



# Genel Bilgiler

## General Information

## Einführung

### Sembollerin Açıklaması

$c_t$	: Anahtarın devreye girme zamanı katsayısı
$f_s$	: Servis faktörü
$F_{ama}$	: Çıkış milinde müsade edilen eksenel yükler [kN]
$F_{ame}$	: Giriş milinde müsade edilen eksenel yükler [kN]
$F_{qam}$	: Çıkış milinde izin verilen radyal yöndeği yükler [N]
$F_{qem}$	: Giriş milinde izin verilen radyal yöndeği yükler [N]
$F_{qa}$	: Çıkış miline gelen radyal yöndeği yükler [N]
$F_{qe}$	: Giriş miline gelen radyal yöndeği yükler [N]
$F_q$	: Radyal yöndeği yükler [N]
$F_a$	: Eksenel yöndeği yükler [N]
$i$	: Tahvil oranı
$J_{ext}$	: Motor miline indirgenmiş toplam dış atalet momenti [ $\text{kgm}^2$ ]
$M_2$	: 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 [ $\text{kgm}^2$ ]
$M_2$	: 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 Motor welle [ $\text{kgm}^2$ ]
$M_2$	: 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- Drehzahltabellen[kW])
$P_M$	: Leistung benötigt an der Abtriebswelle (Zur Berechnung bei variabler 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

Hesisel 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 çıkışlıdır.

#### - D Serisi

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

#### - E Serisi

Sonsuz vida ve çark dişlili, belirli bir aralıktır ve birbirine dik konumlandırılmış giriş ve çıkış millerine sahip, cepeçevre konumlandırılmış ayak bağlantıları, flanş veya tork kolu ile makina ya sabitlenebilin redüktörlerdir. Delik milli veya mil çıkışlı olabilir.

#### - Y Serisi

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

#### - K Serisi

Hesisel alın dişli ve konik dişlerden oluşan, birbirine dik ve belirli bir aralıktır konumlandırılmış giriş ve çıkış miline sahip, cepeçevre sunulan ayaklar, flanş veya tork kolu ile makina ya sabitlenen redüktörlerdir. E serisinden farklı olarak yüksek verime sahiptirler. Delik milli veya mil çıkışlı olabilir.

#### - H ve B Serisi

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

#### - T Serisi

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

#### - P ve R Serisi

P ve R Serisi redüktörler planet dişli redüktörlerdir. Endüstriyel ve mobil uygulamalarda kullanılır. 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 üretilmektektir.

### 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 Verbindungs möglichkeiten zwischen Antrieb und Getriebe (Zum Beispiel; mechanische und hydraulische Kupplungen, Riementrieb, Kettentrieb usw.). Kann Voll- und Hohlwelle am Ausgang haben.

#### - K Serie

Diese Getrieben bestehen aus Stirnräder und Kegelräder. 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, schrägvorzähnte 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**

**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**

**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**

**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**

**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**

**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**

**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**

**K ...**

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

**Y ...**

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

**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**

**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)**



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## General Information

### Einführung

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 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 <b>Su Bazlı veya Akrilik Sonkat</b> <i>Water Based or Acrylic Top Coat</i> Wasserbasierte oder Akryl-Decklack	80 µm 40 µm
C3	<b>İç ortam ve atmosfere açık dış ortam 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 <b>Akrilik Sonkat</b> <i>Acrylic Top Coat</i> Akryl-Decklack	80 µm 40 µm
C4	<b>İç ortam ve atmosfere açık dış ortam 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 <b>Akrilik Sonkat</b> <i>Acrylic Top Coat</i> Akryl-Decklack	180 µm 40 µm
C5-I / C5-M	<b>İç ortam ve atmosfere açık dış ortam 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 Yüklemeli Epoksi Astar</b> <i>Epoxy Zinc Primer Coat</i> Epoxy-Zink-Grundierung <b>Epoksi Astar Miox</b> <i>Epoxy Miox Primer Coat</i> Epoxy-Miox-Grundierung <b>Akrilik Sonkat</b> <i>Acrylic Top Coat</i> Akryl-Decklack	70 µm 150 µm 40 µm



# 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

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

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

Motor Verim Sınıfı / Motor Efficiency Class / Motor-Effizienzklasse

Kademe Sayısı / Stage / Anzahl der Stufen

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

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

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

**6 Kademe / 6 Stages / 6 stufig**

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

Revizyon Numarası / Revision Number / Änderungsnummer

Gövde Büyüklük / Housing Size / Größe der Gehäuse

1...9

Giriş Tipi / Input Type / Eingangstyp

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

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

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

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

Redüktör Tipi / Gearbox Type / Getriebe

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

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



# Genel Bilgiler

## General Information

### Einführung

#### Tip Tanımlaması / Unit Designation / Typenbezeichnungen

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

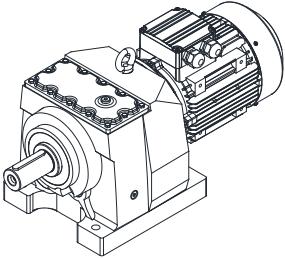
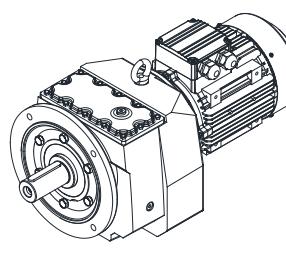
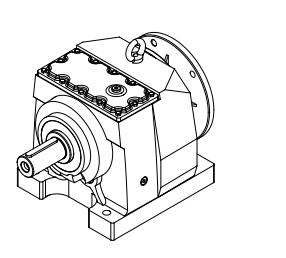
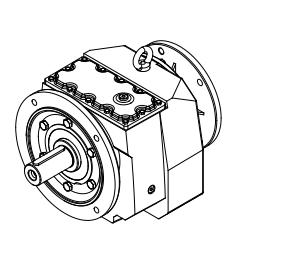
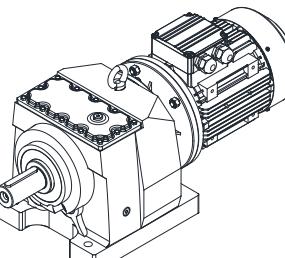
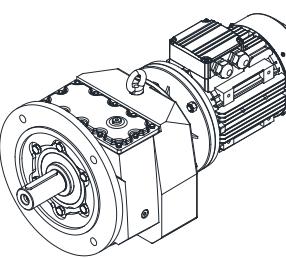
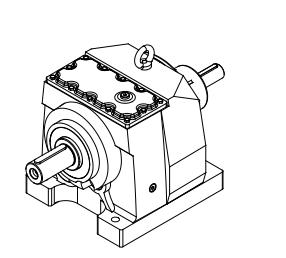
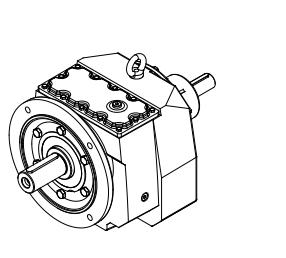
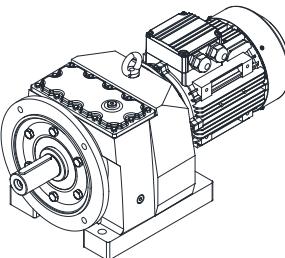
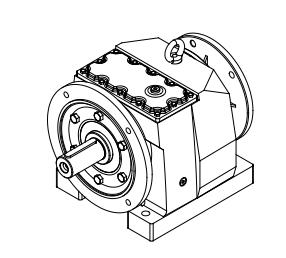
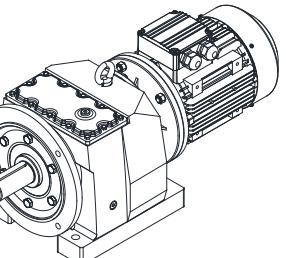
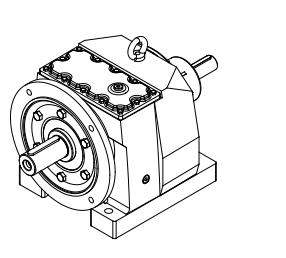
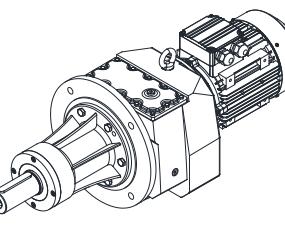
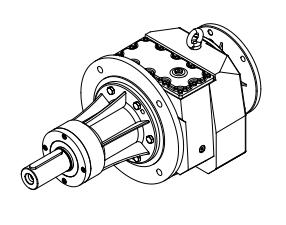
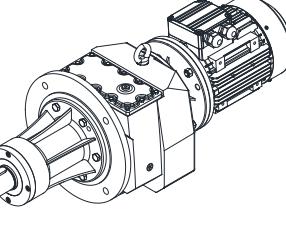
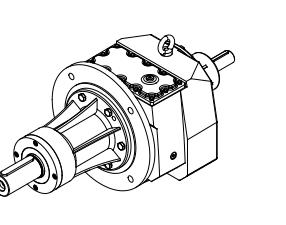


# Genel Bilgiler

## 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>



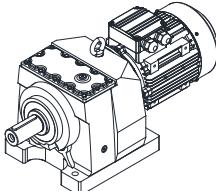
# Genel Bilgiler

## General Information

## Einführung

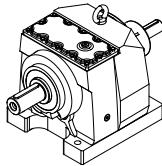
### Örnek Tip Tanımlamaları

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



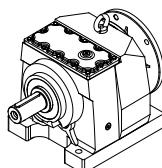
M.....: M serisi redüktör  
 R.....: Motor bağlantılı  
 1.....: Gövde büyülüklük  
 7.....: Revizyon numarası  
 2.....: Kademe sayısı  
 3.....: Verim sınıfı  
 E.....: Motor tipi  
 90S....: Motor büyülügü  
 4C.....: Motor kutup sayısı  
 L05....: Fren Tipi

### MT373



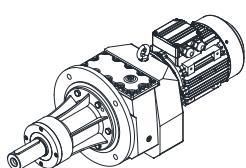
M.....: M serisi redüktör  
 T.....: Motorsuz giriş milli  
 3.....: Gövde büyülüğu  
 7.....: Revizyon numarası  
 3.....: Kademe sayısı

### MN473 - A11



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

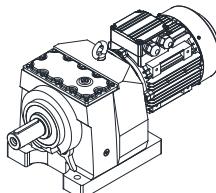
### NRB473 - 3E100L/4C



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

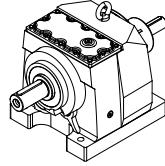
### Sample Designations

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



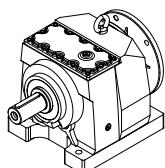
M.....: M series gearbox  
 R.....: With motor connection  
 1.....: Gear unit size  
 7.....: Revision number  
 2.....: Stage number  
 3.....: Efficiency class  
 E.....: Motor type  
 90S....: Motor frame size  
 4C.....: Number of poles  
 L05....: Brake type

### MT373



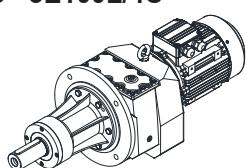
M.....: M series gearbox  
 T.....: Solid input shaft  
 3.....: Gear unit size  
 7.....: Revision number  
 3.....: Stage number

### 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

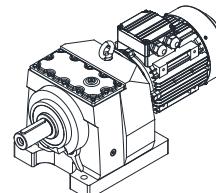
### NRB473 - 3E100L/4C



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

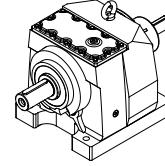
### Beispiele für Typenbezeichnung

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



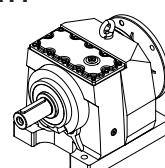
M.....: M Serie Getriebe  
 R.....: Motorverbindung  
 1.....: Größe der Gehäuse  
 7.....: Änderungsnummer  
 2.....: Stufenanzahl  
 3.....: Effizienzklasse  
 E.....: Motortyp  
 90S....: Motorbaugröße  
 4C.....: Anzahl der Polen  
 L05....: Bremse

### MT373



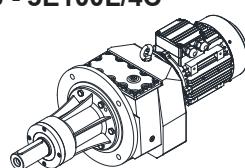
M.....: M Serie Getriebe  
 T.....: Vollwelleneingang ohne Motor  
 3.....: Größe der Gehäuse  
 7.....: Änderungsnummer  
 3.....: Stufenanzahl

### 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

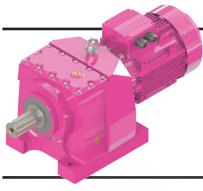
#### Motor Büyüklüğüne Göre Geometrik Mümkün Çevrim Oranları

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	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 - 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

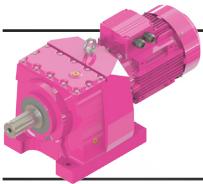
### Einführung

#### Motor Büyüklüğüne Göre Geometrik Mümkin 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	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 ( $fs$ ) reduktörün 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 türk tipi
- Diğer gözlemler

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

1. Makinanın günlük çalışma süresini tespit ediniz.
2. Makinanın ne türde yükler verdiği 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 türk tipine bağlı olarak "k" katsayı ile çarpılarak arttırılır.

$k=1$  :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 bellow.
5. The selected service factor must be multiplied with the factor "k" according to the driver type;

$k=1$	:Electric motor or Hydraulicmotor
$k=1.25$	: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.

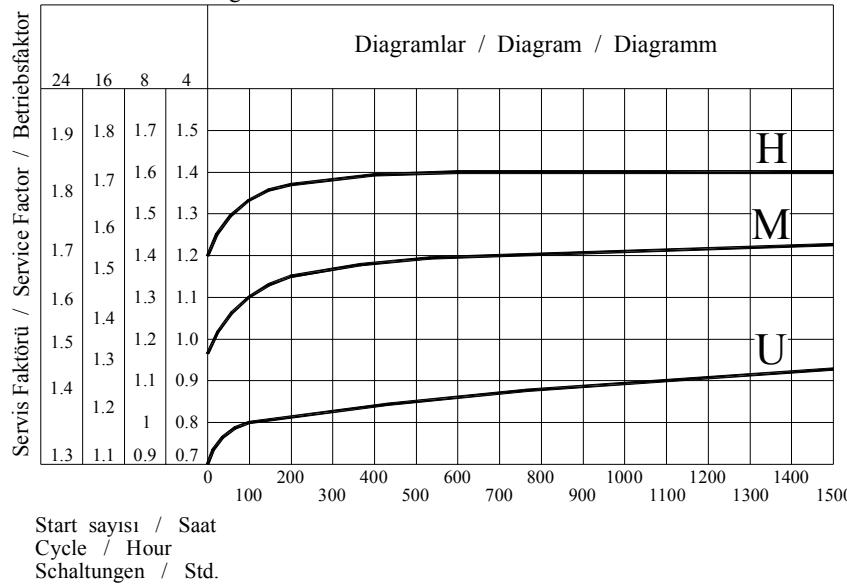
U - Gleichförmig Belastung  
M - Ungleichförmig Belastung  
H - Stark Ungleichförmig Belastung

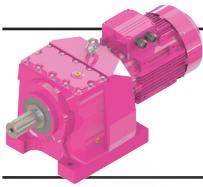
Um eine bessere Auswahl zu treffen, können die Belastungsarten mit den angegebenen Formeln (Seite 18) errechnet werden.

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
$k=1.5$	:Einzylindermotor

Günlük Çalışma Süresi  
Operating Time hour / Day  
Laufzeit Std. / Tag





# Genel Bilgiler

## General Information

## Einführung

### Yük Sınıflandırması

#### Krenler:

- |   |                           |
|---|---------------------------|
| U | - Kaldırma Dışlıleri      |
|   | - Palanga Dışlıleri       |
| M | - Bomlu Vinç Dışlıleri    |
|   | - Yana Döndürme Dışlıleri |
| H | - Yürütmeye Dışlıleri     |

#### Pompalar:

- |   |                                  |
|---|----------------------------------|
| U | - Santrifüj Pompalar (ince sıvı) |
| M | - Santrifüj Pompalar (yarı sıvı) |
| H | - Basınçlı Pompalar              |
|   | - Dalgaç Pompalar                |

#### Taş ve Kil İşleme Makinaları:

- |   |                       |
|---|-----------------------|
| H | - Çekiçli Değirmenler |
|   | - Döner Fırınlar      |
|   | - Dövücü Değirmenler  |
|   | - Kırıcılar           |
|   | - Küreli Değirmenler  |
|   | - Tuğla Presi         |
|   | - Tüp Değirmenler     |

#### Tekstil Makinaları:

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

#### Yağ Sanayi:

- |   |                            |
|---|----------------------------|
| M | - Besleme Pompaları        |
|   | - Döner Delme Teçhizatları |

#### Yiyecek Sanayi:

- |   |                      |
|---|----------------------|
| M | - Kutu Bıçaklar      |
|   | - Kutu Kaplama       |
|   | - Mayalama Tekneleri |
| H | - Kenar Açıma        |

#### 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 Siyırma 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 |
|   | - Tup 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 | - Hammermühler  |
|   | - Drehofen      |
|   | - Schlagmühlen  |
|   | - Brecher       |
|   | - Kugelmühlen   |
|   | - Ziegelpressen |
|   | - Rohrmühlen    |

#### Textilmaschinen:

- |   |                    |
|---|--------------------|
| M | - Drukerei         |
|   | - Farbereimachinen |
|   | - Aufwickler       |
|   | - Webstühle        |
|   | - Gerbfässer       |
|   | - Reibwölfe        |

#### Erdölgewinnung:

- |   |                        |
|---|------------------------|
| M | - Pipeline Pumpen      |
|   | - Rotative Bohranlagen |

#### Nahrungsmittelmaschinen:

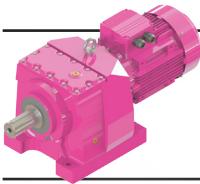
- |   |                 |
|---|-----------------|
| M | - Rohrschneiden |
|   | - Knetmaschinen |
|   | - Maichen       |
| H | - Rohrmühlen    |

#### Waschereimaschinen:

- |   |                   |
|---|-------------------|
| M | - Trommeltrockner |
|   | - Waschmaschinen  |

#### Wälzwerke:

- |   |                        |
|---|------------------------|
| M | - Rollenrichtmaschinen |
|   | - Walzenantriebe       |
|   | - Drahtzuge            |
|   | - Haspeln              |
| H | - Blechscheren         |
|   | - Rollgänge (schwer)   |
|   | - Knüppelscheren       |
|   | - Schöpfsscheren       |
|   | - Stranggubanlagen     |
|   | - Kaltwälzwerke        |



# Genel Bilgiler

## General Information

## Einführung

**İnşaat Makineleri:**

- M      - Beton Mikserleri  
- Ağır Yük Asansörleri

**Kağıt Makineleri:**

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

**Kauçuk Makineleri:**

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

**Kimya Sanayi:**

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

**Konveyörler:**

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

**Building Machines:**

- M      - Concreting 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      - Agitators (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  
- Gauischen  
- Trockenzyliner  
- Glättzyliner

**Kunststoffmaschinen:**

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

**Chemische Industrie:**

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

**Förderanlagen:**

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

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

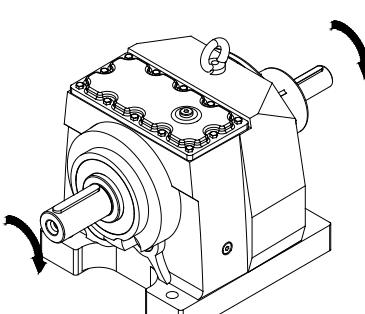
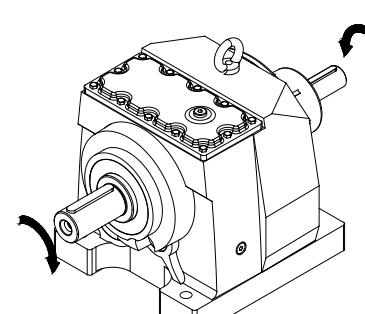
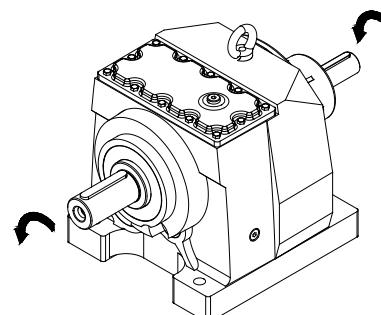
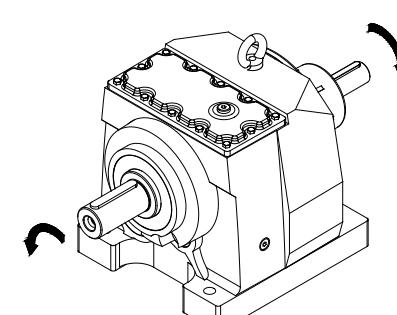
M Serisi ürünlerimiz için kullanılan yön tanımlaması aşağıdaki gibidir. Aşağıdaki tanımlama kilitli redüktörler için de geçerlidir.

### Direction of Rotation

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

### Getriebedrehrichtungen

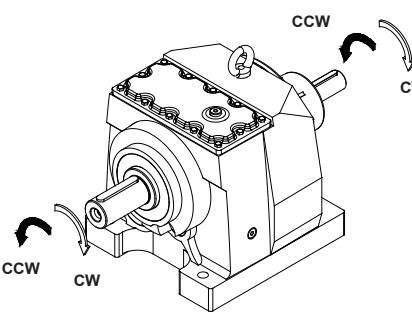
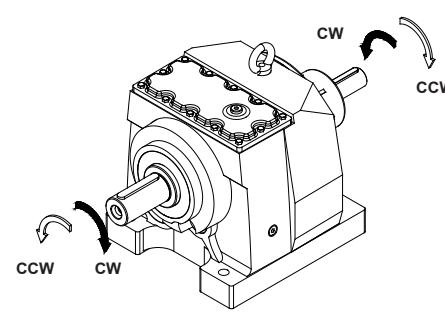
Die Drehrichtungen für M Serie Getriebe sind wie folgt definiert. Die Definition ist auch bei Getrieben mit Rücklaufsperrre gültig.

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

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

Cıktı miline gelebilecek radyal ve eksenel yükler yatakları ömrüne göre belirlenmiş ve tablolardan halinde verilmiştir. Bu tablolarda verilen  $F_{qam}$  güvenilir radyal yük emniyet katsayıısı 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 etkidiği durum için verilmiştir. Mil ucuna gelen kuvvetin açısına göre daha yüksek radyal yükler mümkündür (Firmamızda danışınız). Bağlantı şecline göre oluşan radyal yük  $F_q$  sayfa 21 de verilen formüller yardımcı 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 değerin aşağıda verilen formül ile düzeltmesi gereklidir.

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

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

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

#### Overhung Loads

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

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

In Selection :

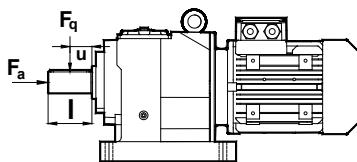
$$\begin{aligned} F_{qa} &\leq F_{qam} \\ F_{qe} &\leq F_{qem} \end{aligned}$$

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

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

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

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



#### Querkräfte

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

Bei dieser Auswahl:

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

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

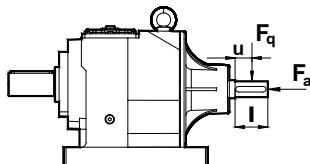
$$F_{qam}' = F_{qam} \times \frac{t}{y + u}$$

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

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

**Çıktı Milinde Radyal Kuvvet Hesabı Düzeltme Katsayıları**  
Overhung Load Correcting Values on Output Shaft  
Querkraft auf Ausgangswelle Korrigierungszahlen

Tip Type Typ	MR002-003	MR102-103	MR172-173	MR202-203	MR272-273	MR282-283	MR372-373	MR472-473	MR572-573	MR672-673	MR772-773	MR872-873	MR972-973
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
I	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  
Querkraft auf Eigangswelle Korrigierungszahlen

Tip Type Typ	MT002-003	MT102-103	MT172-173	MT202-203	MT272-273	MT282-283	MT372-373	MT472-473	MT572-573	MT672-673	MT772-773	MT872-873	MT972-973
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
I	40	50	50	50	50	60	60	70	90	100	120	110	110



# Genel Bilgiler

## General Information

## Einführung



### Radyal Yüklerin Hesabı

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

### 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.

### 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. Elastik Kaplin

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

#### 1. Elastic Coupling

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

#### 1. Elastische Kupplung

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



#### 2. Düz Dişli (20° kavrama açılı)

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

#### 2. For Spur Gear (Pressure angle 20°)

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

#### 2. Stirnradgetriebe (Angriffswinkel 20°)

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



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

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

#### 3. For Chain Drive With Low Speed ( $z > 17$ )

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

#### 3. Kettenantrieb mit niedriger Ge- schwindigkeit ( $z > 17$ )

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



#### 4. Triger Kayış

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

#### 4. For Trigger Belt

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

#### 4. Zahriemenantrieb

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



#### 5. V Kayış

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

#### 5. For V Belt

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

#### 5. Keilriemenantrieb

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



#### 6. Gerdirme Makaralı Kayış

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

#### 6. Flat Belt With Spanning Pulley

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

#### 6. Flachriemenantrieb mit Spannungstrommel

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



# Genel Bilgiler

## General Information

### Einführung

#### Eşdeğer Güç Hesabı

Sabit devirde, ancak değişken momentlerde (güçlerde) çalışan redüktörler için eşdeğer tork altındaki, eşdeğer güç hesaplanabilir. Bu eşdeğer güç kullanılarak bilinen sabit güçteki redüktör seçim yöntemi kullanılarak seçim yapılabılır. 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 eksenin boyunca sıralanır (bakınız alttaki şékil). Bu şekilde 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 katalogda 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 the usual gearbox selection method with constant torques. The equivalent torque will be determined according 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 Momenten 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 den 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

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

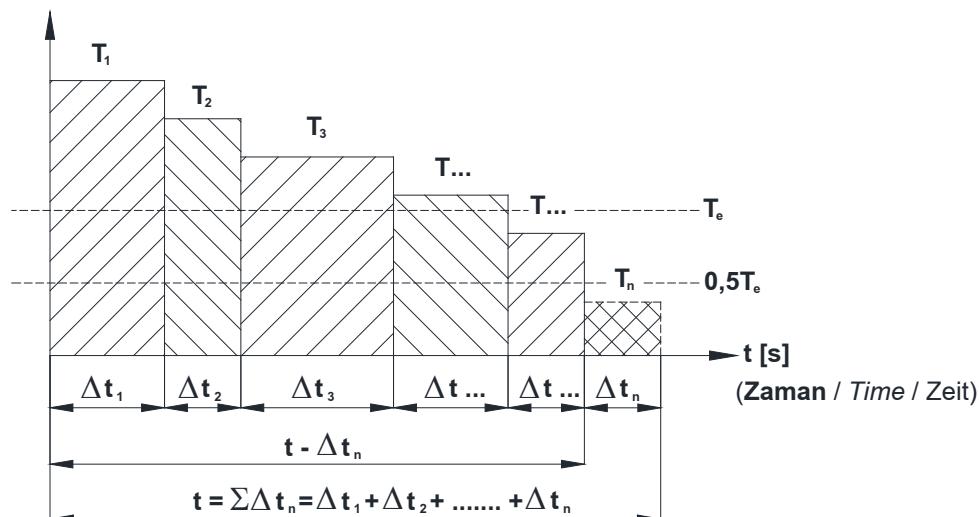
Wenn alle  $T_n$  Werte höher als 50% von  $T_e$  sind, dann wird die äquivalente Leistung nach folgender Formel berechnet;

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

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 katalogda anlatılan seçim presüdürü 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 than 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 einen 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 einen 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 ( $f_s$ ) 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 yük bulduğundan daha yüksek veya eşit olan redüktörü, güç-devir seçim tablolardan seçiniz. Helisel tip redüktörlerde verim yüksek olduğundan çıkış gücü verilmemiştir. Hesaplığınızın güç değerini giriş gücü olarak kabul edip seçimizi 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  $f_s = 1,3$  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 ( $f_s$ ) 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  $f_s = 1,3$  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 erforderliche Drehmoment  $M_2$  für die angetriebene Maschine (Abtriebsdrehmoment für die Getriebe) bestimmen.

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

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

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

5. Die an der Getriebeabtriebswelle erforderliche Querkraft in Abhängigkeit von Antriebselement 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 erforderliche Leistung kann als Antriebsleistung benutzt werden. Achten sie darauf, dass der Abtriebsmoment größer als die erforderliche 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-Maschine: Kettentreib (Durchmesser-160 mm)

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

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

- Erforderte Leistung der angetriebene Maschine (Die an der Getriebeabtriebswelle erforderliche 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 sayfalarından,

**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 erforderliche 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 erforderliche 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

### 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 reduktörlerde düzgün bir yağlama sağlanabilmesi için yağ seviyesinin reduktörün üst dışilerinin yağlanabilecegi seviyede olması gerekmektedir. Buda düşük çevrim oranı reduktörlerde köpürme ve genleşme nedeniyile havalandırma tapasından yağ atılmasına neden olabilmektedir.

Yılmaz reduktör ; bunun önlenemeznesi için çevrim oranı ( $i$ )  $< 20$  ve M4' den daha büyük olan bütün gövdeelerde **M4** montaj pozisyonunda genleşme tankı kullanılmasını kesinlikle önermektedir. Önerilen genleşme tankı ölçülerini aşağıdaki tabloda gösterilmiştir.

Çevrim oranı ( $i$ )  $< 20$  olup giriş motor devri 1800 d/d dan büyük olan bütün reduktörlerde **M4** montaj pozisyonunda genleşme tankı kullanılması reduktör büyülüğüne 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.

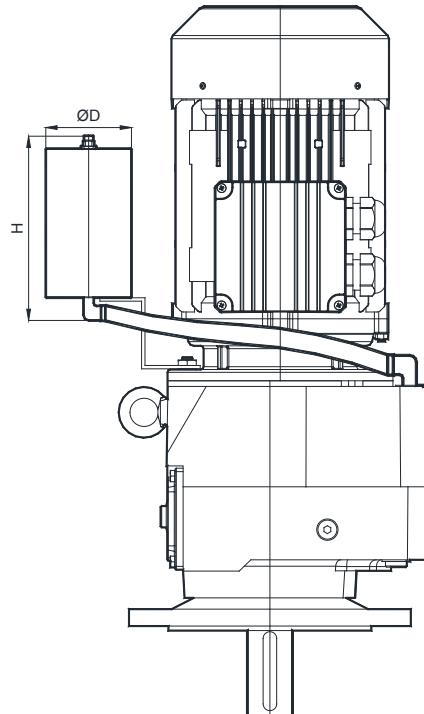
We ; Yılmaz Redüktör, strongly recommend using expansion tank for **M4** mounting position for gear units M57, M67, M77, M87 and M97 with total ratios ( $i$ ) below 20, to prevent this. You can find the recommended dimensions of expansion tanks below.

If your gear units total ratio ( $i$ ) is below 20 and input speed is higher then 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-Eingangsrehzahlen  $> 1800 \text{ min}^{-1}$  empfiehlt Yılmaz Redüktör einen Ölausgleichsbehälter unabhängig von der Getriebebaugröße einzusetzen.



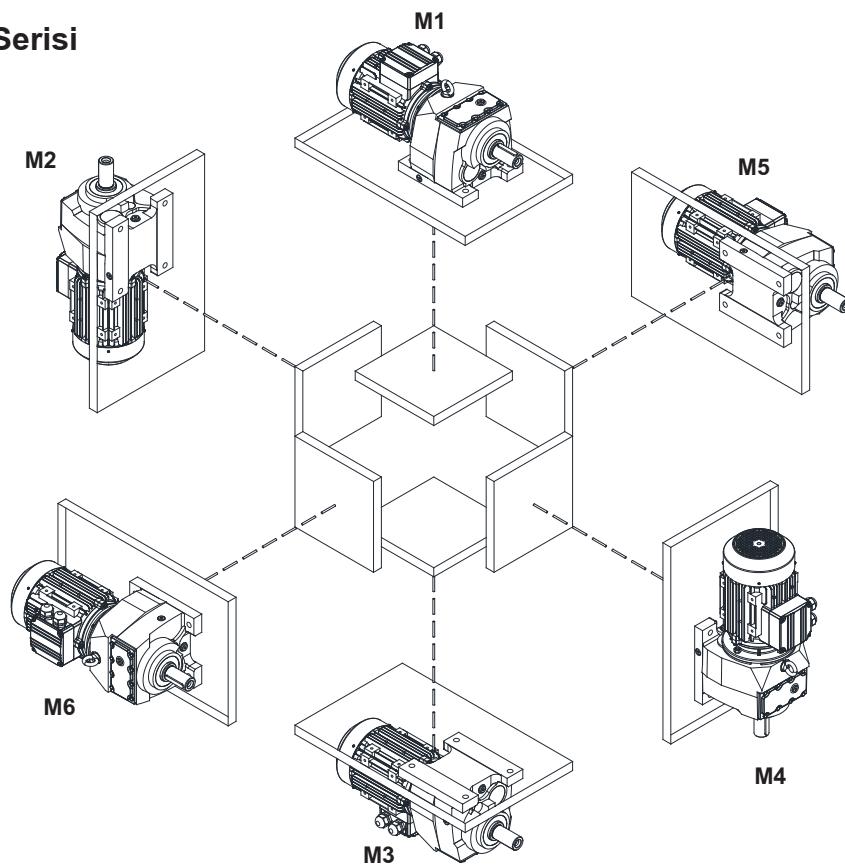
Gövde Büyüklüğü Housing Size Größe der Gehäuse	Genleşme Tankı Expansion Tank Ölausgleichsbehälter	D [mm]	H [mm]	Ağırlık [kg] Weight [kg] Gewicht [kg]
M57..	G1	100	150	4
M67.. , M77..	G2	150	250	5
M87.. , M97..	G3	180	400	9



## Genel Bilgiler General Information Einführung

Montaj Pozisyonları / Mounting Positions / Bauformen

### M Serisi



M1....M6 'ya kadar belirtilen montaj pozisyonları reduktörün 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.

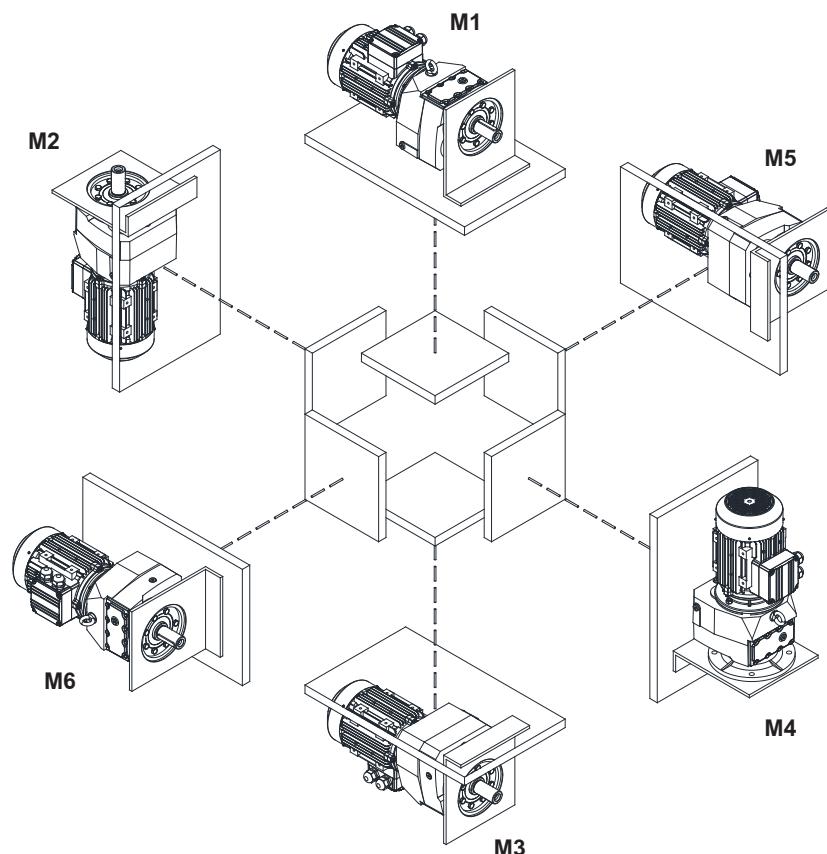
Dargestellte Montagepositionen M1 bis M6 wurden nach der Stehrichtung von Getriebe bestimmt. Montageoberflächen sind unverbindlich.

### N Serisi

M1....M6 'ya kadar belirtilen montaj pozisyonları reduktörün 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

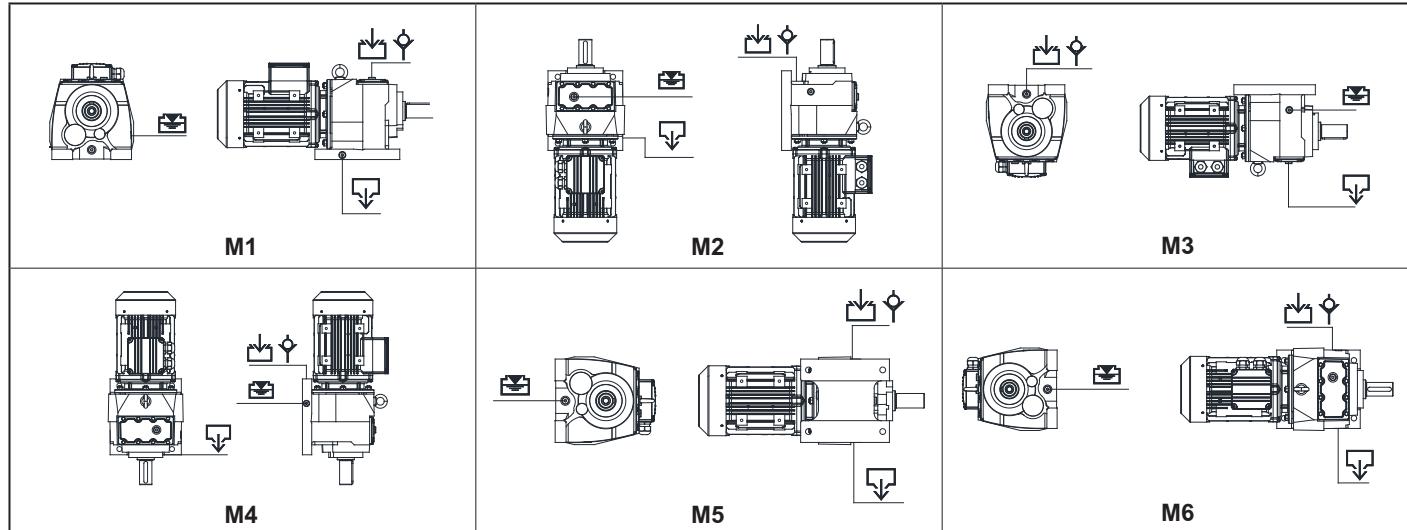
## General Information

## 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
<b>M002 / 003</b>	0.4 / 0.35	0.6 / 0.55	0.5 / 0.5	0.6 / 0.55	0.5 / 0.4	0.5 / 0.4
<b>M102 / 103</b>	0.65 / 0.6	0.95 / 0.8	0.7 / 0.7	0.95 / 0.8	0.7 / 0.7	0.7 / 0.7
<b>M172 / 173</b>	0.7 / 0.65	0.95 / 0.9	0.8 / 0.8	0.95 / 0.9	0.8 / 0.7	0.8 / 0.7
<b>M202 / 203</b>	1.2 / 1.1	2.1 / 2	2 / 1.9	2.1 / 2	1.4 / 1.3	1.4 / 1.3
<b>M272 / 273</b>	1.1 / 1	2 / 1.7	1.9 / 1.5	2 / 1.7	1.3 / 1.2	1.3 / 1.2
<b>M282 / 283</b>	1.7 / 1.6	3 / 2.85	2.8 / 2.5	3 / 2.85	2.6 / 2.4	2.6 / 2.4
<b>M372 / 373</b>	2 / 1.9	3.4 / 3.3	3.1 / 3	3.4 / 3.3	2.8 / 2.6	2.8 / 2.6
<b>M472 / 473</b>	4.5 / 4	8 / 7.6	7.5 / 7	8 / 7.6	5.5 / 5	5.5 / 5
<b>M572 / 573</b>	7 / 6	12.8 / 11.7	11.5 / 10.5	12.8 / 11.7	8 / 7.5	8 / 7.5
<b>M672 / 673</b>	10 / 8.5	22.5 / 20	20 / 18	22.5 / 20	11 / 11	11 / 11
<b>M772 / 773</b>	20 / 18	35 / 32	30 / 28	35 / 32	22 / 20	22 / 20
<b>M872 / 873</b>	28 / 20	53 / 45	45 / 39	53 / 45	30 / 28	30 / 28
<b>M972 / 973</b>	53 / 50	90 / 87	82 / 80	90 / 87	70 / 65	70 / 65

**Semboller :**

**Symbols :**

**Symbolle :**



:Yağ doldurma  
:Oil filling  
:Ölfüllung



:Yağ boşaltma  
:Drain plug  
:Ölauslass



:Yağ seviyesi  
:Oil level  
:Ölstand



:Havalandırma  
:Vent Plug  
:Entlüftungs schraube



# Genel Bilgiler

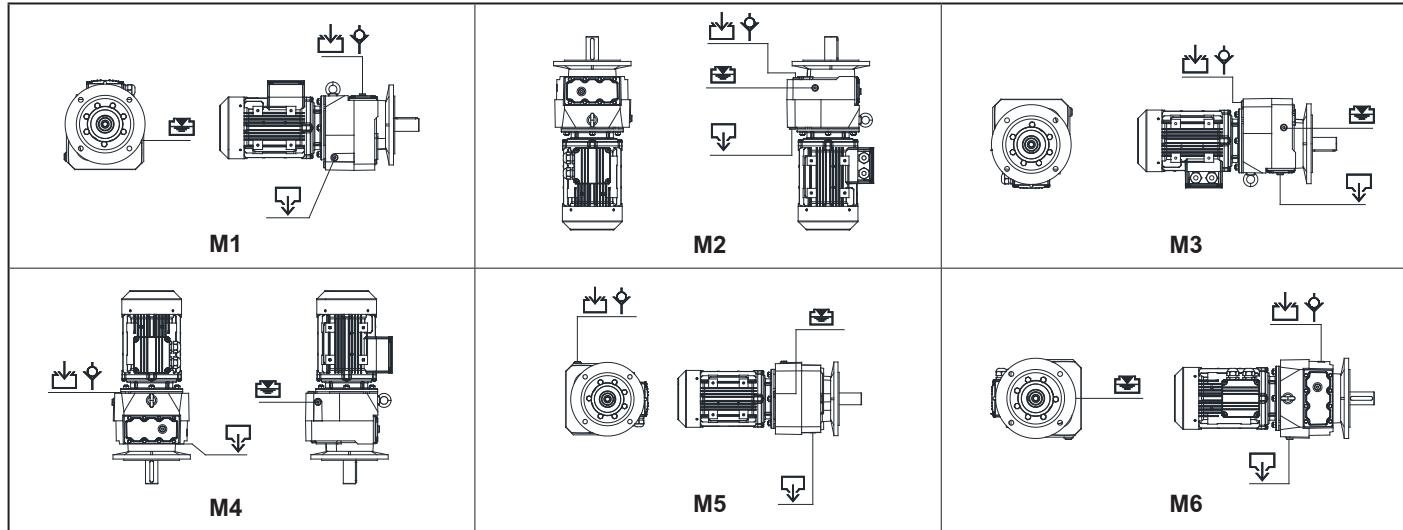
## General Information

### 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 :  
Symbol :  
Symbole :



:Yağ doldurma  
:Oil filling  
:Ölfüllung



:Yağ boşaltma  
:Drain plug  
:Ölauslass



:Yağ seviyesi  
:Oil level  
:Ölstand



:Havalandırma  
:Vent Plug  
:Entlüftungs schraube



# Genel Bilgiler

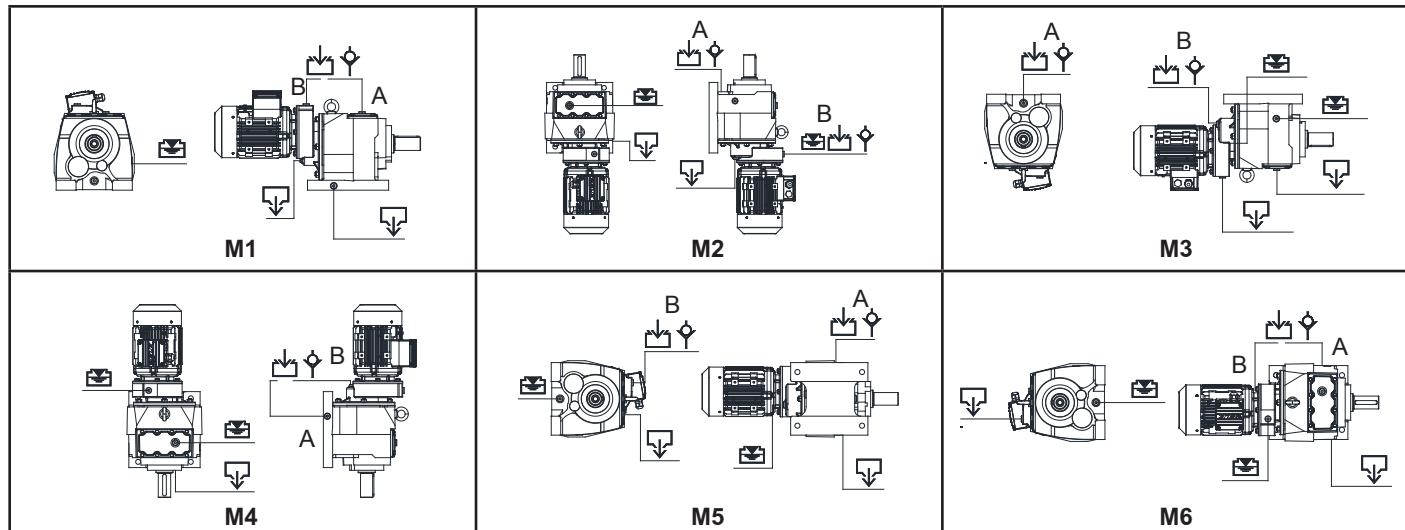
## General Information

## 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

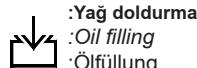


### Yağ Miktarları (lt) / Oil Quantities (lt) / Ölmengen (lt)

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  
:Entlüftungs schraube



# Genel Bilgiler

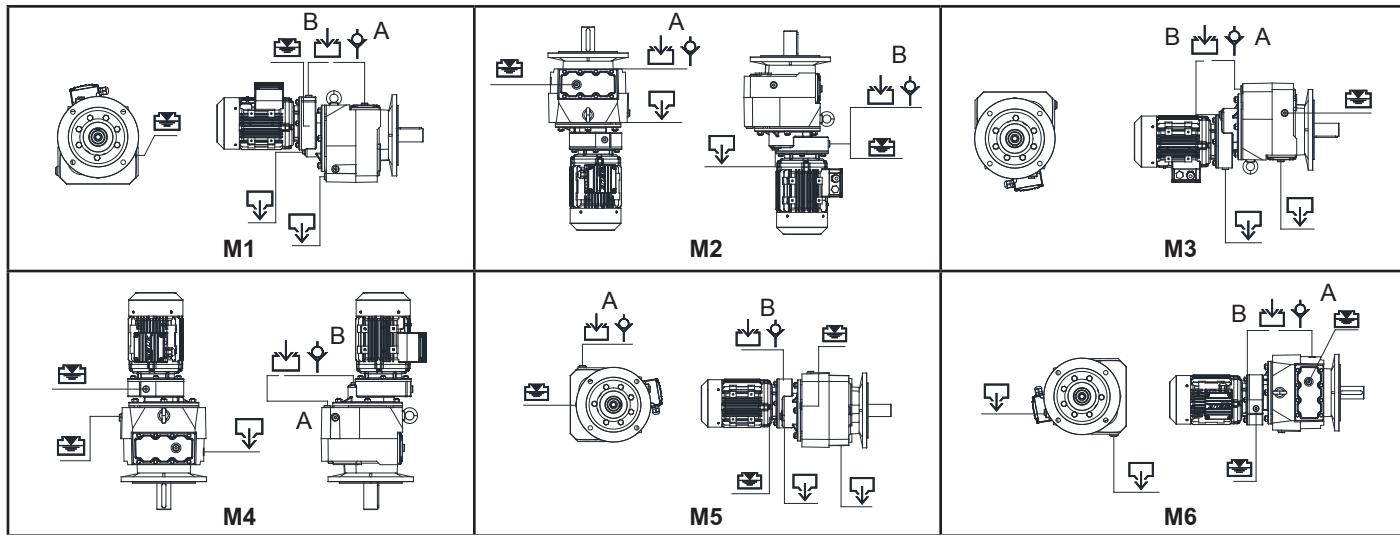
## General Information

### 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

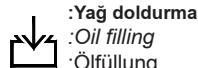


#### Yağ Miktarları (lt) / Oil Quantities (lt) / Ölmengen (lt)

Tip Type Typ	N Serisi 4 Kaderme 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  
:Entlüftungs schraube



# Genel Bilgiler

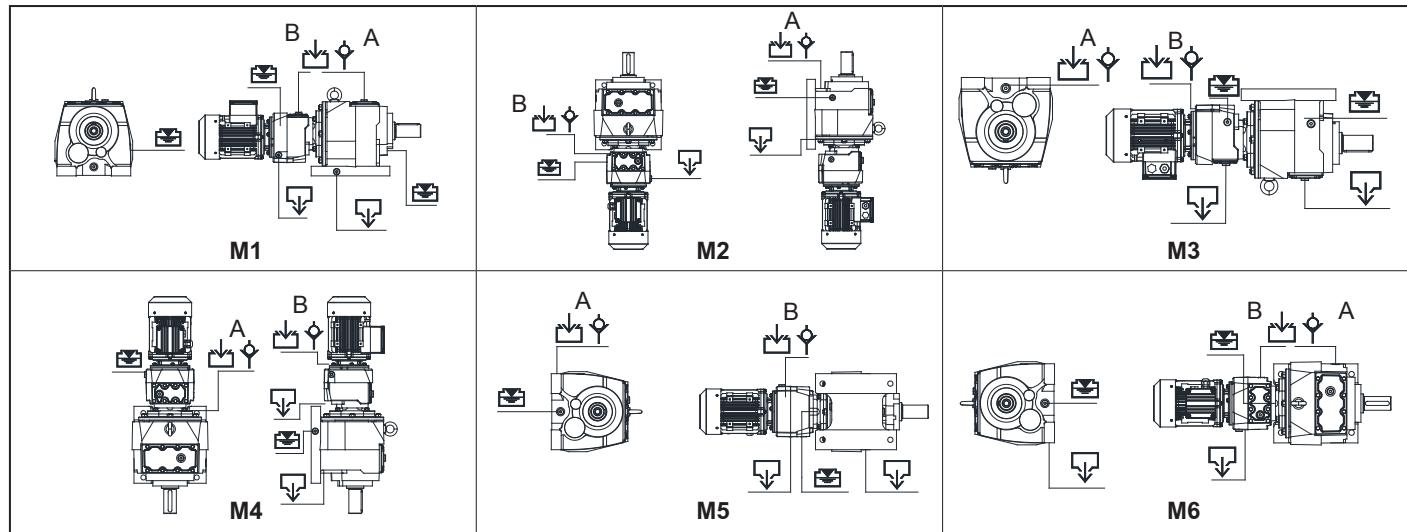
## General Information

## 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 Kademeli 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
<b>M275</b>	1 / 0.4	1.7 / 0.6	1.5 / 0.5	1.7 / 0.6	1.2 / 0.5	1.2 / 0.5
<b>M285</b>	1.6 / 0.7	2.85 / 0.95	2.5 / 0.7	2.85 / 0.95	2.4 / 0.7	2.4 / 0.7
<b>M375</b>	1.9 / 0.7	3.3 / 0.95	3 / 0.7	3.3 / 0.95	2.6 / 0.7	2.6 / 0.7
<b>M475</b>	4 / 1.2	7.6 / 2.1	7.01 / 2.1	7.6 / 2.1	5 / 1.4	5 / 1.4
<b>M575</b>	6 / 1.2	11.7 / 2.1	10.5 / 2	11.7 / 2.1	7.5 / 1.4	7.5 / 1.4
<b>M675</b>	8.5 / 2	20 / 3.4	18 / 3.1	20 / 3.4	11 / 2.8	10.5 / 2.8
<b>M775</b>	18 / 2	32 / 3.4	28 / 3.1	32 / 3.4	20 / 2.8	20 / 2.8
<b>M875</b>	20 / 2	45 / 3.4	39 / 3.1	45 / 3.4	28 / 2.8	28 / 2.8
<b>M975</b>	50 / 4.5	87 / 8	80 / 7.5	87 / 8	65 / 5.5	65 / 5.5
<b>M276</b>	1 / 0.4	1.7 / 0.55	1.5 / 0.5	1.7 / 0.55	1.2 / 0.4	1.2 / 0.4
<b>M286</b>	1.6 / 0.6	2.85 / 0.8	2.5 / 0.7	2.85 / 0.8	2.4 / 0.7	2.4 / 0.65
<b>M376</b>	1.9 / 0.6	3.3 / 0.8	3 / 0.7	3.3 / 0.8	2.6 / 0.7	2.6 / 0.65
<b>M476</b>	4 / 1.1	7.6 / 2	7 / 1.9	7.6 / 2	5 / 1.3	5 / 1.3
<b>M576</b>	6 / 1.1	11.7 / 2	10.5 / 1.9	11.7 / 2	7.5 / 1.3	7.5 / 1.3
<b>M676</b>	8.5 / 1.9	20 / 3.3	18 / 3	20 / 3.3	11 / 2.6	10.5 / 2.6
<b>M776</b>	18 / 1.9	32 / 3.3	28 / 3	32 / 3.3	20 / 2.6	20 / 2.6
<b>M876</b>	20 / 1.9	45 / 3.3	39 / 3	45 / 3.3	28 / 2.6	28 / 2.6
<b>M976</b>	50 / 4	87 / 7.6	80 / 7	87 / 7.6	65 / 5	65 / 5

**Semboller :**

**Symbols :**

**Symbolle :**



:Yağ doldurma  
:Oil filling  
:Ölfüllung



:Yağ boşaltma  
:Drain plug  
:Ölauslass



:Yağ seviyesi  
:Oil level  
:Ölstand



:Havalandırma  
:Vent Plug  
:Entlüftungs schraube



# Genel Bilgiler

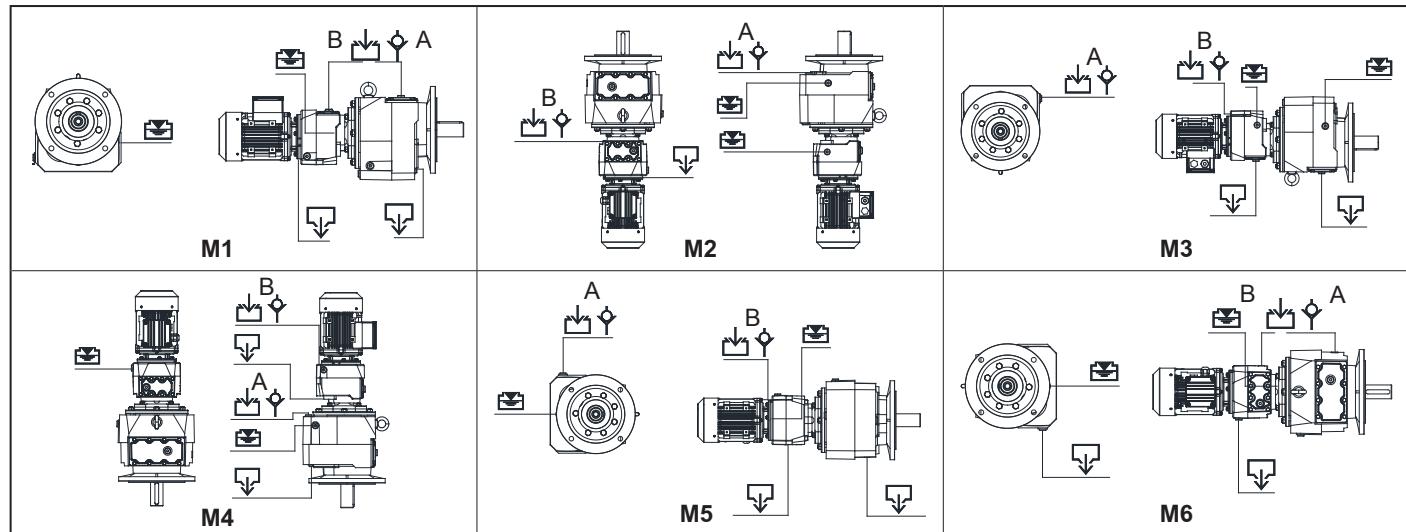
## General Information

### 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 Kademeli 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 :

Symbolle :



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:Yağ boşaltma  
:Drain plug  
:Ölauslass



:Yağ seviyesi  
:Oil level  
:Ölstand



:Havalandırma  
:Vent Plug  
:Entlüftungs schraube



# Genel Bilgiler

## General Information

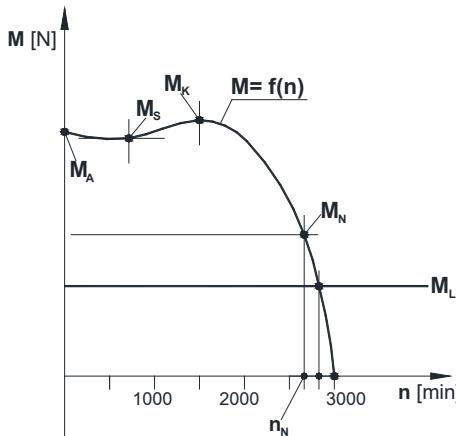
### Einführung

#### MOTORLAR

##### AC Motorlar

###### a- Genel Özellikler:

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



Motorun her start yapılmasında bu eğriye uygun hareket eder ve yük momenti  $M_L$  ile bu eğrinin çakıştığı noktası, 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 azalmış olur. 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.

#### 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.

$M_A$ : Start momenti / Starting torque / Anlaufmoment

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

$M_k$ : Freneme momenti / Pull-out torque / Bremsungsmoment

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

$M_L$ : Yük momenti / Load torque / Lastmoment

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

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

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

$f$ .....: supply frequency [Hz]  
 $p_s$ .....: number of stator poles

Because of the alternating magnetic field in the rotor, the rotor starts running in the same direction of the stator flux and tries to catch up with the rotating flux. The rotor never catches up the stator field. The rotor runs slower than the speed of the stator field. This speed is called the base speed  $n_N$ . A decrease in load will cause the rotor to speed up or decrease slip. The slip is defined as follows:

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

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

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

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 3 phasigen 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:

Schlumpf  $s$  .....:  $\pm 20\%$   
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 reduktörlerin 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> <i>Continuous operation under constant load</i> Dauerbetrieb mit konstanter Belastung	
S2	<b>Sabit yükte kısa süreli çalışma</b> <i>Short-time duty under constant load</i> Kurzbetrieb mit konstanter Belastung	
S3	<b>Yolvermede sıcaklık artımı olmadan periyodik çalışma</b> <i>Periodic duty without influence of start up on temperature</i> Aussetzbetrieb ohne Einfluss des Anlaufes auf die Temperatur	
S4	<b>Yolvermede sıcaklık artımı olan periyodik çalışma</b> <i>Periodic duty with influence of start up on temperature</i> Aussetzbetrieb mit Einfluss des Anlaufes auf die Temperatur	
S5	<b>Yolvermede ve frenlemede sıcaklık artımı periyodik çalışma</b> <i>Periodic duty with influence of startup and braking on temp.</i> Aussetzbetrieb mit Einfluss des Anlaufes / Bremsung auf die Temp.	
S6	<b>Sürekli orta darbeli çalışma</b> <i>Continuous operation with intermittent loading</i> Durchlaufbetrieb mit Aussetzungsbelastung	
S7	<b>Elektriksel frenlemeli sürekli orta darbeli çalışma</b> <i>Continuous operation with intermittent loading and breaking</i> Ununterbrochener Betrieb mit Anlauf und Bremsung	
S8	<b>Devir ve yük değişimli sürekli çalışma</b> <i>Continuous operation duty type with related load-speed changes</i> 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 firmamızda 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 ölçümlü 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 firmamızda danışınız. Başka ürünlere entegre olmuş ve bu nedenle motorun veriminin bağımsız belirlenemediği sistemlerde (redüktör pompası gibi) verim sınıflandırması geçerli değildir.

#### c- Protection Class:

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

#### d- Isolationsklasse:

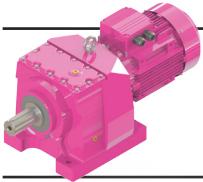
Yılmaz Reduktor Getriebemotoren werden serienmäßig in Wärmeklasse F (IEC317-8) ausgeführt. H Wärmeklasse ist möglich auf Kundenwunsch.

#### 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 neuen 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	Standart Verim Standart Efficiency Standarte Energieeffizienz	A=0,5234 B=-5,0499 C=17,4180 D=74,3171	$\eta_{Mn} = A \times [\log_{10}(P_L)] + B \times [\log_{10}(P_L)]^2 + C \times \log_{10}(P_L) + D$ $P_L$ :Anma Yükü [kW] / Nominal Load [kW] / Nennlast [kW] $\eta_{Mn}$ :Nominal verim / Nominal Efficiency / Sollwirkungsgrad		
IE2	EFF 1	Yüksek Verim High Efficiency Hohe Energieeffizienz	A=0,0278 B=-1,9247 C=10,4395 D=80,9761			
IE3	-	Premium Verim Premium Efficiency Premium Energieeffizienz	A=0,0773 B=-1,8951 C=9,2984 D=83,7025			
IE4	-	Süper Premium Verim Super Premium Efficiency Super Premium Energieeffizienz	-			

4 Kutuplu Motor Verim Değerleri Efficiency Values of Motor with 4 poles Sollwirkungsgrad des Motors mit 4 Polen	Anma Yükü [kW] Nominal Load [kW] Nennlast [kW]	Verim Sınıfı / Efficiency Class / Energieeffizienzkasse		
		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 %	



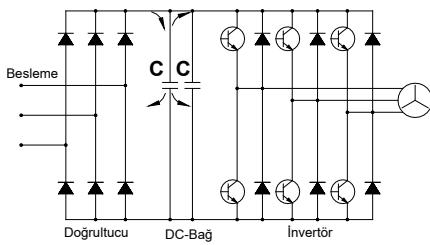
# Genel Bilgiler

## General Information

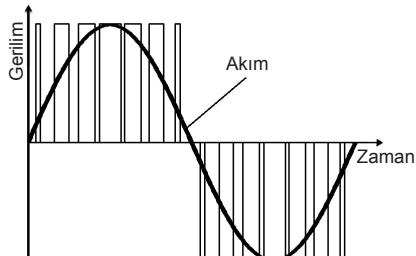
### Einführung

#### f- AC Frekans İvertörler

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

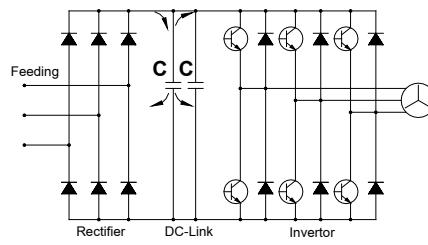


Tam dalga doğrultucuları besleyen üç faz besleme akımı DC-bağ kapasitörlerine ilettilir. Kapasitörler voltajdaki dalgalanmaları azaltır ve kısa süreli ağdaki akım kesintilerinde enerji sağlar. Kapasitörlerdeki voltaj kontrolsüzdür ve gelen AC akımın pik akım değerlerine bağlıdır. DC akım tekrar AC akıma, Puls genişliği modülasyonu (PWM) kullanılarak çevrilir. İstenen dalga formu, sabit bir frekansta (Puls frekansında), çıkış transistörlerinin (izole 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 induktansı ile sinusoidal bir motor akımı oluşur. Puls genişliği modülasyonu aşağıda gösterilmiştir.

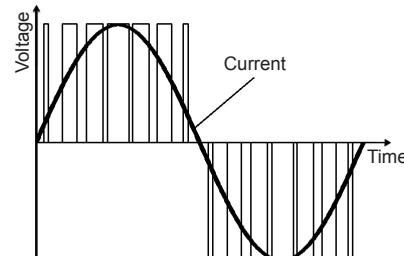


#### f- AC Frequency Inverters

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.

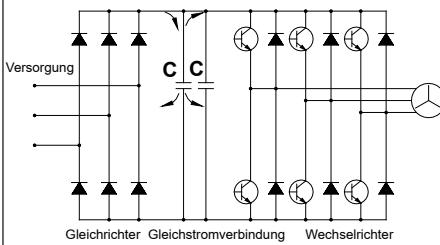


The three phase supply is fed into a full wave rectifier which supplies the DC link capacitors. The capacitors reduce the voltage ripple (especially on single supplies) and supply energy for short mains breaks. The voltage on the capacitors is uncontrolled and depends on the peak AC supply voltage. The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

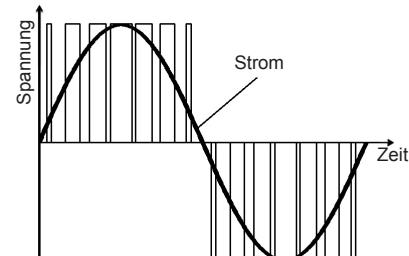


#### f- AC Frequenz Umrichter

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 Gleichspannungzwischenkreis 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 Netztromversorgung 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

## General Information

## Einführung

### 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. Rotor'a voltaj ve akım karbon fırçalar ve komutator sargıları ulaşılır. Bu karbon fırçalar aşındığından DC motorlar belirli periyotlarda 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 maksimum yük arasındaki davranışları AC motorlara benzer. Devir artan yükle 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 formülde 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 wound 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 Anlaufen, 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 Wechselspannung, 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

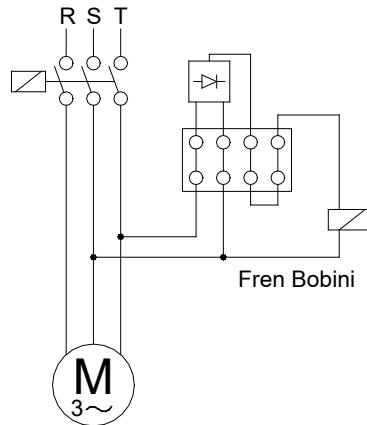


# **Genel Bilgiler**

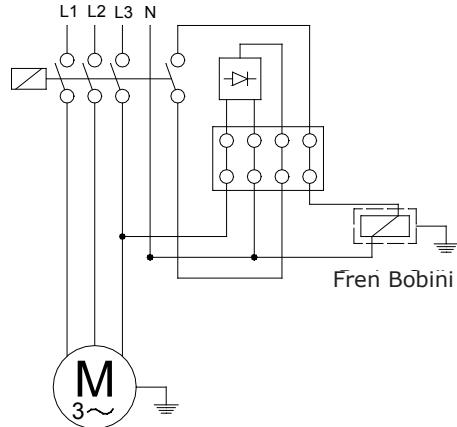
## *General Information*

### Einführung

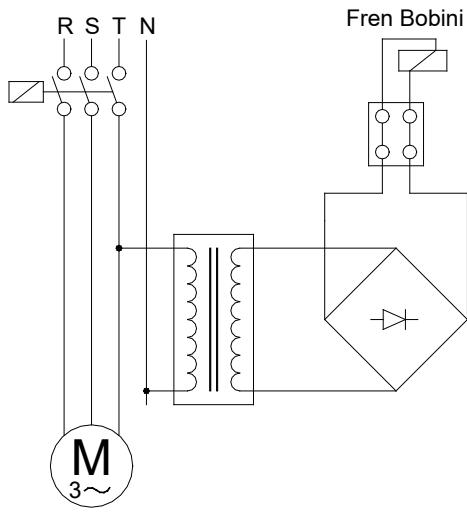
**Gecikmeli Frenleme / Delayed Running Brake / Verspätete Bremsung  
( 230 V)**



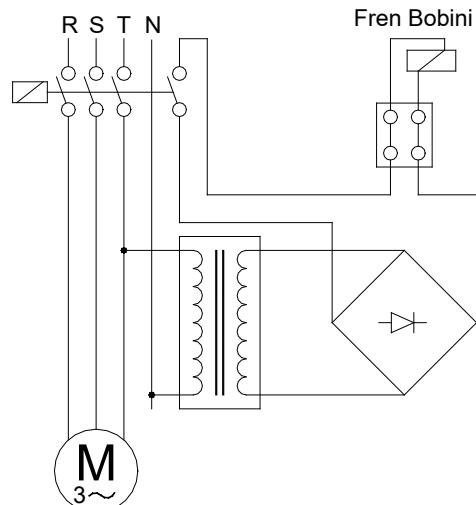
## Ani Frenleme / Sudden Brake / Plötzliche Bremsung (230 V)

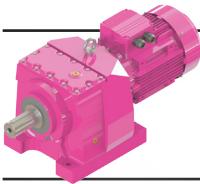


**Gecikmeli Frenleme / Delayed Running Brake / Verspätete Bremsung  
( 24 V )**



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





# Genel Bilgiler

## General Information

## Einführung

### Fren Seçimi:

Doğru bir fren seçimi için aşağıdaki parametreler bilinmelidir.

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

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

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

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

Yukarıda bulunan sonuç  $C_s$  katsayı 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

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

### Brake Selection:

To select a brake correctly the following data are necessary;

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

The necessary braking torque calculates below;

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

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

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)

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

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

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

### Standart Frenler / Standard Brakes / Standart Bremsen

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

### Bremswahl:

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

- $I_{\text{tot}}$  [kg . m<sup>2</sup>] : Die Gesamtträgeit 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)

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

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

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

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

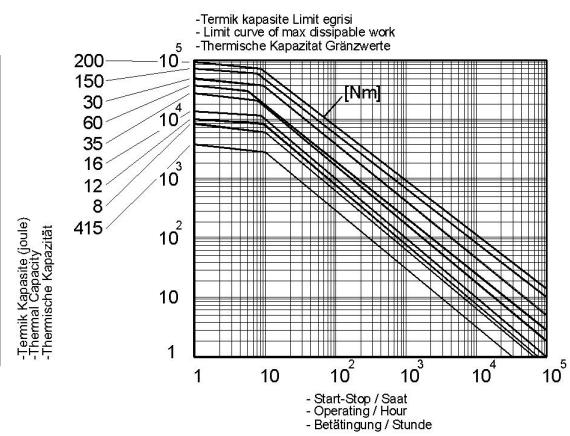
$$M_f = M_{fc} \times C_s$$

### Abschätzung zur Bremswahl

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

$W$  [Watt] : Nennleistung des Motors

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





# Genel Bilgiler

## General Information

### Einführung

#### Frenin Termik Kapasitesi

Yukarıdaki seçime ek olarak frenin termik kapasitesinin kontrol edilmesi gereklidir.  $L$  (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)

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

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

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

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

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

#### Fren Hava Boşluğunun Ayarı:

Frenden 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 firmamiza 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 indirmesi: 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 görülmüyor.

#### 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)**

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

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

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

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

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

#### 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)**

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

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

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

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)**

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

#### 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

Gesamtträgheit 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

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

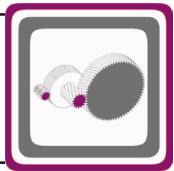
$$M_f = 73,6 \times 2 = 147,2 \text{ Nm}$$

Eine Bremse von 150 Nm kann man auswählen.

Die thermische Kapazität;

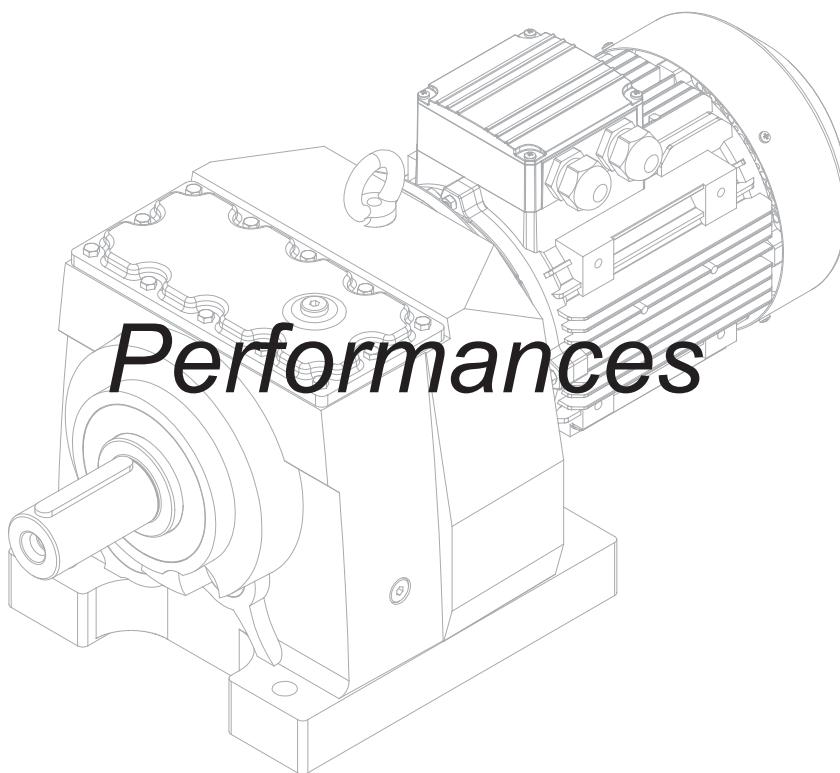
$$L = \frac{0,08 \times (2\pi \times 1400 \div 60)^2}{2} \times \left( \frac{147,2}{147,2 - 50} \right)$$

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

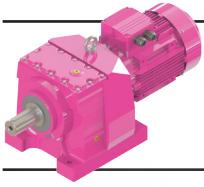


# Güç ve Devir Tabloları

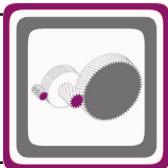
*Performances*



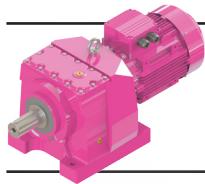
## Leistung und Drehzahlübersicht



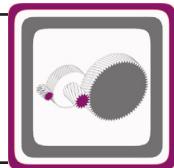
**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**



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



**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

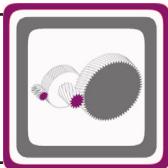


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g</sub>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

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

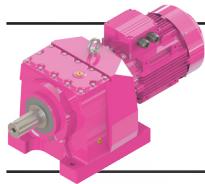


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

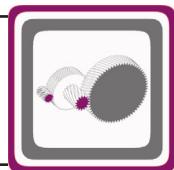


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g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

\*: IE2 ve IE3 motorlu reduktör 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**

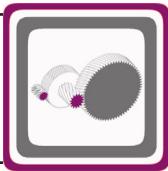


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g</sub>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

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



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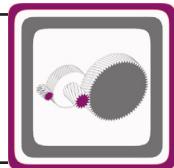


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g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

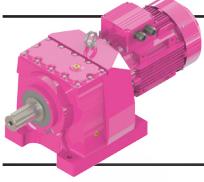
\*: IE2 ve IE3 motorlu reduktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



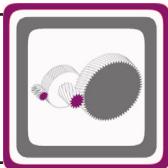
**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**



Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Snf. 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]	f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-Klasse
<b>0,25</b>	0,13	15953	<b>11443,34</b>	50996	0,8	<b>MR876-3E71M/4C</b>	0,67	612	132	IE3
0,34	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					
<b>0,25</b>	0,13	15953	<b>11443,34</b>	50996	0,8	<b>MR876-3E71M/4C</b>	0,67	612	132	IE3
0,34	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					
<b>0,25</b>	0,13	15953	<b>11443,34</b>	50996	0,8	<b>MR876-3E71M/4C</b>	0,67	612	132	IE3
0,34	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					
<b>0,25</b>	0,13	15953	<b>11443,34</b>	50996	0,8	<b>MR876-3E71M/4C</b>	0,67	612	132	IE3
0,34	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					
<b>0,25</b>	0,13	15953	<b>11443,34</b>	50996	0,8	<b>MR876-3E71M/4C</b>	0,67	612	132	IE3
0,34	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					
<b>0,25</b>	0,13	15953	<b>11443,34</b>	50996	0,8	<b>MR876-3E71M/4C</b>	0,67	612	132	IE3
0,34	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					
<b>0,25</b>	0,13	15953	<b>11443,34</b>	50996	0,8	<b>MR876-3E71M/4C</b>	0,67	612	132	IE3
0,34	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					
<b>0,25</b>	0,13	15953	<b>11443,34</b>	50996	0,8	<b>MR876-3E71M/4C</b>	0,67	612	132	IE3
0,34	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					
<b>0,25</b>	0,13	15953	<b>11443,34</b>	50996	0,8	<b>MR876-3E71M/4C</b>	0,67	612	132	IE3
0,34	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					
<b>0,25</b>	0,13	15953	<b>11443,34</b>	50996	0,8	<b>MR876-3E71M/4C</b>	0,67	612	132	IE3
0,34	0,17	11653	<b>8345,18</b>	79805	1,1					

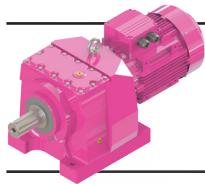


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

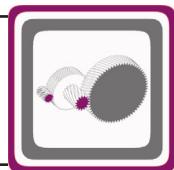


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	GÜV. RAD. YÜK ÇIKIŞ Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g</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 Maße Seite ~ [kg]	Motor Effizienz- klassen Motor Effizienz- klasse	
0,25 0,34	2,5 3,0	848 718	574,90 485,89	28862 29566	3,5 4,0	MR574-2E71M/4B NR574-2E71M/4B	0,71	133 129	122	IE2
	1,1 1,2	1852 1734	1285,79 1204,49	9956 12492	0,8 0,9	MR475-3E71M/4C NR475-3E71M/4C MR475-2E71M/4B NR475-2E71M/4B	0,67 0,71	102 107 101 106	120	IE3
	1,4 1,5 1,8 2,1	1536 1373 1208 1010	674,46 603,46 529,93 442,61	15720 17825 19641 21487	1,0 1,1 1,3 1,5	MR474-3E71M/6D NR474-3E71M/6D MR474-2E71M/6C NR474-2E71M/6C	0,77 0,78	97 102 96 101	119	IE3
	2,1 2,4 2,7 3,2 3,4 4,1	996 890 783 655 619 513	674,46 603,46 529,93 442,61 418,16 346,07	21612 22474 23243 24138 24374 25032	1,6 1,7 2,0 2,4 2,5 3,0	MR474-3E71M/4C NR474-3E71M/4C MR474-2E71M/4B NR474-2E71M/4B	0,67 0,71	97 102 96 101	119	IE3
	2,2 2,5	958 841	421,85 369,93	9124 11344	0,9 1,0	MR374-3E71M/6D NR374-3E71M/6D MR374-2E71M/6C NR374-2E71M/6C	0,77 0,78	60 65 59 64	116	IE3
	2,7 3,4 3,9 4,4 5,2	771 621 545 482 406	524,07 421,85 369,93 327,04 275,08	12424 14316 15160 15771 16422	1,1 1,3 1,5 1,7 2,0	MR374-3E71M/4C NR374-3E71M/4C MR374-2E71M/4B NR374-2E71M/4B	0,67 0,71	60 65 59 64	116	IE3
	5,9 6,7 8,3	377 332 268	157,76 138,72 111,67	16059 15496 14570	2,2 2,5 3,1	MR373-3E71M/6D NR373-3E71M/6D MR373-2E71M/6C NR373-2E71M/6C	0,77 0,78	60 65 59 64	115	IE3
	9,1	244	157,76	14203	3,4	MR373-3E71M/4C NR373-3E71M/4C MR373-2E71M/4B NR373-2E71M/4B	0,67 0,71	54 59 53 58	115	IE3
	2,5 2,9	839 736	368,77 323,39	- 5902	0,7 0,8	MR284-3E71M/6D NR284-3E71M/6D MR284-2E71M/6C NR284-2E71M/6C	0,77 0,78	64 66 63 65	113	IE3
	3,3 3,9 4,4 5,0 6,0	636 543 477 422 356	431,18 368,77 323,39 285,89 240,47	8530 10258 11268 11998 12782	0,9 1,1 1,3 1,4 1,7	MR284-3E71M/4C NR284-3E71M/4C MR284-2E71M/4B NR284-2E71M/4B	0,67 0,71	64 66 63 65	113	IE3
	6,7 8,1 9,5	330 274 234	137,91 114,14 97,62	12726 12099 11590	1,8 2,2 2,6	MR283-3E71M/6D NR283-3E71M/6D MR283-2E71M/6C NR283-2E71M/6C	0,77 0,78	32 34 31 33	112	IE3
										IE2

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

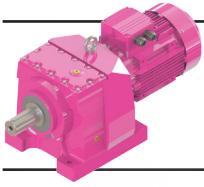


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**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

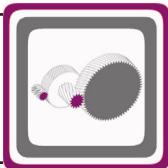


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g</sub>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

\*: IE2 ve IE3 motorlu reduktör 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**

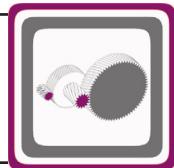


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	GÜV. RAD. YÜK ÇIKIŞ Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g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

\*: IE2 ve IE3 motorlu reduktör 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**

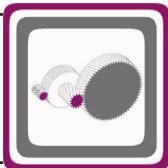


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g</sub>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

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

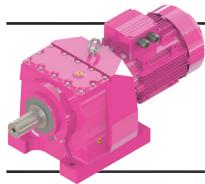


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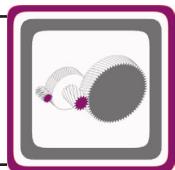


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	GÜV. RAD. YÜK ÇIKIŞ Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g</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 Maße Seite ~ [kg]	Motor Effizienz- klassen 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	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 39 42	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 reduktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

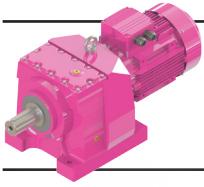


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

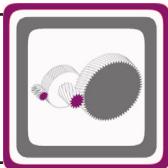


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g</sub>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

\*: IE2 ve IE3 motorlu reduktör 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**  
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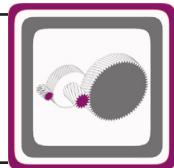


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	GÜV. RAD. YÜK ÇIKIŞ Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g</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]	f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht Maße Seite ~ [kg]	Motor Effizienz- klasse	
<b>0,37</b> <b>0,50</b>	129 145 165 170 183 193 208 239 258 315 368 397	26 23 20 20 18 18 16 14 13 11 9 9	11,14 9,87 8,70 8,45 7,84 7,45 6,91 6,00 5,57 4,56 3,90 3,62	2084 2038 1981 1987 1950 1916 1864 1774 1726 1614 1525 1484	2,5 3,4 3,6 3,7 3,9 4,0 4,0 4,0 4,0 4,0 4,0 4,0	<b>MR002-3E71M/4D</b> <b>NR002-3E71M/4D</b> <b>MR002-2E71M/4C</b> <b>NR002-2E71M/4C</b>	0,97 1,00 1,00 1,00	15 14 15	106	IE3 IE2
	410 472 508 621 726 782	8 7 7 5 5 4	6,91 6,00 5,57 4,56 3,90 3,62	1458 1388 1352 1264 1197 1166	4,0 4,0 4,0 4,0 4,0 4,0	<b>MR002-3E71M/2B</b> <b>NR002-3E71M/2B</b> <b>MR002-2E71M/2A</b> <b>NR002-2E71M/2A</b>	0,86 0,90 0,90	15 14 15	106	IE3 IE2
<b>0,55</b> <b>0,75</b>	0,21 0,27 0,32 0,34 0,40 0,51	21545 16906 14152 13380 11392 9019	<b>6842,29</b> <b>5357,43</b> <b>4474,67</b> <b>4227,50</b> <b>3594,81</b> <b>2836,64</b>	68090 101458 115408 118840 126893 135261	0,8 1,1 1,3 1,3 1,6 2,0	<b>MR976-3E80M/4C</b> <b>NR976-3E80M/4C</b> <b>MR976-2E80M/4B</b> <b>NR976-2E80M/4B</b>	1,34 1,45 1,45 1,45	1103 1153 1102 1152	135	IE3 IE2
	0,71 0,80 0,93	6576 5908 5033	<b>2027,97</b> <b>1820,78</b> <b>1552,10</b>	142495 144369 146710	2,7 3,0 3,6	<b>MR975-3E80M/4C</b> <b>NR975-3E80M/4C</b> <b>MR975-2E80M/4B</b> <b>NR975-2E80M/4B</b>	1,34 1,45 1,45	1101 1151 1100 1150	135	IE3 IE2
	0,29 0,33 0,37 0,42 0,50 0,59 0,69	15534 13922 12229 10827 9125 7772 6671	<b>4954,95</b> <b>4438,59</b> <b>3892,30</b> <b>3441,02</b> <b>2894,28</b> <b>2460,65</b> <b>2108,33</b>	54775 66738 76803 83816 91140 96066 99936	0,8 0,9 1,1 1,2 1,4 1,7 1,9	<b>MR876-3E80M/4C</b> <b>NR876-3E80M/4C</b> <b>MR876-2E80M/4B</b> <b>NR876-2E80M/4B</b>	1,34 1,45 1,45 1,45	603 613 602 612	132	IE3 IE2
	0,75 0,85 0,95 1,1 1,2 1,4	6212 5499 4921 4328 3924 3395	<b>1924,32</b> <b>1700,56</b> <b>1521,55</b> <b>1336,15</b> <b>1210,51</b> <b>1049,18</b>	101388 103540 105192 106805 107862 109192	2,1 2,4 2,6 3,0 3,3 3,8	<b>MR875-3E80M/4C</b> <b>NR875-3E80M/4C</b> <b>MR875-2E80M/4B</b> <b>NR875-2E80M/4B</b>	1,34 1,45 1,45	599 609 598 608	132	IE3 IE2
	0,62 0,71 0,81 0,91 1,0 1,2 1,3 1,5	7474 6542 5772 5124 4571 4047 3622 3186	<b>2324,10</b> <b>2032,66</b> <b>1791,91</b> <b>1589,68</b> <b>1417,41</b> <b>1252,60</b> <b>1120,74</b> <b>984,18</b>	50893 54099 56474 58302 59749 61036 61934 62905	1,1 1,2 1,4 1,6 1,8 2,0 2,2 2,5	<b>MR775-3E80M/4C</b> <b>NR775-3E80M/4C</b> <b>MR775-2E80M/4B</b> <b>NR775-2E80M/4B</b>	1,34 1,45 1,45 1,45	340 415 339 414	129	IE3 IE2

\*: IE2 ve IE3 motorlu reduktör 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**

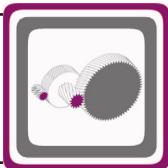


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g</sub>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

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

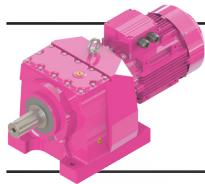


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

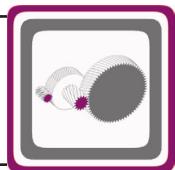


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	GÜV. RAD. YÜK ÇIKIŞ Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g</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 Maße Seite ~ [kg]	Motor Effizienz- klassen Motor Effizienz- klasse	
<b>0,55</b> <b>0,75</b>	5,3	912	<b>275,08</b>	10080	0,9	<b>MR374-3E80M/4C</b> <b>NR374-3E80M/4C</b> <b>MR374-2E80M/4B</b> <b>NR374-2E80M/4B</b>	1,34 1,45	66 70 65 69	116	IE3 IE2
	5,9 6,7 8,4	827 728 586	<b>157,76</b> <b>138,72</b> <b>111,67</b>	11575 13026 13358	1,0 1,1 1,4	<b>MR373-3E80M/6C</b> <b>NR373-3E80M/6C</b> <b>MR373-2E80M/6B</b> <b>NR373-2E80M/6B</b>	1,47 1,50	58 61 58 61	115	IE3 IE2
	9,2 10 13 15 17 20 23	534 470 379 333 294 248 211	<b>157,76</b> <b>138,72</b> <b>111,67</b> <b>97,92</b> <b>86,57</b> <b>72,81</b> <b>61,91</b>	13077 12684 12018 11616 11242 10724 10249	1,5 1,7 2,2 2,5 2,8 3,3 3,9	<b>MR373-3E80M/4C</b> <b>NR373-3E80M/4C</b> <b>MR373-2E80M/4B</b> <b>NR373-2E80M/4B</b>	1,34 1,45	66 70 65 69	115	IE3 IE2
	6,8 8,2 9,6	724 600 513	<b>137,91</b> <b>114,14</b> <b>97,62</b>	6313 9261 10425	0,8 1,0 1,2	<b>MR283-3E80M/6C</b> <b>NR283-3E80M/6C</b> <b>MR283-2E80M/6B</b> <b>NR283-2E80M/6B</b>	1,47 1,50	46 49 46 49	112	IE3 IE2
	11 13 15 17 19 23 27	467 387 331 291 258 217 185	<b>137,91</b> <b>114,14</b> <b>97,62</b> <b>85,60</b> <b>75,68</b> <b>63,65</b> <b>54,12</b>	10229 9817 9468 9171 8892 8502 8140	1,3 1,5 1,8 2,1 2,3 2,8 3,2	<b>MR283-3E80M/4C</b> <b>NR283-3E80M/4C</b> <b>MR283-2E80M/4B</b> <b>NR283-2E80M/4B</b>	1,34 1,45	48 51 47 50	112	IE3 IE2
	9,7	507	<b>96,52</b>	6289	0,9	<b>MR273-3E80M/6C</b> <b>NR273-3E80M/6C</b> <b>MR273-2E80M/6B</b> <b>NR273-2E80M/6B</b>	1,47 1,50	31 34 31 34	110	IE3 IE2
	10 12 13 15 17 20 24 29 34 40	470 411 385 328 285 250 207 173 145 125	<b>138,55</b> <b>121,03</b> <b>113,52</b> <b>96,52</b> <b>83,83</b> <b>73,35</b> <b>60,66</b> <b>50,59</b> <b>42,41</b> <b>36,55</b>	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	<b>MR273-3E80M/4C</b> <b>NR273-3E80M/4C</b> <b>MR273-2E80M/4B</b> <b>NR273-2E80M/4B</b>	1,34 1,45	33 36 32 35	110	IE3 IE2
	14 16 17	358 313 294	<b>68,03</b> <b>59,43</b> <b>55,74</b>	7417 7446 7352	0,8 0,9 1,0	<b>MR203-3E80M/6C</b> <b>NR203-3E80M/6C</b> <b>MR203-2E80M/6B</b> <b>NR203-2E80M/6B</b>	1,47 1,50	34 35 34 35	109	IE3 IE2
	21 24 26 31 33 35	231 202 190 161 150 140	<b>68,03</b> <b>59,43</b> <b>55,74</b> <b>47,39</b> <b>43,94</b> <b>41,16</b>	6986 6773 6671 6411 6290 6185	1,2 1,4 1,5 1,7 1,9 2,0	<b>MR203-3E80M/4C</b> <b>NR203-3E80M/4C</b> <b>MR203-2E80M/4B</b> <b>NR203-2E80M/4B</b>	1,34 1,45	34 36 33 35	109	IE3 IE2

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

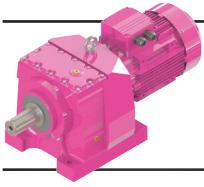


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

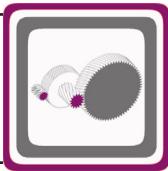


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g</sub> [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]	f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-Klasse
<b>0,55</b>	40	123	<b>36,02</b>	5973	2,3	<b>MR203-3E80M/4C</b>	1,34	34	109	IE3
0,75	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
		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 reduktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

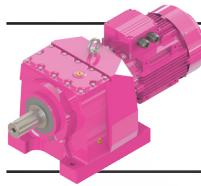


**Motorlu Güç Devir Sayfaları**  
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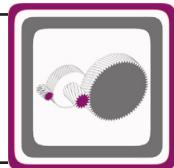


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	GÜV. RAD. YÜK ÇIKIŞ Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g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

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



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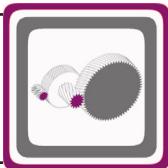


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	ÖlÜ Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g</sub>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

\*: IE2 ve IE3 motorlu reduktör 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**

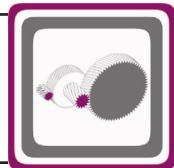


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g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

\*: IE2 ve IE3 motorlu reduktör 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**

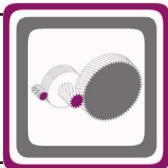


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g</sub>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

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

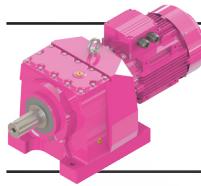


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

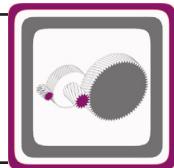


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	GÜV. RAD. YÜK ÇIKIŞ Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung <b>P<sub>g</sub> [kW]</b> <b>P<sub>g</sub> [HP]</b>	Abtriebswelle Drehzahlen <b>n<sub>2</sub> [r.p.m]</b>	Abtriebswelle Drehmomente <b>M<sub>2</sub> [Nm]</b>	Übersetzung i	Zul. Querkräfte (Abtrieb) <b>F<sub>qam</sub> [N]</b>	Betriebsfaktor <b>f<sub>s</sub></b>	Typ	Nennstrom [A]	Gewicht ~ [kg]	Maße Seite	Motor Effizienz- klasse
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 reduktör 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**

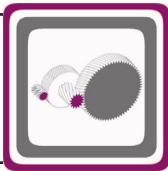


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g</sub>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

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

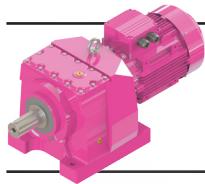


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

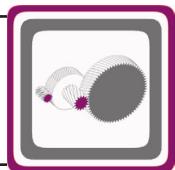


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung $P_g$ [kW] $P_g$ [HP]	Abtriebswelle Drehzahlen $n_2$ [r.p.m.]	Abtriebswelle Drehmomente $M_2$ [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) $F_{qam}$ [N]	Betriebsfaktor $f_s$	Typ	Nennstrom [A]	Gewicht Maße Seite ~ [kg]	Motor Effizienz- klassen klasse	
1,1	17	571	83,83	3638	0,8	MR273-3E90S/4C	2,46	40	110	IE3
1,5	20	500	73,35	4300	0,9	NR273-3E90S/4C		41		
	24	414	60,66	5020	1,1	MR273-2E90S/4B	2,60	38		IE2
	29	346	50,59	5507	1,3	NR273-2E90S/4B		39		
	34	290	42,41	5828	1,5					
	40	250	36,55	6004	1,8					
	48	209	30,48	6122	2,2					
	56	180	25,89	5979	2,5	MR272-3E90S/4C	2,46	41	110	IE3
	68	149	21,43	5575	3,0	NR272-3E90S/4C		43		
	79	127	18,33	5265	3,5	MR272-2E90S/4B	2,60	39		IE2
						NR272-2E90S/4B		41		
	31	324	47,39	5612	0,9	MR203-3E90S/4C	2,46	39	109	IE3
	33	301	43,94	5549	0,9	NR203-3E90S/4C		42		
	35	281	41,16	5492	1,0	MR203-2E90S/4B	2,60	37		IE2
	40	247	36,02	5366	1,1	NR203-2E90S/4B		40		
	51	193	28,35	5583	1,4					
	59	169	24,77	5753	1,6					
	62	159	23,23	5811	1,7					
	63	159	23,01	6089	1,8	MR202-3E90S/4C	2,46	41	109	IE3
	72	139	20,10	5787	1,9	NR202-3E90S/4C		43		
	77	131	18,85	5650	2,0	MR202-2E90S/4B	2,60	39		IE2
	90	111	16,03	5319	2,2	NR202-2E90S/4B		41		
	98	103	14,86	5173	2,3					
	104	97	13,92	5050	2,4					
	119	85	12,18	4810	2,7					
	134	75	10,81	4605	2,9					
	144	70	10,07	4490	3,0					
	173	59	8,40	4207	3,4					
	40	247	36,24	2920	0,8	MR173-3E90S/4C	2,46	30	108	IE3
	48	207	30,26	2903	1,0	NR173-3E90S/4C		32		
	56	179	26,10	2870	1,1	MR173-2E90S/4B	2,60	28		IE2
						NR173-2E90S/4B		30		
	69	145	20,92	2679	1,4	MR172-3E90S/4C	2,46	29	108	IE3
	79	127	18,28	2770	1,6	NR172-3E90S/4C		30		
	85	119	17,14	2803	1,7	MR172-2E90S/4B	2,60	27		IE2
	99	101	14,57	2857	1,9	NR172-2E90S/4B		28		
	115	88	12,66	2877	2,2					
	131	77	11,08	2877	2,3					
	152	66	9,53	2710	2,6					
	162	62	8,94	2706	2,6					
	191	53	7,60	2683	3,0					
	205	49	7,08	2667	3,1					
	220	46	6,60	2618	3,1					
	251	40	5,78	2492	3,3					
	58	170	24,86	1593	0,8	MR103-3E90S/4C	2,46	29	107	IE3
	66	150	21,96	1618	0,8	NR103-3E90S/4C		31		
	71	140	20,51	1626	0,9	MR103-2E90S/4B	2,60	27		IE2
	84	119	17,33	1634	0,9	NR103-2E90S/4B		29		
	91	111	15,95	1708	1,0	MR102-3E90S/4C	2,46	30	107	IE3
	103	98	14,08	1691	1,1	NR102-3E90S/4C		31		
	110	91	13,15	1678	1,1	MR102-2E90S/4B	2,60	28		IE2
	130	77	11,12	1643	1,3	NR102-2E90S/4B		29		

\*: IE2 ve IE3 motorlu reduktör 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**

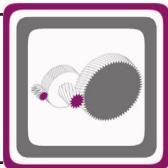


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	IE3 Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g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

\*: IE2 ve IE3 motorlu reduktör 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**  
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**Leistung und Drehzahlübersicht von Getriebemotoren**

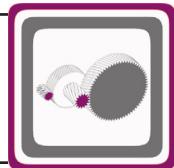


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g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

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

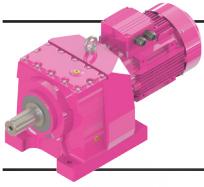


**Motorlu Güç Devir Sayfaları**  
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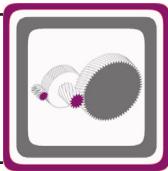


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g</sub>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

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



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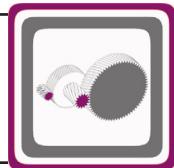


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	GÜV. RAD. YÜK ÇIKIŞ Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g</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 Maße Seite ~ [kg]	Motor Effizienz- klasse	
1,5	98	141	14,86	5270	1,7	MR202-3E90L/4D	3,30	41	109	IE3
2,0	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					
	205	67	7,08	2315	2,3					
	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		
	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	IE3
	448	31	6,48	1192	2,3	NR102-3E90S/2B		30		
	530	26	5,47	1148	2,5	MR102-2E90S/2A	3,19	27		
	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 reduktör 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**

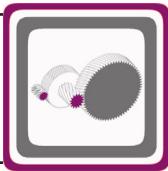


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g</sub>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

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

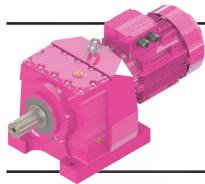


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
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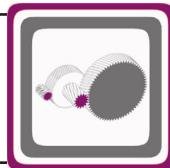


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	GÜV. RAD. YÜK ÇIKIŞ Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g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

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



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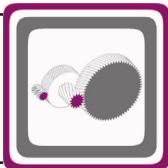


