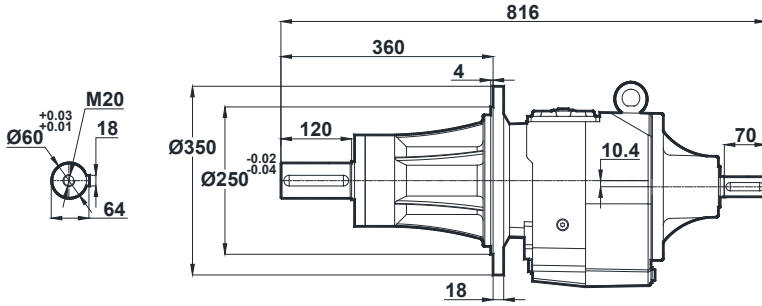


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

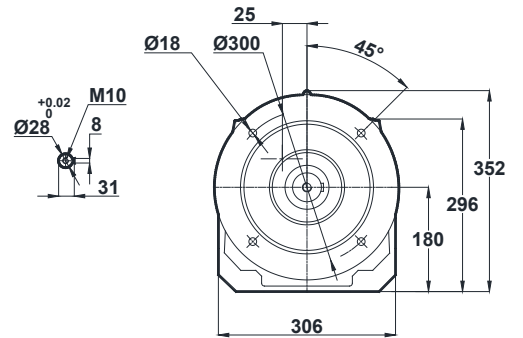
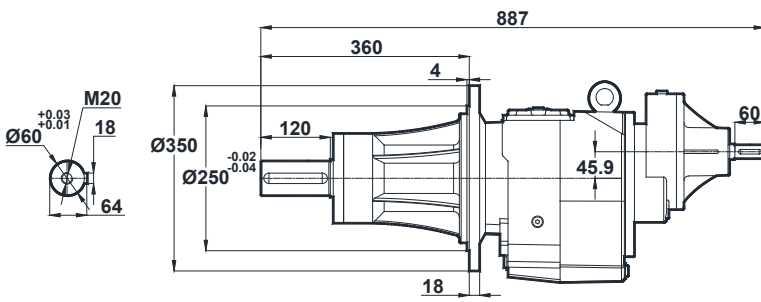


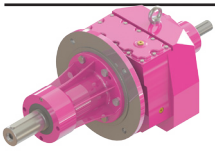
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## NTB472 NTB473

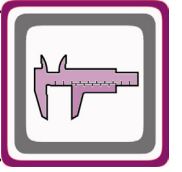


## NTB474



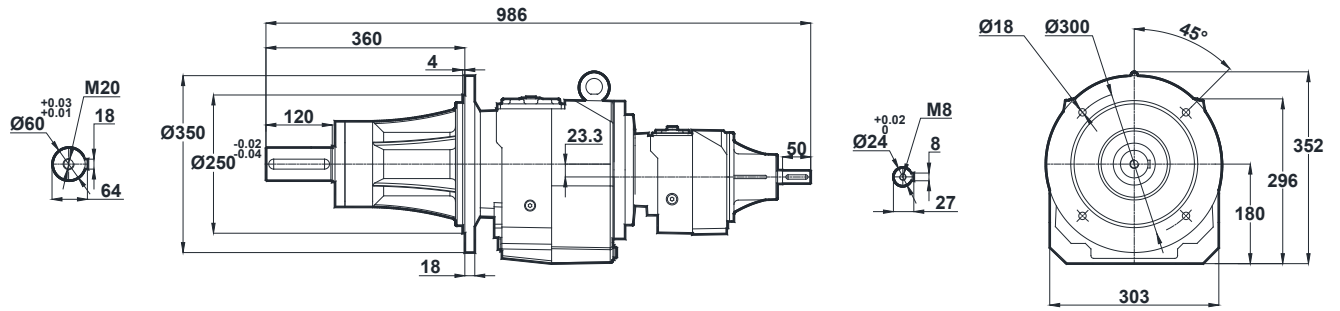


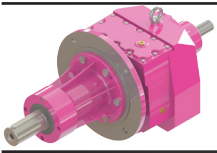
# Ölçü Sayfaları Dimension Pages Abmessungsseiten



-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



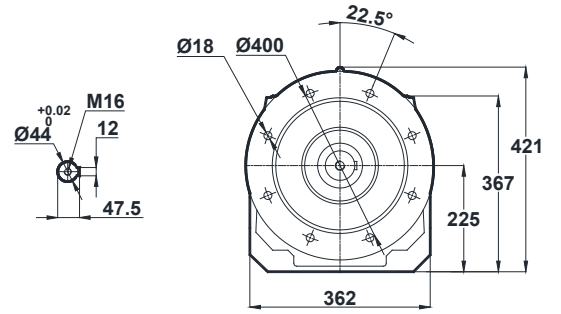
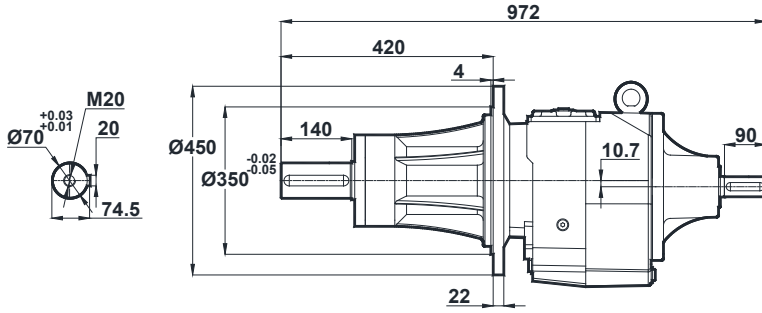


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

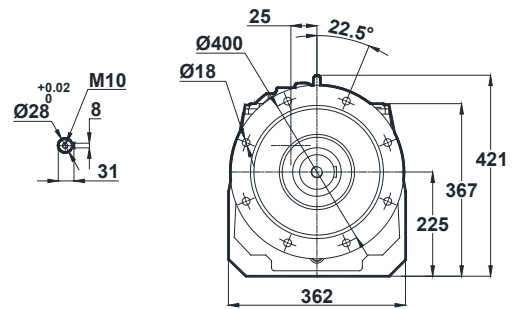
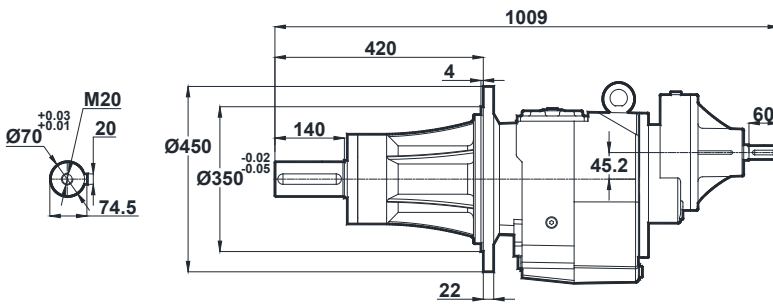