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g</sub> [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 61 4,85 56	57 61 56 60	112	IE3 IE2
	40	501	36,55	1614	0,9	MR273-3E100L/4C	4,65	50	110	IE3
	48	419	30,48	2461	1,1	NR273-3E100L/4C		52		
	57	352	25,55	3087	1,2	MR273-2E100L/4B	4,85	49		IE2
	NR273-2E100L/4B							51		
	68	299	21,43	3552	1,5	MR272-3E100L/4C	4,65	48	110	IE3
	79	255	18,33	3855	1,7	NR272-3E100L/4C		50		
	90	224	16,07	4043	1,9	MR272-2E100L/4B	4,85	47		IE2
	102	198	14,21	4173	2,1	NR272-2E100L/4B		49		
	121	167	11,95	4290	2,3					
	143	142	10,16	4343	2,6					
	167	122	8,71	4150	3,0					
	233	87	6,21	3709	3,8					
	274	74	5,28	3493	3,6					
	59	339	24,77	1346	0,8	MR203-3E100L/4C	4,65	48	109	IE3
	62	318	23,23	1678	0,8	NR203-3E100L/4C MR203-2E100L/4B	4,85	50 47		IE2
	NR203-2E100L/4B							49		
	72	279	20,10	3486	0,9	MR202-3E100L/4C	4,65	48	109	IE3
	77	262	18,85	3657	1,0	NR202-3E100L/4C		50		
	90	223	16,03	4011	1,1	MR202-2E100L/4B	4,85	47		IE2
	98	207	14,86	4140	1,2	NR202-2E100L/4B		49		
	104	194	13,92	4236	1,2					
	119	170	12,18	4389	1,3					
	134	151	10,81	4485	1,4					
	144	141	10,07	4525	1,5					
	173	117	8,40	4358	1,7					
	206	99	7,04	4078	1,9					
	250	81	5,80	3859	2,2					
	286	71	5,08	3669	2,3					
	322	63	4,50	3507	2,4					
	345	59	4,20	3417	2,5					
	414	49	3,50	3195	2,5					
	79	254	18,28	554	0,8	MR172-3E100L/4C	4,65	38	108	IE3
	85	239	17,14	724	0,8	NR172-3E100L/4C		40		
	99	203	14,57	1089	1,0	MR172-2E100L/4B	4,85	37		IE2
	115	177	12,66	1342	1,1	NR172-2E100L/4B		39		
	131	155	11,08	1534	1,2					
	152	133	9,53	1406	1,3					
	162	125	8,94	1483	1,3					
	191	106	7,60	1643	1,5					
	205	99	7,08	1699	1,6					
	220	92	6,60	1745	1,6					
	251	81	5,78	1816	1,7					
	303	67	4,78	1882	1,9					
	355	57	4,09	1807	2,1					
	429	47	3,38	1833	2,3					
	439	46	6,60	1916	2,7	MR172-3E90L/2C	4,25	31	108	IE3
	502	40	5,78	1906	3,0	NR172-3E90L/2C		33		
	607	33	4,78	1867	3,3	MR172-2E90L/2B	4,48	30		IE2
	710	29	4,09	1777	3,5	NR172-2E90L/2B		32		

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



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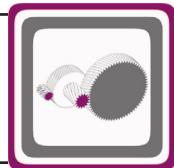


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g</sub>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

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

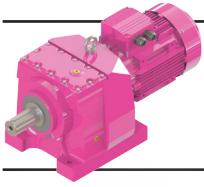


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

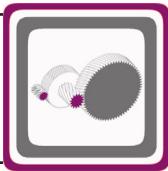


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Betriebsfaktor	Tipi Type	Anma Akımı Nennstrom	Ağırlık Weight ~ [kg]	ÖlÜ Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung $P_g$ [kW] $P_g$ [HP]	Abtriebswelle Drehzahlen $n_2$ [r.p.m]	Abtriebswelle Drehmomente $M_2$ [Nm]	Übersetzung i	Zul.Querkräfte (Abtrieb) $F_{qam}$ [N]	$f_s$	Typ	Nennstrom [A]	Gewicht Maße Seite [kg]	Motor Effizienz- klasse	
<b>3,0</b>	8,7	3111	<b>167,32</b>	19059	1,0	<b>MR573-3E100L/4D</b>	6,26	144	121	IE3
4,0	9,4	2856	<b>153,61</b>	20666	1,1	<b>NR573-3E100L/4D</b>		138		
	11	2503	<b>134,45</b>	22555	1,2	<b>MR573-2E100L/4C</b>	6,42	142		IE2
	12	2217	<b>118,95</b>	23939	1,4	<b>NR573-2E100L/4C</b>		136		
	14	1877	<b>100,53</b>	25413	1,6					
	18	1540	<b>82,45</b>	26678	1,9					
	20	1362	<b>72,81</b>	27295	2,2					
	22	1212	<b>64,72</b>	26831	2,5					
	26	1027	<b>54,74</b>	25667	2,9					
	30	916	<b>48,74</b>	24870	3,3					
	36	751	<b>39,98</b>	23535	3,8					
	41	664	<b>35,31</b>	22718	4,0					
	46	591	<b>31,38</b>	21958	4,0					
	16	1711	<b>91,58</b>	12963	0,9	<b>MR473-3E100L/4D</b>	6,26	109	118	IE3
	17	1617	<b>86,52</b>	14572	1,0	<b>NR473-3E100L/4D</b>		112		
	20	1367	<b>73,09</b>	15967	1,1	<b>MR473-2E100L/4C</b>	6,42	107		IE2
	23	1192	<b>63,70</b>	15605	1,3	<b>NR473-2E100L/4C</b>		110		
	26	1046	<b>55,82</b>	15229	1,5					
	30	920	<b>49,05</b>	14841	1,7					
	34	803	<b>42,75</b>	14412	1,9					
	39	704	<b>37,45</b>	13990	2,2					
	44	628	<b>22,15</b>	13591	2,5	<b>MR472-3E132S/6B</b>	6,55	119	118	IE3
	52	531	<b>18,72</b>	13041	2,9	<b>NR472-3E132S/6B</b>		122		
	56	489	<b>17,25</b>	12773	3,0	<b>MR472-2E132S/6A</b>	6,85	114		IE2
	63	436	<b>15,35</b>	12394	3,3	<b>NR472-2E132S/6A</b>		117		
	27	991	<b>53,04</b>	6831	0,8	<b>MR373-3E100L/4D</b>	6,26	69	115	IE3
	30	898	<b>48,00</b>	6834	0,9	<b>NR373-3E100L/4D</b>		72		
	35	769	<b>41,16</b>	6798	1,1	<b>MR373-2E100L/4C</b>	6,42	67		IE2
	41	660	<b>35,25</b>	6719	1,2	<b>NR373-2E100L/4C</b>		70		
	49	554	<b>29,47</b>	6587	1,4					
	57	475	<b>25,27</b>	6445	1,5					
	62	443	<b>23,33</b>	8279	1,8	<b>MR372-3E100L/4D</b>	6,26	67	115	IE3
	70	392	<b>20,62</b>	8271	2,0	<b>NR372-3E100L/4D</b>		69		
	79	351	<b>18,45</b>	7929	2,1	<b>MR372-2E100L/4C</b>	6,42	65		IE2
	90	308	<b>16,20</b>	7551	2,3	<b>NR372-2E100L/4C</b>		67		
	107	258	<b>13,53</b>	7061	2,6					
	116	238	<b>12,48</b>	6852	2,7					
	134	206	<b>10,80</b>	6498	3,0					
	154	180	<b>9,41</b>	6179	3,3					
	176	158	<b>8,25</b>	5890	3,6					
	47	578	<b>30,82</b>	5034	0,8	<b>MR283-3E100L/4D</b>	6,26	61	112	IE3
						<b>NR283-3E100L/4D</b>		63		
						<b>MR283-2E100L/4C</b>	6,42	59		IE2
						<b>NR283-2E100L/4C</b>		61		
	57	479	<b>25,23</b>	4803	1,1	<b>MR282-3E100L/4D</b>	6,26	59	112	IE3
	67	411	<b>21,66</b>	5284	1,2	<b>NR282-3E100L/4D</b>		61		
	76	362	<b>19,06</b>	5589	1,3	<b>MR282-2E100L/4C</b>	6,42	57		IE2
	86	322	<b>16,91</b>	5806	1,5	<b>NR282-2E100L/4C</b>		59		
	101	272	<b>14,31</b>	6014	1,6					
	118	233	<b>12,24</b>	5838	1,8					
	137	202	<b>10,57</b>	5523	2,0					
	151	184	<b>9,61</b>	5331	2,2					
	174	159	<b>8,33</b>	5055	2,5					

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

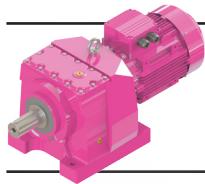


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

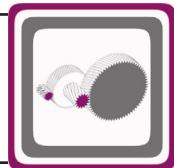


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g</sub> [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
<b>3,0</b> <b>4,0</b>	201 232 271 314 345 398	138 119 102 88 80 70	7,21 6,25 5,35 4,62 4,20 3,64	4794 4614 4355 4125 3985 3783	2,7 3,0 3,1 3,2 3,2 3,5	<b>MR282-3E100L/4D</b> <b>NR282-3E100L/4D</b> <b>MR282-2E100L/4C</b> <b>NR282-2E100L/4C</b>	6,26 6,42	59 61 57 59	112	IE3 IE2
	57	480	<b>25,55</b>	855	0,9	<b>MR273-3E100L/4D</b> <b>NR273-3E100L/4D</b> <b>MR273-2E100L/4C</b> <b>NR273-2E100L/4C</b>	6,26 6,42	51 53 49 51	110	IE3 IE2
	68 79 90 102 121 143 167 233 274 320	407 348 306 271 228 194 166 119 101 87	<b>21,43</b> <b>18,33</b> <b>16,07</b> <b>14,21</b> <b>11,95</b> <b>10,16</b> <b>8,71</b> <b>6,21</b> <b>5,28</b> <b>4,53</b>	1680 2254 2639 2932 3246 3455 3591 3454 3496 3357	1,1 1,3 1,4 1,5 1,7 1,9 2,2 2,8 2,6 2,7	<b>MR272-3E100L/4D</b> <b>NR272-3E100L/4D</b> <b>MR272-2E100L/4C</b> <b>NR272-2E100L/4C</b>	6,26 6,42	50 52 48 50	110	IE3 IE2
	90 98 104 119 134 144 173 206 250 286 322 345 414	304 283 265 232 206 192 160 134 111 97 86 80 67	<b>16,03</b> <b>14,86</b> <b>13,92</b> <b>12,18</b> <b>10,81</b> <b>10,07</b> <b>8,40</b> <b>7,04</b> <b>5,80</b> <b>5,08</b> <b>4,50</b> <b>4,20</b> <b>3,50</b>	2273 2529 2726 3069 3314 3434 3671 3819 3447 3527 3570 3489 3255	0,8 0,8 0,9 1,0 1,0 1,1 1,2 1,4 1,6 1,7 1,7 1,8 1,9	<b>MR202-3E100L/4D</b> <b>NR202-3E100L/4D</b> <b>MR202-2E100L/4C</b> <b>NR202-2E100L/4C</b>	6,26 6,42	50 52 48 50	109	IE3 IE2
	502 574 647 694	55 48 43 40	<b>5,80</b> <b>5,08</b> <b>4,50</b> <b>4,20</b>	3026 2879 2755 2684	2,5 2,6 2,8 2,9	<b>MR202-3E100L/2C</b> <b>NR202-3E100L/2C</b> <b>MR202-2E100L/2B</b> <b>NR202-2E100L/2B</b>	5,58 5,80	48 50 46 48	109	IE3 IE2
	115 131 152 162 191 205 220 251 303 355 429	241 211 182 170 145 135 126 110 91 78 65	<b>12,66</b> <b>11,08</b> <b>9,53</b> <b>8,94</b> <b>7,60</b> <b>7,08</b> <b>6,60</b> <b>5,78</b> <b>4,78</b> <b>4,09</b> <b>3,38</b>	225 556 458 594 887 995 1088 1242 1406 1364 1466	0,8 0,9 0,9 1,0 1,1 1,1 1,2 1,2 1,4 1,5 1,7	<b>MR172-3E100L/4D</b> <b>NR172-3E100L/4D</b> <b>MR172-2E100L/4C</b> <b>NR172-2E100L/4C</b>	6,26 6,42	40 41 38 39	108	IE3 IE2
	441 505 610 713	63 55 45 39	<b>6,60</b> <b>5,78</b> <b>4,78</b> <b>4,09</b>	1589 1619 1640 1571	2,0 2,2 2,4 2,6	<b>MR172-3E100L/2C</b> <b>NR172-3E100L/2C</b> <b>MR172-2E100L/2B</b> <b>NR172-2E100L/2B</b>	5,58 5,80	40 41 38 39	108	IE3 IE2

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



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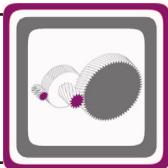


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g</sub> [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
<b>4,0</b>	1,7	19821	<b>842,80</b>	82433	0,9	<b>MR975-3E112M/4D</b>	8,05	1137	135	IE3
5,5	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					
<b>5,5</b>	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					
<b>7,5</b>	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		
<b>10,0</b>	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					
<b>12,5</b>	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		
<b>16,0</b>	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					
<b>18,0</b>	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		
<b>22,5</b>	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					
<b>30,0</b>	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 reduktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

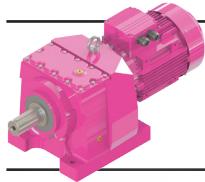


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

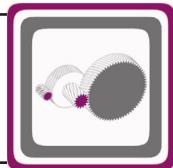


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g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

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

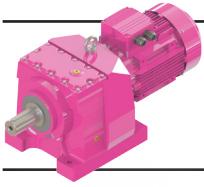


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

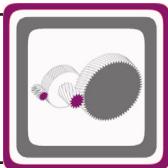


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	IE3 Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g</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
<b>4,0</b> 5,5	545	68	<b>5,35</b>	3420	3,8	MR282-3E112M/2C NR282-3E112M/2C MR282-2E112M/2A NR282-2E112M/2A	7,28 7,50	69 66 67	112	IE3 IE2
	77	472	<b>19,00</b>	-	0,9	MR273-3E112M/4D NR273-3E112M/4D MR273-2E112M/4C NR273-2E112M/4C	8,05 8,20	59 57 59	110	IE3 IE2
	91 103 122 144 168 235 276 323	405 359 302 257 221 157 134 115	<b>16,07</b> <b>14,21</b> <b>11,95</b> <b>10,16</b> <b>8,71</b> <b>6,21</b> <b>5,28</b> <b>4,53</b>	914 1405 1960 2361 2652 2693 2848 2946	1,0 1,1 1,3 1,5	MR272-3E112M/4D NR272-3E112M/4D MR272-2E112M/4C NR272-2E112M/4C	8,05 8,20	59 57 59	110	IE3 IE2
	469 552 644	79 67 58	<b>6,21</b> <b>5,28</b> <b>4,53</b>	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	<b>10,81</b> <b>10,07</b> <b>8,40</b> <b>7,04</b> <b>5,80</b> <b>5,08</b> <b>4,50</b> <b>4,20</b> <b>3,50</b>	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 57 59	109	IE3 IE2
	502 574 647 694	73 64 57 53	<b>5,80</b> <b>5,08</b> <b>4,50</b> <b>4,20</b>	3088 2934 2803 2729	1,8 1,9 2,1 2,2	MR202-3E112M/2C NR202-3E112M/2C MR202-2E112M/2A NR202-2E112M/2A	7,28 7,50	56 58 53 55	109	IE3 IE2
	206 221 253 306 357 432	179 167 146 121 104 86	<b>7,08</b> <b>6,60</b> <b>5,78</b> <b>4,78</b> <b>4,09</b> <b>3,38</b>	130 282 535 821 817 1013	0,9 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 47 49	108	IE3 IE2
	441 505 610 713	84 73 61 52	<b>6,60</b> <b>5,78</b> <b>4,78</b> <b>4,09</b>	1180 1262 1344 1295	1,5 1,6 1,8 1,9	MR172-3E112M/2C NR172-3E112M/2C MR172-2E112M/2A NR172-2E112M/2A	7,28 7,50	47 49 44 46	108	IE3 IE2
<b>5,5</b> 7,5	2,2 2,5 2,7	21507 19149 17756	<b>662,54</b> <b>588,87</b> <b>546,94</b>	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 1161 1211	135	IE3 IE2

\*: IE2 ve IE3 motorlu reduktör 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**

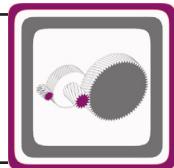


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	GÜV. RAD. YÜK ÇIKIŞ Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g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

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

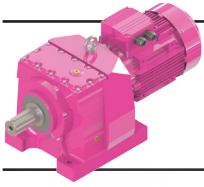


**Motorlu Güç Devir Sayfaları**  
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**Leistung und Drehzahlübersicht von Getriebemotoren**

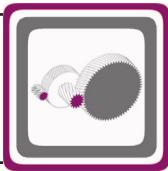


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g</sub>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

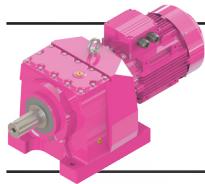


**Motorlu Güç Devir Sayfaları**  
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**Leistung und Drehzahlübersicht von Getriebemotoren**

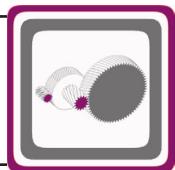


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	GÜV. RAD. YÜK ÇIKIŞ Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g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

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

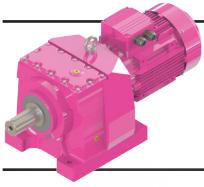


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

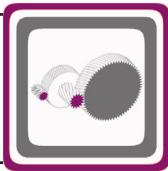


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	IE3 Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g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

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



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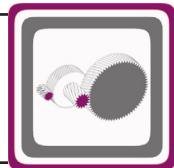


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g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

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

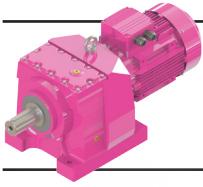


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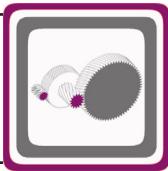


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g</sub>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

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

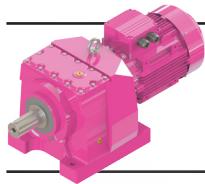


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**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

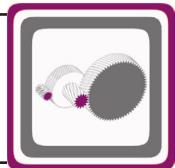


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	GÜV. RAD. YÜK ÇIKIŞ Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g</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]	f <sub>s</sub>	Typ	Nennstrom [A]	Gewicht Maße Seite ~ [kg]	Motor Effizienz- klasse	
<b>11</b> <b>15</b>	85 96 108 122 136 154 174 187 221 260 301 324 383 429	1190 1061 938 834 746 660 587 544 460 393 340 315 266 238	<b>17,25</b> <b>15,35</b> <b>13,56</b> <b>12,05</b> <b>10,79</b> <b>9,53</b> <b>8,47</b> <b>7,87</b> <b>6,65</b> <b>5,66</b> <b>4,89</b> <b>4,54</b> <b>3,83</b> <b>3,27</b>	8819 8741 8631 8504 8261 8105 7944 7838 7582 7327 6966 6853 6589 6404	1,1 1,2 1,3 1,4 1,5 1,6 1,7 1,9 2,1 2,4 2,4 2,3 2,4 2,5	<b>MR472-3E160M/4C</b> <b>NR472-3E160M/4C</b> <b>MR472-2E160M/4B</b> <b>NR472-2E160M/4B</b>	21,00 21,00	196 198 206 208	118	IE3 IE2
<b>15</b> <b>20</b>	7,3	18431	<b>132,83</b>	92255	1,0	<b>MR973-3E180L/6</b> <b>NR973-3E180L/6</b> <b>MR973-2E180L/6</b> <b>NR973-2E180L/6</b>	29,00 29,00	1227 1277 1207 1257	133	IE3 IE2
	7,9 8,8 9,8 11 13 14 16 18 21 24 27	17238 15393 13866 12267 10746 9512 8491 7632 6508 5745 5103	<b>186,95</b> <b>166,73</b> <b>150,02</b> <b>132,83</b> <b>116,17</b> <b>102,69</b> <b>91,56</b> <b>82,20</b> <b>70,07</b> <b>61,77</b> <b>54,80</b>	99559 109734 116899 123637 129424 133728 136978 139612 142944 145030 146712	1,0 1,2 1,3 1,5 1,7 1,9 2,1 2,4 2,8 3,1 3,5	<b>MR973-3E160L/4D</b> <b>NR973-3E160L/4D</b> <b>MR973-2E160L/4C</b> <b>NR973-2E160L/4C</b>	29,00 29,30	1160 1210 1157 1207	133	IE3 IE2
	8,9 9,8 11 13	15215 13784 11947 10429	<b>110,17</b> <b>99,81</b> <b>86,51</b> <b>75,51</b>	57310 67627 78415 85637	0,9 0,9 1,1 1,2	<b>MR873-3E180L/6</b> <b>NR873-3E180L/6</b> <b>MR873-2E180L/6</b> <b>NR873-2E180L/6</b>	29,00 29,00	695 700 675 680	130	IE3 IE2
	13 15 17 19 23 26 28 32 36	10091 9143 7924 6917 5933 5179 4842 4224 3714	<b>110,17</b> <b>99,81</b> <b>86,51</b> <b>75,51</b> <b>64,77</b> <b>56,54</b> <b>52,86</b> <b>46,12</b> <b>40,55</b>	87265 91189 95767 99209 102335 104512 105493 107118 108429	1,3 1,4 1,6 1,9 2,2 2,5 2,7 3,1 3,5	<b>MR873-3E160L/4D</b> <b>NR873-3E160L/4D</b> <b>MR873-2E160L/4C</b> <b>NR873-2E160L/4C</b>	29,00 29,30	635 640 632 637	130	IE3 IE2
	15 17 19 22 24 25 29 33 37 42 47 49 57 65	9184 8044 7100 6306 5629 5423 4704 4099 3659 3251 2902 2796 2425 2114	<b>99,63</b> <b>87,13</b> <b>76,81</b> <b>68,15</b> <b>60,76</b> <b>58,59</b> <b>50,75</b> <b>44,17</b> <b>39,33</b> <b>34,89</b> <b>31,11</b> <b>30,00</b> <b>25,99</b> <b>22,62</b>	43792 48824 52306 54916 56964 57526 59383 60911 61963 62863 63595 63811 64545 65137	0,9 1,0 1,1 1,3 1,4 1,5 1,7 2,0 2,2 2,5 2,8 2,9 3,3 3,8	<b>MR773-3E160L/4D</b> <b>NR773-3E160L/4D</b> <b>MR773-2E160L/4C</b> <b>NR773-2E160L/4C</b>	29,00 29,30	426 510 423 507	127	IE3 IE2

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

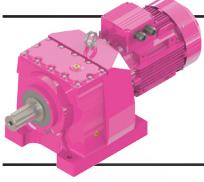


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

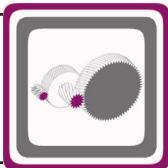


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g</sub> [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 1,7 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 reduktör 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**

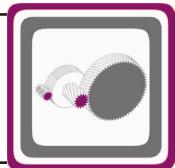


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	GÜV. RAD. YÜK ÇIKIŞ Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g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

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

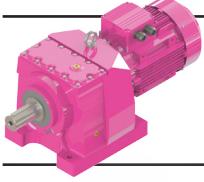


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

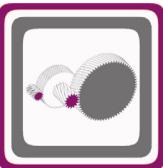


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g</sub>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

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



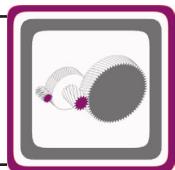
**Motorlu Güç Devir Sayfaları**  
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**Leistung und Drehzahlübersicht von Getriebemotoren**



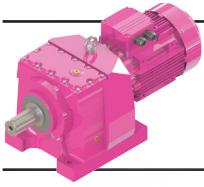
Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	GÜV. RAD. YÜK ÇIKIŞ Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g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



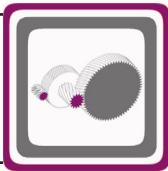
**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**



Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. 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]	f <sub>s</sub>	Typ	Nennstrom	Gewicht ~ [kg]	Maße Seite	Motor Effizienz-Klasse
<b>30</b>	14	18963	<b>102,69</b>	88796	0,9	<b>MR973-3G200L/4</b>	55,00	1271	133	IE3
40	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					

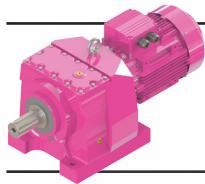


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

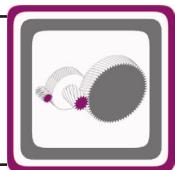


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	GÜV. RAD. YÜK ÇIKIŞ Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g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

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

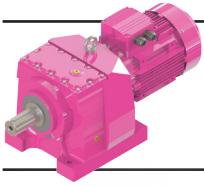


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

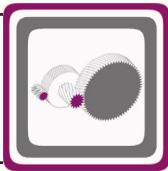


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g</sub> [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	338	1021	4,37	12543	2,6	MR672-3G225S/4	67,00	495	124	IE3
50	390	885	3,79	12166	2,7	NR672-3G225S/4		511		
	448	771	3,29	11791	2,8	MR672-2G225S/4	67,00	479		IE2
						NR672-2G225S/4		495		
45	24	17182	61,77	99890	1,0	MR973-3G225M/4	80,00	1264	133	IE3
60	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 reduktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



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**Leistung und Drehzahlübersicht von Getriebemotoren**

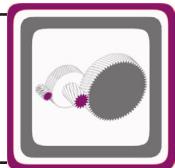


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight ~ [kg]	Ölçü Sayfası Dim. Page	* Motor Verim Sfn. Motor Eff. Class
Leistung P <sub>g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

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

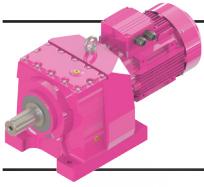


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**

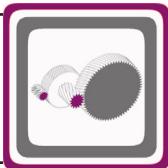


Güç Power	IE3 Çıkış Devri Output Speeds	IE3 Çıkış Momenti Output Torque	Çevrim Oranı Ratio	IE3 Güv. Rad. Yük Çıkış Per.O. Loads (Output)	IE3 Servis Faktörü Service Factors	Tipi Type	Anma Akımı Rated Current	Ağırlık Weight	Ölçü Sayfası Dim. Page	* Motor Verim Snf. Motor Eff. Class
Leistung P <sub>g</sub> [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
<b>75</b>	40	17256	<b>37,29</b>	99467	1,0	<b>MR973-3G280S/4</b>	133,0	1637	133	IE3
97	45	15328	<b>33,08</b>	109791	1,2	<b>NR973-3G280S/4</b>		1687		
	50	13684	<b>29,49</b>	117497	1,3	<b>MR973-2G280S/4</b>	133,0	1637		IE2
	57	12069	<b>26,03</b>	124256	1,5	<b>NR973-2G280S/4</b>		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					
<b>92</b>	7616	<b>16,23</b>	131419	2,4	<b>MR972-3G280S/4</b>	133,0	1597	133	IE3	
103	6766	<b>14,40</b>	127765	2,7	<b>NR972-3G280S/4</b>		1637			
115	6050	<b>12,86</b>	124330	3,0	<b>MR972-2G280S/4</b>	133,0	1597		IE2	
129	5439	<b>11,56</b>	121086	3,3	<b>NR972-2G280S/4</b>		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						
<b>54</b>	12420	<b>27,39</b>	75762	1,0	<b>MR873-3G280S/4</b>	133,0	1017	130	IE3	
62	10824	<b>23,87</b>	81614	1,2	<b>NR873-3G280S/4</b>		1022			
73	9193	<b>20,28</b>	82767	1,4	<b>MR873-2G280S/4</b>	133,0	1017		IE2	
83	8082	<b>17,83</b>	83092	1,6	<b>NR873-2G280S/4</b>		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						
<b>147</b>	4671	<b>10,09</b>	91091	2,5	<b>MR872-3G280S/4</b>	133,0	1012	130	IE3	
167	4107	<b>8,87</b>	88460	2,7	<b>NR872-3G280S/4</b>		1017			
197	3498	<b>7,55</b>	77035	3,0	<b>MR872-2G280S/4</b>	133,0	1012		IE2	
224	3075	<b>6,64</b>	75407	3,3	<b>NR872-2G280S/4</b>		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						
<b>90</b>	50	<b>29,49</b>	104131	1,1	<b>MR973-3G280M/4</b>	158,0	1643	133	IE3	
117	57	<b>26,03</b>	113862	1,2	<b>NR973-3G280M/4</b>		1693			
	65	<b>22,95</b>	121338	1,4	<b>MR973-2G280M/4</b>	158,0	1643		IE2	
	73	<b>20,36</b>	127007	1,6	<b>NR973-2G280M/4</b>		1693			
	82	<b>18,15</b>	130083	1,8						
<b>92</b>	9140	<b>16,23</b>	128770	2,0	<b>MR972-3G280M/4</b>	158,0	1603	133	IE3	
103	8119	<b>14,40</b>	125414	2,2	<b>NR972-3G280M/4</b>		1653			
115	7260	<b>12,86</b>	122231	2,5	<b>MR972-2G280M/4</b>	158,0	1603		IE2	
129	6527	<b>11,56</b>	119200	2,8	<b>NR972-2G280M/4</b>		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						
<b>73</b>	11031	<b>20,28</b>	74419	1,2	<b>MR873-3G280M/4</b>	158,0	1043	130	IE3	
83	9699	<b>17,83</b>	75752	1,3	<b>NR873-3G280M/4</b>		1048			
92	8751	<b>16,09</b>	76416	1,5	<b>MR873-2G280M/4</b>	158,0	1043		IE2	
106	7626	<b>14,02</b>	76828	1,7	<b>NR873-2G280M/4</b>		1048			
112	7235	<b>13,30</b>	90699	1,8						
128	6305	<b>11,59</b>	88706	2,0						

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

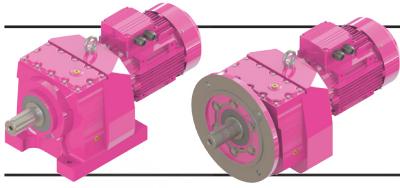


**Motorlu Güç Devir Sayfaları**  
**Geared Motors Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebemotoren**



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

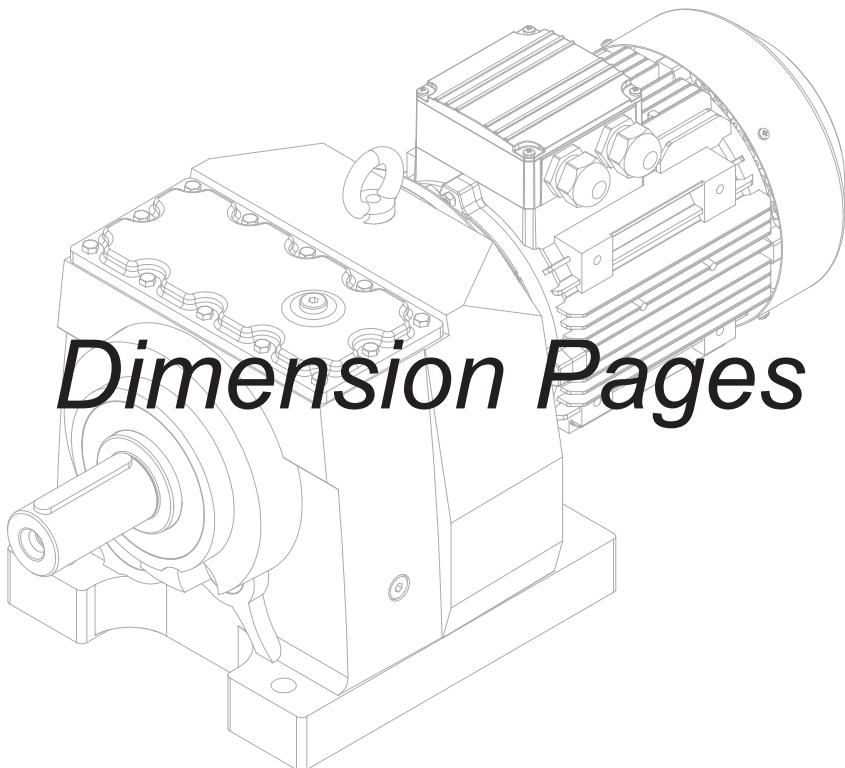
\*: IE2 ve IE3 motorlu reduktör fiyatları farklıdır. / Geared motor prices are different for IE2 and IE3 motors. / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Ölçü Sayfaları  
Dimension Pages  
Abmessungsseiten

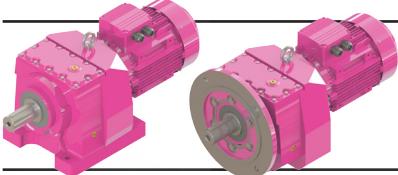


# Ölçü Sayfaları



*Dimension Pages*

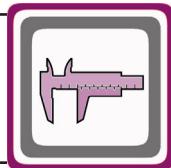
## Abmessungsseiten



# Ölçü Sayfaları

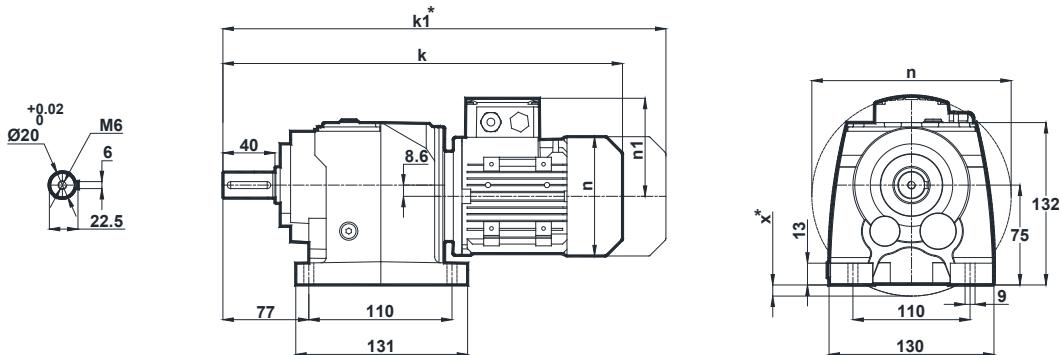
## Dimension Pages

## Abmessungsseiten

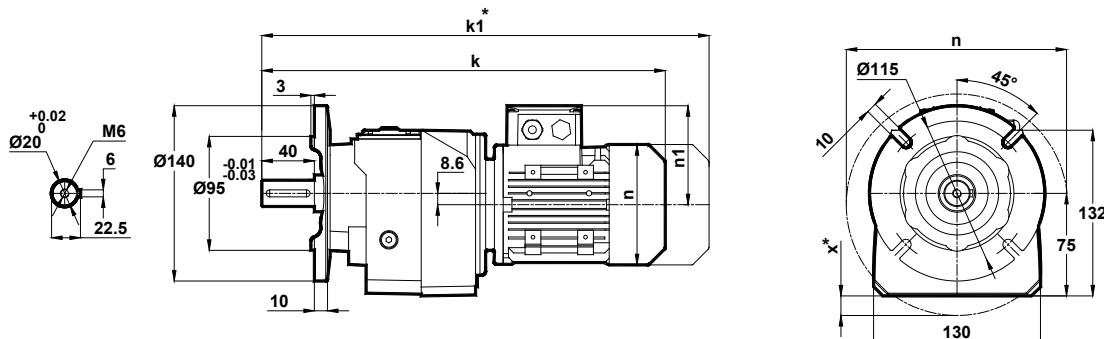


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

### MR002 MR003

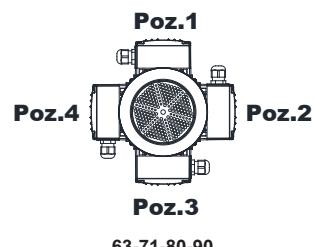


### NR002 NR003



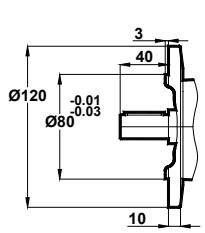
Motor Büyüklüğü / Motor Size / Motorbaugroße				
	63	71	80	90S
$k$	368.5	397	431	470
$k_1$	429.5	488	524	573.5
$n$	121	137	155	176
$n_1$	97	112	121	132
$x$	-	3	12	22

Klemens Kutusu / Terminal Box / Klemmenkasten

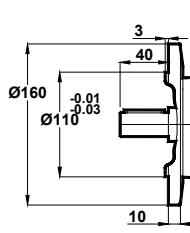
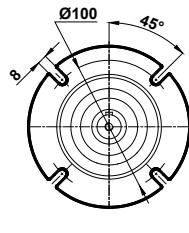


63-71-80-90

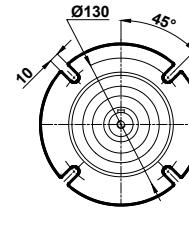
Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

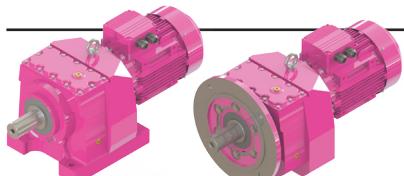


Opt. 2



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

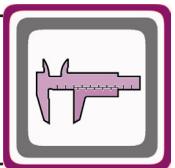
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

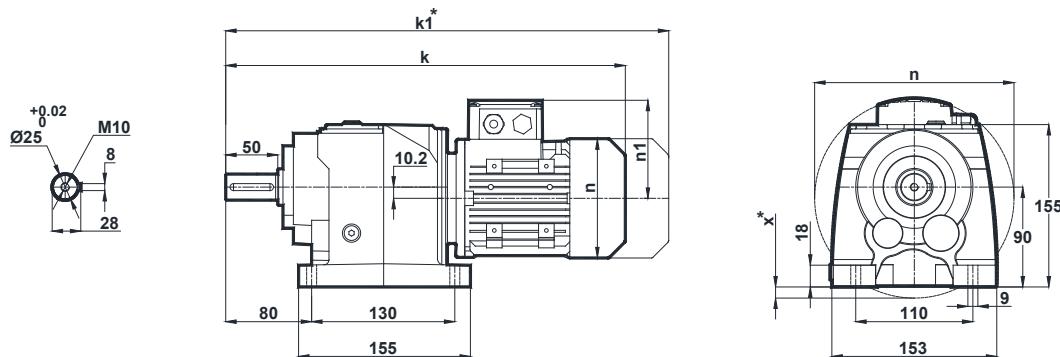
## Dimension Pages

## Abmessungsseiten

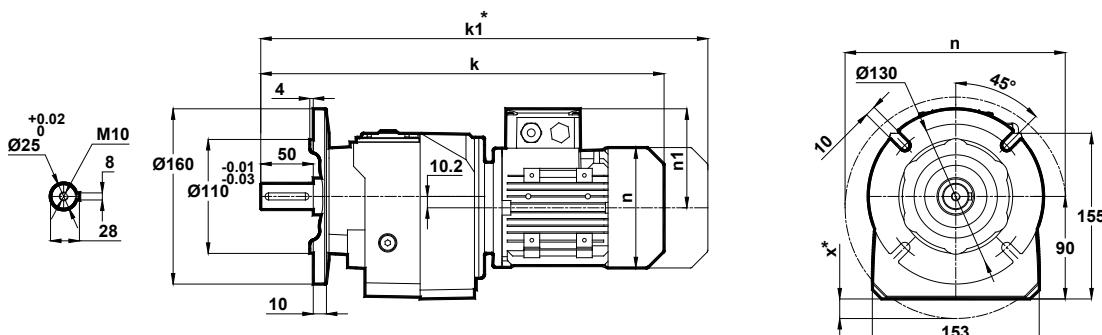


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MR102**  
**MR103**

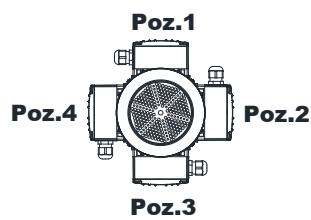


**NR102**  
**NR103**



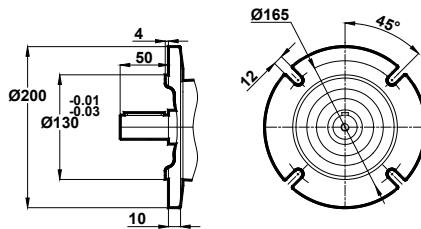
Motor Büyüklüğü / Motor Size / Motorbaugroße					
	63	71	80	90S	90L
k	398	424	458	497	497
k1	459	515	551	600.5	600.5
n	121	137	155	176	176
n1	97	112	121	132	132
x	-	-	-	9	9

Klemens Kutusu / Terminal Box / Klemmenkasten



63-71-80-90

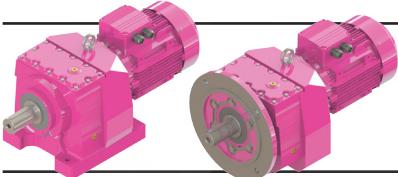
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



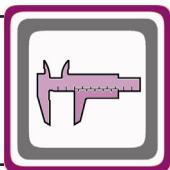
**Opt. 1**

\* "k1" Ölçüsü frenli reduktörlere 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

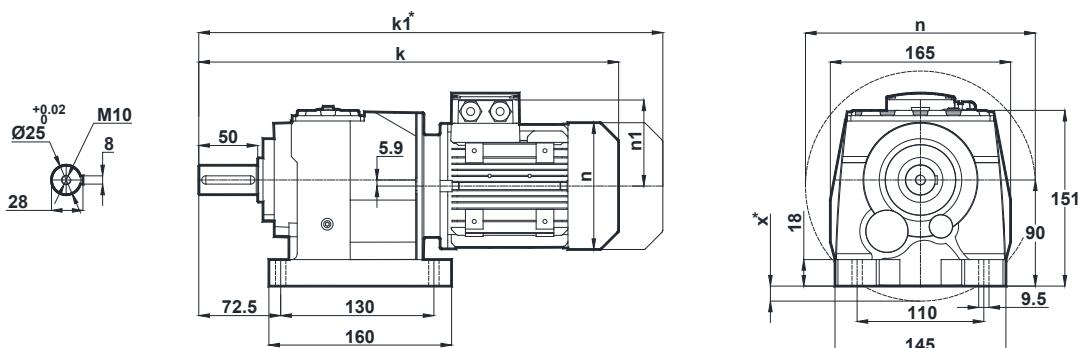


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

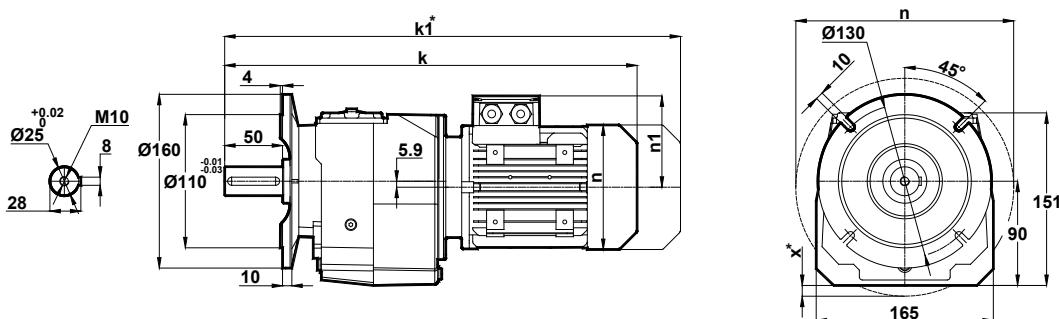


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR172 MR173

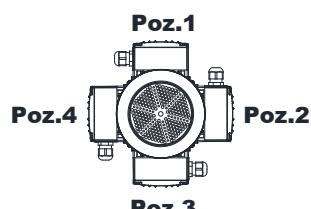


## NR172 NR173



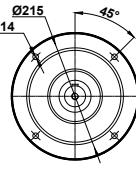
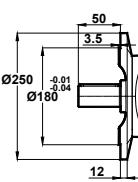
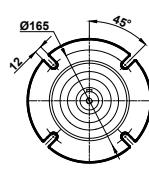
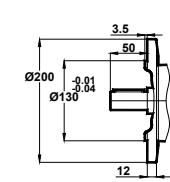
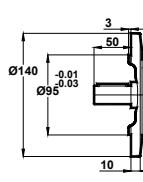
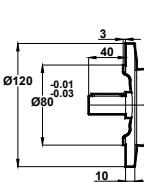
Motor Büyüklüğü / Motor Size / Motorbaugroße						
	63	71	80	90S	90L	100L
k	395.5	424	458	497	497	545
k1	456.5	515	551	600.5	600.5	653.5
n	121	137	155	176	176	193
n1	97	112	121	132	132	147
x	-	-	-	4	4	13
						24

Klemens Kutusu / Terminal Box / Klemmenkasten



63-71-80-90-100-112

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



Opt. 1

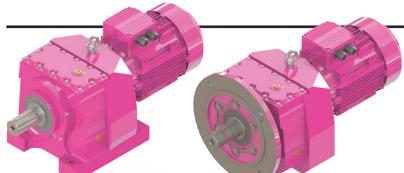
Opt. 2

Opt. 3

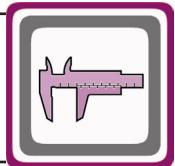
Opt. 4

\* "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

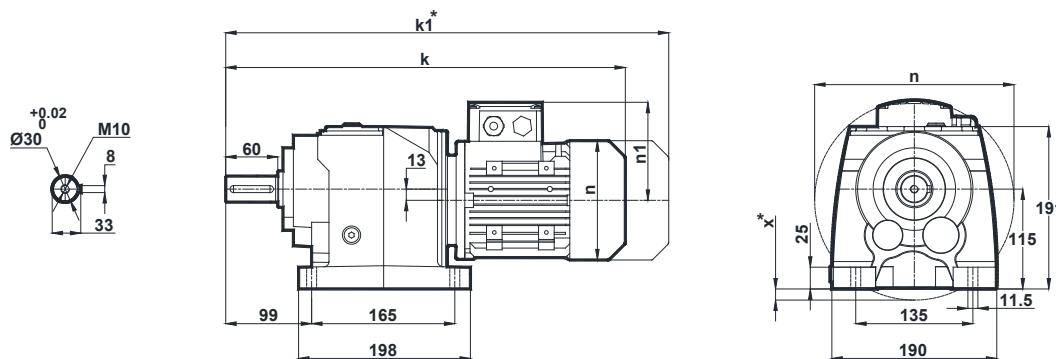


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

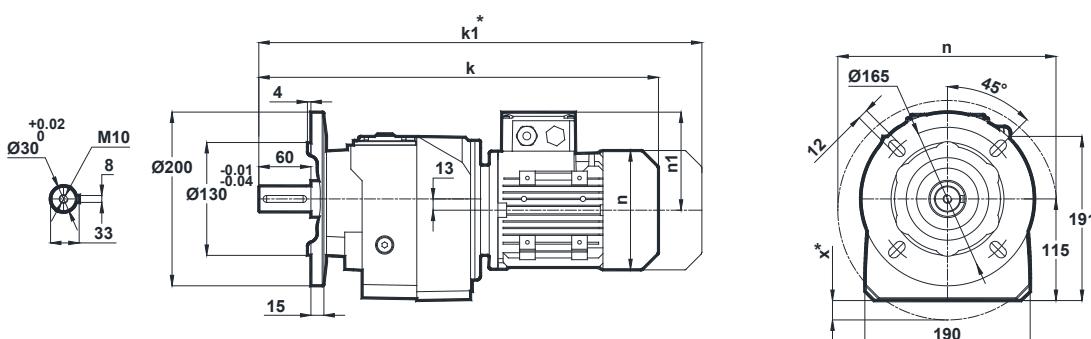


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR202 MR203

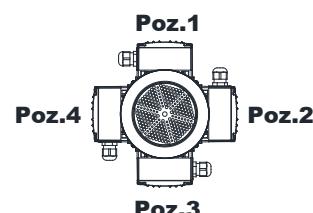


## NR202 NR203



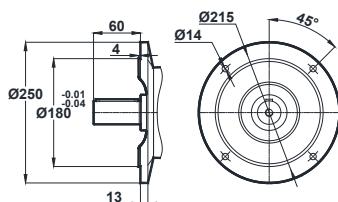
Motor Büyüklüğü / Motor Size / Motorbaugroße							
	63	71	80	90S	90L	100L	112M
k	443	470	504	543	543	591	615
k1	504	561	597	646.5	646.5	699.5	719.5
n	121	137	155	176	176	193	215
n1	97	112	121	132	132	147	158
x	-	-	-	-	-	-	6

Klemens Kutusu / Terminal Box / Klemmenkasten

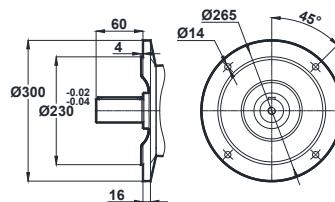


63-71-80-90-100-112

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



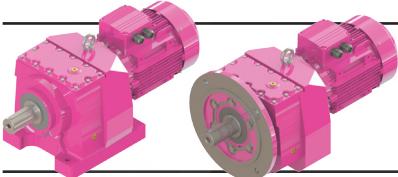
Opt. 1



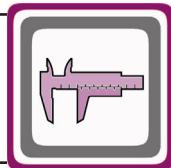
Opt. 2

\* "k1" Ölçüsü frenli reduktörlere 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

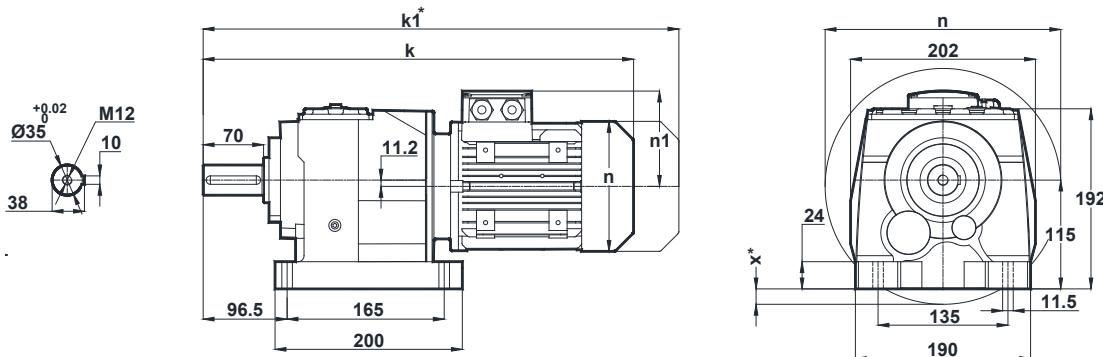


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

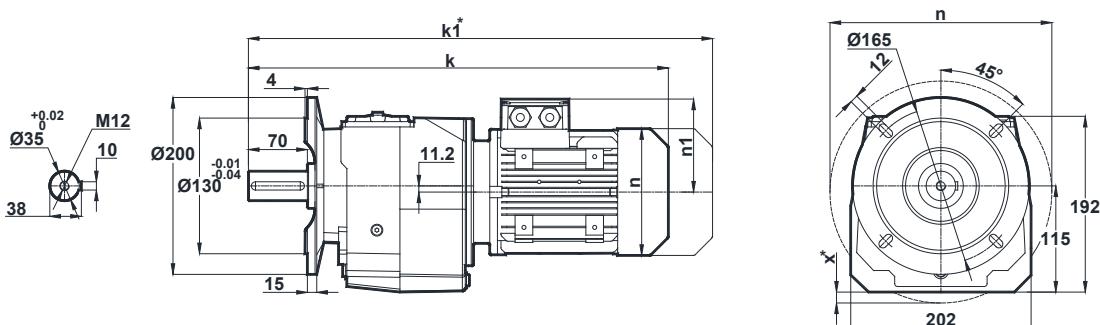


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR272 MR273

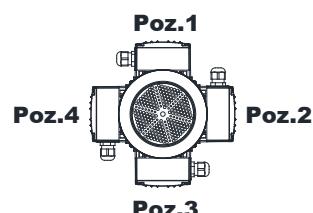


## NR272 NR273



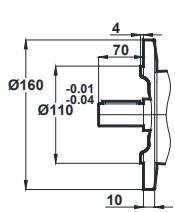
Motor Büyüklüğü / Motor Size / Motorbaugroße									
	63	71	80	90S	90L	100L	112M	132S	132M
k	444	471	505	544	544	592	616	699	699
k1	505	562	598	647.5	647.5	700.5	720.5	829	829
n	121	137	155	176	176	193	215	257	257
n1	97	112	121	132	132	147	158	179	179
x	-	-	-	-	-	-	4	25	25

Klemens Kutusu / Terminal Box / Klemmenkasten

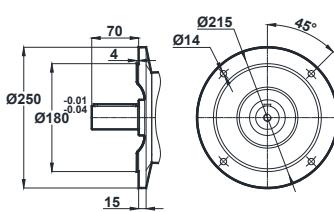


63-71-80-90-100-112-132

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



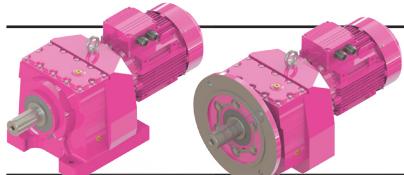
Opt. 1



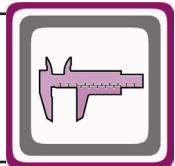
Opt. 2

\* "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

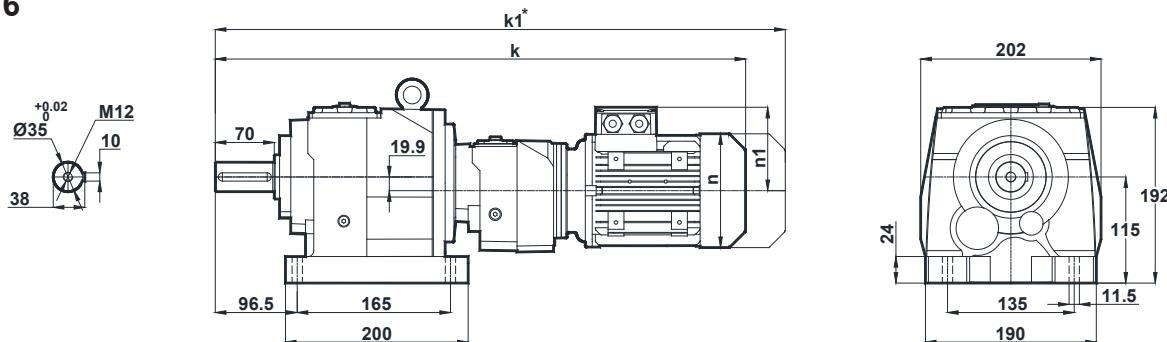


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

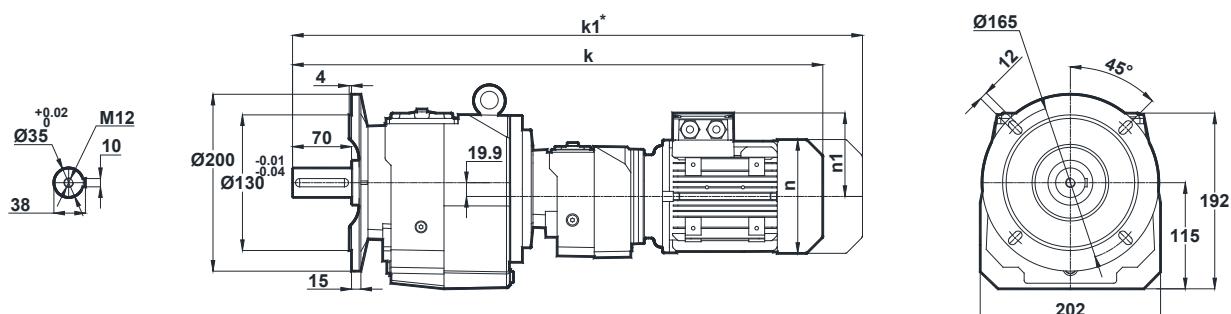


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MR275**  
**MR276**

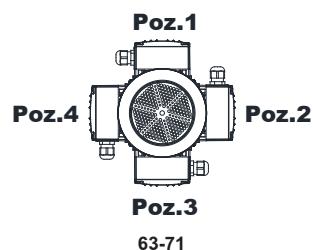


**NR275**  
**NR276**



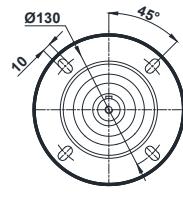
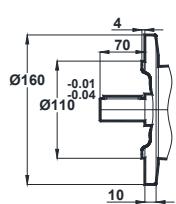
Motor Büyüklüğü / Motor Size / Motorbaugröße		
	63	71
k	593.5	622
k1	654.5	713
n	121	137
n1	97	112

Klemens Kutusu / Terminal Box / Klemmenkasten

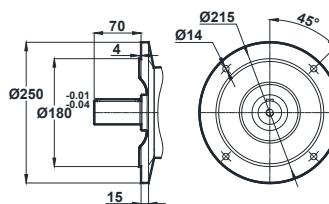


63-71

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

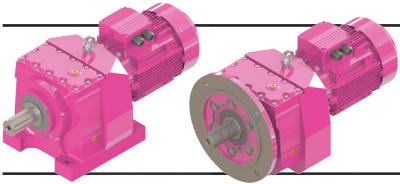


Opt. 1



Opt. 2

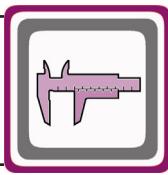
\* "k1" Ölçüsü frenli reduktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.



# Ölçü Sayfaları

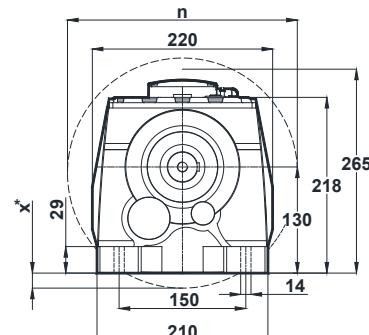
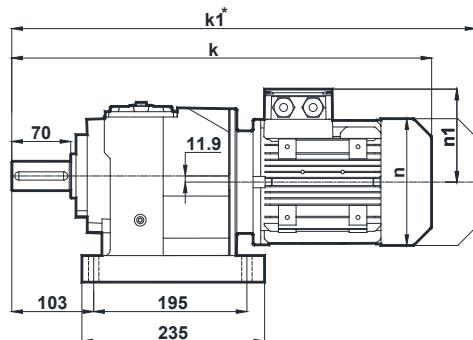
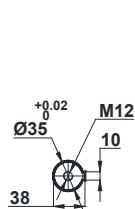
## *Dimension Pages*

### Abmessungsseiten

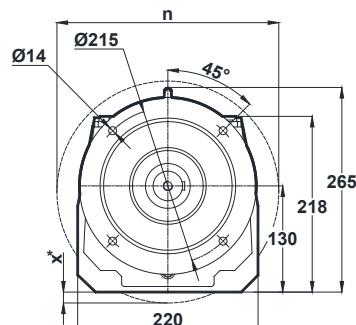
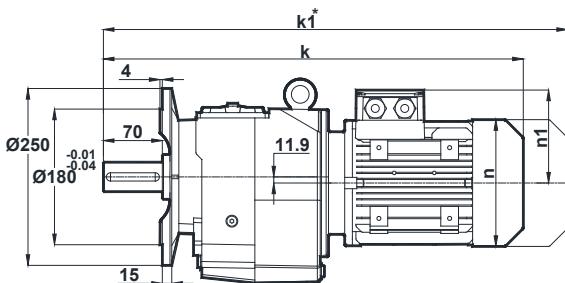
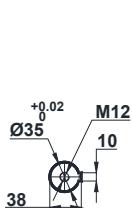


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

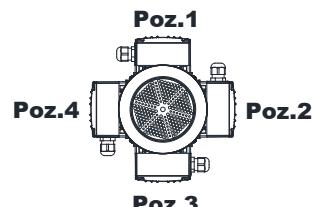
**MR282**  
**MR283**



**NR282**  
**NR283**

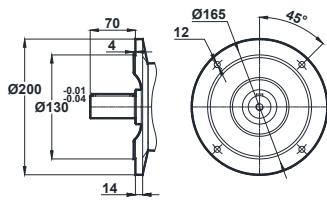


**Klemens Kutusu** /Terminal Box / Klemmenkasten

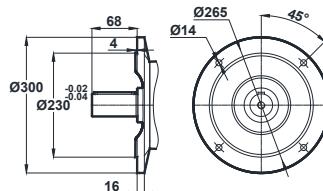


71-80-90-100-112-132

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



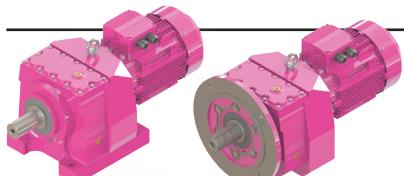
**Opt. 1**



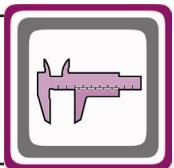
Opt. 2

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

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

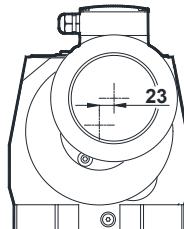


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*

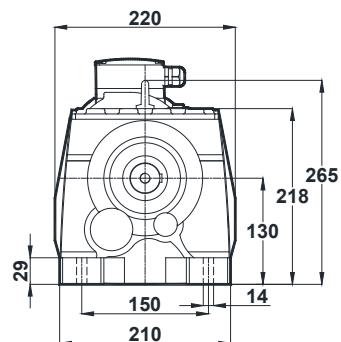
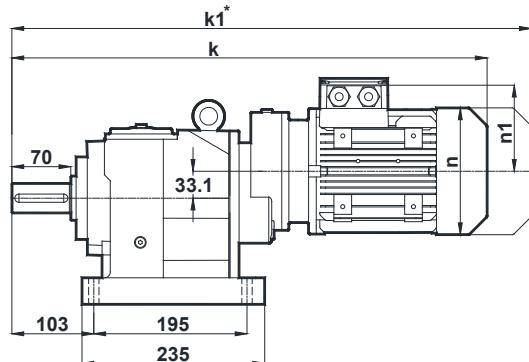


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

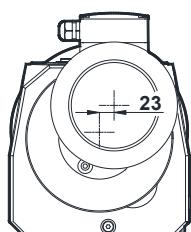
### MR284



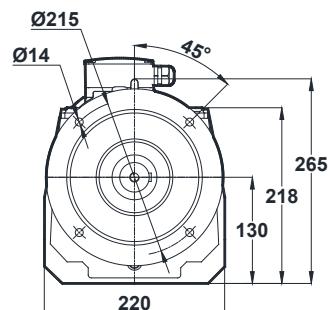
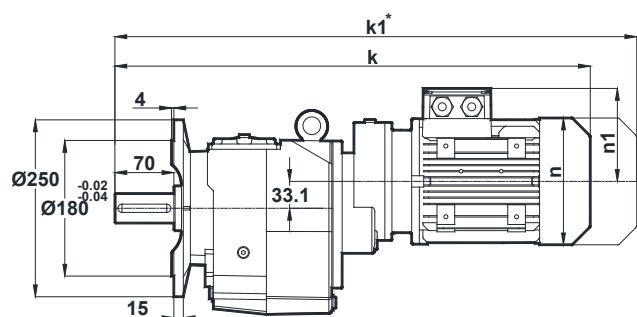
$\varnothing 35$   
+0.02  
M12  
10  
38



### NR284

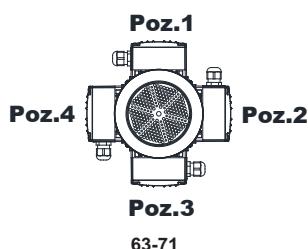


$\varnothing 35$   
+0.02  
M12  
10  
38

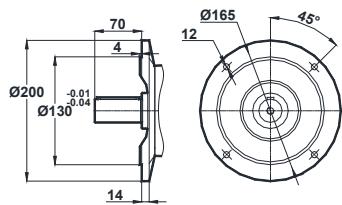


Motor Büyüklüğü / Motor Size / Motorbaugroß		
	63	71
k	540.5	567.5
k1	601.5	658.5
n	121	137
n1	97	112

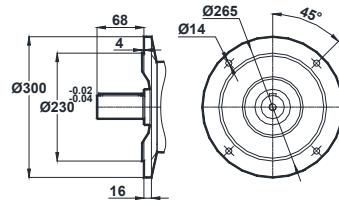
Klemens Kutusu / Terminal Box / Klemmenkasten



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

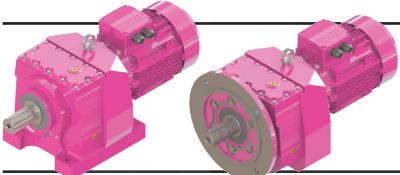


Opt. 1

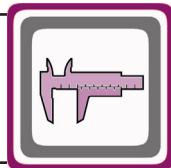


Opt. 2

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

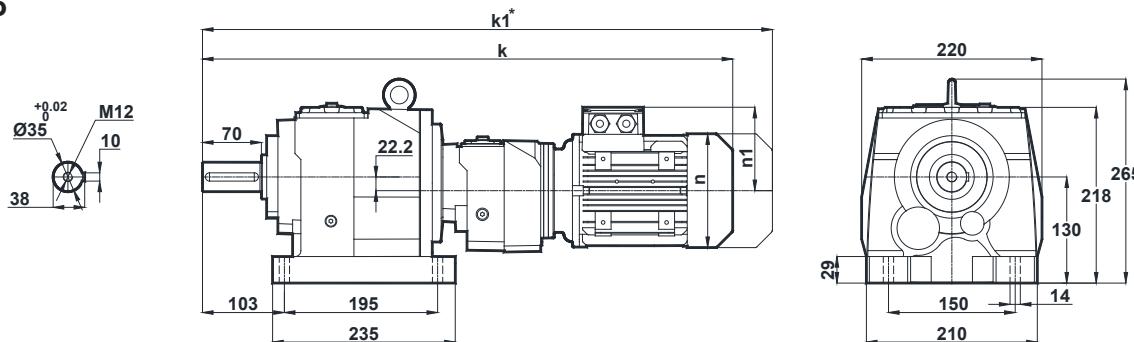


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

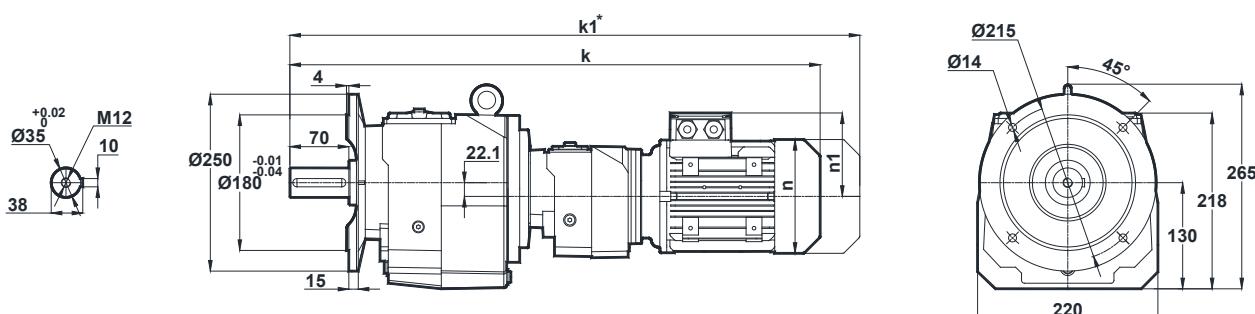


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MR285**  
**MR286**

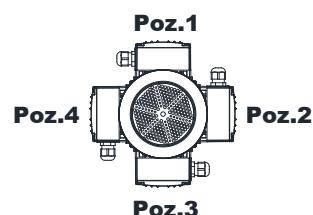


**NR285**  
**NR286**



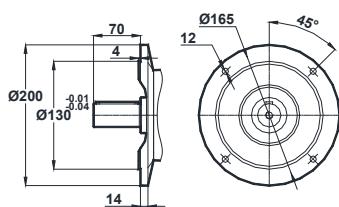
Motor Büyüklüğü / Motor Size / Motorbaugroße	
	63
k	645
k1	706
n	121
n1	97

Klemens Kutusu / Terminal Box / Klemmenkasten

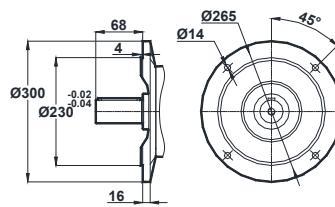


63

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

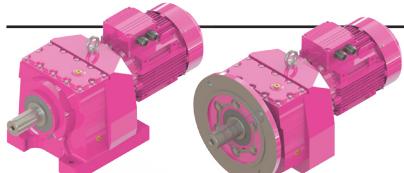


Opt. 1



Opt. 2

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

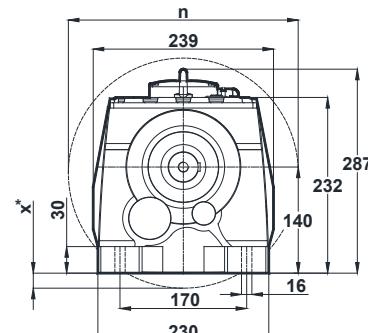
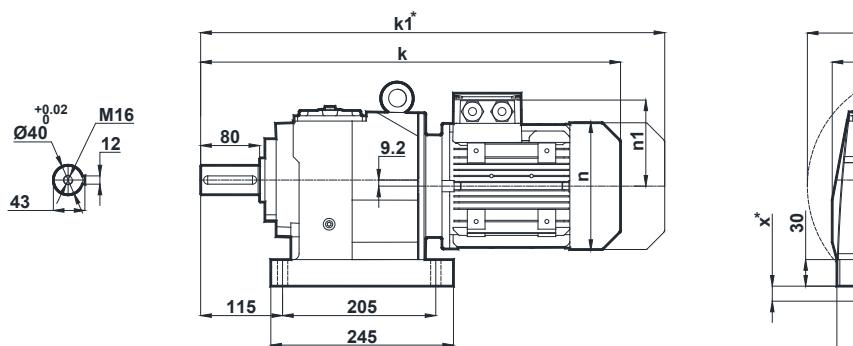


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

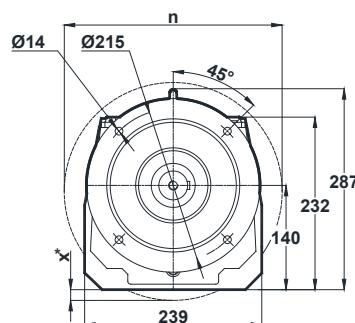
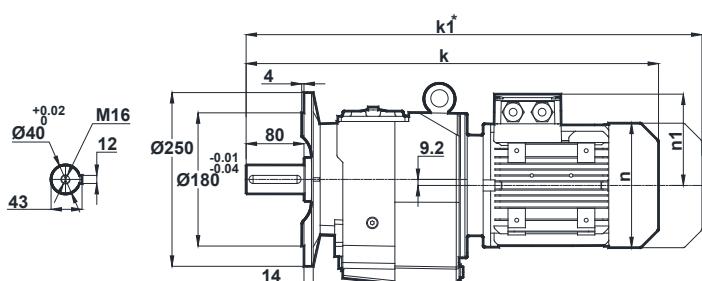


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR372 MR373

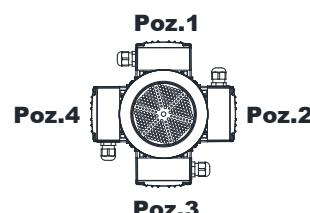


## NR372 NR373



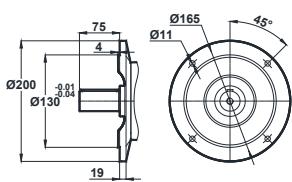
Motor Büyüklüğü / Motor Size / Motorbaugroße								
	71	80	90S	90L	100L	112M	132S	132M
k	509.5	543.5	582.5	582.5	630.5	645.5	741	741
k1	600.5	636.5	686	686	739	759	871	871
n	137	155	176	176	193	215	257	257
n1	112	121	132	132	147	158	179	179
x	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten

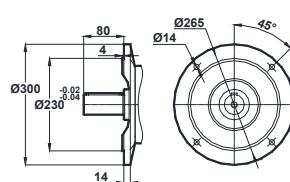


71-80-90-100-112-132

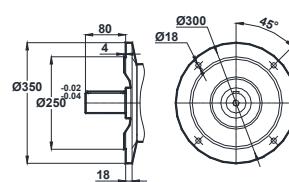
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



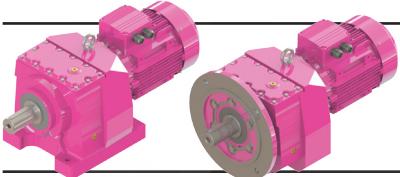
Opt. 2



Opt. 3

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

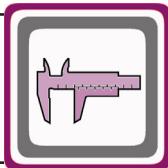
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

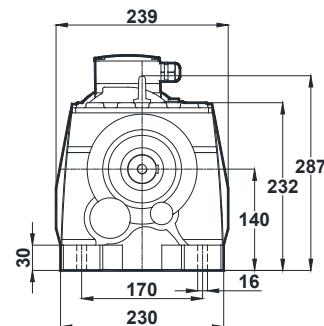
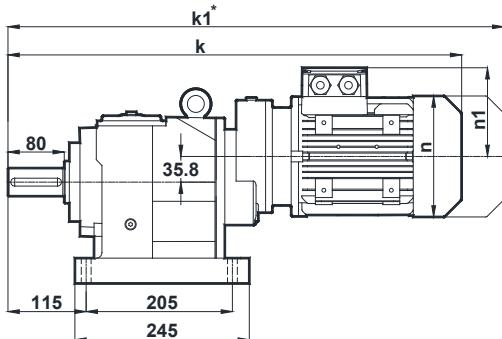
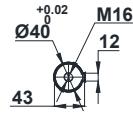
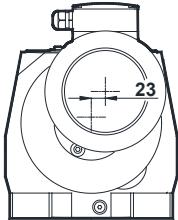
## Dimension Pages

## Abmessungsseiten

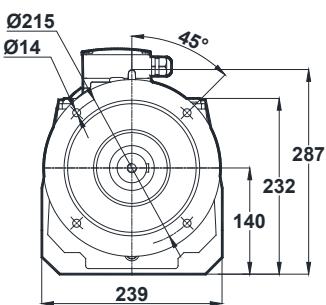
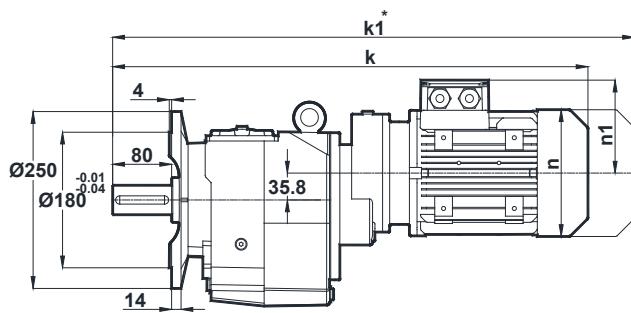
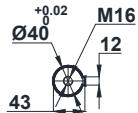
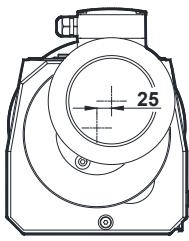


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

### MR374

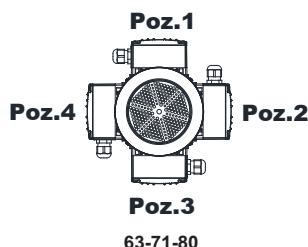


### NR374

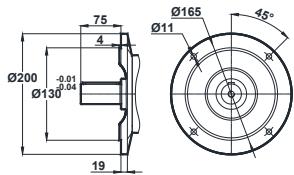


Motor Büyüklüğü / Motor Size / Motorbaugroße			
	63	71	80
k	561.5	588.5	622.5
k1	622.5	679.5	715.5
n	121	137	155
n1	97	112	121

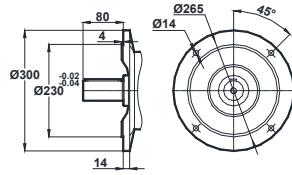
Klemens Kutusu / Terminal Box / Klemmenkasten



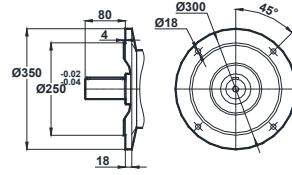
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

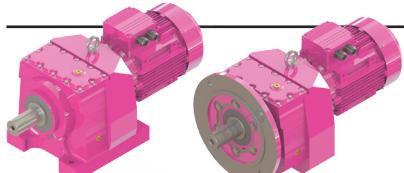


Opt. 2



Opt. 3

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

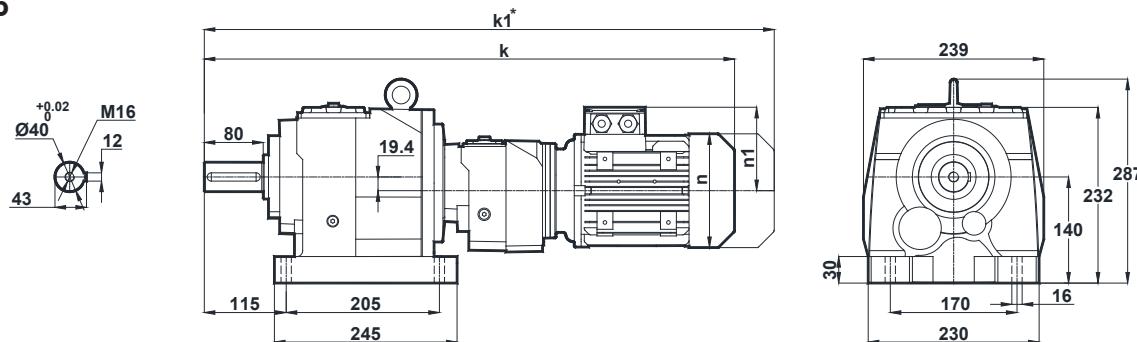


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

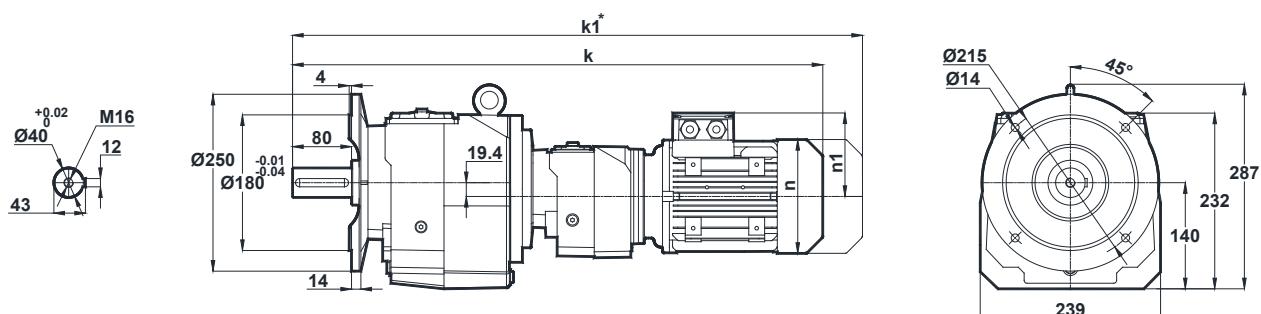


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR375 MR376

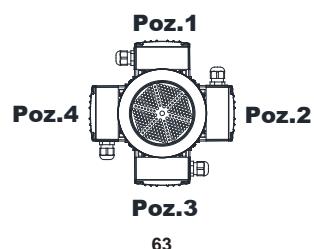


## NR375 NR376

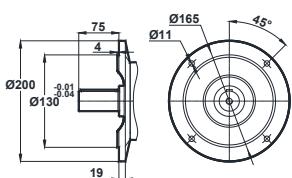


Klemens Kutusu / Terminal Box / Klemmenkasten

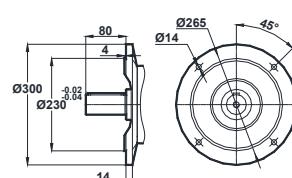
Motor Büyüklüğü / Motor Size / Motorbaugroße	
	63
k	666
k1	727
n	121
n1	97



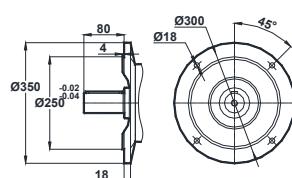
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

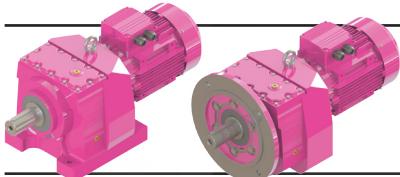


Opt. 2



Opt. 3

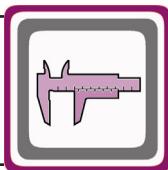
\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.



# Ölçü Sayfaları

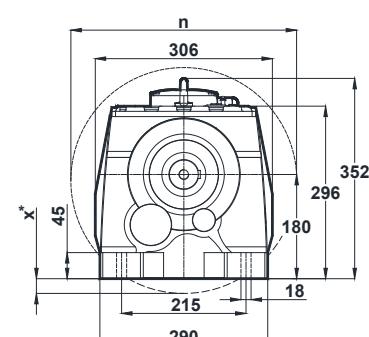
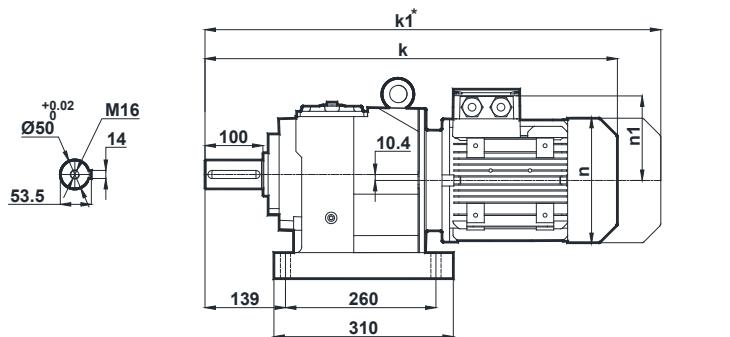
## *Dimension Pages*

### Abmessungsseiten

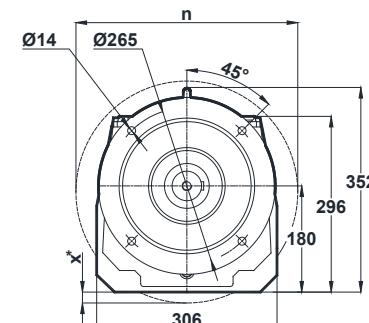
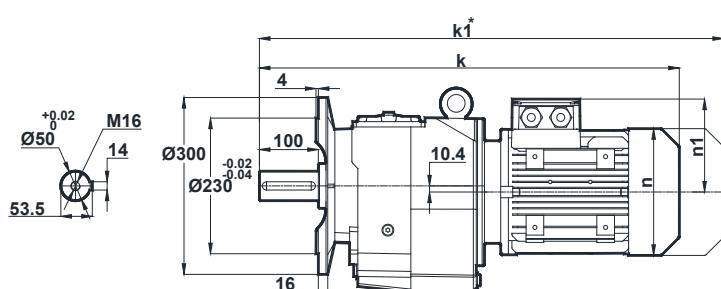


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

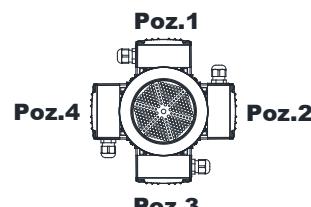
MR472  
MR473



NR472  
NR473

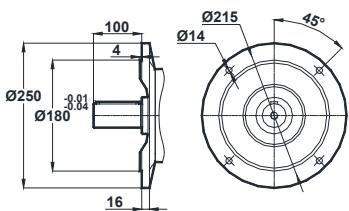


Klemens Kutusu /Terminal Box / Klemmenkasten

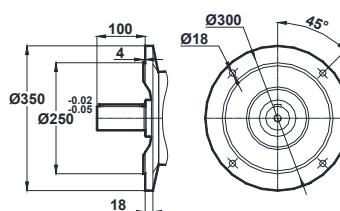


80-90-100-112-132-160-180

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



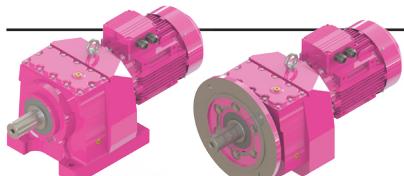
**Opt. 1**



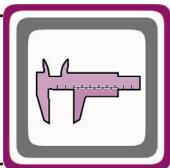
Opt. 2

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

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

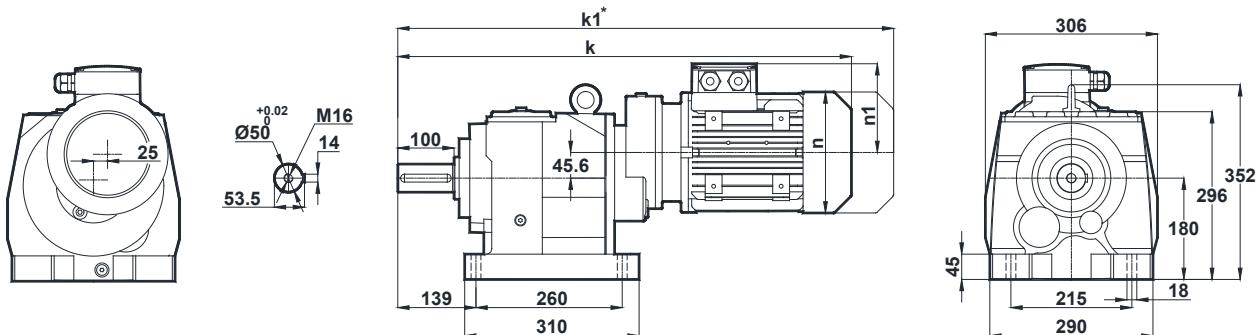


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

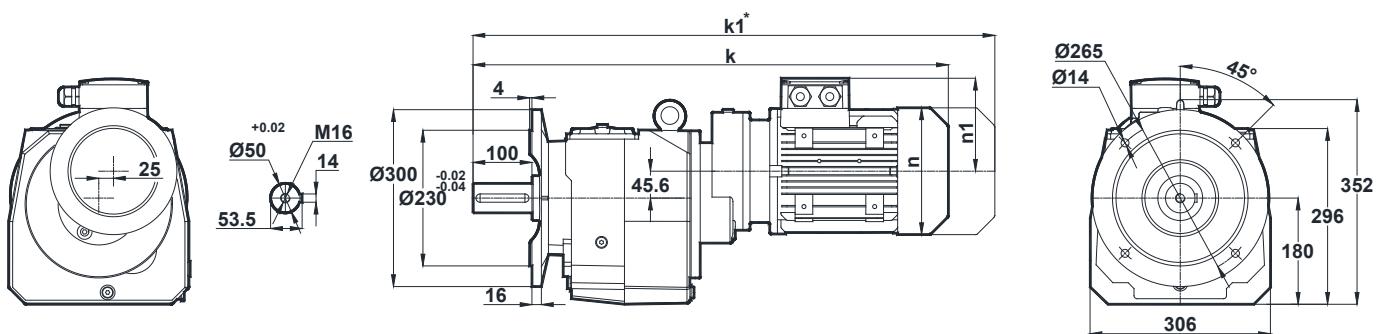


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

### MR474

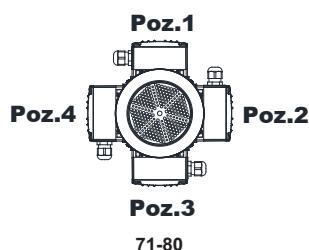


### NR474

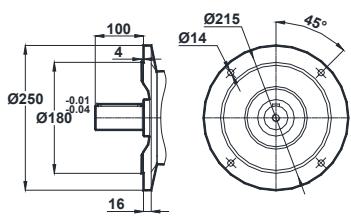


Klemens Kutusu / Terminal Box / Klemmenkasten

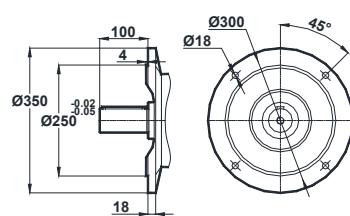
Motor Büyüklüğü / Motor Size / Motorbaugroße		
	71	80
$k$	670	704
$k_1$	761	797
$n$	137	155
$n_1$	112	121



Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

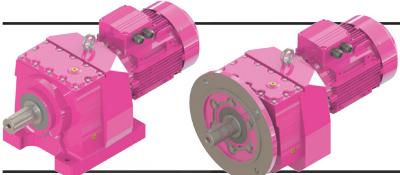


Opt. 1



Opt. 2

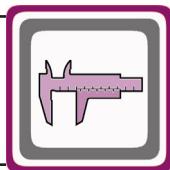
\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.



# Ölçü Sayfaları

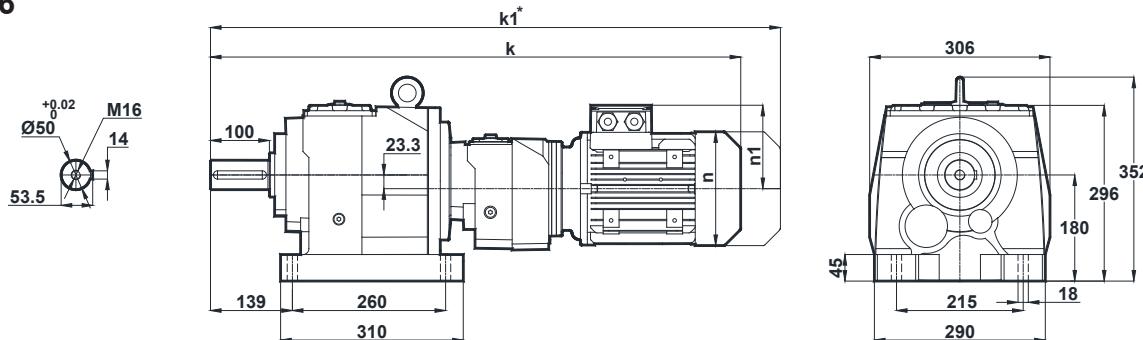
## Dimension Pages

## Abmessungsseiten

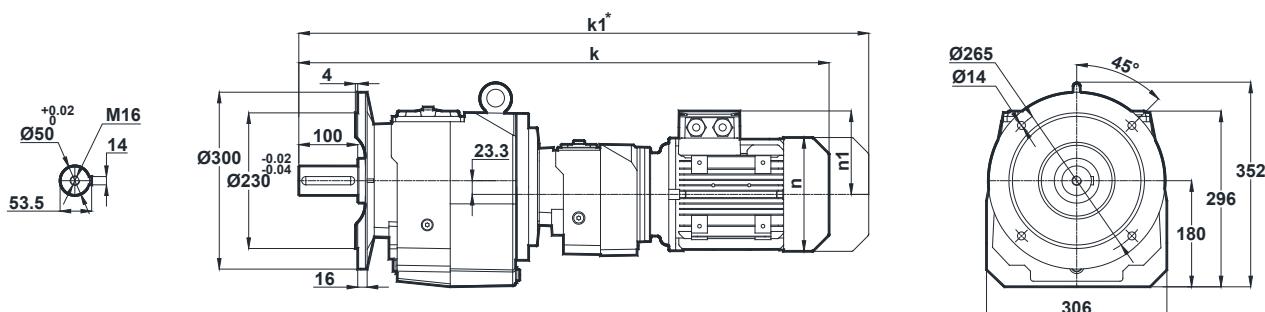


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

### MR475 MR476

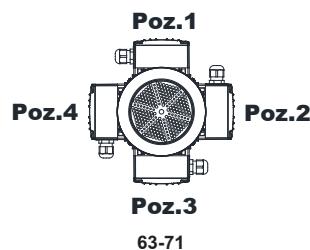


### NR475 NR476



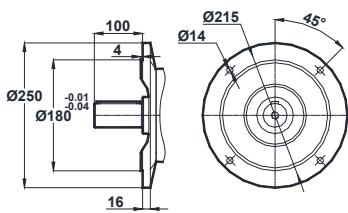
Motor Büyüklüğü / Motor Size / Motorbaugroße		
	63	71
k	773	800
k1	834	891
n	121	137
n1	97	112

Klemens Kutusu / Terminal Box / Klemmenkasten

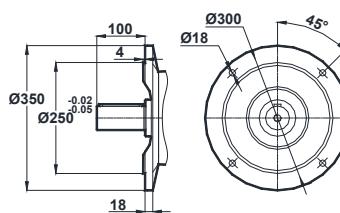


63-71

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

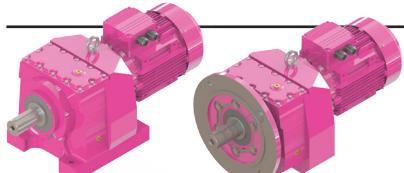


Opt. 1

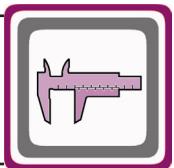


Opt. 2

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

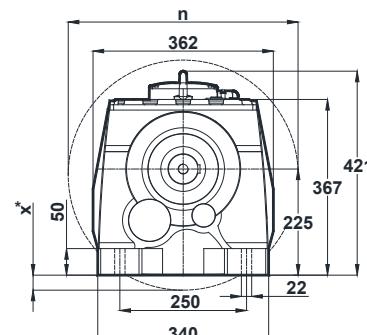
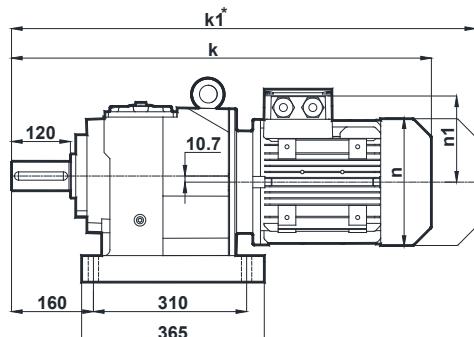
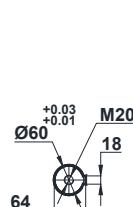


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*

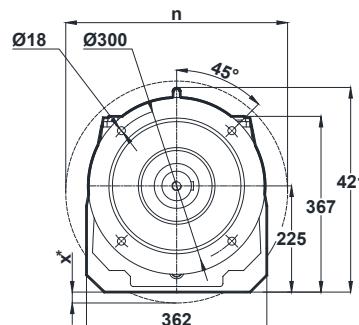
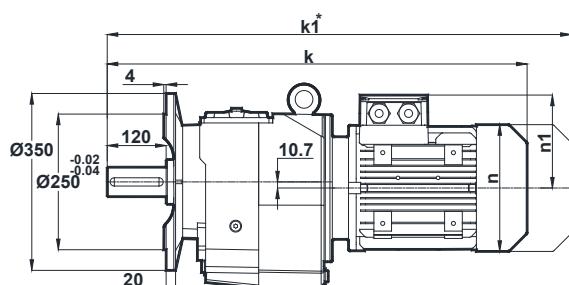
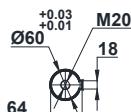


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MR572**  
**MR573**

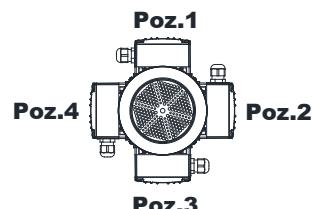


**NR572**  
**NR573**



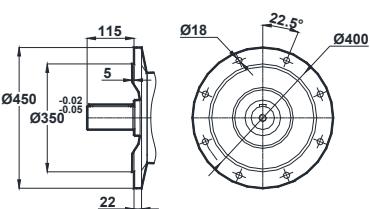
Motor Büyüklüğü / Motor Size / Motorbaugroße								
	100L	112M	132S	132M	160M	160L	180M	180L
k	753	777	863.5	863.5	959.5	959.5	1031.5	1031.5
k1	861.5	881.5	993.5	993.5	1107.5	1107.5	1190	1190
n	193	215	257	257	315	315	347	347
n1	147	158	179	179	219	219	234	234
x	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten

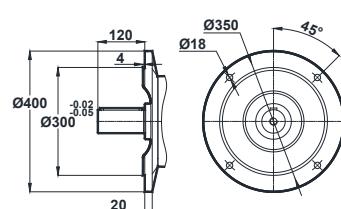


100-112-132-160-180-200

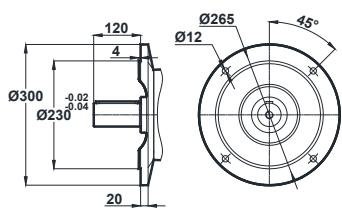
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1



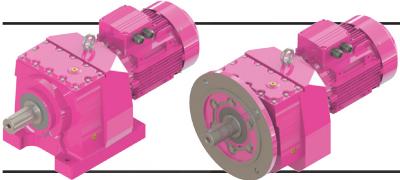
Opt. 2



Opt. 3

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

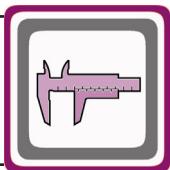
x: Motor, ayak bağlı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

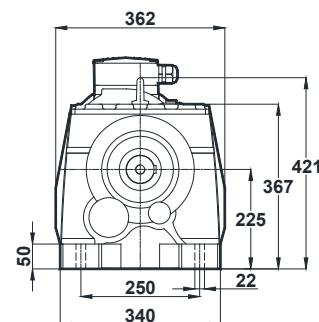
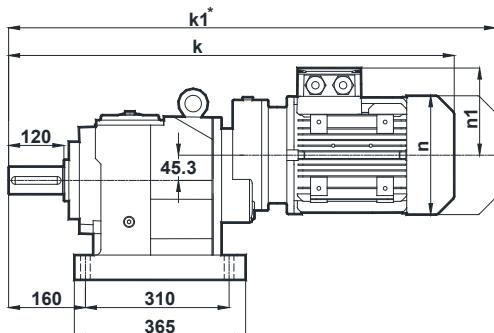
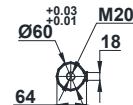
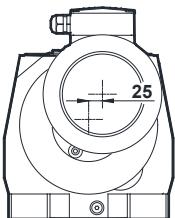
## Dimension Pages

## Abmessungsseiten

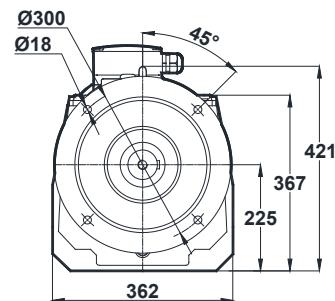
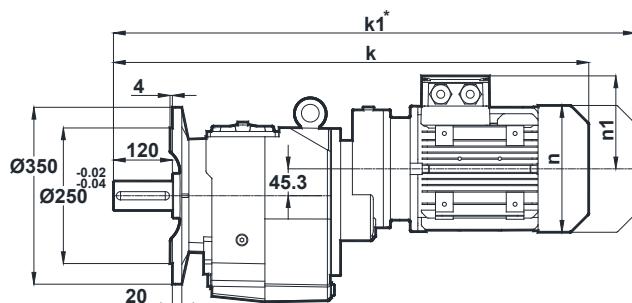
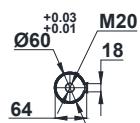
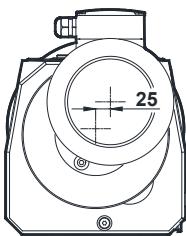


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

### MR574

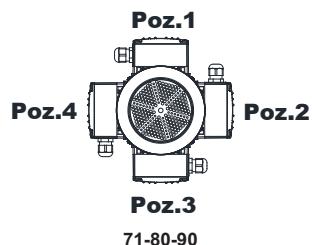


### NR574

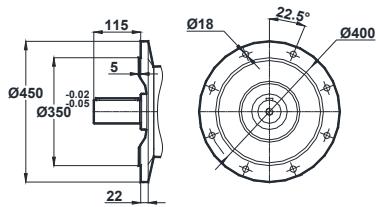


Klemens Kutusu / Terminal Box / Klemmenkasten

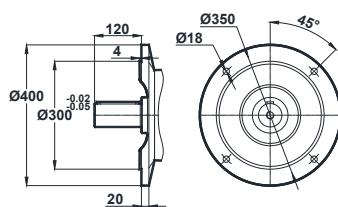
Motor Büyüklüğü / Motor Size / Motorbaugroße				
	71	80	90S	90L
k	733	767	806	806
k1	824	860	909.5	909.5
n	137	155	176	176
n1	112	121	132	132



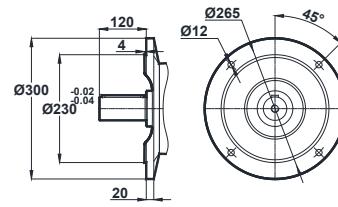
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

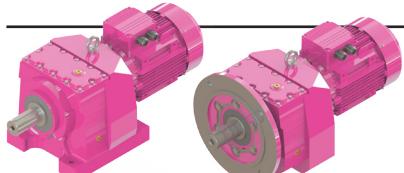


Opt. 2

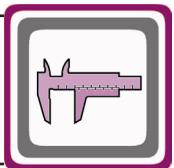


Opt. 3

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

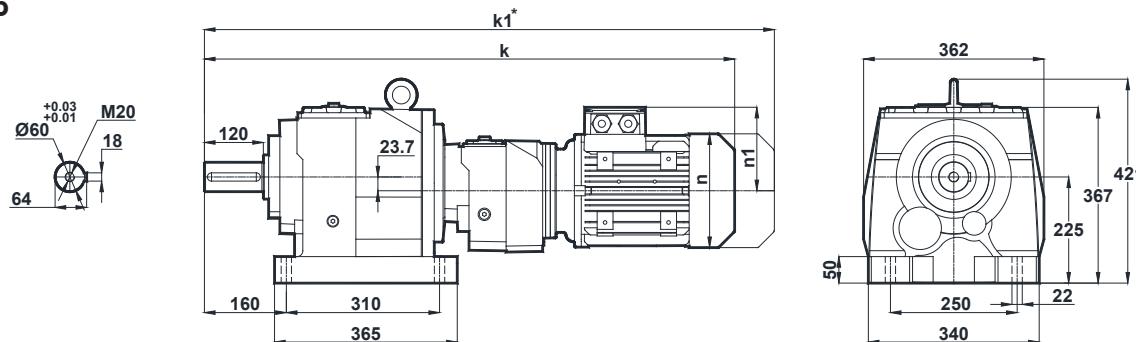


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

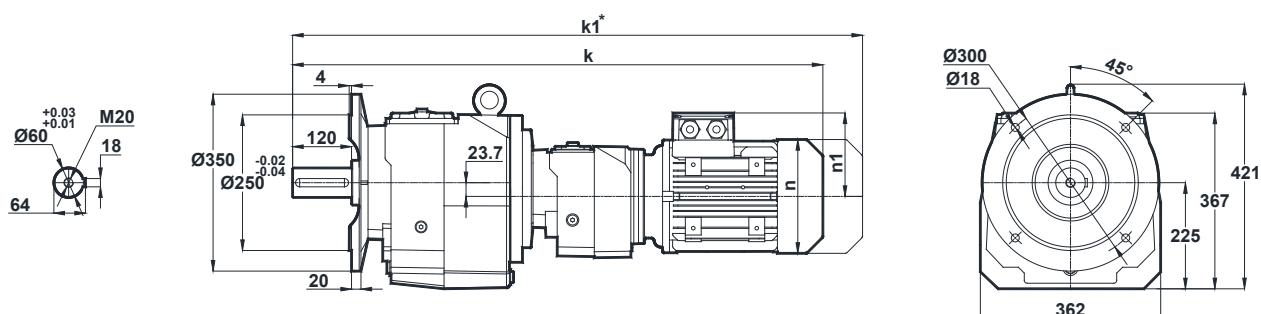


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MR575**  
**MR576**

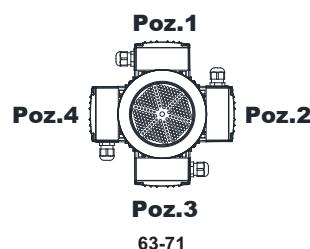


**NR575**  
**NR576**

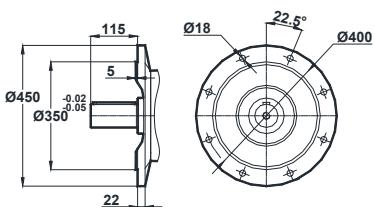


Motor Büyüklüğü / Motor Size / Motorbaugroße		
	63	71
k	838	865
k1	899	956
n	121	137
n1	97	112

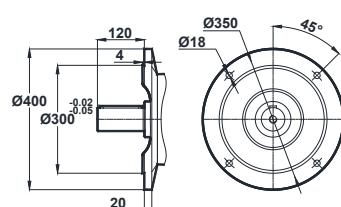
Klemens Kutusu / Terminal Box / Klemmenkasten



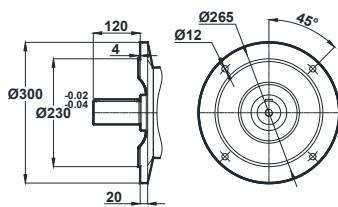
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

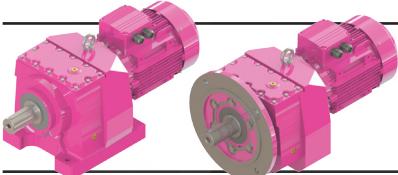


Opt. 2



Opt. 3

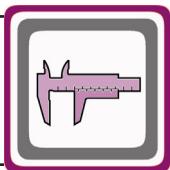
\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.



# Ölçü Sayfaları

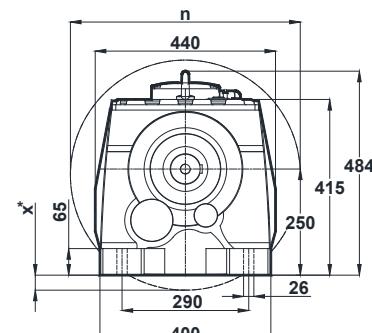
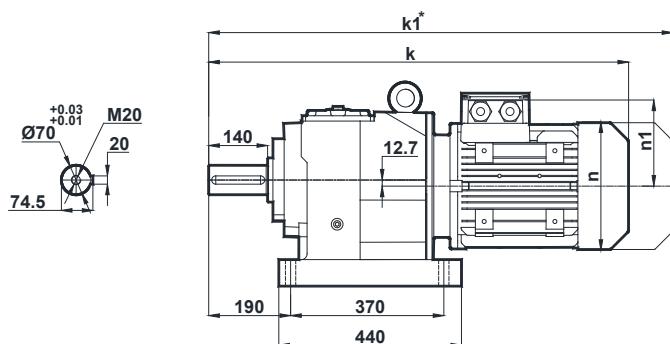
## Dimension Pages

## Abmessungsseiten

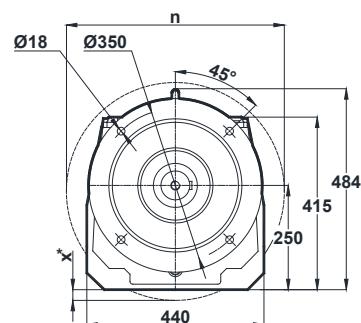
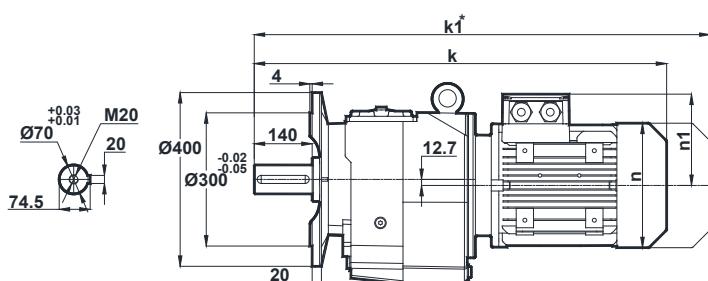


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

### MR672 MR673

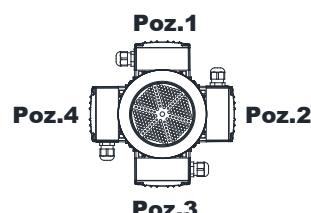


### NR672 NR673



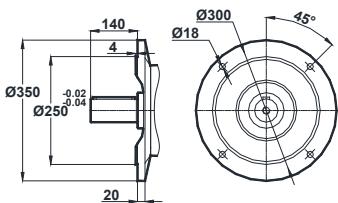
Motor Büyüklüğü / Motor Size / Motorbaugroße										
	112M	132S	132M	160M	160L	180M	180L	200L	225S	225M
k	833	919.5	919.5	1015.5	1015.5	1087.5	1087.5	1133.5	1160	1185
k1	937.5	1049.5	1049.5	1163.5	1163.5	1246	1246	1320	1325	1350
n	215	257	257	315	315	347	347	390	434	434
n1	158	179	179	219	219	234	234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

Klemens Kutusu / Terminal Box / Klemmenkasten

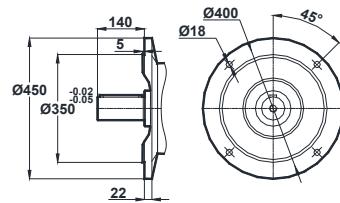


112-132-160-180-200-225

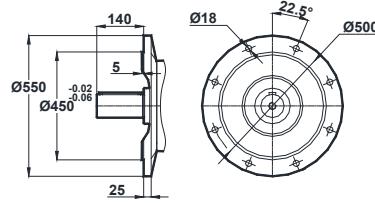
### Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



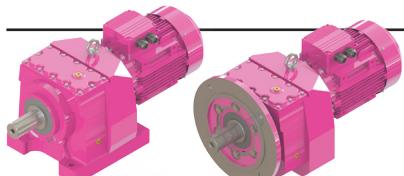
Opt. 2



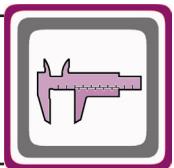
Opt. 3

\* "k1" Ölçüsü frenli reduktörlere 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

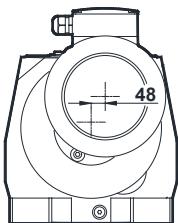


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

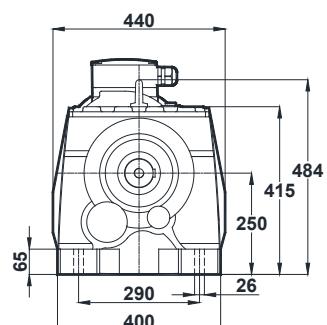
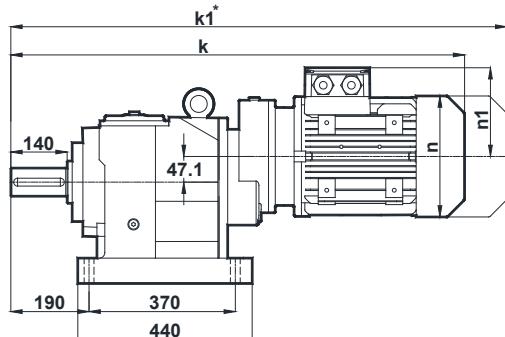


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

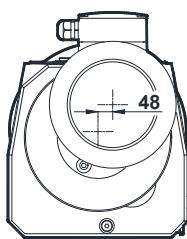
### MR674



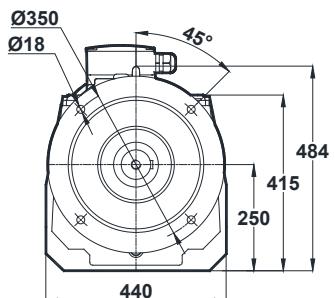
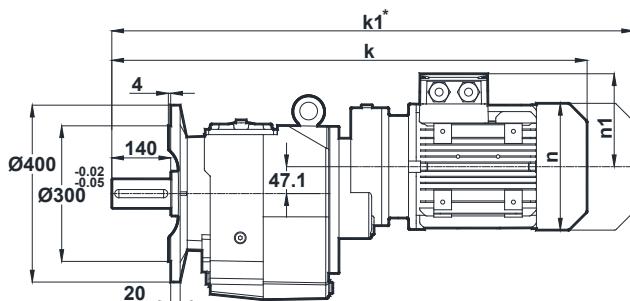
$\varnothing 70^{+0.03}_{-0.01}$   
M20  
20  
74.5



### NR674

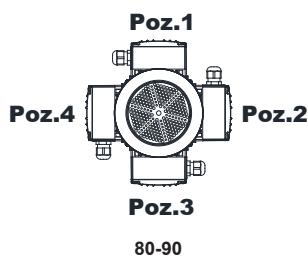


$\varnothing 70^{+0.03}_{-0.01}$   
M20  
20  
74.5

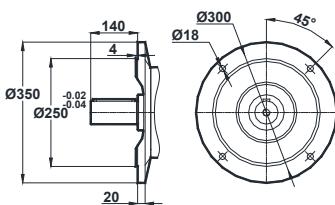


Motor Büyüklüğü / Motor Size / Motorbaugroße			
	80	90S	90L
k	841.5	880.5	880.5
k1	934.5	984	984
n	155	176	176
n1	121	132	132

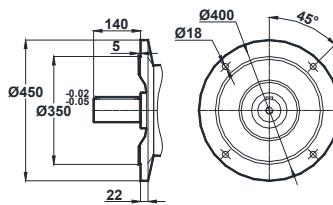
Klemens Kutusu / Terminal Box / Klemmenkasten



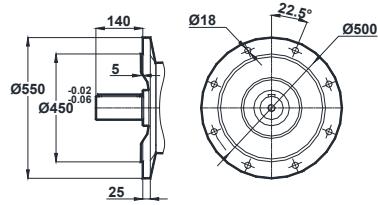
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

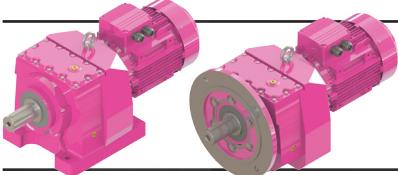


Opt. 2



Opt. 3

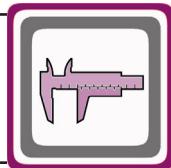
\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.



# Ölçü Sayfaları

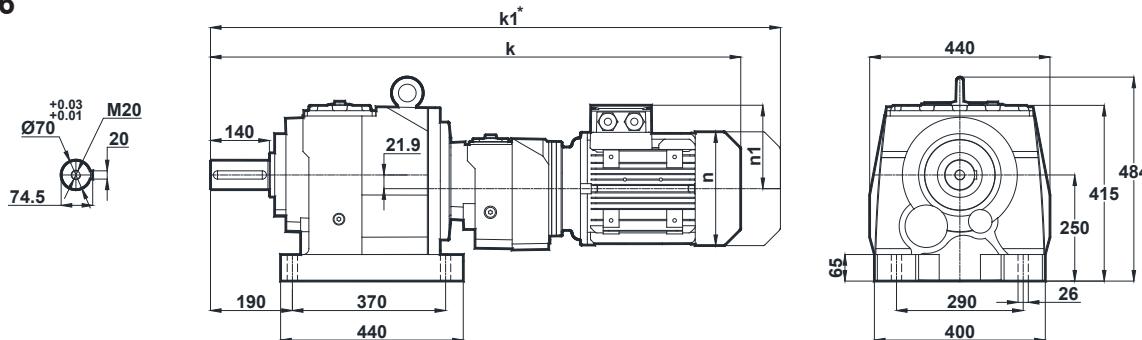
## Dimension Pages

## Abmessungsseiten

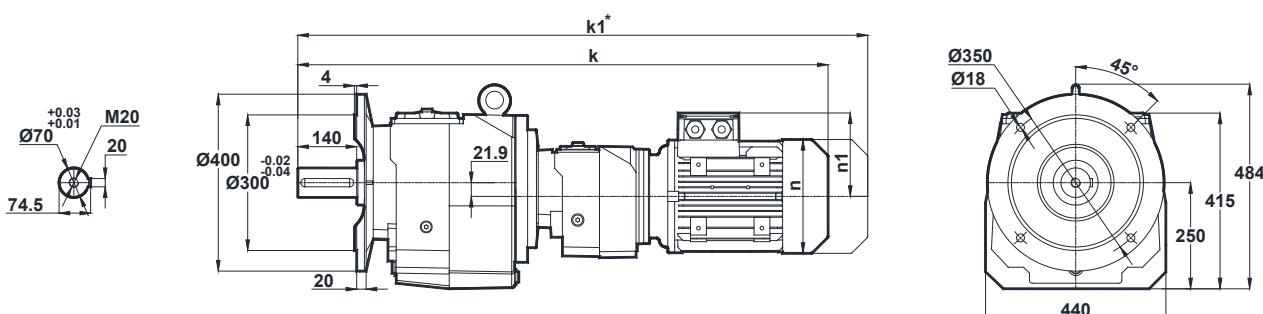


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

### MR675 MR676

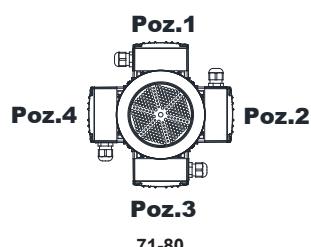


### NR675 NR676



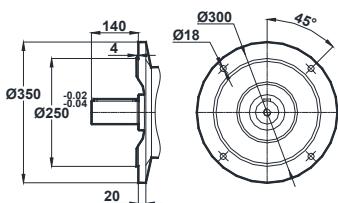
Klemens Kutusu / Terminal Box / Klemmenkasten

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

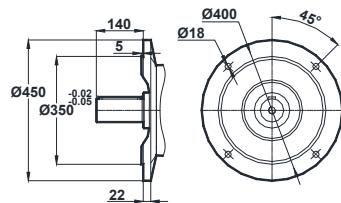


71-80

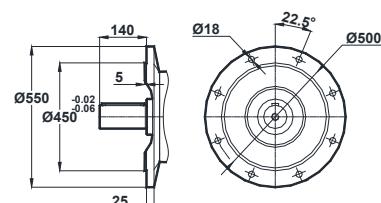
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

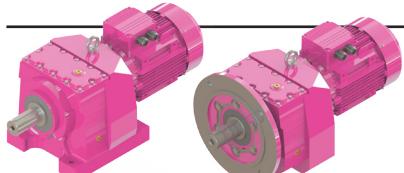


Opt. 2

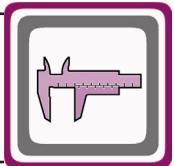


Opt. 3

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

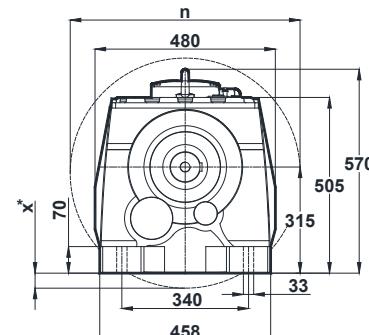
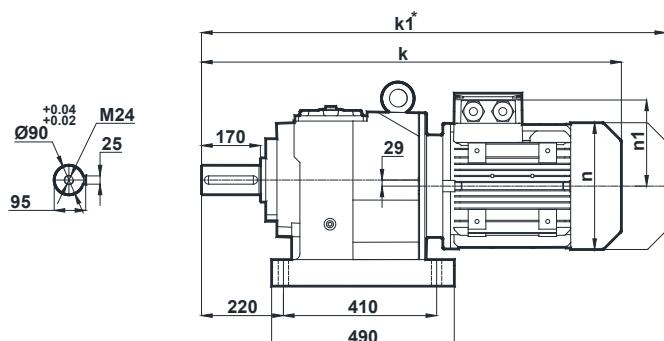


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

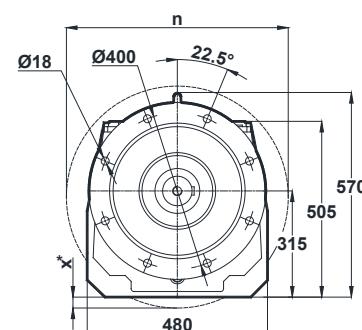
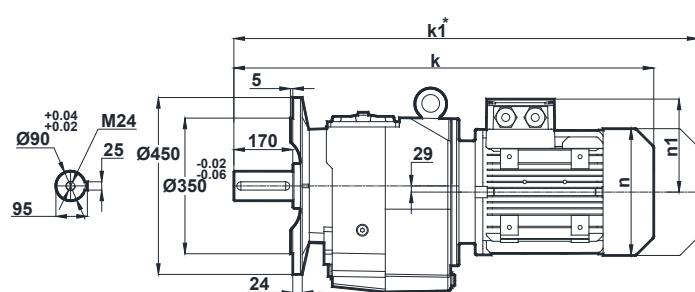


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MR772**  
**MR773**

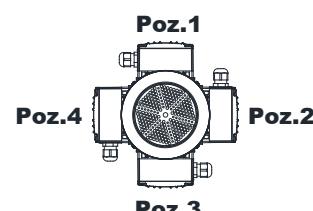


**NR772**  
**NR773**



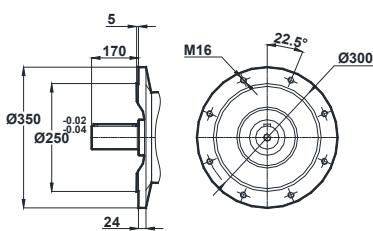
Motor Büyüklüğü / Motor Size / Motorbaugroße										
	132S	132M	160M	160L	180M	180L	200L	225S	225M	250M
k	1000.5	1000.5	1096.5	1096.5	1168.5	1168.5	1214.5	1241.5	1266.5	1358.5
k1	1130.5	1130.5	1244.5	1244.5	1327	1327	1401	1406.5	1431.5	1529
n	257	257	315	315	347	347	390	434	434	480
n1	179	179	219	219	234	234	275	285	285	322
x	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten

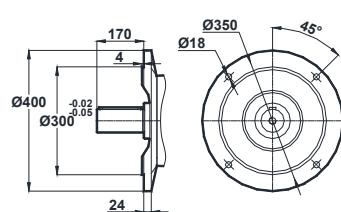


132-160-180-200-225-250

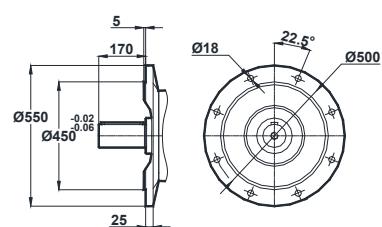
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1



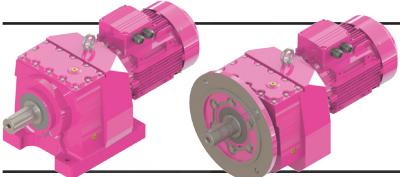
Opt. 2



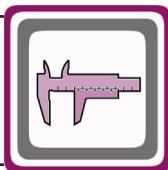
Opt. 3

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

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

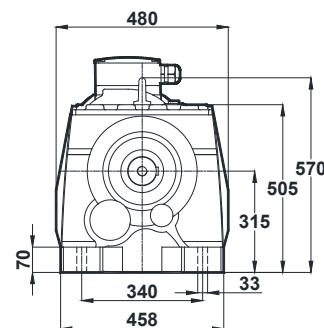
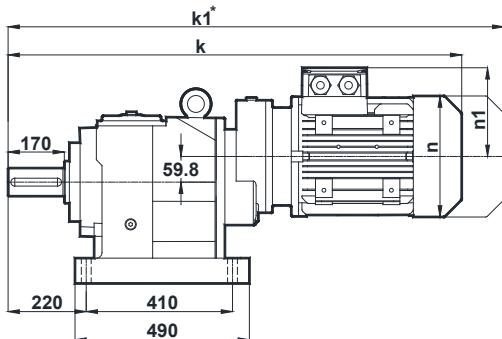
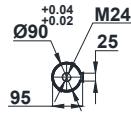
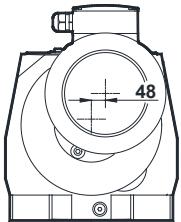


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

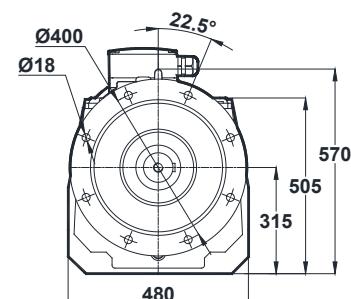
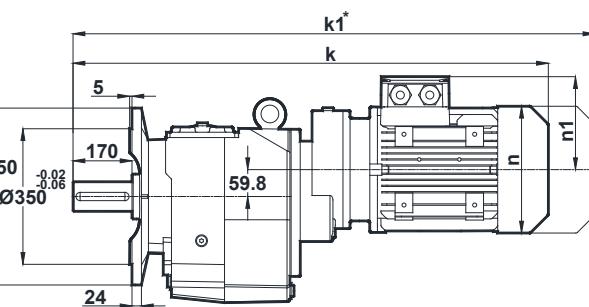
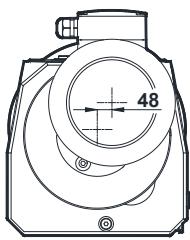


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MR774

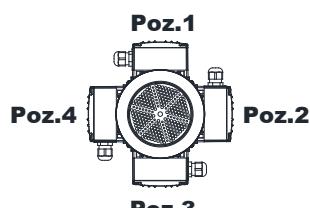


## NR774



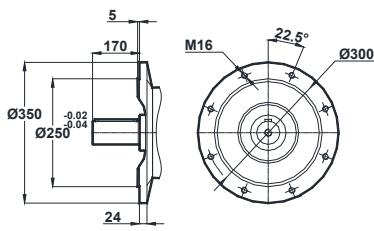
Klemens Kutusu / Terminal Box / Klemmenkasten

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

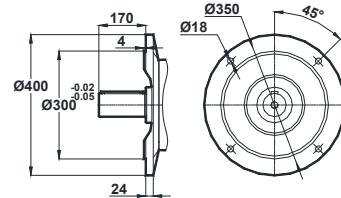


80-90-100

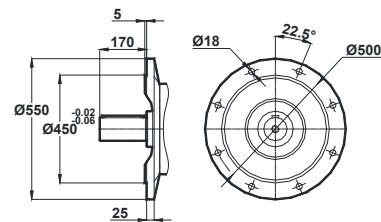
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

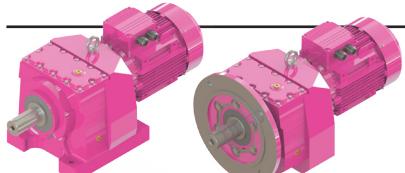


Opt. 2

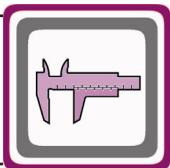


Opt. 3

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

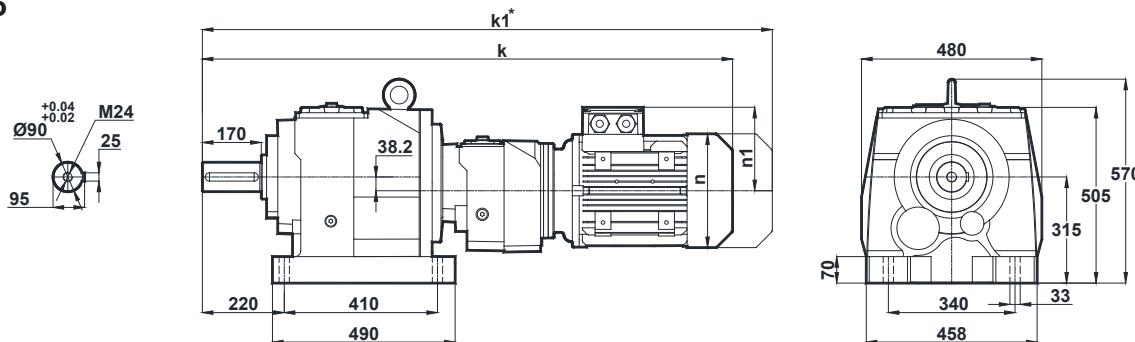


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

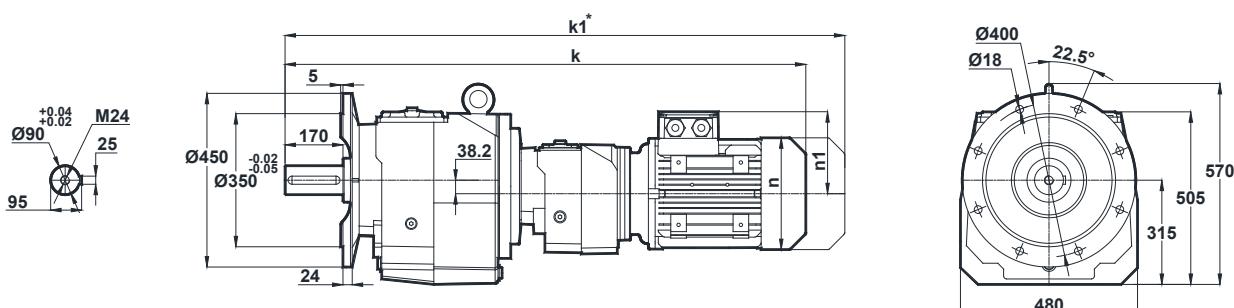


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MR775**  
**MR776**

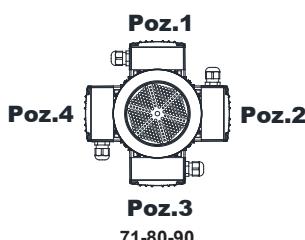


**NR775**  
**NR776**



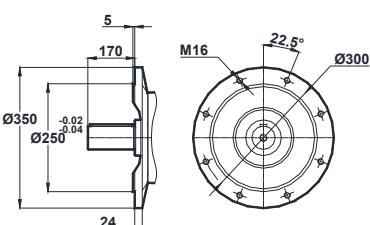
Motor Büyüklüğü / Motor Size / Motorbaugroße				
	71	80	90S	90L
k	1041.5	1075.5	1114.5	1114.5
k1	1132.5	1168.5	1218	1218
n	137	155	176	176
n1	112	121	132	132

Klemens Kutusu / Terminal Box / Klemmenkasten

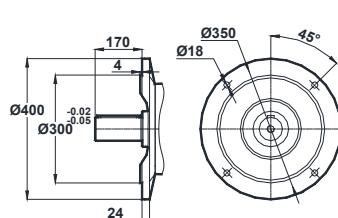


71-80-90

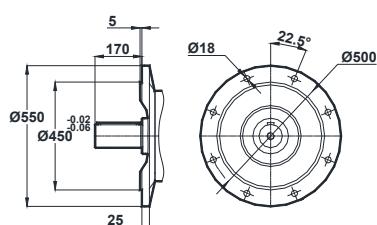
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

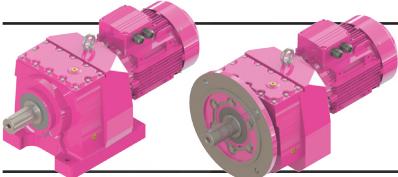


Opt. 2



Opt. 3

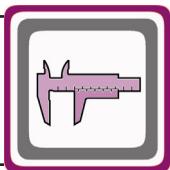
\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.



# Ölçü Sayfaları

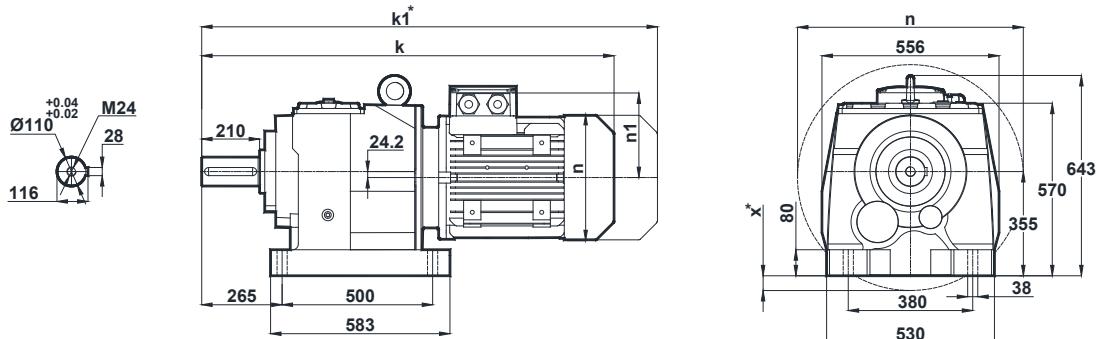
## Dimension Pages

## Abmessungsseiten

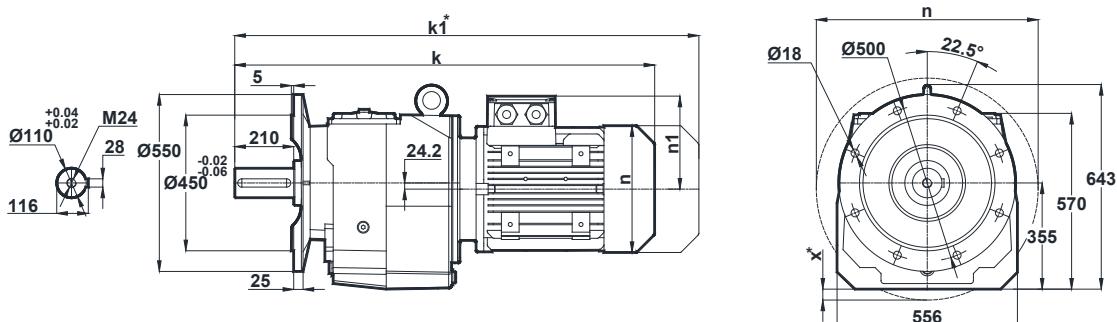


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

### MR872 MR873

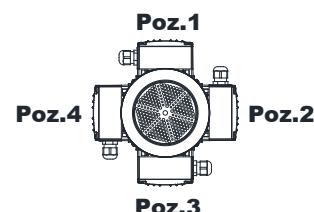


### NR872 NR873



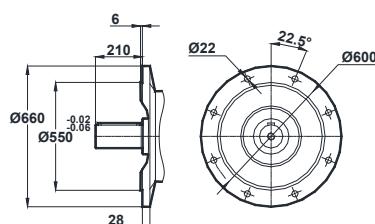
Motor Büyüklüğü / Motor Size / Motorbaugroße											
	132M	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M
k	1109.5	1205.5	1205.5	1277.5	1277.5	1323.5	1353	1378	1468.5	1530.5	1530.5
k1	1239.5	1353.5	1353.5	1436	1436	1510	1518	1543	1639	1703.5	1709.5
n	257	315	315	347	347	390	434	434	480	544	544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

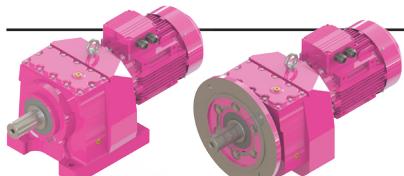
### Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



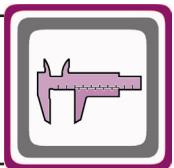
Opt. 1

\* "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

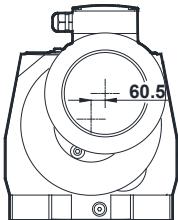


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

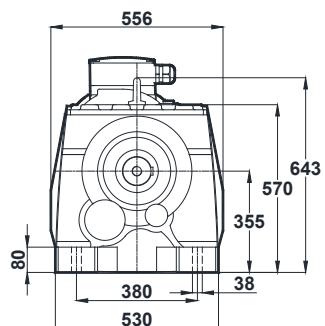
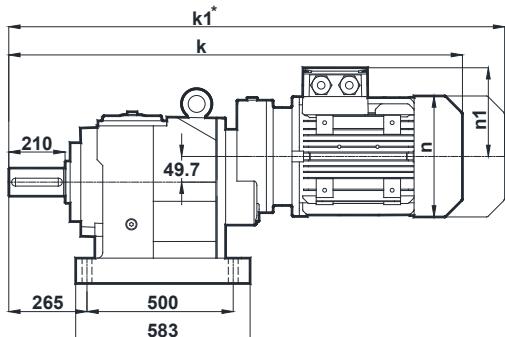


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

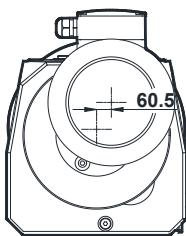
### MR874



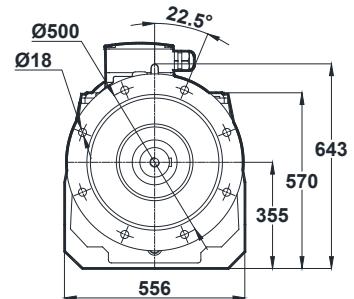
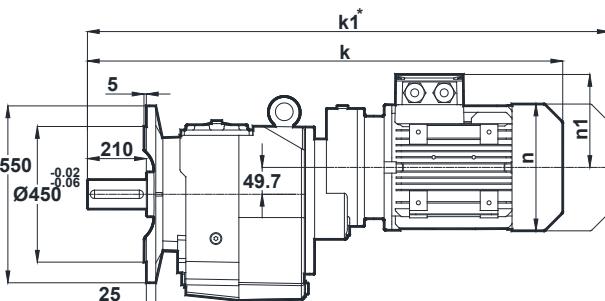
$\varnothing 110^{+0.04}_{-0.02}$   
M24  
28  
116



### NR874

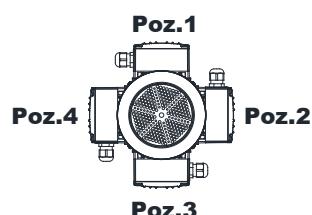


$\varnothing 110^{+0.04}_{-0.02}$   
M24  
28  
116



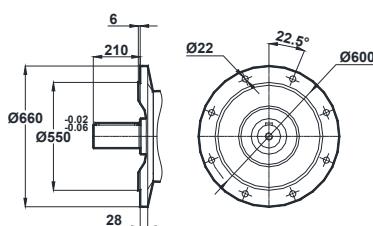
Klemens Kutusu / Terminal Box / Klemmenkasten

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



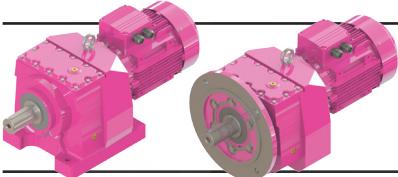
100-112-132

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

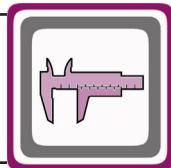
\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.



# Ölçü Sayfaları

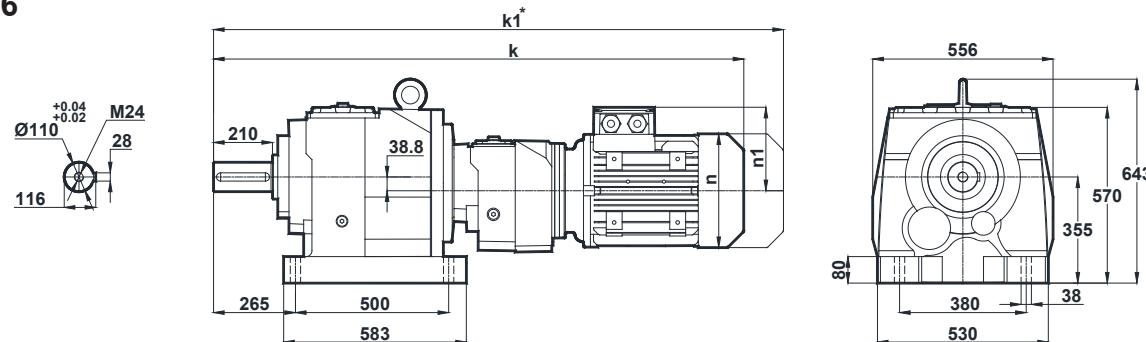
## Dimension Pages

## Abmessungsseiten

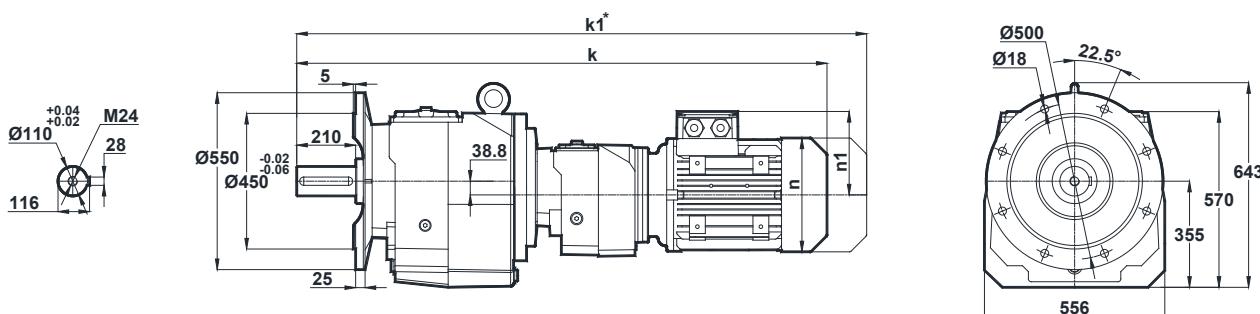


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

### MR875 MR876

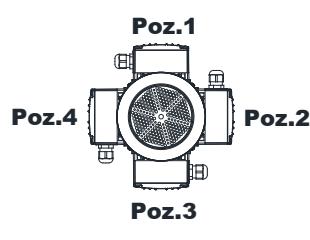


### NR875 NR876



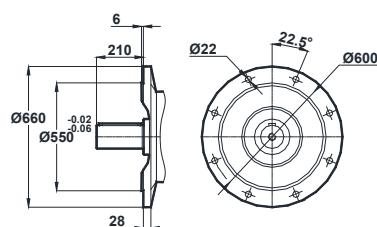
Klemens Kutusu / Terminal Box / Klemmenkasten

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



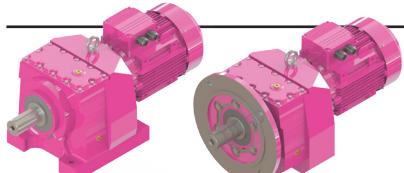
71-80-90-100

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

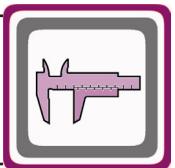


Opt. 1

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

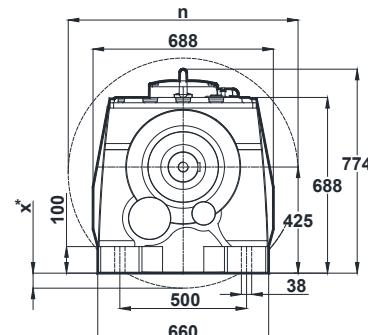
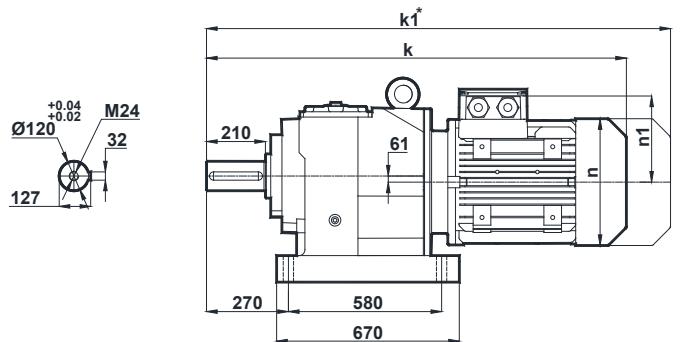


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*

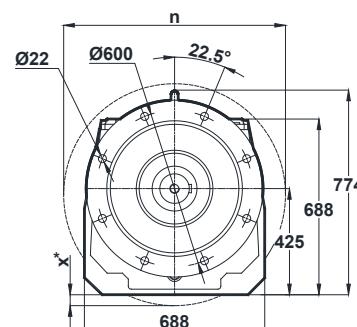
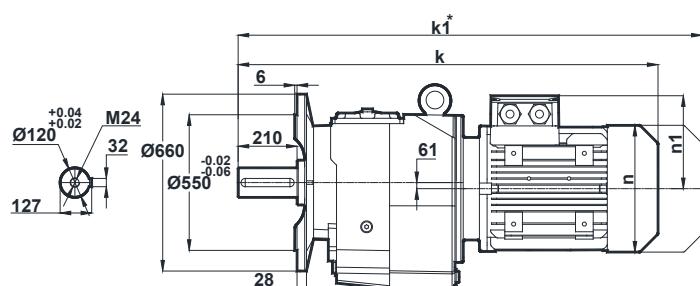


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MR972**  
**MR973**

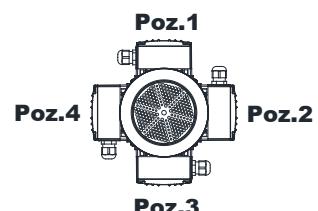


**NR972**  
**NR973**



Motor Büyüklüğü / Motor Size / Motorbaugroße												
	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	-	-	-	-	-	-	-	-	-	-	-	-

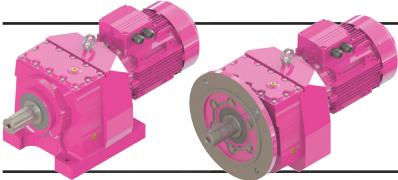
Klemens Kutusu / Terminal Box / Klemmenkasten



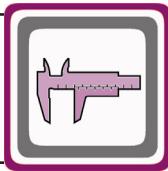
160-180-200-225-250-280-315

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

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

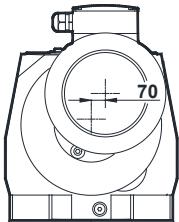


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

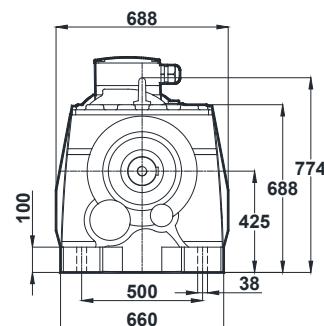
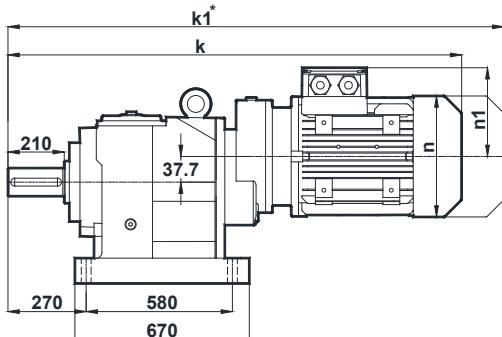


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

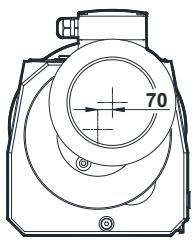
## MR974



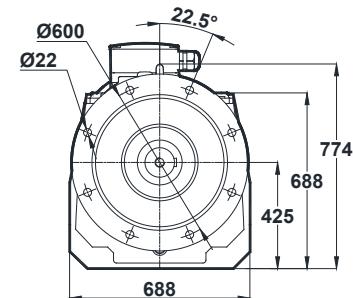
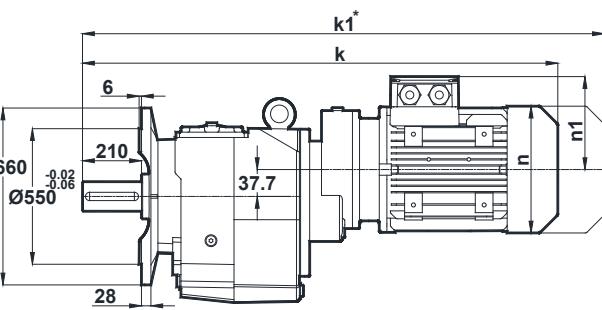
$\varnothing 120^{+0.04}_{-0.02}$   
M24  
32  
127



## NR974

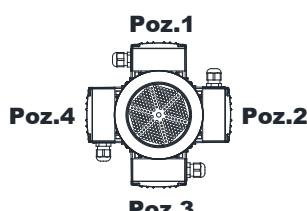


$\varnothing 120^{+0.04}_{-0.02}$   
M24  
32  
127



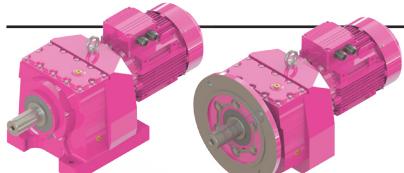
Klemens Kutusu / Terminal Box / Klemmenkasten

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

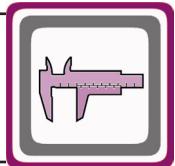


100-112-132

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

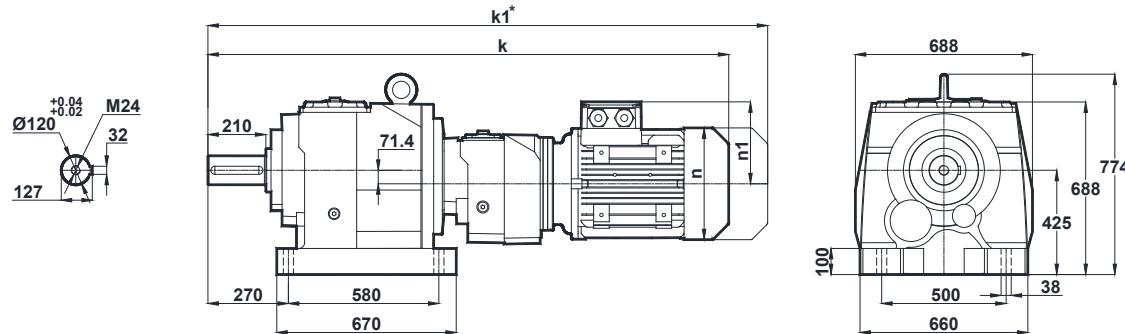


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*

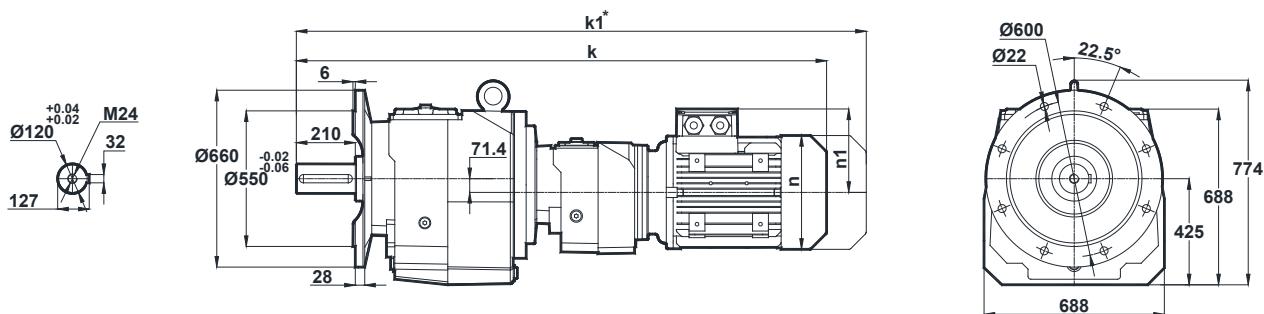


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MR975**  
**MR976**

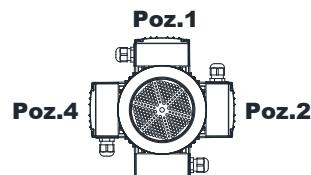


**NR975**  
**NR976**



Klemens Kutusu / Terminal Box / Klemmenkasten

Motor Büyüklüğü / Motor Size / Motorbaugroße						
	80	90S	90L	100L	112M	132S
k	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



80-90-100-112-132

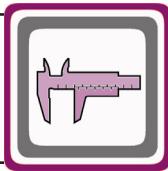
\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.



# Ölçü Sayfaları

## Dimension Pages

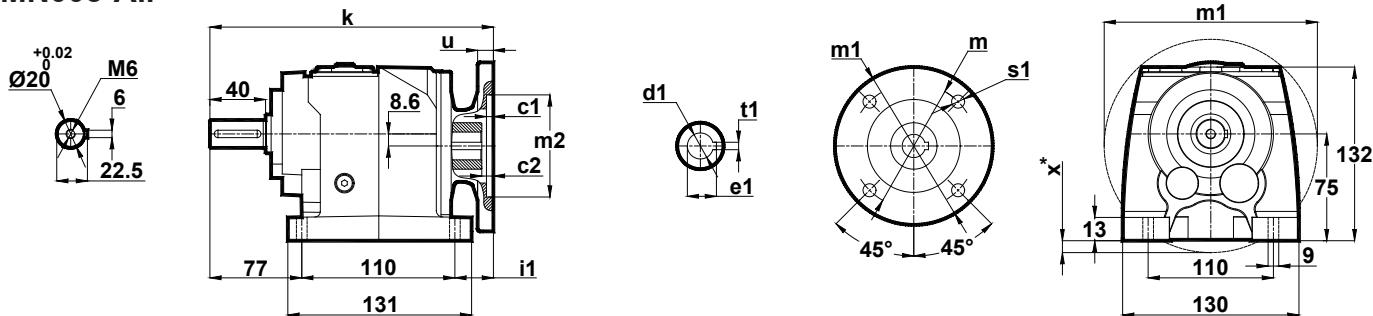
## Abmessungsseiten



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

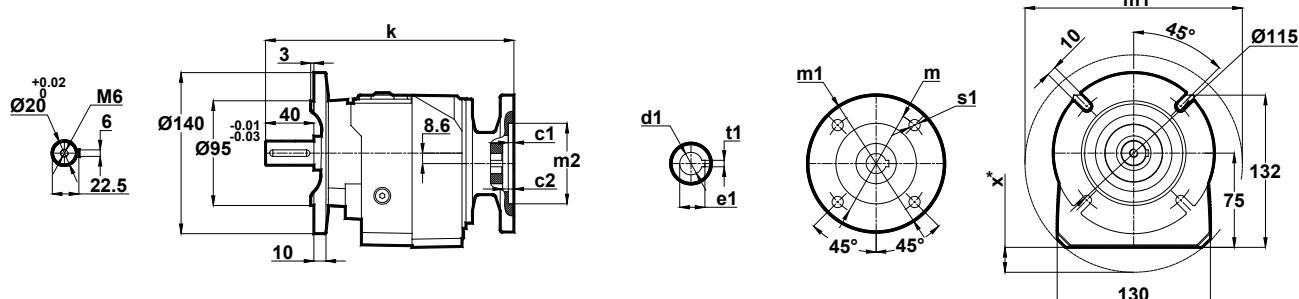
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**MN003-A..**



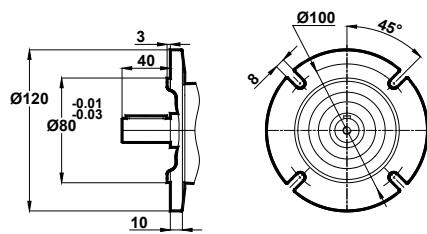
**NN002-A..**

**NN003-A..**

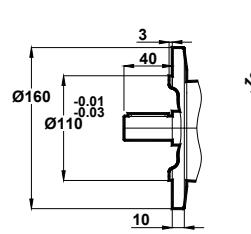


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	3.5	5	10	115	140	95	28	10	214	11	4	12.8	4
71/B5	4	4.5	11	130	160	110	29.5	12	215.5	14	5	16.3	14
80/B5	4	5	12	165	200	130	44.5	12	230.5	19	6	21.8	34
90/B5	4	5	12	165	200	130	44.5	12	230.5	24	8	27.3	34

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

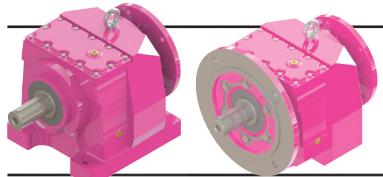


Opt. 1



Opt. 2

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

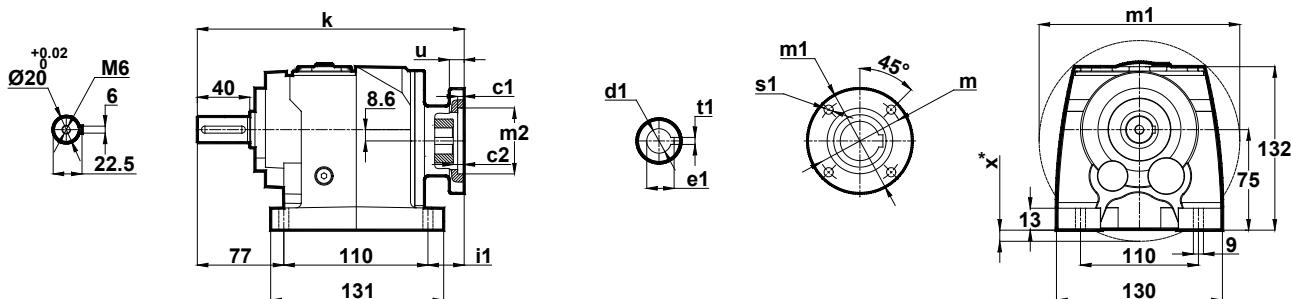


**Ölçü Sayfaları**  
*Dimension Pages*  
**Abmessungsseiten**

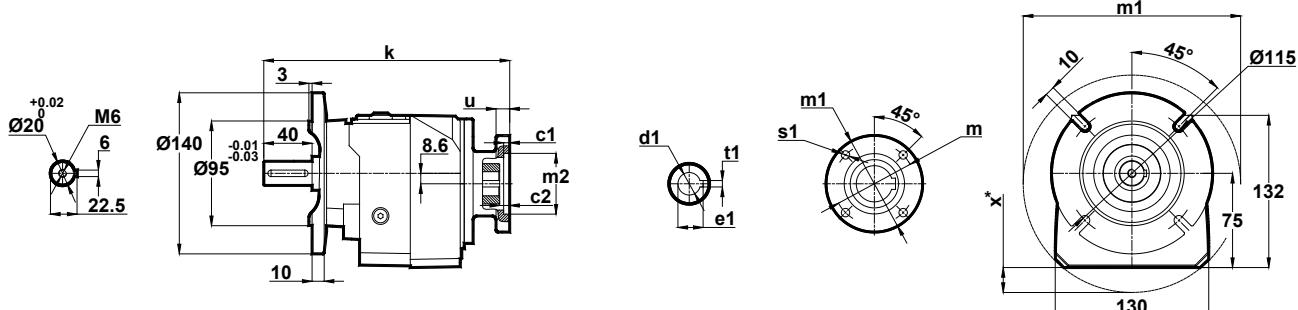


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

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

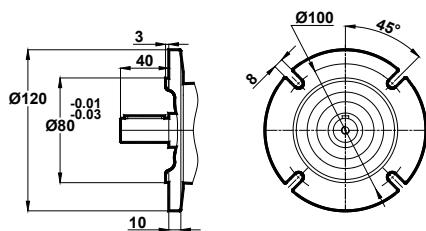


**NN002-B..**  
**NN003-B..**

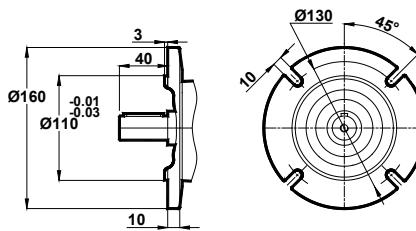


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B14	2.5	5	5.5	75	90	60	28	10	214	11	4	12.8	-
71/B14	3	4.5	7	85	105	70	29.5	10	215.5	14	5	16.3	-
80/B14	4	5	7	100	120	80	44.5	12	230.5	19	6	21.8	-
90/B14	4	5	9	115	140	95	44.5	12	230.5	24	8	27.3	4

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



Opt. 1



Opt. 2

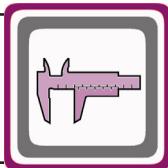
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

## Dimension Pages

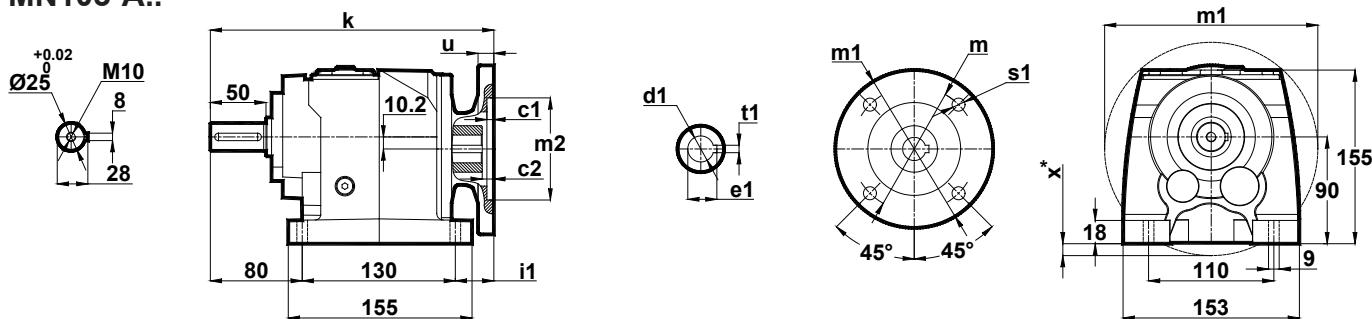
## Abmessungsseiten



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

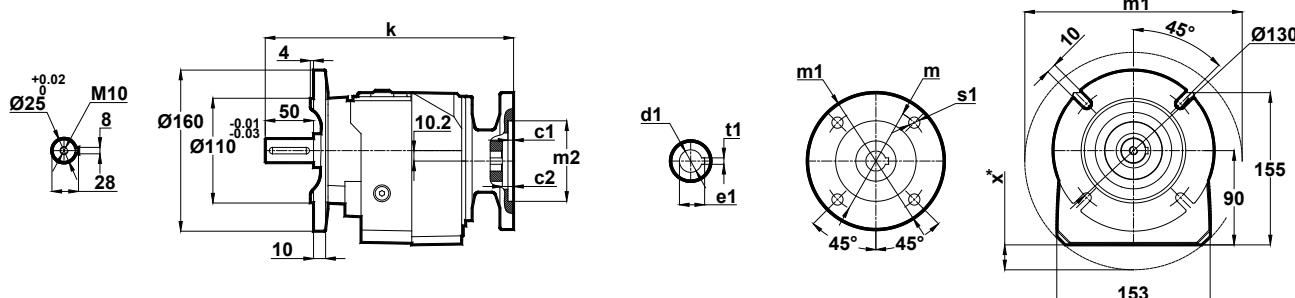
**MN102-A..**

**MN103-A..**



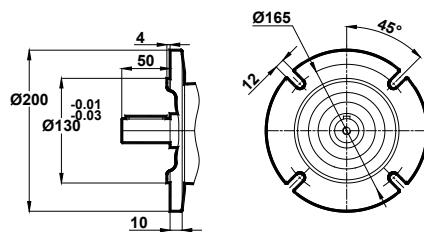
**NN102-A..**

**NN103-A..**



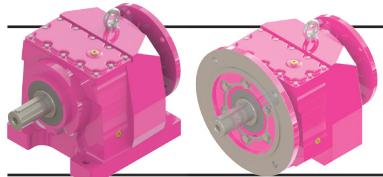
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	3.5	5	10	115	140	95	28.5	12	241	11	4	12.8	-
71/B5	4	4.5	12	130	160	110	28.5	12	242.5	14	5	16.3	0.5
80/B5	4	5	12	165	200	130	43.5	12	257.5	19	6	21.8	20
90/B5	4	5	12	165	200	130	43.5	12	257.5	24	8	27.3	20

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

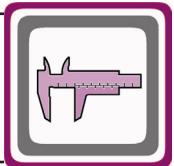


**Opt. 1**

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

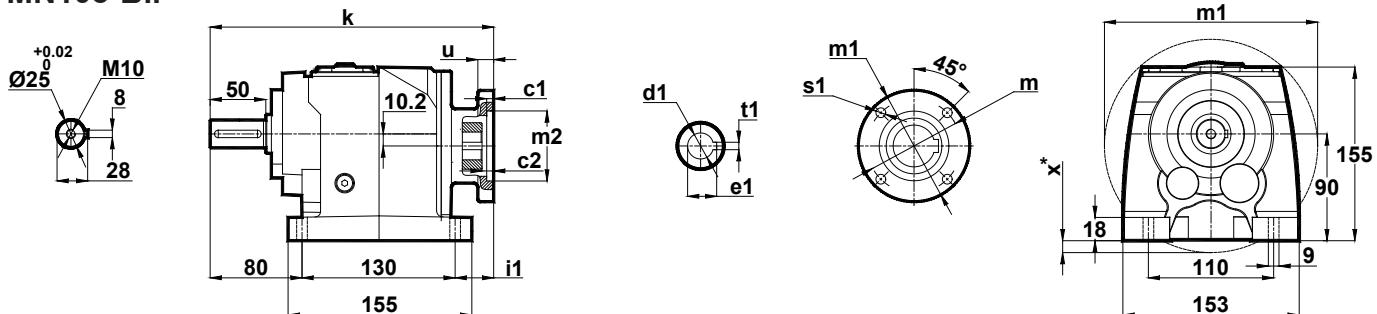


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*

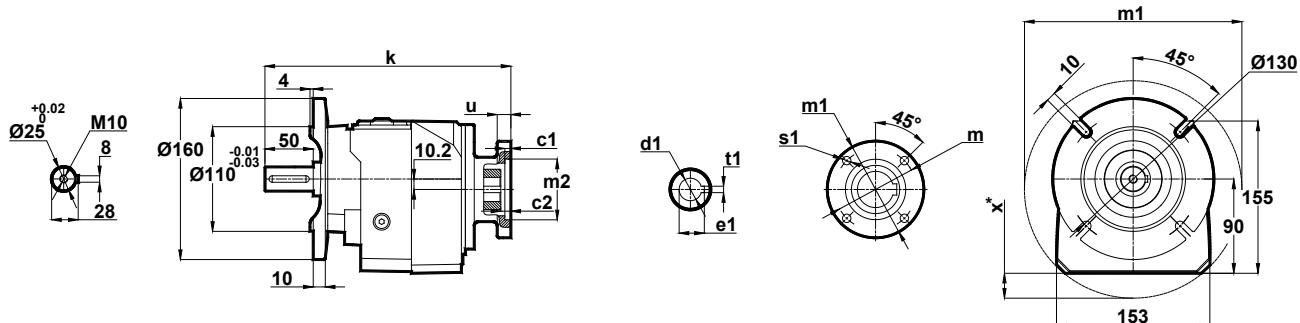


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN102-B..**  
**MN103-B..**

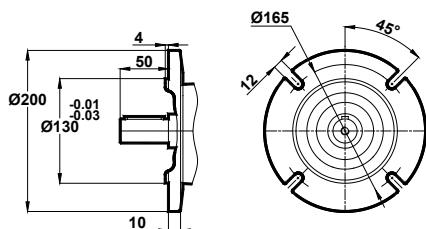


**NN102-B..**  
**NN103-B..**



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**

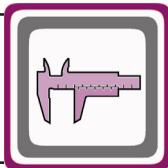


**Opt. 1**

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

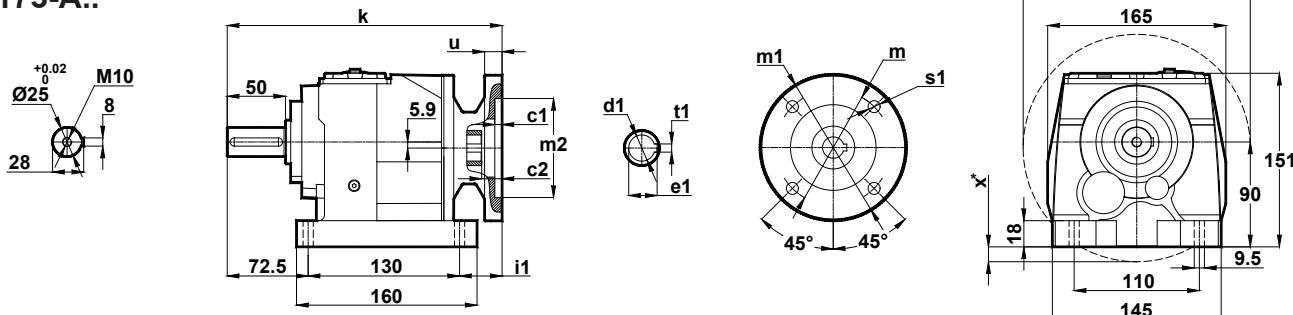


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

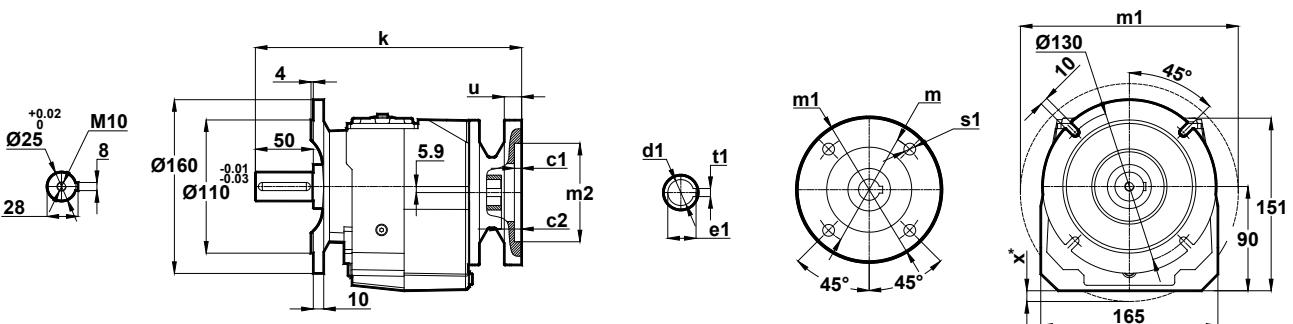


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN172-A..  
MN173-A..**

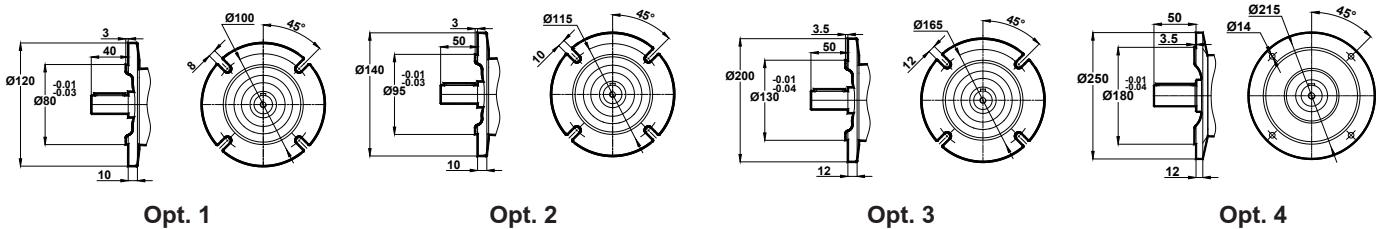


**NN172-A..  
NN173-A..**

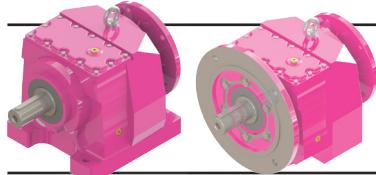


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	3.5	5	10	115	140	95	38.5	10	241	11	4	12.8	-
71/B5	4	4.5	11	130	160	110	40	12	242.5	14	5	16.3	-
80/B5	4	5	12	165	200	130	55	12	257.5	19	6	21.8	16
90/B5	4	5	12	165	200	130	55	12	257.5	24	8	27.3	16
100/B5	4.5	5	15	215	250	180	66	12	268.5	28	8	31.3	41
112/B5	4.5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

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



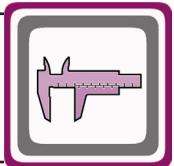
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

## Dimension Pages

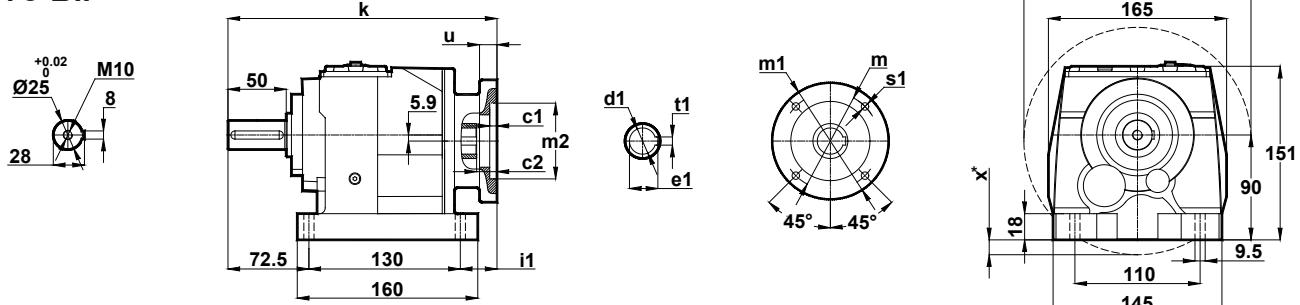
### Abmessungsseiten



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

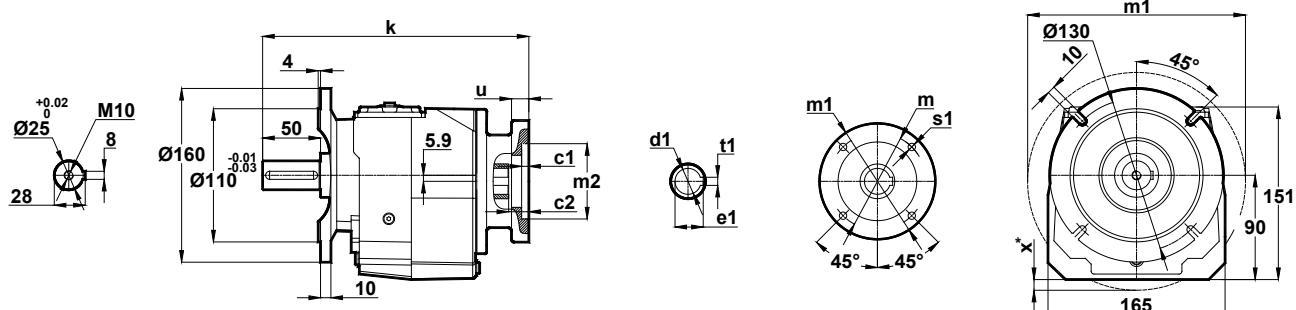
**MN172-B..**

**MN173-B..**



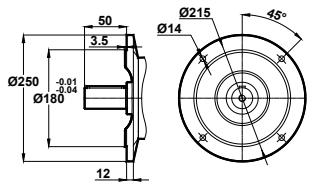
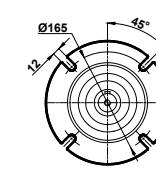
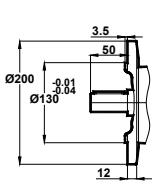
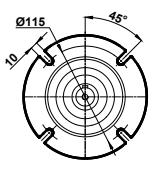
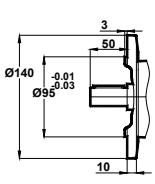
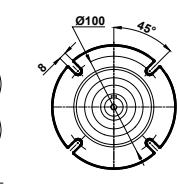
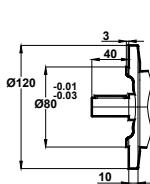
**NN172-B..**

**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**



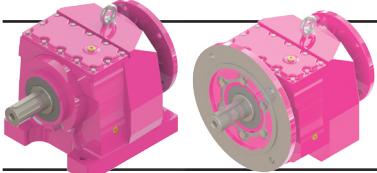
Opt. 1

Opt. 2

Opt. 3

Opt. 4

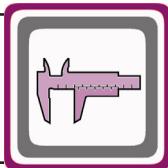
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

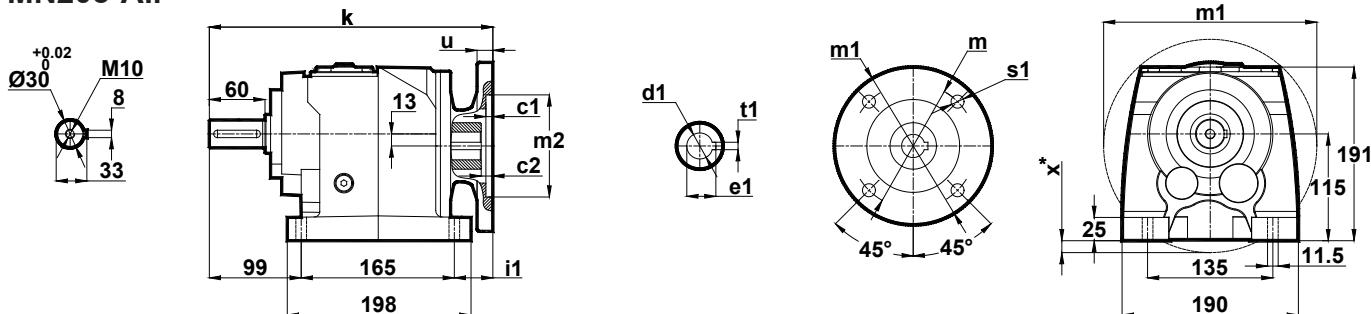
## Dimension Pages

## Abmessungsseiten

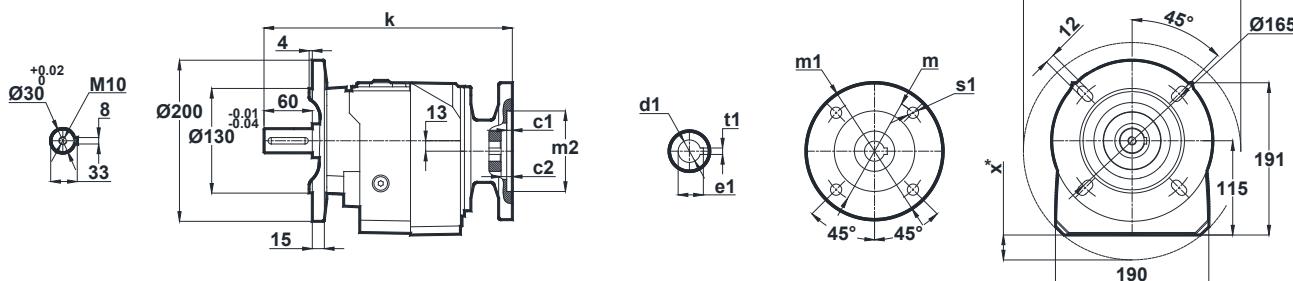


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN202-A..**  
**MN203-A..**

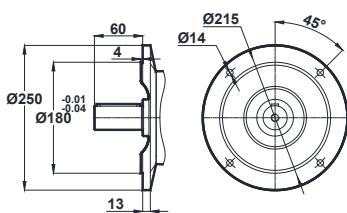


**NN202-A..**  
**NN203-A..**

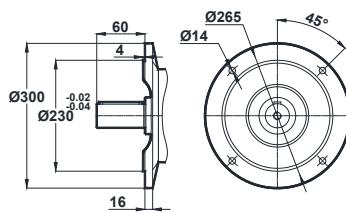


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	4	5	9	115	140	95	58.5	12	322.5	11	4	12.8	-
71/B5	4	8.5	11	130	160	110	29.5	12	293.5	14	5	16.3	-
80/B5	4	5	12	165	200	130	58.5	12	322.5	19	6	21.8	-
90/B5	4	5	12	165	200	130	58.5	12	322.5	24	8	27.3	-
100/B5	4.5	5.5	15	215	250	180	51.5	12	315.5	28	8	31.3	23
112/B5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

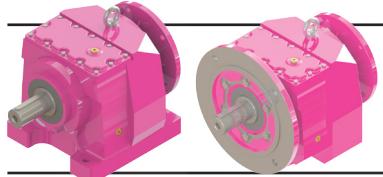


Opt. 1

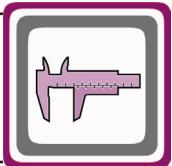


Opt. 2

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

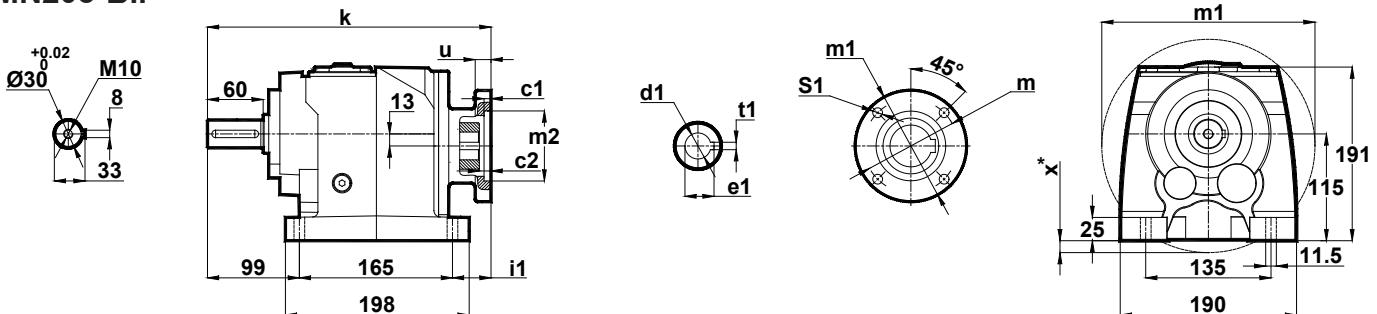


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*

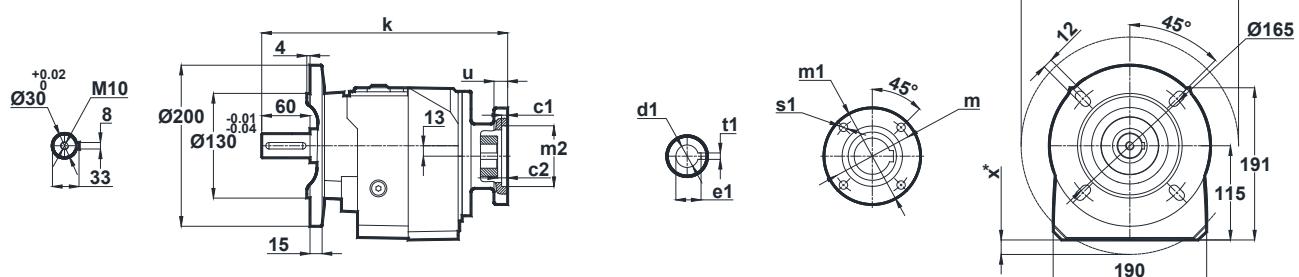


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN202-B..**  
**MN203-B..**

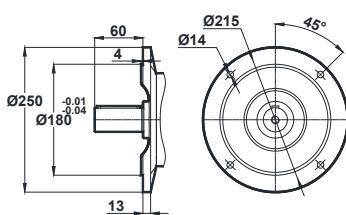


**NN202-B..**  
**NN203-B..**

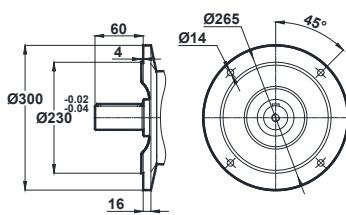


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B14	3	8.5	7	85	105	70	29.5	10	293.5	14	5	16.3	-
80/B14	4	5	7	100	120	80	58.5	12	322.5	19	6	21.8	-
90/B14	4	5	9	115	140	95	58.5	12	322.5	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	51.5	12	315.5	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	51.5	12	315.5	28	8	31.3	-

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

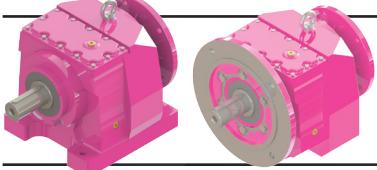


**Opt. 1**



**Opt. 2**

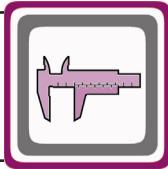
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

## Dimension Pages

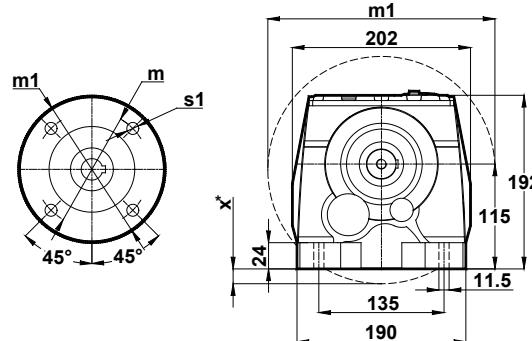
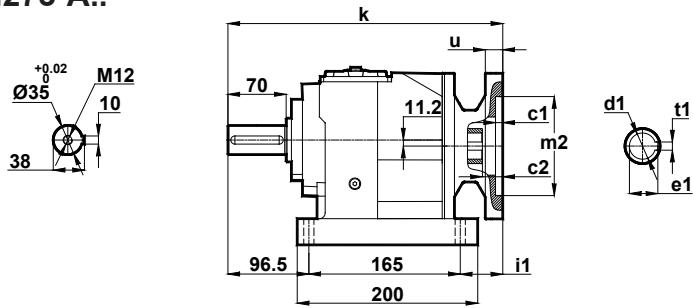
## Abmessungsseiten



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

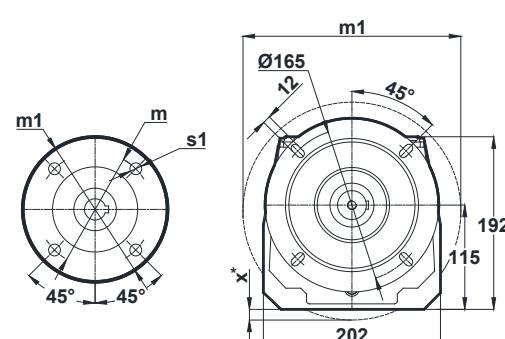
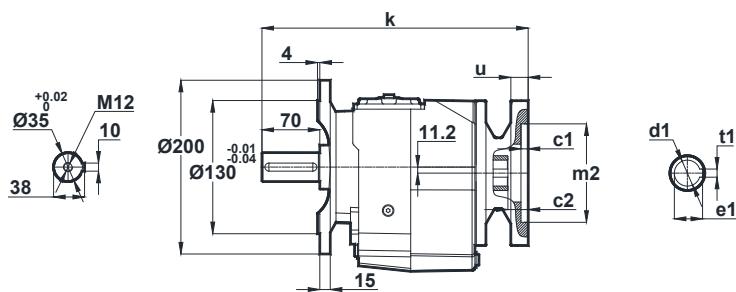
**MN272-A..**

**MN273-A..**



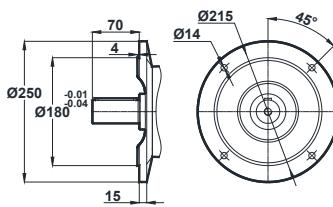
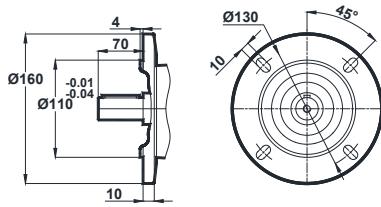
**NN272-A..**

**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

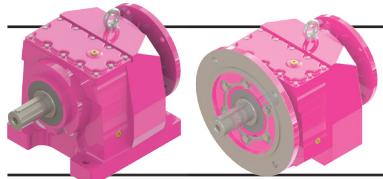
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



**Opt. 1**

**Opt. 2**

x: Motor, 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

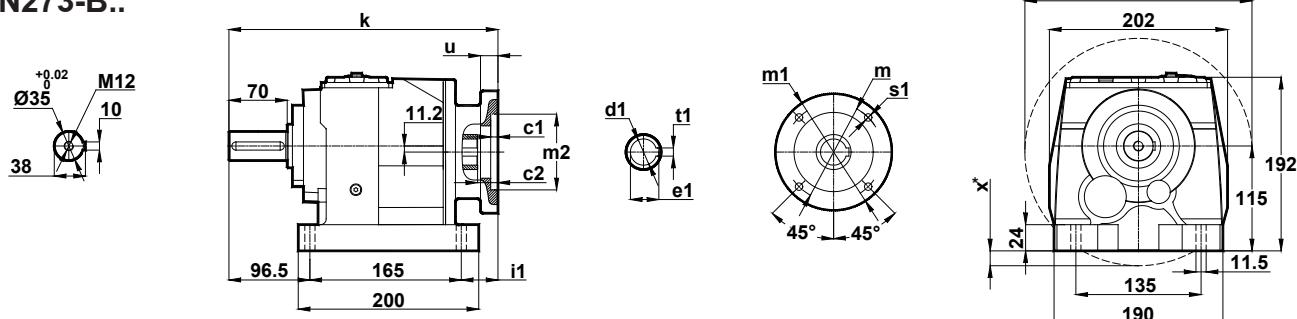
## Abmessungsseiten



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

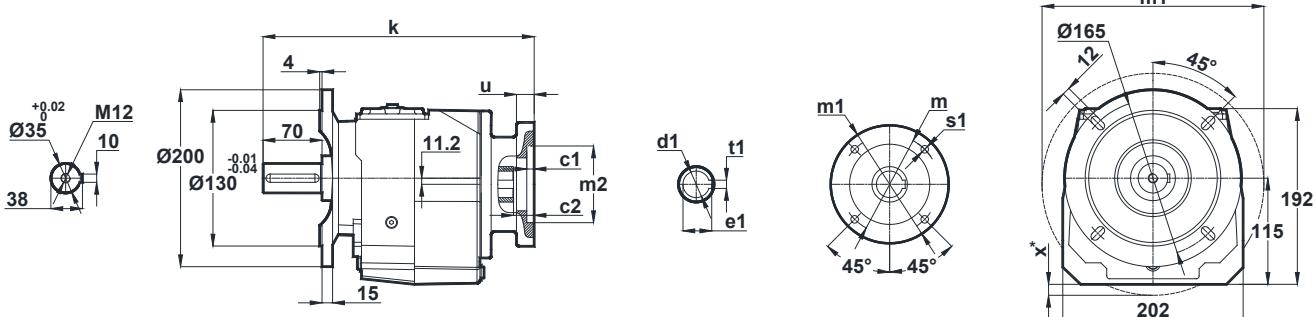
**MN272-B..**

**MN273-B..**



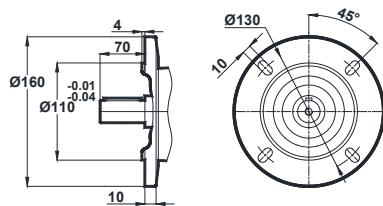
**NN272-B..**

**NN273-B..**

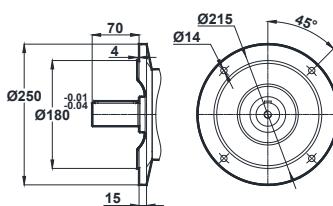


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B14	3	8.5	7	85	105	70	33	10	294.5	14	5	16.3	-
80/B14	4	5	7	100	120	80	62	12	323.5	19	6	21.8	-
90/B14	4	5	9	115	140	95	62	12	323.5	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	55	12	316.5	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	55	12	316.5	28	8	31.3	-
132/B14	4.5	6	11	165	200	130	92	15	363.5	35	10	41.3	-

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

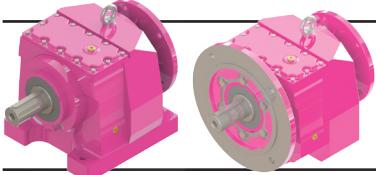


Opt. 1



Opt. 2

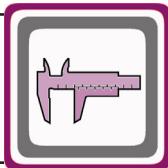
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

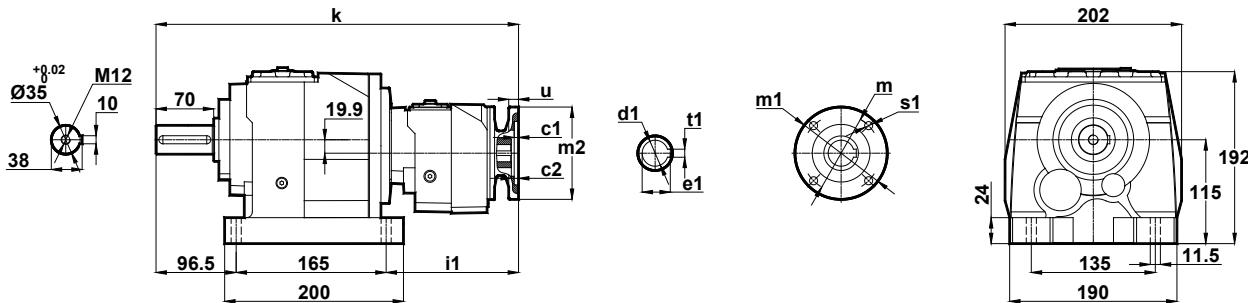
## *Dimension Pages*

### Abmessungsseiten

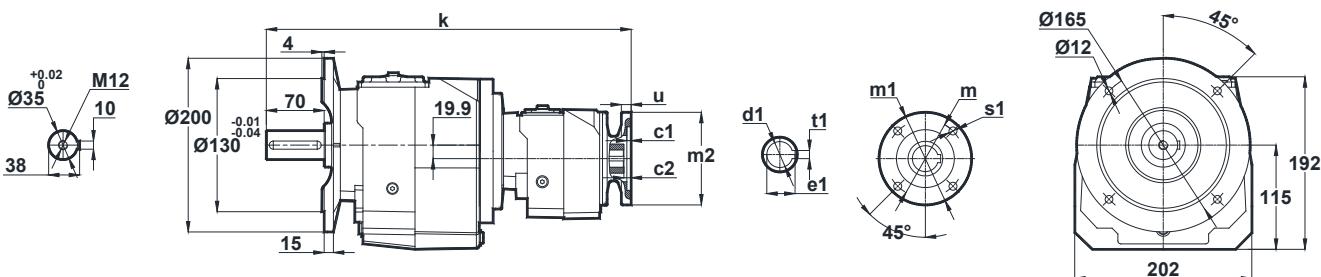


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

MN275-A..  
MN276-A..

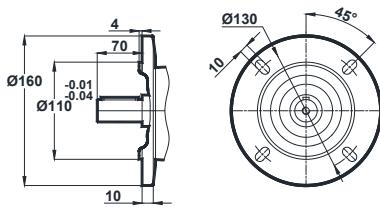


NN275-A..  
NN276-A..

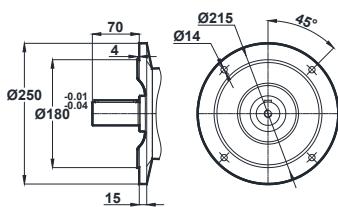


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	177.5	10	439	11	4	12.8
71/B5	4	4.5	11	130	160	110	179	12	440.5	14	5	16.3

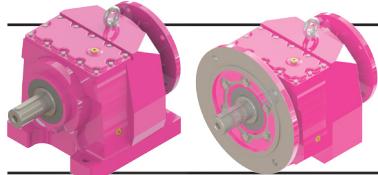
#### **Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



**Opt. 1**



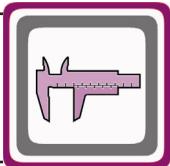
Opt. 2



# Ölçü Sayfaları

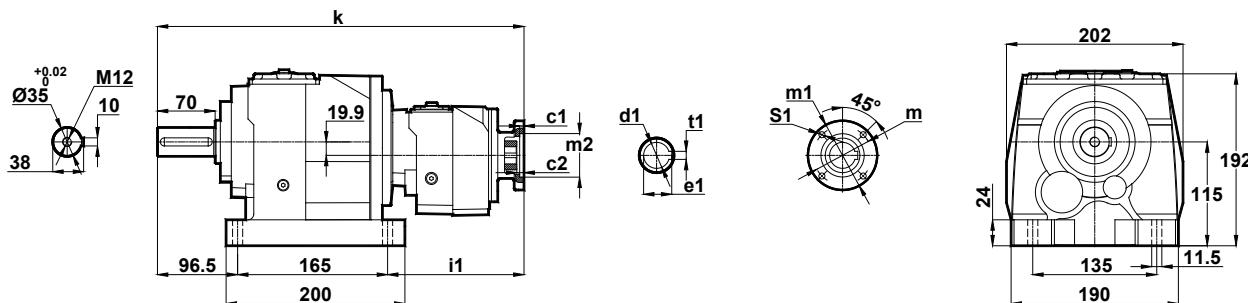
## *Dimension Pages*

### Abmessungsseiten

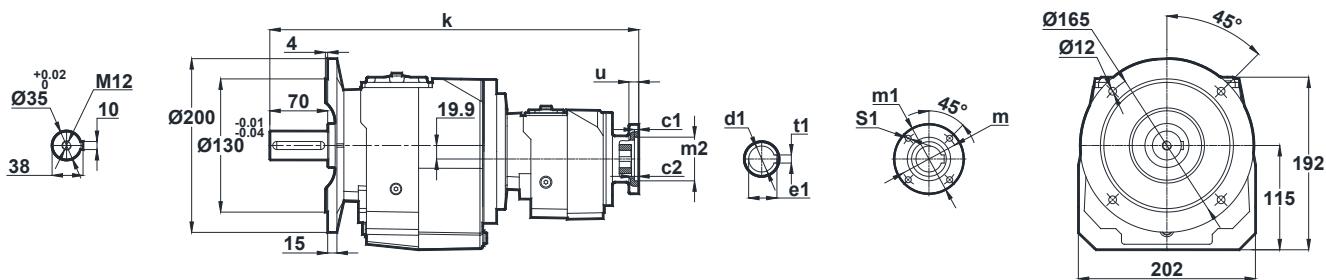


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

MN275-B..  
MN276-B..

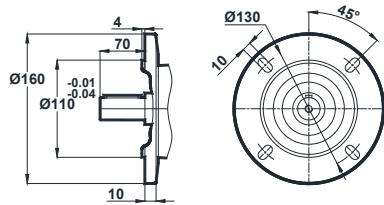


NN275-B..  
NN276-B..