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## NTB572 NTB573

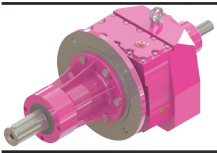


## NTB574







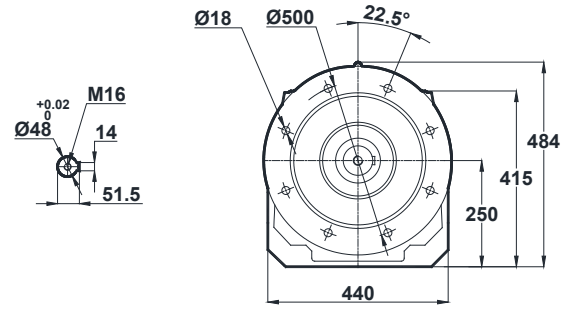
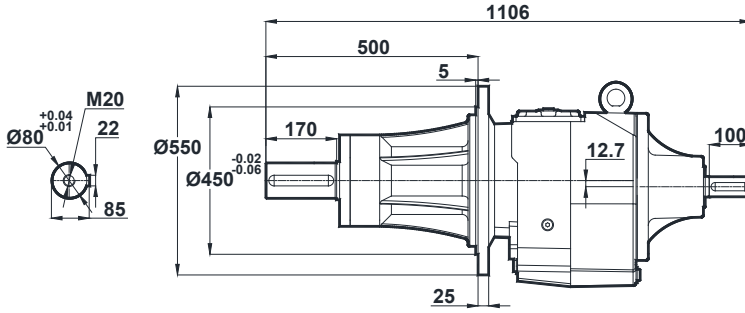


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

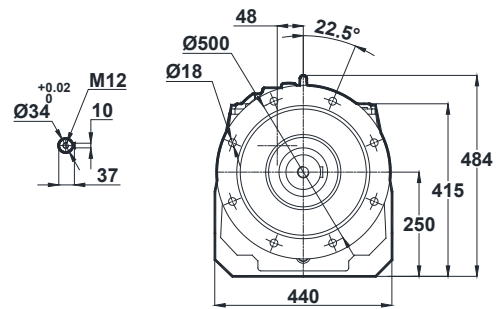
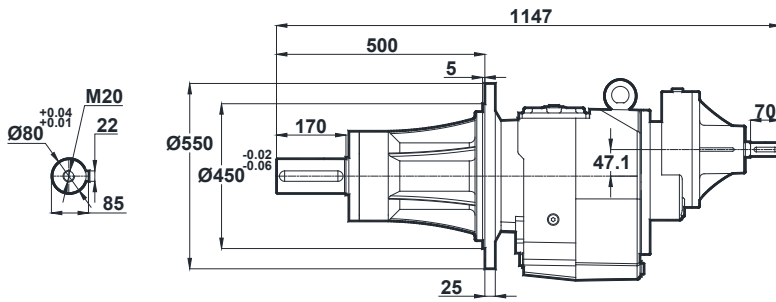


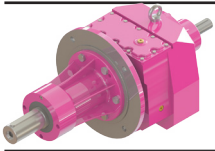
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## NTB672 NTB673

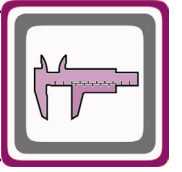


## NTB674



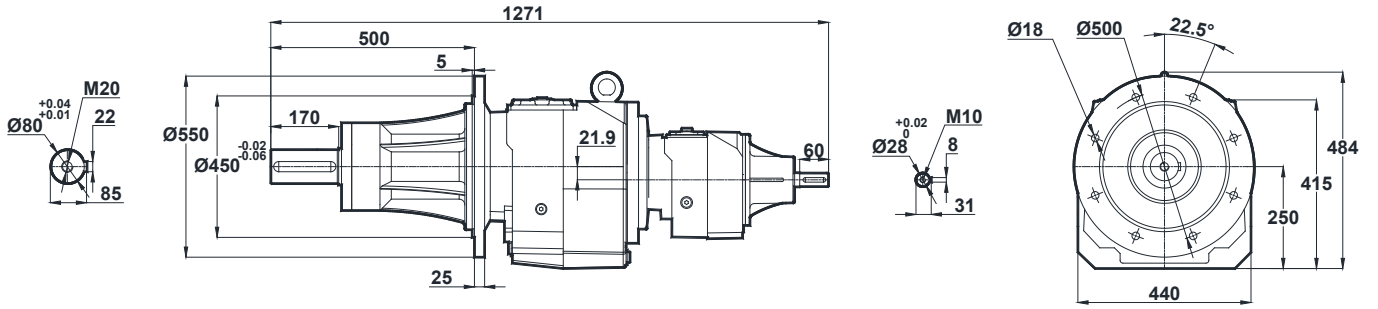


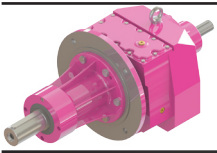
# Ölçü Sayfaları Dimension Pages Abmessungsseiten



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

NTB675  
NTB676



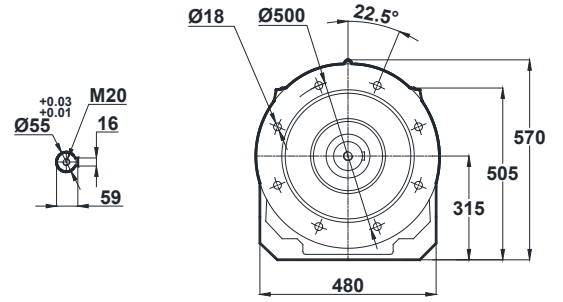
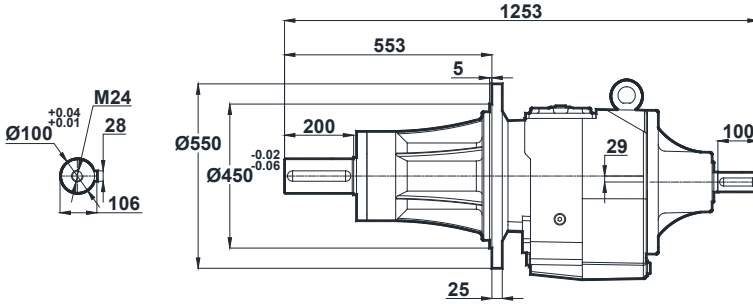


# Ölçü Sayfaları Dimension Pages Abmessungenseiten

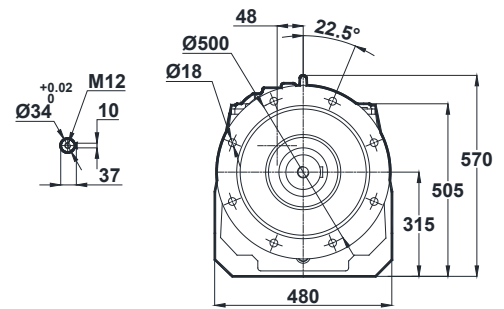
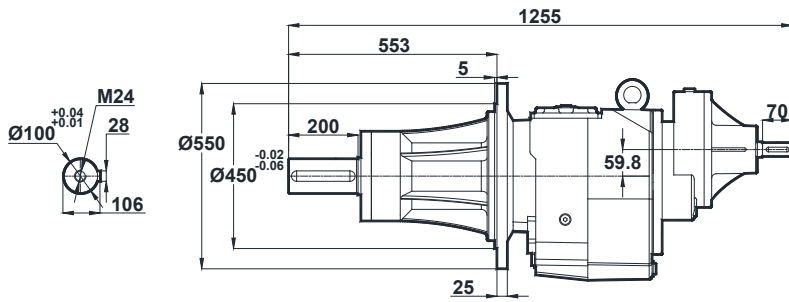


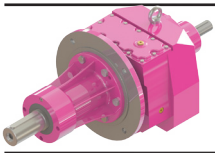
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## NTB772 NTB773

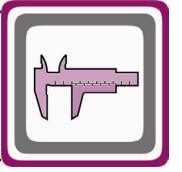


## NTB774



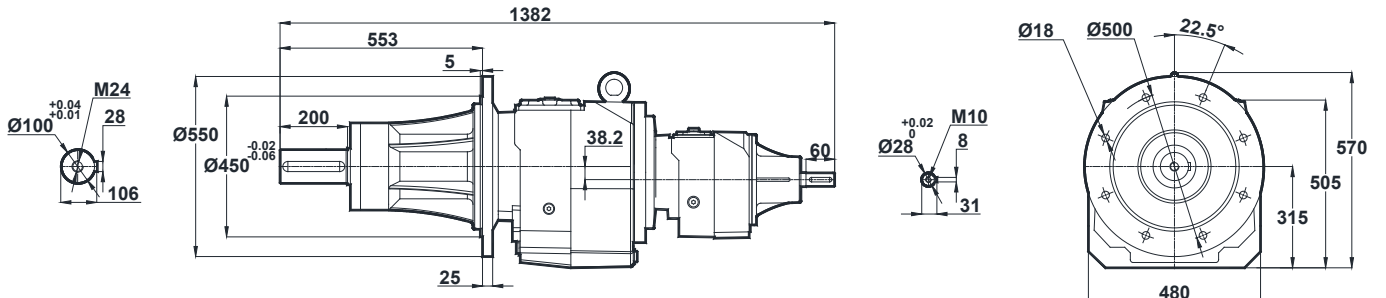


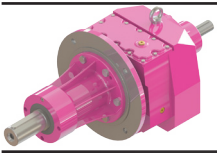
# Ölçü Sayfaları Dimension Pages Abmessungenseiten



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

NTB775  
NTB776



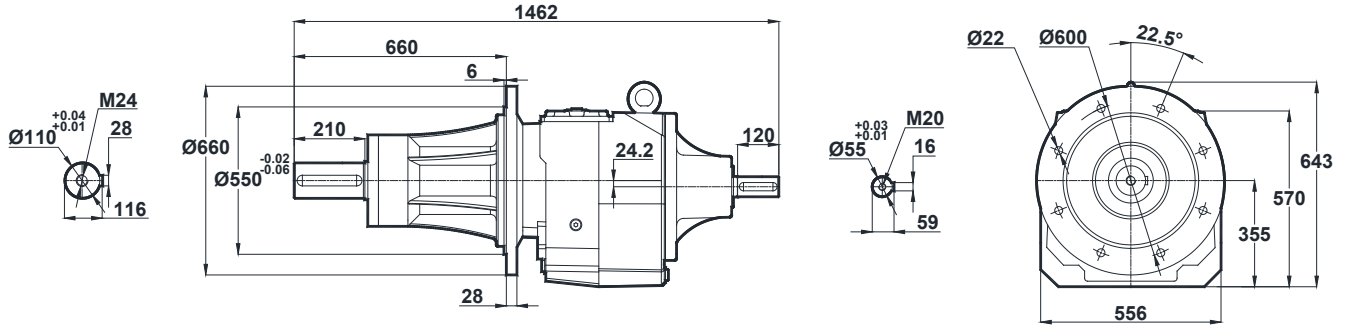


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

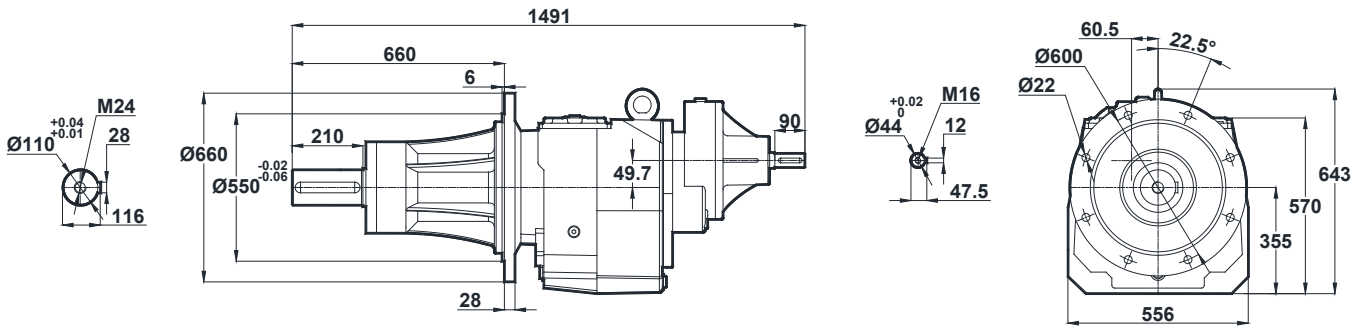


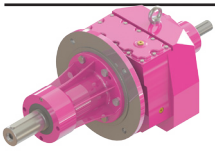
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## NTB872 NTB873

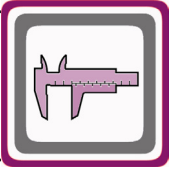


## NTB874



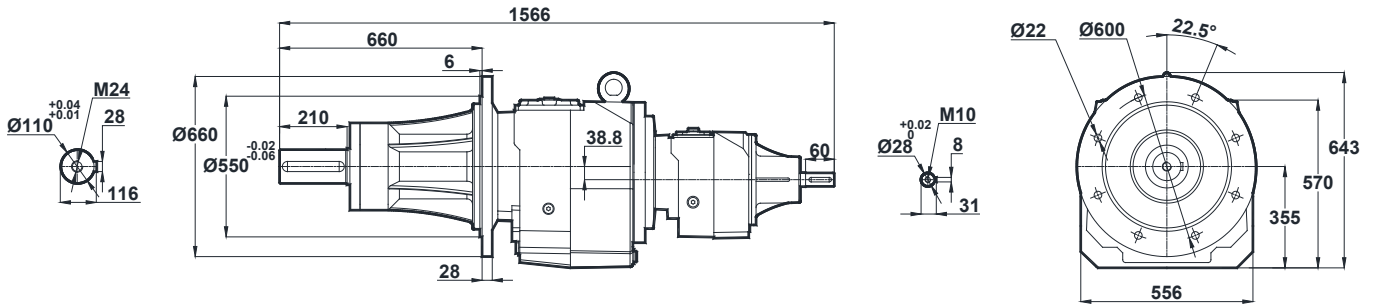


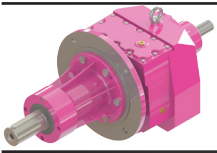
# Ölçü Sayfaları Dimension Pages Abmessungsseiten



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

NTB875  
NTB876



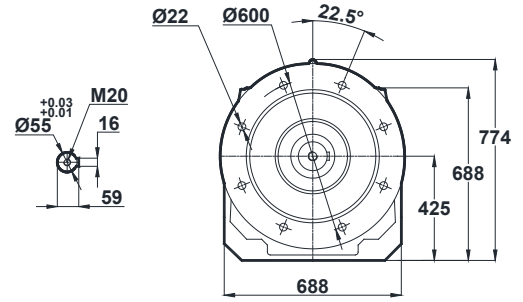
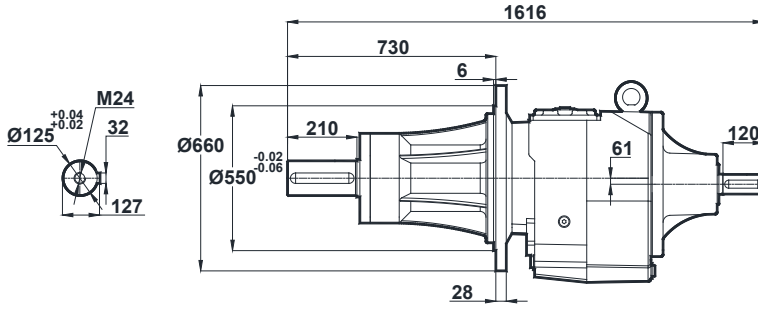