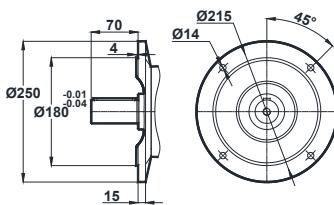


<b>IEC</b>	<b>c1</b>	<b>c2</b>	<b>s1</b>	<b>m</b>	<b>m1</b>	<b>m2</b>	<b>i1</b>	<b>u</b>	<b>k</b>	<b>d1</b>	<b>t1</b>	<b>e1</b>
<b>63/B14</b>	2.5	5	5.5	75	90	60	177.5	10	439	11	4	12.8
<b>71/B14</b>	3	4.5	7	85	105	70	179	10	440.5	14	5	16.3

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



**Opt. 1**



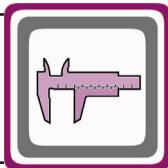
**Opt. 2**



# Ölçü Sayfaları

## Dimension Pages

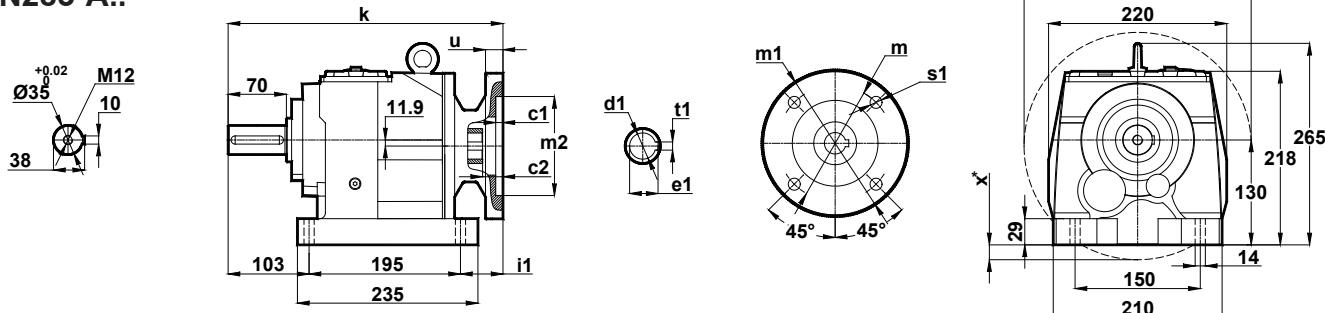
## Abmessungsseiten



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

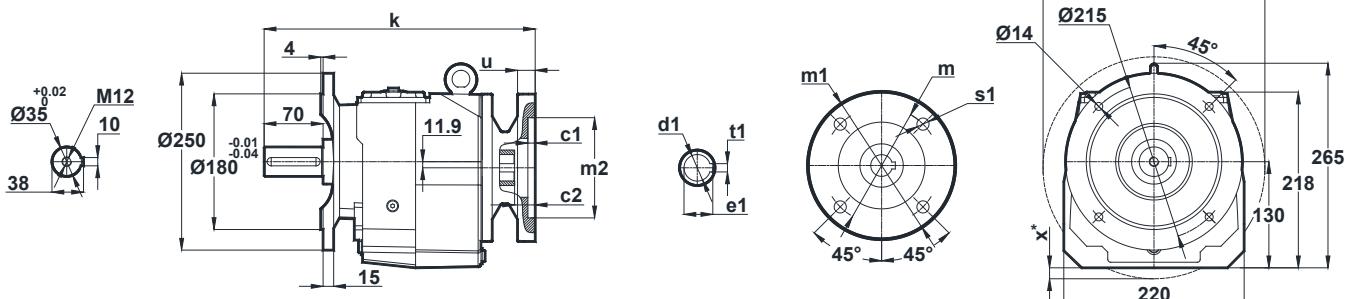
**MN282-A..**

**MN283-A..**



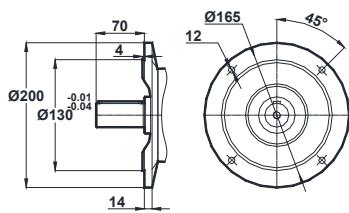
**NN282-A..**

**NN283-A..**

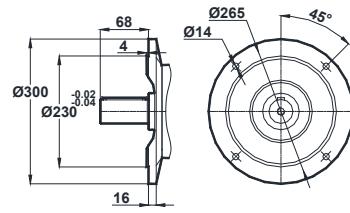


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B5	4	9	11	130	160	110	45	12	343	14	5	16.3	-
80/B5	4	9	12	165	200	130	45	12	343	19	6	21.8	-
90/B5	4	9	12	165	200	130	45	12	343	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	52	15	360	28	8	31.3	7
112/B5	4.5	9	15	215	250	180	52	15	360	28	8	31.3	7
132/B5	4.5	7	15	265	300	230	82	15	380	38	10	41.3	32

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

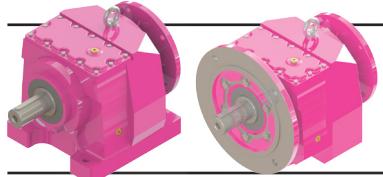


Opt. 1



Opt. 2

x: Motor, 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

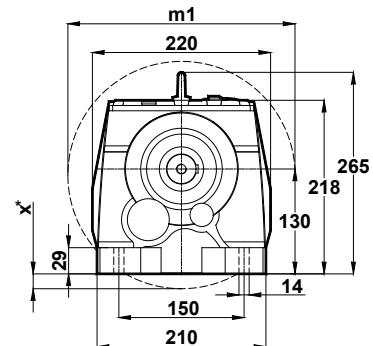
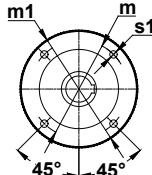
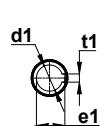
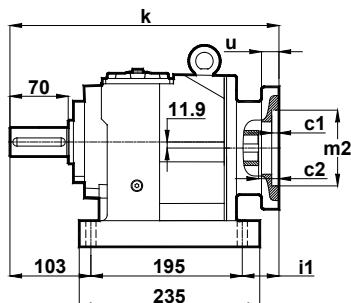
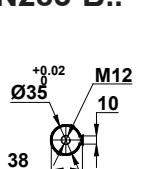
## Abmessungsseiten



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

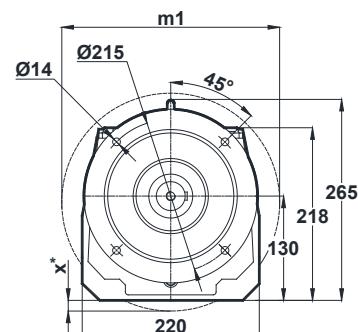
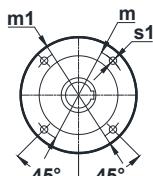
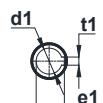
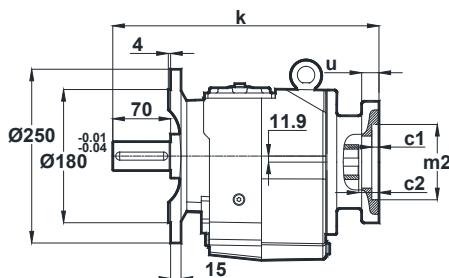
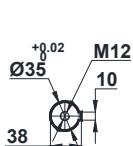
**MN282-B..**

**MN283-B..**



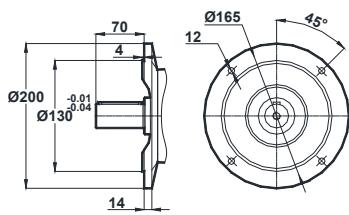
**NN282-B..**

**NN283-B..**

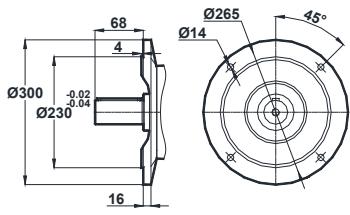


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
80/B14	4	9	7	100	120	80	45	12	343	19	6	21.8	-
90/B14	4	9	9	115	140	95	45	12	343	24	8	26.3	-
100/B14	4	9	9	130	160	110	52	15	360	28	8	31.3	-
112/B14	4	9	9	130	160	110	52	15	360	28	8	31.3	-
132/B14	4.5	7	11	165	200	130	82	15	380	38	10	41.3	-

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

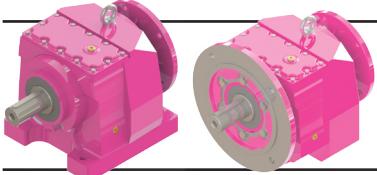


Opt. 1

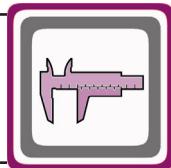


Opt. 2

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

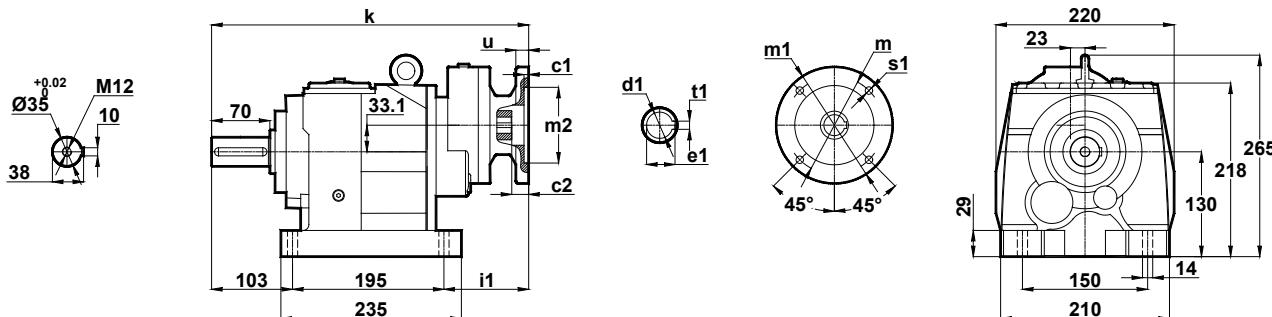


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

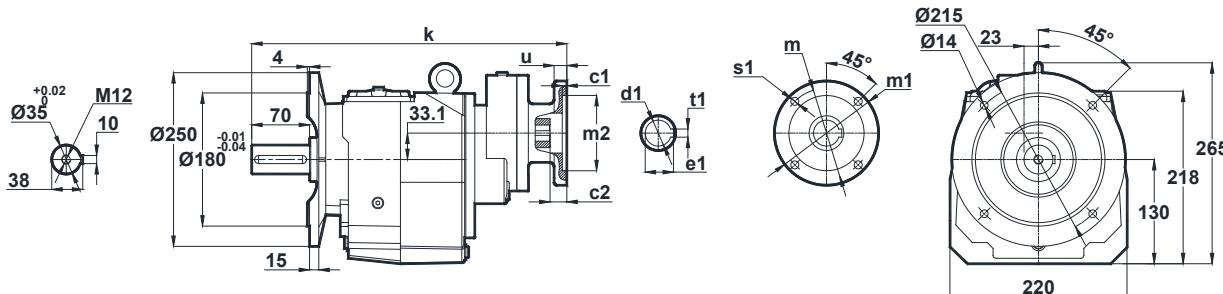


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN284-A..**  
**MN284-B..**

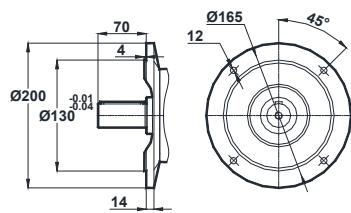


**NN284-A..**  
**NN284-B..**

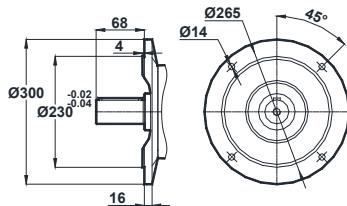


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
<b>63/B5</b>	3.5	5	10	115	140	95	122	10	420	11	4	12.8
<b>71/B5</b>	4	4.5	11	130	160	110	93	12	391	14	5	16.3
<b>71/B14</b>	3	4.5	7	85	105	70	93	10	391	14	5	16.3

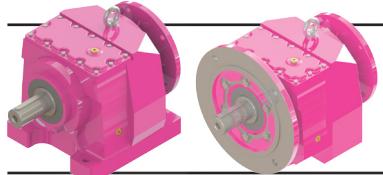
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1



Opt. 2

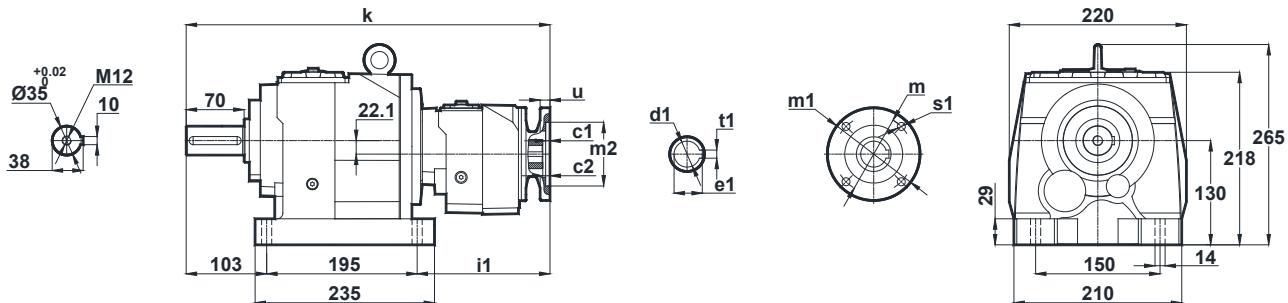


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

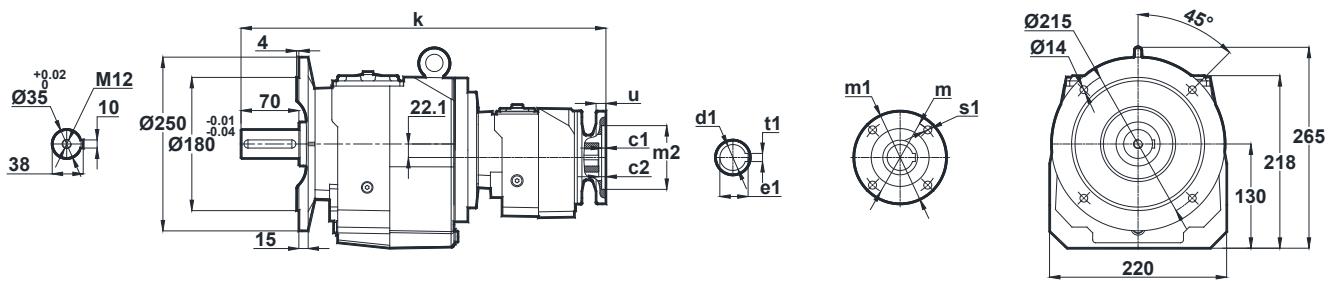


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

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

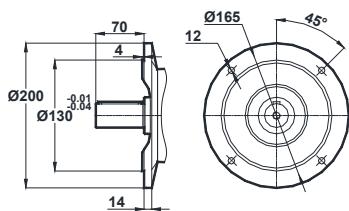


**NN285-A.. / B..**  
**NN286-A.. / B..**

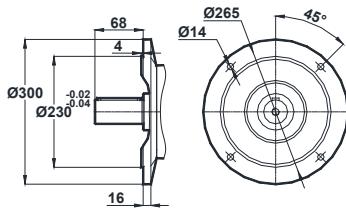


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	188	12	488	11	4	12.8
63/B14	2.5	5	5.5	75	90	60	188	10	488	11	4	12.8

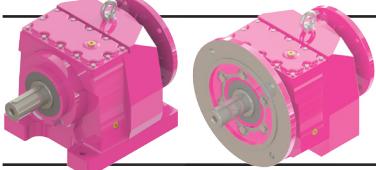
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1



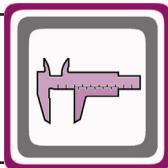
Opt. 2



# Ölçü Sayfaları

## Dimension Pages

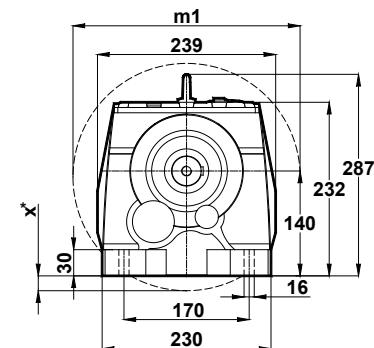
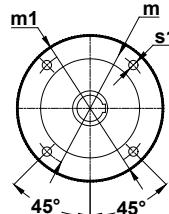
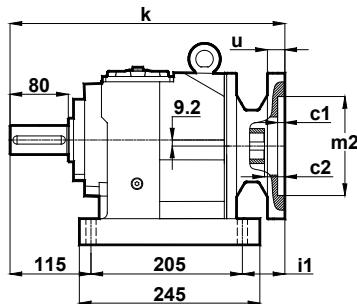
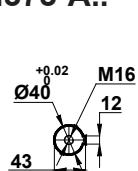
## Abmessungsseiten



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

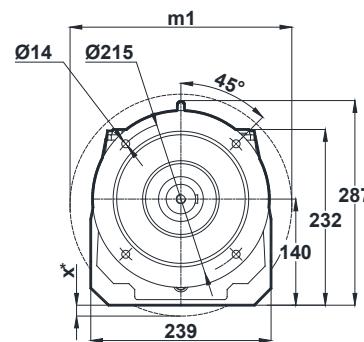
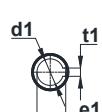
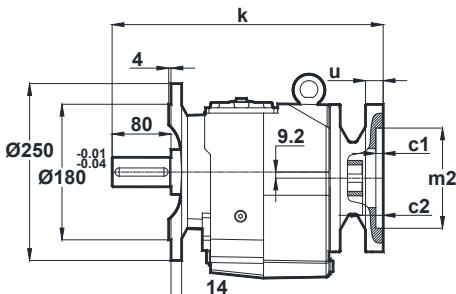
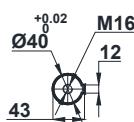
**MN372-A..**

**MN373-A..**



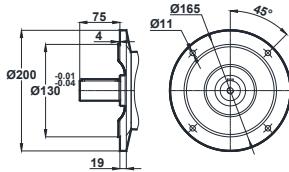
**NN372-A..**

**NN373-A..**

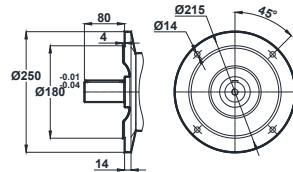


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B5	4	9	11	130	160	110	43.5	12	364	14	5	16.3	-
80/B5	4	9	12	165	200	130	43.5	12	364	19	6	21.8	-
90/B5	4	9	12	165	200	130	43.5	12	364	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	60.5	15	381	28	8	31.3	-
112/B5	4.5	9	15	215	250	180	60.5	15	381	28	8	31.3	-
132/B5	4.5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

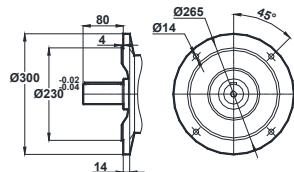
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



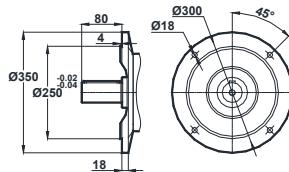
Opt. 1



Opt. 2

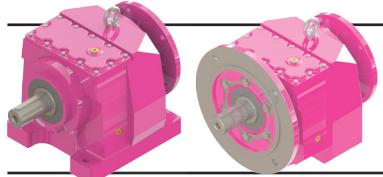


Opt. 3



Opt. 4

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

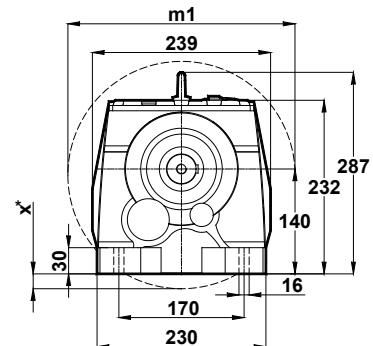
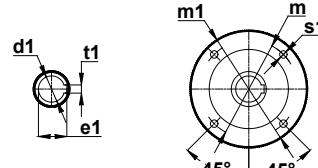
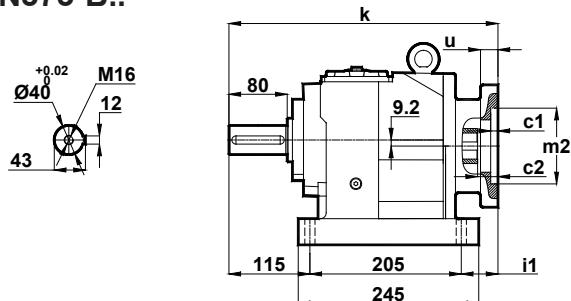
## Abmessungsseiten



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

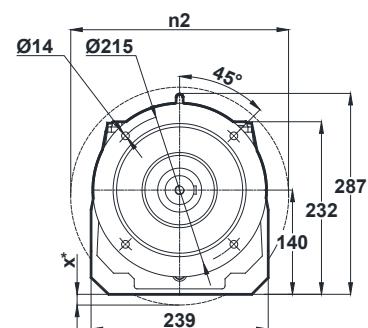
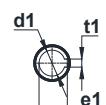
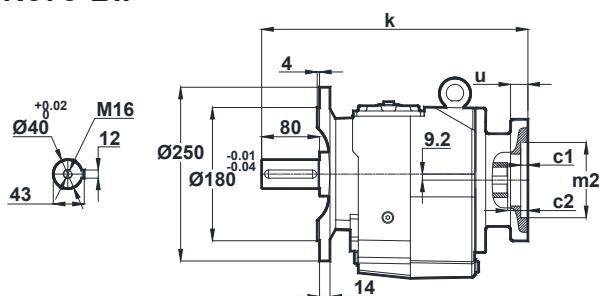
**MN372-B..**

**MN373-B..**



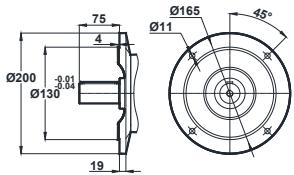
**NN372-B..**

**NN373-B..**

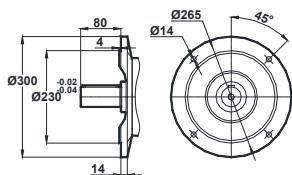


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
80/B14	4	9	7	100	120	80	43.5	12	364	19	6	21.8	-
90/B14	4	9	9	115	140	95	43.5	12	364	24	8	27.3	-
100/B14	4	9	9	130	160	110	60.5	15	381	28	8	31.3	-
112/B14	4	9	9	130	160	110	60.5	15	381	28	8	31.3	-
132/B14	4.5	9	11	165	200	130	80.5	15	401	38	10	41.3	-

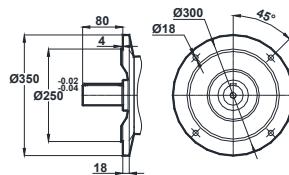
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

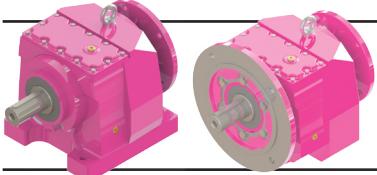


Opt. 2

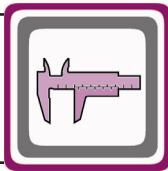


Opt. 3

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

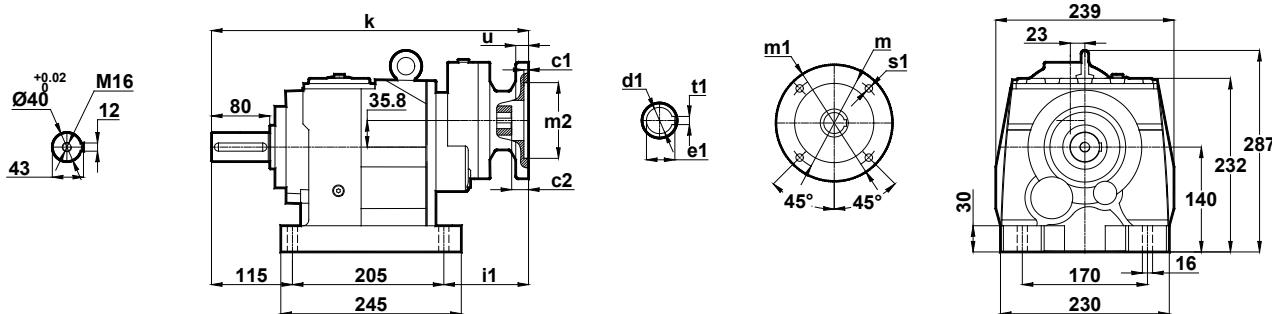


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

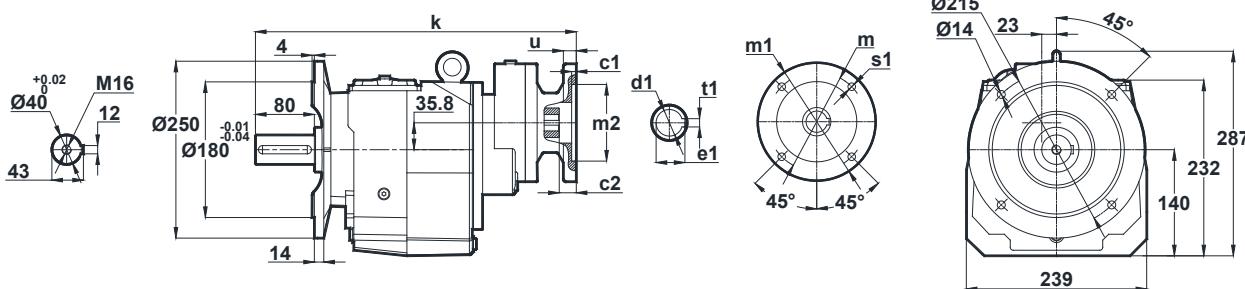


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN374-A..**  
**MN374-B..**

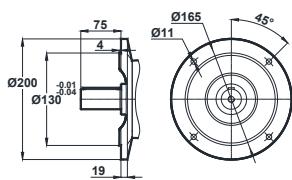


**NN374-A..**  
**NN374-B..**

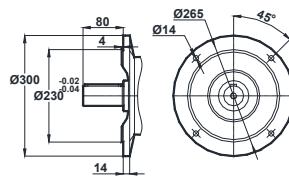


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	120.5	12	441	11	4	12.8
71/B5	4	8.5	11	130	160	110	91.5	12	412	14	5	16.3
80/B5	4	5	12	165	200	130	120.5	12	441	19	6	21.8
71/B14	3	8.5	7	85	105	70	91.5	10	412	14	5	16.3
80/B14	4	5	7	100	120	80	120.5	12	441	19	6	21.8

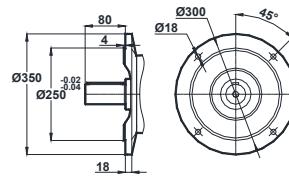
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



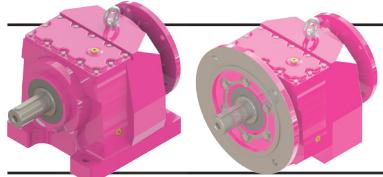
Opt. 1



Opt. 2



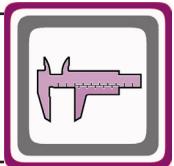
Opt. 3



# Ölçü Sayfaları

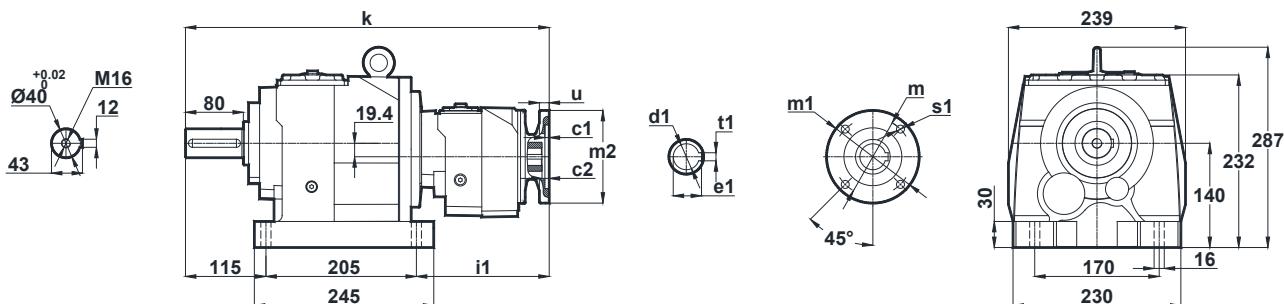
## Dimension Pages

### Abmessungsseiten

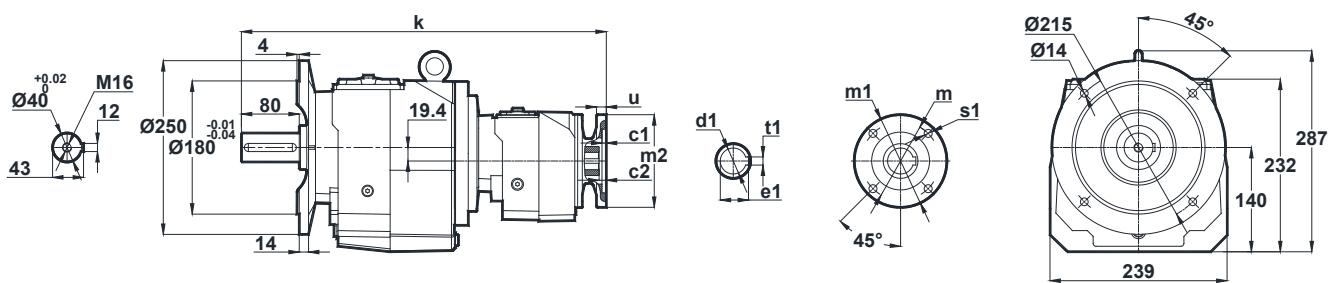


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

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

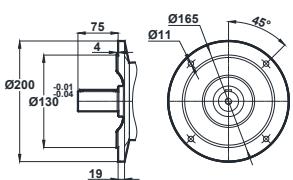


**NN375-A.. / B..**  
**NN376-A.. / B..**

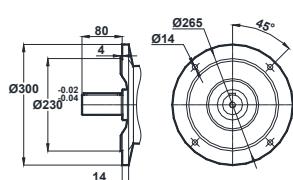


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	186.5	10	509	11	4	12.8
63/B14	2.5	5	5.5	75	90	60	186.5	10	509	11	4	12.8

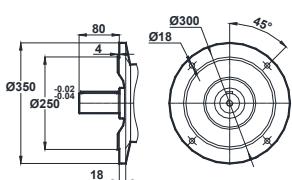
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



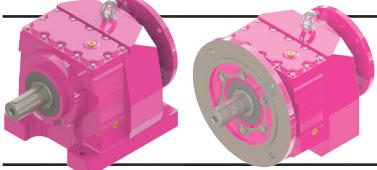
Opt. 1



Opt. 2



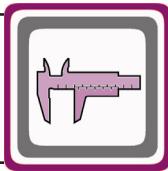
Opt. 3



# Ölçü Sayfaları

## Dimension Pages

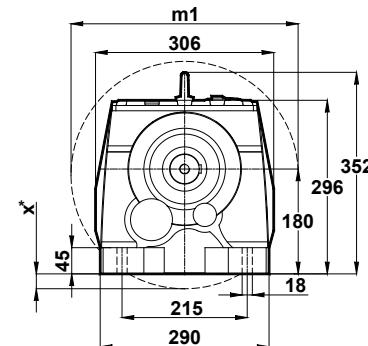
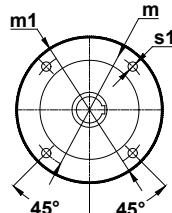
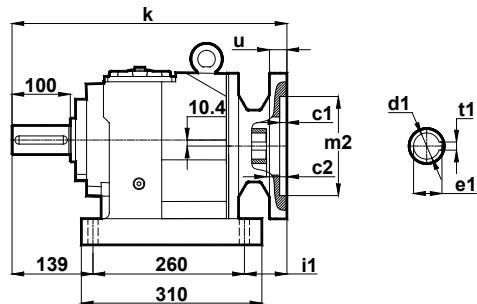
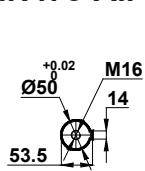
## Abmessungsseiten



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

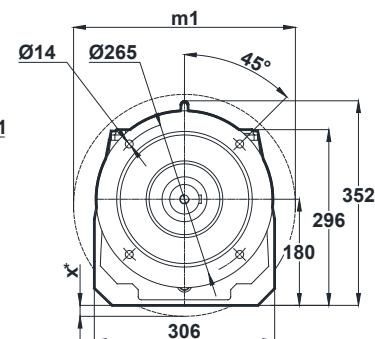
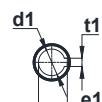
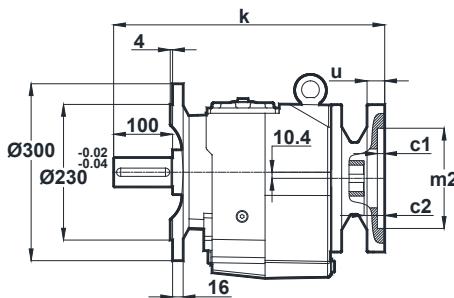
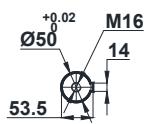
**MN472-A..**

**MN473-A..**



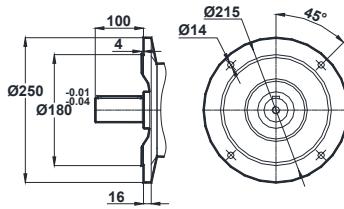
**NN472-A..**

**NN473-A..**

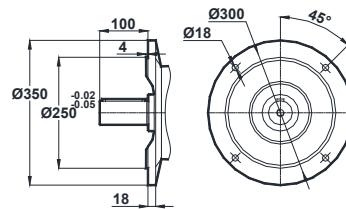


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
80/B5	4	5	12	165	200	130	27.5	12	426.5	19	6	21.8	-
90/B5	4	5	12	165	200	130	27.5	12	426.5	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	46	15	445	28	8	31.3	-
112/B5	4.5	9	15	215	250	180	46	15	445	28	8	31.3	-
132/B5	4.5	6	15	265	300	230	64.5	15	463.5	38	10	41.3	-
160/B5	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**

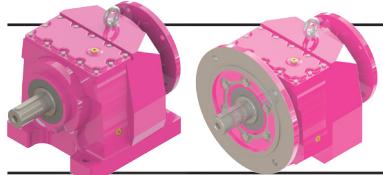


Opt. 1



Opt. 2

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



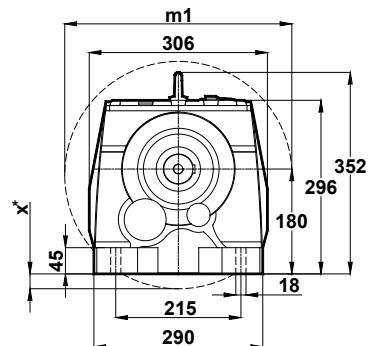
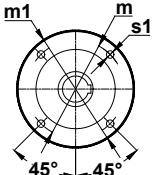
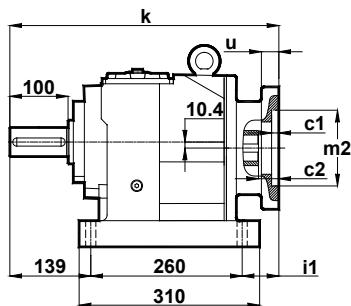
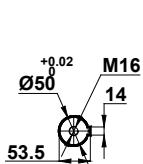
**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*



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

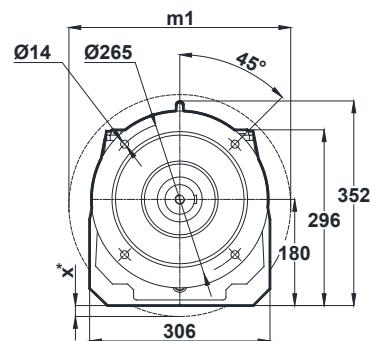
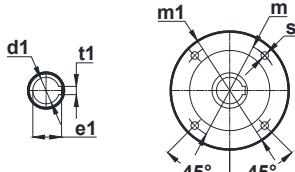
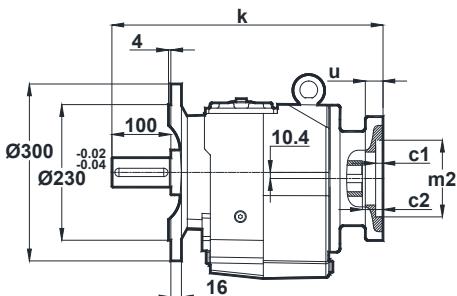
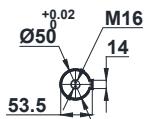
**MN472-B..**

**MN473-B..**



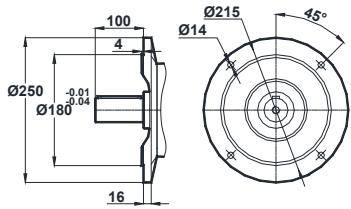
**NN472-B..**

**NN473-B..**

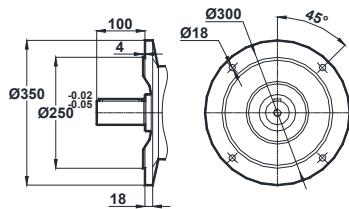


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
90/B14	4	5	9	115	140	95	27.5	12	426.5	24	8	27.3	-
100/B14	4	9	9	130	160	110	46	15	445	28	8	31.3	-
112/B14	4	9	9	130	160	110	46	15	445	28	8	31.3	-
132/B14	4.5	6	11	165	200	130	64.5	15	463.5	38	10	41.3	-

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

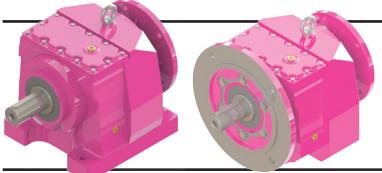


**Opt. 1**

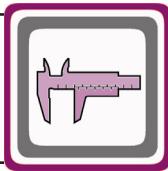


**Opt. 2**

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

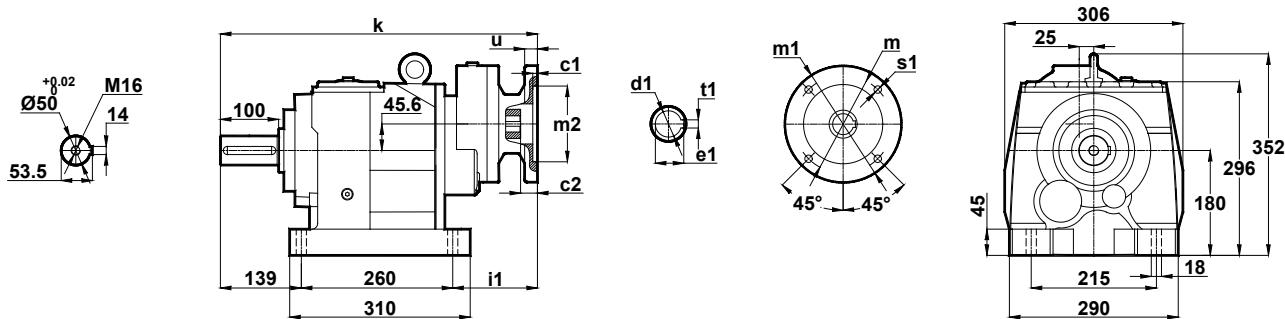


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

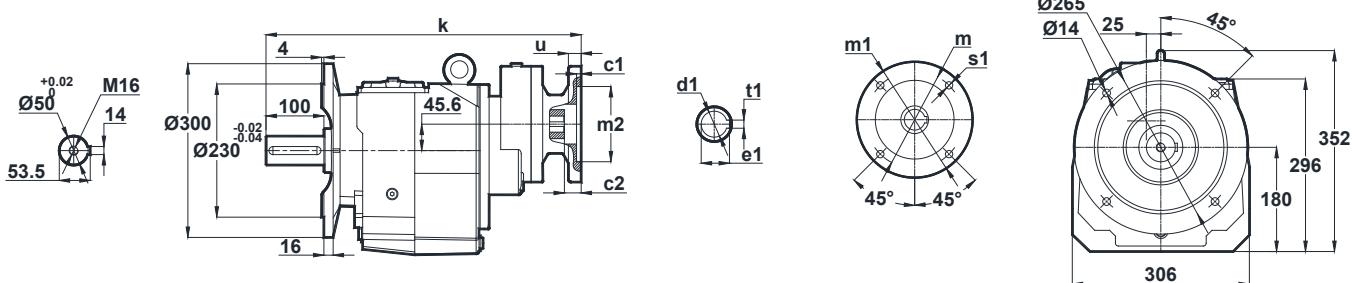


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN474-A..**  
**MN474-B..**

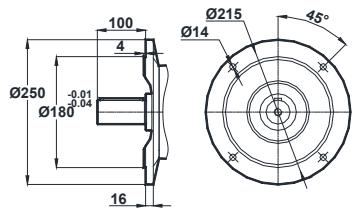


**NN474-A..**  
**NN474-B..**

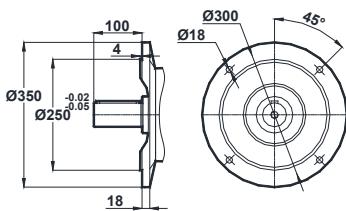


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	125.5	12	524.5	14	5	16.3
80/B5	4	9	12	165	200	130	125.5	12	524.5	19	6	21.8
80/B14	4	9	7	100	120	80	125.5	12	524.5	19	6	21.8

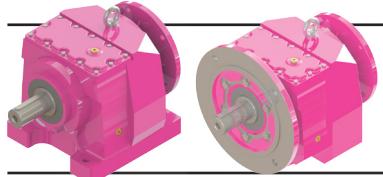
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



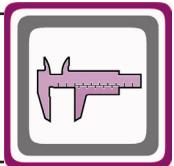
Opt. 1



Opt. 2

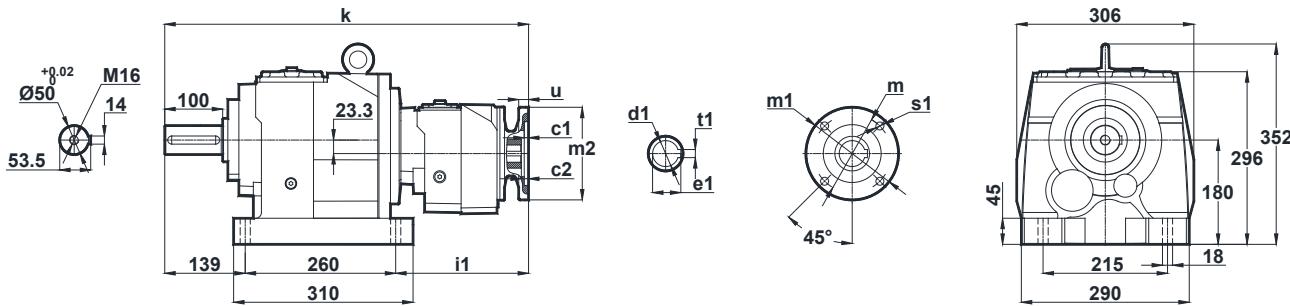


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*

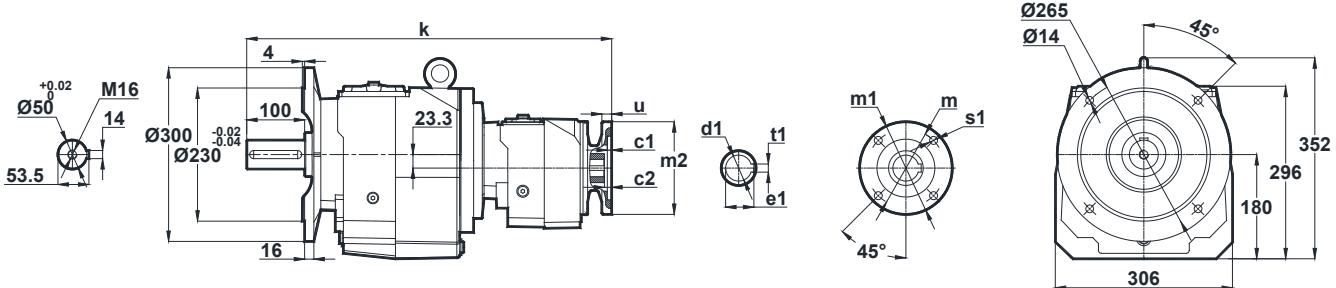


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

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

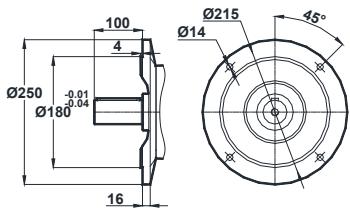


**NN475-A.. / B..**  
**NN476-A.. / B..**

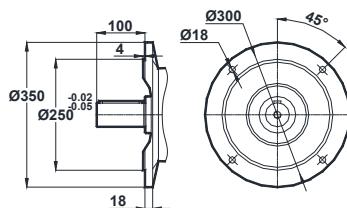


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	253.5	12	652.5	11	4	12.8
71/B5	4	8.5	11	130	160	110	224.5	12	623.5	14	5	16.3
71/B14	3	8.5	7	85	105	70	224.5	10	623.5	14	5	16.3

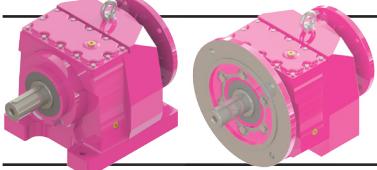
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1



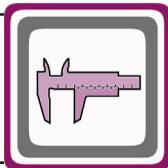
Opt. 2



# Ölçü Sayfaları

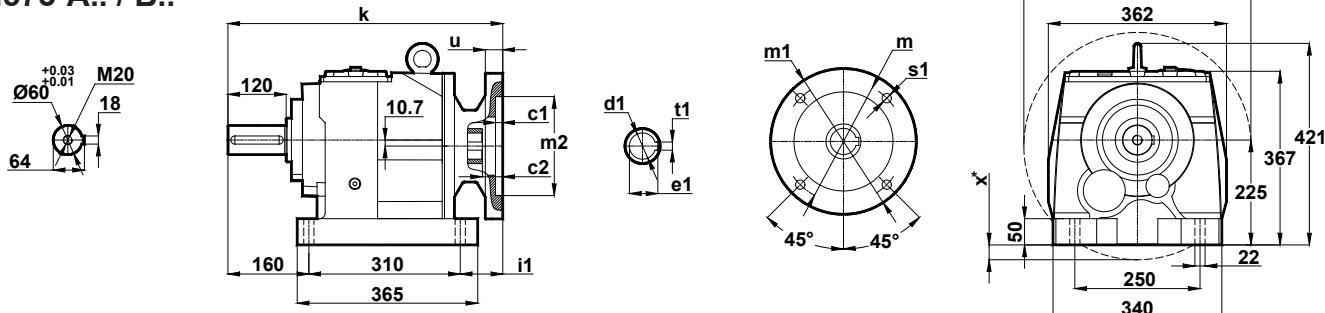
## Dimension Pages

## Abmessungsseiten

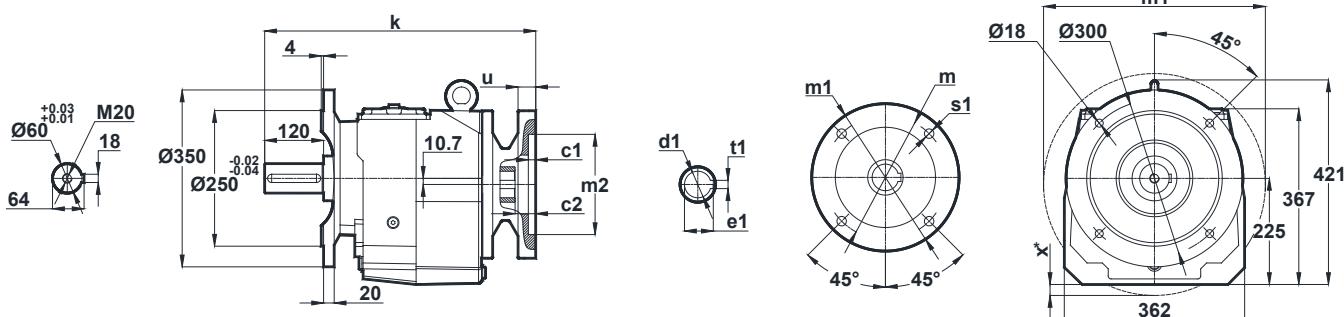


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN572-A.. / B..**  
**MN573-A.. / B..**

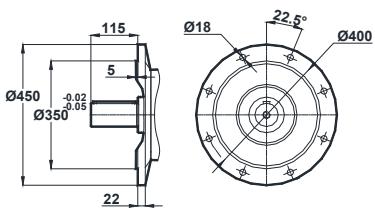


**NN572-A.. / B..**  
**NN573-A.. / B..**

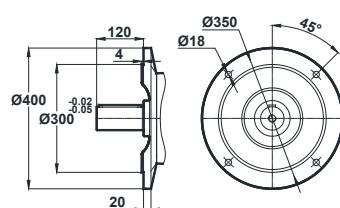


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
100/B5	4.5	9	15	215	250	180	33.5	15	507.5	28	8	31.3	-
112/B5	4.5	9	15	215	250	180	33.5	15	507.5	28	8	31.3	-
132/B5	4.5	9	15	265	300	230	54.5	15	528.5	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	130	18	604	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	130	18	604	48	14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

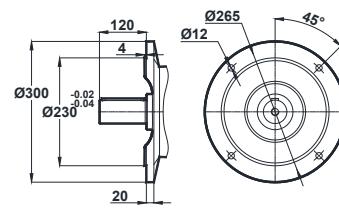
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

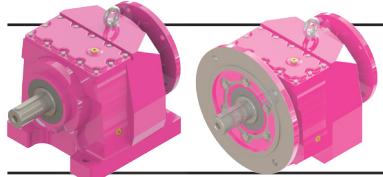


Opt. 2

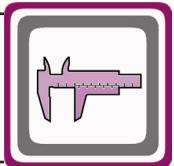


Opt. 3

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

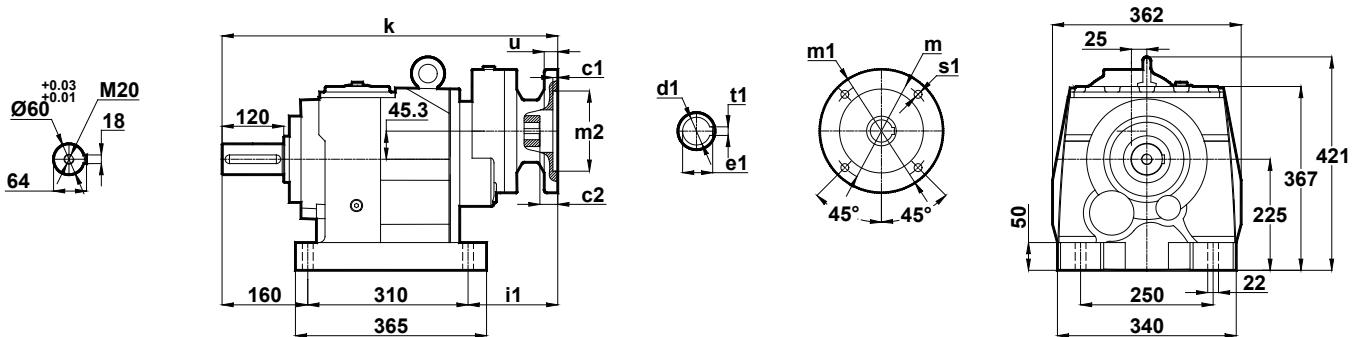


**Ölçü Sayfaları**  
*Dimension Pages*  
Abmessungsseiten

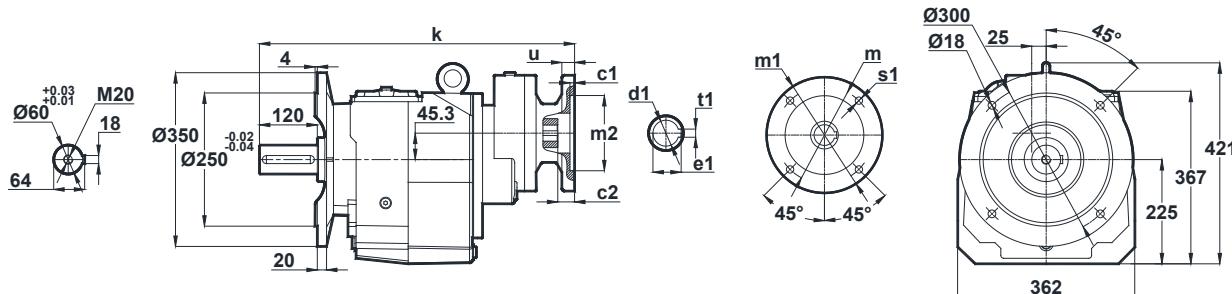


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN574-A..**  
**MN574-B..**

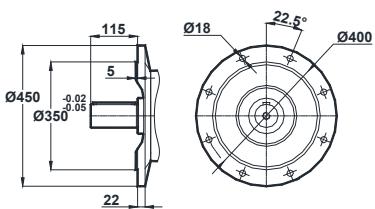


**NN574-A..**  
**NN574-B..**

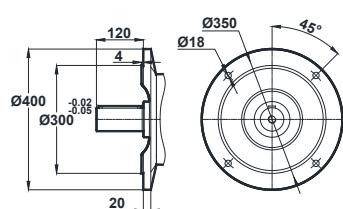


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	116.5	12	587.5	14	5	16.3
80/B5	4	9	12	165	200	130	116.5	12	587.5	14	6	21.8
90/B5	4	9	12	165	200	130	116.5	12	587.5	19	8	27.3
80/B14	4	9	7	100	120	80	116.5	12	587.5	19	6	21.8
90/B14	4	9	9	115	140	95	116.5	12	587.5	24	8	26.3

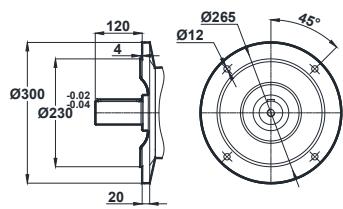
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



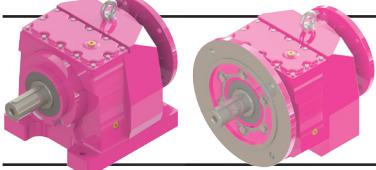
Opt. 1



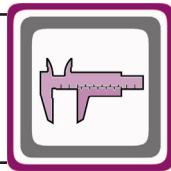
Opt. 2



Opt. 3

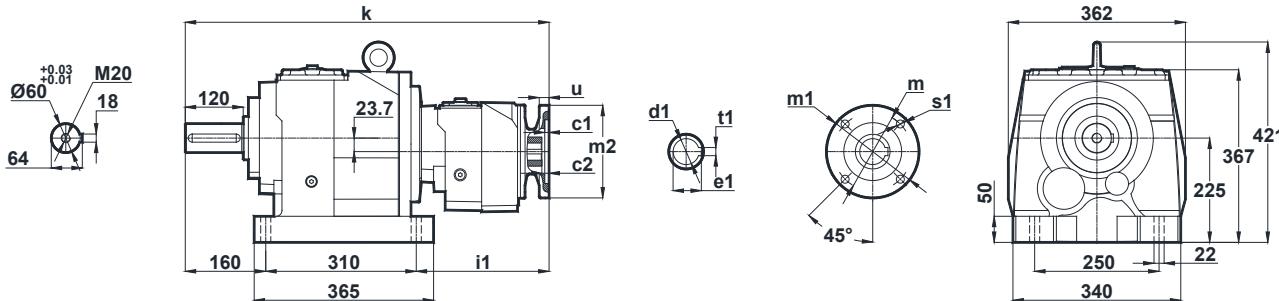


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

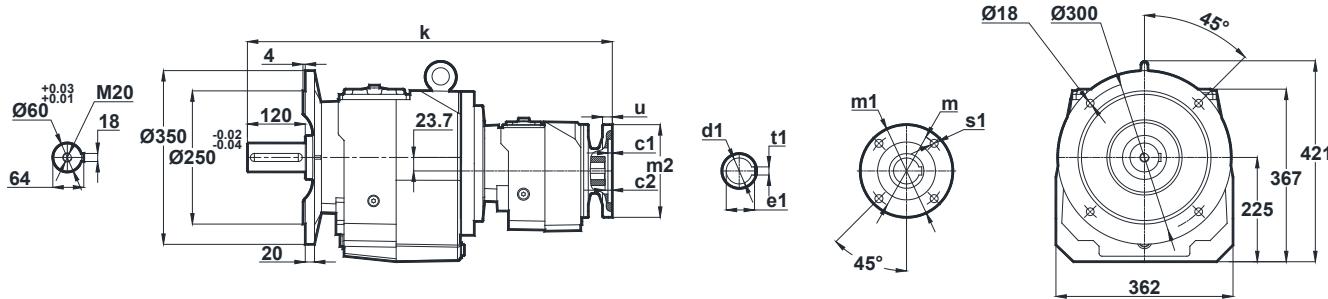


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

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

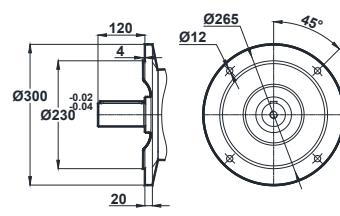
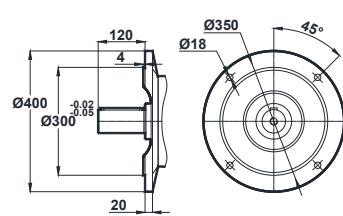
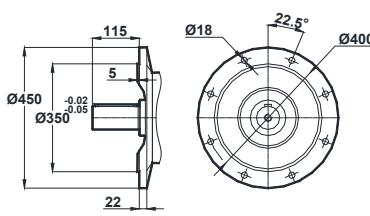


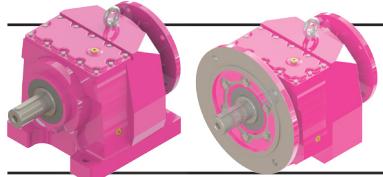
**NN575-A.. / B..  
NN576-A.. / B..**



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

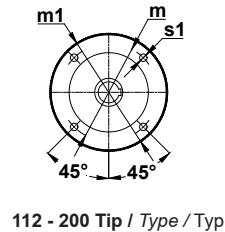
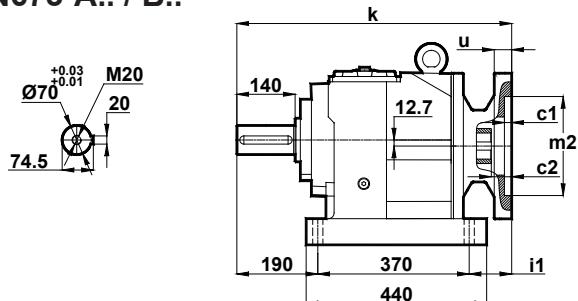
## Dimension Pages

## Abmessungsseiten

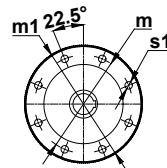


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

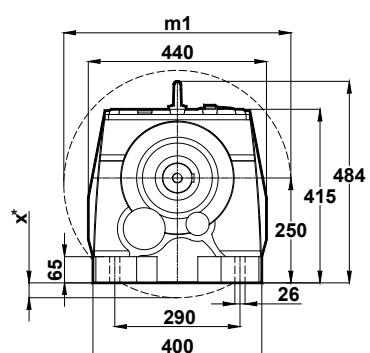
**MN672-A.. / B..**  
**MN673-A.. / B..**



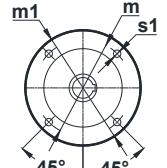
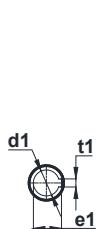
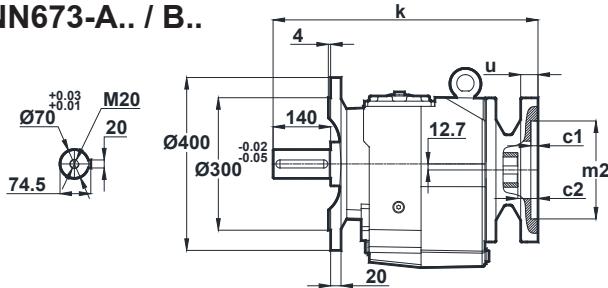
112 - 200 Tip / Type / Typ



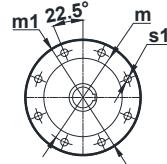
225 Tip / Type / Typ



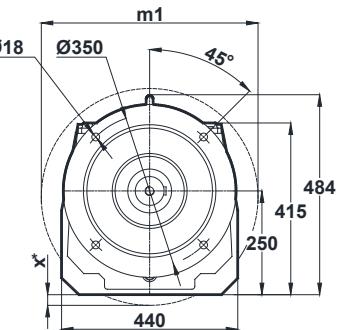
**NN672-A.. / B..**  
**NN673-A.. / B..**



112 - 200 Tip / Type / Typ

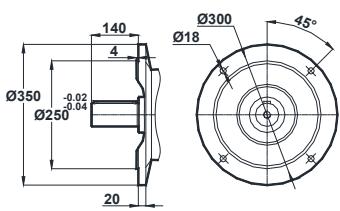


225 Tip / Type / Typ

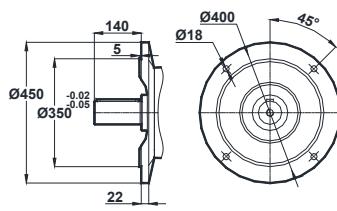


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
112/B5	4.5	14.5	15	215	250	180	7.5	15	567.5	28	8	31.3	-
132/B5	4.5	9	15	265	300	230	22.5	15	582.5	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	97.5	20	657.5	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	97.5	20	657.5	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	118	22	678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

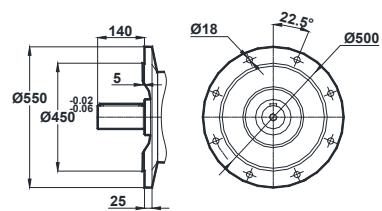
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

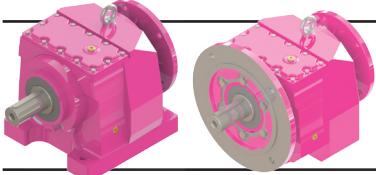


Opt. 2



Opt. 3

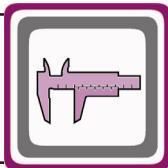
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

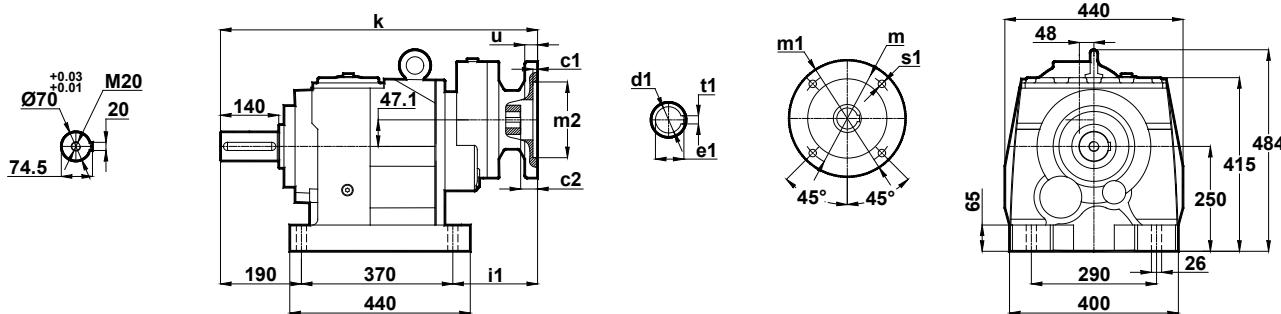
## *Dimension Pages*

### Abmessungsseiten

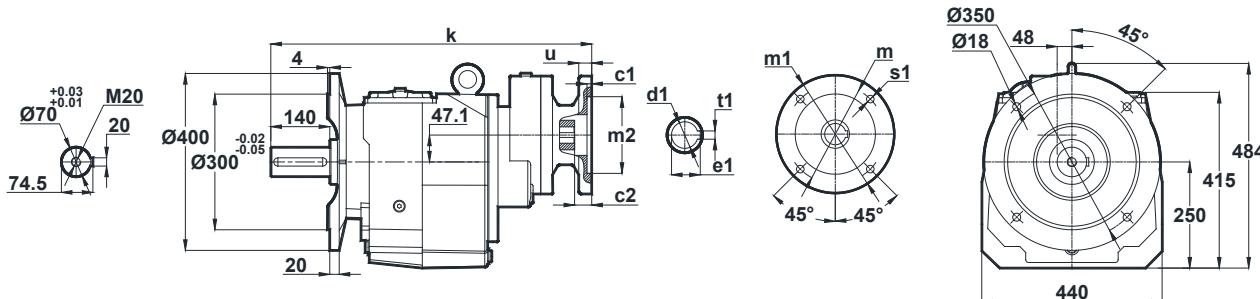


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

MN674-A..  
MN674-B..

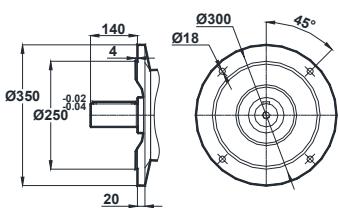


NN674-A..  
NN674-B..

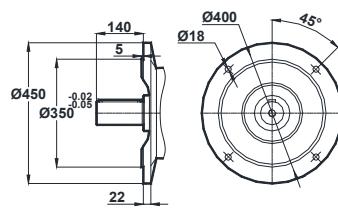


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	97.5	12	657.5	19	6	21.8
90/B5	4	5	12	165	200	130	97.5	12	657.5	24	8	27.3
90/B14	4	5	9	115	140	95	97.5	12	657.5	24	8	27.3

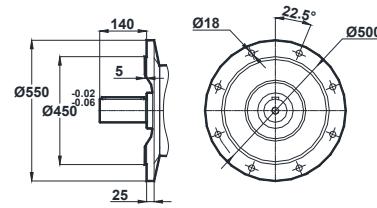
#### **Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



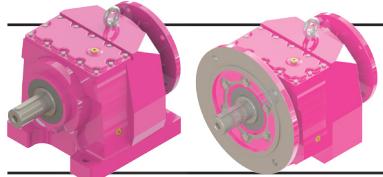
**Opt. 1**



Opt. 2



**Opt. 3**

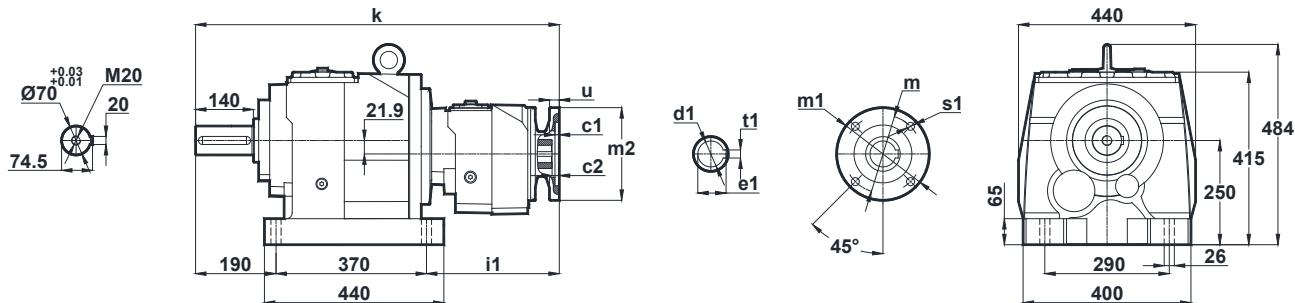


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

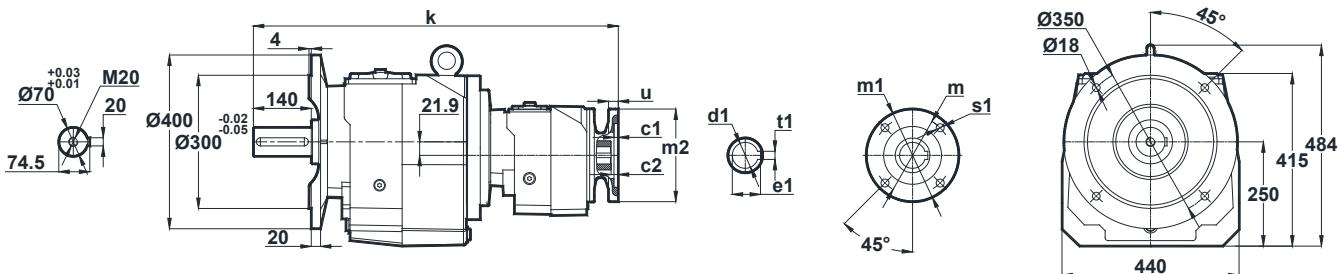


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

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

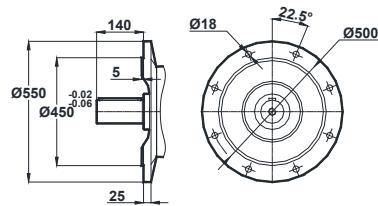
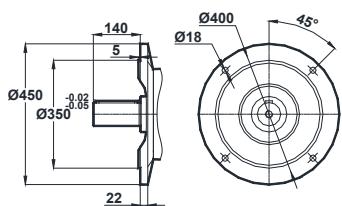
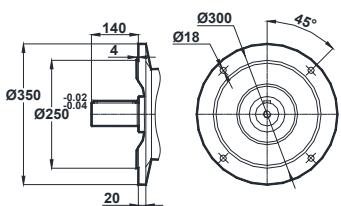


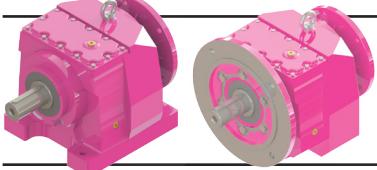
**NN675-A.. / B..**  
**NN676-A.. / B..**



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**

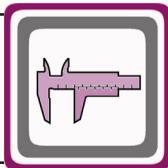




# Ölçü Sayfaları

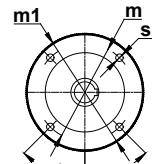
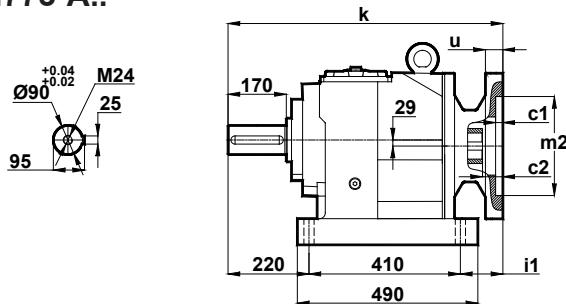
## Dimension Pages

## Abmessungsseiten

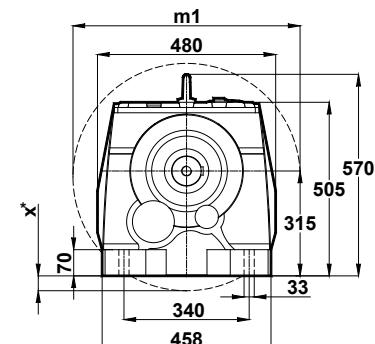


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

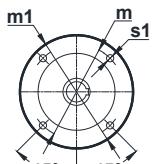
**MN772-A..**  
**MN773-A..**



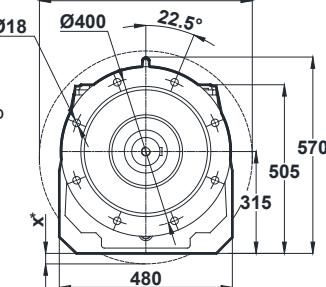
132 - 200 Tip / Type / Typ



200 - 250 Tip / Type / Typ

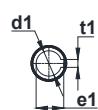
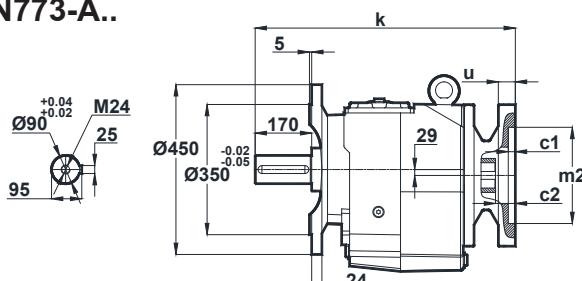


132 - 200 Tip / Type / Typ

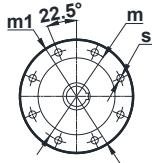


200 - 250 Tip / Type / Typ

**NN772-A..**  
**NN773-A..**



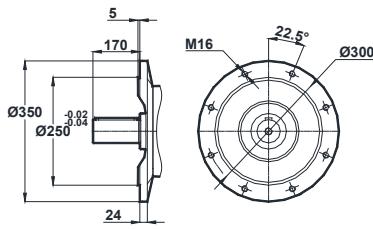
132 - 200 Tip / Type / Typ



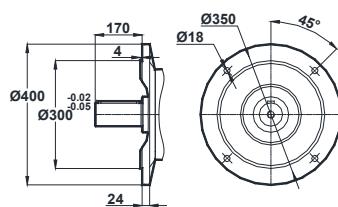
200 - 250 Tip / Type / Typ

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	-

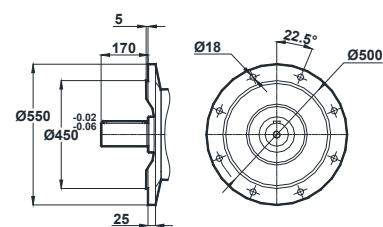
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

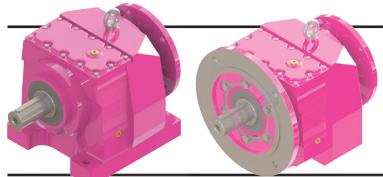


Opt. 2

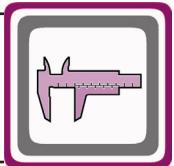


Opt. 3

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

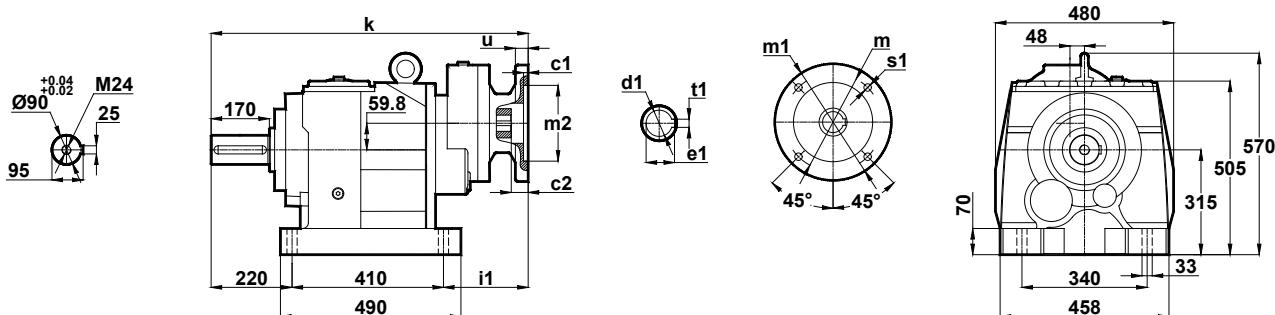


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

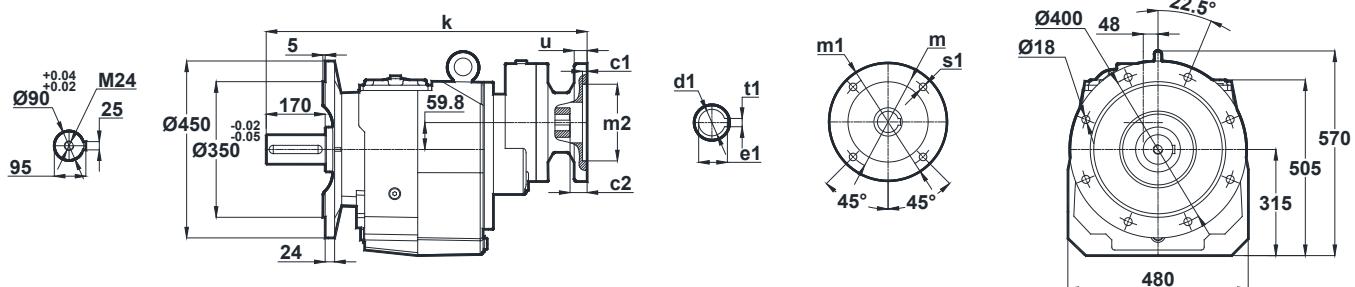


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN774-A..**  
**MN774-B..**

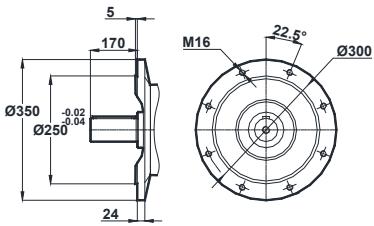


**NN774-A..**  
**NN774-B..**

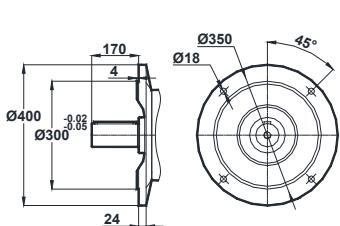


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	112.5	12	742.5	19	6	21.8
90/B5	4	5	12	165	200	130	112.5	12	742.5	24	8	27.3
100/B5	4.5	9	15	215	250	180	131	15	761	28	8	31.3
90/B14	4	5	9	115	140	95	112.5	12	742.5	24	8	27.3
100/B14	4	9	9	130	160	110	131	15	761	28	8	31.3

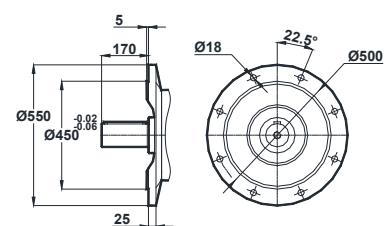
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



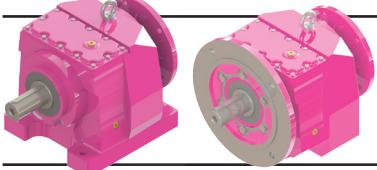
Opt. 1



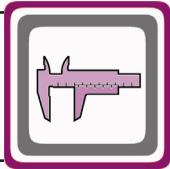
Opt. 2



Opt. 3

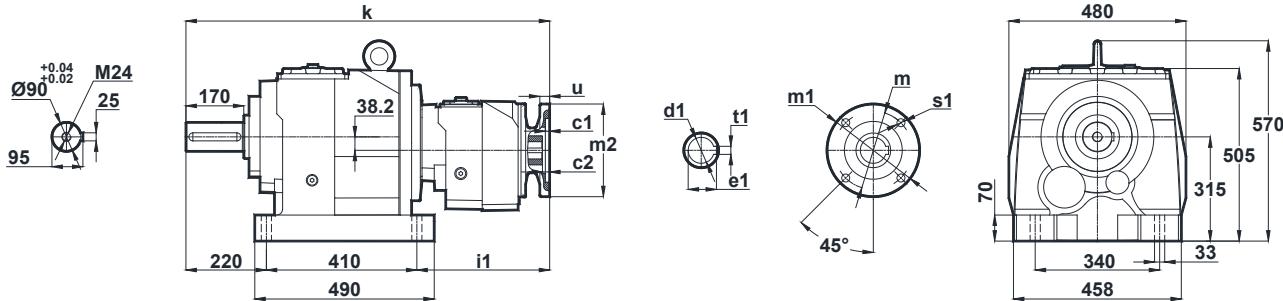


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

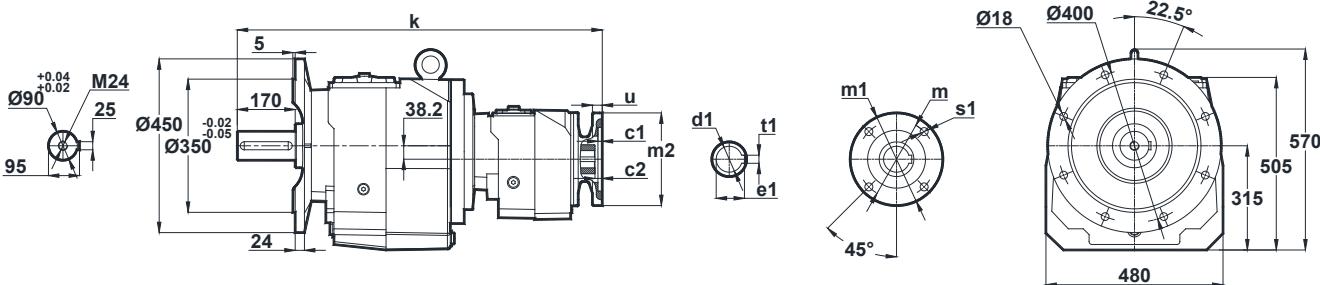


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

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

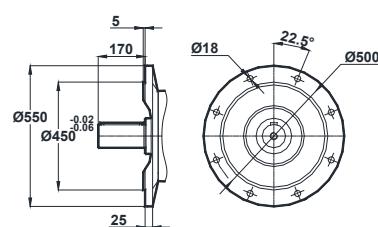
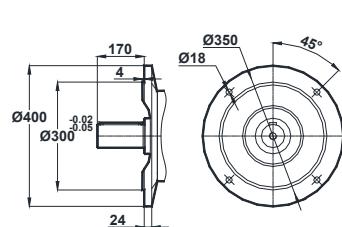
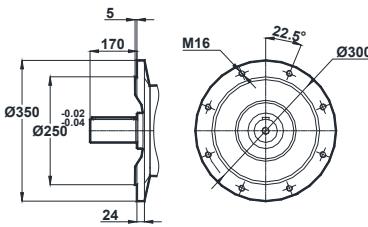


**NN775-A.. / B..  
NN776-A.. / B..**



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

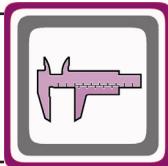
Opt. 3



# Ölçü Sayfaları

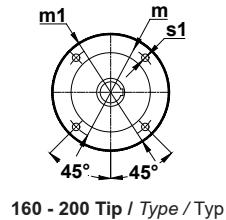
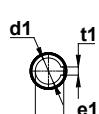
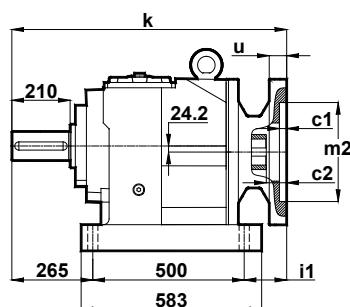
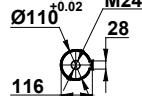
## Dimension Pages

## Abmessungsseiten

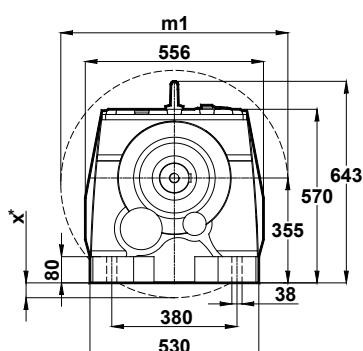


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN872-A..**  
**MN873-A..**

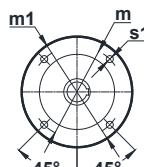
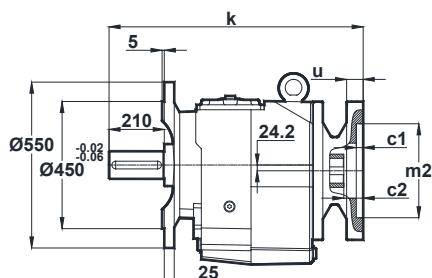
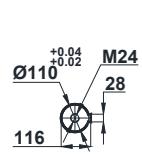


160 - 200 Tip / Type / Typ

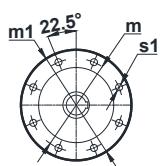
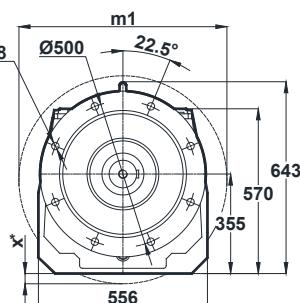


225 - 280 Tip / Type / Typ

**NN872-A..**  
**NN873-A..**



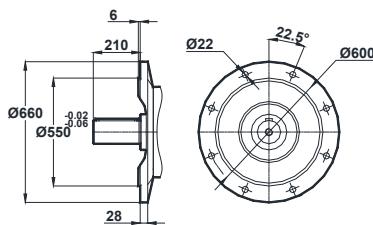
160 - 200 Tip / Type / Typ



225 - 280 Tip / Type / Typ

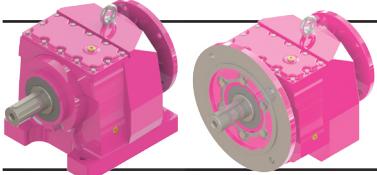
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
160/B5	5.5	10	19	300	350	250	158	20	923	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	158	20	923	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	158	22	923	55	16	59.3	-
225/B5	5.5	10	19	400	450	350	158	24	923	60	18	64.4	-
250/B5	5.5	10	19	500	550	450	158	24	923	65	18	69.4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

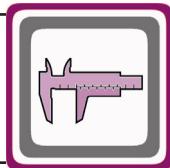
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

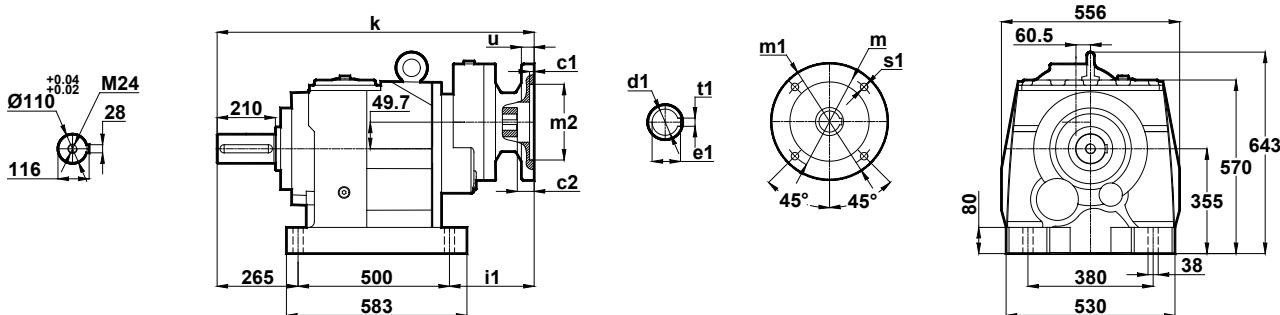
## Dimension Pages

## Abmessungsseiten

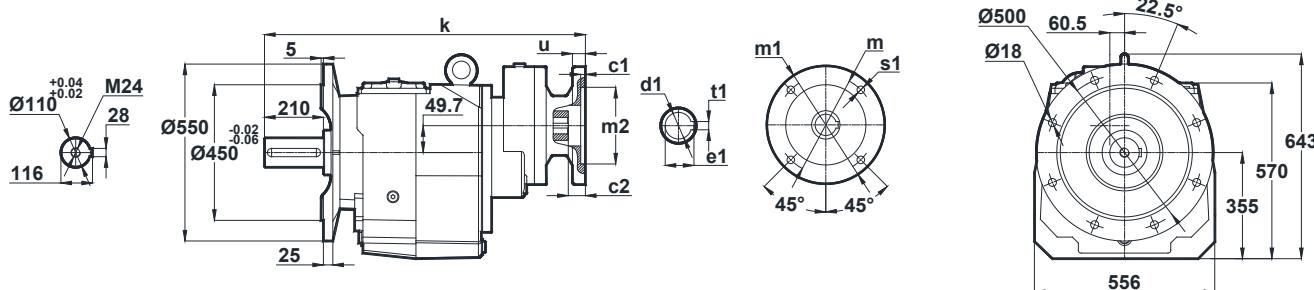


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN874-A..**  
**MN874-B..**

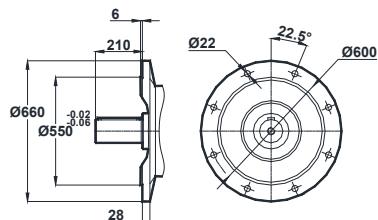


**NN874-A..**  
**NN874-B..**

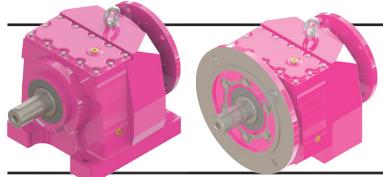


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
100/B5	4.5	9	15	215	250	180	130.5	15	895.5	28	8	31.3
112/B5	4.5	9	15	215	250	180	130.5	15	895.5	28	8	31.3
132/B5	4.5	9	15	265	300	230	151.5	15	916.5	38	10	41.3
132/B14	4.5	9	11	165	200	130	151.5	15	916.5	38	10	41.3

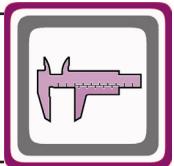
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

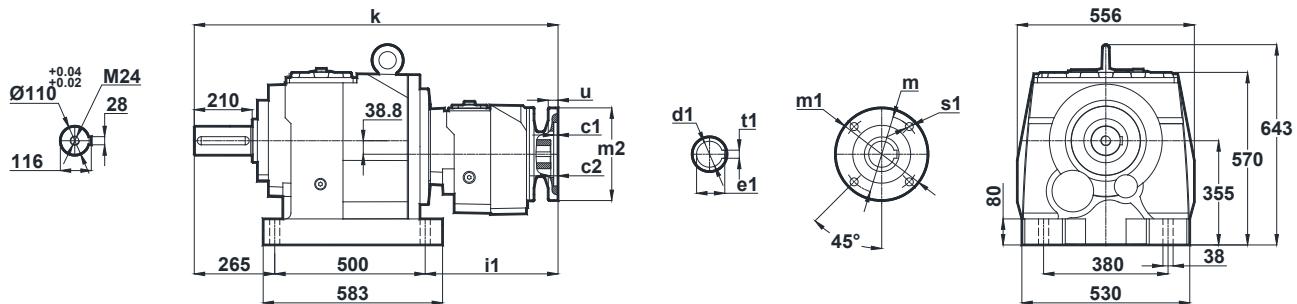


**Ölçü Sayfaları**  
*Dimension Pages*  
**Abmessungsseiten**

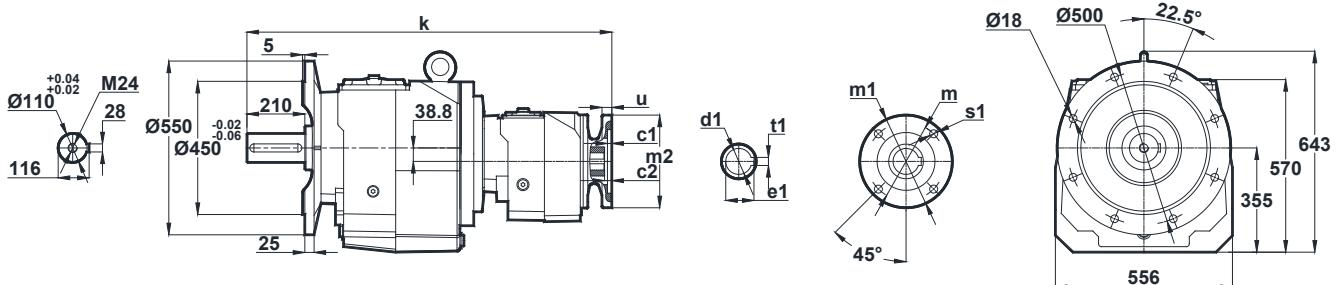


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

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

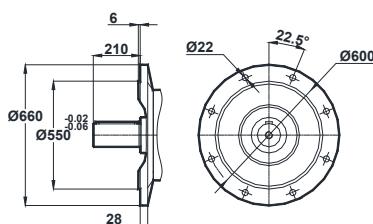


**NN875-A.. / B..**  
**NN876-A.. / B..**

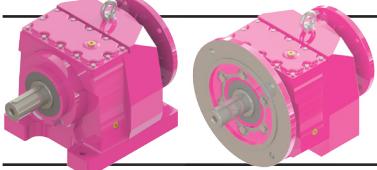


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	248	12	1013	14	5	16.3
80/B5	4	9	12	165	200	130	248	12	1013	19	6	21.8
90/B5	4	9	12	165	200	130	248	12	1013	24	8	27.3
100/B5	4.5	9	15	215	250	180	265	15	1030	28	8	31.3
80/B14	4	9	7	100	120	80	248	12	1013	19	8	21.8
90/B14	4	9	9	115	140	95	248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



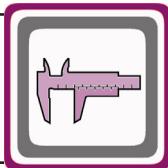
Opt. 1



# Ölçü Sayfaları

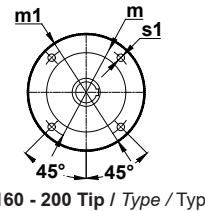
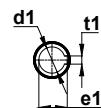
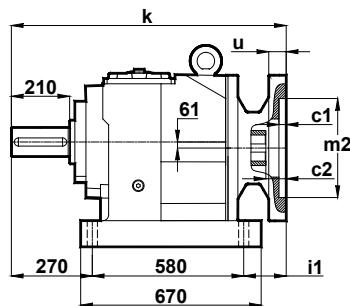
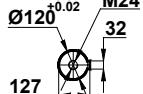
## Dimension Pages

## Abmessungsseiten

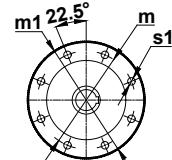
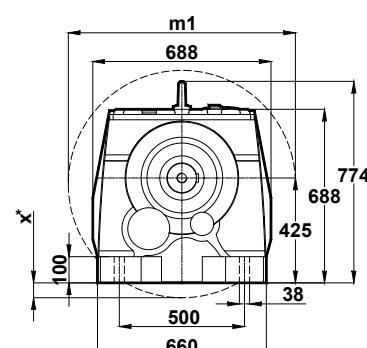


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MN972-A..**  
**MN973-A..**

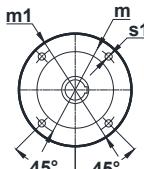
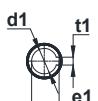
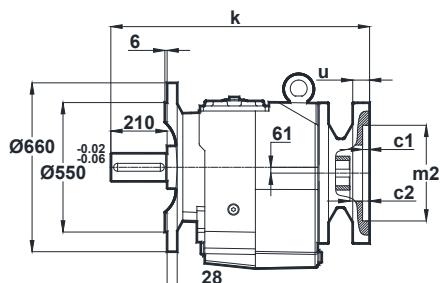
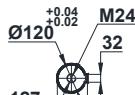


160 - 200 Tip / Type / Typ

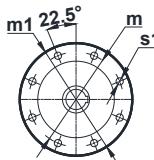
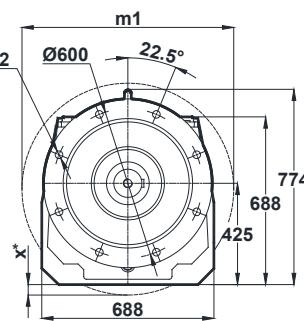


225 - 315 Tip / Type / Typ

**NN972-A..**  
**NN973-A..**



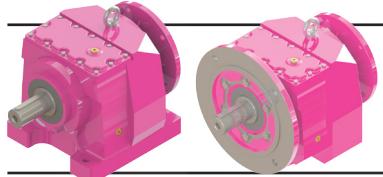
160 - 200 Tip / Type / Typ



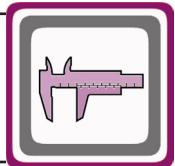
225 - 315 Tip / Type / Typ

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

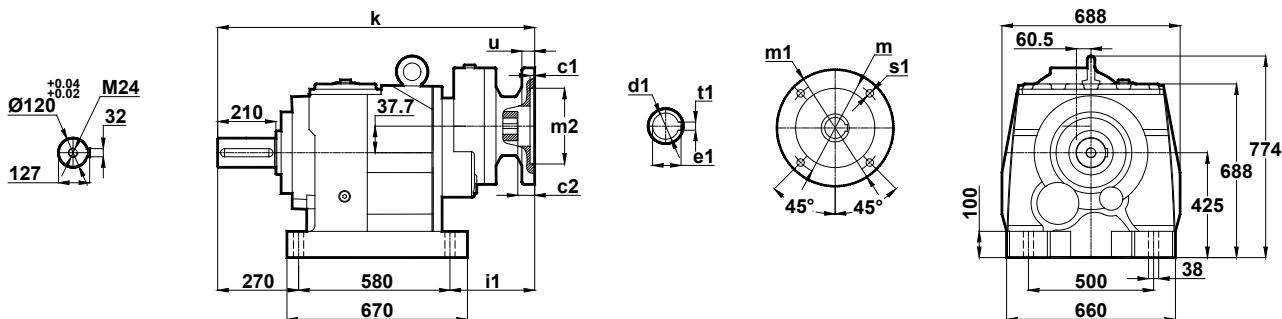


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

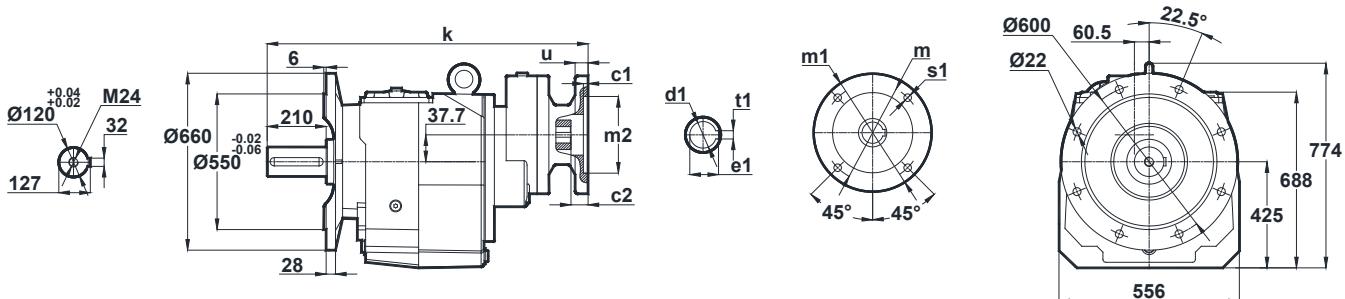


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

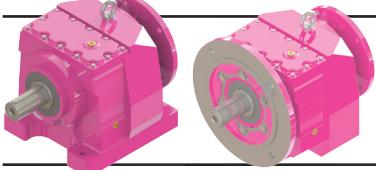
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**MN974-B..**



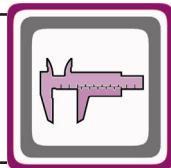
**NN974-A..**  
**NN974-B..**



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

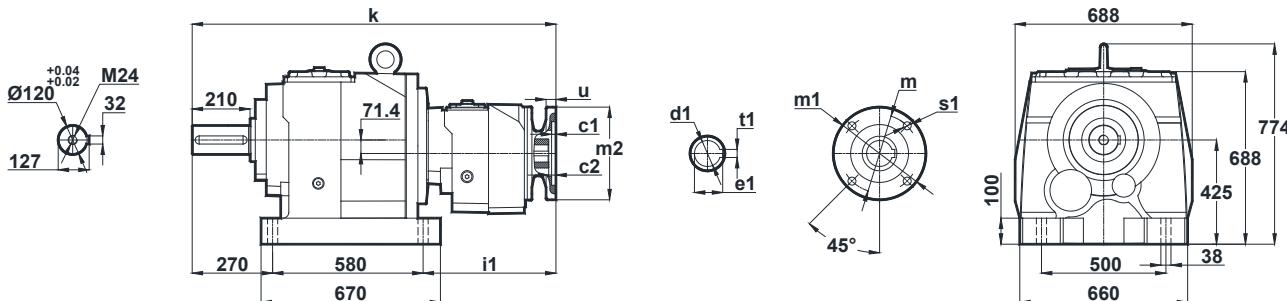


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*

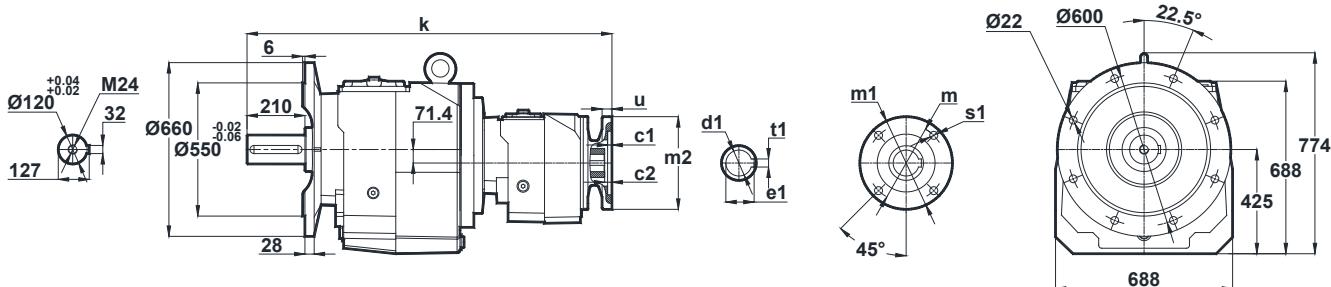


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

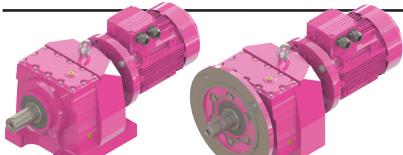
**MN975-A.. / B..**  
**MN976-A.. / B..**



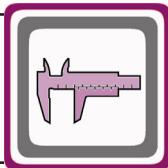
**NN975-A.. / B..**  
**NN976-A.. / B..**



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

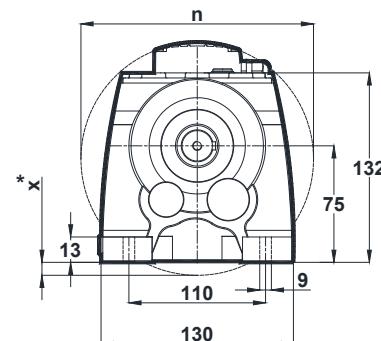
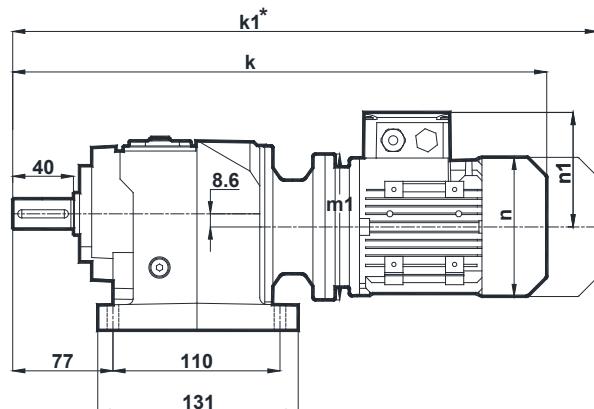
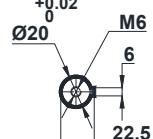