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

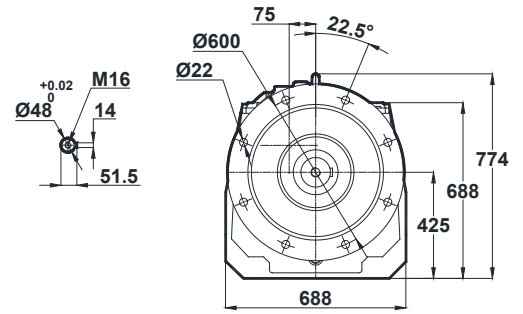
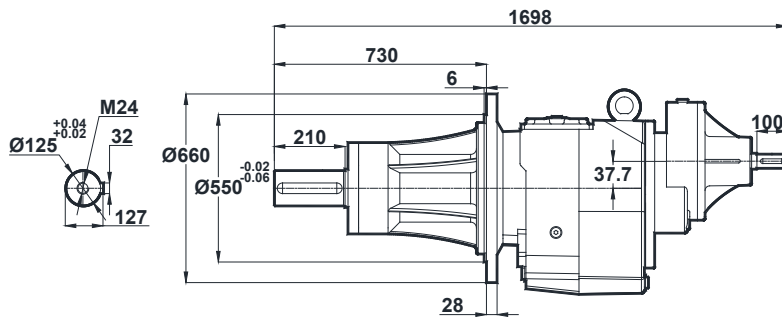


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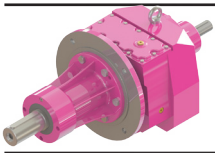
## NTB972 NTB973



## NTB974



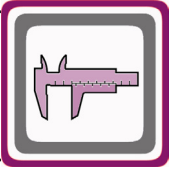




# Ölçü Sayfaları

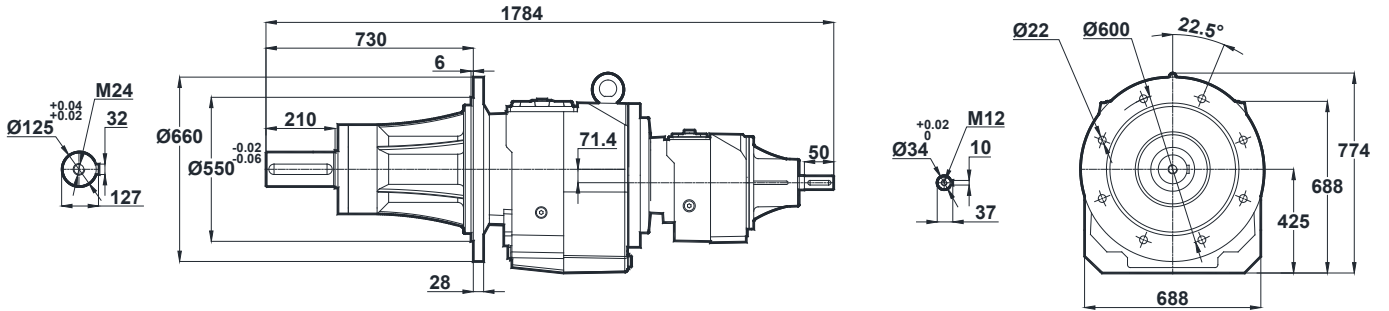
## Dimension Pages

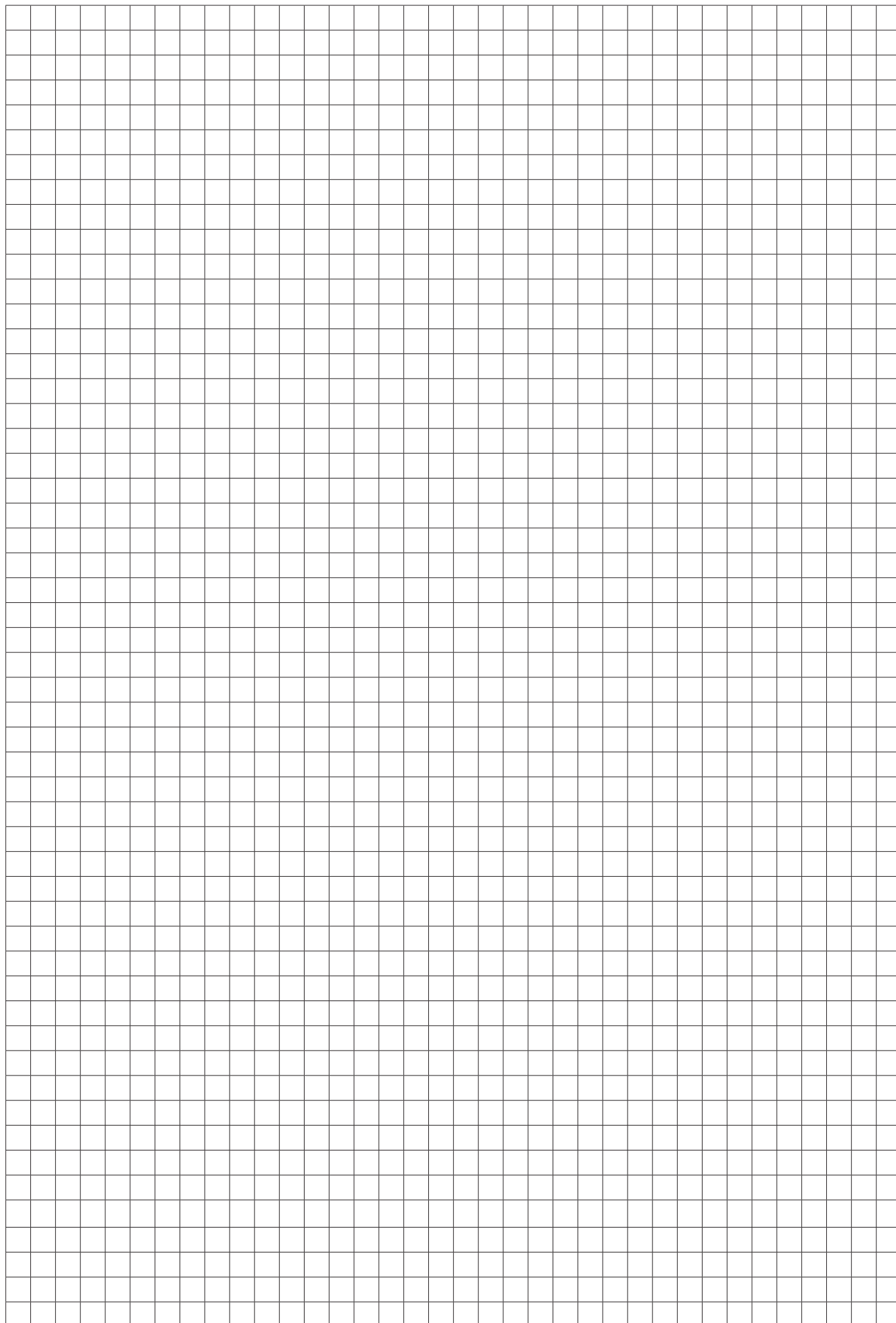
### Abmessungenseiten

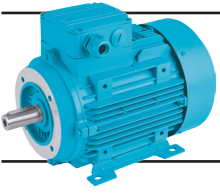


-Mil ucu çektirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

NTB975  
NTB976

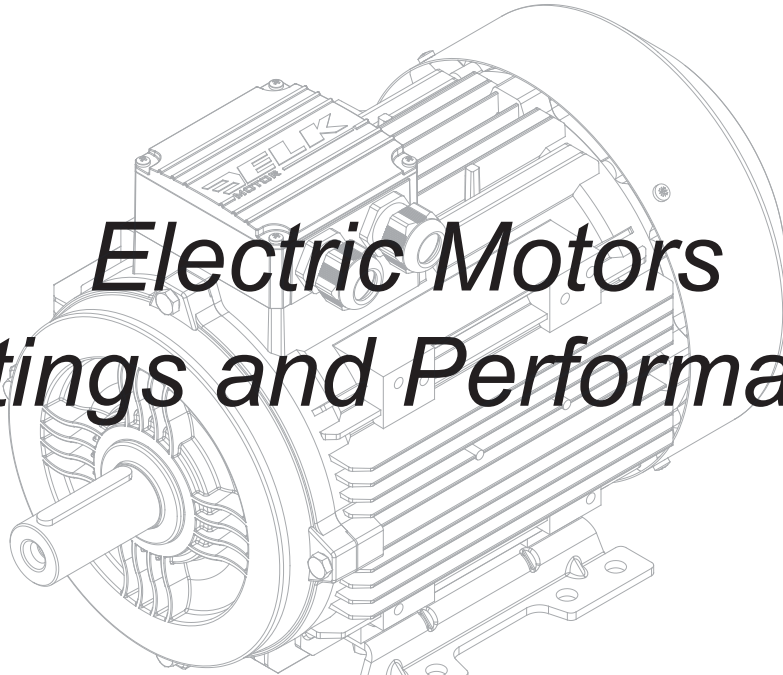




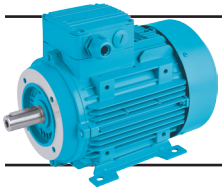


# **Elektrik Motorlarının Performans Deęerleri**

*Electric Motors  
Ratings and Performance*



**Elektromotoren  
Leistungsdaten**



# Elektrik Motorlarının Performans Değerleri

## Electric Motors Ratings and Performance

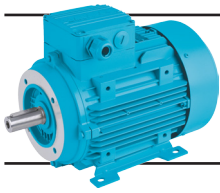
### Elektromotoren Leistungsdaten



400V 50Hz 3000 d/d / 400V 50Hz 3000 rpm / 400V 50Hz 3000 UpM

IE3

Tip Type Typ	Tam Yük Değerleri Full-load Data Vollastdaten							Kalkış Değerleri Starting Data Startdaten			Devrilme Momenti Breakdown Torque Kippmoment	Atalet Momenti Moment of Inertia Trägheitsmoment	B3 Motor Ağırlığı B3 Motor Weight B3 Motor Gewicht	Ses Seviyesi Noise Level Geräuschpegel
	Güç Power Leistung	Devir Speed Drehzahl	Akım Current Nennstrom	Moment Torque Drehmoment	Güç Faktörü Power Factor Leistungsfaktor	Verim % $\eta$ Efficiency % $\eta$ Wirkungsgrad % $\eta$			Akım Current Nennstrom	Moment Torque Drehmoment				
	kW	d/d rpm UpM	A	Nm	cos $\phi$	4 / 4	3 / 4	1 / 2	$I_A/I_N$	$M_A/M_N$				
											$M_K/M_N$	kgm <sup>2</sup>	kg	dB(A)
3E71M/2B	0,37	2830	0,86	1,25	0,81	76,6	77,0	75,0	6,0	2,8	3,0	0,00086	6,2	53
3E71M/2C	0,55	2830	1,19	1,86	0,84	79,4	80,2	78,8	6,1	2,9	3,3	0,00096	7,2	53
3E80M/2B	0,75	2880	1,59	2,49	0,84	80,7	82,0	81,5	6,7	3,0	3,6	0,00140	9,6	54
3E80M/2C	1,1	2880	2,26	3,64	0,85	82,7	83,0	82,4	6,8	3,1	3,8	0,00165	10,9	54
3E90S/2B	1,5	2900	2,97	4,94	0,86	84,8	85,4	84,2	7,6	3,1	3,9	0,00220	15,6	59
3E90L/2C	2,2	2900	4,25	7,24	0,87	85,9	86,8	86,1	7,2	3,0	3,8	0,00310	17,0	59
3E100L/2C	3	2915	5,58	9,83	0,89	87,1	87,6	86,9	7,9	3,0	4,1	0,00540	23,3	62
3E112M/2C	4	2915	7,28	13,1	0,90	88,1	88,8	88,2	7,5	2,6	3,9	0,01100	29,1	65
3E132S/2B	5,5	2945	9,9	17,83	0,90	89,2	89,0	88,6	8,9	2,9	3,9	0,02200	44,4	67
3E132S/2C	7,5	2945	13,2	24,32	0,91	90,1	90,5	89,7	8,4	2,6	4,0	0,02900	51,5	67
3E160M/2A	11	2955	19,5	35,5	0,89	91,2	91,2	90,4	8,5	3,1	4,0	0,03400	105	70
3E160M/2B	15	2955	27	48,5	0,87	91,9	91,8	91,6	7,5	2,4	3,0	0,04600	120	70
3E160L/2	18,5	2960	31,5	59,9	0,92	92,4	92,5	92,0	8,2	3,0	3,2	0,05600	145	70
3E180M/2	22	2960	38	71	0,90	92,7	92,6	92,2	7,0	2,4	3,0	0,07500	170	70
3G200L/2a	30	2980	52	96	0,89	93,3	93,3	92,8	8,5	2,8	3,5	0,15000	240	73
3G200L/2b	37	2980	63	119	0,90	93,7	93,7	93,1	8,3	2,8	3,1	0,17000	270	73
3G225M/2	45	2980	77	144	0,91	94,0	94,1	93,0	8,7	2,7	3,1	0,26000	380	73
3G250M/2	55	2985	92	176	0,92	94,3	94,5	93,3	8,7	2,9	3,0	0,47000	480	76
3G280S/2	75	2985	127	240	0,90	94,7	94,6	94,0	8,0	2,9	3,2	0,62000	585	76
3G280M/2	90	2985	148	288	0,92	95,0	95,0	93,7	8,2	2,9	3,0	0,74000	645	76
3G315S/2	110	2985	186	353	0,90	95,2	95,2	94,0	8,0	2,5	3,0	1,20000	742	76
3G315M/2a	132	2985	223	423	0,90	95,4	95,4	94,1	8,0	2,4	3,5	1,40000	812	79
3G315M/2b	160	2985	265	513	0,91	95,6	95,6	94,2	8,0	2,5	3,0	1,50000	912	79