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

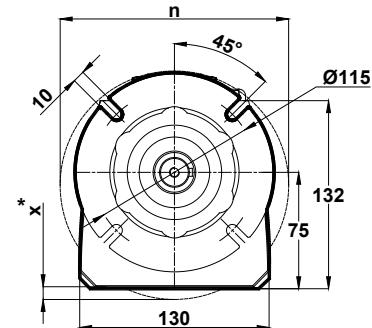
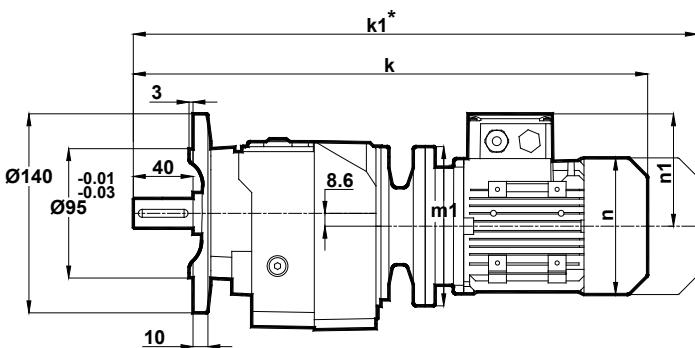
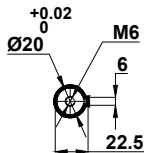


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV002 MV003

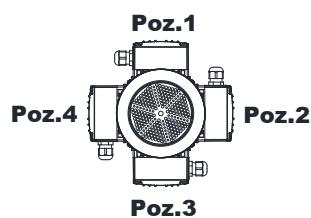


## NV002 NV003



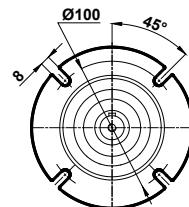
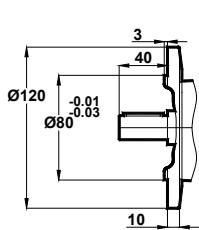
Motor Büyüklüğü / Motor Size / Motorbaugroße					
IEC	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	407	426.5	464.5	505.5	505.5
k1	468	517.5	557.5	609	609
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	140	160	200	200	200
m1 (B14)	90	105	120	140	140
x (B5)	4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

Klemens Kutusu / Terminal Box / Klemmenkasten

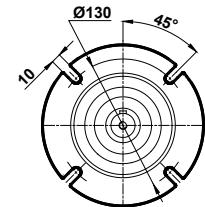
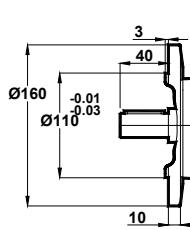


63-71-80-90

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



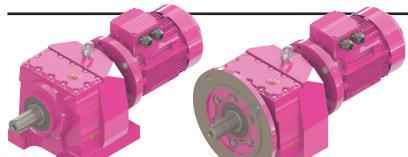
Opt. 1



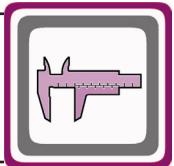
Opt. 2

\* "k1" Ölçüsü frenli reduktörlere 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

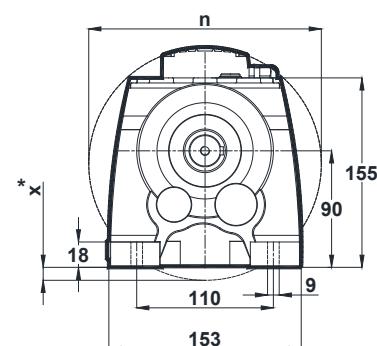
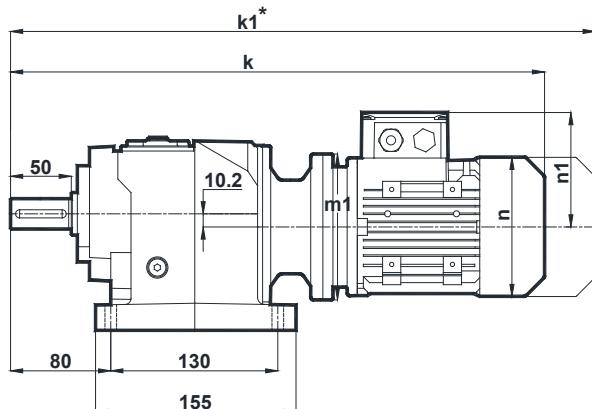
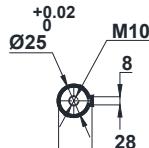


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

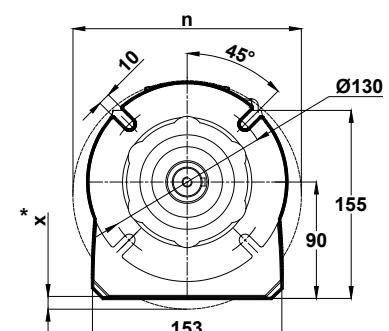
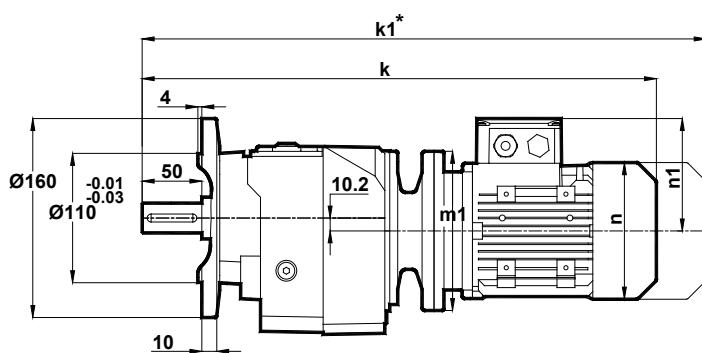
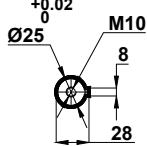


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MV102**  
**MV103**

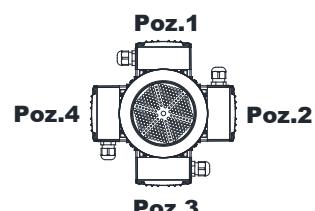


**NV102**  
**NV103**



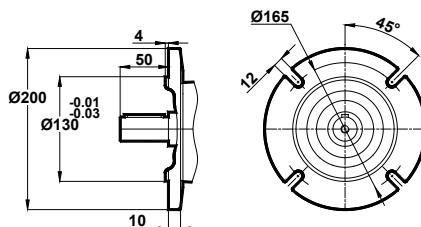
Motor Büyüklüğü / Motor Size / Motorbaugroße					
IEC	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	431	450.5	488.5	529.5	529.5
k1	492	541.5	581.5	633	633
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	140	160	200	200	200
m1 (B14)	90	105	120	140	140
x (B5)	-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

Klemens Kutusu / Terminal Box / Klemmenkasten



63-71-80-90

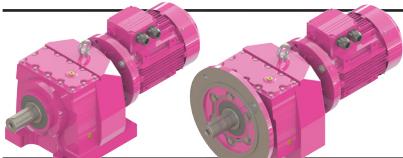
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

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

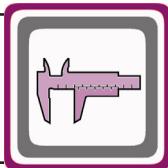
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

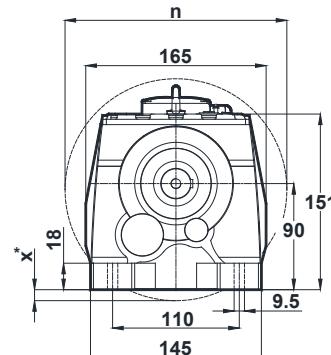
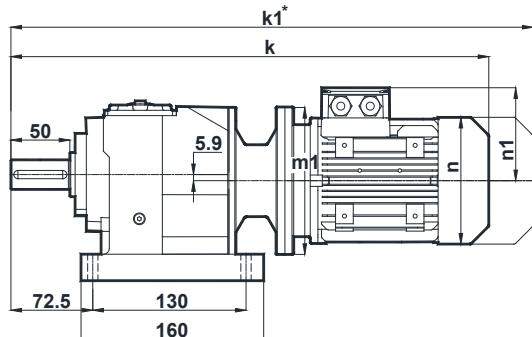
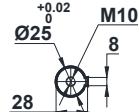
## Dimension Pages

## Abmessungsseiten

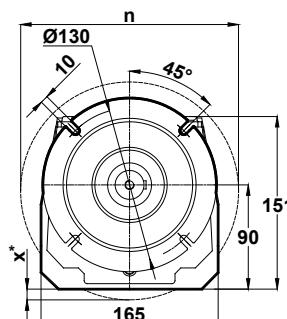
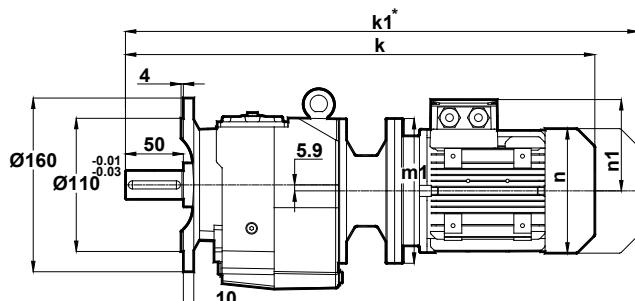
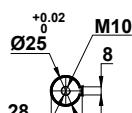


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MV172**  
**MV173**

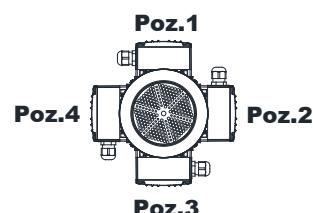


**NV172**  
**NV173**



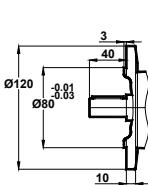
Motor Büyüklüğü / Motor Size / Motorbaugroße								
IEC	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	
k	434	453.5	491.5	532.5	532.5	579	599.5	
k1	495	544.5	584.5	636	636	687.5	704	
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 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

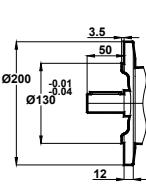
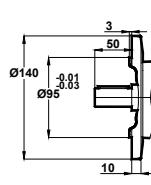
Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



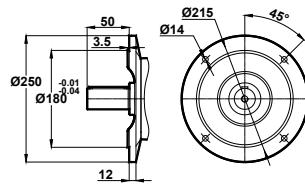
Opt. 1



Opt. 2



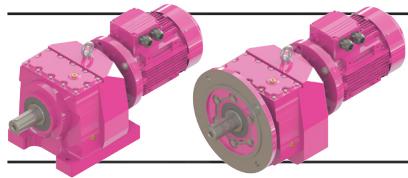
Opt. 3



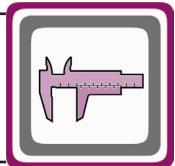
Opt. 4

\* "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

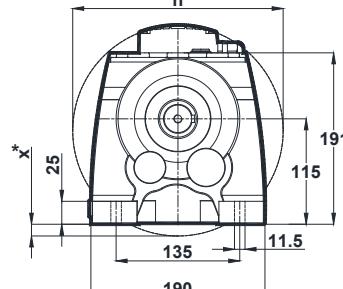
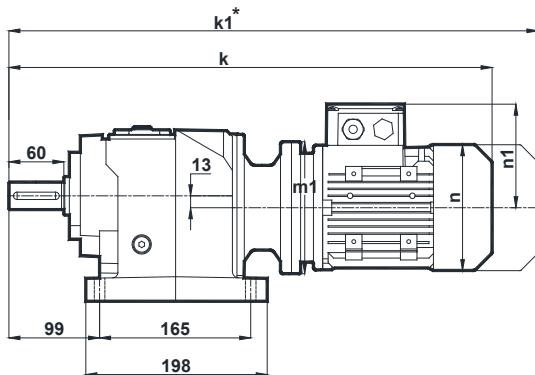
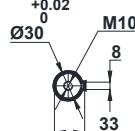


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

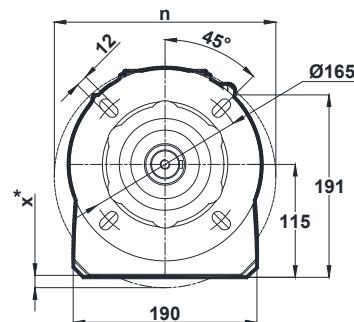
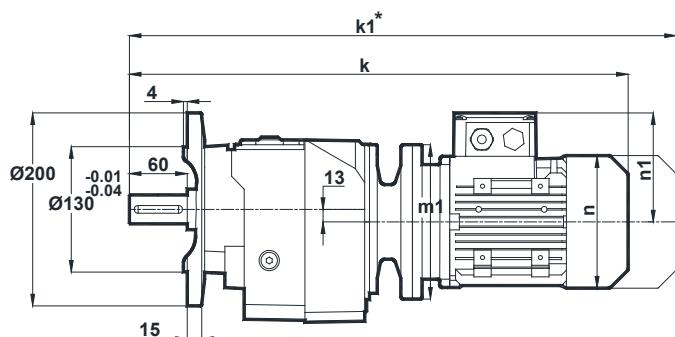
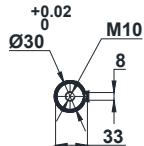


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MV202**  
**MV203**

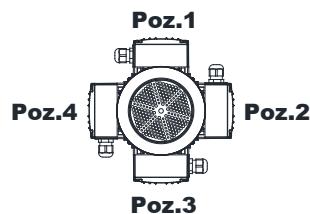


**NV202**  
**NV203**



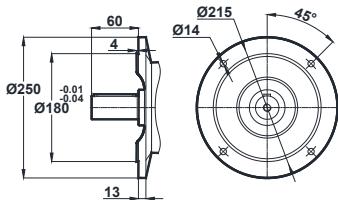
Motor Büyüklüğü / Motor Size / Motorbaugroße							
IEC	63/B5	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14
k	515.5	504.5	556.5	597.5	597.5	626	646.5
k1	576.5	595.5	649.5	701	701	734.5	751
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215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

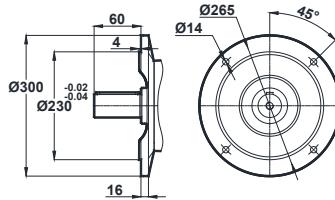


63-71-80-90-100-112

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



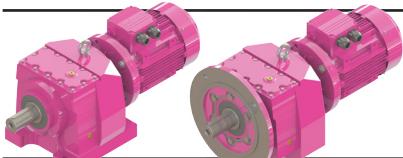
Opt. 1



Opt. 2

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

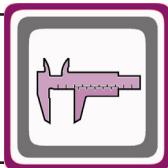
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

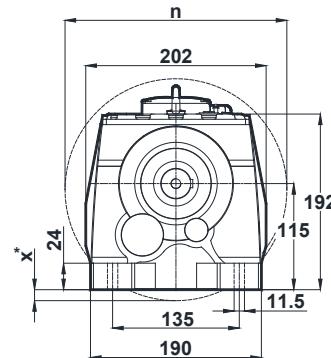
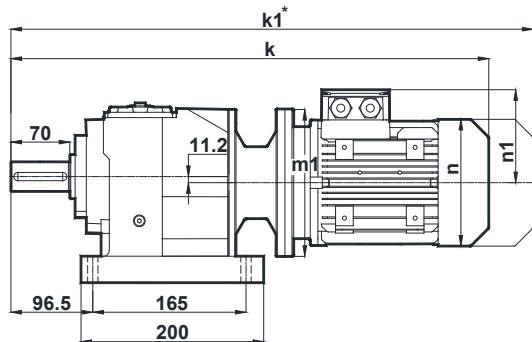
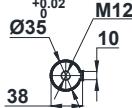
## Dimension Pages

## Abmessungsseiten

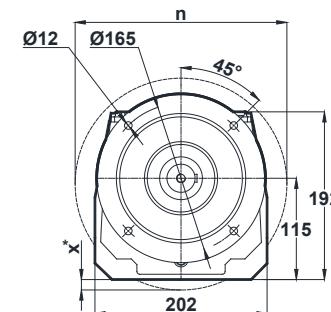
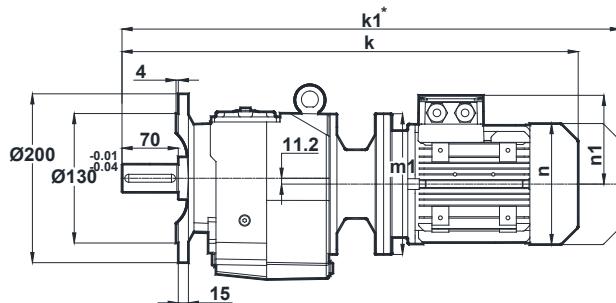
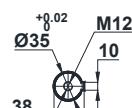


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MV272**  
**MV273**

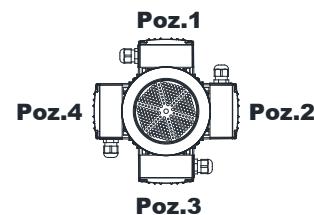


**NV272**  
**NV273**



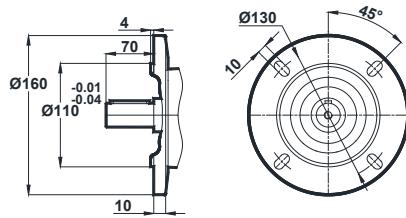
Motor Büyüklüğü / Motor Size / Motorbaugröße									
IEC	63/B5	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	516.5	505.5	557.5	598.5	598.5	627	647.5	778.5	778.5
k1	577.5	596.5	650.5	702	702	735.5	752	908.5	908.5
n / n1	121 / 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

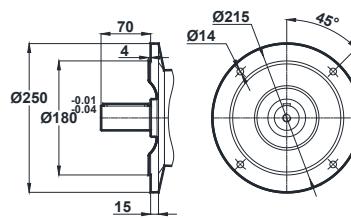


63-71-80-90-100-112-132

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



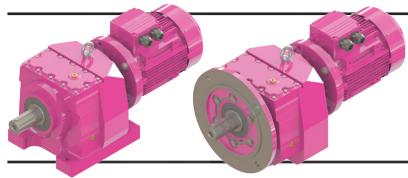
Opt. 1



Opt. 2

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

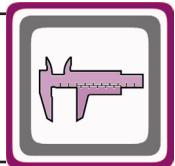
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

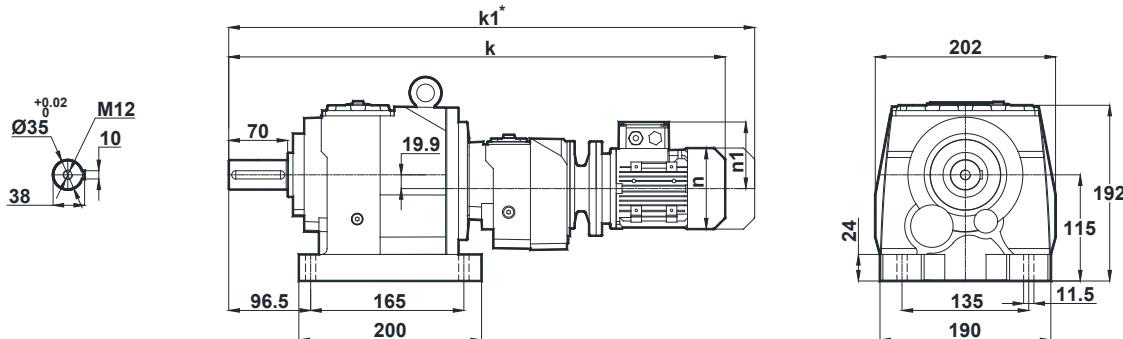
## *Dimension Pages*

### Abmessungsseiten

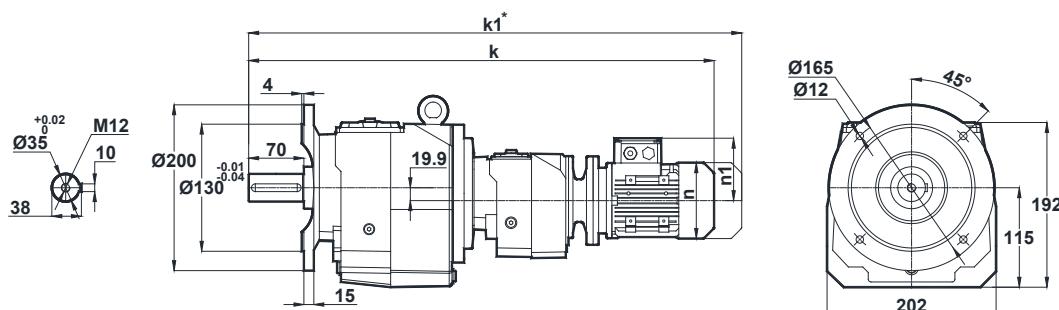


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MV275**  
**MV276**



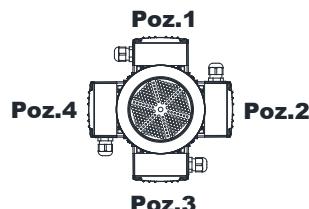
NV275  
NV276



**Motor Büyüklüğü / Motor Size / Motorbaugröße**

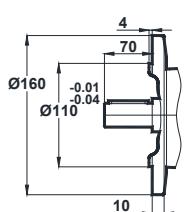
Motor Büyüklüğü / Motor Size / Motorbaudgröße		
IEC	63/B5 63/B14	71/B5 71/B14
k	632	651.5
k1	693	742.5
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	90	105

**Klemens Kutusu / Terminal Box / Klemmenkasten**

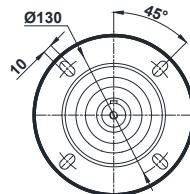


63-71

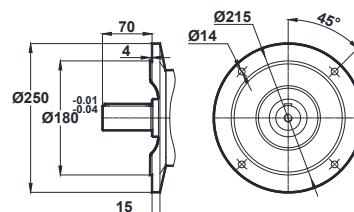
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



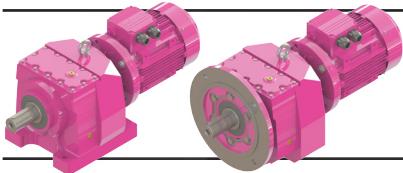
Opt. 1



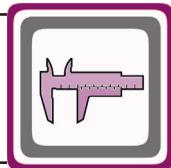
Opt. 2



\* **k1** “ Ölcüsü frenli reduktörlere aittir. Dimension “k1” is for motors with brake. Maße “k1” ist für Bremsenmotoren.

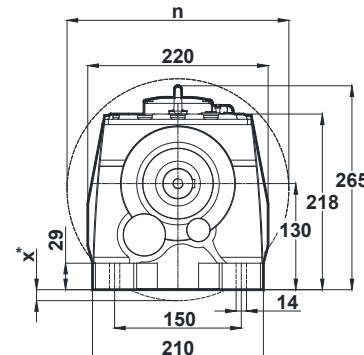
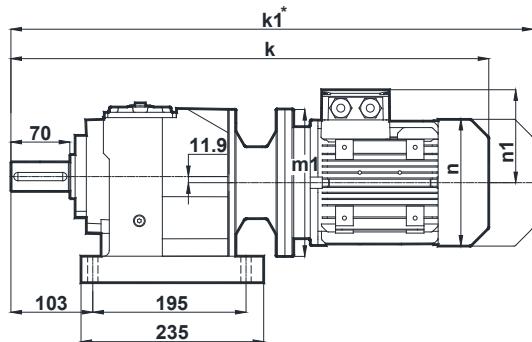
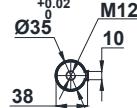


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

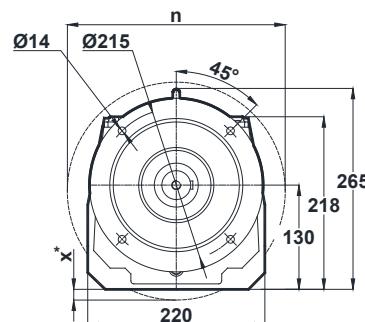
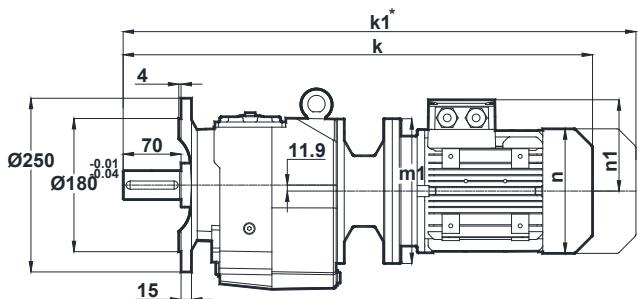
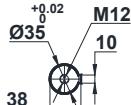


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV282 MV283

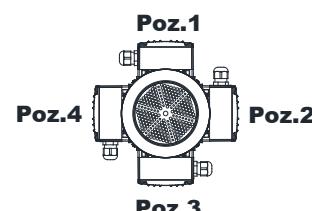


## NV282 NV283



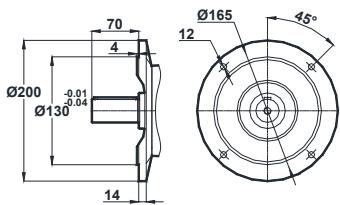
Motor Büyüklüğü / Motor Size / Motorbaugroße								
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	554	577	618	618	670.5	691	795	795
k1	645	670	721.5	721.5	779	795.5	925	925
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 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

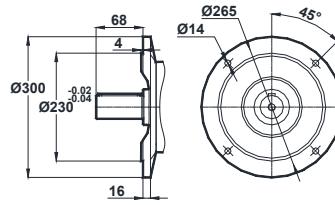


71-80-90-100-112-132

## Opsiyonel Flans 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

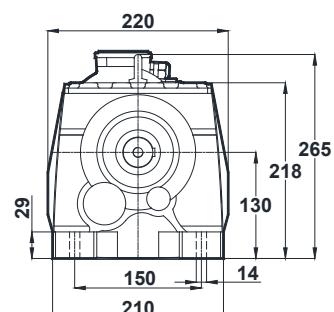
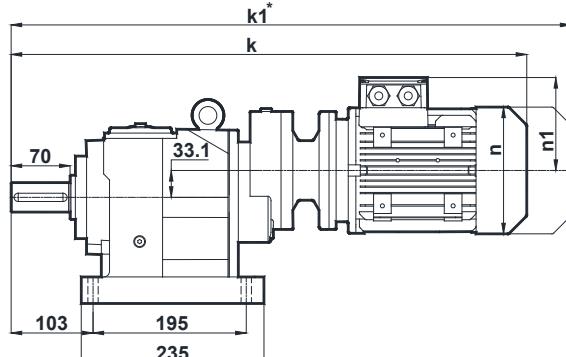
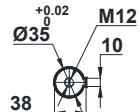
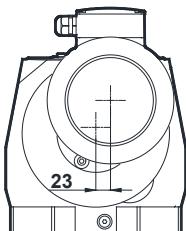


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

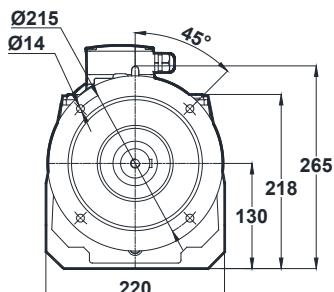
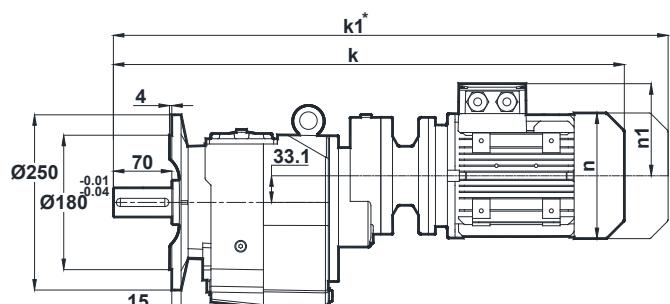
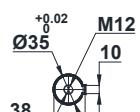
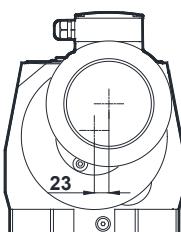


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV284

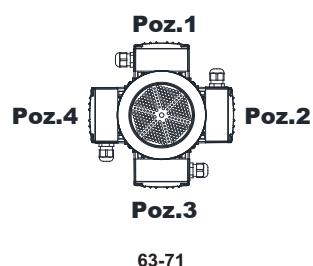


## NV284

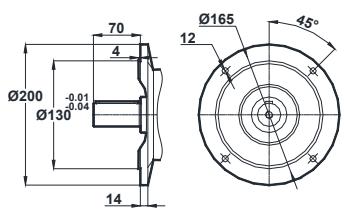


Motor Büyüklüğü / Motor Size / Motorbaugröße		
IEC	63/B5	71/B5 71/B14
k	613	602
k1	674	693
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	-	105

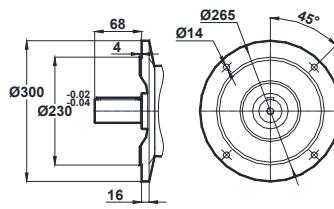
Klemens Kutusu / Terminal Box / Klemmenkasten



Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

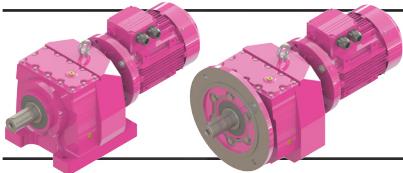


Opt. 1

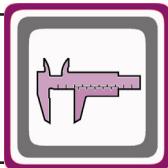


Opt. 2

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

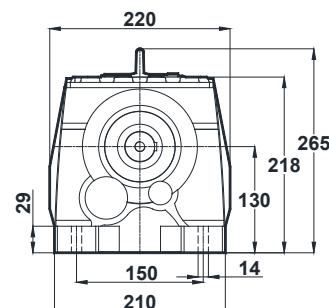
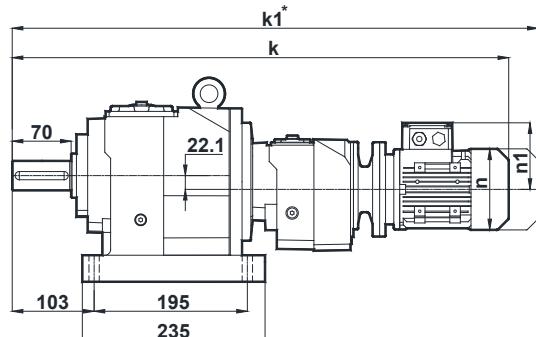
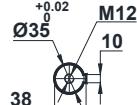


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

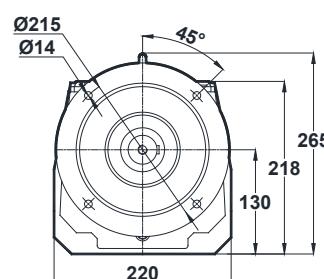
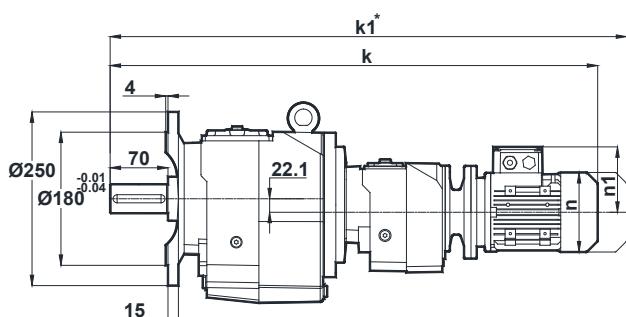
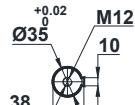


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV285 MV286

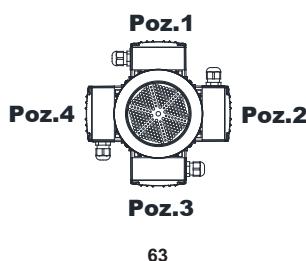


## NV285 NV286



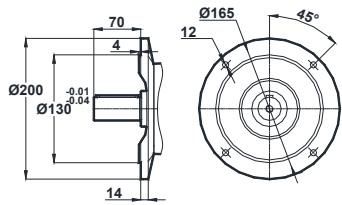
Motor Büyüklüğü / Motor Size / Motorbaugroße	
IEC	63/B5 63/B14
k	681
k1	742
n / n1	121 / 97
m1 (B5)	140
m1 (B14)	90

Klemens Kutusu / Terminal Box / Klemmenkasten

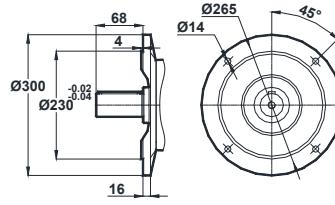


63

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

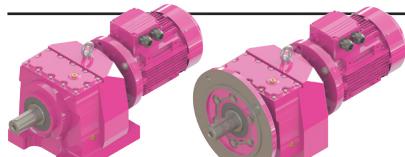


Opt. 1

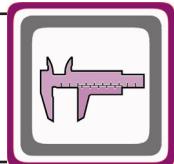


Opt. 2

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

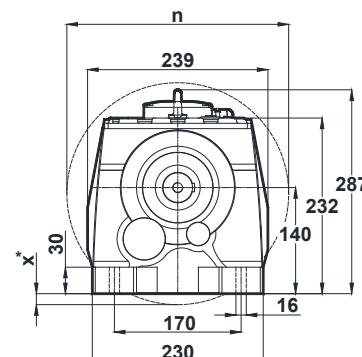
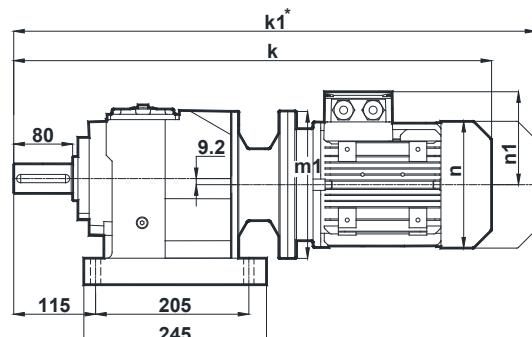
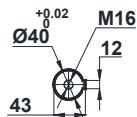


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

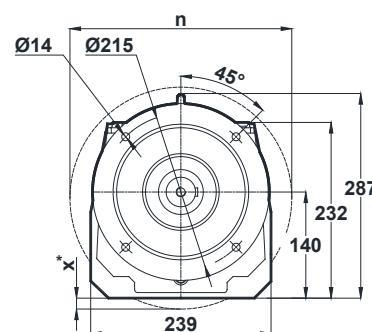
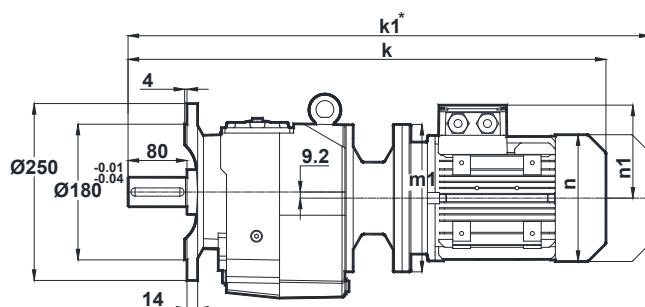
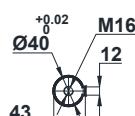


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV372 MV373

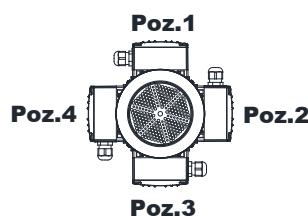


## NV372 NV373



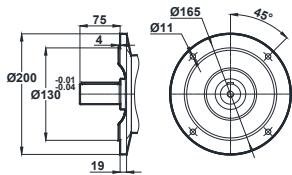
Motor Büyüklüğü / Motor Size / Motorbaugroße								
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	575	598	639	639	691.5	712	816	816
k1	666	691	742.5	742.5	800	816.5	946	946
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193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

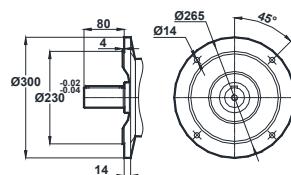


71-80-90-100-112-132

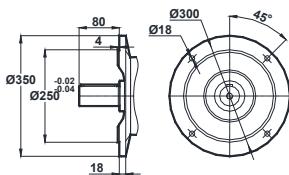
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



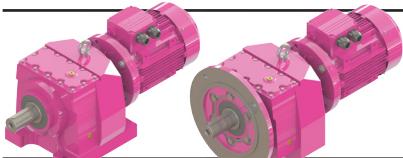
Opt. 2



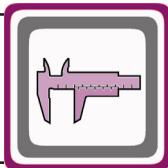
Opt. 3

\* "k1" Ölçüsü frenli reduktörlere 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

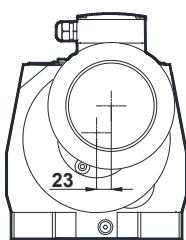


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

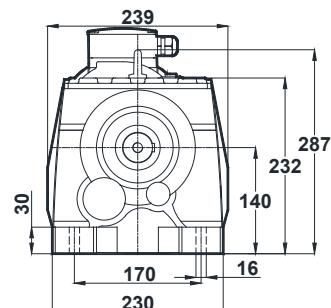
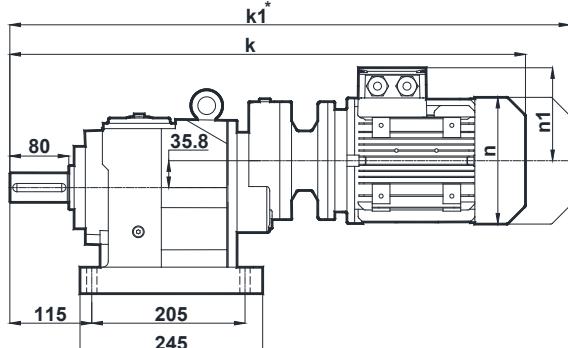


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

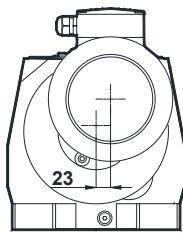
## MV374



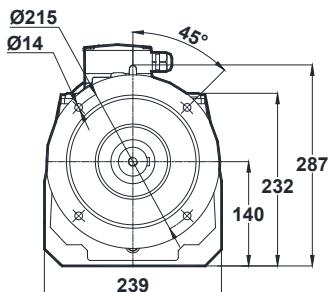
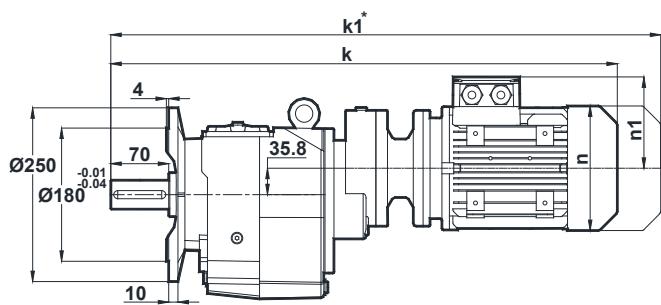
$\varnothing 40$   
 $+0.02$   
12  
M16  
43



## NV374

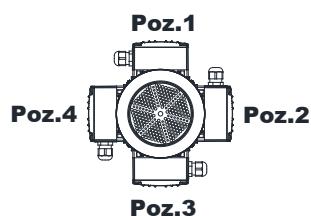


$\varnothing 40$   
 $+0.02$   
12  
M16  
43



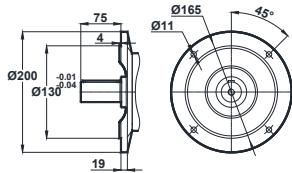
Motor Büyüklüğü / Motor Size / Motorbaugroße			
IEC	63/B5	71/B5 71/B14	80/B5 80/B14
k	634	623	675
k1	695	714	768
n / n1	121 / 97	137 / 112	155 / 121
m1 (B5)	140	160	200
m1 (B14)	-	105	120

Klemens Kutusu / Terminal Box / Klemmenkasten

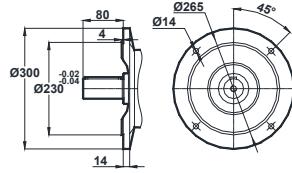


63-71-80

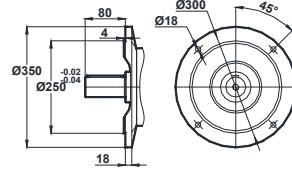
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

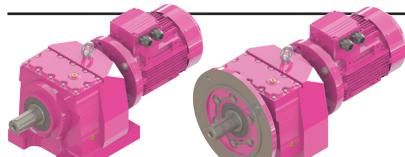


Opt. 2

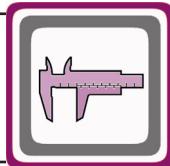


Opt. 3

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

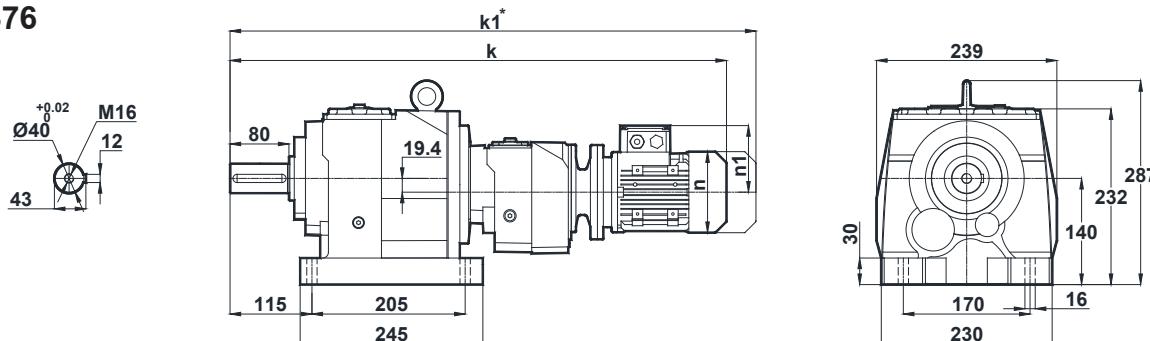


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*

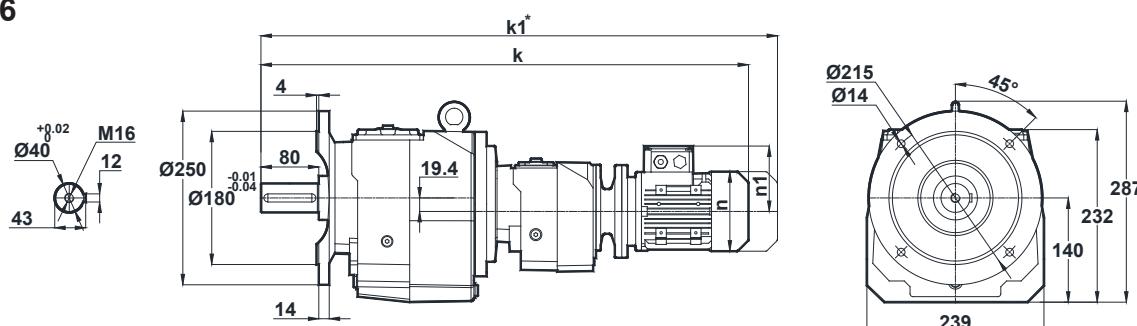


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MV375**  
**MV376**

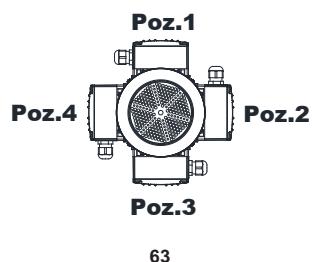


**NV375**  
**NV376**



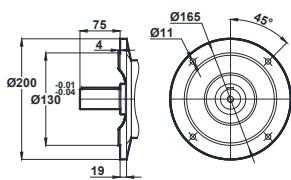
Motor Büyüklüğü / Motor Size / Motorbaugroße	
IEC	63/B5 63/B14
k	702
k1	763
n / n1	121 / 97
m1 (B5)	140
m1 (B14)	90

Klemens Kutusu / Terminal Box / Klemmenkasten

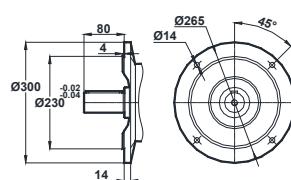


63

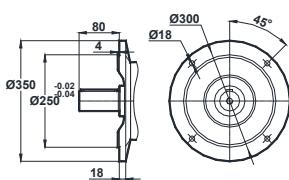
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

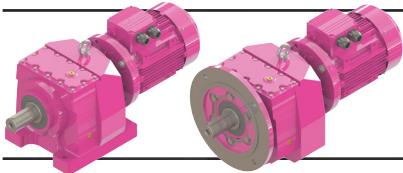


Opt. 2

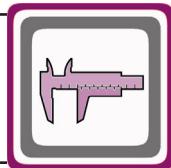


Opt. 3

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

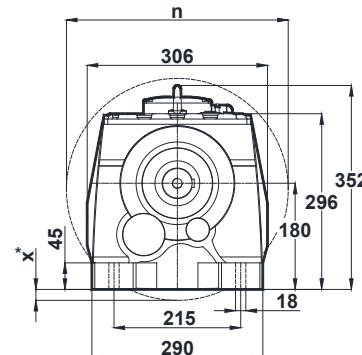
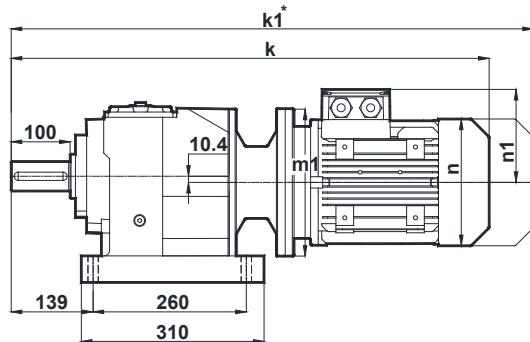
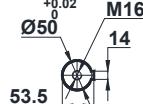


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

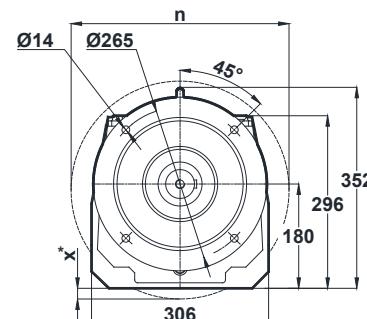
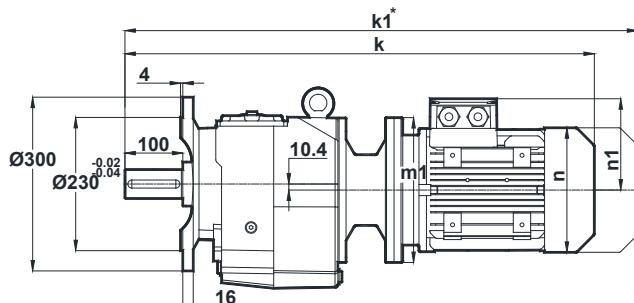
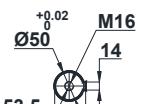


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MV472**  
**MV473**

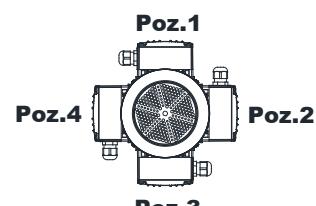


**NV472**  
**NV473**



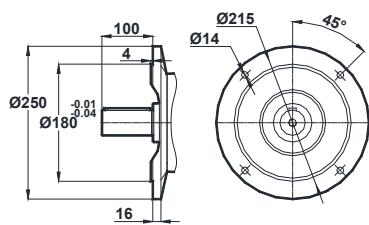
Motor Büyüklüğü / Motor Size / Motorbaugröße											
IEC	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5
k	660.5	701.5	701.5	755.5	776	878.5	878.5	1038	1038	1126	1126
k1	753.5	805	805	864	880.5	1008.5	1008.5	1186	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

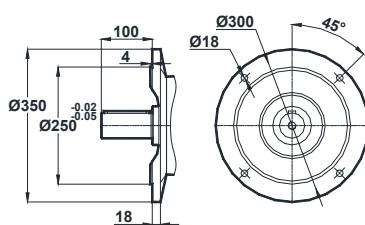


80-90-100-112-132-160-180

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



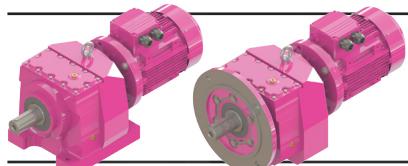
Opt. 1



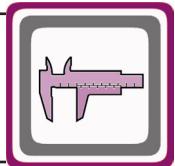
Opt. 2

\* "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

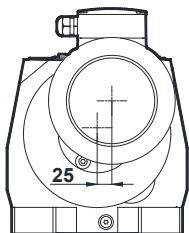


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*

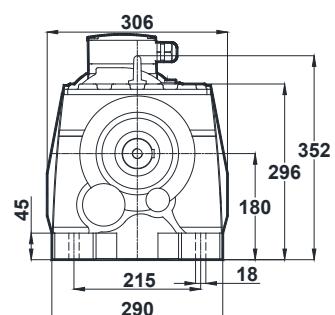
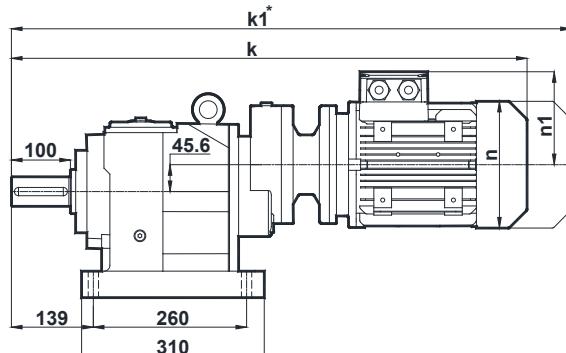


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

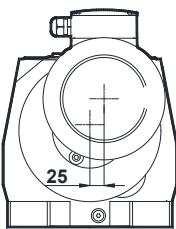
### MV474



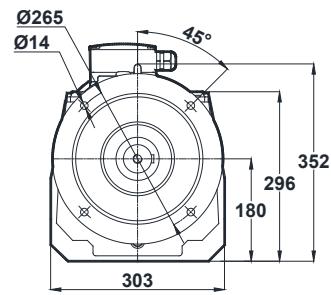
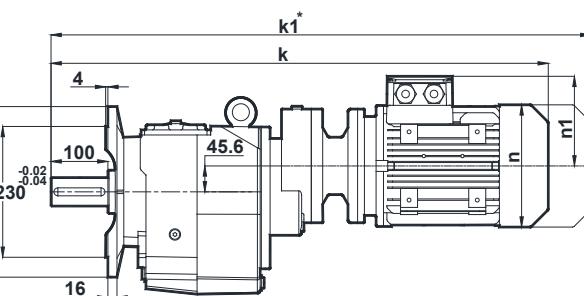
$\varnothing 50$   
+0.02  
M16  
14  
53.5  
25



### NV474

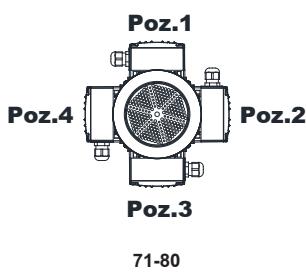


$\varnothing 50$   
+0.02  
M16  
14  
53.5  
25

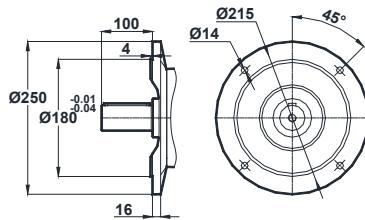


Motor Büyüklüğü / Motor Size / Motorbaugröße		
IEC	71/B5	80/B5 80/B14
k	735.5	758.5
k1	826.5	851.5
n / n1	137 / 112	155 / 121
m1 (B5)	160	200
m1 (B14)	-	120

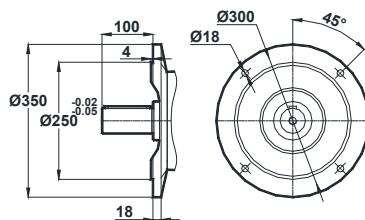
Klemens Kutusu / Terminal Box / Klemmenkasten



Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

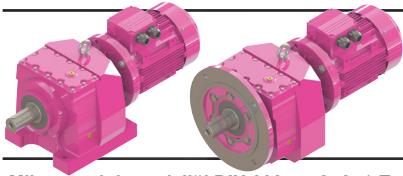


Opt. 1

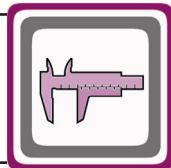


Opt. 2

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

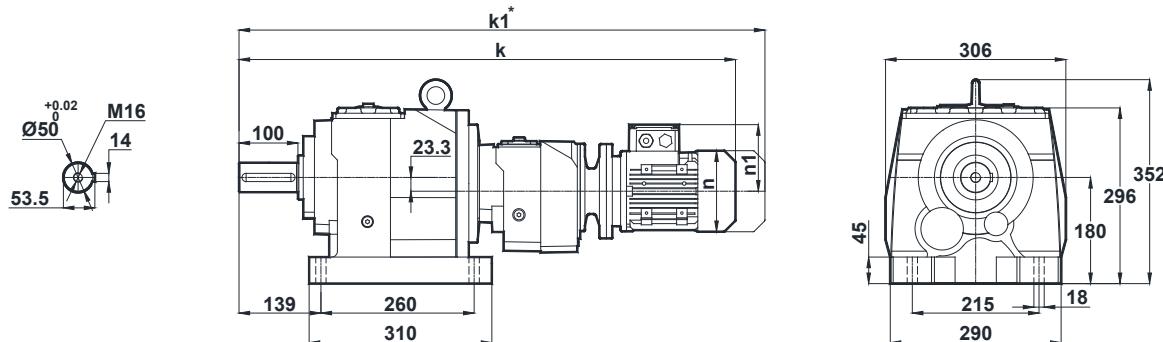


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

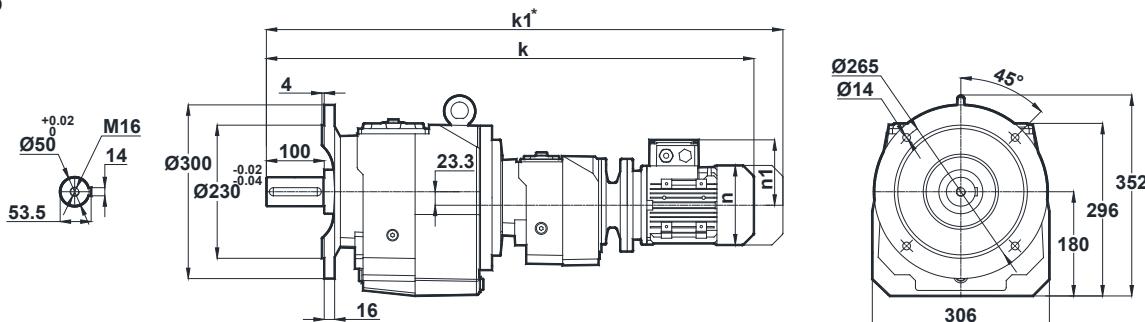


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MV475**  
**MV476**

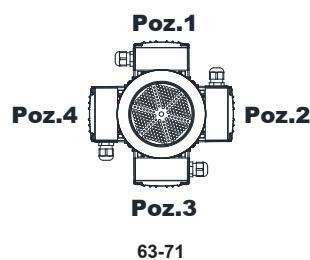


**NV475**  
**NV476**



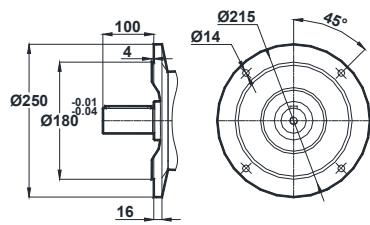
Motor Büyüklüğü / Motor Size / Motorbaugröße		
IEC	63/B5	71/B5 71/B14
k	845.5	834.5
k1	906.5	925.5
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	-	105

Klemens Kutusu / Terminal Box / Klemmenkasten

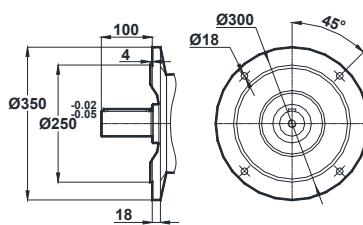


63-71

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

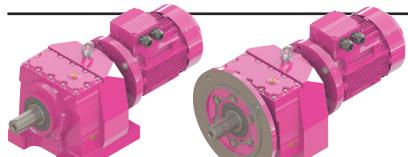


Opt. 1

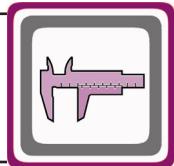


Opt. 2

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

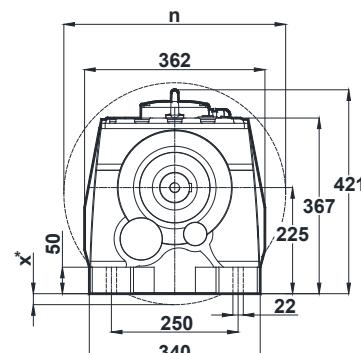
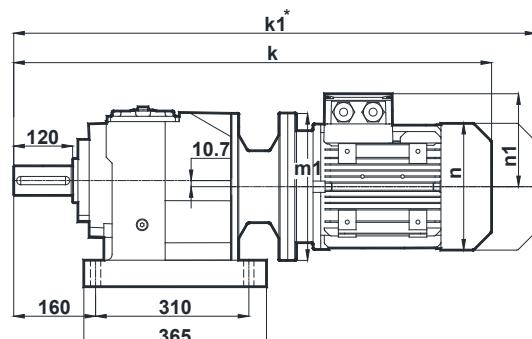
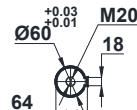


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

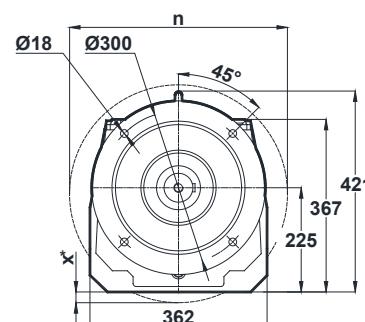
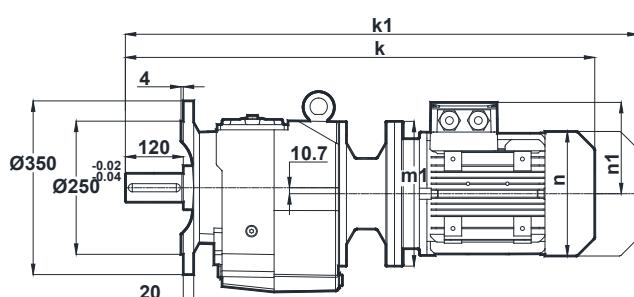
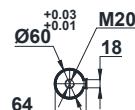


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MV572**  
**MV573**

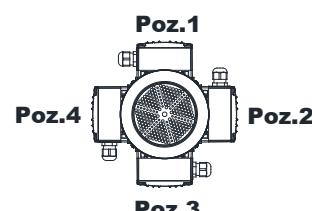


**NV572**  
**NV573**



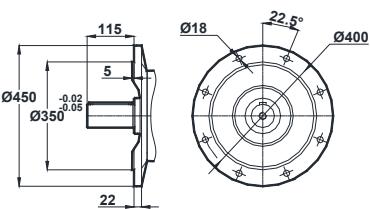
Motor Büyüklüğü / Motor Size / Motorbaugroße									
IEC	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5
k	818	838.5	943.5	943.5	1099	1099	1187	1187	1261
k1	926.5	943	1073.5	1073.5	1247	1247	1345.5	1345.5	1447.5
n / n1	193 / 147	215 / 158	257 / 179	257 / 179	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

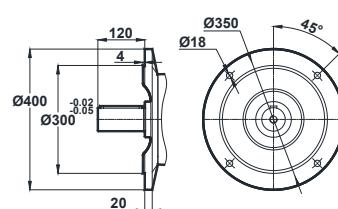


100-112-132-160-180-200

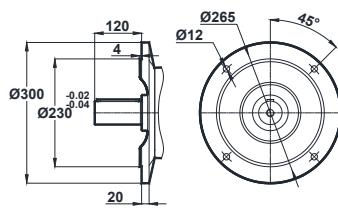
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1



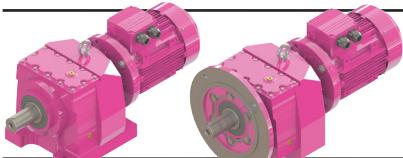
Opt. 2



Opt. 3

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

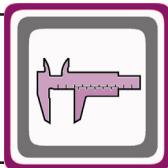
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

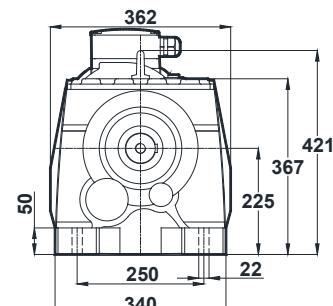
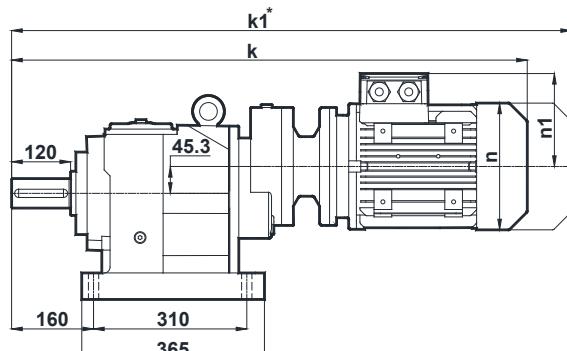
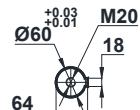
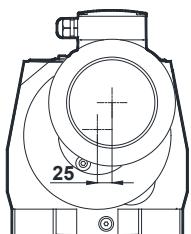
## Dimension Pages

## Abmessungsseiten

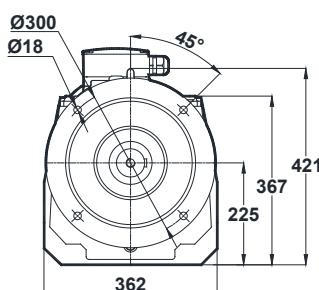
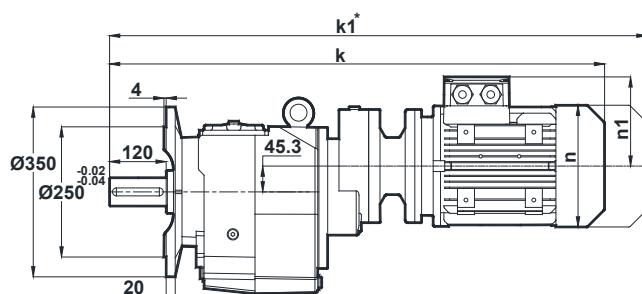
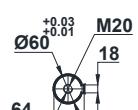
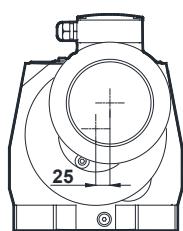


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

### MV574

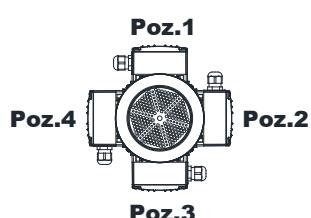


### NV574



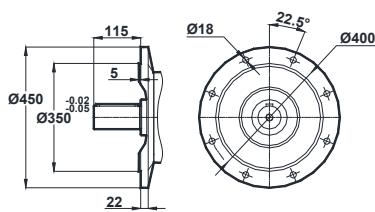
Motor Büyüklüğü / Motor Size / Motorbaugroße				
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	798.5	821.5	862.5	862.5
k1	889.5	914.5	966	966
n / n1	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140

Klemens Kutusu / Terminal Box / Klemmenkasten

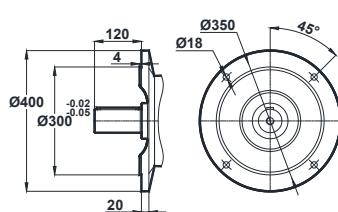


71-80-90

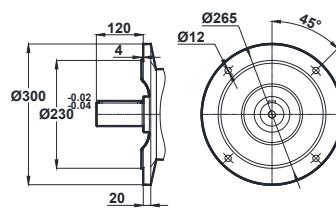
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

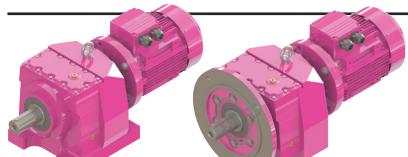


Opt. 2



Opt. 3

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



# Ölçü Sayfaları

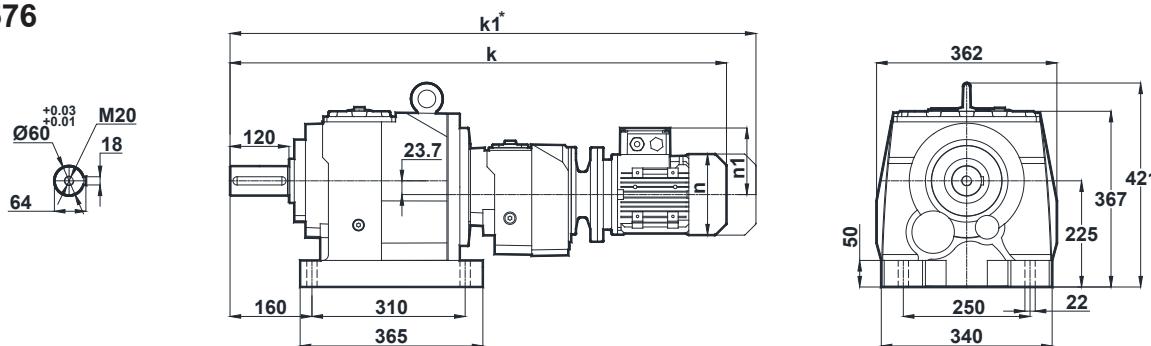
## Dimension Pages

## Abmessungsseiten

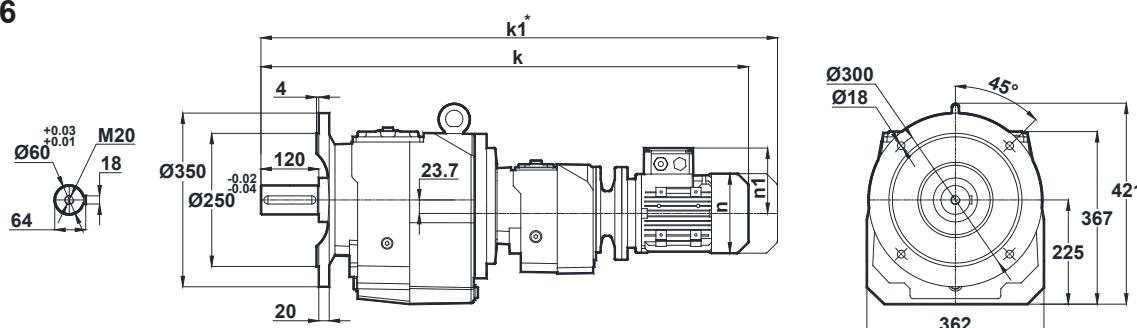


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

### MV575 MV576

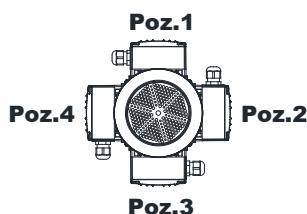


### NV575 NV576



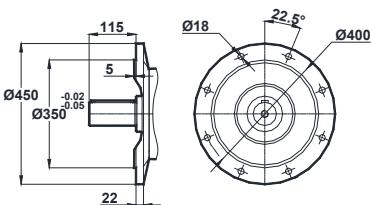
Motor Büyüklüğü / Motor Size / Motorbaugröße		
IEC	63/B5	71/B5 71/B14
k	910.5	899.5
k1	971.5	990.5
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	-	105

Klemens Kutusu / Terminal Box / Klemmenkasten

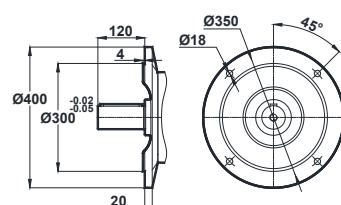


63-71

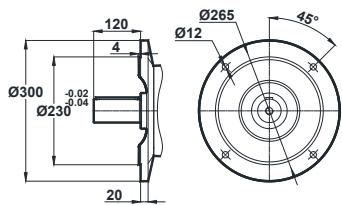
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

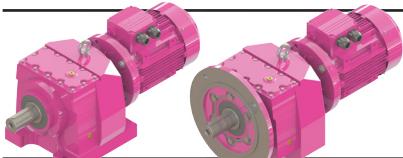


Opt. 2

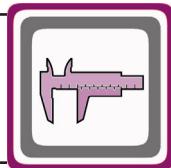


Opt. 3

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

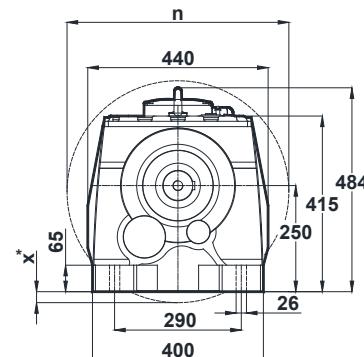
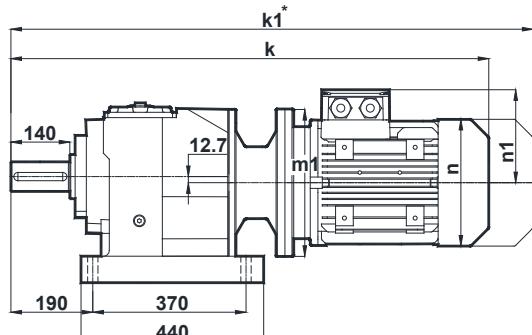
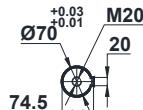


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

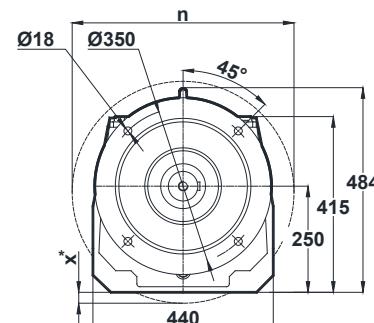
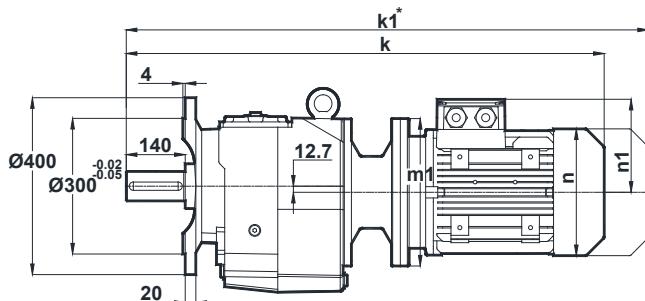
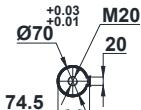


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV672 MV673

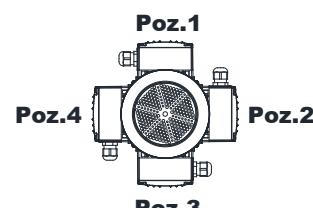


## NV672 NV673



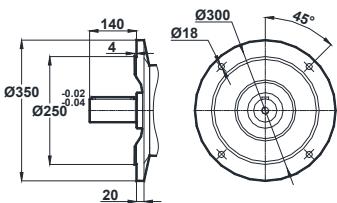
Motor Büyüklüğü / Motor Size / Motorbaugröße										
IEC	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5
k	898.5	997.5	997.5	1152.5	1152.5	1240.5	1240.5	1315	1386	1411
k1	1003	1127.5	1127.5	1300.5	1300.5	1399	1399	1501.5	1551	1576
n / n1	215 / 158	257 / 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

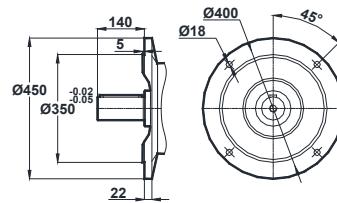


112-132-160-180-200-225

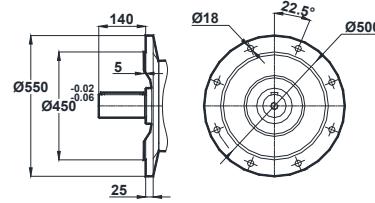
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



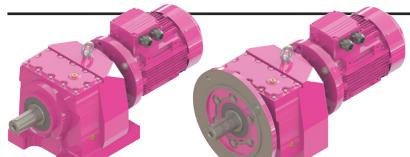
Opt. 2



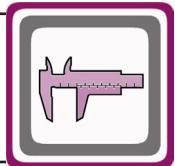
Opt. 3

\* "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

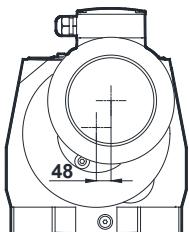


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*

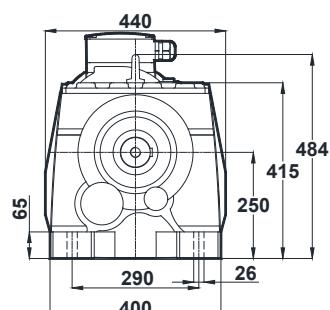
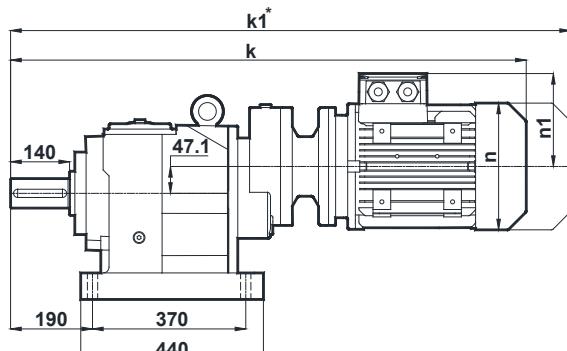


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

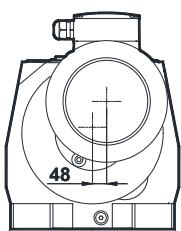
### MV674



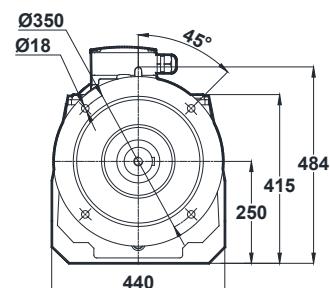
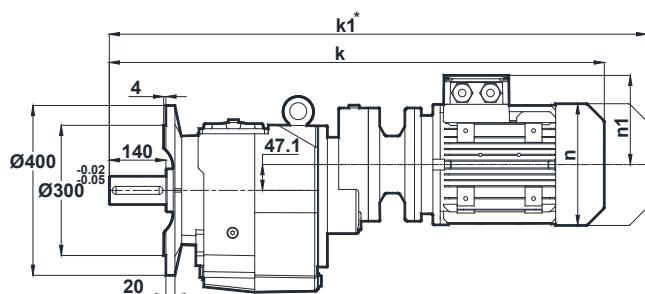
$\varnothing 70^{+0.03}_{-0.01}$   
M20  
20  
74.5



### NV674

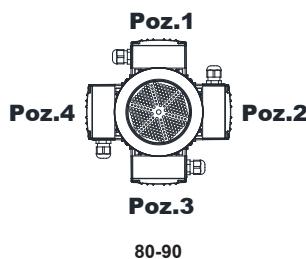


$\varnothing 70^{+0.03}_{-0.01}$   
M20  
20  
74.5

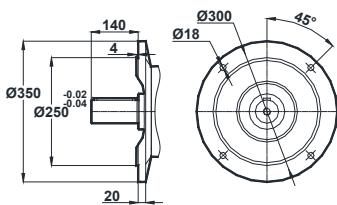


Motor Büyüklüğü / Motor Size / Motorbaugroße			
IEC	80/B5	90S/B5 90S/B14	90L/B5 90L/B14
k	891.5	932.5	932.5
k1	984.5	1036	1036
n / n1	155 / 121	176 / 132	176 / 132
m1 (B5)	200	200	200
m1 (B14)	-	140	140

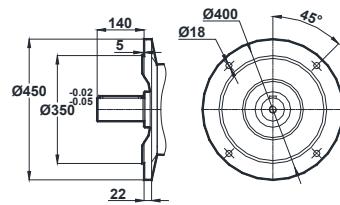
Klemens Kutusu / Terminal Box / Klemmenkasten



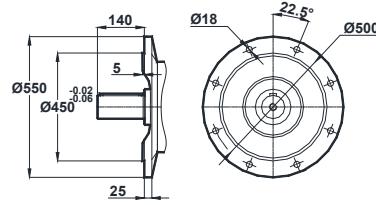
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

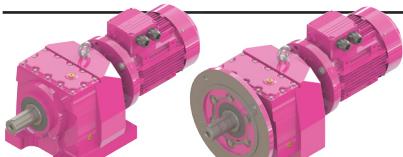


Opt. 2

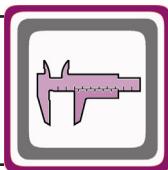


Opt. 3

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

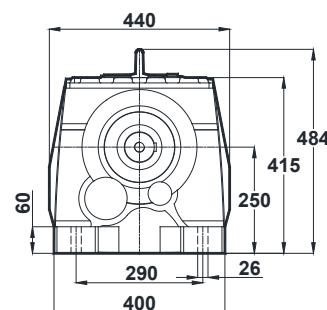
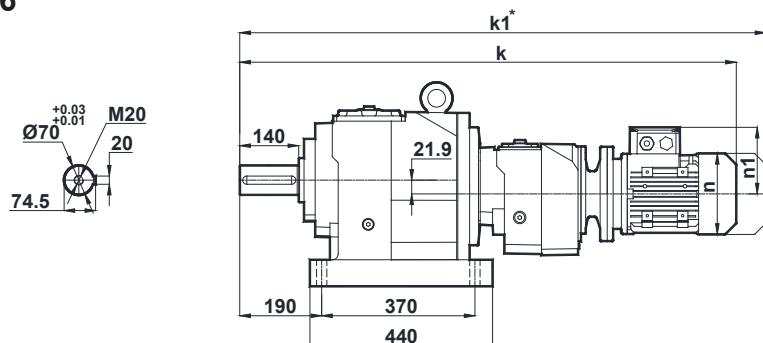


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

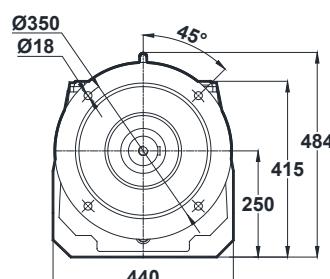
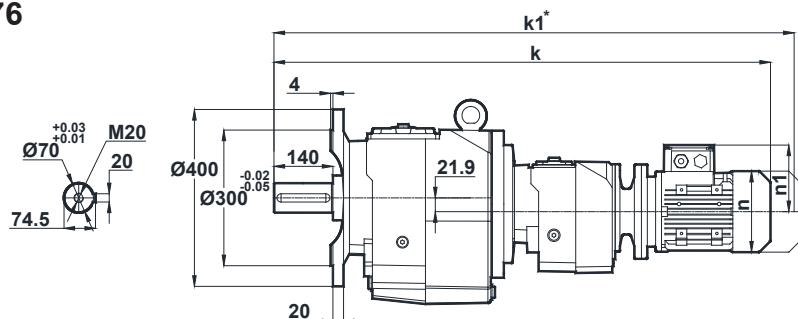


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV675 MV676

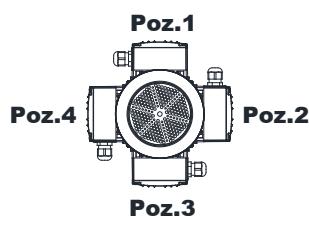


## NV675 NV676



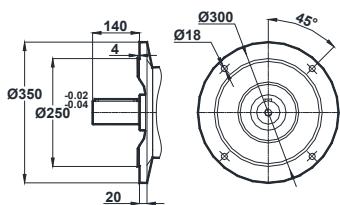
Motor Büyüklüğü / Motor Size / Motorbaugroße		
IEC	71/B5	80/B5 80/B14
k	1019	1042
k1	1110	1135
n / n1	137 / 112	155 / 121
m1 (B5)	160	200
m1 (B14)	-	120

Klemens Kutusu / Terminal Box / Klemmenkasten

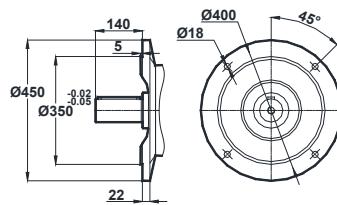


71-80

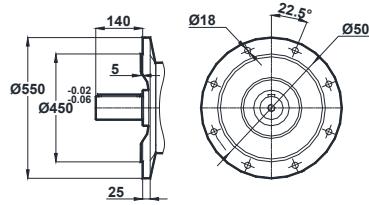
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

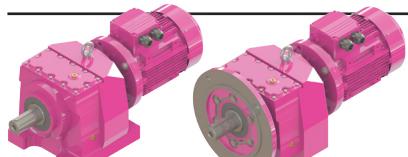


Opt. 2

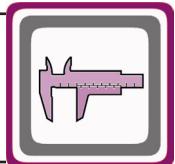


Opt. 3

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

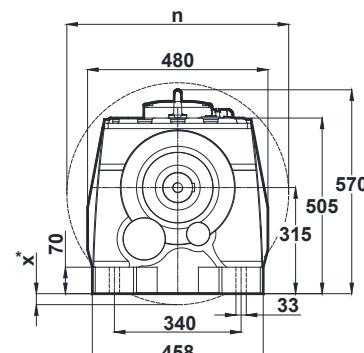
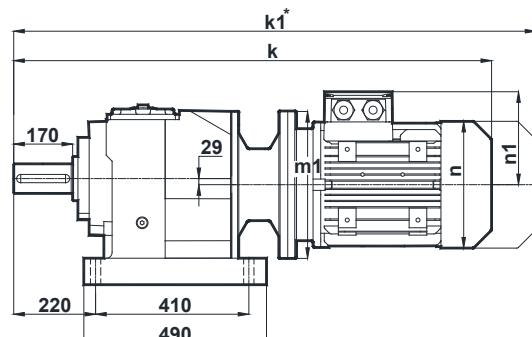
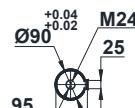


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

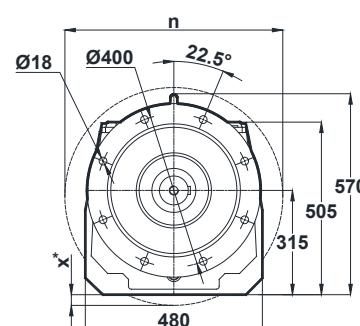
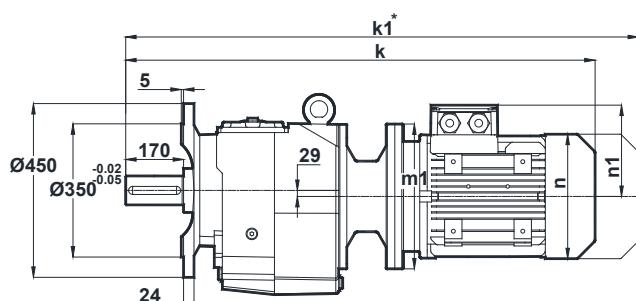
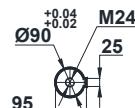


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV772 MV773

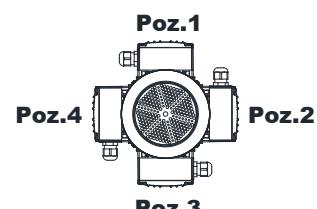


## NV772 NV773



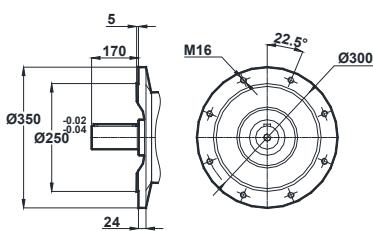
Motor Büyüklüğü / Motor Size / Motorbaugröße										
IEC	132S/B5	132M/B5	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5	250M/B5
k	1082.5	1082.5	1232	1232	1320	1320	1396	1467	1492	1568
k1	1212.5	1212.5	1380	1380	1478.5	1478.5	1582.5	1632	1657	1738.5
n / n1	257 / 179	257 / 179	315 / 219	315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

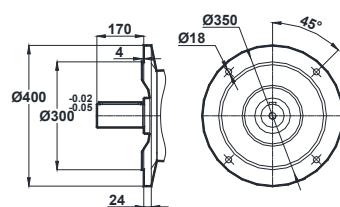


132-160-180-200-225-250

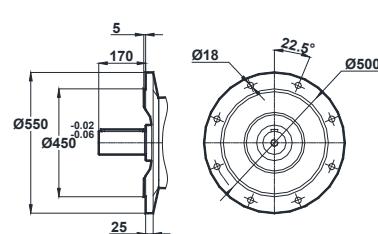
## Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



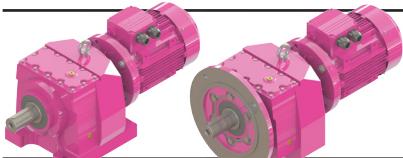
Opt. 2



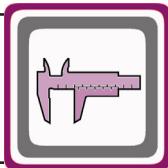
Opt. 3

\* "k1" Ölçüsü frenli reduktörlere 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

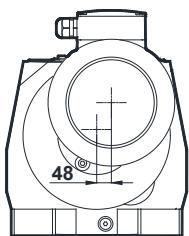


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

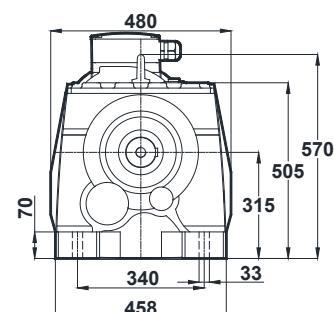
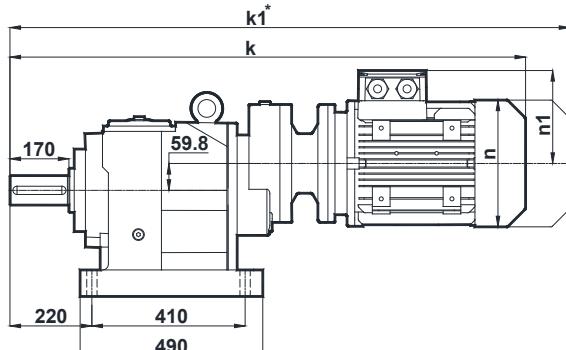


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

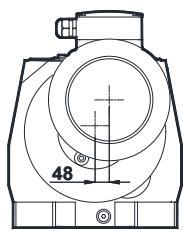
## MV774



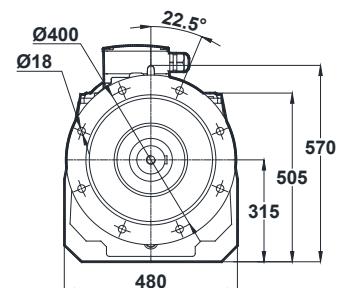
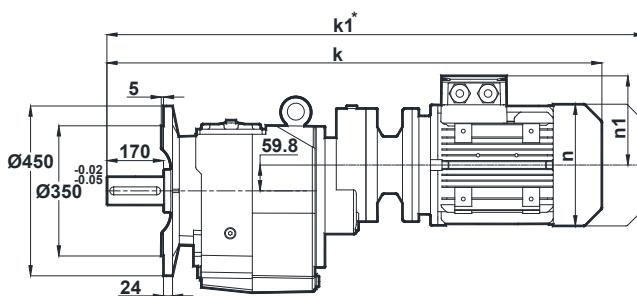
$\varnothing 90^{+0.04}_{-0.02}$   
95  
25  
M24



## NV774

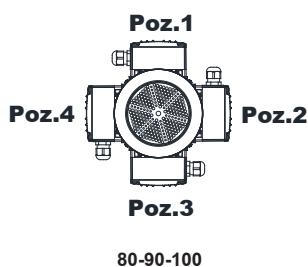


$\varnothing 90^{+0.04}_{-0.02}$   
95  
25  
M24



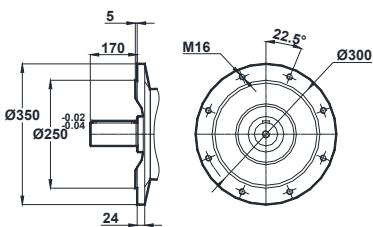
Motor Büyüklüğü / Motor Size / Motorbaugroße				
IEC	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	976.5	1017.5	1017.5	1071.5
k1	1069.5	1121	1121	1180
n / n1	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	200	200	200	250
m1 (B14)	-	140	140	160

Klemens Kutusu / Terminal Box / Klemmenkasten

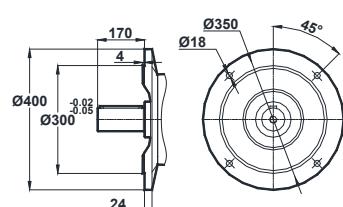


80-90-100

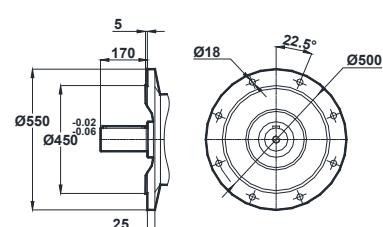
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

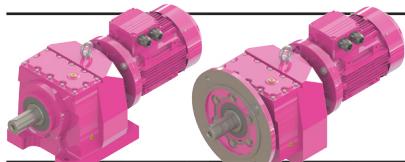


Opt. 2



Opt. 3

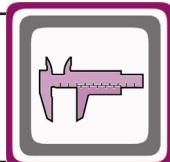
\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.



# Ölçü Sayfaları

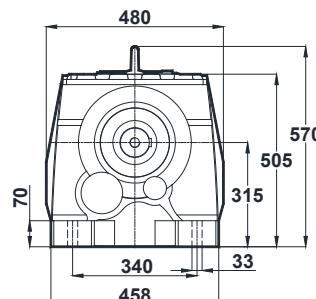
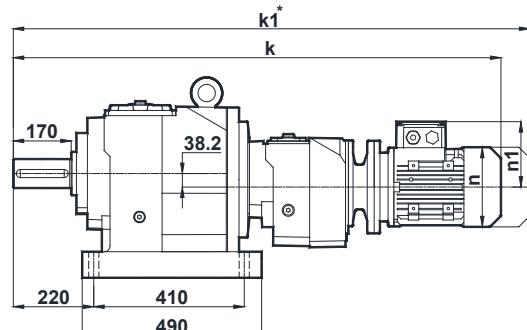
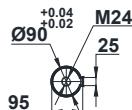
## Dimension Pages

## Abmessungsseiten

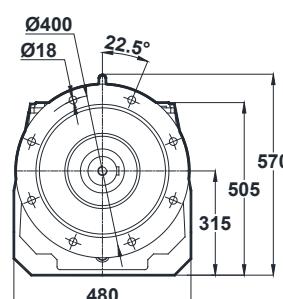
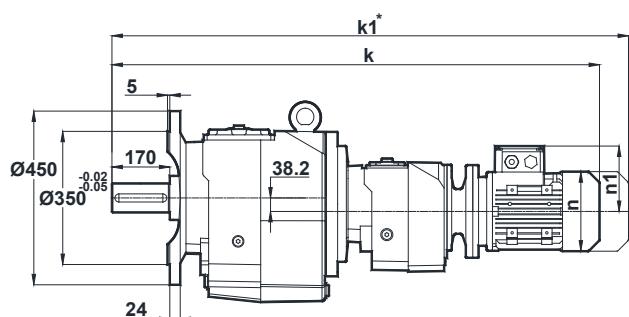
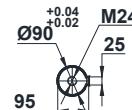


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MV775**  
**MV776**

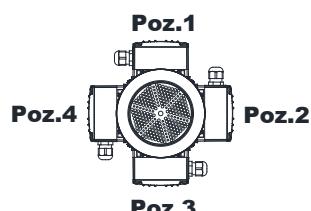


**NV775**  
**NV776**



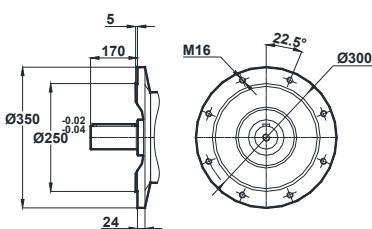
Motor Büyüklüğü / Motor Size / Motorbaugroße				
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	1107	1130	1171	1171
k1	1198	1223	1274.5	1274.5
n / n1	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140

Klemens Kutusu / Terminal Box / Klemmenkasten

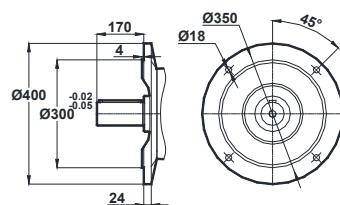


71-80-90

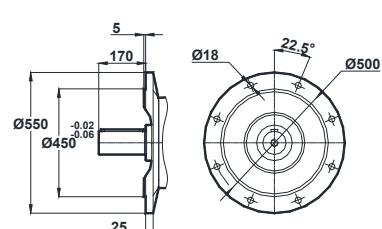
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

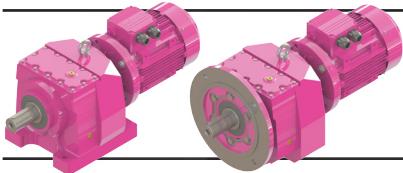


Opt. 2



Opt. 3

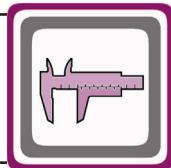
\* "k1" Ölçüsü frenli reduktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.