# Elektrik Motorlarının Performans Değerleri

## Electric Motors Ratings and Performance

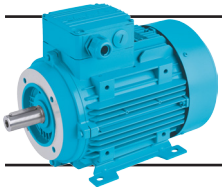
### Elektromotoren Leistungsdaten



400V 50Hz 1500 d/d / 400V 50Hz 1500 rpm / 400V 50Hz 1500 UpM

IE3

Tip Type Typ	Tam Yük Değerleri Full-load Data Vollastdaten							Kalkış Değerleri Starting Data Startdaten			Devrilme Momenti Breakdown Torque Kippmo- ment	Atalet Momenti Moment of Inertia Trägheits- moment	B3 Motor Ağırlığı B3 Motor Weight B3 Motor Gewicht	Ses Seviyesi Noise Level Geräusch- pegel
	Güç	Devir	Akım	Moment	Güç Faktörü	Verim % $\eta$			Akım	Moment				
	Power	Speed	Current	Torque	Power Factor	Efficiency % $\eta$			Current	Torque				
	Leistung	Drehzahl	Nennstrom	Drehmoment	Leistungsfaktor	Wirkungsgrad % $\eta$			Nennstrom	Drehmoment				
	kW	d/d rpm UpM	A	Nm	cos $\phi$	4 / 4	3 / 4	1 / 2	$I_A/I_N$	$M_A/M_N$	$M_K/M_N$	kgm <sup>2</sup>	kg	dB(A)
3E71M/4C	0,25	1435	0,67	1,66	0,71	76,0	75,4	71,5	5,4	2,2	3,0	0,00096	6,8	45
3E71M/4D	0,37	1435	0,97	2,46	0,70	78,5	78,2	75,0	5,5	2,2	3,1	0,00120	7,5	45
3E80M/4C	0,55	1450	1,34	3,62	0,73	80,8	80,4	77,0	5,9	2,1	3,1	0,00220	10,5	50
3E80M/4D	0,75	1450	1,77	4,94	0,74	82,5	82,3	80,0	6,2	2,5	3,4	0,00360	11,6	50
3E90S/4C	1,1	1450	2,46	7,25	0,76	84,5	84,3	82,0	7,0	2,6	3,6	0,00420	16,3	51
3E90L/4D	1,5	1450	3,3	9,88	0,77	85,3	85,2	83,0	7,2	2,8	3,8	0,00480	18,0	51
3E100L/4C	2,2	1450	4,65	14,49	0,79	86,7	87,2	86,0	7,2	2,8	3,6	0,01100	24,4	53
3E100L/4D	3	1450	6,26	19,76	0,79	87,7	88,0	87,0	7,2	2,8	3,6	0,01300	26,7	53
3E112M/4D	4	1460	8,05	26,16	0,81	88,6	88,4	87,5	7,4	2,8	3,8	0,01500	33,9	58
3E132S/4C	5,5	1460	10,65	36	0,83	89,6	90,2	90,0	7,4	2,8	3,4	0,03500	53,4	61
3E132M/4D	7,5	1465	14,4	48,9	0,83	90,4	90,4	89,4	7,9	3,0	3,8	0,04200	59,5	61
3E160M/4C	11	1470	21	71,5	0,83	91,4	91,3	91,0	6,9	2,4	3,1	0,07200	120	63
3E160L/4D	15	1470	29	97,4	0,81	92,1	92,0	91,8	6,9	2,5	3,2	0,09200	144	63
3E180M/4	18,5	1475	34,5	120	0,84	92,6	92,6	91,6	7,8	3,2	3,8	0,15000	180	64
3E180L/4	22	1475	42,5	142	0,80	93,0	92,8	92,0	8,3	3,5	4,0	0,17000	190	64
3G200L/4	30	1475	55	194	0,84	93,6	93,5	93,3	7,9	2,8	3,7	0,25000	240	64
3G225S/4	37	1475	67	240	0,85	93,9	93,9	93,5	7,5	3,1	3,3	0,36000	330	64
3G225M/4	45	1475	80	291	0,86	94,2	94,2	93,4	7,4	3,0	3,1	0,44000	360	64
3G250M/4	55	1480	96	355	0,87	94,6	94,7	94,0	7,7	3,2	3,0	0,78000	445	67
3G280S/4	75	1485	133	482	0,86	95,0	94,9	94,4	7,6	2,9	3,0	1,11000	605	67
3G280M/4	90	1485	158	579	0,86	95,2	95,2	94,8	7,4	2,9	3,0	1,32000	665	67
3G315S/4	110	1487	194	707	0,86	95,4	95,2	95,0	7,4	2,4	3,0	2,5000	861	74
3G315M/4a	132	1487	230	848	0,87	95,6	95,4	95,3	7,4	2,4	3,0	2,8000	882	74
3G315M/4b	160	1488	275	1027	0,88	95,8	95,6	95,6	6,9	2,2	2,9	3,0000	930	74



# Elektrik Motorlarının Performans Değerleri

## Electric Motors Ratings and Performance

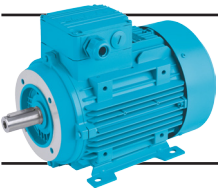
### Elektromotoren Leistungsdaten



400V 50Hz 1000 d/d / 400V 50Hz 1000 rpm / 400V 50Hz 1000 UpM

IE3

Tip Type Typ	Tam Yük Değerleri Full-load Data Vollastdaten								Kalkış Değerleri Starting Data Startdaten		Devrilme Momenti Breakdown Torque Kippmoment	Atalet Momenti Moment of Inertia Trägheitsmoment	B3 Motor Ağırlığı B3 Motor Weight B3 Motor Gewicht	Ses Seviyesi Noise Level Geräuschpegel
	Güç Power Leistung	Devir Speed Drehzahl	Akım Current Nennstrom	Moment Torque Drehmoment	Güç Faktörü Power Factor Leistungsfaktor	Verim % $\eta$ Efficiency % $\eta$ Wirkungsgrad % $\eta$			Akım Current Nennstrom	Moment Torque Drehmoment				
	kW	d/d rpm UpM	A	Nm	cos $\phi$	4 / 4	3 / 4	1 / 2	$I_A/I_N$	$M_A/M_N$				
3E71M/6C	0,18	930	0,55	1,85	0,69	68,0	67,4	62,6	3,6	2,0	2,4	0,00092	6,7	41
3E71M/6D	0,25	930	0,77	2,57	0,67	70,0	69,7	66,0	3,6	2,2	2,5	0,00105	7,5	41
3E80M/6B	0,37	930	1,03	3,8	0,70	74,0	73,8	70,0	4,4	2,1	2,6	0,00240	9,8	43
3E80M/6C	0,55	935	1,47	5,62	0,70	77,2	77,3	74,4	4,3	2,2	2,7	0,00270	10,6	43
3E90S/6B	0,75	945	1,96	7,58	0,70	78,9	79,5	77,6	4,7	2,2	2,7	0,00400	14,6	46
3E90L/6C	1,1	940	2,75	11,2	0,71	81,0	80,8	79,4	5,0	2,2	2,7	0,00480	17,0	46
3E100L/6B	1,5	955	3,5	15	0,75	82,5	82,7	81,4	5,3	2,1	2,8	0,01400	22,5	50
3E112M/6B	2,2	965	4,95	21,7	0,76	84,3	84,5	83,5	5,5	2,2	3,0	0,01900	27,2	56
3E132S/6B	3	970	6,55	29,4	0,77	85,6	85,5	84,5	6,2	2,1	3,0	0,03400	46,5	58
3E132M/6C	4	970	8,52	39,4	0,78	86,8	87,0	85,5	6,2	2,2	3,0	0,03900	51,0	58
3E132M/6D	5,5	970	11,55	54,15	0,78	88,0	88,9	88,5	6,2	2,2	3,0	0,04200	56,0	58
3E160M/6	7,5	970	15	73,8	0,81	89,1	89,0	88,1	6,3	2,2	2,8	0,11000	126	62
3E160L/6	11	970	21,5	108,3	0,82	90,3	90,3	89,0	7,0	2,5	3,2	0,14000	146	62
3E180L/6	15	975	29	147	0,82	91,2	91,2	90,8	6,9	2,6	3,2	0,24000	209	62
3G200L/6a	18,5	975	36,5	181	0,80	91,7	91,6	91,3	7,0	2,6	3,2	0,26000	222	61
3G200L/6b	22	975	43	215	0,80	92,2	92,0	91,7	7,0	2,6	3,2	0,32000	245	61
3G225M/6	30	985	58	291	0,80	92,9	92,9	92,1	7,0	3,3	2,7	0,69000	325	62
3G250M/6	37	987	69	358	0,83	93,3	93,2	92,9	7,0	2,8	2,6	0,99000	440	64
3G280S/6	45	990	92	434	0,75	93,7	93,7	92,9	6,9	3,0	2,8	1,5000	553	65
3G280M/6	55	990	107	531	0,79	94,1	94,1	92,8	7,3	3,3	3,2	1,7000	578	65
3G315S/6	75	992	140	722	0,82	94,6	94,6	94,4	7,2	2,7	3,0	2,9000	805	72
3G315M/6a	90	992	166	866	0,83	94,9	94,9	94,5	7,2	2,7	3,0	3,5000	860	72
3G315M/6b	110	992	198	1058	0,84	95,1	95,1	94,9	7,2	2,7	3,0	4,2000	980	72
3G315L/6	132	992	235	1270	0,85	95,4	95,4	95,2	7,2	2,7	3,0	4,3000	1150	72
3G355M/6a	160	993	290	1538	0,83	95,6	95,6	95,0	7,0	2,4	3,2	6,8000	1185	72