# Ölçü Sayfaları

## Dimension Pages

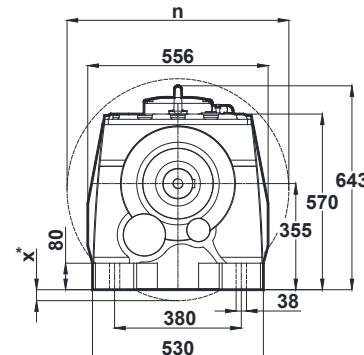
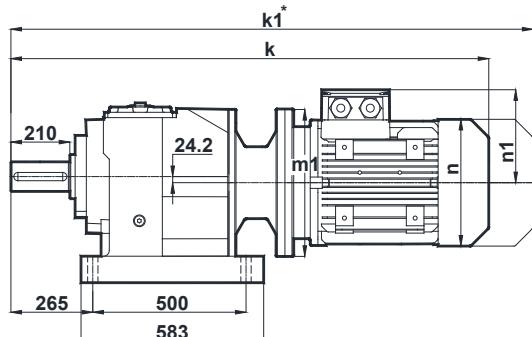
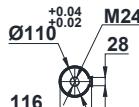
## Abmessungsseiten



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

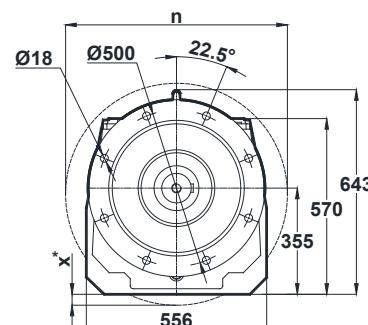
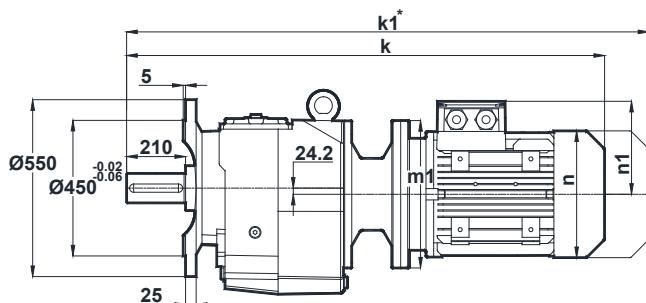
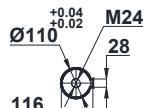
**MV872**

**MV873**



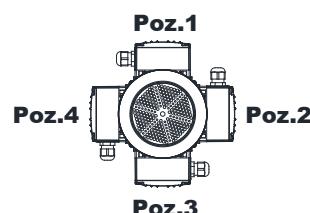
**NV872**

**NV873**



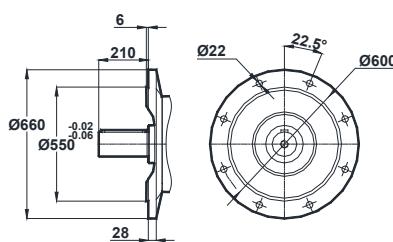
Motor Büyüklüğü / Motor Size / Motorbaugröße										
IEC	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5	250M/B5	280S/B5	280M/B5
k	1418	1418	1506	1506	1560	1578	1603	1679	1741	1741
k1	1566	1566	1664.5	1664.5	1746.5	1743	1768	1849.5	1914	1920
n / n1	315 / 219	315 / 219	347 / 234	347 / 234	390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

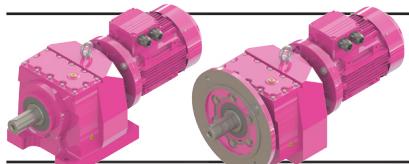
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



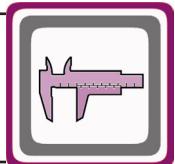
Opt. 1

\* "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

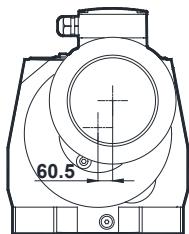


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

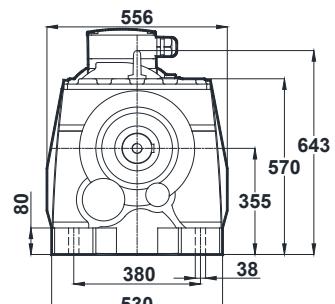
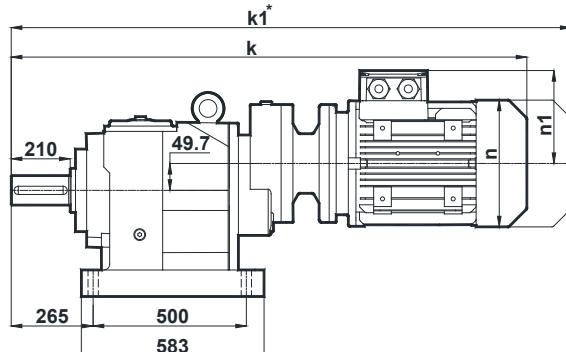


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

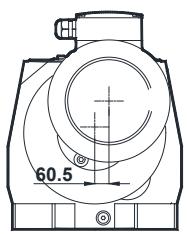
## MV874



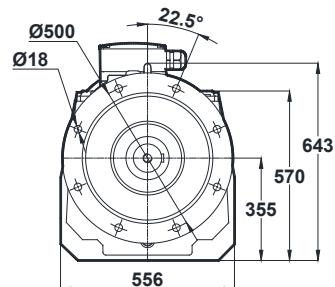
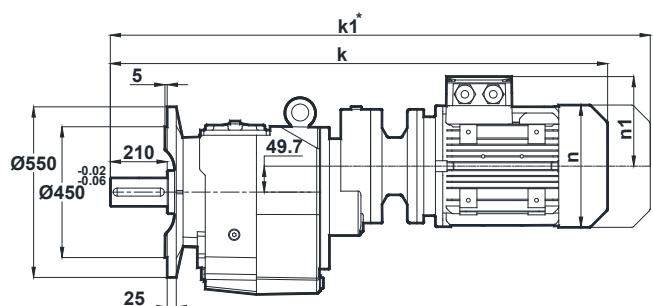
$\varnothing 110^{+0.04}_{-0.02}$   
M24  
28



## NV874

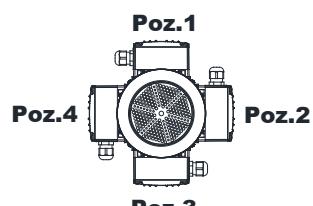


$\varnothing 110^{+0.04}_{-0.02}$   
M24  
28



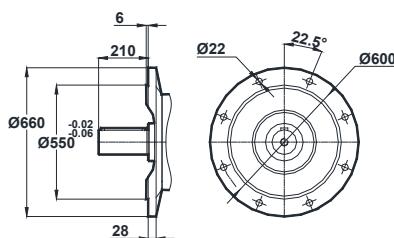
Motor Büyüklüğü / Motor Size / Motorbaugroße				
IEC	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14
k	1206	1226.5	1331.5	1331.5
k1	1314.5	1331	1461.5	1461.5
n / n1	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	250	250	300	300
m1 (B14)	-	-	200	200

Klemens Kutusu / Terminal Box / Klemmenkasten



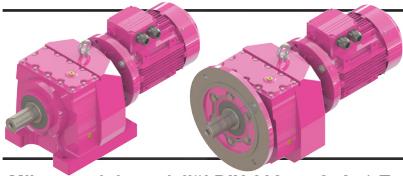
100-112-132

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

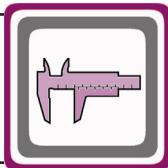


Opt. 1

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

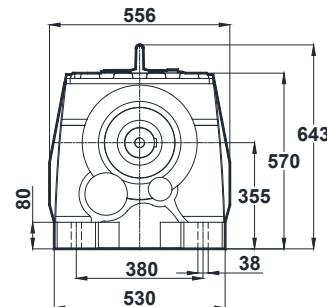
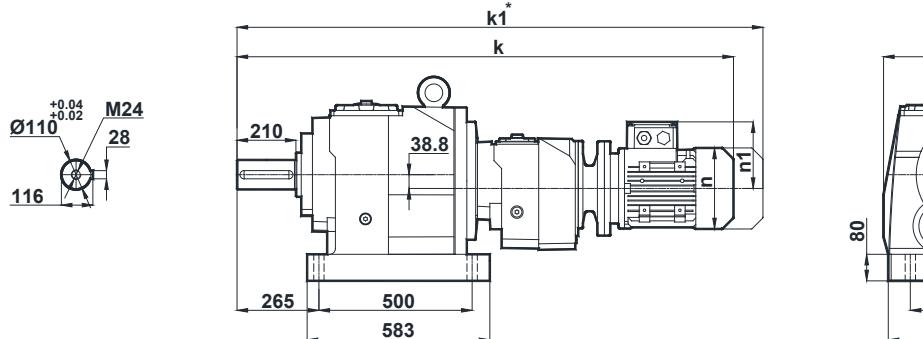


# Ölçü Sayfaları Dimension Pages Abmessungsseiten

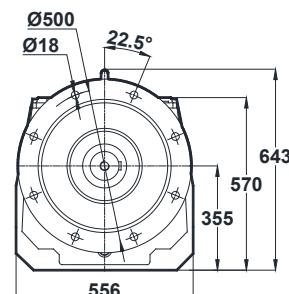
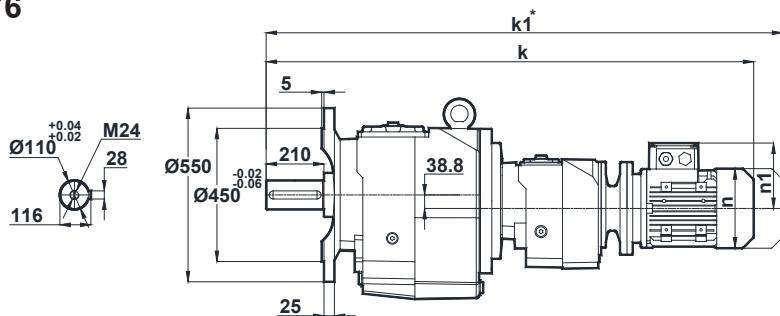


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MV875 MV876

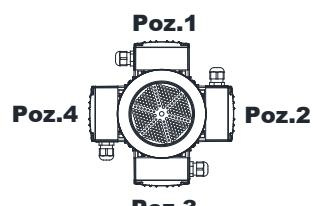


## NV875 NV876



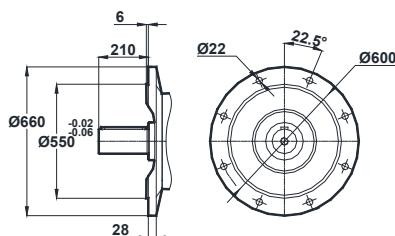
Motor Büyüklüğü / Motor Size / Motorbaugroße					
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	1224	1247	1288	1288	1340.5
k1	1315	1340	1391.5	1391.5	1449
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	160	200	200	200	250
m1 (B14)	-	120	140	140	160

Klemens Kutusu / Terminal Box / Klemmenkasten



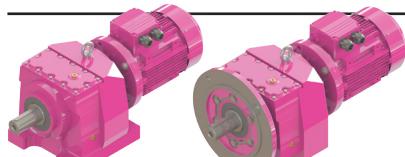
71-80-90-100

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

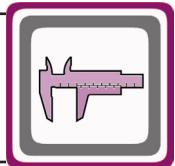


Opt. 1

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

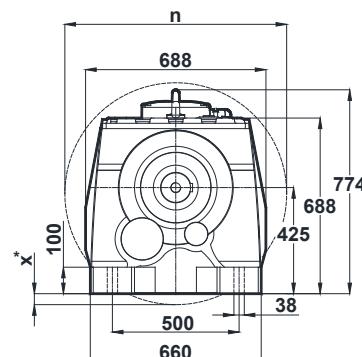
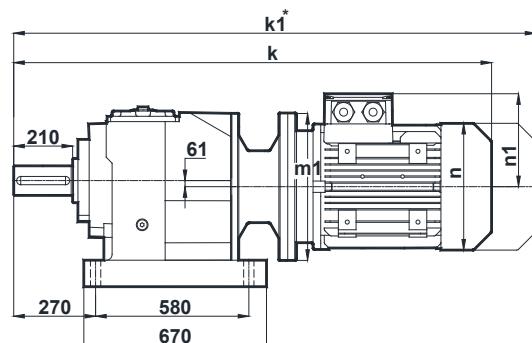
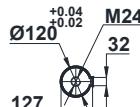


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

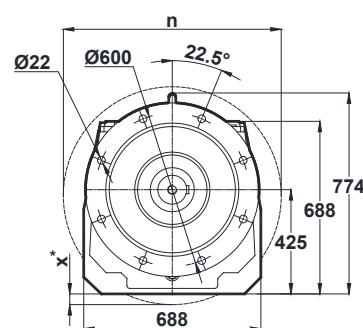
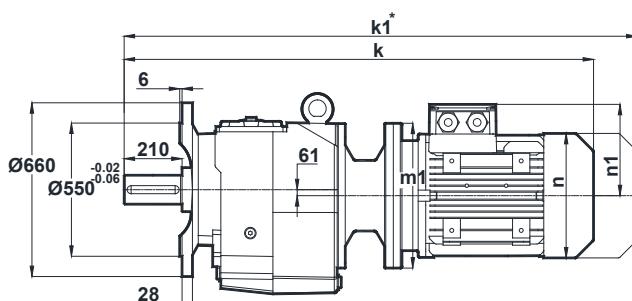
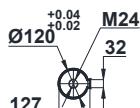


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MV972**  
**MV973**

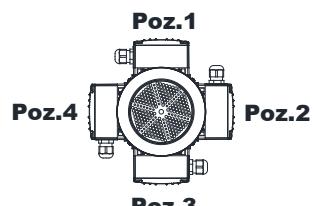


**NV972**  
**NV973**



Motor Büyüklüğü / Motor Size / Motorbaugröße												
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)	-	-	-	-	-	-	-	-	-	-	-	-

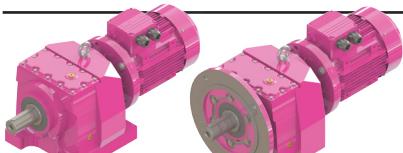
Klemens Kutusu / Terminal Box / Klemmenkasten



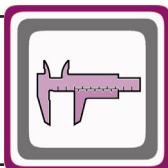
160-180-200-225-250-280-315

\* "k1" Ölüsü frenli reduktörlere 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

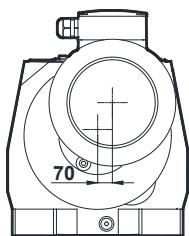


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

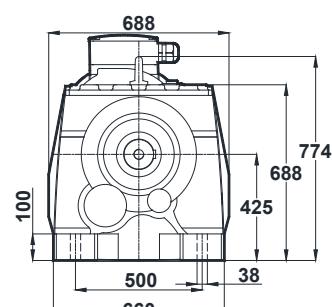
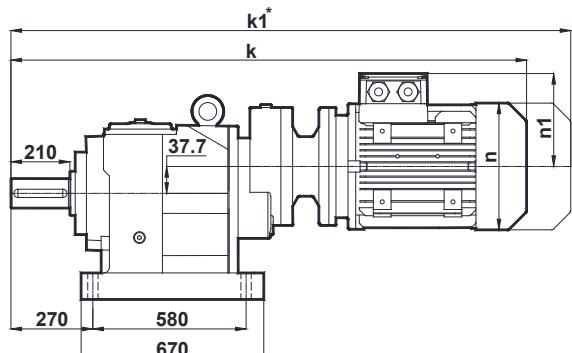


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

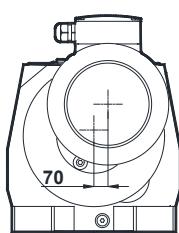
### MV974



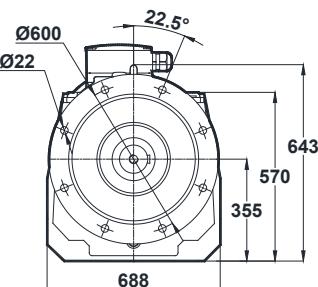
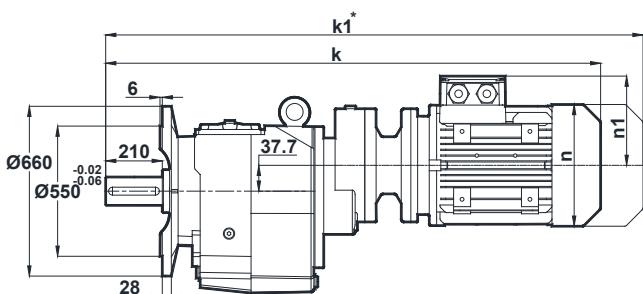
$\varnothing 120^{+0.04}_{-0.02}$   
127  
M24  
32



### NV974

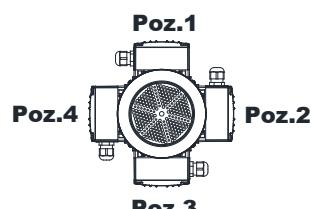


$\varnothing 120^{+0.04}_{-0.02}$   
127  
M24  
32



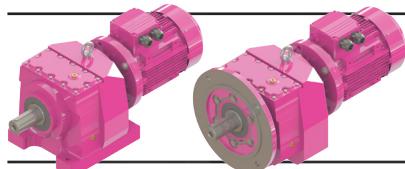
Motor Büyüklüğü / Motor Size / Motorbaugroße				
IEC	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14
k	1309.5	1330	1429	1429
k1	1418	1434.5	1559	1559
n / n1	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	250	250	300	300
m1 (B14)	-	-	200	200

Klemens Kutusu / Terminal Box / Klemmenkasten

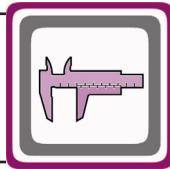


100-112-132

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

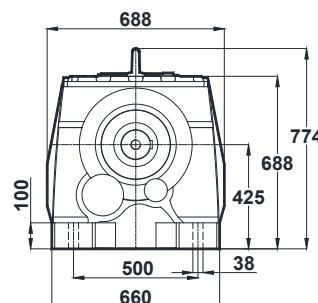
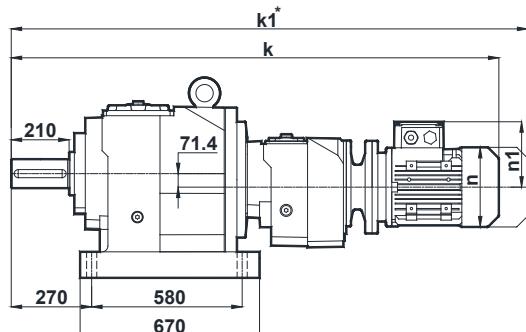
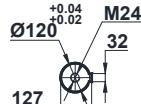


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*

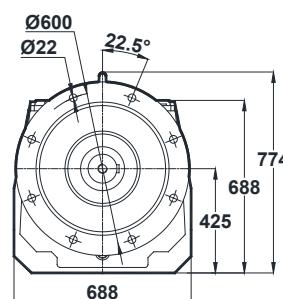
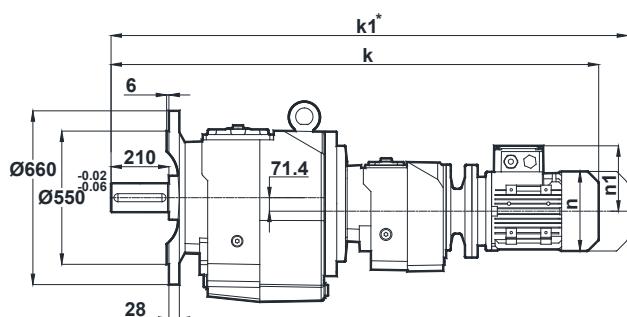
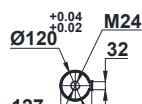


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MV975**  
**MV976**

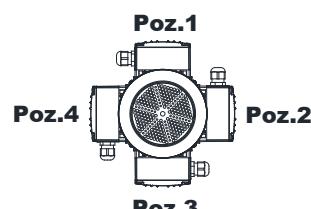


**NV975**  
**NV976**



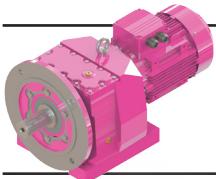
Motor Büyüklüğü / Motor Size / Motorbaugroße						
IEC	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14
k	1369	1410	1410	1464	1484.5	1587
k1	1462	1513.5	1513.5	1572.5	1589	1717
n / n1	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179
m1 (B5)	200	200	200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

Klemens Kutusu / Terminal Box / Klemmenkasten



80-90-100-112-132

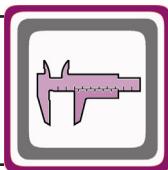
\* "k1" Ölçüsü frenli reduktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.



# Ölçü Sayfaları

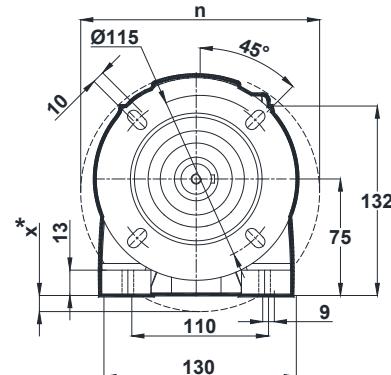
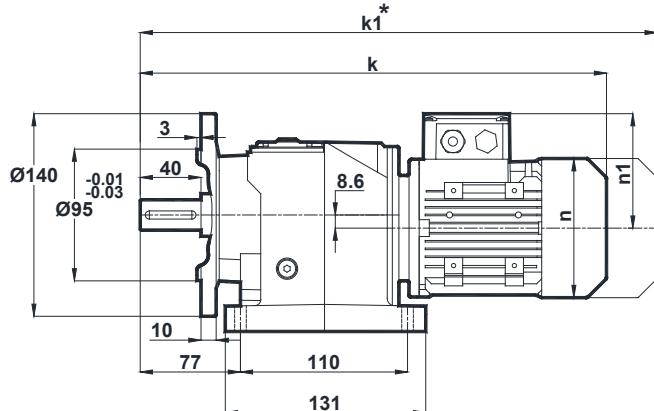
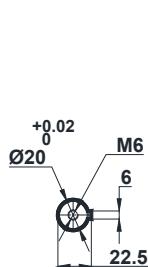
## Dimension Pages

## Abmessungsseiten



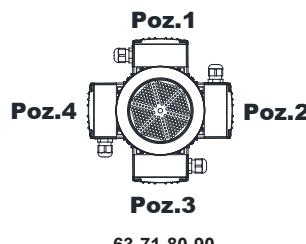
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MRF002**  
**MRF003**



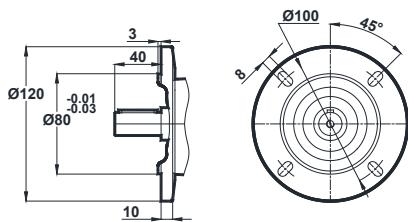
Motor Büyüklüğü / Motor Size / Motorbaugröße					
	63	71	80	90S	90L
k	368.5	397	431	470	470
k1	429.5	488	524	573.5	573.5
n	121	137	155	176	176
n1	97	112	121	132	132
x	-	3	12	22	22

Klemens Kutusu / Terminal Box / Klemmenkasten

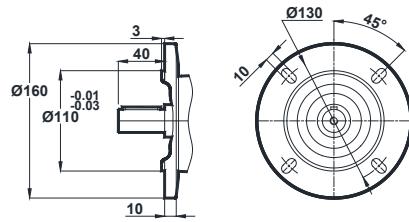


63-71-80-90

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



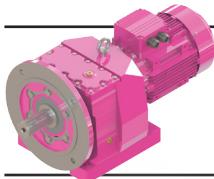
Opt. 1



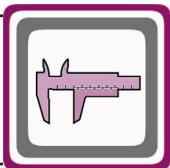
Opt. 2

\* "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

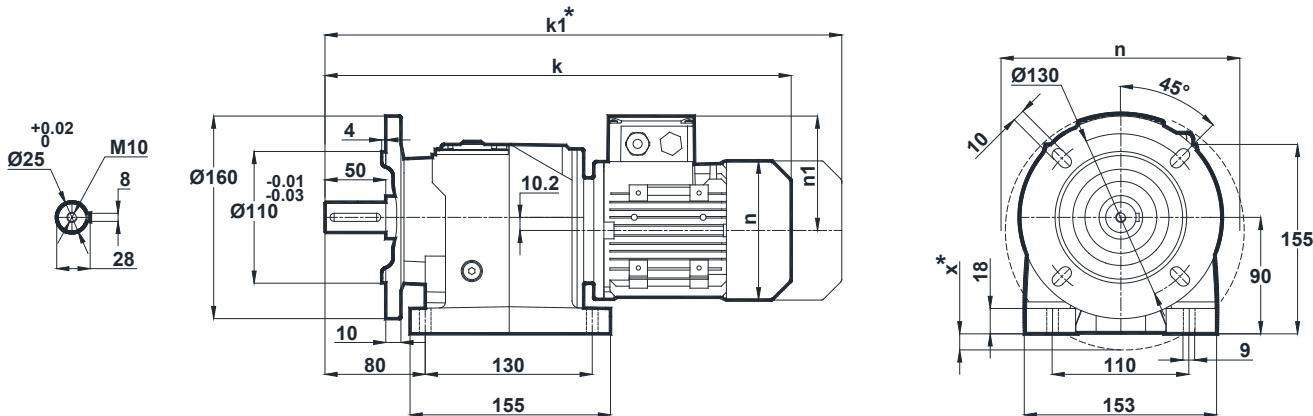


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



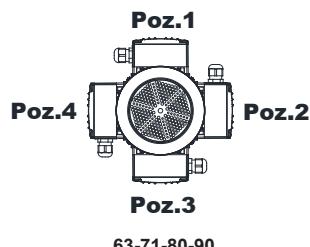
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MRF102**  
**MRF103**



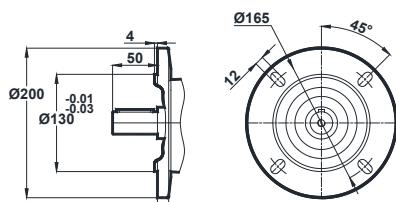
Motor Büyüklüğü / Motor Size / Motorbaugroße				
	63	71	80	90S
k	398	424	458	497
k1	459	515	551	600.5
n	121	137	155	176
n1	97	112	121	132
x	-	-	-	9

Klemens Kutusu / Terminal Box / Klemmenkasten



63-71-80-90

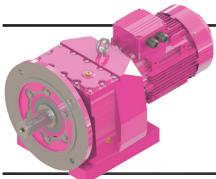
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

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

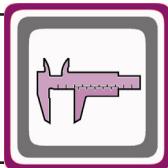
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

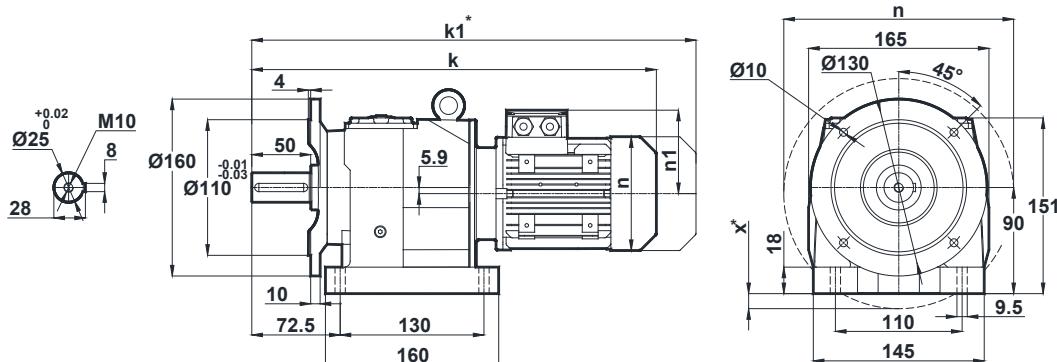
## Dimension Pages

## Abmessungsseiten



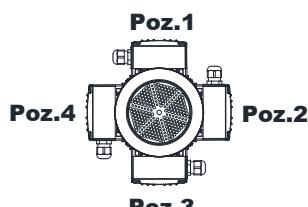
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MRF172**  
**MRF173**



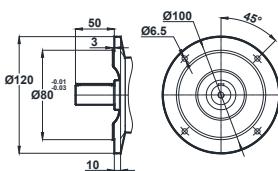
Motor Büyüklüğü / Motor Size / Motorbaugroße							
	63	71	80	90S	90L	100L	112M
k	395.5	424	458	497	497	545	569
k1	456.5	515	551	600.5	600.5	653.5	673.5
n	121	137	155	176	176	193	215
n1	97	112	121	132	132	147	158
x	-	-	-	4	4	13	24

Klemens Kutusu / Terminal Box / Klemmenkasten

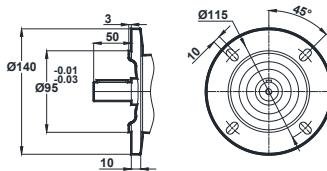


63-71-80-90-100-112

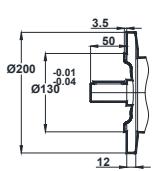
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



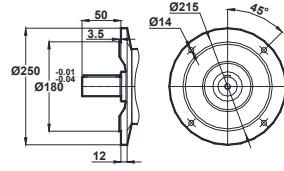
Opt. 1



Opt. 2



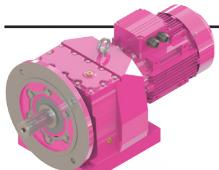
Opt. 3



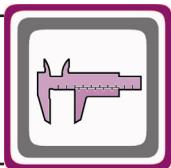
Opt. 4

\* "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

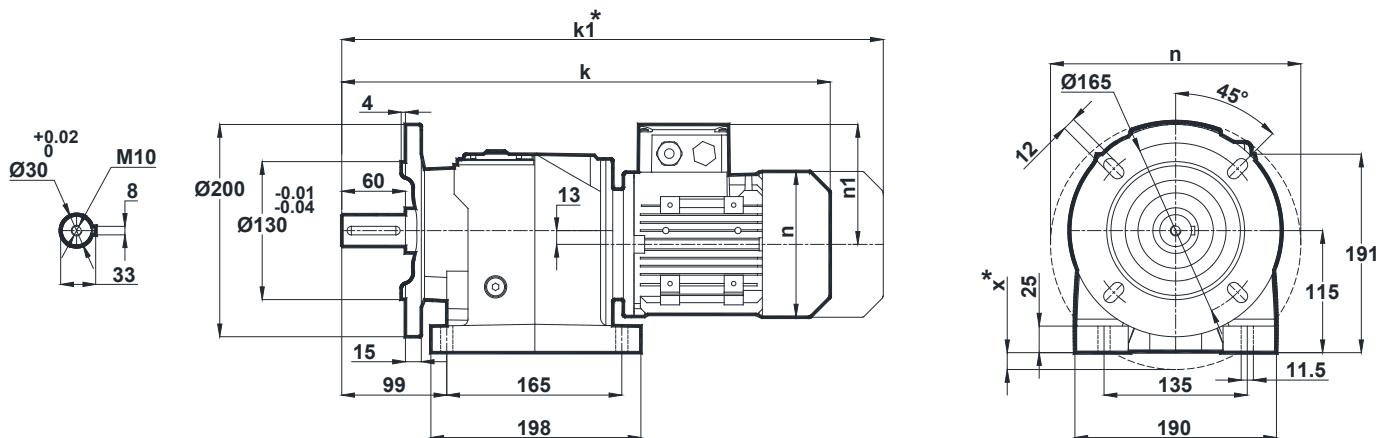


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



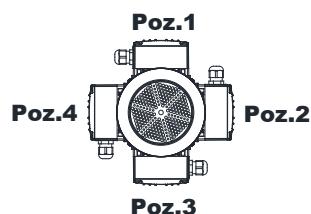
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MRF202**  
**MRF203**



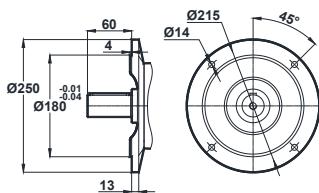
Motor Büyüklüğü / Motor Size / Motorbaugroße							
	63	71	80	90S	90L	100L	112M
k	443	470	504	543	543	591	615
k1	504	561	597	646.5	646.5	699.5	719.5
n	121	137	155	176	176	193	215
n1	97	112	121	132	132	147	158
x	-	-	-	-	-	-	6

Klemens Kutusu / Terminal Box / Klemmenkasten

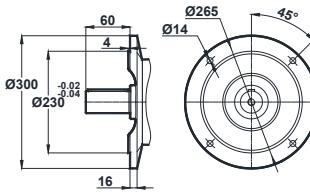


63-71-80-90-100-112

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



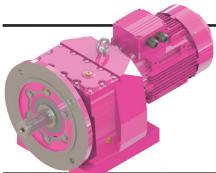
Opt. 1



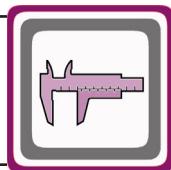
Opt. 2

\* "k1" Ölçüsü frenli reduktörlere 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

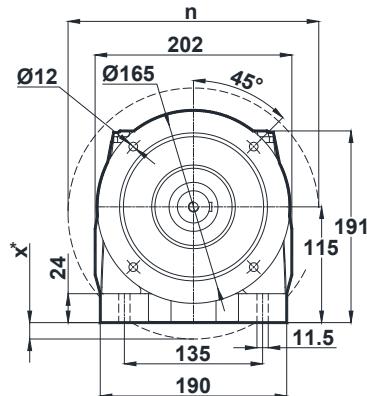
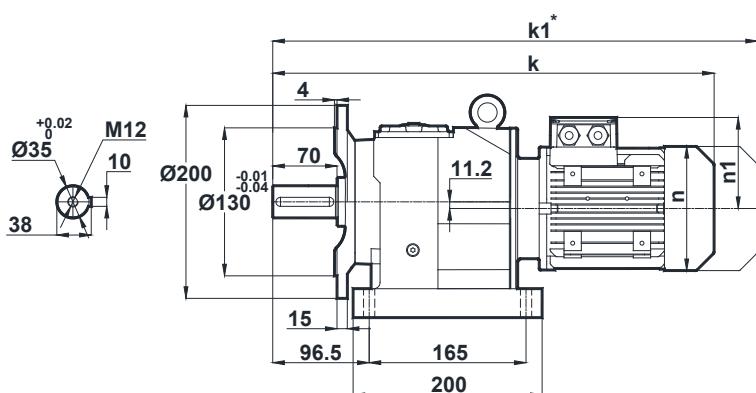


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



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

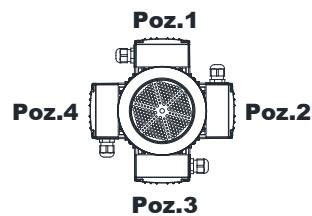
**MRF272**  
**MRF273**



**Motor Büyüklüğü / Motor Size / Motorbaugröße**

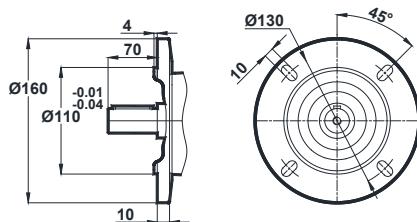
	63	71	80	90S	90L	100L	112M	132S	132M
<b>k</b>	444	471	505	544	544	592	616	699	699
<b>k1</b>	505	562	598	647.5	647.5	700.5	720.5	829	829
<b>n</b>	121	137	155	176	176	193	215	257	257
<b>n1</b>	97	112	121	132	132	147	158	179	179
<b>x</b>	-	-	-	-	-	-	4	25	25

**Klemens Kutusu / Terminal Box / Klemmenkasten**



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

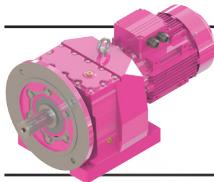
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



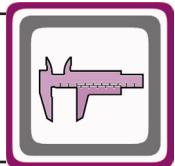
Opt. 1

\* "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

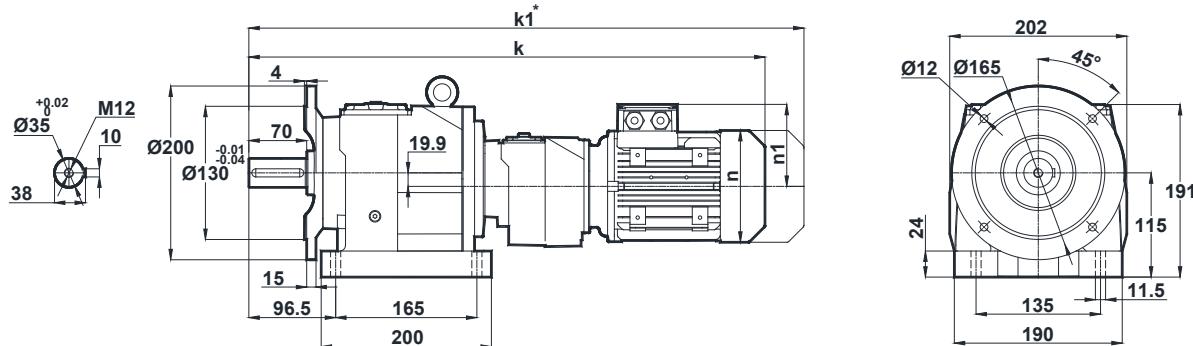


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



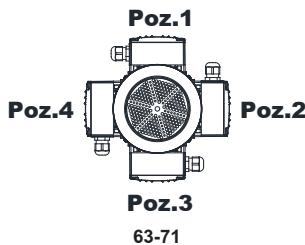
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MRF275**  
**MRF276**

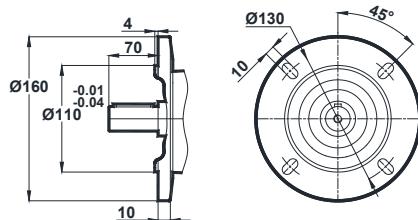


Motor Büyüklüğü / Motor Size / Motorbaugroße		
	63	71
k	593.5	622
k1	645.5	713
n	121	137
n1	97	112

Klemens Kutusu / Terminal Box / Klemmenkasten

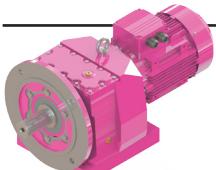


**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

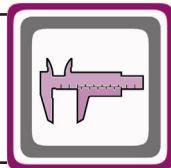
\* "k1" Ölçüsü frenli reduktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.



# Ölçü Sayfaları

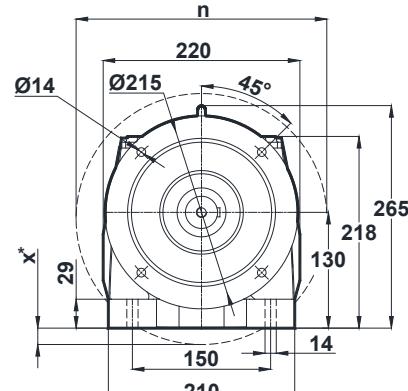
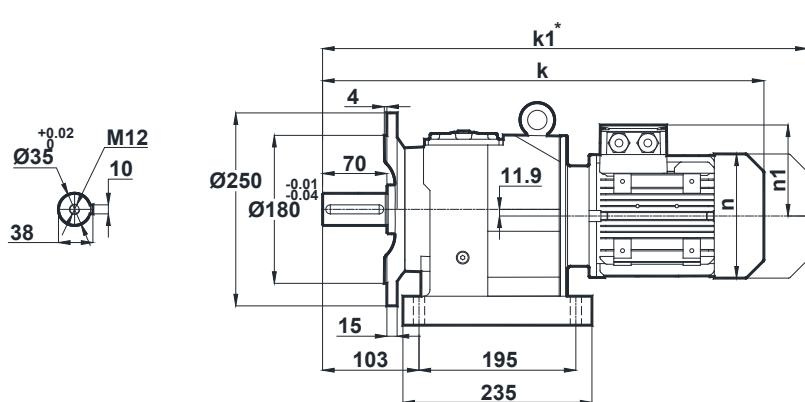
## Dimension Pages

## Abmessungsseiten



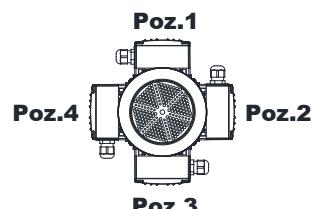
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MRF282**  
**MRF283**



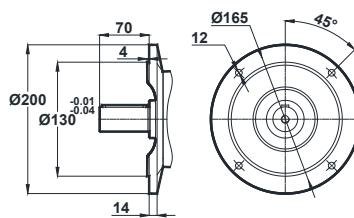
Motor Büyüklüğü / Motor Size / Motorbaugröße								
	71	80	90S	90L	100L	112M	132S	132M
k	488.5	522.5	561.5	561.5	609.5	633.5	720	720
k1	579.5	615.5	665	665	718	738	850	850
n	137	155	176	176	193	215	257	257
n1	112	121	132	132	147	158	179	179
x	-	-	-	-	-	-	11	11

Klemens Kutusu / Terminal Box / Klemmenkasten



71-80-90-100-112-132

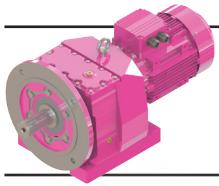
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



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

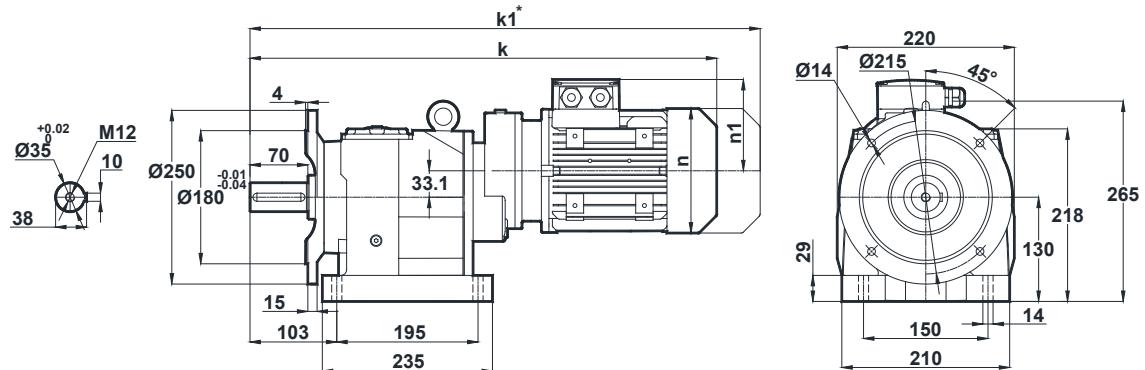
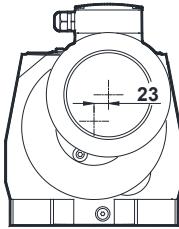


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



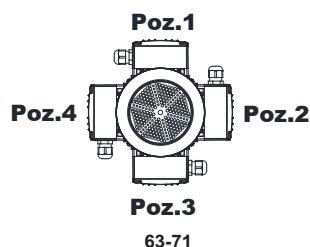
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MRF284

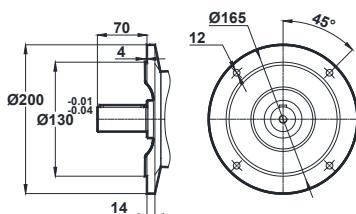


Motor Büyüklüğü / Motor Size / Motorbaugroße		
	63	71
k	540.5	567.5
k1	601.5	658.5
n	121	137
n1	97	112

Klemens Kutusu / Terminal Box / Klemmenkasten

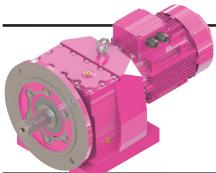


Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

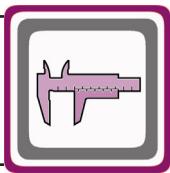


Opt. 1

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

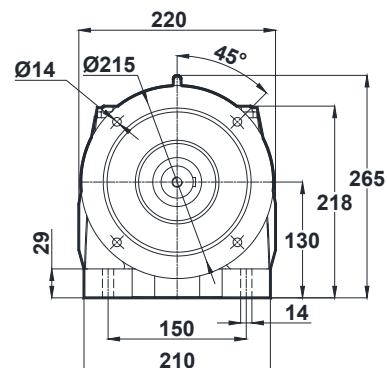
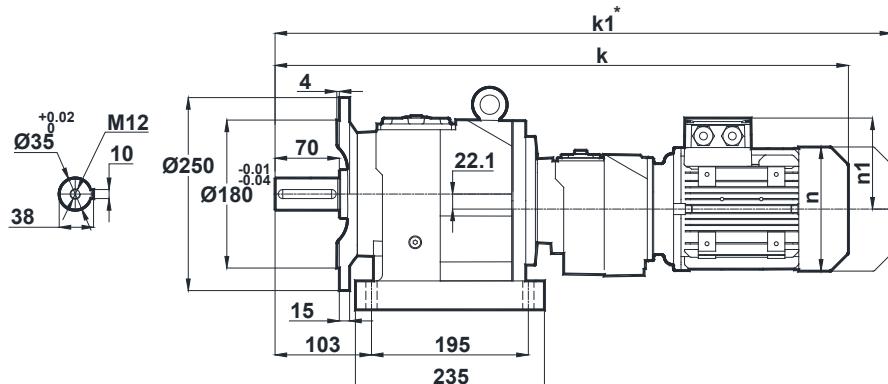


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



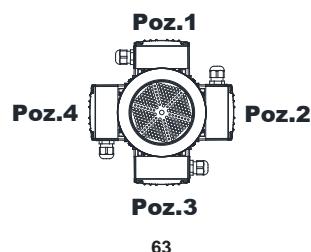
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MRF285**  
**MRF286**



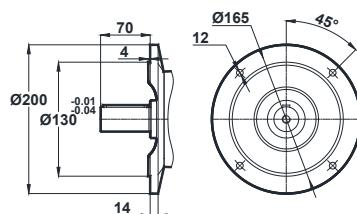
Motor Büyüklüğü / Motor Size / Motorbaugroße	
	63
k	645
k1	706
n	121
n1	97

Klemens Kutusu / Terminal Box / Klemmenkasten



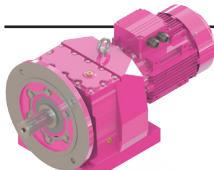
63

Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

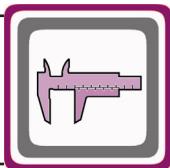


Opt. 1

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

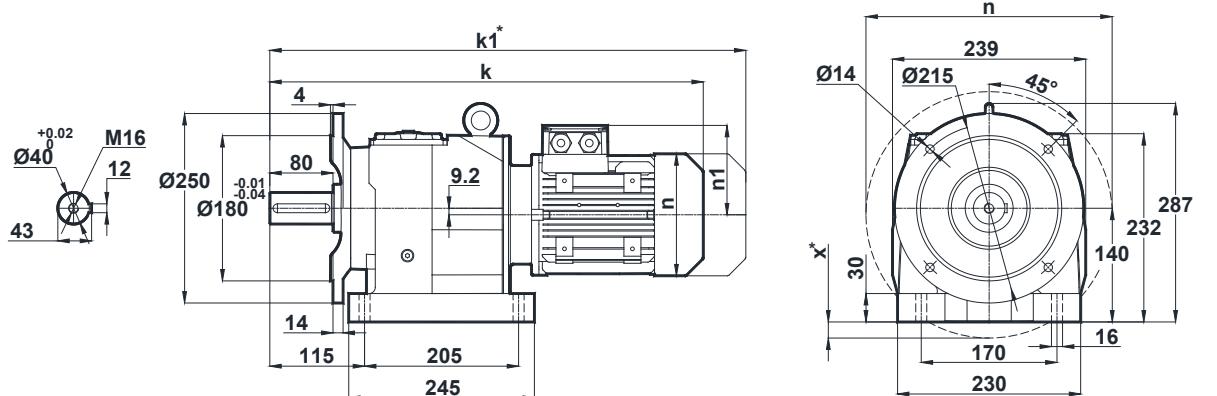


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



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

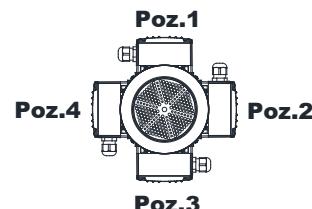
**MRF372**  
**MRF373**



**Motor Büyüklüğü / Motor Size / Motorbaugröße**

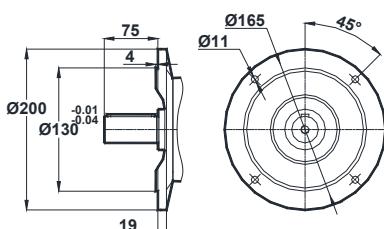
	71	80	90S	90L	100L	112M	132S	132M
k	509.5	543.5	582.5	582.5	630.5	654.5	741	741
k1	600.5	636.5	686	686	739	759	871	871
n	137	155	176	176	193	215	257	257
n1	112	121	132	132	147	158	179	179
x	-	-	-	-	-	-	-	-

**Klemens Kutusu / Terminal Box / Klemmenkasten**



71-80-90-100-112-132

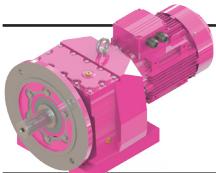
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



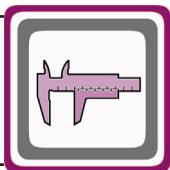
**Opt. 1**

\* "k1" Ölçüsü frenli reduktörlere 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

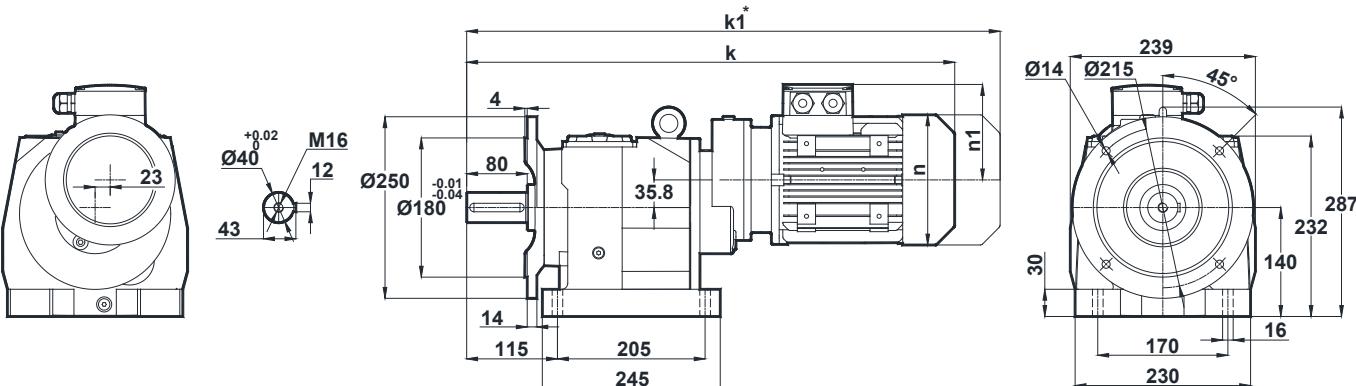


## Ölçü Sayfaları *Dimension Pages* Abmessungsseiten



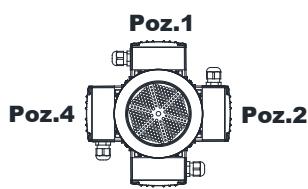
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MRF374**



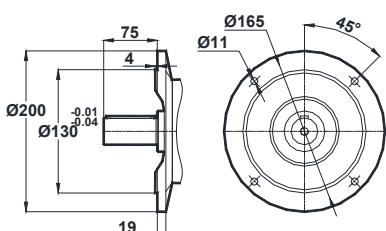
**Klemens Kutusu / Terminal Box / Klemmenkasten**

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



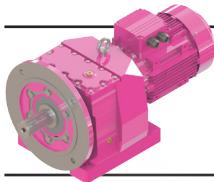
63-71-80

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

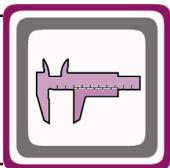


**Opt. 1**

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

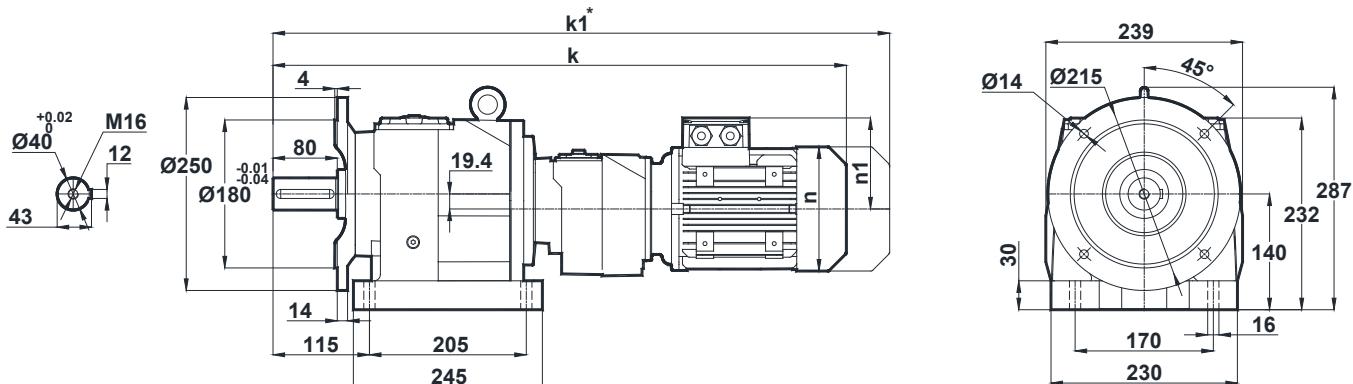


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



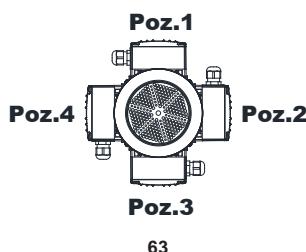
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MRF375**  
**MRF376**



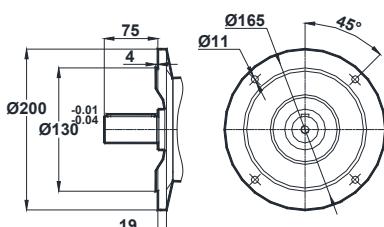
Motor Büyüklüğü / Motor Size / Motorbaugröße	
	63
k	666
k1	727
n	121
n1	97

Klemens Kutusu / Terminal Box / Klemmenkasten



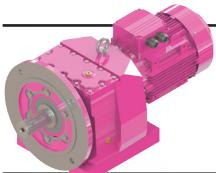
63

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

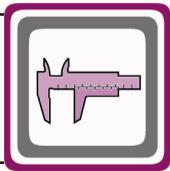


Opt. 1

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

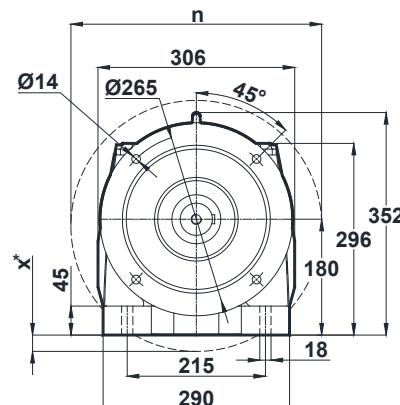
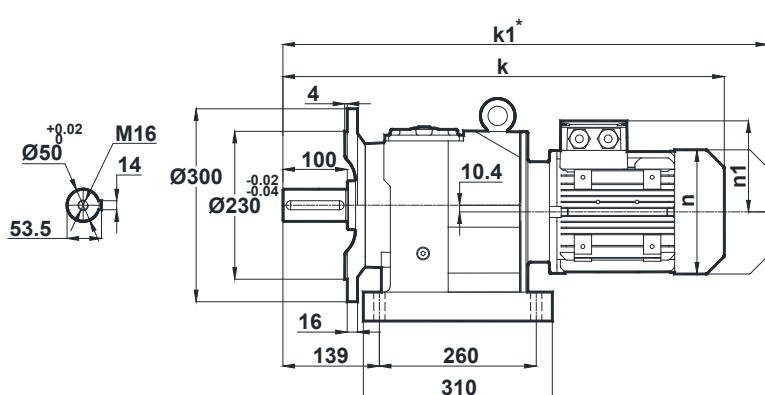


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



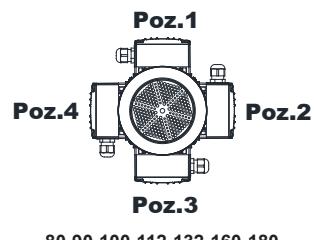
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MRF472**  
**MRF473**



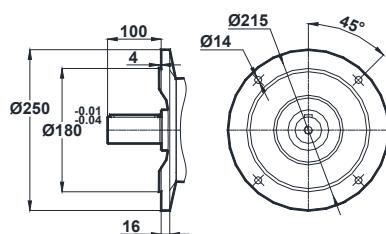
Motor Büyüklüğü / Motor Size / Motorbaugroße											
	80	90S	90L	100L	112M	132S	132M	160M	160L	180M	180L
k	610.5	649.5	649.5	694.5	718.5	803.5	803.5	899.5	899.5	971.5	971.5
k1	703.5	753	753	803	823	933.5	933.5	1047.5	1047.5	1130	1130
n	155	176	176	193	215	257	257	315	315	347	347
n1	121	132	132	147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

Klemens Kutusu / Terminal Box / Klemmenkasten



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

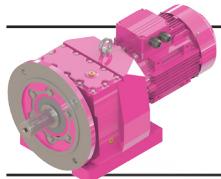
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



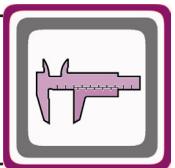
Opt. 1

\* "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

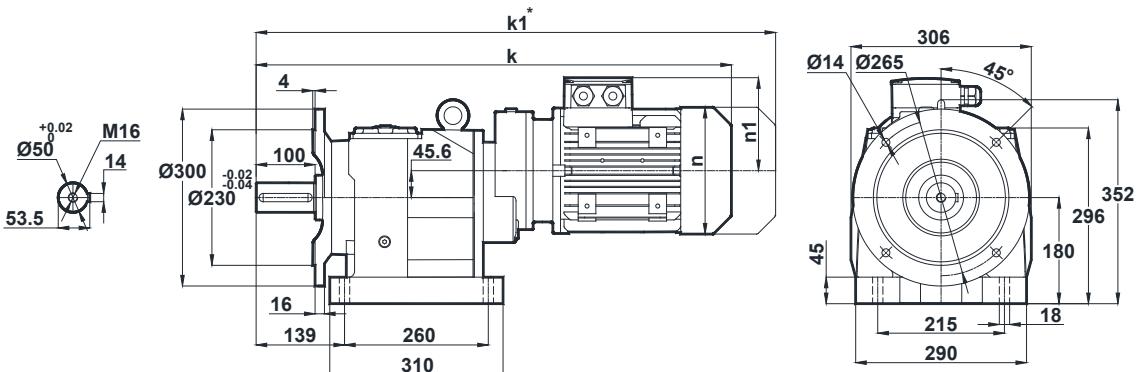
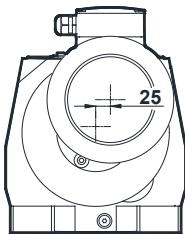


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



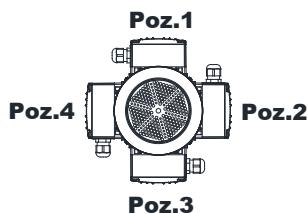
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## MRF474



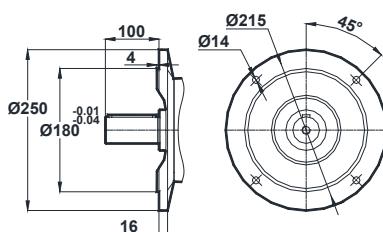
Klemens Kutusu / Terminal Box / Klemmenkasten

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



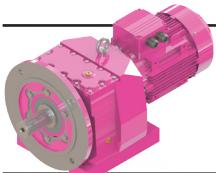
71-80

Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

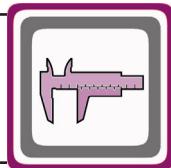


Opt. 1

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

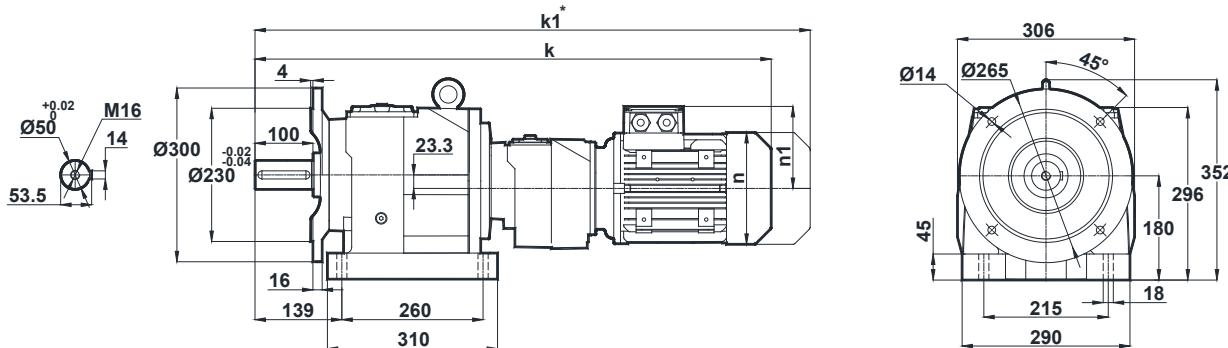


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



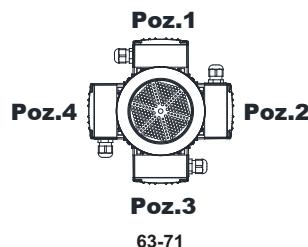
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MRF475**  
**MRF476**



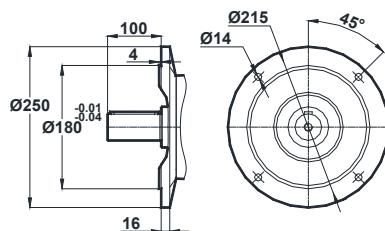
Motor Büyüklüğü / Motor Size / Motorbaugroß		
	63	71
k	773	800
k1	834	891
n	121	137
n1	97	112

Klemens Kutusu / Terminal Box / Klemmenkasten



63-71

Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

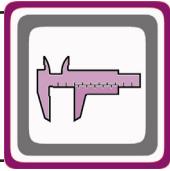


Opt. 1

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

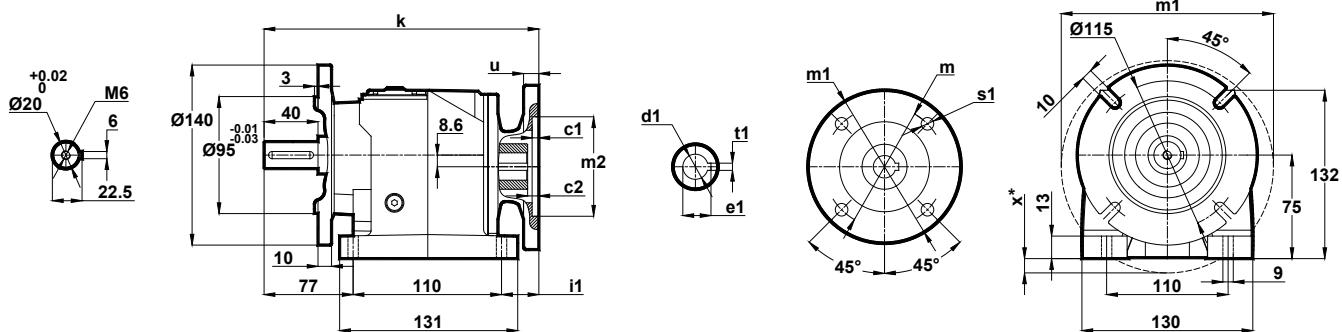


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



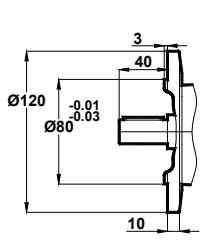
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

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

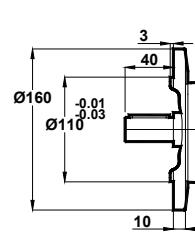
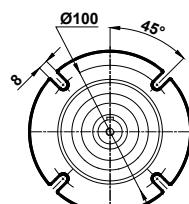


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	3.5	5	10	115	140	95	28	10	214	11	4	12.8	4
71/B5	4	4.5	11	130	160	110	29.5	12	215.5	14	5	16.3	14
80/B5	4	5	12	165	200	130	44.5	12	230.5	19	6	21.8	34
90/B5	4	5	12	165	200	130	44.5	12	230.5	24	8	27.3	34

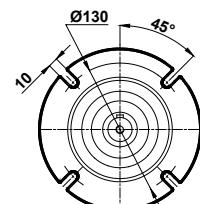
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



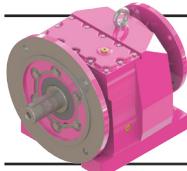
Opt. 1



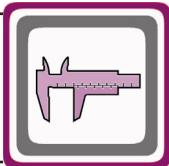
Opt. 2



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

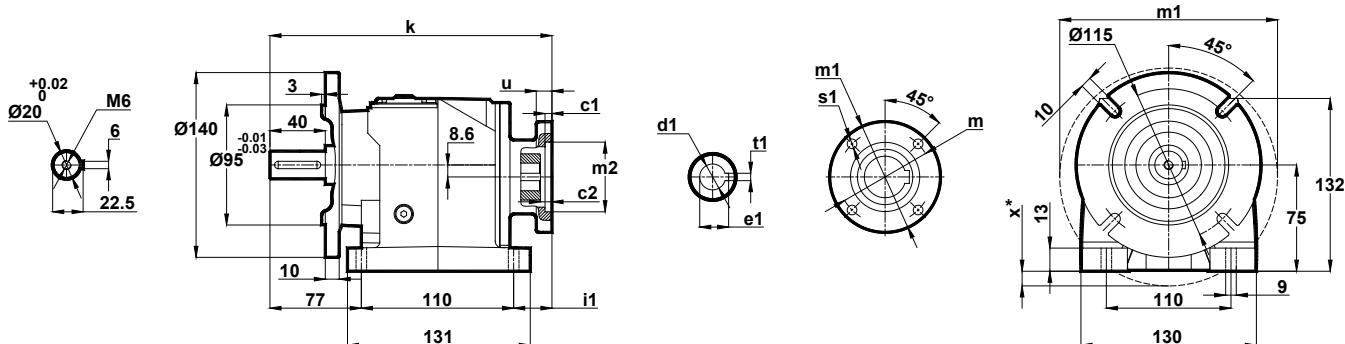


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*



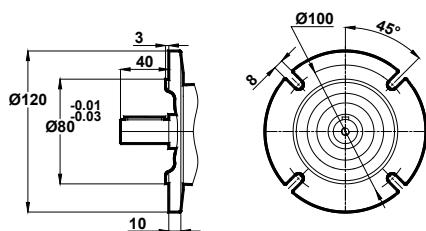
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

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

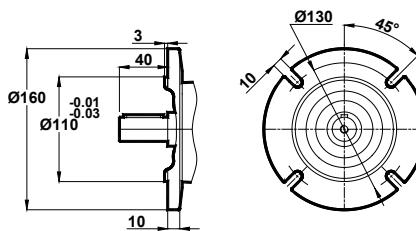


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B14	2.5	5	5.5	75	90	60	28	10	214	11	4	12.8	-
71/B14	3	4.5	7	85	105	70	29.5	10	215.5	14	5	16.3	-
80/B14	4	5	7	100	120	80	44.5	12	230.5	19	6	21.8	-
90/B14	4	5	9	115	140	95	44.5	12	230.5	24	8	27.3	4

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



Opt. 1

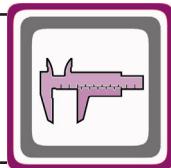


Opt. 2

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

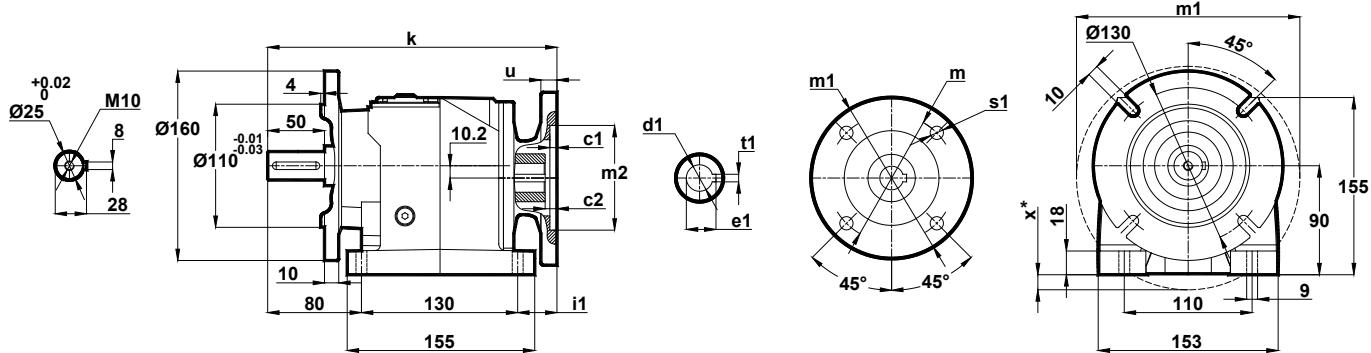


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



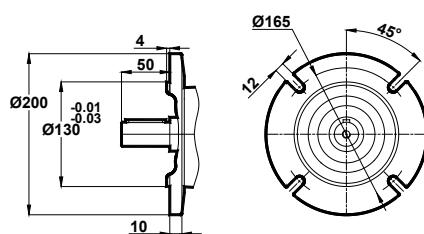
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

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



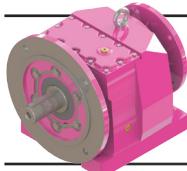
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	3.5	5	10	115	140	95	28.5	12	241	11	4	12.8	-
71/B5	4	4.5	12	130	160	110	28.5	12	242.5	14	5	16.3	0.5
80/B5	4	5	12	165	200	130	43.5	12	257.5	19	6	21.8	20
90/B5	4	5	12	165	200	130	43.5	12	257.5	24	8	27.3	20

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

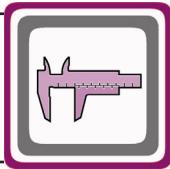


**Opt. 1**

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

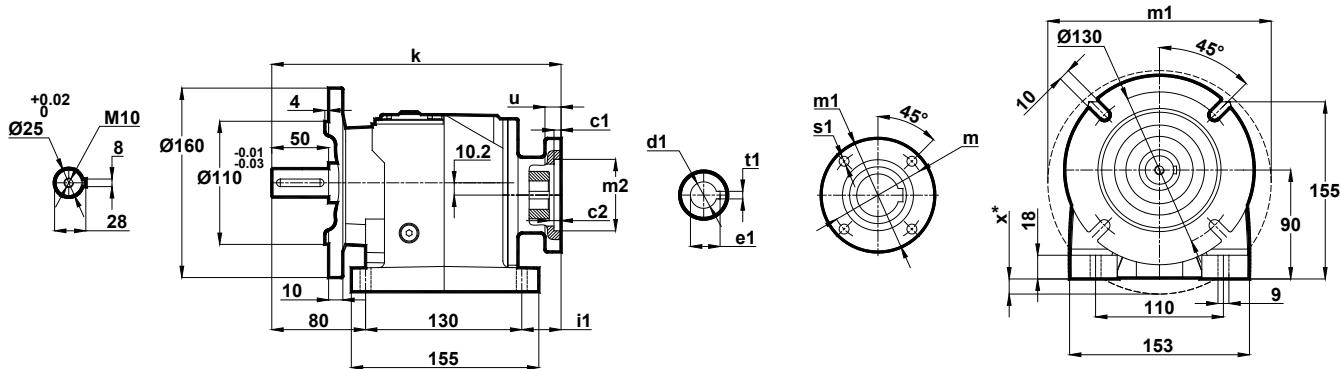


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



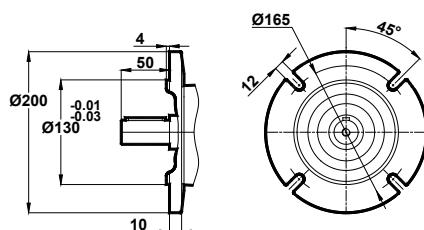
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF102-B..**  
**MNF103-B..**



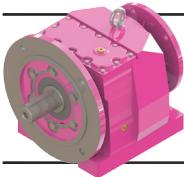
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B14	2.5	5	5.5	75	90	60	28.5	10	241	11	4	12.8	-
71/B14	3	4.5	7	85	105	70	28.5	10	242.5	14	5	16.3	-
80/B14	4	4.7	7	100	120	80	43.5	12	257.5	19	6	21.8	-
90/B14	4	4.7	9	115	140	95	43.5	12	257.5	24	8	27.3	-

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

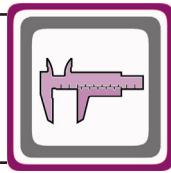


**Opt. 1**

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

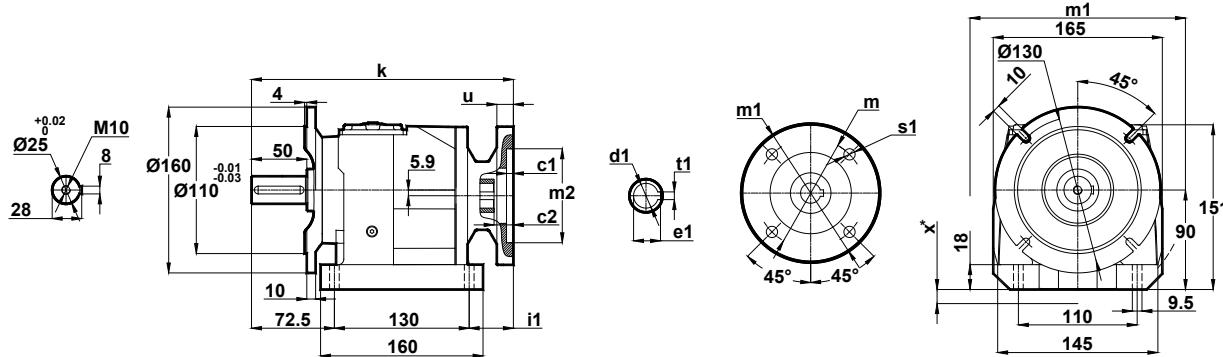


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



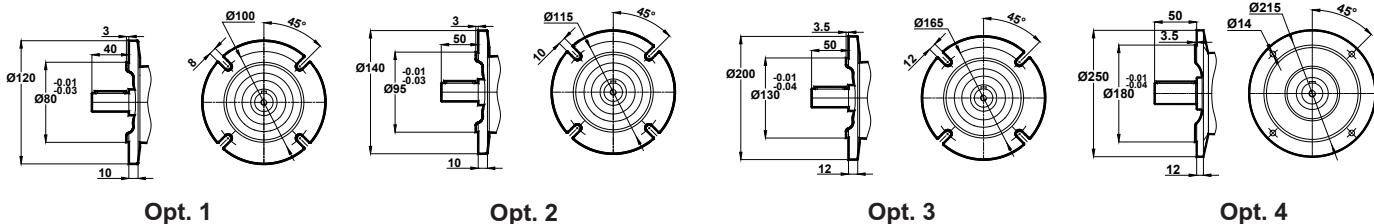
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**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**



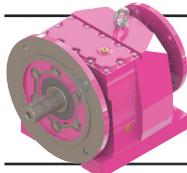
Opt. 1

Opt. 2

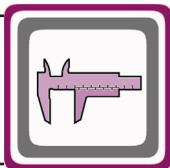
Opt. 3

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

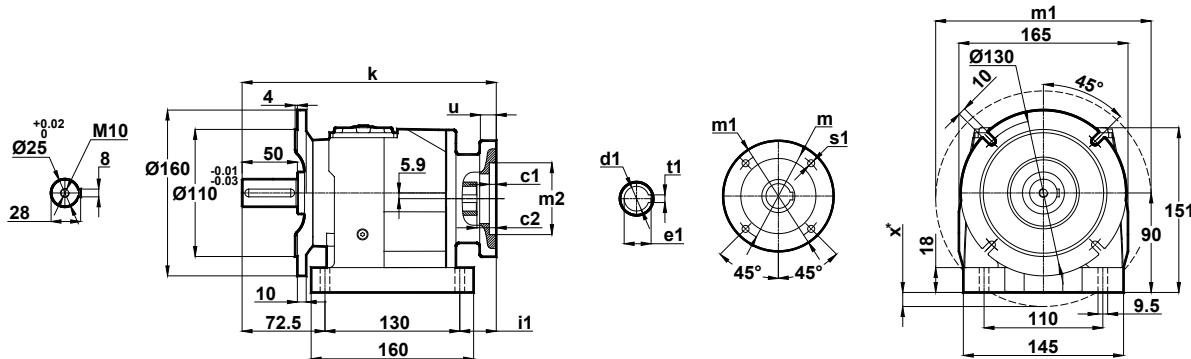


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



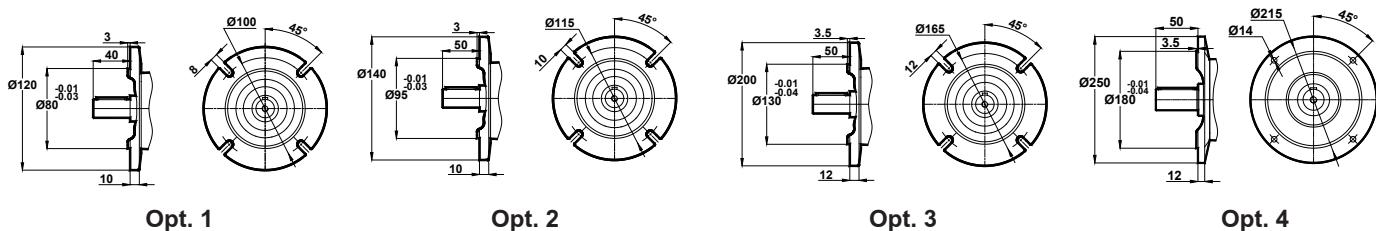
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF172-B..**  
**MNF173-B..**

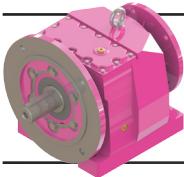


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B14	3	4.5	7	85	105	70	40	10	242.5	14	5	16.3	-
80/B14	4	5	7	100	120	80	55	12	257.5	19	6	21.8	-
90/B14	4	5	9	115	140	95	55	12	257.5	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	66	12	268.5	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	66	12	268.5	28	8	31.3	-

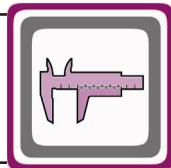
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



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

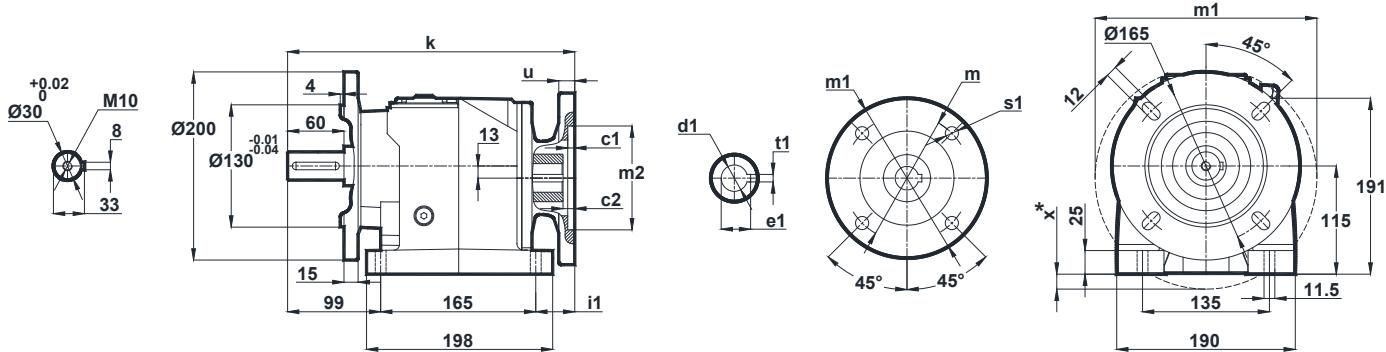


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



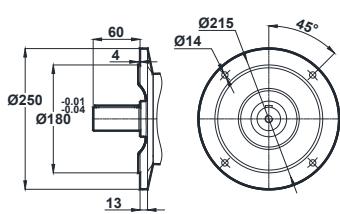
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

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

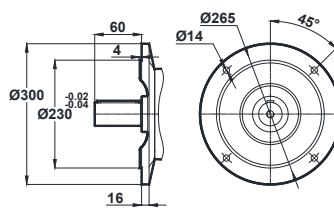


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	4	5	9	115	140	95	58.5	12	322.5	11	4	12.8	-
71/B5	4	8.5	11	130	160	110	29.5	12	293.5	14	5	163	-
80/B5	4	5	12	165	200	130	58.5	12	322.5	19	6	21.8	-
90/B5	4	5	12	165	200	130	58.5	12	322.5	24	8	27.3	-
100/B5	4.5	5.5	15	215	250	180	51.5	12	315.5	28	8	31.3	23
112/B5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

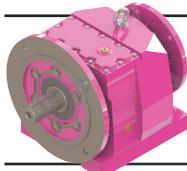


Opt. 1



Opt. 2

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

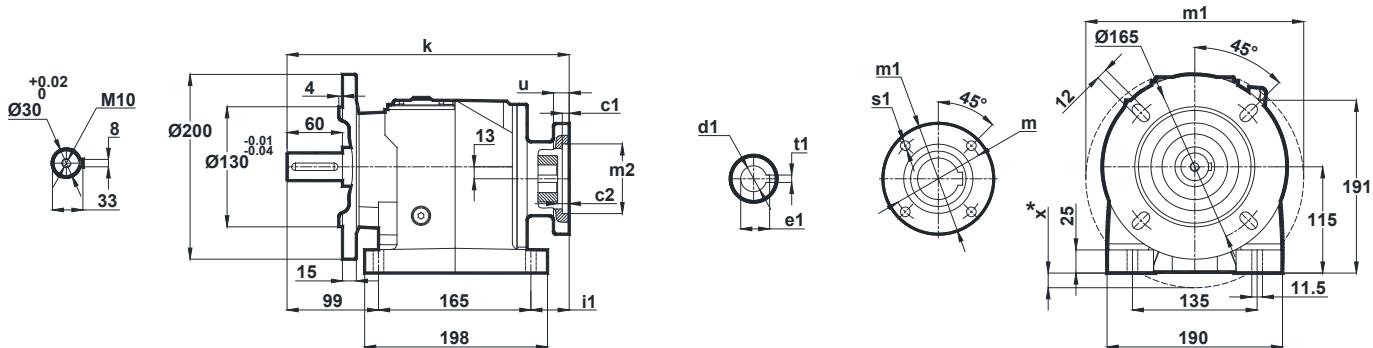


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



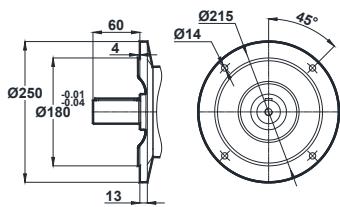
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

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

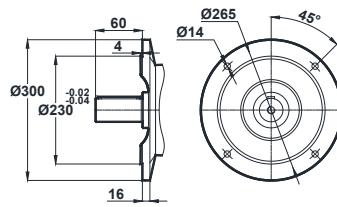


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B14	3	8.5	7	85	105	70	29.5	10	293.5	14	5	16.3	-
80/B14	4	5	7	100	120	80	58.5	12	322.5	19	6	21.8	-
90/B14	4	5	9	115	140	95	58.5	12	322.5	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	51.5	12	315.5	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	51.5	12	315.5	28	8	31.3	-

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



Opt. 1



Opt. 2

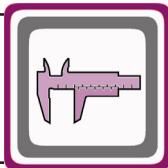
x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

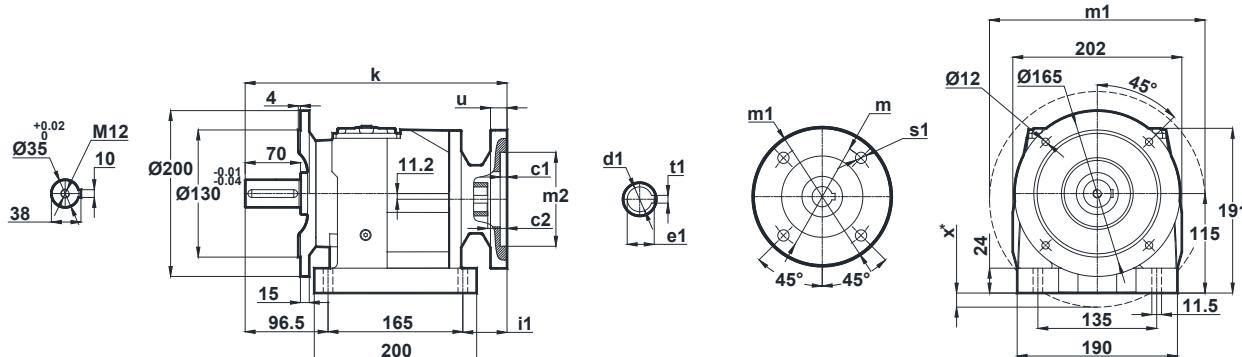
## *Dimension Pages*

### Abmessungsseiten



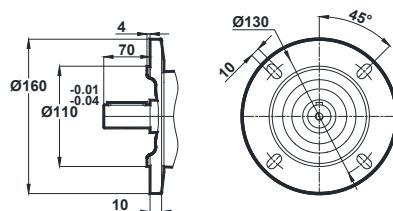
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

MNF272-A..  
MNF273-A..



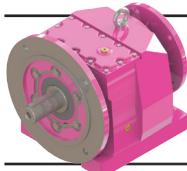
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	4	5	9	115	140	95	62	12	323.5	11	4	12.8	-
71/B5	4	8.5	11	130	160	110	33	12	294.5	14	5	16.3	-
80/B5	4	5	12	165	200	130	62	12	323.5	19	6	21.8	-
90/B5	4	5	12	165	200	130	62	12	323.5	24	8	27.3	-
100/B5	4.5	5.5	15	215	250	180	55	12	316.5	28	8	31.3	22
112/B5	4.5	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 Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**

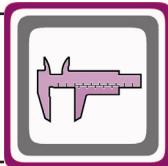


Opt. 1

**x:** Motor, ayak ba glant  y zeyinin altında ise / **x:** If Motor is lower then foot mounting plane / **x:** Wen motor ist niedriger den die Anschlu splatte

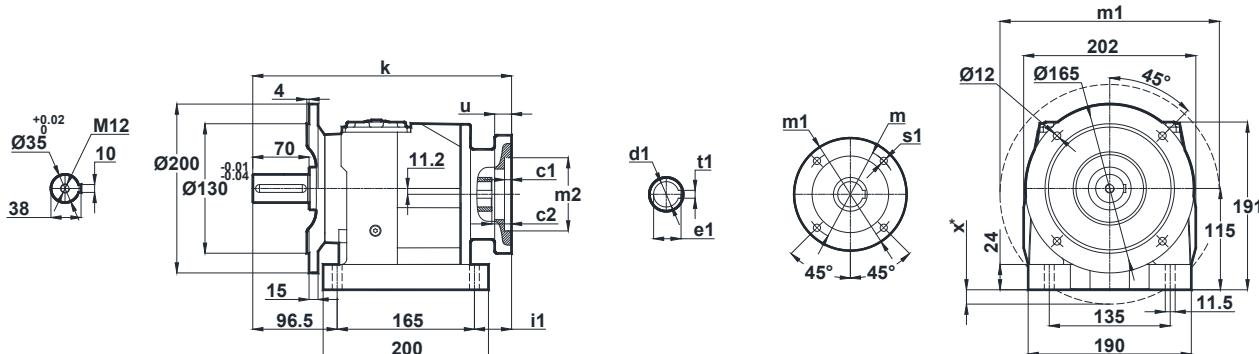


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



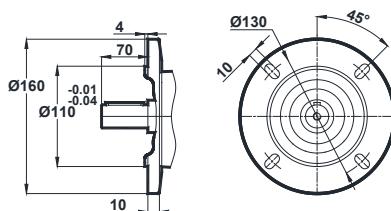
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF272-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

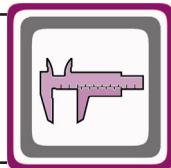
x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

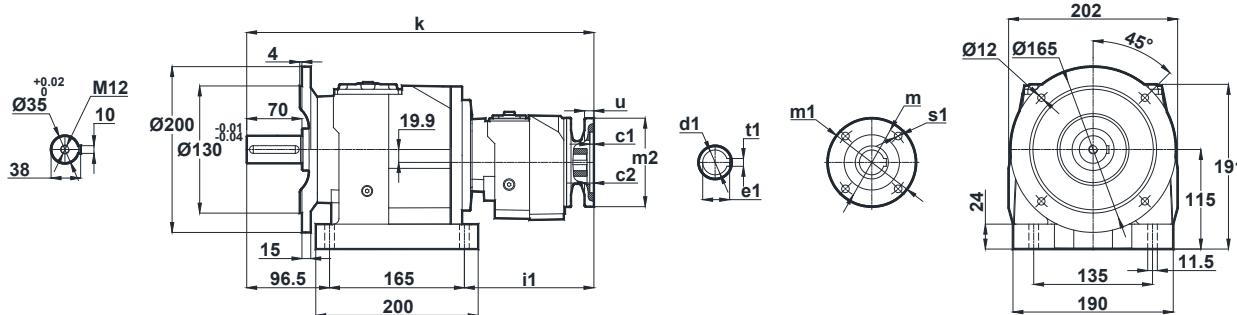
## Dimension Pages

## Abmessungsseiten



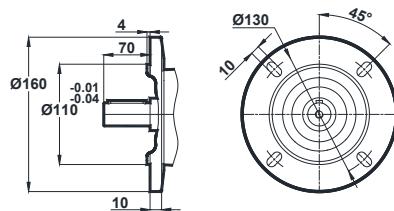
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF275-A..**  
**MNF276-A..**

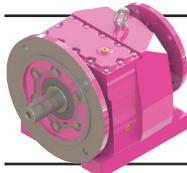


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	177.5	10	439	11	4	12.8
71/B5	4	4.5	11	130	160	110	179	12	440.5	14	5	16.3

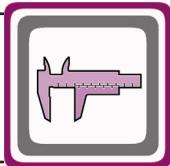
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

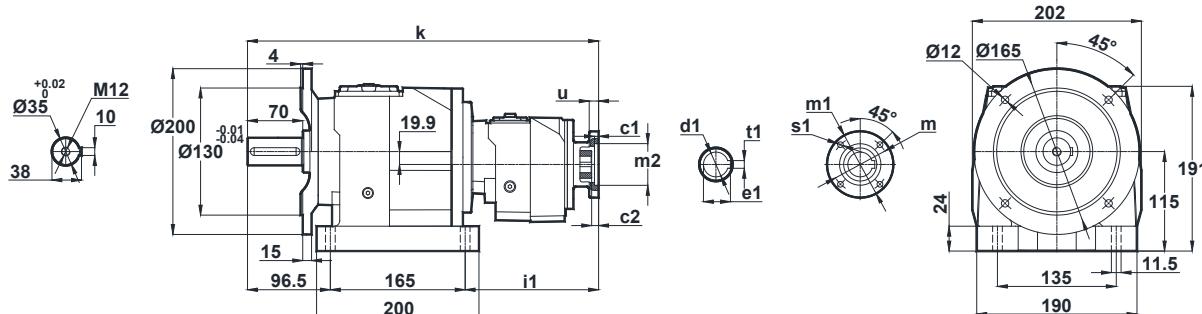


Ölçü Sayfaları  
Dimension Pages  
Abmessungsseiten



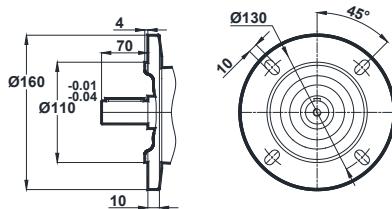
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

MNF275-B..  
MNF276-B..

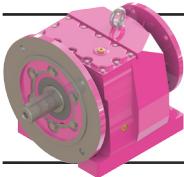


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B14	2.5	5	5.5	75	90	60	177.5	10	439	11	4	12.8
71/B14	3	4.5	7	85	105	70	179	10	440.5	14	5	16.3

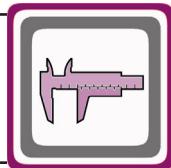
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

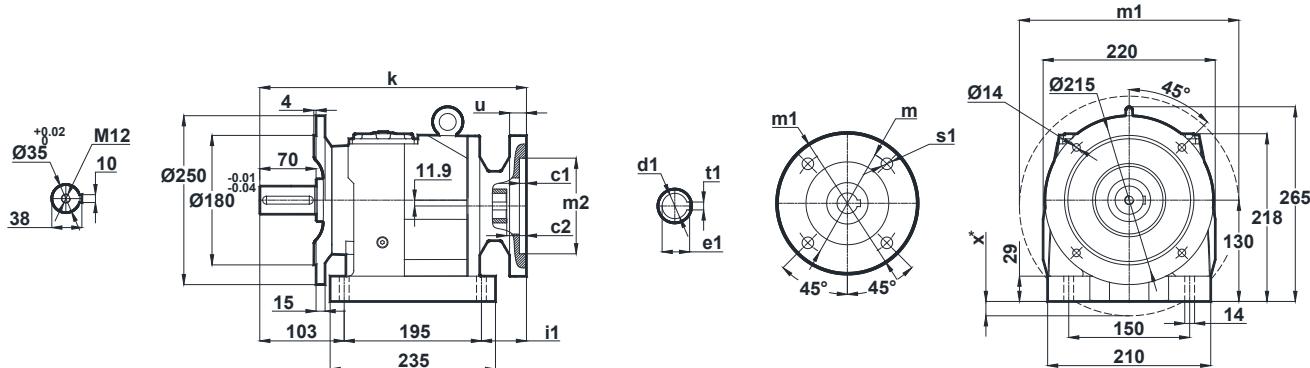


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



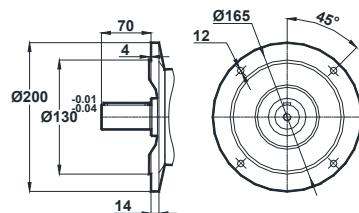
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF282-A..**  
**MNF283-A..**



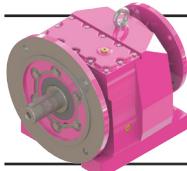
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B5	4	9	11	130	160	110	45	12	343	14	5	16.3	-
80/B5	4	9	12	165	200	130	45	12	343	19	6	21.8	-
90/B5	4	9	12	165	200	130	45	12	343	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	52	15	360	28	8	31.3	7
112/B5	4.5	9	15	215	250	180	52	15	360	28	8	31.3	7
132/B5	4.5	7	15	265	300	230	82	15	380	38	10	41.3	32

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

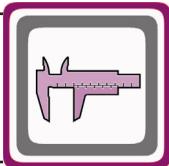


Opt. 1

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

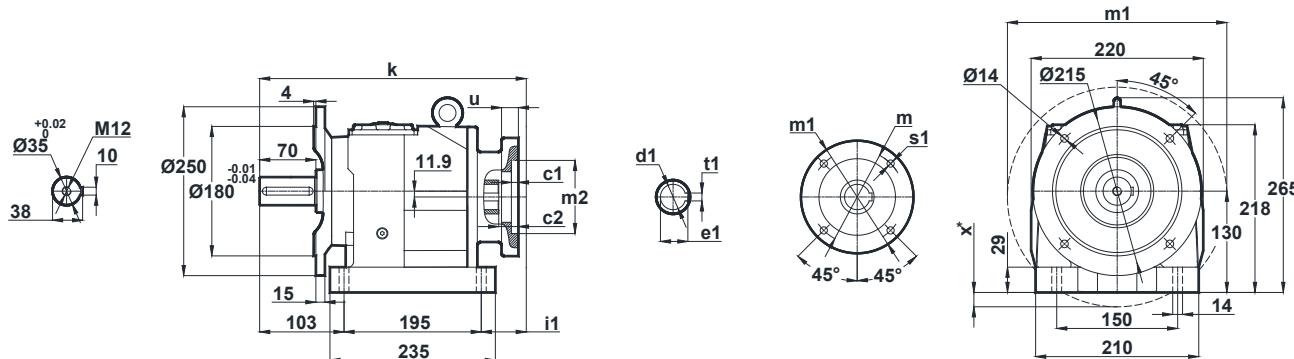


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



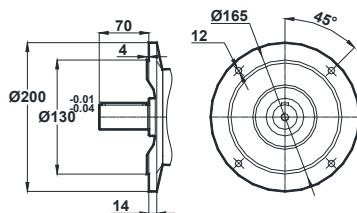
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF282-B..**  
**MNF283-B..**



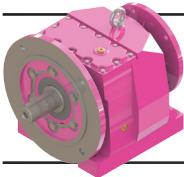
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
80/B14	4	9	7	100	120	80	45	12	343	19	6	21.8	-
90/B14	4	9	9	115	140	95	45	12	343	24	8	26.3	-
100/B14	4	9	9	130	160	110	52	15	360	28	8	31.3	-
112/B14	4	9	9	130	160	110	52	15	360	28	8	31.3	-
132/B14	4.5	7	11	165	200	130	82	15	380	38	10	41.3	-

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

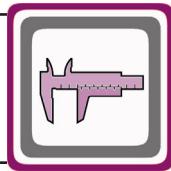


**Opt. 1**

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

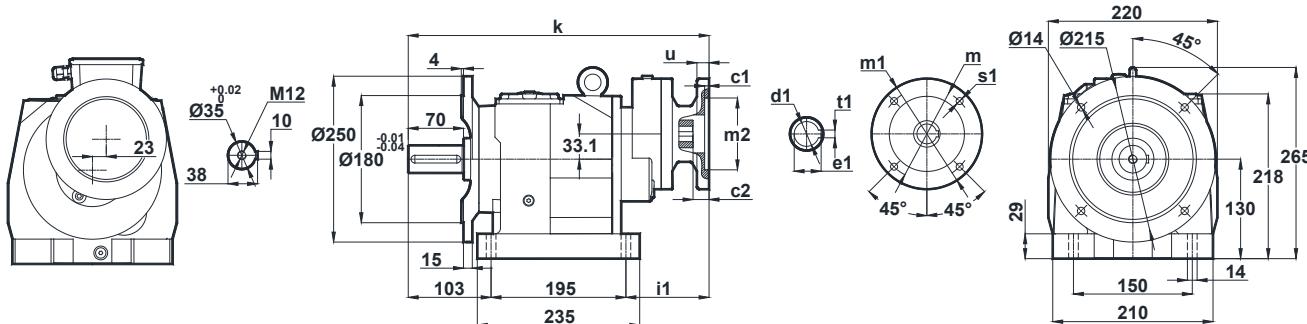


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



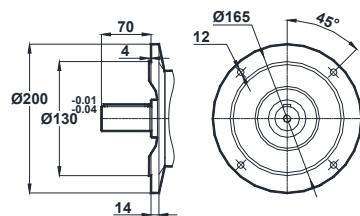
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF284-A..**  
**MNF284-B..**

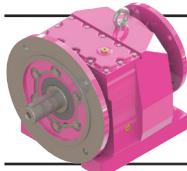


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
<b>63/B5</b>	3.5	5	10	115	140	95	122	10	420	11	4	12.8
<b>71/B5</b>	4	4.5	11	130	160	110	93	12	391	14	5	16.3
<b>71/B14</b>	3	4.5	7	85	105	70	93	10	391	14	5	16.3

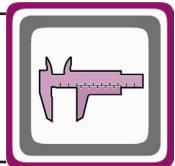
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1



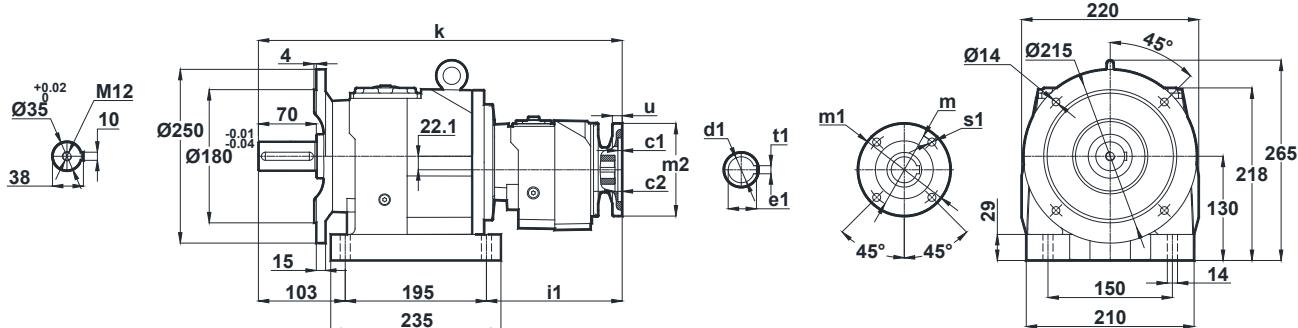
**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



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

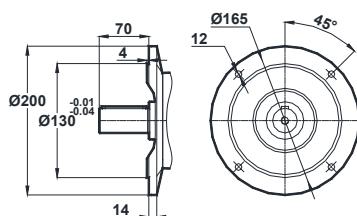
**MNF285-A.. / B..**

**MNF286-A.. / B..**

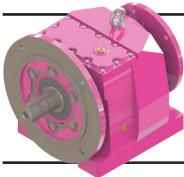


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	188	12	488	11	4	12.8
63/B14	2.5	5	5.5	75	90	60	188	10	488	11	4	12.8

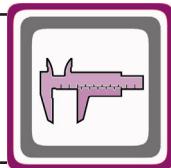
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



**Opt. 1**

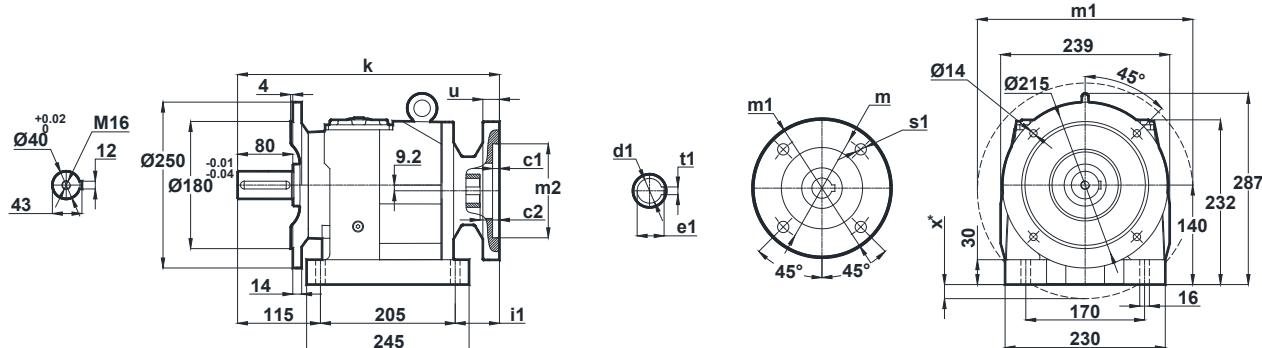


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



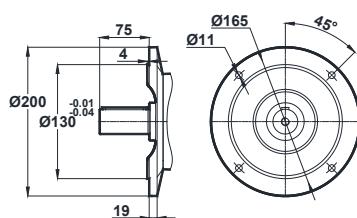
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

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



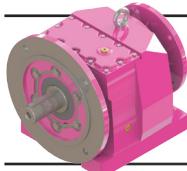
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B5	4	9	11	130	160	110	43.5	12	364	14	5	16.3	-
80/B5	4	9	12	165	200	130	43.5	12	364	19	6	21.8	-
90/B5	4	9	12	165	200	130	43.5	12	364	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	60.5	15	381	28	8	31.3	-
112/B5	4.5	9	15	215	250	180	60.5	15	381	28	8	31.3	-
132/B5	4.5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

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

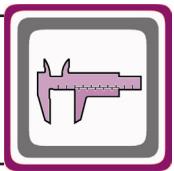


Opt. 1

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

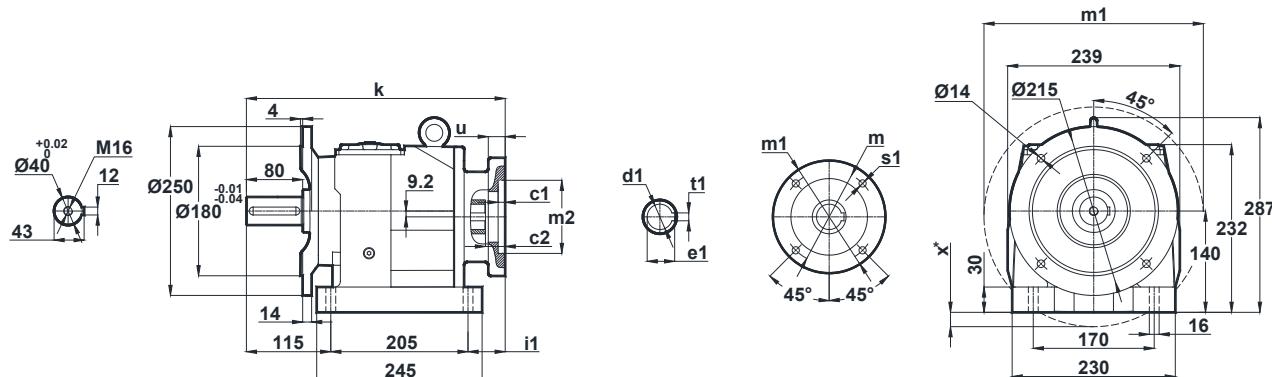


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



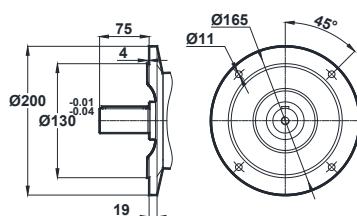
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF372-B..**  
**MNF373-B..**



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
80/B14	4	9	7	100	120	80	43.5	12	364	19	6	21.8	-
90/B14	4	9	9	115	140	95	43.5	12	364	24	8	26.3	-
100/B14	4	9	9	130	160	110	60.5	15	381	28	8	31.3	-
112/B14	4	9	9	130	160	110	60.5	15	381	28	8	31.3	-
132/B14	4.5	9	11	165	200	130	80.5	15	401	38	10	41.3	-

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



Opt. 1

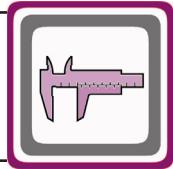
x: Motor Ayak bağlantı yüzeyinin altında ise / x: If Motor is lower then foot mounting plane / x: Wenn motor ist niedriger den die Anschlußplatte



# Ölçü Sayfaları

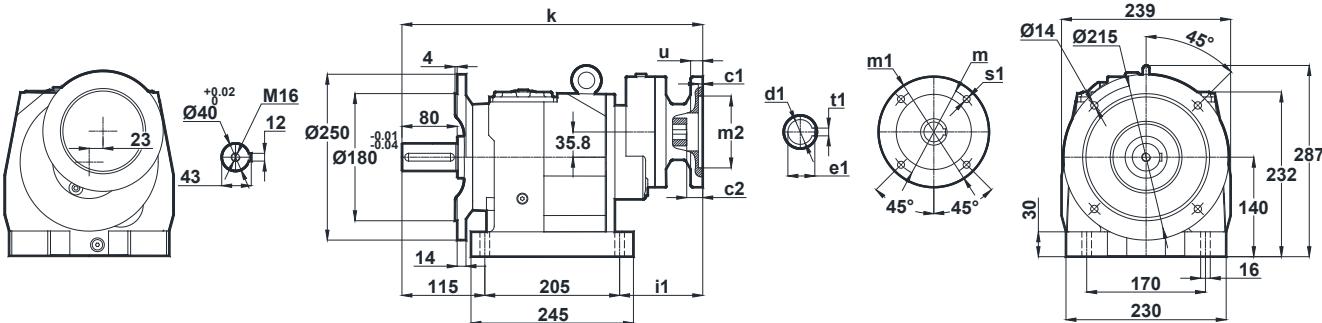
## Dimension Pages

## Abmessungsseiten



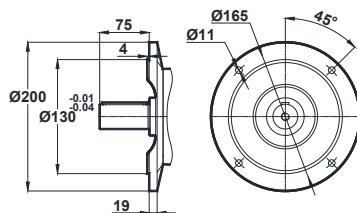
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**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

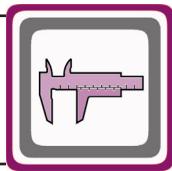
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1



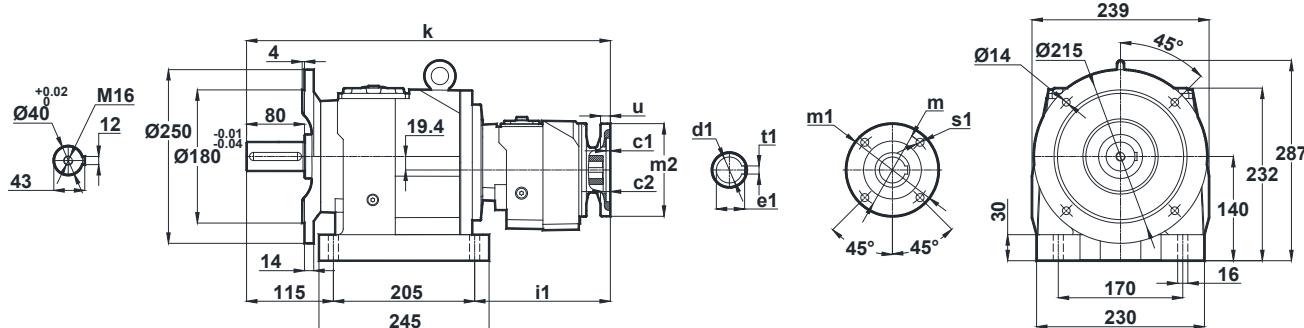
**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



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

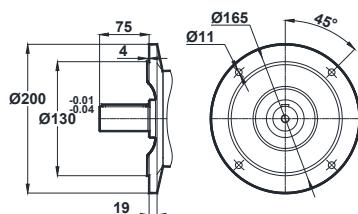
**MNF375-A.. / B..**

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

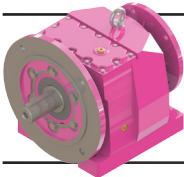


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
<b>63/B5</b>	3.5	5	10	115	140	95	186.5	10	509	11	4	12.8
<b>63/B14</b>	2.5	5	5.5	75	90	60	186.5	10	509	11	4	12.8

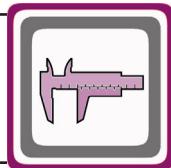
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

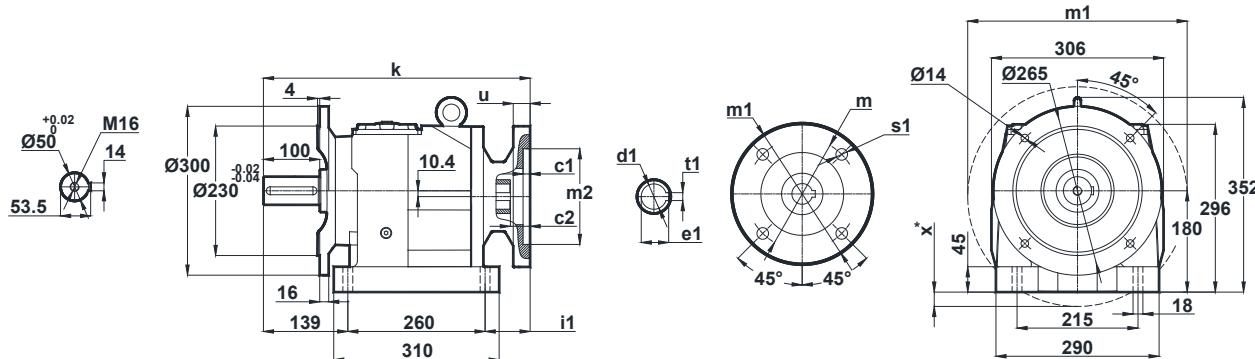


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



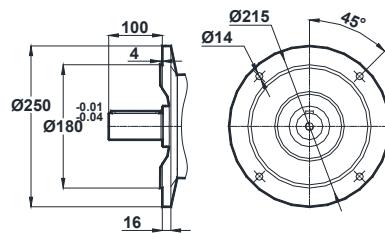
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF472-A..**  
**MNF473-A..**



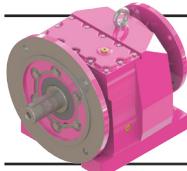
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
80/B5	4	5	12	165	200	130	27.5	12	426.5	19	6	21.8	-
90/B5	4	5	12	165	200	130	27.5	12	426.5	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	46	15	445	28	8	31.3	-
112/B5	4.5	9	15	215	250	180	46	15	445	28	8	31.3	-
132/B5	4.5	6	15	265	300	230	64.5	15	463.5	38	10	41.3	-
160/B5	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 Flans 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

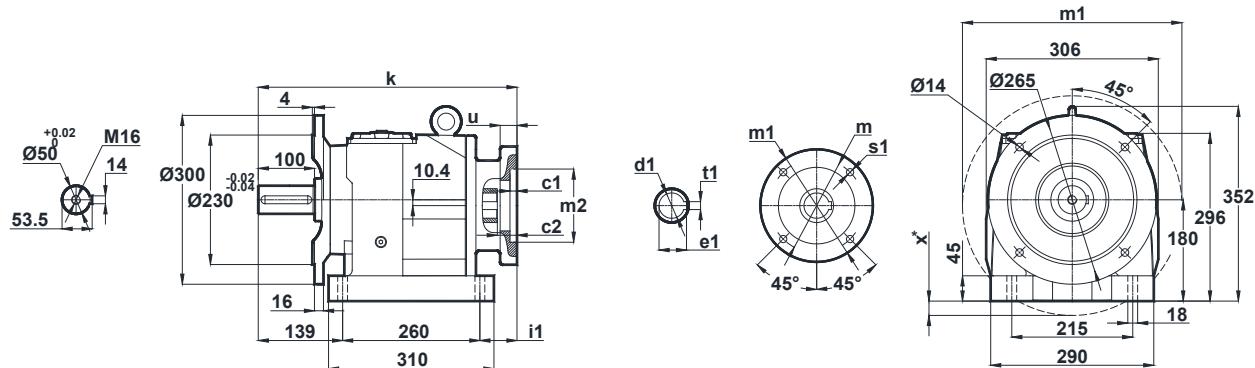


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



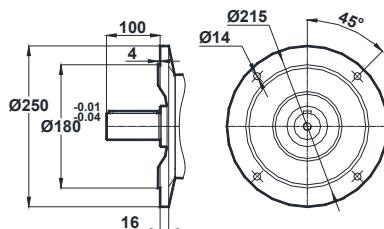
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MNF472-B..**  
**MNF473-B..**



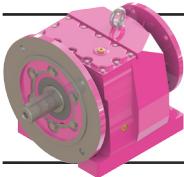
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
90/B14	4	5	9	115	140	95	27.5	12	426.5	24	8	27.3	-
100/B14	4	9	9	130	160	110	46	15	445	28	8	31.3	-
112/B14	4	9	9	130	160	110	46	15	445	28	8	31.3	-
132/B14	4.5	6	11	165	200	130	64.5	15	463.5	38	10	41.3	-

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

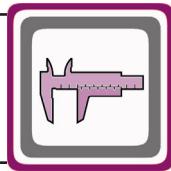


Opt. 1

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

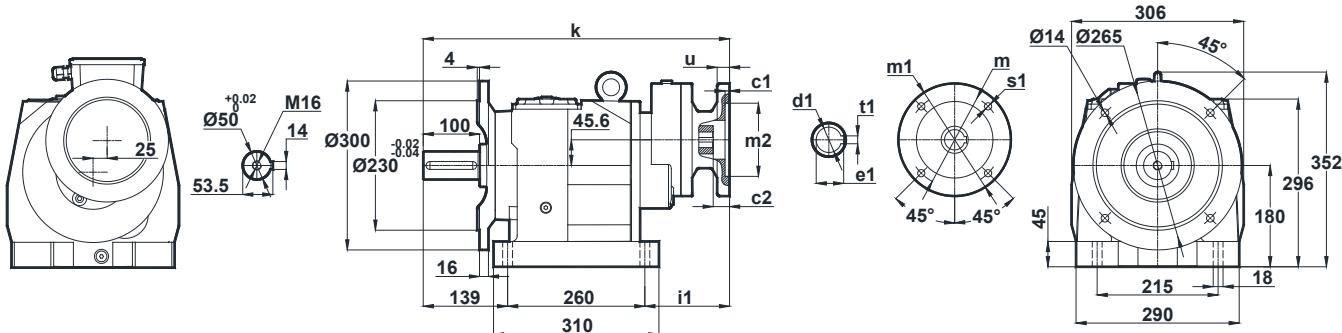


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



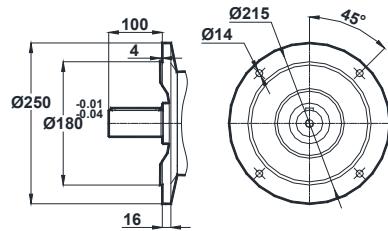
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

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

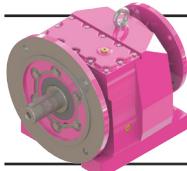


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	125.5	12	524.5	14	5	16.3
80/B5	4	9	12	165	200	130	125.5	12	524.5	19	6	21.8
80/B14	4	9	7	100	120	80	125.5	12	524.5	19	6	21.8

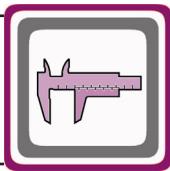
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1



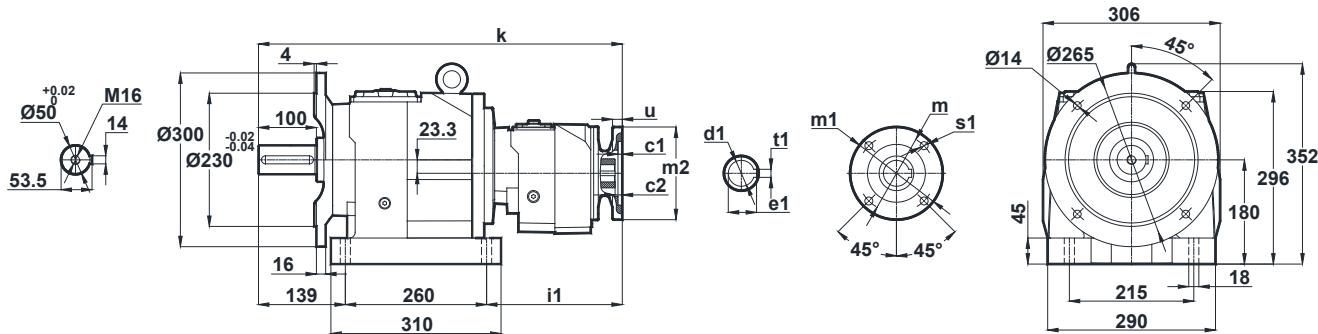
**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



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

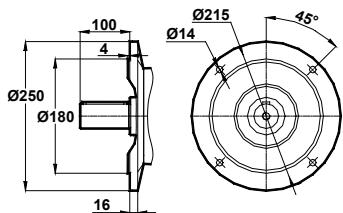
**MNF475-A.. / B..**

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

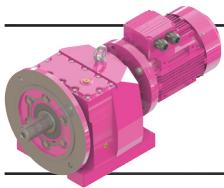


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	253.5	12	652.5	11	4	12.8
71/B5	4	8.5	11	130	160	110	224.5	12	623.5	14	5	16.3
71/B14	3	8.5	7	85	105	70	224.5	10	623.5	14	5	16.3

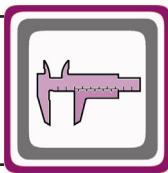
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

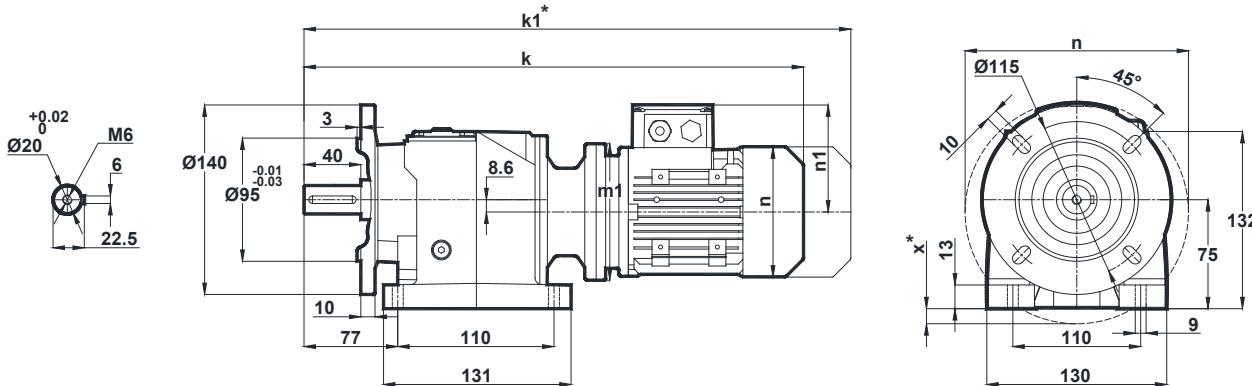


## Ölçü Sayfaları *Dimension Pages* Abmessungsseiten



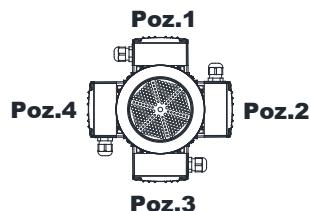
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MVF002**  
**MVF003**



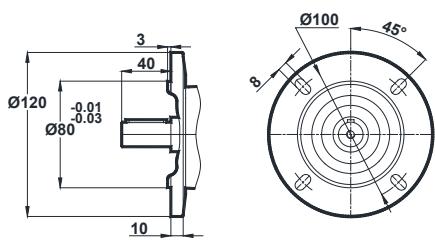
Motor Büyüklüğü / Motor Size / Motorbaugröße					
IEC	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	407	426.5	464.5	505.5	505.5
k1	468	517.5	557.5	609	609
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	140	160	200	200	200
m1 (B14)	90	105	120	140	140
x (B5)	4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

Klemens Kutusu /Terminal Box / Klemmenkasten

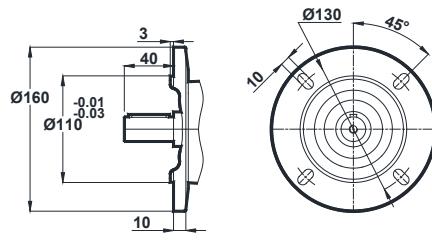


63-71-80-90

#### **Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



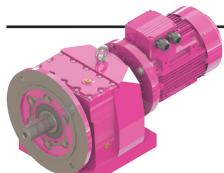
**Opt. 1**



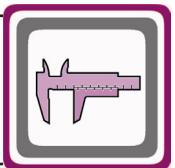
## **Opt. 2**

\* "k1" Ölçüsü frenli redüktör'lere 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

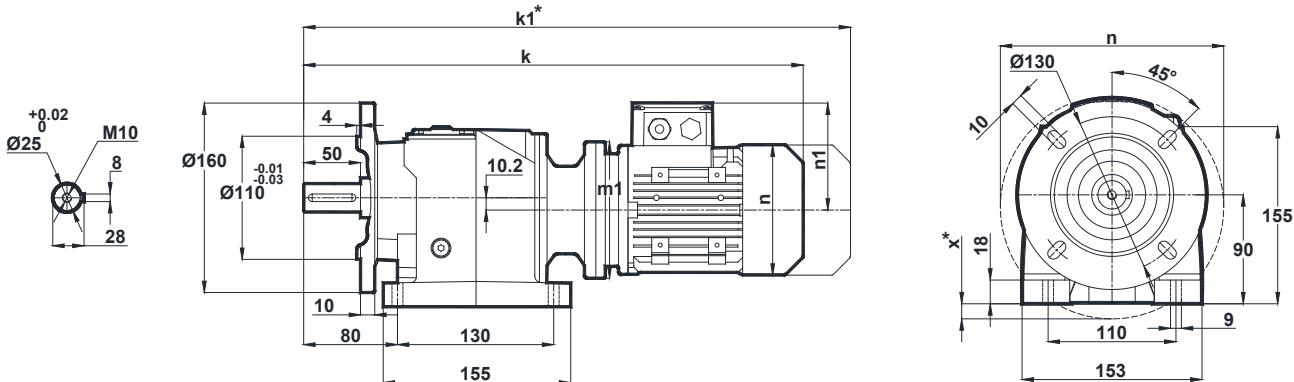


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



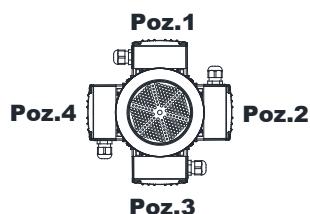
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MVF102**  
**MVF103**



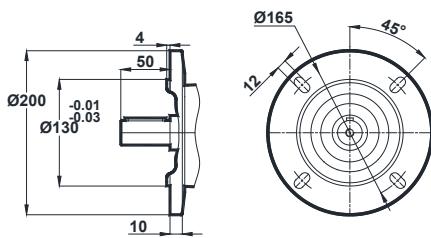
Motor Büyüklüğü / Motor Size / Motorbaugroße					
IEC	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	431	450.5	488.5	529.5	529.5
k1	492	541.5	581.5	633	633
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	140	160	200	200	200
m1 (B14)	90	105	120	140	140
x (B5)	-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

Klemens Kutusu / Terminal Box / Klemmenkasten



63-71-80-90

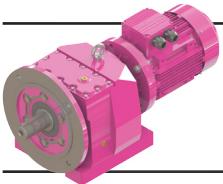
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

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

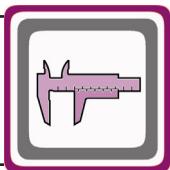
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

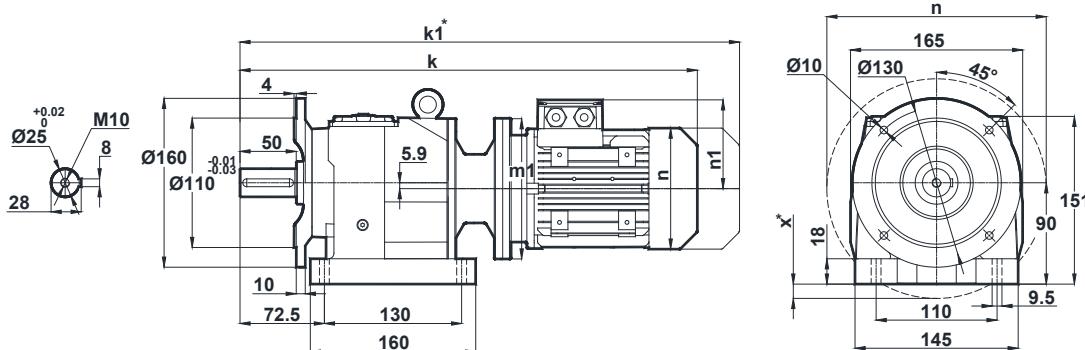
## Dimension Pages

## Abmessungsseiten



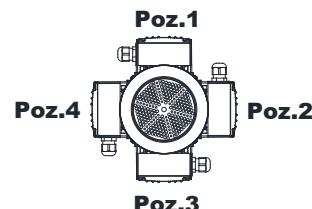
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MVF172**  
**MVF173**



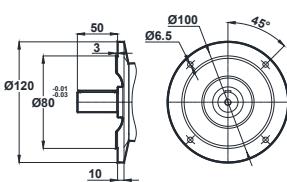
Motor Büyüklüğü / Motor Size / Motorbaugroße							
IEC	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14
k	434	453.5	497.5	532.5	532.5	579	599.5
k1	495	544.5	584.5	636	636	687.5	704
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	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

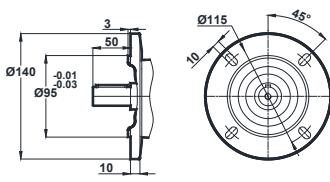


63-71-80-90-100-112

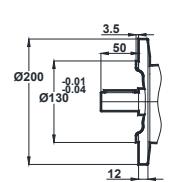
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



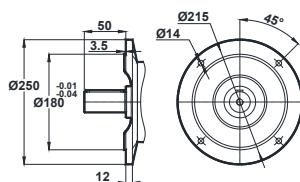
Opt. 1



Opt. 2



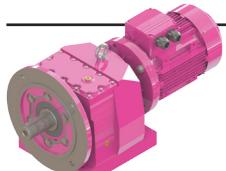
Opt. 3



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

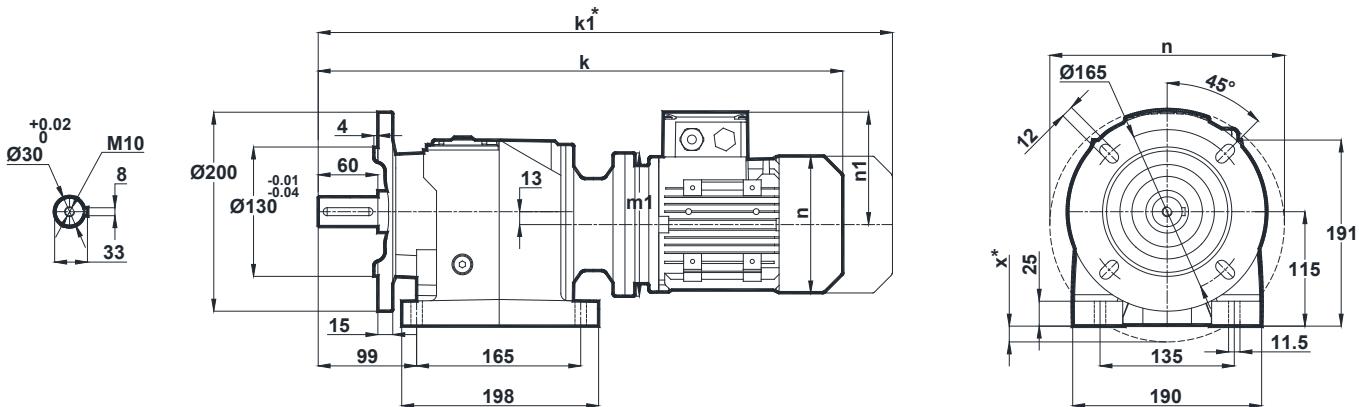


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



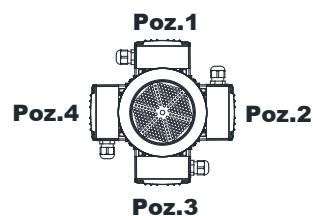
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MVF202**  
**MVF203**



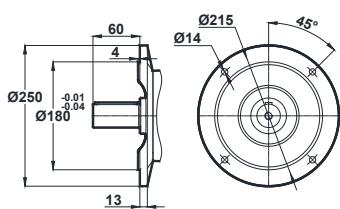
Motor Büyüklüğü / Motor Size / Motorbaugroße							
IEC	63/B5	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14
k	515.5	504.5	556.5	597.5	597.5	626	646.5
k1	576.5	595.5	649.5	701	701	734.5	751
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215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

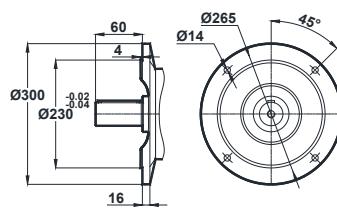


63-71-80-90-100-112

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



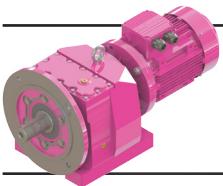
Opt. 1



Opt. 2

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

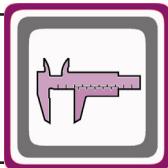
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



# Ölçü Sayfaları

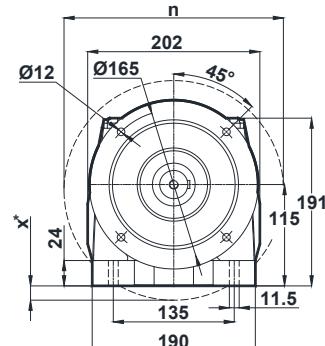
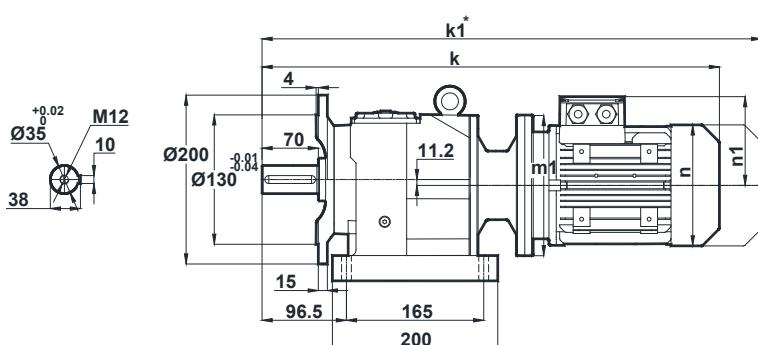
## Dimension Pages

## Abmessungsseiten



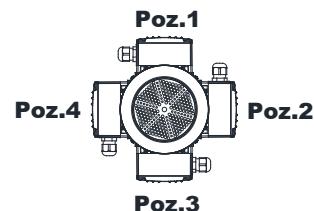
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MVF272**  
**MVF273**



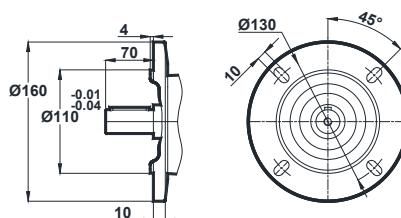
Motor Büyüklüğü / Motor Size / Motorbaugroße									
IEC	63/B5	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	526.5	505.5	557.5	598.5	598.5	627	647.5	778.5	778.5
k1	577.5	596.5	650.5	702	702	735.5	752	908.5	908.5
n / n1	121 / 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

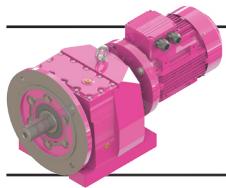
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



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

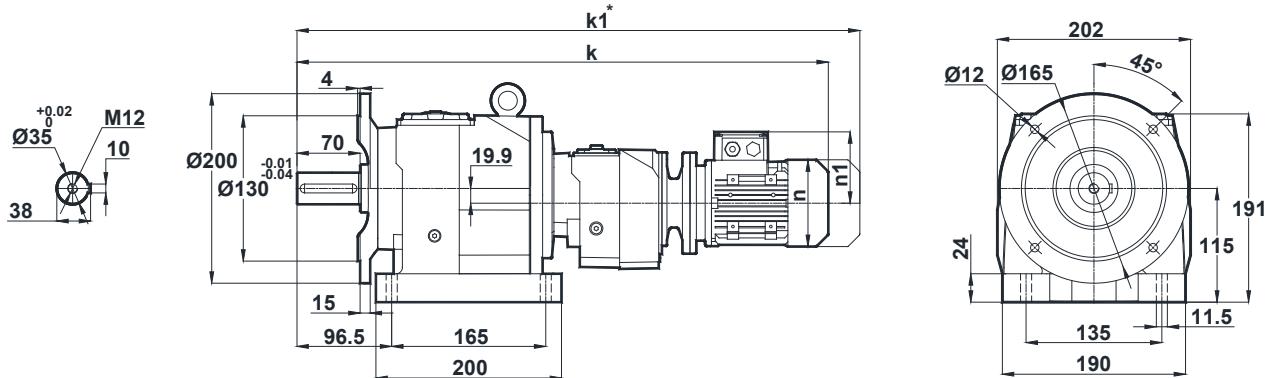


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



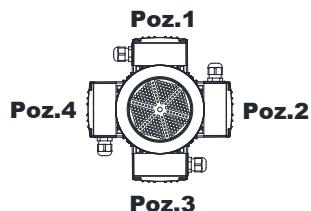
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MVF275**  
**MVF276**



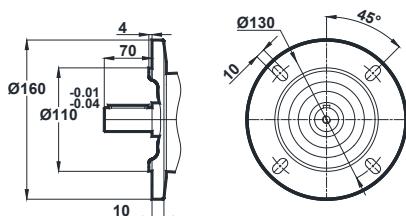
Motor Büyüklüğü / Motor Size / Motorbaugroße		
IEC	63/B5 63/B14	71/B5 71/B14
k	632	651.5
k1	693	742.5
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	90	105

Klemens Kutusu / Terminal Box / Klemmenkasten



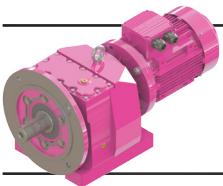
63-71

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



Opt. 1

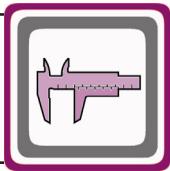
\* "k1" Ölçüsü frenli reduktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.



# Ölçü Sayfaları

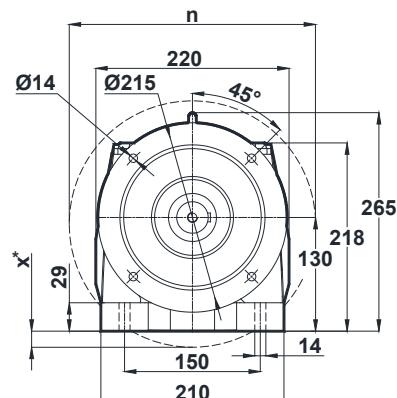
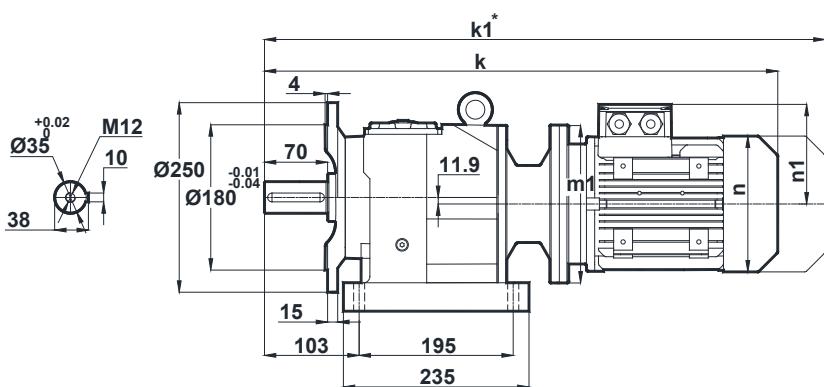
## Dimension Pages

## Abmessungsseiten



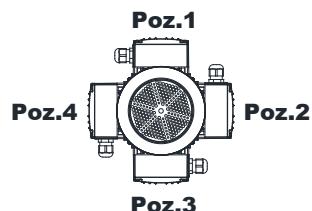
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MVF282**  
**MVF283**



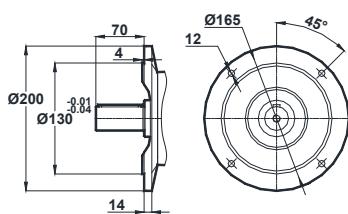
Motor Büyüklüğü / Motor Size / Motorbaugroße								
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	554	577	618	618	670.5	691	795	795
k1	645	670	721.5	721.5	779	795.5	925	925
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 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

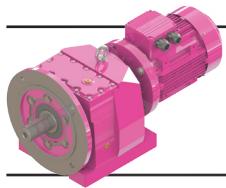
Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

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

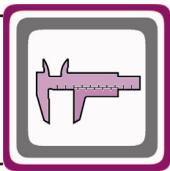
x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



## Ölçü Sayfaları

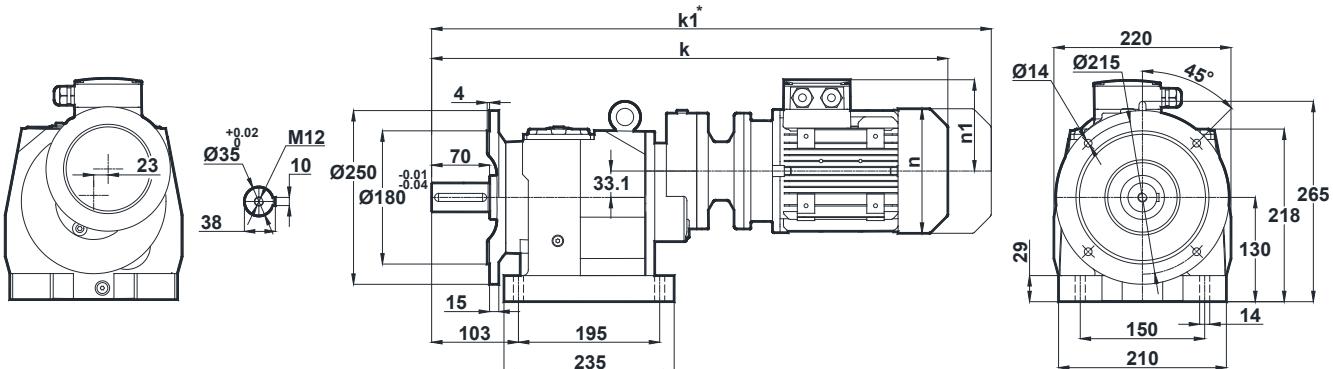
### *Dimension Pages*

### Abmessungsseiten



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

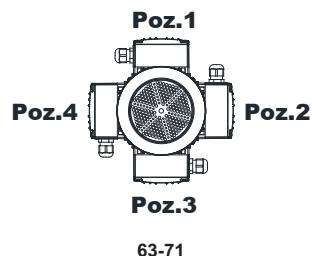
MVF284



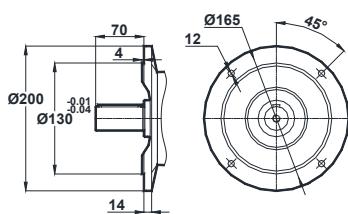
**Motor Büyüklüğü / Motor Size / Motorbaugroße**

<b>IEC</b>	<b>63/B5</b>	<b>71/B5 71/B14</b>
<b>k</b>	613	602
<b>k1</b>	674	693
<b>n / n1</b>	121 / 97	137 / 112
<b>m1 (B5)</b>	140	160
<b>m1 (B14)</b>	-	105

**Klemens Kutusu /Terminal Box / Klemmenkasten**

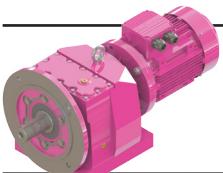


**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**

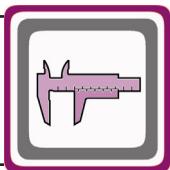


**Opt. 1**

\* k1 “Ölçüsü frenli reduktörlere aittir. Dimension “k1” is for motors with brake. Maße “k1” ist für Bremsenmotoren.

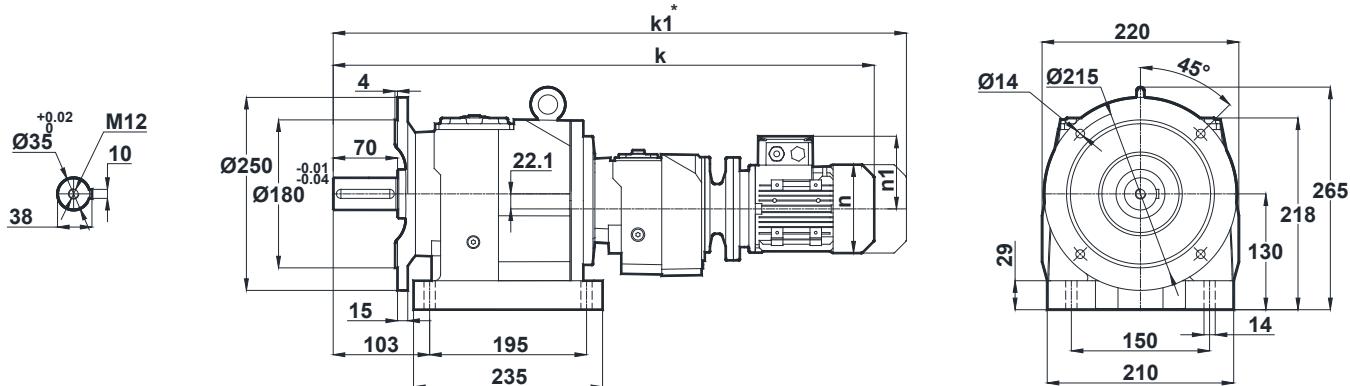


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



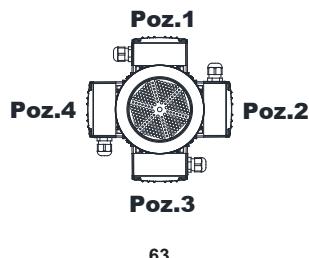
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MVF285**  
**MVF286**



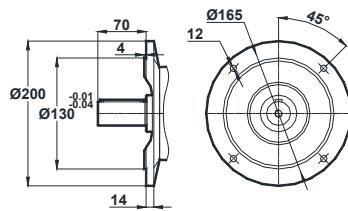
Motor Büyüklüğü / Motor Size / Motorbaugröße	
IEC	63/B5 63/B14
k	681
k1	742
n / n1	121 / 97
m1 (B5)	140
m1 (B14)	90

Klemens Kutusu / Terminal Box / Klemmenkasten



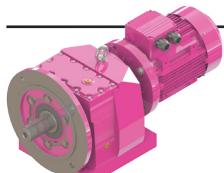
63

Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

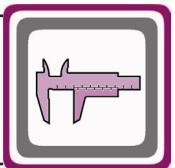


Opt. 1

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

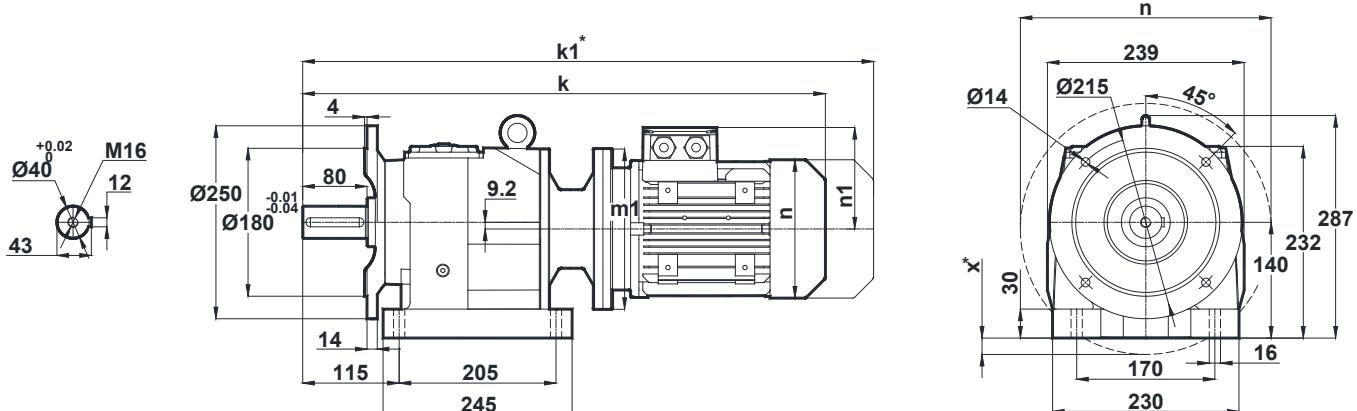


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*



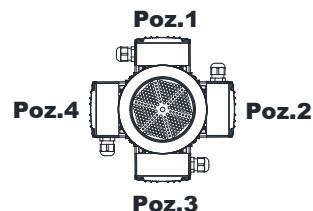
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MVF372**  
**MVF373**



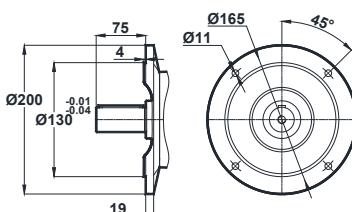
Motor Büyüklüğü / Motor Size / Motorbaugröße								
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	575	598	639	639	691.5	712	816	816
k1	666	691	742.5	742.5	800	816.5	946	946
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193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

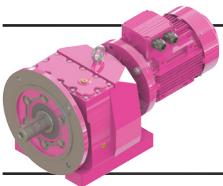
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



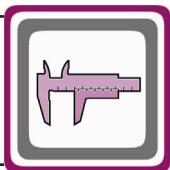
Opt. 1

\* "k1" Ölçüsü frenli reduktörlere 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

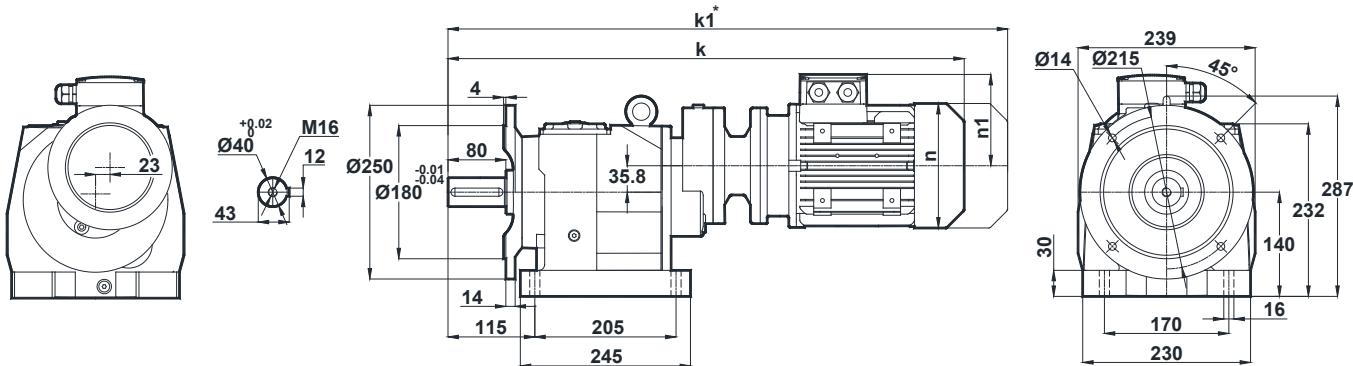


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



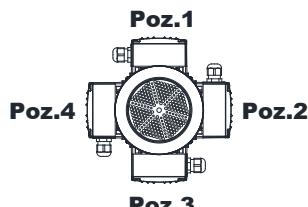
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MVF374



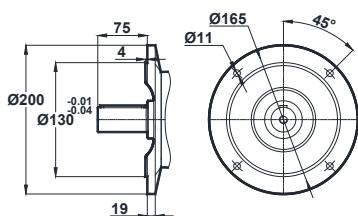
Motor Büyüklüğü / Motor Size / Motorbaugroße			
IEC	63/B5	71/B5 71/B14	80/B5 80/B14
k	634	623	675
k1	695	714	768
n / n1	121 / 97	137 / 112	155 / 121
m1 (B5)	140	160	200
m1 (B14)	-	105	120

Klemens Kutusu / Terminal Box / Klemmenkasten



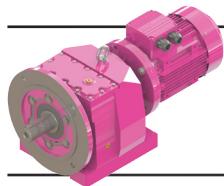
63-71-80

### Opsiyonel Flans 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.

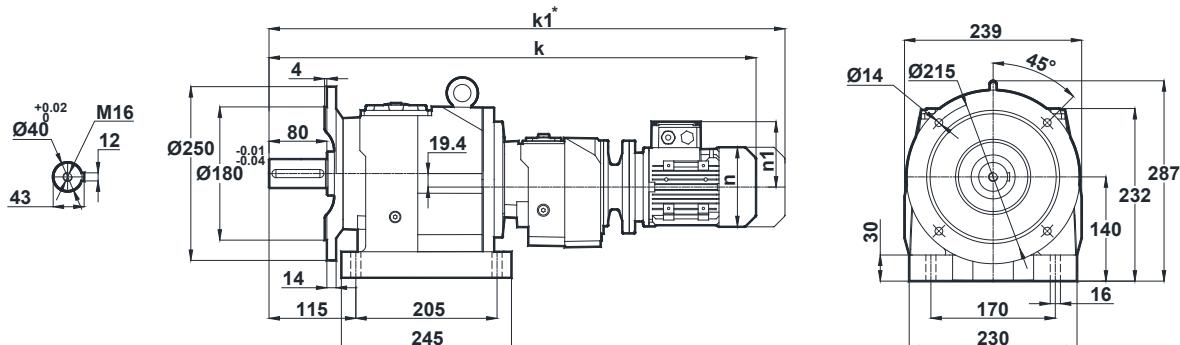


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



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

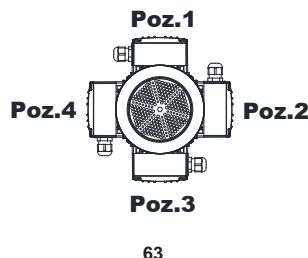
**MVF375**  
**MVF376**



**Motor Büyüklüğü / Motor Size / Motorbaugroße**

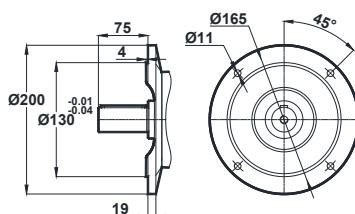
IEC	63/B5 63/B14
k	702
k1	769
n / n1	121 / 97
m1 (B5)	140
m1 (B14)	90

**Klemens Kutusu / Terminal Box / Klemmenkasten**



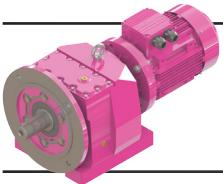
63

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

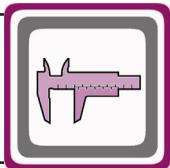


Opt. 1

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

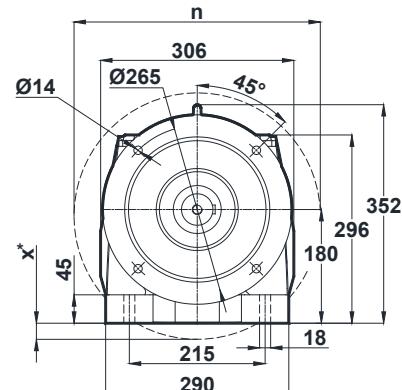
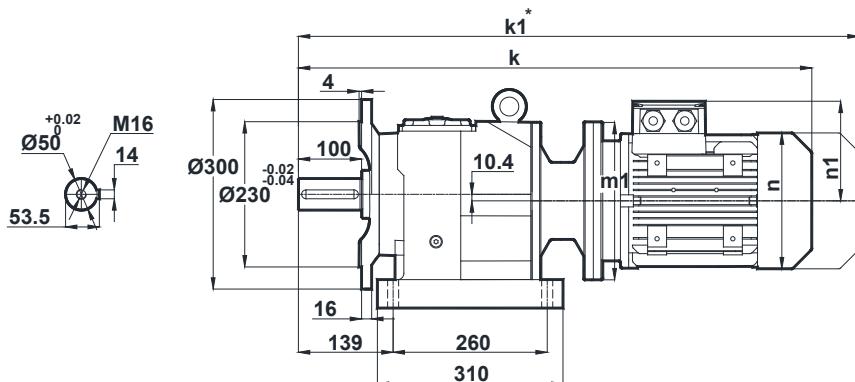


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



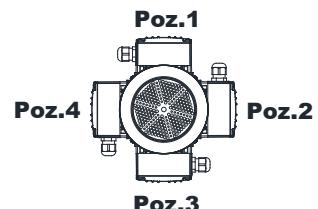
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MVF472**  
**MVF473**



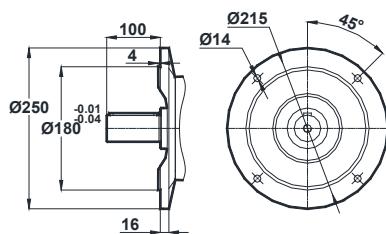
Motor Büyüklüğü / Motor Size / Motorbaugroße											
IEC	80/B5 90S/B14	90S/B5 90L/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5
k	660.5	701.5	701.5	755.5	776	878.5	878.5	1038	1038	1126	1126
k1	753.5	805	805	864	880.5	1008.5	1008.5	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

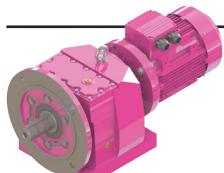
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



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

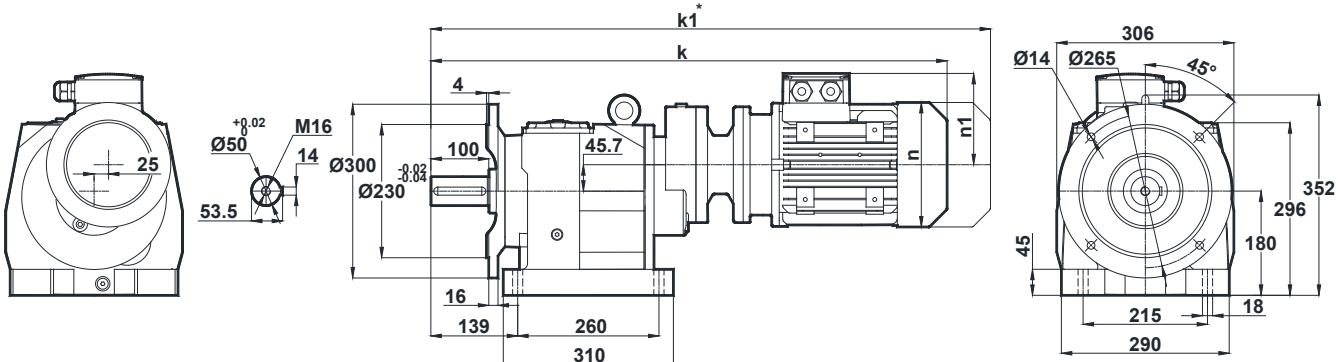


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



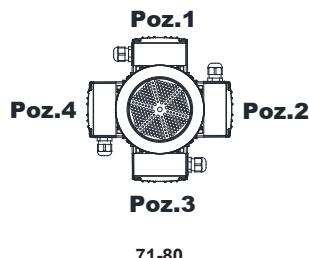
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

## MVF474

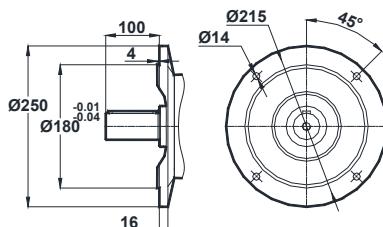


Motor Büyüklüğü / Motor Size / Motorbaugröße		
IEC	71/B5	80/B5 80/B14
k	735.5	758.5
k1	826.5	851.5
n / n1	137 / 112	155 / 121
m1 (B5)	160	200
m1 (B14)	-	120

Klemens Kutusu / Terminal Box / Klemmenkasten

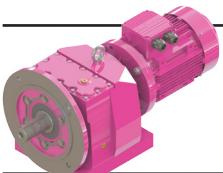


Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

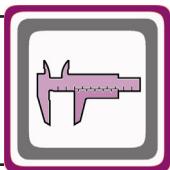


Opt. 1

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

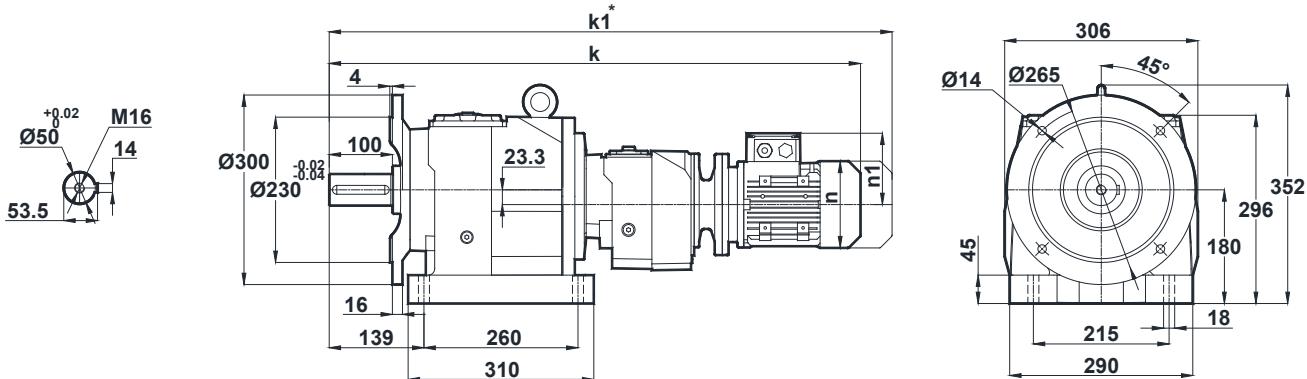


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



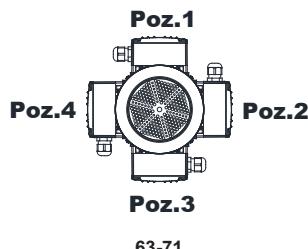
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MVF475**  
**MVF476**



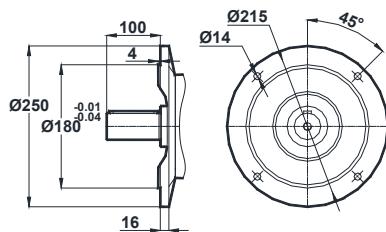
Motor Büyüklüğü / Motor Size / Motorbaugroße		
IEC	63/B5	71/B5 71/B14
k	845.5	834.5
k1	906.5	925.5
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	-	105

Klemens Kutusu / Terminal Box / Klemmenkasten



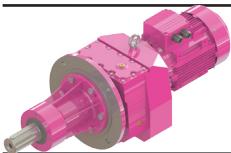
63-71

Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen

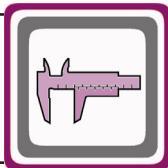


Opt. 1

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

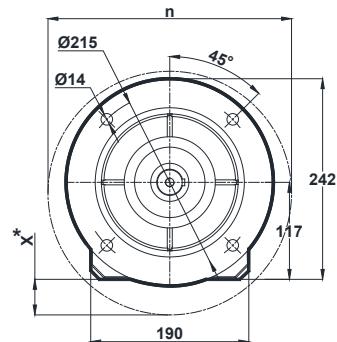
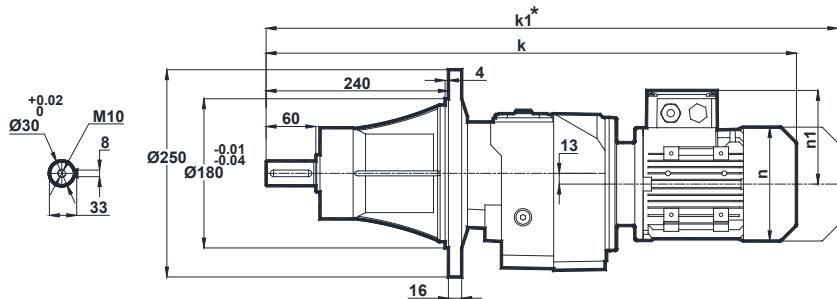


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



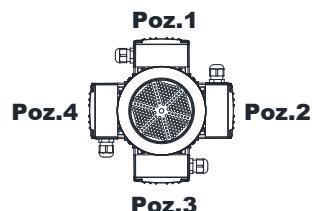
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**NRB202**  
**NRB203**



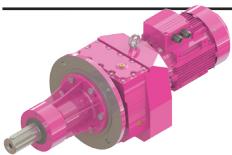
Motor Büyüklüğü / Motor Size / Motorbaugroße							
	63	71	80	90S	90L	100L	112M
k	608	635	669	708	708	756	780
k1	669	726	762	811.5	811.5	864.5	884.5
n	121	137	155	176	176	193	215
n1	97	112	121	132	132	147	158
x	-	-	-	-	-	-	10

Klemens Kutusu / Terminal Box / Klemmenkasten



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

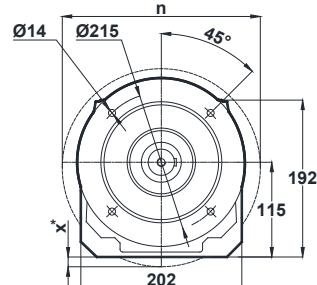
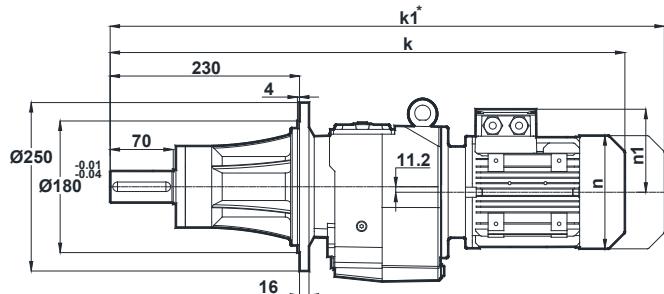
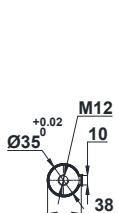


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*



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

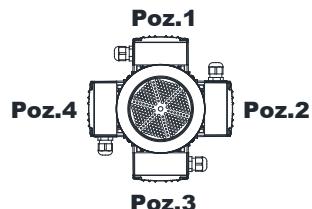
**NRB272**  
**NRB273**



**Motor Büyüklüğü / Motor Size / Motorbaugroße**

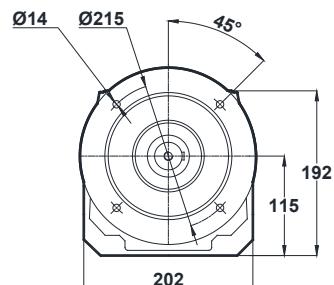
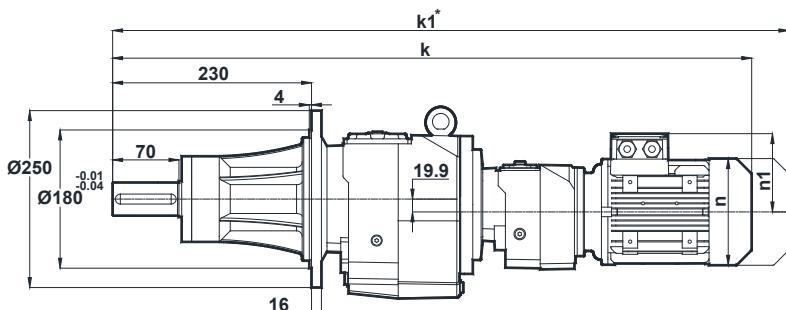
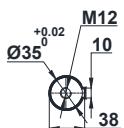
	63	71	80	90S	90L	100L	112M	132S	132M
k	606	633	667	706	706	754	778	861	861
k1	667	724	760	809.5	809.5	862.5	882.5	991	991
n	121	137	155	176	176	193	215	257	257
n1	97	112	121	132	132	147	158	179	179
x	-	-	-	-	-	-	9	25	25

**Klemens Kutusu / Terminal Box / Klemmenkasten**



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

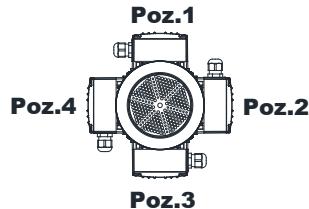
**NRB275**  
**NRB276**



**Motor Büyüklüğü / Motor Size / Motorbaugroße**

	63	71
k	755	784
k1	816.5	875
n	121	137
n1	97	112

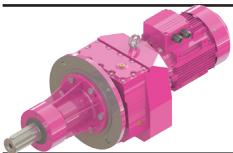
**Klemens Kutusu / Terminal Box / Klemmenkasten**



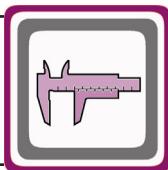
63-71

\* "k1" Ölüsü frenli reduktörlere 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

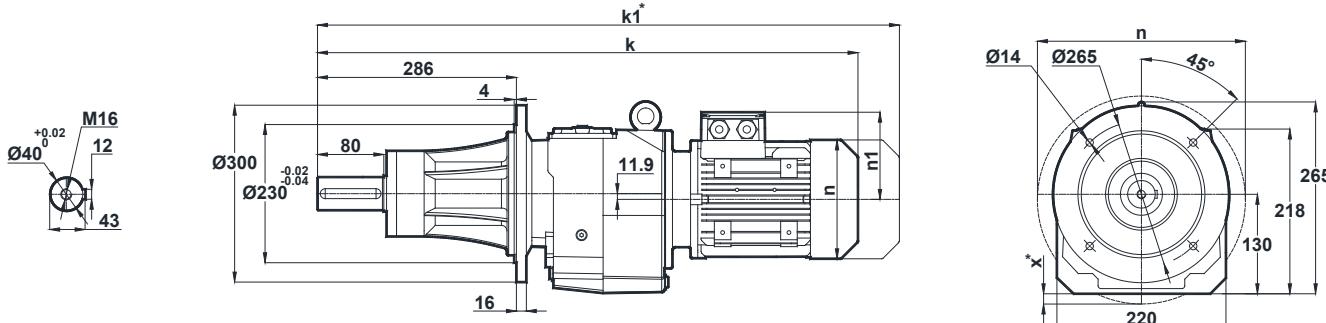


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



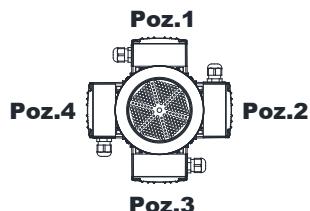
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB282**  
**NRB283**



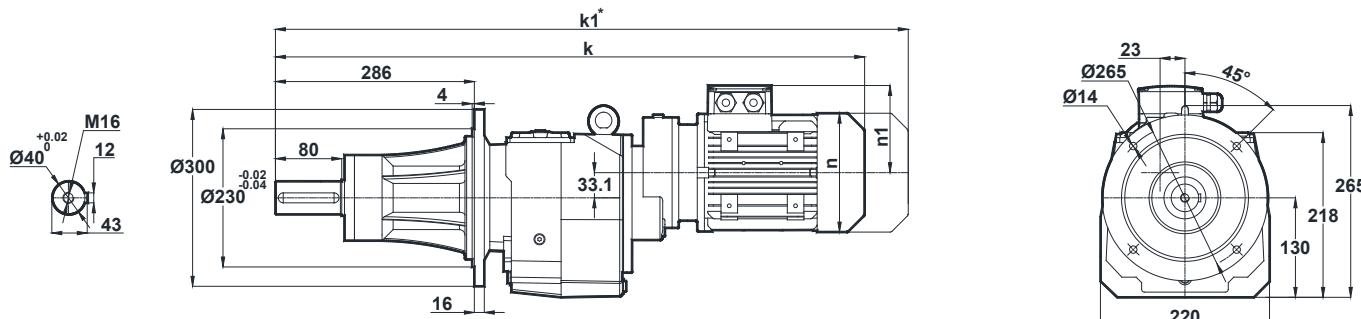
Motor Büyüklüğü / Motor Size / Motorbaugroße								
	71	80	90S	90L	100L	112M	132S	132M
k	707	741	780	780	828	852	938.5	938.5
k1	798	834	883.5	883.5	936.5	956.5	1068.5	1068.5
n	137	155	176	176	193	215	257	257
n1	112	121	132	132	147	158	179	179
x	-	-	-	-	-	-	-	14

Klemens Kutusu / Terminal Box / Klemmenkasten



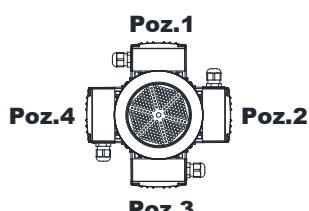
71-80-90-100-112-132

**NRB284**



Motor Büyüklüğü / Motor Size / Motorbaugroße		
	63	71
k	759	786
k1	820	877
n	121	137
n1	97	112

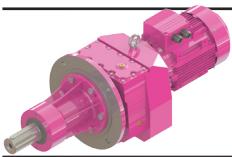
Klemens Kutusu / Terminal Box / Klemmenkasten



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

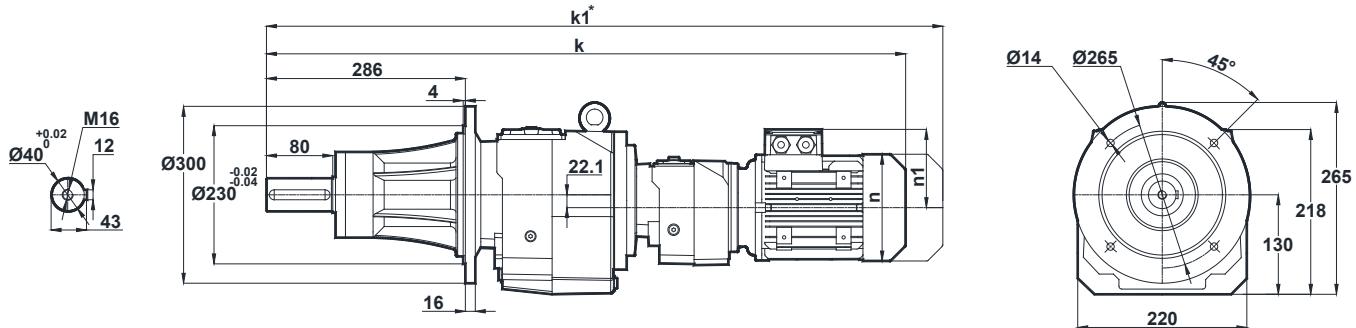


**Ölçü Sayfaları**  
*Dimension Pages*  
**Abmessungsseiten**



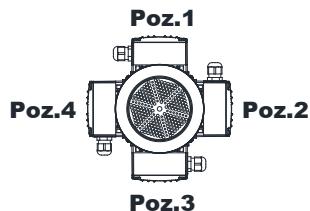
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB285**  
**NRB286**



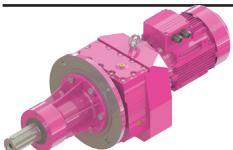
Motor Büyüklüğü / Motor Size / Motorbaugröße	
	63
k	863.5
k1	924.5
n	121
n1	97

Klemens Kutusu / Terminal Box / Klemmenkasten

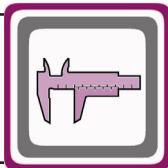


63

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

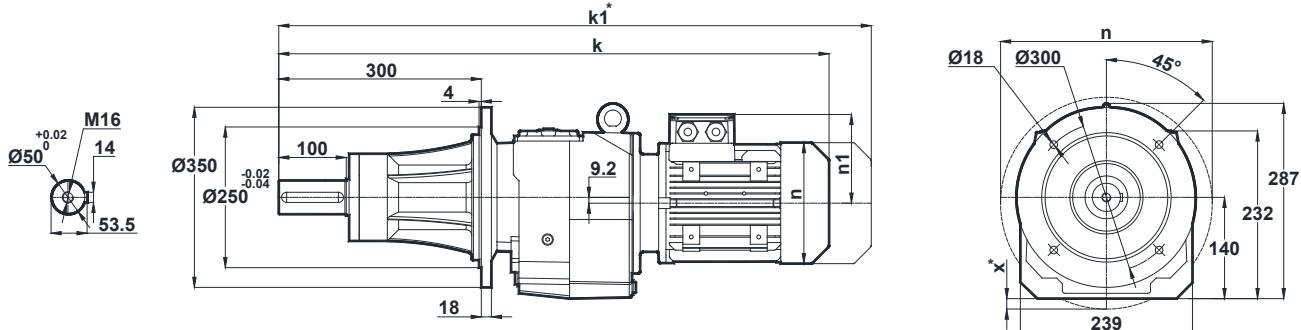


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



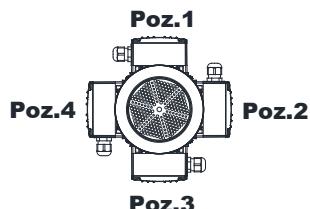
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB372**  
**NRB373**



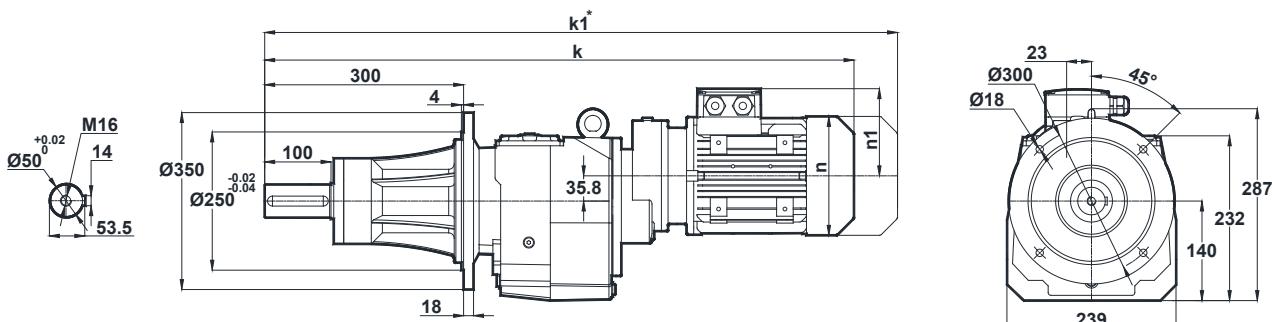
Motor Büyüklüğü / Motor Size / Motorbaugroße								
	71	80	90S	90L	100L	112M	132S	132M
k	729.5	763.5	802.5	802.5	850.5	874.5	961	961
k1	820.5	856.5	906	906	959	979	1091	1091
n	137	155	176	176	193	215	257	257
n1	112	121	132	132	147	158	179	179
x	-	-	-	-	-	-	2	30

Klemens Kutusu / Terminal Box / Klemmenkasten



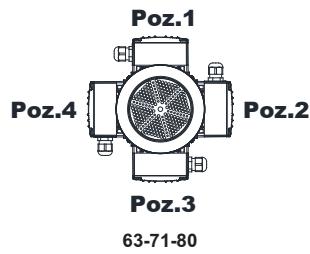
71-80-90-100-112-132

**NRB374**



Motor Büyüklüğü / Motor Size / Motorbaugroße		
	63	71
k	781.5	808.5
k1	842.5	899.5
n	121	137
n1	97	112

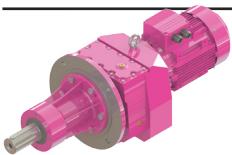
Klemens Kutusu / Terminal Box / Klemmenkasten



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

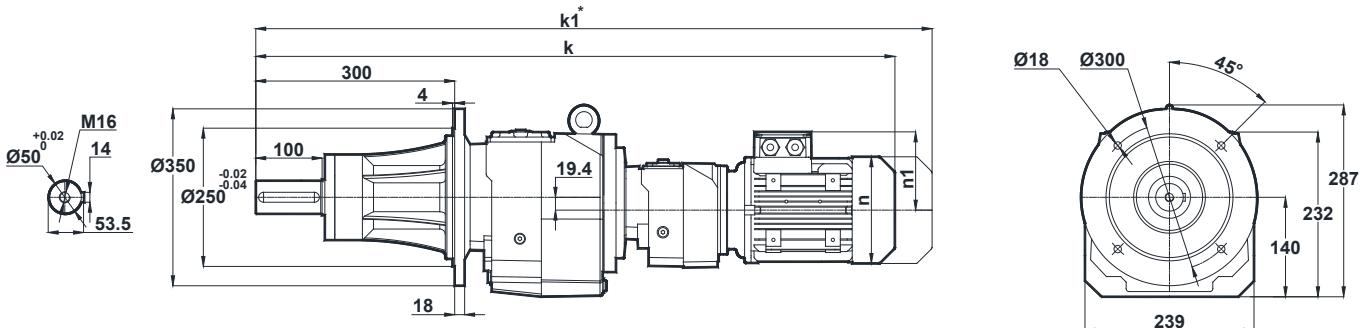


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



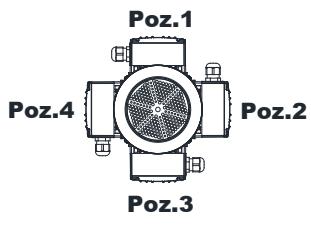
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB375**  
**NRB376**



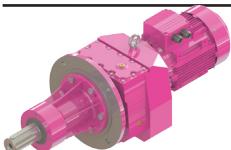
Motor Büyüklüğü / Motor Size / Motorbaugroße	
	63
k	886
k1	947
n	121
n1	97

Klemens Kutusu / Terminal Box / Klemmenkasten

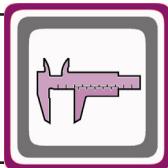


63

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

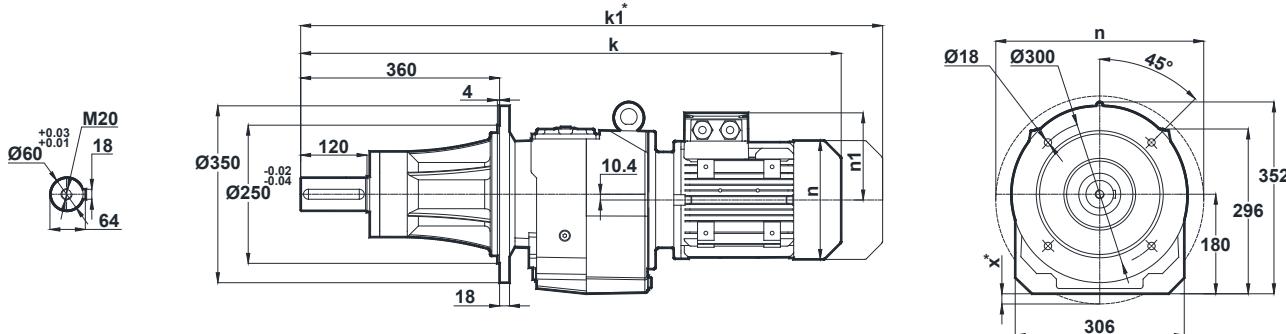


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



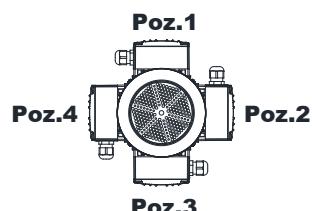
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB472**  
**NRB473**



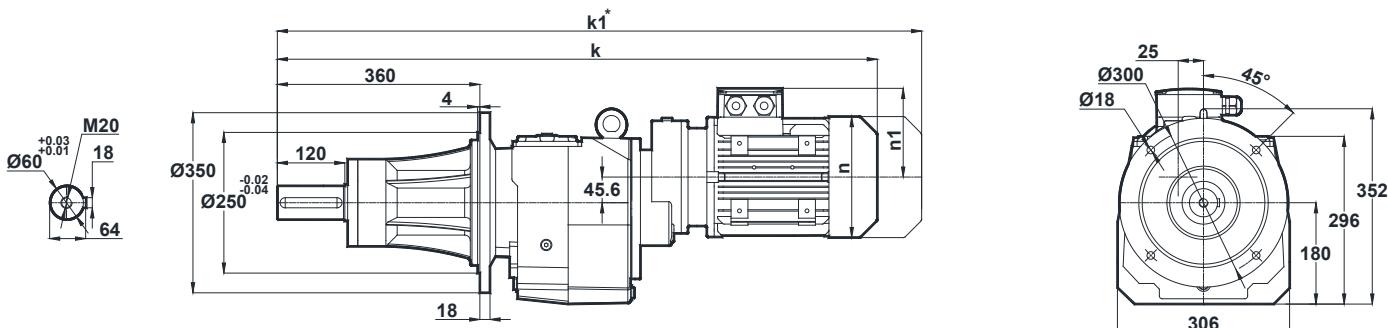
Motor Büyüklüğü / Motor Size / Motorbaugroße											
	80	90S	90L	100L	112M	132S	132M	160M	160L	180M	180L
k	870.5	909.5	909.5	954.5	978.5	1063.5	1063.5	1159.5	1159.5	1231.5	1231.5
k1	963.5	1013	1013	1063	1083	1193.5	1193.5	1307.5	1307.5	1390	1390
n	155	176	176	193	215	257	257	315	315	347	347
n1	121	132	132	147	158	179	179	219	219	234	234
x	-	-	-	-	-	-	-	-	-	11	11

Klemens Kutusu / Terminal Box / Klemmenkasten



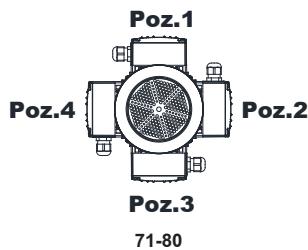
80-90-100-112-132-160-180

**NRB474**



Klemens Kutusu / Terminal Box / Klemmenkasten

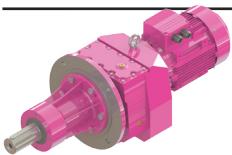
Motor Büyüklüğü / Motor Size / Motorbaugroße		
	71	80
k	930	964
k1	1021	1057
n	137	155
n1	112	121



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

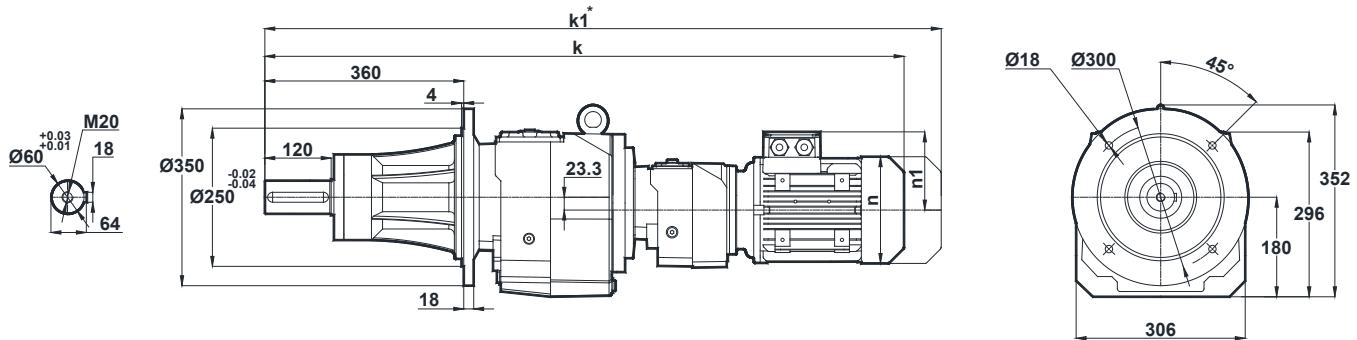


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



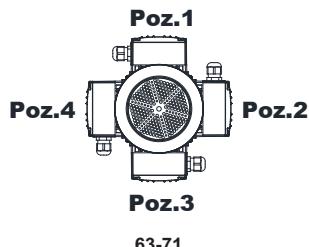
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB475**  
**NRB476**



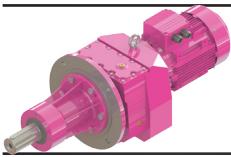
Motor Büyüklüğü / Motor Size / Motorbaugroße		
	63	71
k	1033	1060
k1	1094	1151
n	121	137
n1	97	112

Klemens Kutusu / Terminal Box / Klemmenkasten

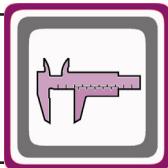


63-71

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

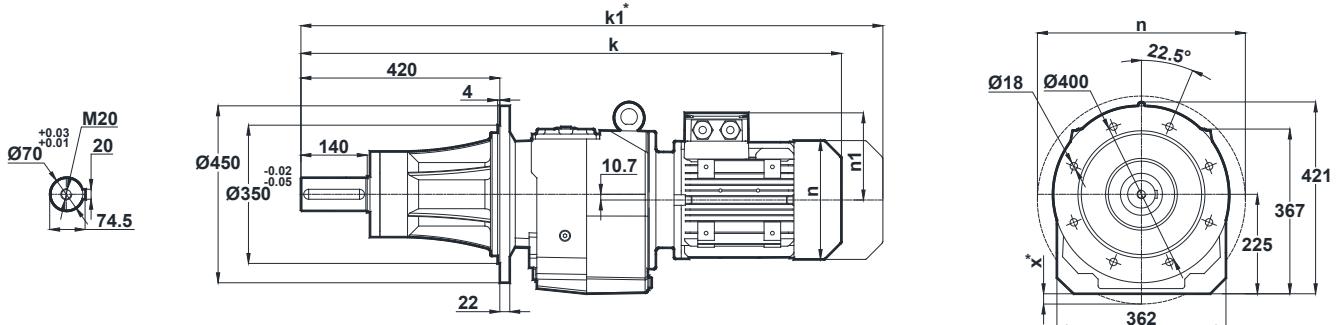


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



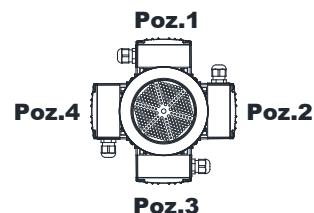
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB572**  
**NRB573**



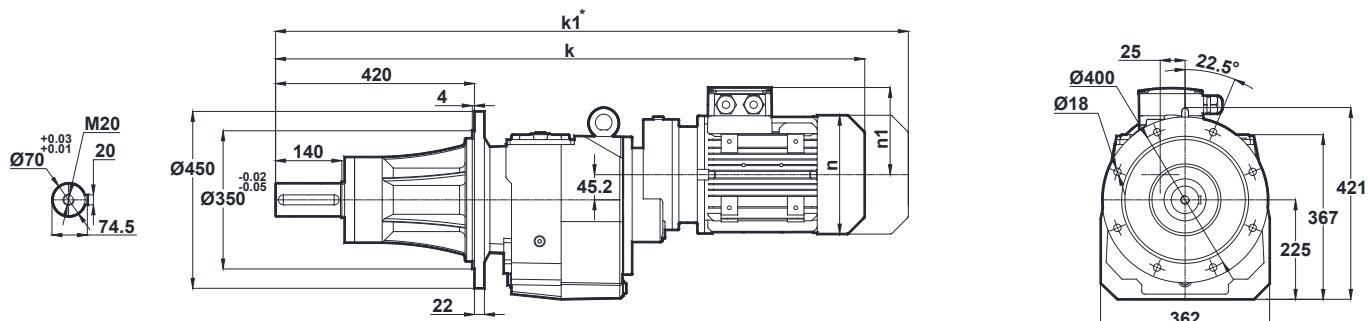
Motor Büyüklüğü / Motor Size / Motorbaugroße									
	100L	112M	132S	132M	160M	160L	180M	180L	200L
k	1057	1081	1167.5	1167.5	1263.5	1263.5	1335.5	1335.5	1381.5
k1	1165.5	1185.5	1297.5	1297.5	1411.5	1411.5	1494	1494	1568
n	193	215	257	257	315	315	347	347	390
n1	147	158	179	179	219	219	234	234	275
x	-	-	-	-	-	-	-	-	-

Klemens Kutusu /Terminal Box / Klemmenkasten



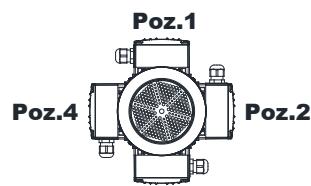
100-112-132-160-180-200

**NRB574**



Klemens Kutusu /Terminal Box / Klemmenkasten

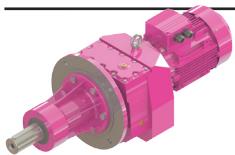
Motor Büyüklüğü / Motor Size / Motorbaugroße				
	71	80	90S	90L
k	1037	1071	1110	1110
k1	1128	1164	1213.5	1213.5
n	137	155	176	176
n1	112	121	132	132



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

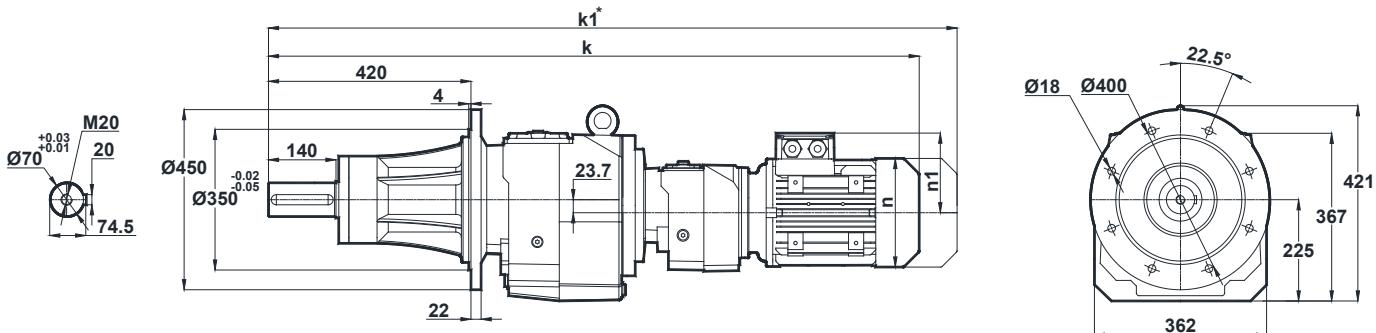


Ölçü Sayfaları  
Dimension Pages  
Abmessungsseiten



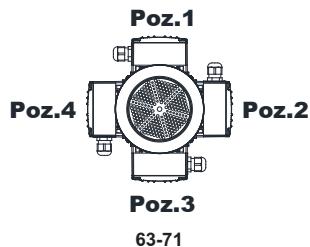
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB575**  
**NRB576**



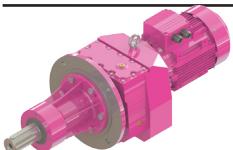
Klemens Kutusu /Terminal Box / Klemmenkasten

Motor Büyüklüğü / Motor Size / Motorbaugroße		
	63	71
k	1142	1169
k1	1203	1260
n	121	137
n1	97	112

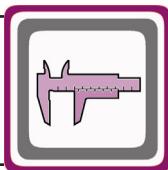


63-71

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

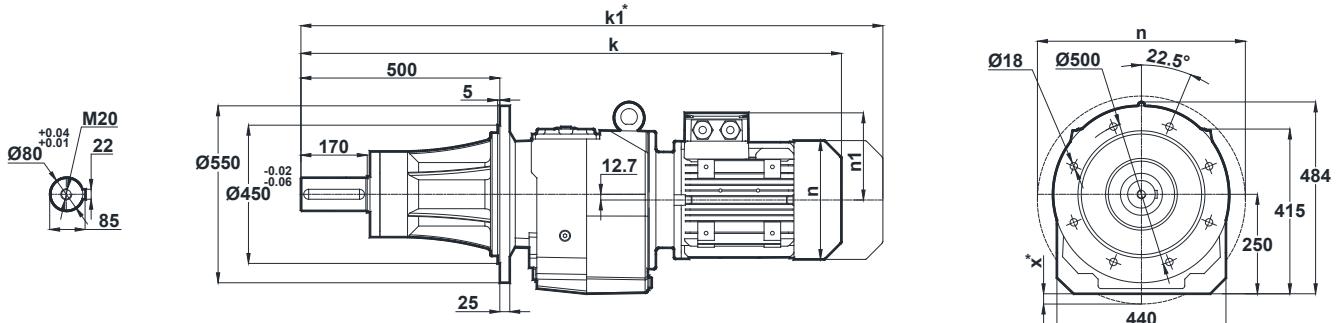


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



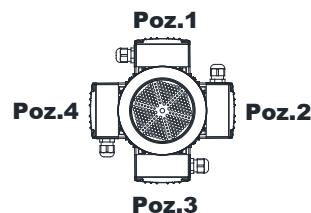
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB672**  
**NRB673**



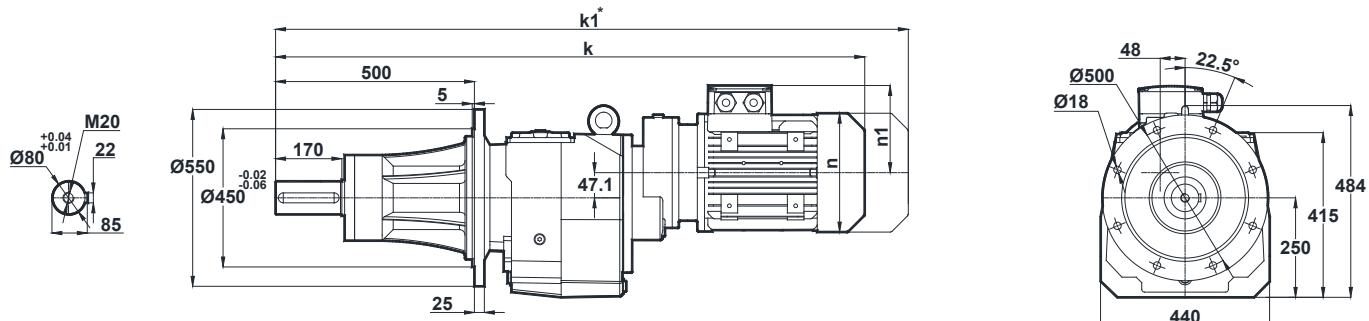
Motor Büyüklüğü / Motor Size / Motorbaugroße										
	112M	132S	132M	160M	160L	180M	180L	200L	225S	225M
k	1198	1284,5	1284,5	1380,5	1380,5	1452,5	1452,5	1498,5	1525	1550
k1	1302,5	1414,5	1414,5	1528,5	1528,5	1611	1611	1685	1690	1715
n	215	257	257	315	315	347	347	390	434	434
n1	158	179	179	219	219	234	234	275	285	285
x	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten



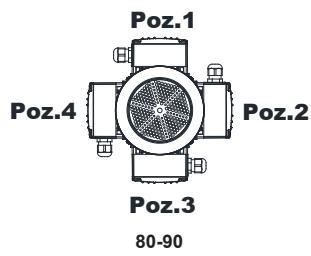
112-132-160-180-200-225

**NRB674**



Motor Büyüklüğü / Motor Size / Motorbaugroße		
	80	90S
k	1206,5	1245,5
k1	1299,5	1349
n	155	176
n1	121	132

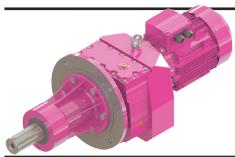
Klemens Kutusu / Terminal Box / Klemmenkasten



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

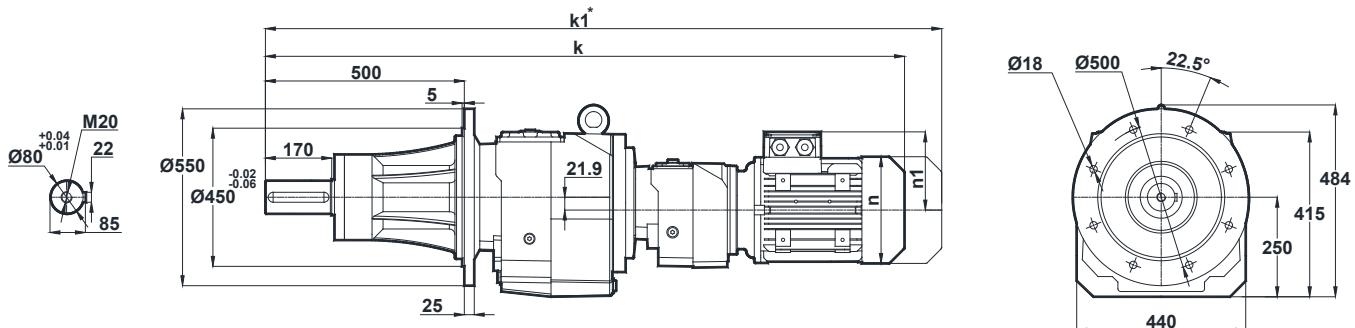


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



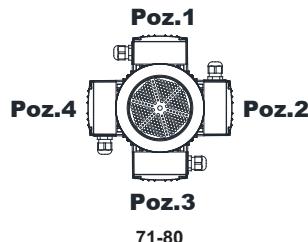
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB675**  
**NRB676**

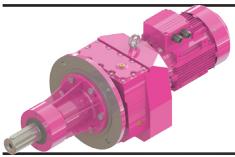


Klemens Kutusu / Terminal Box / Klemmenkasten

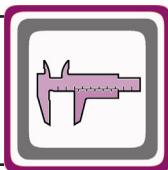
Motor Büyüklüğü / Motor Size / Motorbaugroße		
	71	80
k	1318.5	1352.5
k1	1409.5	1445.5
n	137	155
n1	112	121



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

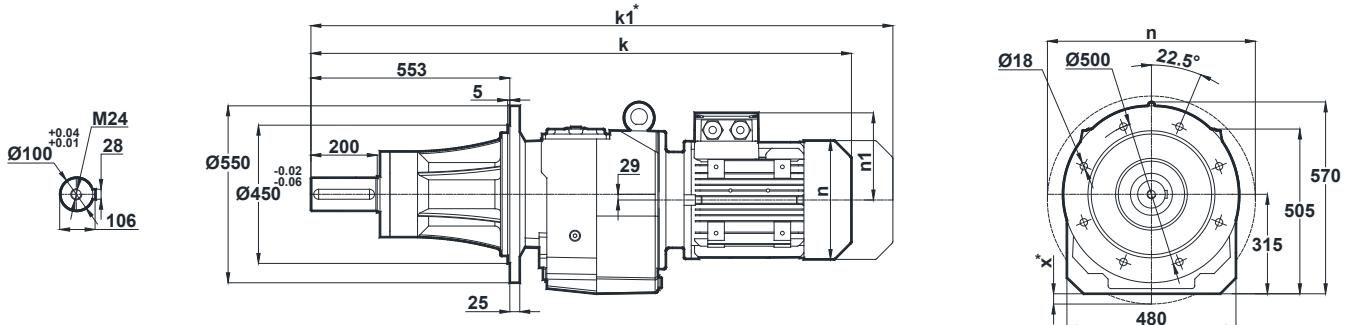


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



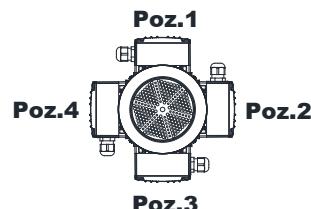
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB772**  
**NRB773**



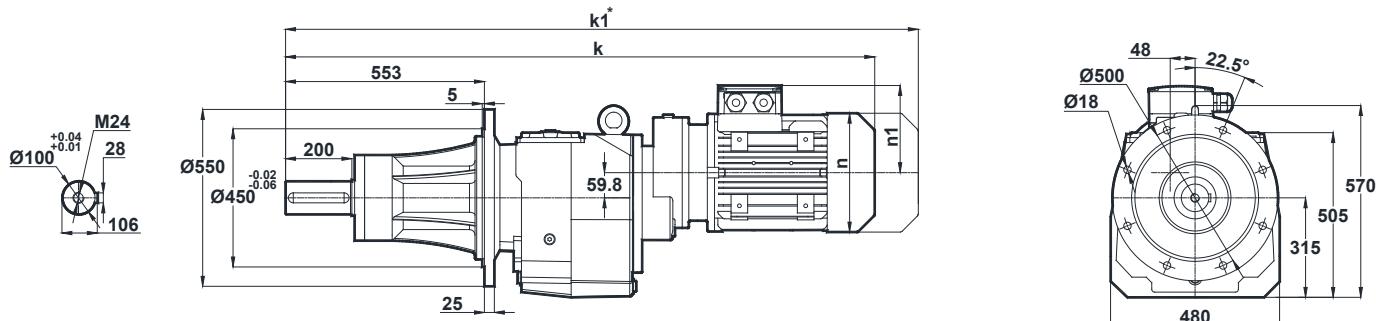
Motor Büyüklüğü / Motor Size / Motorbaugroße										
	132S	132M	160M	160L	180M	180L	200L	225S	225M	250M
k	1383.5	1383.5	1479.5	1479.5	1551.5	1551.5	1597.5	1624.5	1649.5	1741.5
k1	1513.5	1513.5	1627.5	1627.5	1710	1710	1784	1789.5	1814.5	1912
n	257	257	315	315	347	347	390	434	434	480
n1	179	179	219	219	234	234	275	285	285	322
x	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten



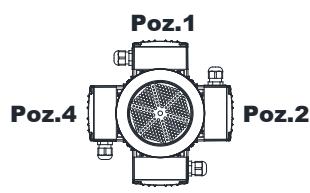
132-160-180-200-225-250

**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

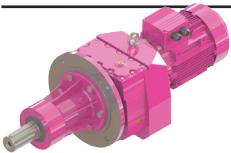
Klemens Kutusu / Terminal Box / Klemmenkasten



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

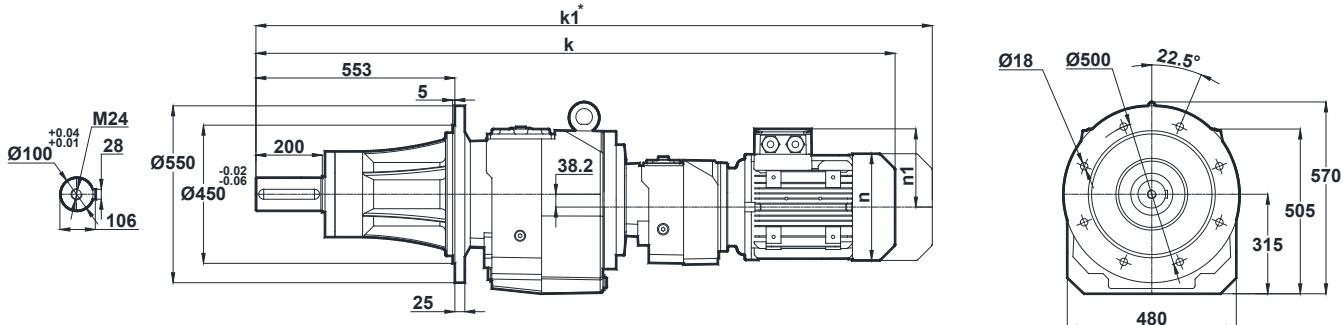


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*



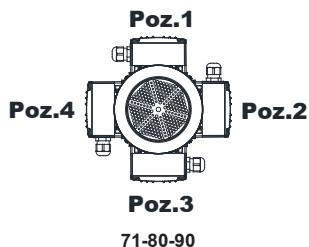
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB775**  
**NRB776**

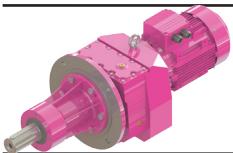


Klemens Kutusu / Terminal Box / Klemmenkasten

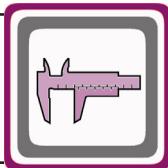
Motor Büyüklüğü / Motor Size / Motorbaugroß				
	71	80	90S	90L
k	1424.5	1458.5	1497.5	1497.5
k1	1515.5	1551.5	1601	1601
n	137	155	176	176
n1	112	121	132	132