# Elektrik Motorlarının Performans Değerleri

## Electric Motors Ratings and Performance

### Elektromotoren Leistungsdaten

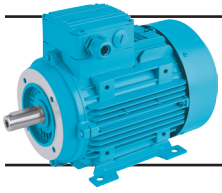


400V 50Hz 3000 d/d / 400V 50Hz 3000 rpm / 400V 50Hz 3000 UpM

IE2

Tip Type Typ	Tam Yük Değerleri Full-load Data Vollastdaten							Kalkış Değerleri Starting Data Startdaten			Devrilme Momenti Breakdown Torque Kippmo- ment $M_K/M_N$	Atalet Momenti Moment of Inertia Trägheits- moment $\text{kgm}^2$	B3 Motor Ağırlığı B3 Motor Weight B3 Motor Gewicht kg	Ses Seviyesi Noise Level Geräusch- pegel dB(A)
	Güç	Devir	Akım	Moment	Güç Faktörü	Verim % $\eta$			Akım	Moment				
	Power	Speed	Current	Torque	Power Factor	Efficiency % $\eta$			Current	Torque				
	Leistung	Drehzahl	Nennstrom	Drehmoment	Leistungsfaktor	Wirkungsgrad % $\eta$			Nennstrom	Drehmoment				
	kW	d/d rpm UpM	A	Nm	cos $\phi$	4 / 4	3 / 4	1 / 2	$I_A/I_N$	$M_A/M_N$				
G56/2b*	0,12	2800	0,35	0,41	0,74	64,5	64,1	56,9	4,2	2,5	2,8	0,00012	2,8	42
G63/2a*	0,18	2820	0,5	0,61	0,73	64,4	64,2	57,7	4,6	2,9	2,9	0,00011	3,6	52
G63/2b*	0,25	2840	0,67	0,84	0,63	67,3	67,1	60,9	4,5	2,5	2,9	0,00013	4,0	52
2E71M/2A	0,37	2805	0,9	1,26	0,80	74,2	74,5	72,5	5,0	2,5	2,8	0,00067	5,5	54
2E71M/2B	0,55	2800	1,25	1,87	0,84	75,8	77,0	76,0	5,0	2,4	2,7	0,00086	6,3	54
2E80M/2A	0,75	2850	1,67	2,51	0,83	78,0	79,0	77,5	5,7	2,5	3,0	0,00120	8,7	56
2E80M/2B	1,1	2850	2,36	3,69	0,84	80,1	81,3	80,7	5,8	2,7	3,1	0,00140	9,7	56
2E90S/2A	1,5	2880	3,19	4,98	0,83	81,8	82,6	82,0	6,0	2,4	3,1	0,00200	14,1	60
2E90L/2B	2,2	2860	4,48	7,35	0,85	83,2	85,0	85,0	6,0	2,6	3,1	0,00260	15,5	60
2E100L/2B	3	2900	5,8	9,88	0,88	84,8	85,2	84,7	7,0	2,6	3,4	0,00460	20,8	63
2E112M/2A	4	2910	7,5	13,13	0,89	86,5	87,1	86,8	7,0	2,4	3,6	0,00850	25,7	66
2E132S/2A	5,5	2930	10,2	17,93	0,89	87,4	87,8	87,0	7,5	2,4	3,7	0,01900	41	68
2E132S/2B	7,5	2925	13,6	24,5	0,90	88,5	88,8	88,6	7,6	2,6	3,7	0,02200	45,2	68
2E160M/2A	11	2945	19,5	35,7	0,91	89,5	89,5	88,6	8,5	3,4	3,6	0,03400	105	70
2E160M/2B	15	2945	28,3	48,6	0,85	90,4	90,4	89,7	7,5	3,0	3,5	0,04100	113	70
2E160L/2	18,5	2950	32,3	59,9	0,91	90,9	90,8	90,1	8,2	3,0	3,2	0,05100	135	70
2E180M/2	22	2960	38,3	71	0,91	91,3	91,3	90,8	8,2	3,0	3,5	0,07500	170	70
2G200L/2a	30	2970	52	96	0,91	92,0	92,0	91,2	8,3	2,7	3,0	0,13000	210	73
2G200L/2b	37	2970	65	119	0,89	92,6	92,6	91,7	8,3	2,7	3,0	0,15000	240	73
2G225M/2	45	2975	77	144	0,91	92,9	93,0	91,8	8,7	2,7	3,1	0,23000	343	73
2G250M/2	55	2980	94	176	0,91	93,2	93,7	92,2	8,7	2,9	3,0	0,41000	445	76
2G280S/2	75	2980	127	240	0,91	93,9	94,1	92,5	8,0	2,9	3,2	0,62000	585	76
2G280M/2	90	2980	151	288	0,91	94,2	94,2	92,7	8,5	2,7	3,0	0,74000	645	76
2G315S/2	110	2980	186	353	0,91	94,3	94,3	92,8	8,0	2,5	3,0	1,20000	742	79
2G315M/2a	132	2980	223	423	0,90	94,6	94,5	92,9	8,0	2,5	3,0	1,40000	812	79
2G315M/2b	160	2980	266	513	0,92	94,8	94,8	93,4	8,0	2,5	3,0	1,50000	912	79

\* : IE1 Verisi / IE1 Data / IE1 Daten



# Elektrik Motorlarının Performans Değerleri

## Electric Motors Ratings and Performance

### Elektromotoren Leistungsdaten



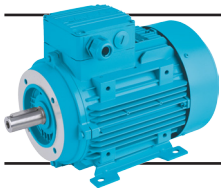
400V 50Hz 1500 d/d / 400V 50Hz 1500 rpm / 400V 50Hz 1500 UpM

IE2

Tip Type Typ	Tam Yük Değerleri Full-load Data Vollastdaten							Kalkış Değerleri Starting Data Startdaten			Devrilme Momenti Breakdown Torque Kippmoment	Atalet Momenti Moment of Inertia Trägheitsmoment	B3 Motor Ağırlığı B3 Motor Weight B3 Motor Gewicht	Ses Seviyesi Noise Level Geräuschpegel
	Güç Power Leistung	Devir Speed Drehzahl	Akım Current Nennstrom	Moment Torque Drehmoment	Güç Faktörü Power Factor Leistungsfaktor	Verim % $\eta$ Efficiency % $\eta$ Wirkungsgrad % $\eta$			Akım Current Nennstrom	Moment Torque Drehmoment				
	kW	d/d rpm UpM	A	Nm	cos $\phi$	4 / 4	3 / 4	1 / 2	$I_A/I_N$	$M_A/M_N$				
											$M_K/M_N$	kgm <sup>2</sup>	kg	dB(A)
G63/4a*	0,12	1365	0,41	0,84	0,74	57,1	57,1	53,3	3,1	2,0	2,2	0,00017	3,4	43
G63/4b*	0,18	1340	0,6	1,28	0,73	59,7	59,7	55,8	2,9	2,0	2,0	0,00021	3,9	43
2E71M/4B	0,25	1425	0,71	1,68	0,69	74,0	73,5	70,5	4,4	2,0	3,0	0,00080	5,9	46
2E71M/4C	0,37	1425	1,0	2,47	0,70	76,1	75,5	71,5	4,6	2,0	3,0	0,00096	6,7	46
2E80M/4B	0,55	1440	1,45	3,65	0,71	77,1	76,7	75,0	5,2	2,0	3,0	0,00180	9,7	50
2E80M/4C	0,75	1440	1,89	4,97	0,72	79,6	79,2	77,0	5,2	2,0	3,0	0,00220	10,5	50
2E90S/4B	1,1	1440	2,6	7,3	0,75	81,4	81,4	80,5	5,6	2,2	3,1	0,00290	14,4	52
2E90L/4C	1,5	1440	3,4	9,95	0,77	82,8	83,0	82,0	6,0	2,3	3,2	0,00360	17,2	52
2E100L/4B	2,2	1445	4,85	14,6	0,78	84,3	85,3	84,2	6,0	2,1	3,2	0,00800	22,7	54
2E100L/4C	3	1440	6,42	19,89	0,79	85,5	85,7	84,6	6,3	2,3	3,1	0,01100	24,2	54
2E112M/4C	4	1450	8,2	26,35	0,81	86,8	87,4	86,5	6,6	2,5	3,4	0,01300	32	58
2E132S/4B	5,5	1455	11,05	36,1	0,82	87,7	88,6	88,0	6,7	2,6	3,2	0,03000	47,8	62
2E132M/4C	7,5	1460	15	49	0,81	88,7	89,0	89,0	7,0	2,7	3,3	0,03500	54,8	62
2E160M/4B	11	1470	21	71,5	0,84	90,0	90,1	89,3	6,9	2,8	3,1	0,07200	130	63
2E160L/4C	15	1470	29,3	97,4	0,82	90,6	90,7	89,7	7,5	2,6	3,5	0,09200	141	63
2E180M/4	18,5	1475	34,5	120	0,85	91,3	91,4	90,4	7,7	3,2	3,4	0,15000	180	64
2E180L/4	22	1475	42,5	142	0,82	91,7	91,7	90,6	8,3	3,7	3,8	0,17000	190	64
2G200L/4	30	1475	55	194	0,85	92,5	92,6	92,1	8,0	3,1	3,6	0,23000	227	64
2G225S/4	37	1475	67	240	0,86	92,7	92,7	92,2	7,2	3,0	3,0	0,35000	314	64
2G225M/4	45	1475	80	291	0,87	93,3	93,3	92,4	7,3	3,0	3,0	0,44000	360	64
2G250M/4	55	1480	96	355	0,88	93,7	93,8	93,2	7,6	3,1	2,9	0,78000	445	67
2G280S/4	75	1485	133	482	0,87	94,0	94,1	93,4	7,9	2,6	2,8	1,11000	605	67
2G280M/4	90	1485	158	579	0,87	94,3	94,5	93,8	7,4	2,9	3,0	1,32000	665	67
2G315S/4	110	1485	195	707	0,86	94,5	94,5	93,8	7,0	2,3	2,6	2,10000	784	74
2G315M/4a	132	1485	235	849	0,86	94,7	94,5	93,8	7,0	2,3	2,6	2,50000	861	74
2G315M/4b	160	1485	280	1029	0,87	95,0	94,9	94,0	7,0	2,3	2,6	2,70000	882	74

\* : IE1 Verisi / IE1 Data / IE1 Daten





# Elektrik Motorlarının Performans Değerleri

## Electric Motors Ratings and Performance

### Elektromotoren Leistungsdaten



400V 50Hz 1000 d/d / 400V 50Hz 1000 rpm / 400V 50Hz 1000 UpM

IE2

Tip Type Typ	Tam Yük Değerleri Full-load Data Vollastdaten							Kalkış Değerleri Starting Data Startdaten			Devrilme Momenti Breakdown Torque Kippmo- ment $M_K/M_N$	Atalet Momenti Moment of Inertia Trägheits- moment $\text{kgm}^2$	B3 Motor Ağırlığı B3 Motor Weight B3 Motor Gewicht kg	Ses Seviyesi Noise Level Geräusch- pegel dB(A)
	Güç	Devir	Akım	Moment	Güç Faktörü	Verim % $\eta$			Akım	Moment				
	Power	Speed	Current	Torque	Power Factor	Efficiency % $\eta$			Current	Torque				
	Leistung	Drehzahl	Nennstrom	Drehmoment	Leistungsfaktor	Wirkungsgrad % $\eta$			Nennstrom	Drehmoment				
	kW	d/d rpm UpM	A	Nm	cos $\phi$	4 / 4	3 / 4	1 / 2	$I_A/I_N$	$M_A/M_N$				
2E71M/6B	0,18	920	0,6	1,87	0,67	64,5	63,0	57,0	3,2	1,9	2,3	0,00075	5,9	42
2E71M/6C	0,25	920	0,78	2,59	0,69	66,5	66,0	61,0	3,3	1,9	2,3	0,00092	6,6	42
2E80M/6A	0,37	925	1,08	3,82	0,69	71,4	71,5	70,0	4,0	2,0	2,6	0,00190	9,1	45
2E80M/6B	0,55	932	1,5	5,64	0,72	73,5	74,0	71,0	4,2	2,1	2,6	0,00240	9,9	45
2E90S/6A	0,75	940	2,0	7,62	0,71	75,9	76,1	73,1	4,1	2,0	2,6	0,00360	13,3	48
2E90L/6B	1,1	940	2,9	11,18	0,70	78,1	78,3	75,0	4,3	2,1	2,6	0,00400	14,8	48
2E100L/6A	1,5	950	3,72	15	0,73	79,8	80,2	79,5	4,5	2,1	2,6	0,01000	20,2	52
2E112M/6A	2,2	960	5,32	21,9	0,73	81,8	82,0	81,5	5,3	2,1	2,7	0,01400	25	56
2E132S/6A	3	970	6,85	29,6	0,76	83,3	84,0	83,0	5,6	2,0	2,8	0,02800	42	60
2E132M/6B	4	970	8,8	39,38	0,77	85,2	85,7	85,3	5,2	2,1	2,6	0,03400	46	60
2E132M/6C	5,5	965	12	54,4	0,77	86,0	87,2	87,0	5,7	2,1	2,7	0,03900	51	60
2E160M/6	7,5	960	15	74,6	0,83	87,2	87,2	84,5	6,5	2,5	3,0	0,11000	126	62
2E160L/6	11	965	22	108,9	0,81	88,7	88,7	85,7	6,5	2,5	3,0	0,14000	146	62
2E180L/6	15	965	29	148	0,83	89,7	89,7	86,8	6,5	2,4	3,0	0,20000	189	62
2G200L/6a	18,5	975	36,5	181	0,81	90,4	90,4	87,7	7,0	2,5	3,0	0,26000	222	61
2G200L/6b	22	975	43	215	0,81	91,1	91,1	88,4	7,0	2,5	3,0	0,32000	245	61
2G225M/6	30	980	58	292	0,81	91,7	91,7	89,6	7,0	3,0	2,6	0,69000	325	62
2G250M/6	37	985	69	359	0,84	92,2	92,2	90,1	7,0	3,0	2,6	0,99000	440	64
2G280S/6	45	990	92	434	0,76	92,7	92,7	90,9	7,0	3,3	2,6	1,50000	553	65
2G280M/6	55	990	107	531	0,80	93,1	93,1	91,5	7,0	3,3	2,6	1,60000	578	65
2G315S/6	75	990	140	723	0,82	93,7	93,7	92,4	7,0	2,5	3,0	2,50000	727	72
2G315M/6a	90	990	166	868	0,83	94,0	94,0	92,6	7,0	2,5	3,0	3,10000	805	72
2G315M/6b	110	990	198	1061	0,85	94,3	94,3	92,7	7,0	2,5	3,0	3,20000	860	72
2G315L/6a	132	990	235	1273	0,86	94,6	94,6	93,0	7,0	2,5	3,0	3,50000	1020	72
2G315L/6b	160	990	290	1543	0,84	94,8	94,8	93,2	7,0	2,5	3,0	3,80000	1120	72