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

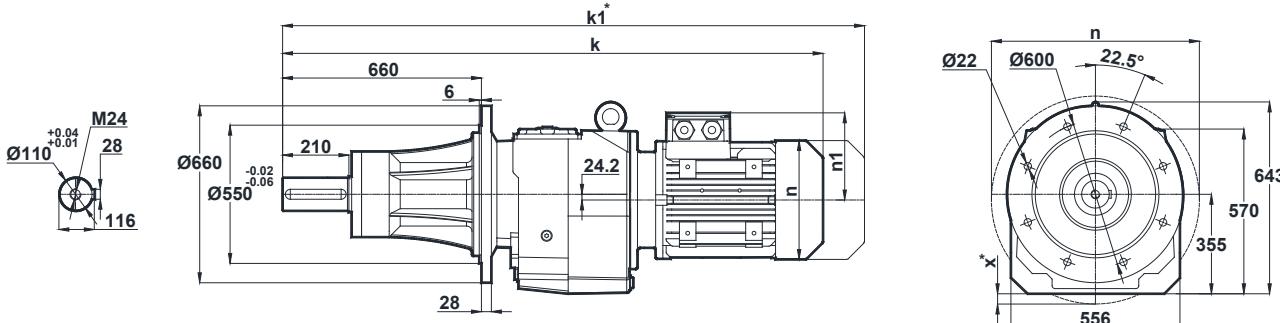


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

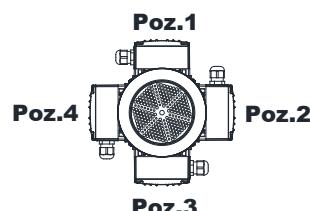


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB872**  
**NRB873**

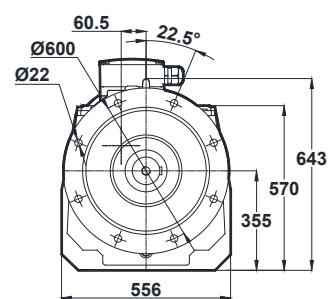
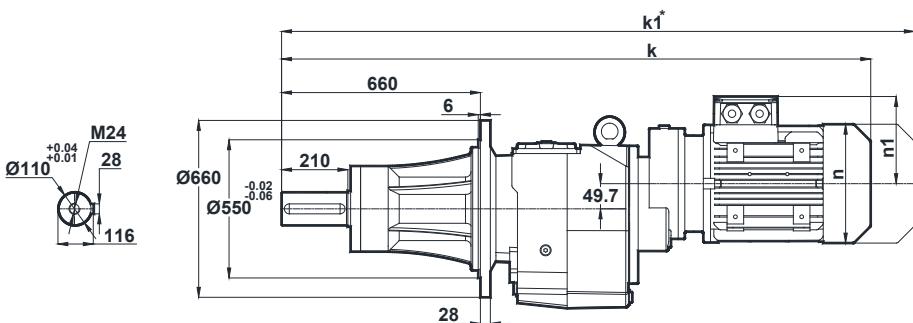


Klemens Kutusu / Terminal Box / Klemmenkasten



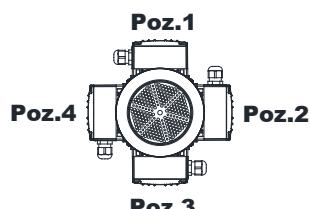
132-160-180-200-225-250-280

**NRB874**



Klemens Kutusu / Terminal Box / Klemmenkasten

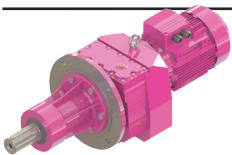
Motor Büyüklüğü / Motor Size / Motorbaugroße			
	100L	112M	132S
k	1591	1615	1701.5
k1	1699.5	1719.5	1831.5
n	193	215	257
n1	147	158	179
132M			1701.5



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

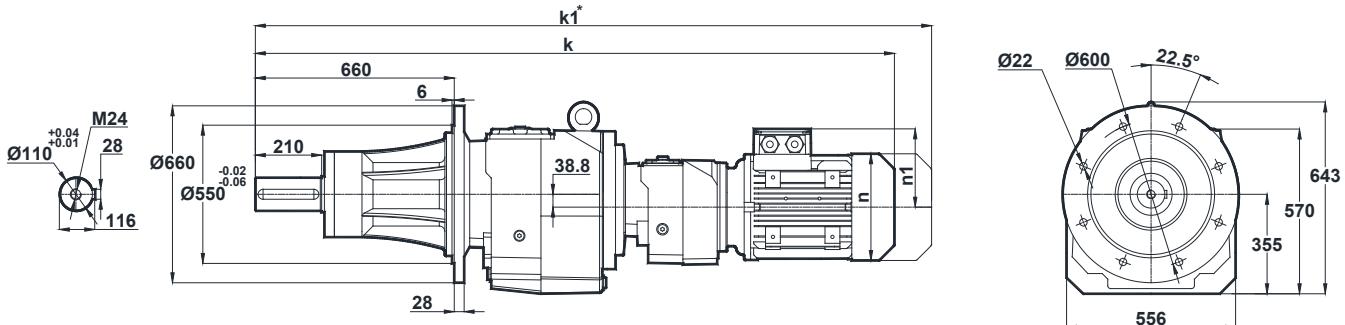


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



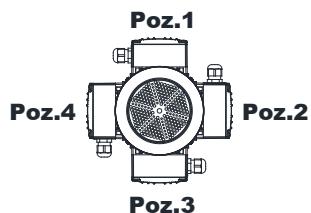
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB875**  
**NRB876**



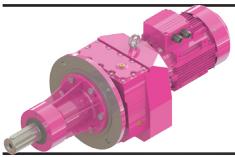
Klemens Kutusu / Terminal Box / Klemmenkasten

Motor Büyüklüğü / Motor Size / Motorbaugroße				
	71	80	90S	90L
k	1608.5	1642.5	1681.5	1681.5
k1	1699.5	1735.5	1785	1785
n	137	155	176	176
n1	112	121	132	132
				147

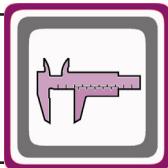


71-80-90-100

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

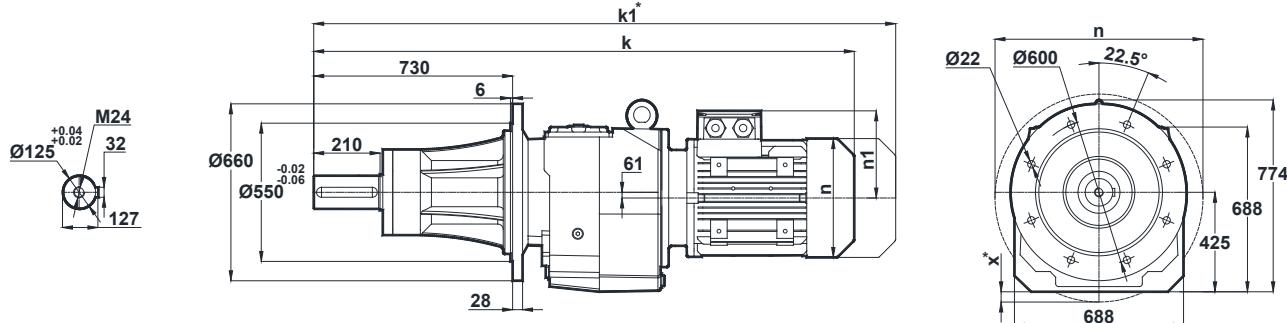


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



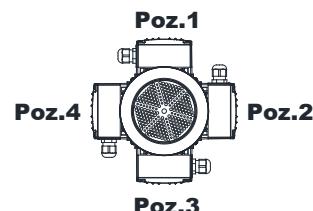
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB972**  
**NRB973**



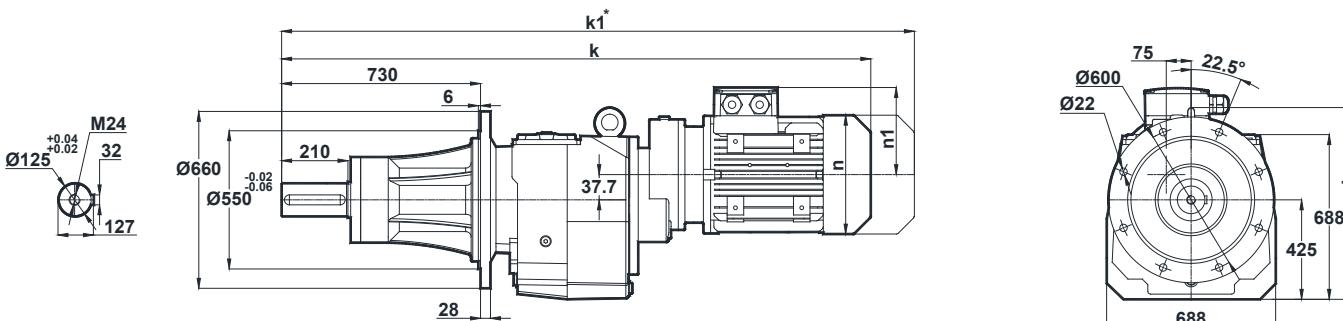
Motor Büyüklüğü / Motor Size / Motorbaugroße												
	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M	315S	315M
k	1791	1791	1863	1863	1909	1922.5	1950.5	2041	2103	2103	2257	2257
k1	1965	1965	2020.5	2020.5	2091.5	2088	2111	2219.5	2283	2289	-	-
n	315	315	347	347	390	434	434	480	544	544	614	614
n1	219	219	234	234	275	285	285	322	350	350	510	510
x	-	-	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu / Terminal Box / Klemmenkasten



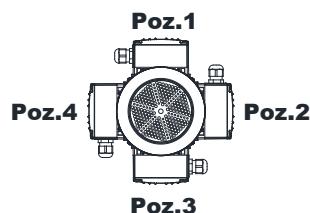
160-180-200-225-250-280-315

**NRB974**



Klemens Kutusu / Terminal Box / Klemmenkasten

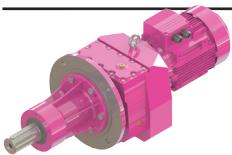
Motor Büyüklüğü / Motor Size / Motorbaugroße			
	100L	112M	132S
k	1760.5	1784.5	1871
k1	1869	1889	2001
n	193	215	257
n1	147	158	179



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

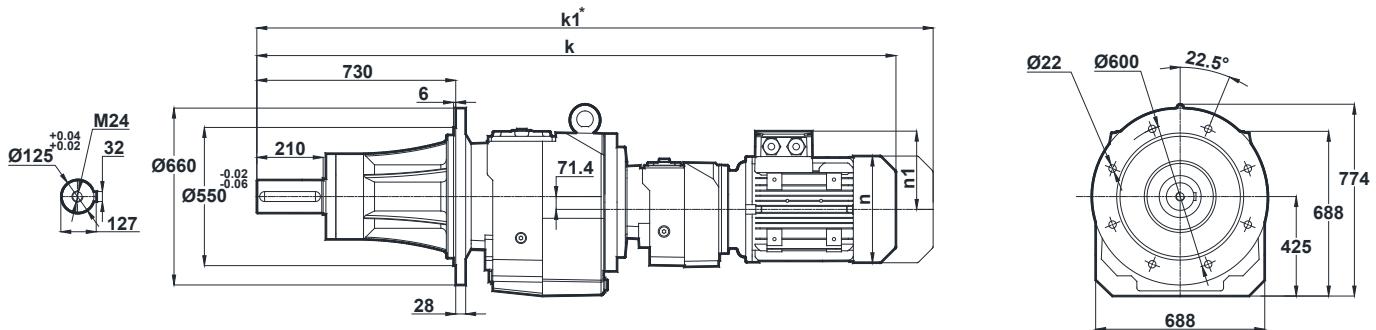


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



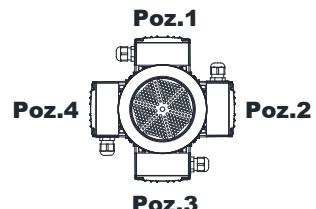
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NRB975**  
**NRB976**



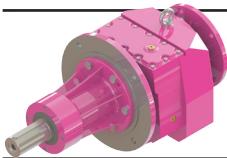
Klemens Kutusu / Terminal Box / Klemmenkasten

Motor Büyüklüğü / Motor Size / Motorbaugroße						
	80	90S	90L	100L	112M	132S
k	1839	1878	1878	1923	1947	2032
k1	1932	1981.5	1981.5	2031.5	2051.5	2162
n	155	176	176	193	215	257
n1	121	132	132	147	158	179

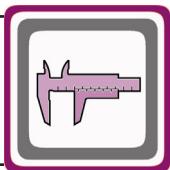


80-90-100-112-132

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

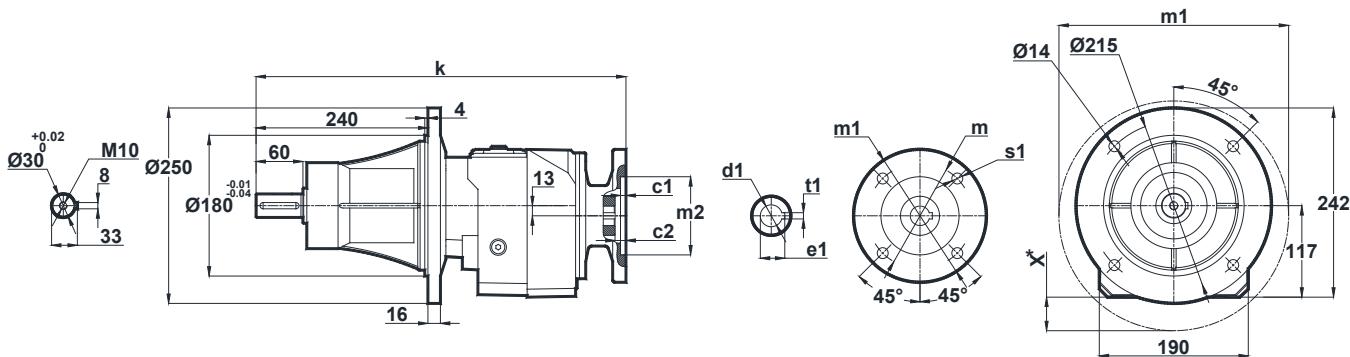


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



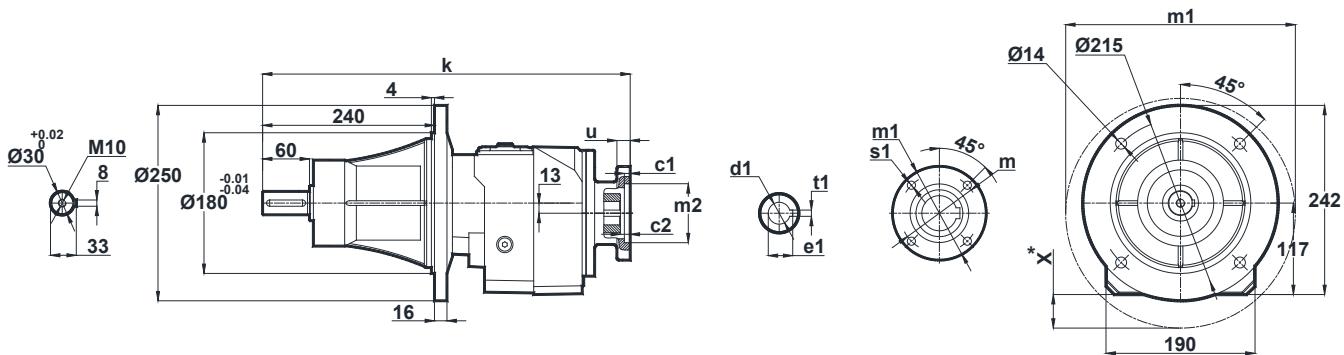
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**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..**

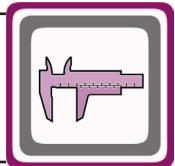


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
71/B14	3	8.5	7	85	105	70	10	458.5	14	5	16.3	-
80/B14	4	5	7	100	120	80	12	487.5	19	6	21.8	-
90/B14	4	5	9	115	140	95	12	487.5	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	12	480.5	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	12	480.5	28	8	31.3	-

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



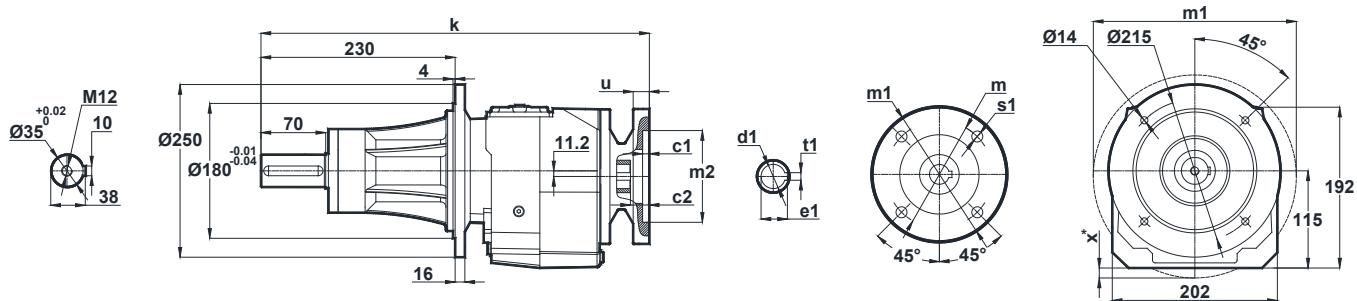
**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*



-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..**

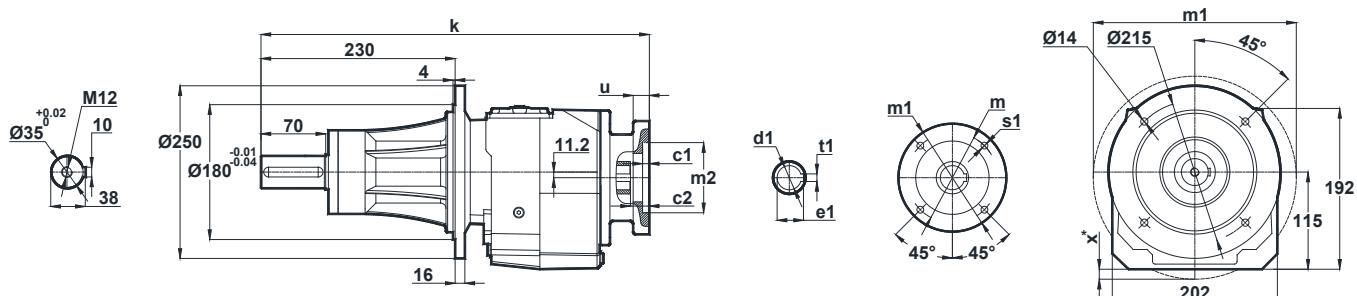
**NNB273-A..**



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
<b>63/B5</b>	4	5	9	115	140	95	12	485.5	11	4	12.8	-
<b>71/B5</b>	4	8.5	11	130	160	110	12	456.5	14	5	16.3	-
<b>80/B5</b>	4	5	12	165	200	130	12	488.5	19	6	21.8	-
<b>90/B5</b>	4	5	12	165	200	130	12	485.5	24	8	27.3	-
<b>100/B5</b>	4.5	5.5	15	215	250	180	12	478.5	28	8	31.3	22
<b>112/B5</b>	4.5	5.5	15	215	250	180	12	478.5	28	8	31.3	22
<b>132/B5</b>	4.5	7	15	265	300	230	15	515.5	38	10	41.3	47

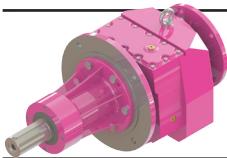
**NNB272-B..**

**NNB273-B..**

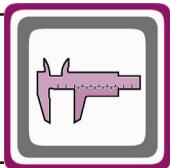


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
<b>71/B14</b>	3	8.5	7	85	105	70	10	456.5	14	5	16.3	-
<b>80/B14</b>	4	5	7	100	120	80	12	488.5	19	6	21.8	-
<b>90/B14</b>	4	5	9	115	140	95	12	485.5	24	8	27.3	-
<b>100/B14</b>	4	5.5	9	130	160	110	12	478.5	28	8	31.3	-
<b>112/B14</b>	4	5.5	9	130	160	110	12	478.5	28	8	31.3	-
<b>132/B14</b>	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

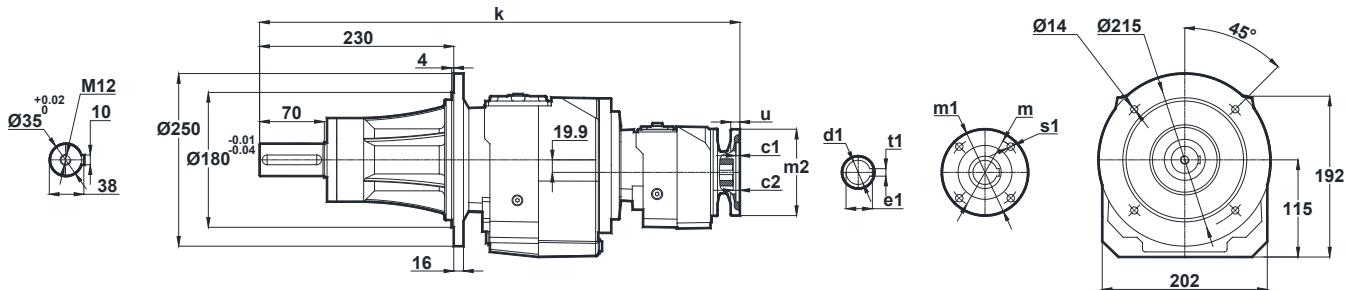


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



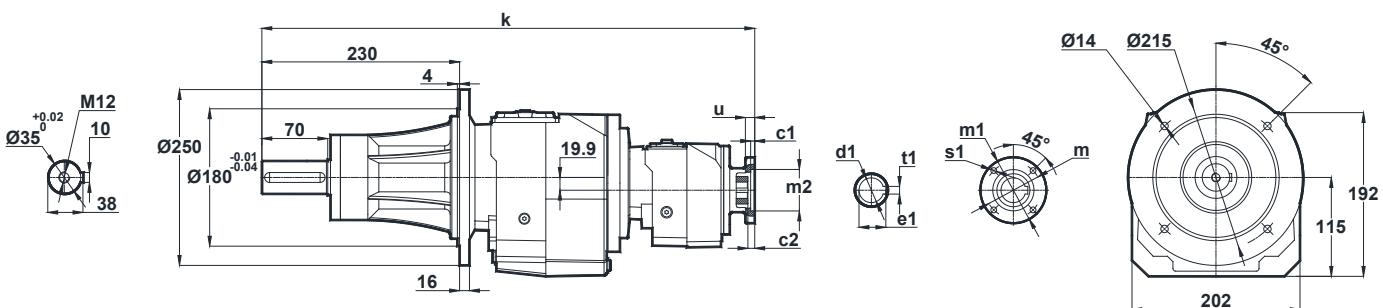
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NNB275-A..**  
**NNB276-A..**



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	10	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

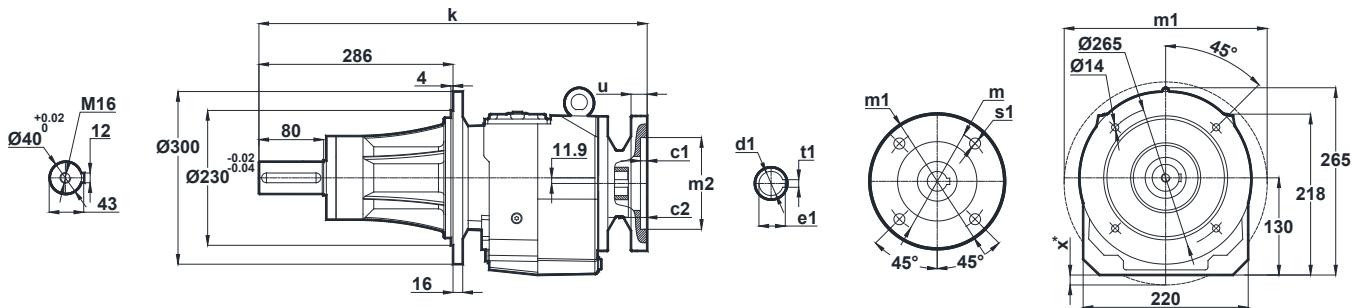


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*



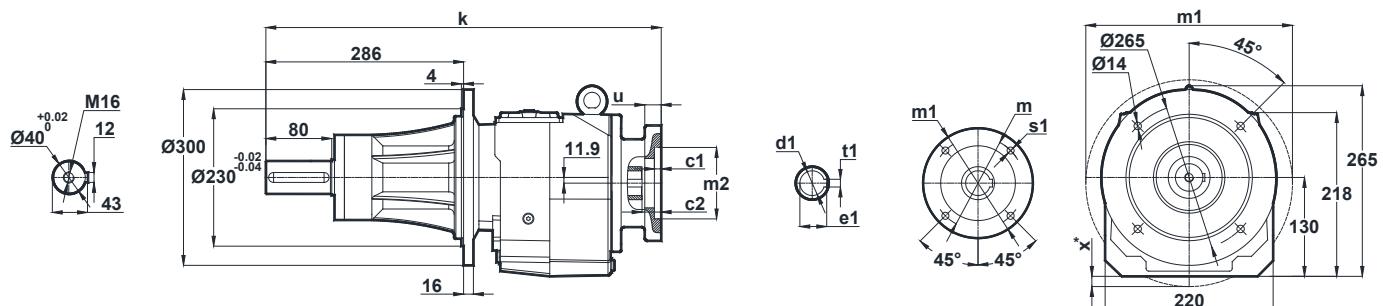
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NNB282-A..**  
**NNB283-A..**



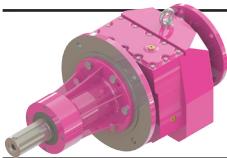
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
71/B5	4	9	11	130	160	110	12	561.5	14	5	16.3	-
80/B5	4	9	12	165	200	130	12	561.5	19	6	21.8	-
90/B5	4	9	12	165	200	130	12	561.5	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	15	578.5	28	8	31.3	7
112/B5	4.5	9	15	215	250	180	15	578.5	28	8	31.3	7
132/B5	4.5	7	15	265	300	230	15	598.5	38	10	41.3	32

**NNB282-B..**  
**NNB283-B..**

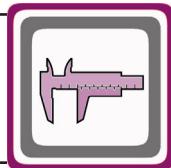


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
80/B14	4	9	7	100	120	80	12	561.5	19	6	21.8	-
90/B14	4	9	9	115	140	95	12	561.5	24	8	26.3	-
100/B14	4	9	9	130	160	110	15	578.5	28	8	31.3	-
112/B14	4	9	9	130	160	110	15	578.5	28	8	31.3	-
132/B14	4.5	7	11	165	200	130	15	598.5	38	10	41.3	-

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

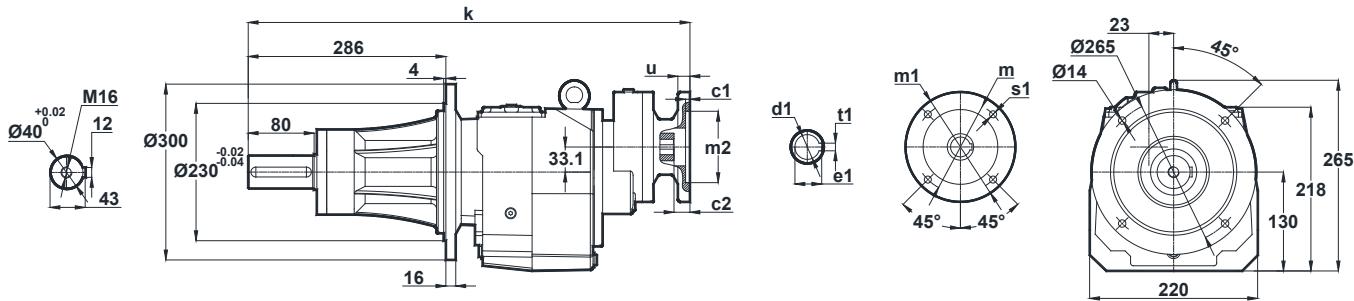


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



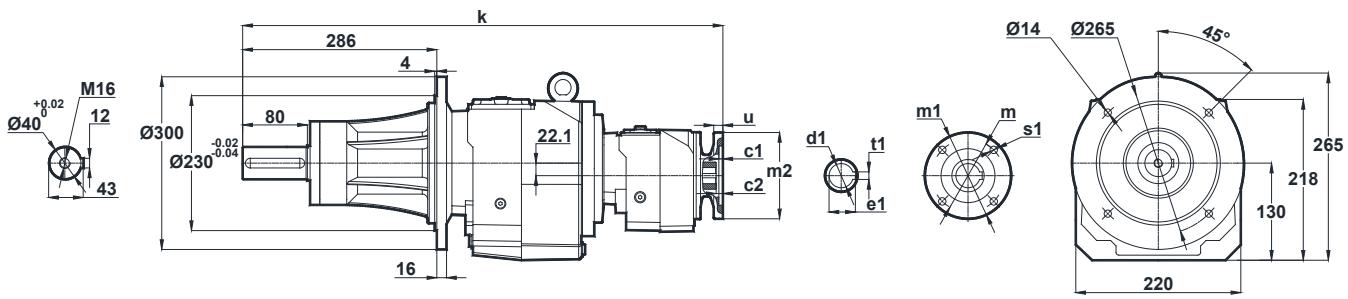
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NNB284-A..**  
**NNB284-B..**



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	10	638.5	11	4	12.8
71/B5	4	4.5	11	130	160	110	12	609.5	14	5	16.3
71/B14	3	4.5	7	85	105	70	10	609.5	14	5	16.3

**NNB285-A.. / B..**  
**NNB286-A.. / B..**



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	12	706.5	11	4	12.8
63/B14	2.5	5	5.5	75	90	60	10	706.5	11	4	12.8

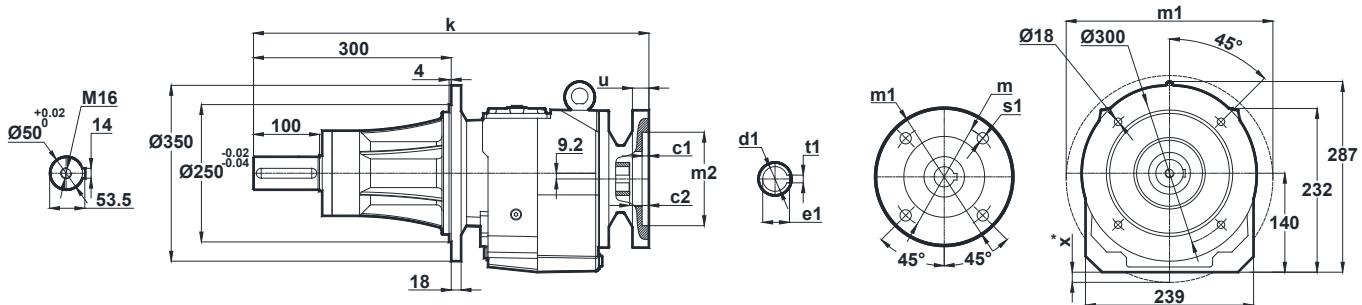


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*



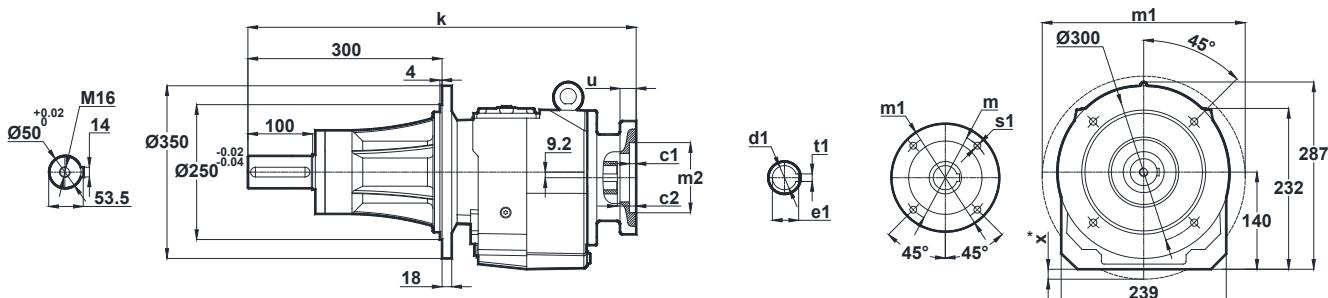
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NNB372-A..**  
**NNB373-A..**



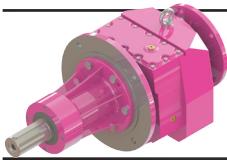
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
71/B5	4	9	11	130	160	110	12	584	14	5	16.3	-
80/B5	4	9	12	165	200	130	12	584	19	6	21.8	-
90/B5	4	9	12	165	200	130	12	584	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	15	601	28	8	31.3	-
112/B5	4.5	9	15	215	250	180	15	601	28	8	31.3	-
132/B5	4.5	7	15	265	300	230	15	621	38	10	41.3	20

**NNB372-B..**  
**NNB373-B..**

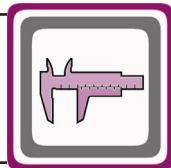


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
80/B14	4	9	7	100	120	80	12	584	19	6	21.8	-
90/B14	4	9	9	115	140	95	12	584	24	8	26.3	-
100/B14	4	9	9	130	160	110	15	601	28	8	31.3	-
112/B14	4	9	9	130	160	110	15	601	28	8	31.3	-
132/B14	4.5	9	11	165	200	130	15	621	38	10	41.3	-

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

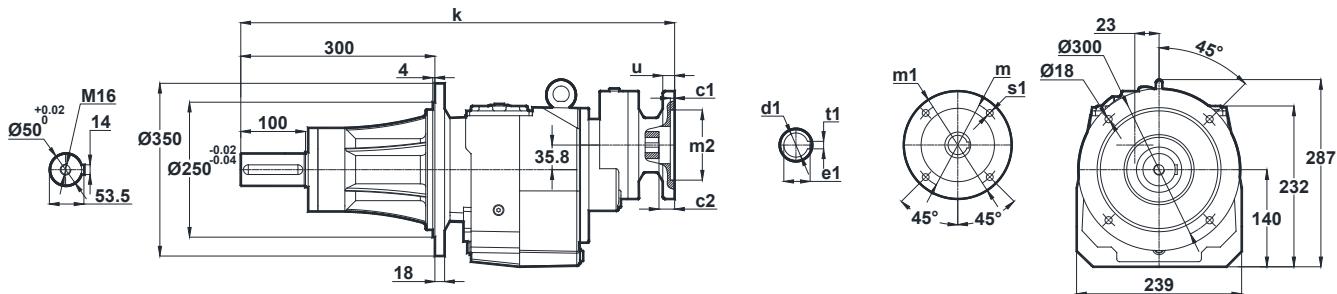


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



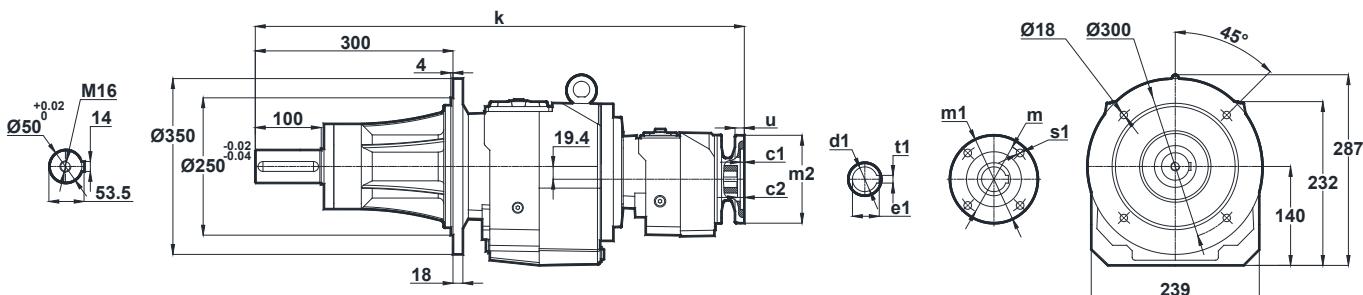
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NNB374-A..**  
**NNB374-B..**

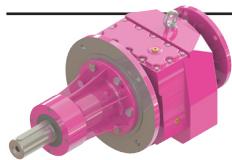


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	12	661	11	4	12.8
71/B5	4	8.5	11	130	160	110	12	632	14	5	16.3
80/B5	4	5	12	165	200	130	12	661	19	6	21.8
71/B14	3	8.5	7	85	105	70	10	632	14	5	16.3
80/B14	4	5	7	100	120	80	12	661	19	6	21.8

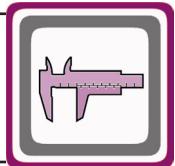
**NNB375-A.. / B..**  
**NNB376-A.. / B..**



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	10	729	11	4	12.8
63/B14	2.5	5	5.5	75	90	60	10	729	11	4	12.8

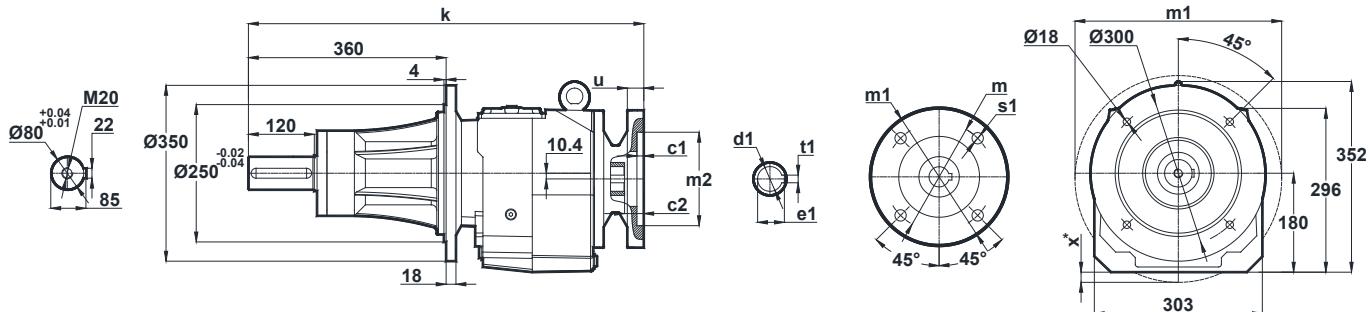


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*



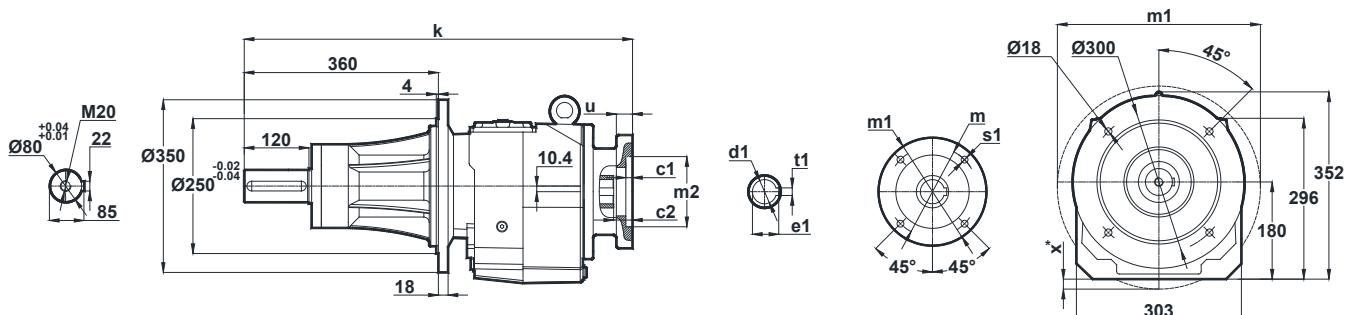
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NNB472-A..**  
**NNB473-A..**



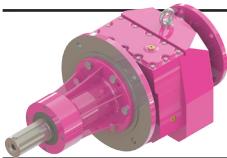
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
80/B5	4	5	12	165	200	130	12	686.5	19	6	21.8	-
90/B5	4	5	12	165	200	130	12	686.5	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	15	705	28	8	31.3	-
112/B5	4.5	9	15	215	250	180	15	705	28	8	31.3	-
132/B5	4.5	6	15	265	300	230	15	723.5	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	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..**

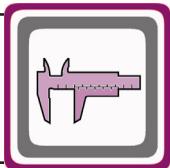


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
90/B14	4	5	9	115	140	95	12	686.5	24	8	27.3	-
100/B14	4	9	9	130	160	110	15	705	28	8	31.3	-
112/B14	4	9	9	130	160	110	15	705	28	8	31.3	-
132/B14	4.5	6	11	165	200	130	15	723.5	38	10	41.3	-

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

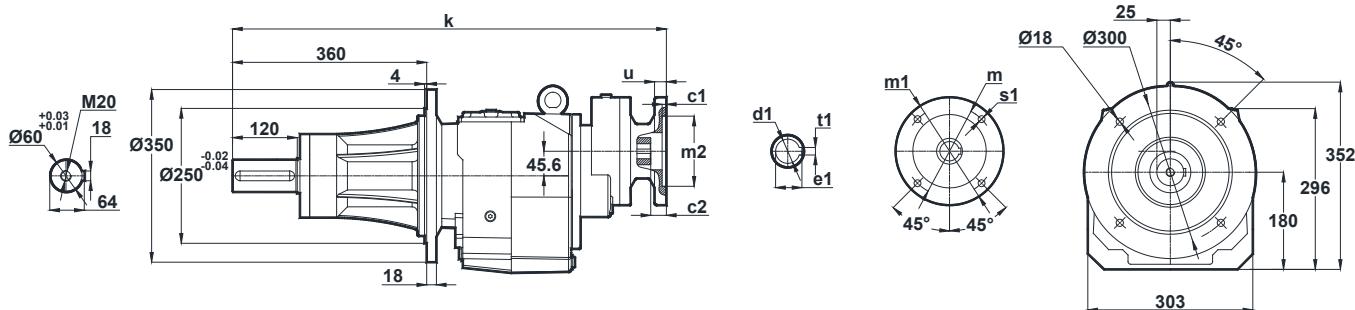


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



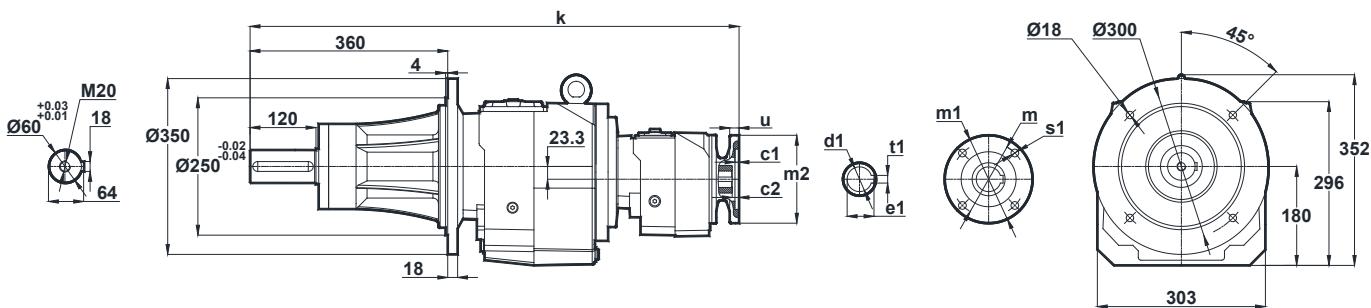
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**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



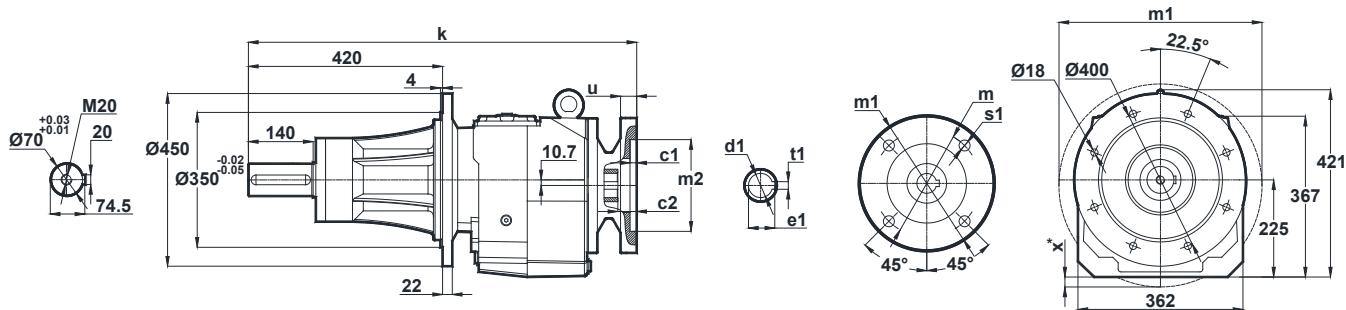
**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*



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

**NNB572-A.. / B..**

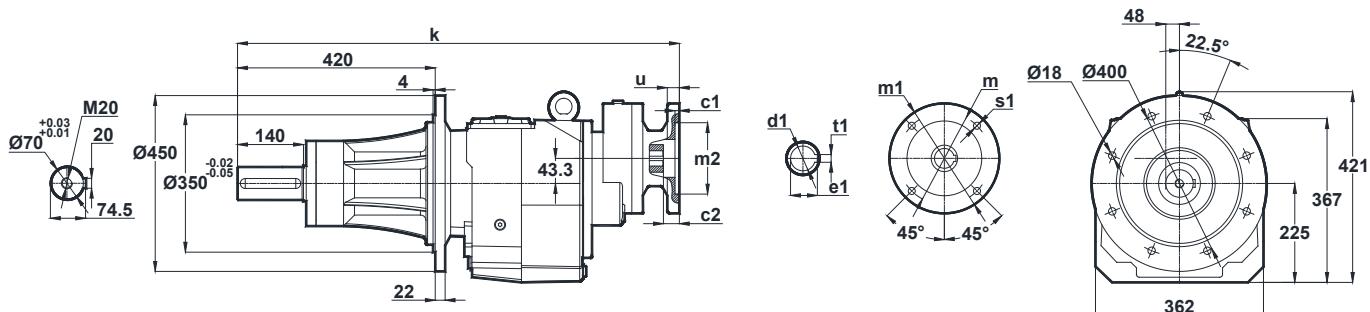
**NNB573-A.. / B..**



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	-

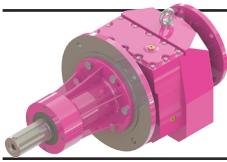
**NNB574-A..**

**NNB574-B..**

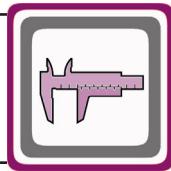


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	12	891.5	14	5	16.3
80/B5	4	9	12	165	200	130	12	891.5	14	6	21.8
90/B5	4	9	12	165	200	130	12	891.5	19	8	27.3
80/B14	4	9	7	100	120	80	12	891.5	19	6	21.8
90/B14	4	9	9	115	140	95	12	891.5	24	8	26.3

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

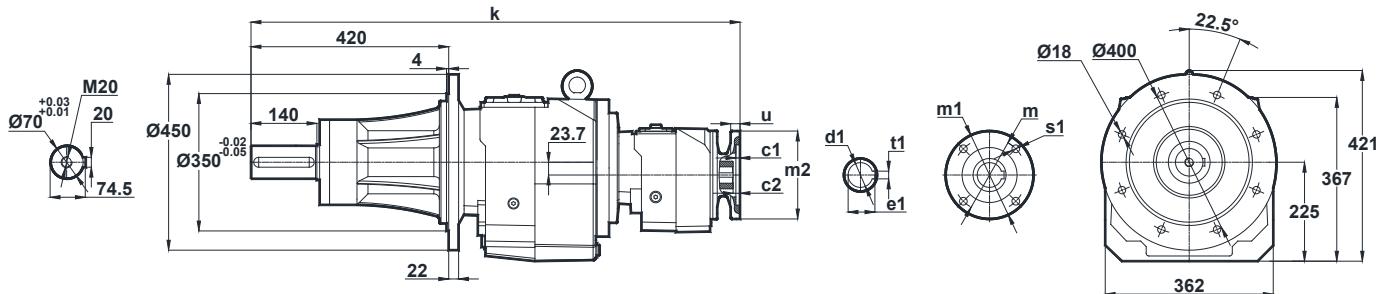


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*



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

**NNB575-A.. / B..**  
**NNB576-B.. / B..**



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	12	1021.5	11	4	12.8
71/B5	4	8.5	11	130	160	110	12	992.5	14	5	16.3
71/B14	3	8.5	7	85	105	70	10	992.5	14	5	16.3



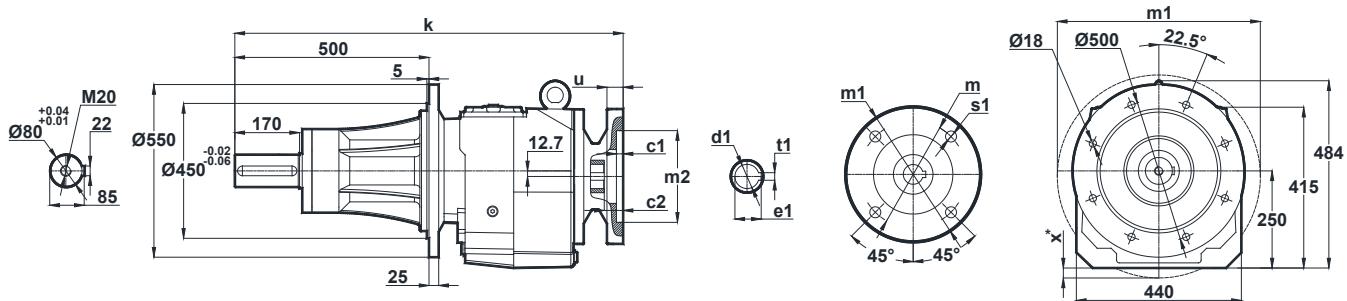
**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*



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

**NNB672-A.. / B..**

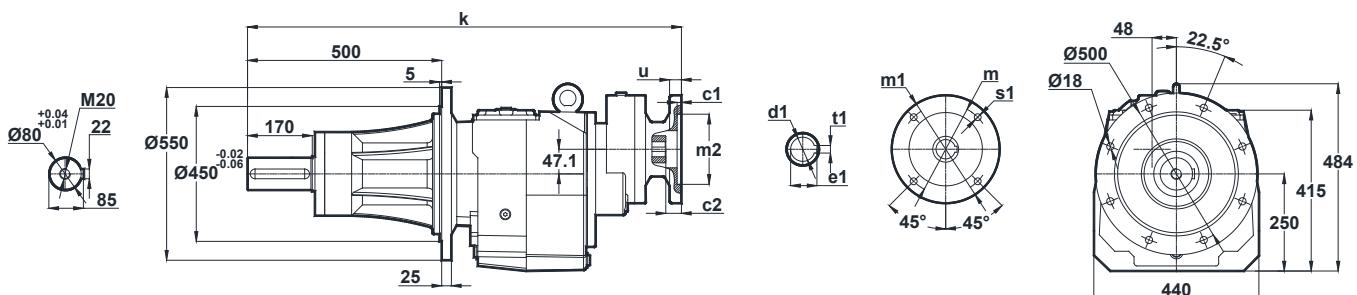
**NNB673-A.. / B..**



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	-

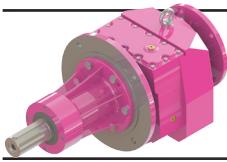
**NNB674-A..**

**NNB674-B..**

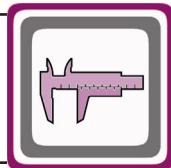


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	12	1022.5	19	6	21.8
90/B5	4	5	12	165	200	130	12	1022.5	24	8	27.3
90/B14	4	5	9	115	140	95	12	1022.5	24	8	27.3

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

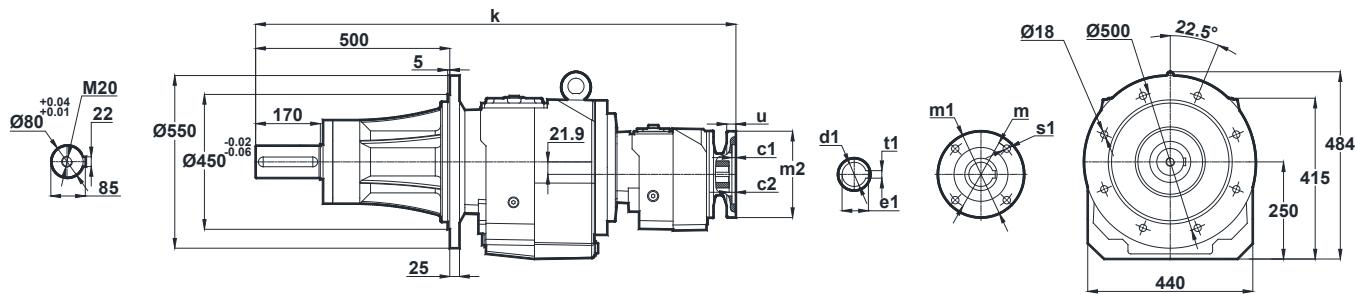


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*



-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

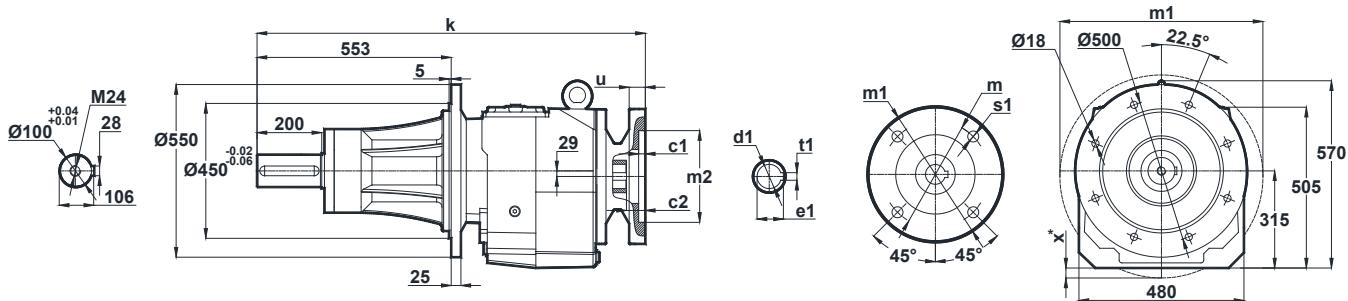


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*



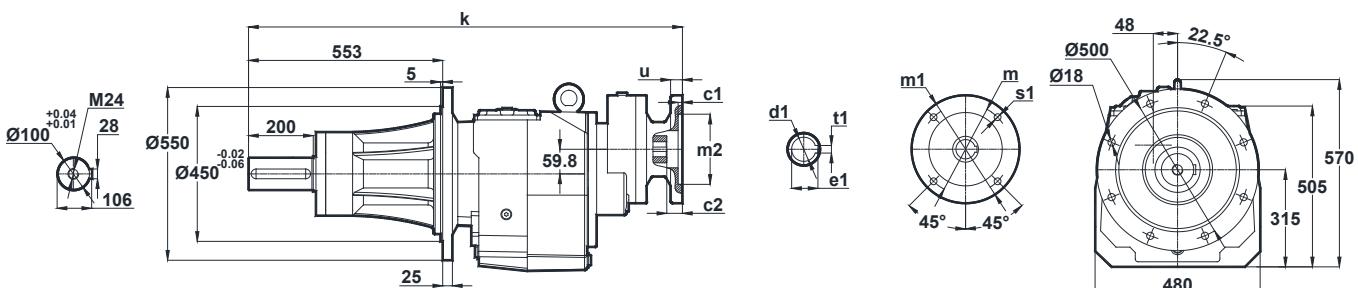
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**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..**

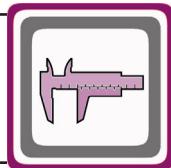


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	12	1125.5	19	6	21.8
90/B5	4	5	12	165	200	130	12	1125.5	24	8	27.3
100/B5	4.5	9	15	215	250	180	15	1144	28	8	31.3
90/B14	4	5	9	115	140	95	12	1125.5	24	8	27.3
100/B14	4	9	9	130	160	110	15	1144	28	8	31.3

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

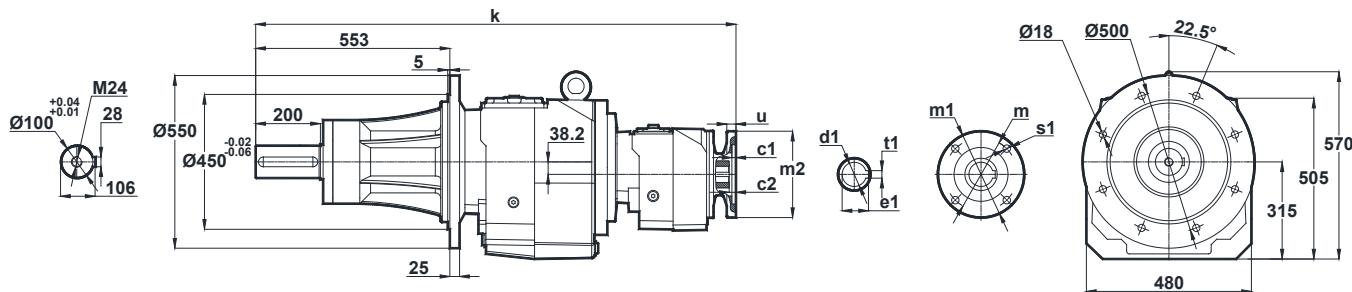


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*



-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

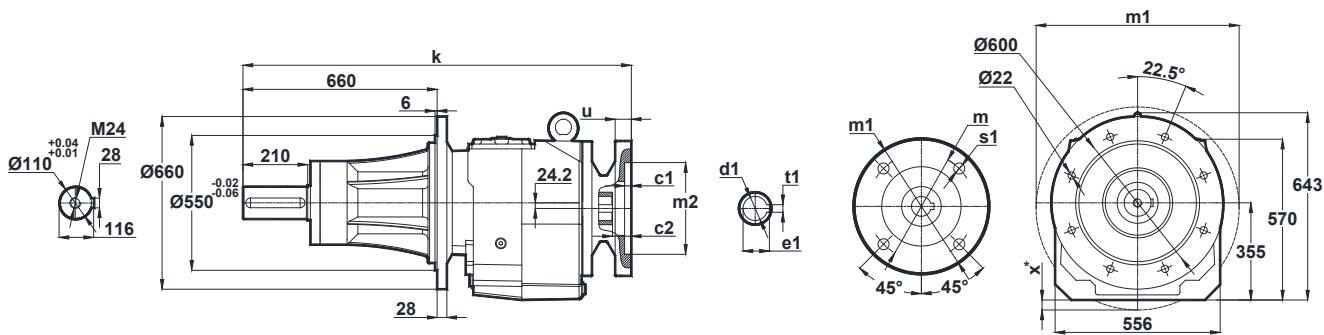


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*



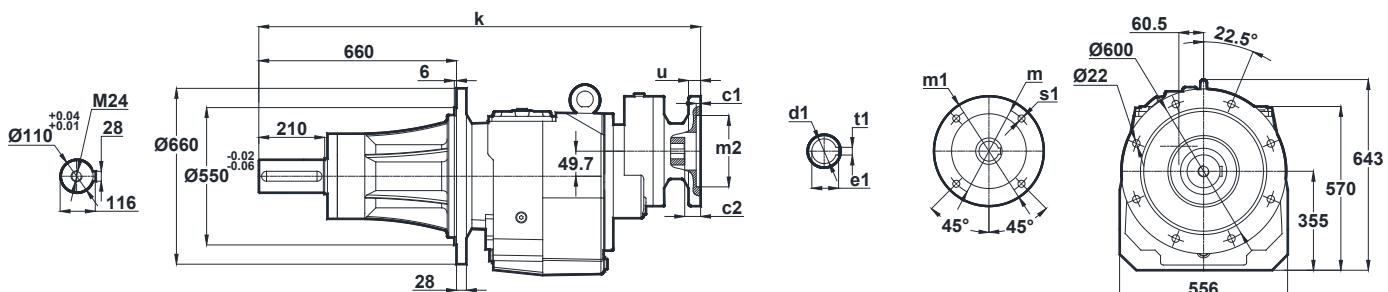
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NNB872-A..**  
**NNB873-A..**



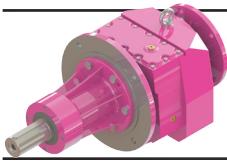
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
160/B5	5.5	10	19	300	350	250	20	1373	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	20	1373	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	22	1373	55	16	59.3	-
225/B5	5.5	10	19	400	450	350	24	1373	60	18	64.4	-
250/B5	5.5	10	19	500	550	450	24	1373	65	18	69.4	-
280/B5	5.5	10	19	500	550	450	24	1373	75	20	79.9	-

**NNB874-A..**  
**NNB874-B..**

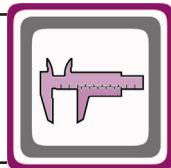


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
100/B5	4.5	9	15	215	250	180	15	1345.5	28	8	31.3
112/B5	4.5	9	15	215	250	180	15	1345.5	28	8	31.3
132/B5	4.5	9	15	265	300	230	15	1366.5	38	10	41.3
132/B14	4.5	9	11	165	200	130	15	1366.5	38	10	41.3

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

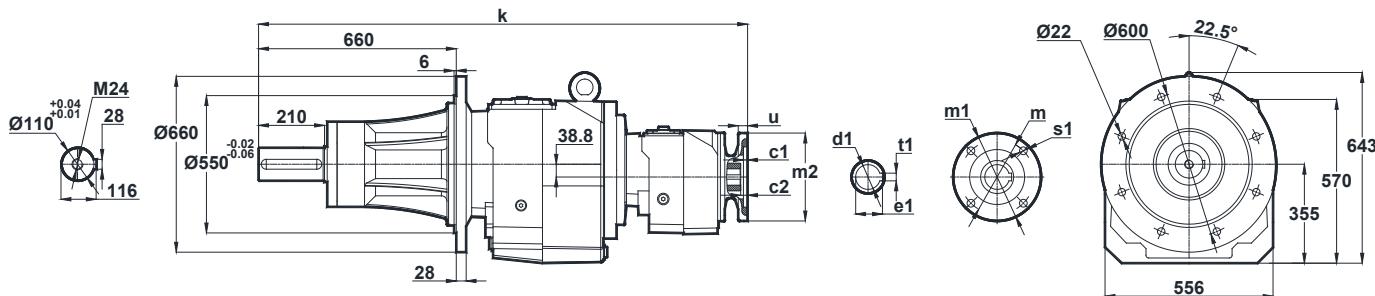


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*



-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

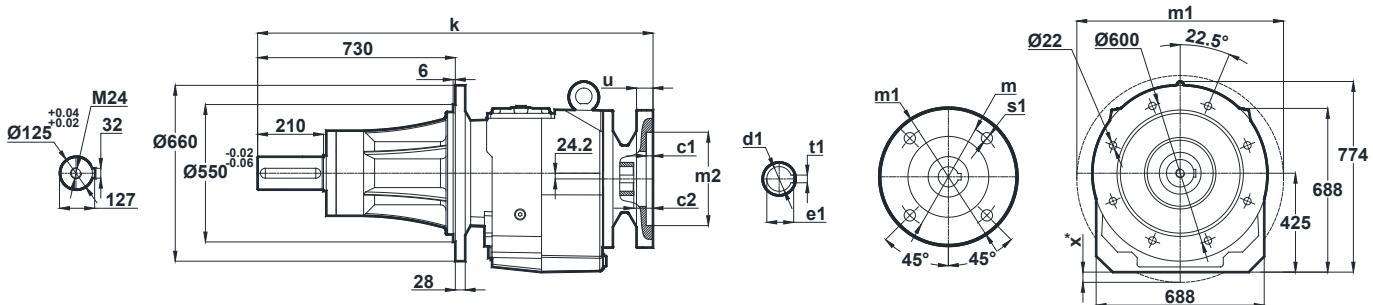


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*



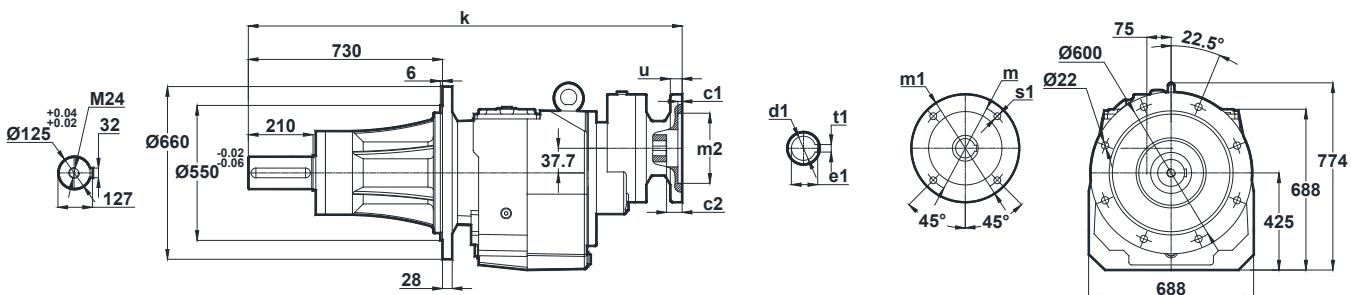
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NNB972-A..**  
**NNB973-A..**



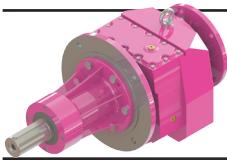
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
<b>160/B5</b>	5.5	10	19	300	350	250	20	1430.5	42	12	45.3	-
<b>180/B5</b>	5.5	10	19	300	350	250	20	1430.5	48	14	51.8	-
<b>200/B5</b>	5.5	10	19	350	400	300	22	1454.5	55	16	59.3	-
<b>225/B5</b>	5.5	10	19	400	450	350	24	1496.5	60	18	64.4	-
<b>250/B5</b>	5.5	10	19	500	550	450	24	1518.5	65	18	69.4	-
<b>280/B5</b>	5.5	10	19	500	550	450	24	1518.5	75	20	79.9	-
<b>315/B5</b>	6.5	15	24	660	600	550	24	1598.5	85	22	90.4	-

**NNB974-A..**  
**NNB974-B..**

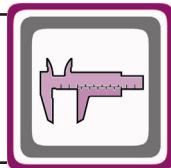


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
<b>100/B5</b>	4.5	14.5	15	215	250	180	15	1519	28	8	31.3
<b>112/B5</b>	4.5	14.5	15	215	250	180	15	1519	28	8	31.3
<b>132/B5</b>	4.5	9	15	265	300	230	15	1534	38	10	41.3
<b>132/B14</b>	4.5	9	15	165	200	130	15	1534	38	10	41.3

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

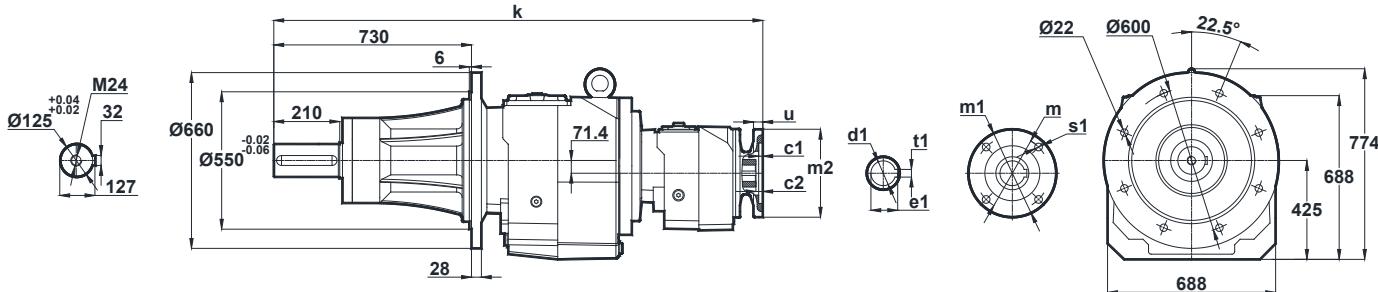


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*

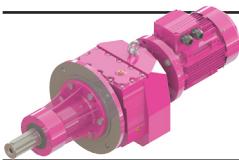


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

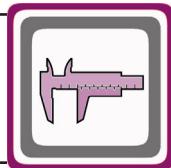
**NNB975-A.. / B..**  
**NNB976-B.. / B..**



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	12	1655	19	6	12.8
90/B5	4	5	12	165	200	130	12	1655	24	8	27.3
100/B5	4.5	9	15	215	250	180	15	1673.5	28	8	31.3
112/B5	4.5	9	15	215	250	180	15	1673.5	28	8	31.3
132/B5	4.5	6	15	265	300	230	15	1692	38	10	41.3
90/B14	4	5	9	115	140	95	12	1655	24	8	27.3
100/B14	4	9	9	130	160	110	15	1673.5	28	8	31.3
112/B14	4	9	9	130	160	110	15	1673.5	28	8	31.3
132/B14	4.5	6	11	165	200	130	15	1692	38	10	41.3

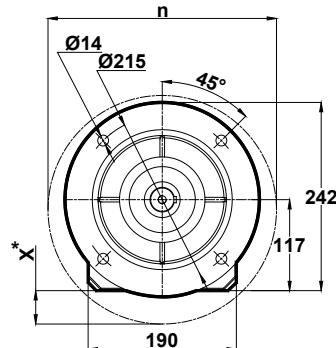
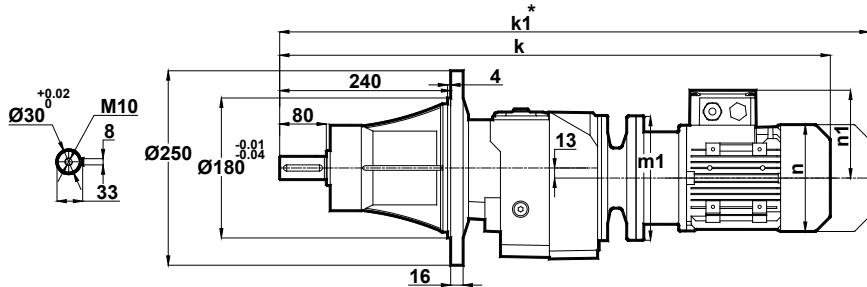


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



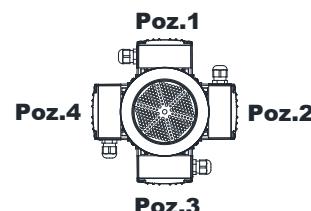
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NVB202**  
**NVB203**



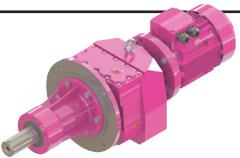
Motor Büyüklüğü / Motor Size / Motorbaugroße							
IEC	63/B5	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14
k	680.5	669.5	721.5	762.5	762.5	791	811.5
k1	741.5	760.5	814.5	866	866	899.5	916
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147	215 / 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

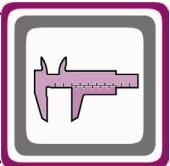
\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.  
 x: Motor, ayak bağlantı yüzeyinin altında ise / x: If Motor is lower than foot mounting plane / x: Wenn der Motor unter der Fußmontageebene ist



## Ölçü Sayfaları

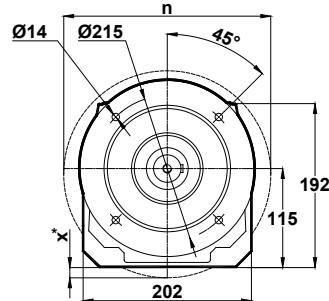
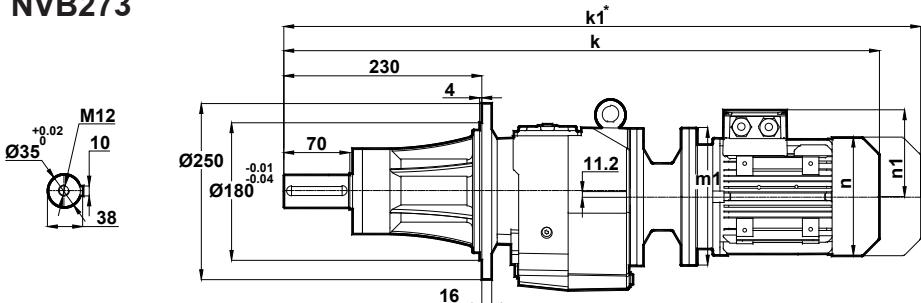
### *Dimension Pages*

### Abmessungsseiten



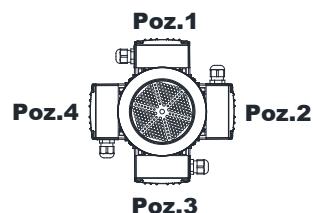
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NVB272  
NVB273



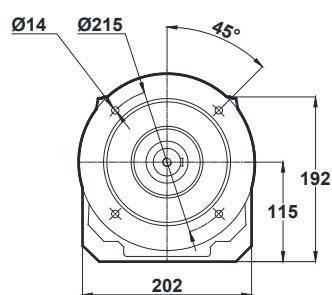
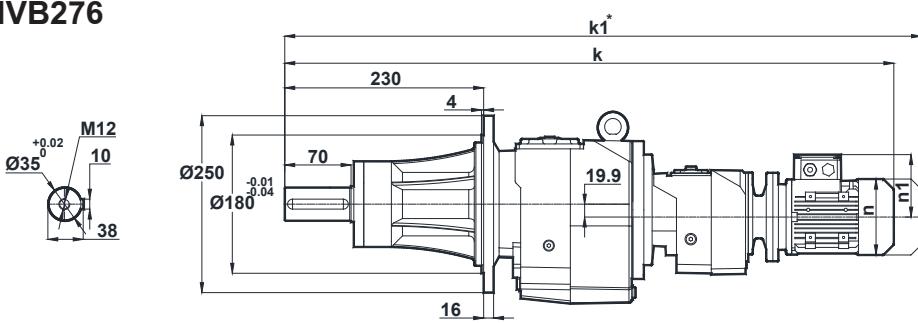
Motor Büyüklüğü / Motor Size / Motorbaugroße					
IEC	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	678.5	667.5	719.5	760.5	760.5
k1	739.5	758.5	812.5	864	864
n / n1	121 / 97	137 / 112	155 / 121	176 / 132	176 / 132
m1 (B5)	140	160	200	200	200
m1 (B14)	90	105	120	140	140
x (B5)	-	1	21	21	21

**Klemens Kutusu / Terminal Box / Klemmenkasten**



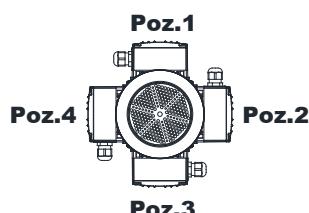
63-71-80-90

NVB275  
NVB276



<b>Motor Büyüklüğü / Motor Size / Motorbaugroße</b>		
<b>IEC</b>	<b>63/B5 63/B14</b>	<b>71/B5 71/B14</b>
<b>k</b>	794	813.5
<b>k1</b>	855	904.5
<b>n / n1</b>	121 / 97	137 / 112
<b>m1 (B5)</b>	140	160
<b>m1 (B14)</b>	90	105

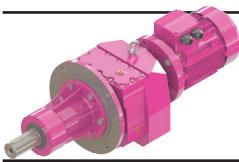
**Klemens Kutusu / Terminal Box / Klemmenkasten**



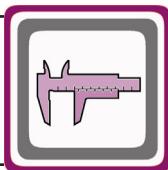
63-71

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

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

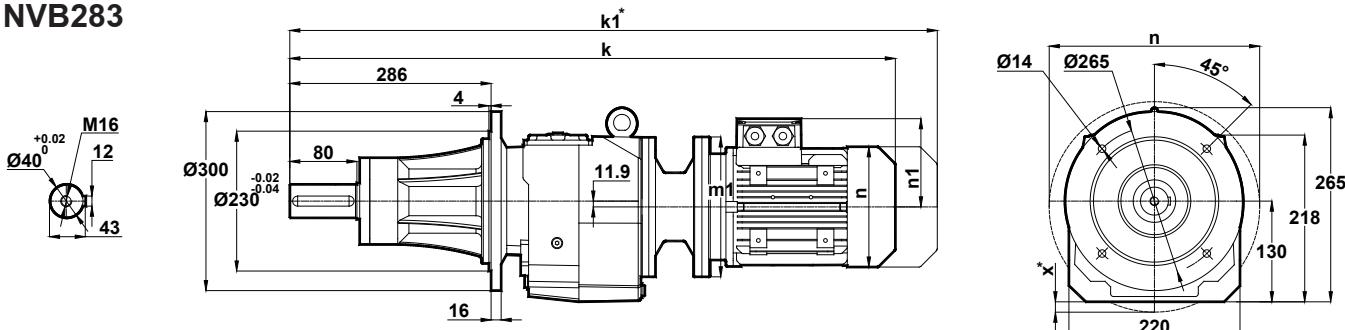


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



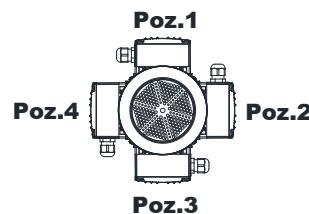
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NVB282**  
**NVB283**



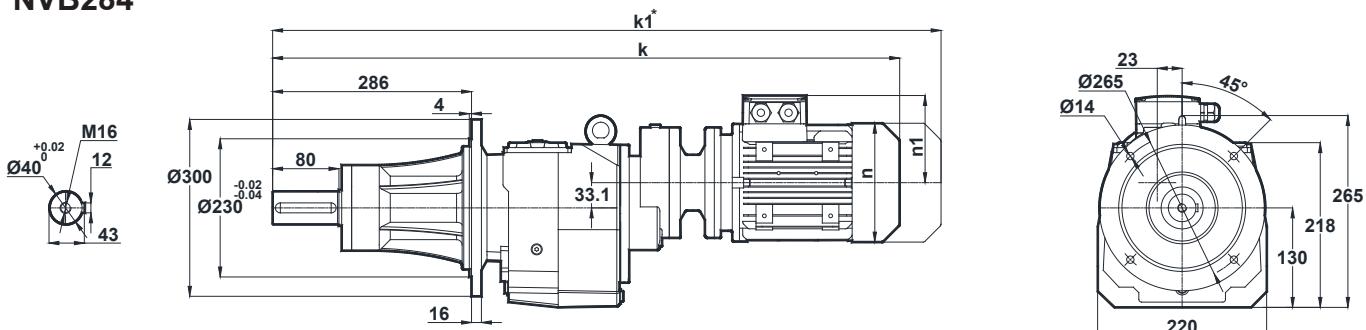
Motor Büyüklüğü / Motor Size / Motorbaugroße								
IEC	71/B5 80/B14	80/B5 90/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	772.5	795.5	836.5	836.5	889	909.5	1013.5	1013.5
k1	863.5	888.5	940	940	997.5	1014	1143.5	1143.5
n / n1	137 / 112	155 / 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



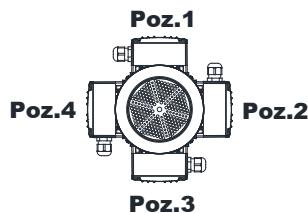
71-80-90-100-112-132

**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

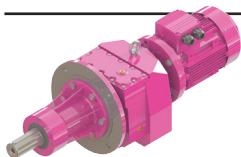
Klemens Kutusu / Terminal Box / Klemmenkasten



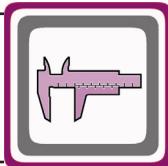
63-71

\* "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

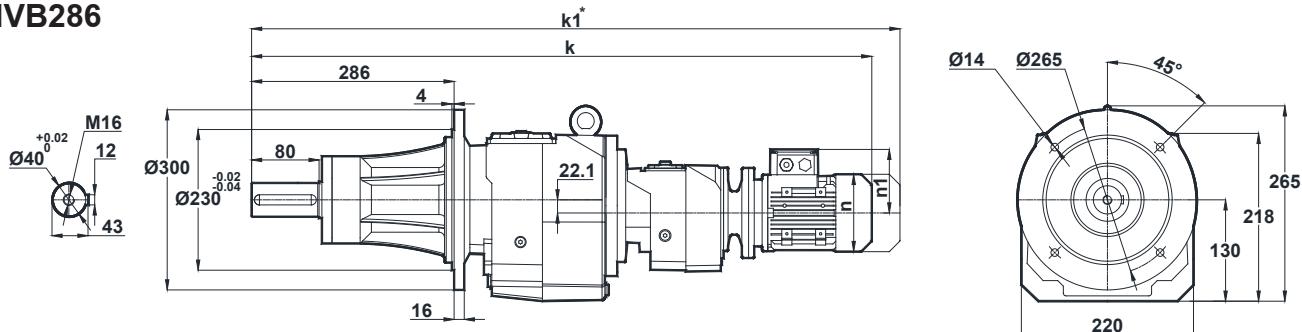


Ölçü Sayfaları  
Dimension Pages  
Abmessungsseiten



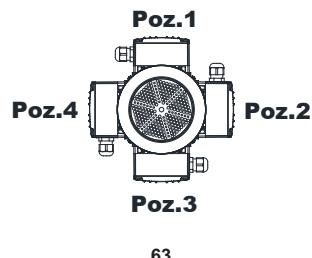
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NVB285  
NVB286



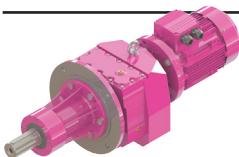
Motor Büyüklüğü / Motor Size / Motorbaugröße	
IEC	63/B5 63/B14
k	899.5
k1	960.5
n / n1	121 / 97
m1 (B5)	140
m1 (B14)	90

Klemens Kutusu / Terminal Box / Klemmenkasten

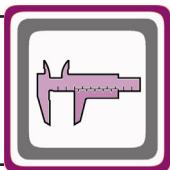


63

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

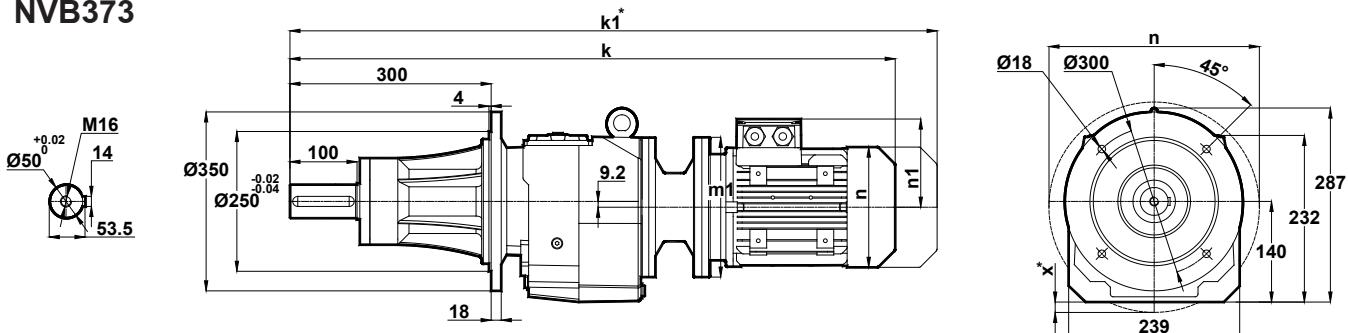


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



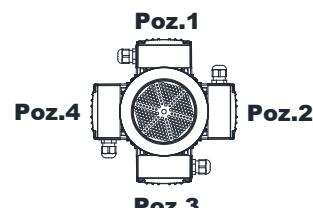
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NVB372**  
**NVB373**



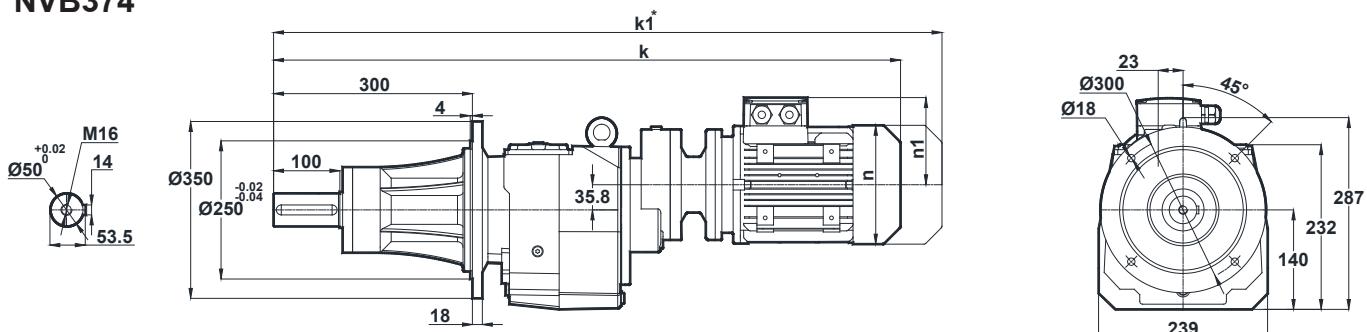
Motor Büyüklüğü / Motor Size / Motorbaugroße								
IEC	71/B5 80/B14	80/B5 90S/B14	90S/B5 90L/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	795	818	859	859	911.5	932	1036	1036
k1	886	911	962.5	962.5	1020	1036.5	1166	1166
n / n1	137 / 112	155 / 121	176 / 132	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



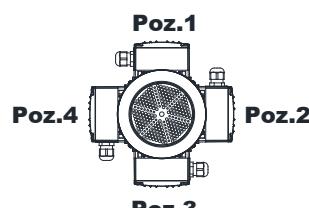
71-80-90-100-112-132

**NVB374**



Motor Büyüklüğü / Motor Size / Motorbaugroße			
IEC	63/B5 71/B14	71/B5 80/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

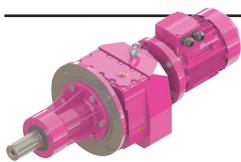
Klemens Kutusu / Terminal Box / Klemmenkasten



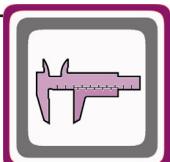
63-71-80

\* "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

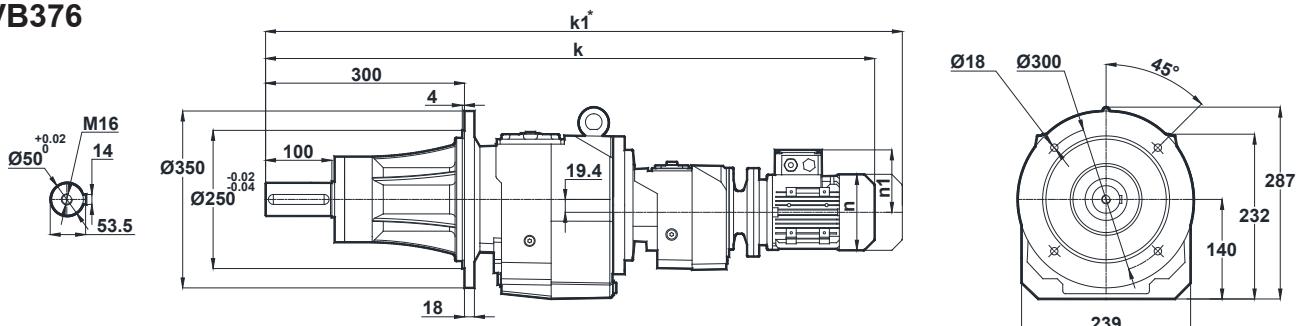


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



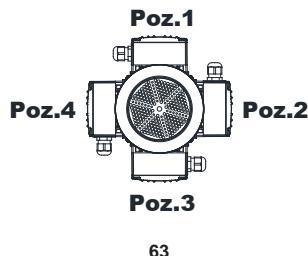
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NVB375**  
**NVB376**



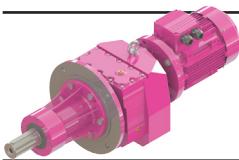
Motor Büyüklüğü / Motor Size / Motorbaugroße	
IEC	63/B5 63/B14
k	922
k1	983
n / n1	121 / 97
m1 (B5)	140
m1 (B14)	90

Klemens Kutusu / Terminal Box / Klemmenkasten

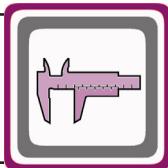


63

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

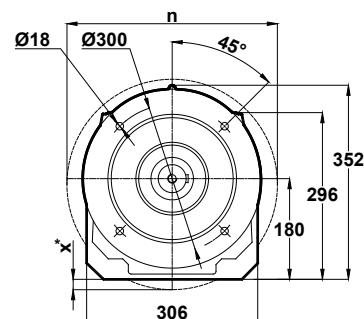
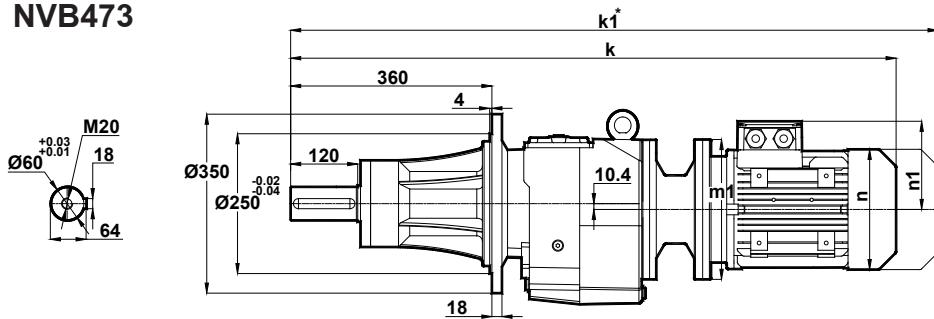


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



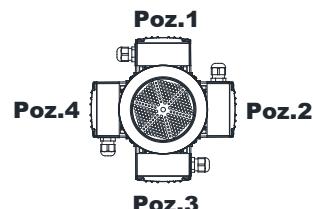
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NVB472**  
**NVB473**



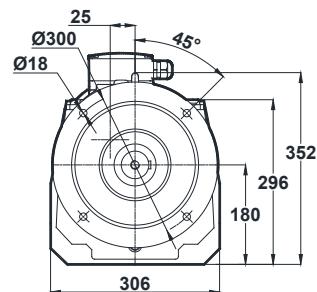
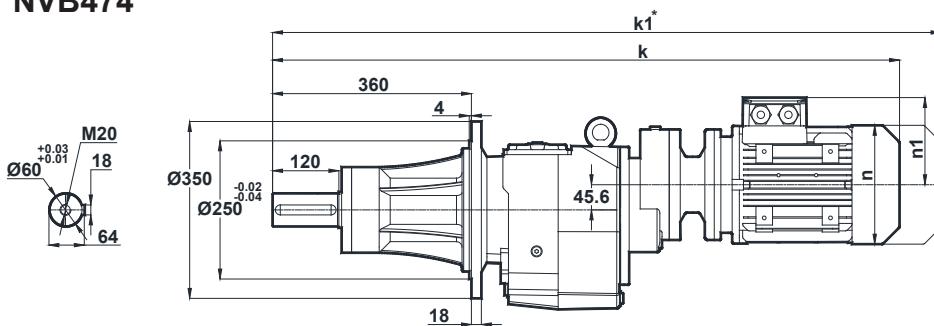
Motor Büyüklüğü / Motor Size / Motorbaugroße											
IEC	80/B5 90S/B14	90S/B5 90L/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5
k	920.5	961.5	961.5	1015.5	1036	1138.5	1138.5	1298	1298	1386	1386
k1	1013.5	1065	1065	1124	1140.5	1268.5	1268.5	1446	1446	1544.5	1544.5
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



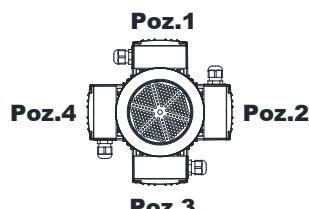
80-90-100-112-132-160-180

**NVB474**



Motor Büyüklüğü / Motor Size / Motorbaugroße		
IEC	71/B5	80/B5 80/B14
k	995.5	1018.5
k1	1086.5	1111.5
n / n1	137 / 112	155 / 121
m1 (B5)	160	200
m1 (B14)	-	120

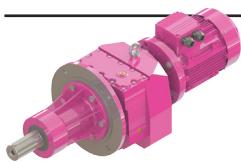
Klemens Kutusu / Terminal Box / Klemmenkasten



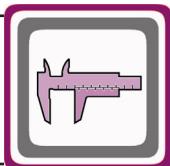
71-80

\* "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

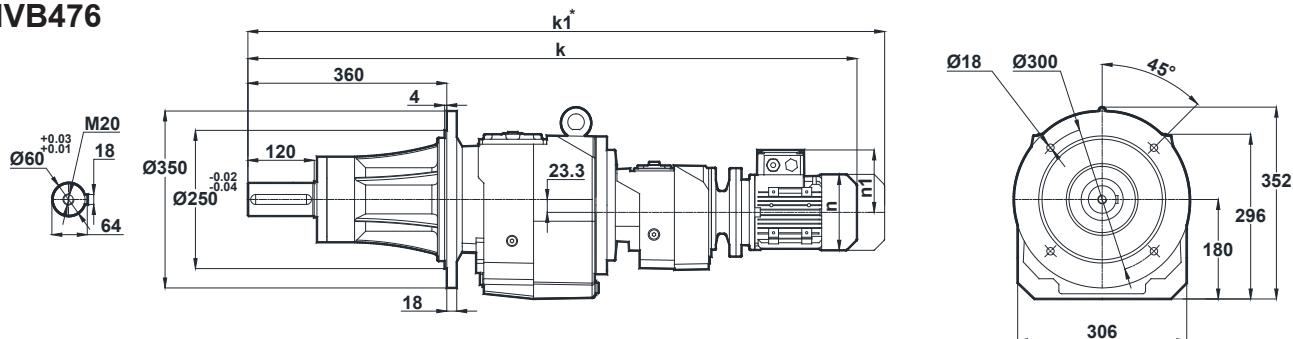


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



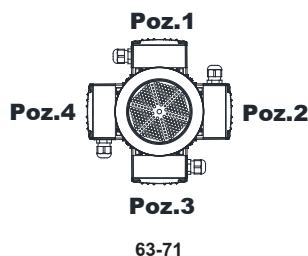
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NVB475**  
**NVB476**



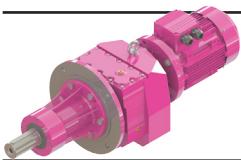
Motor Büyüklüğü / Motor Size / Motorbaugroße		
IEC	63/B5	71/B5 71/B14
k	1105.5	1094.5
k1	1166.5	1185.5
n / n1	121 / 97	137 / 112
m1 (B5)	140	160
m1 (B14)	-	105

Klemens Kutusu / Terminal Box / Klemmenkasten

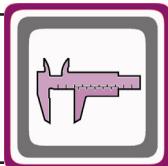


63-71

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

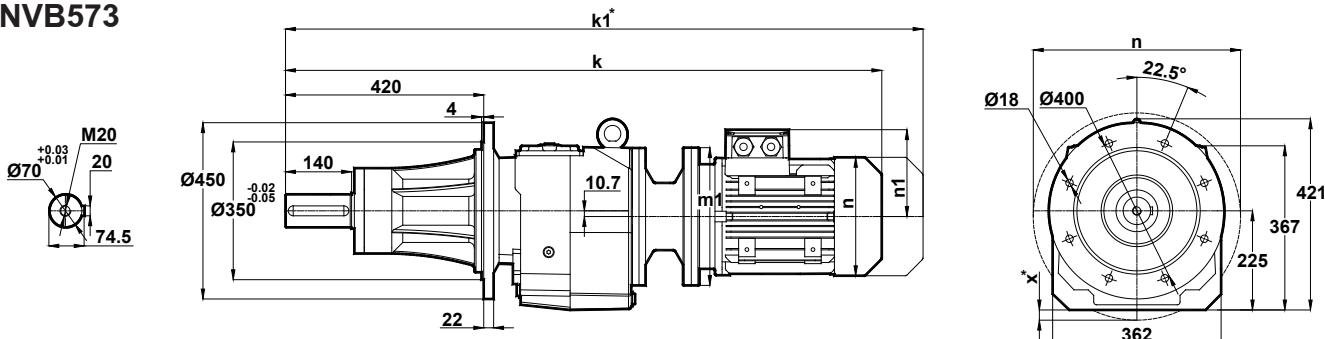


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



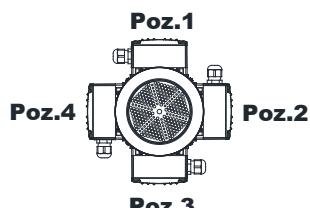
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NVB572**  
**NVB573**



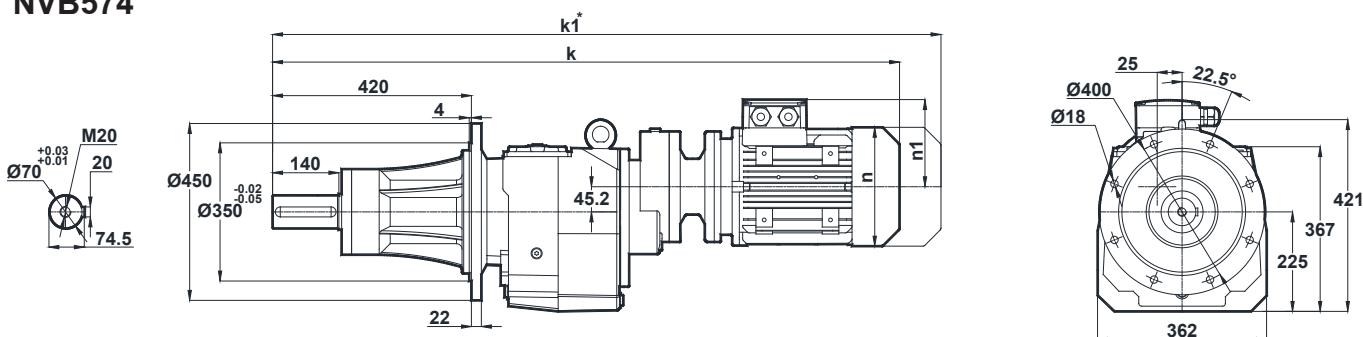
Motor Büyüklüğü / Motor Size / Motorbaugroße									
IEC	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5
k	1122	1142.5	1247.5	1247.5	1403	1403	1491	1491	1565
k1	1230.5	1247	1377.5	1377.5	1551	1551	1649.5	1649.5	1751.5
n / n1	194 / 135	218 / 146	257 / 168	257 / 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



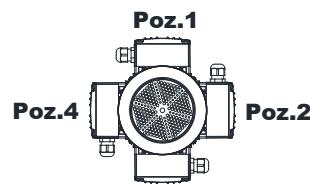
100-112-132-160-180-200

**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

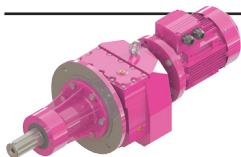
Klemens Kutusu / Terminal Box / Klemmenkasten



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

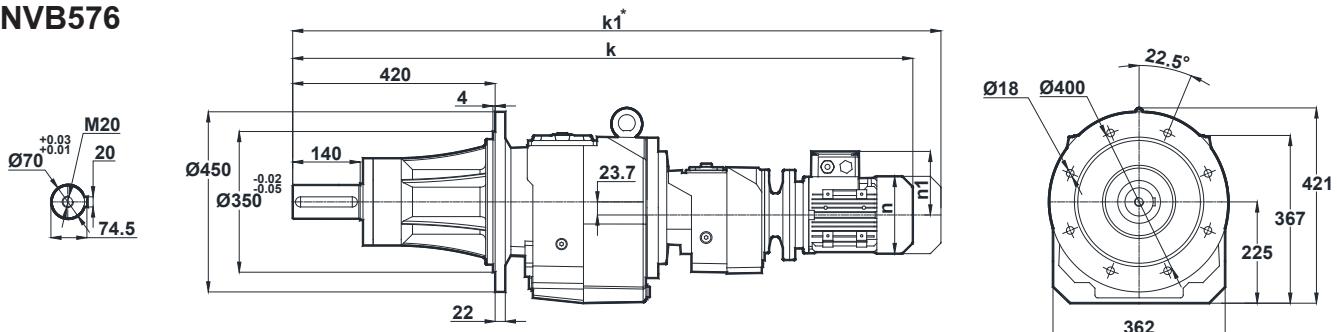


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



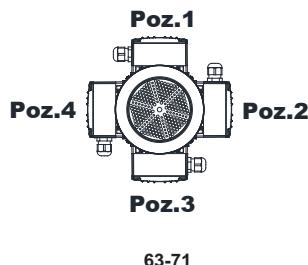
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NVB575**  
**NVB576**



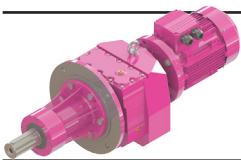
Motor Büyüklüğü / Motor Size / Motorbaugröße		
IEC	63/B5	71/B5 71/B14
k	1214.5	1203.5
k1	1275.5	1294.5
n / n1	121 / 97	138 / 111
m1 (B5)	140	160
m1 (B14)	-	105

Klemens Kutusu / Terminal Box / Klemmenkasten

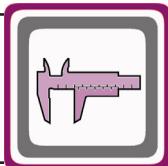


63-71

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

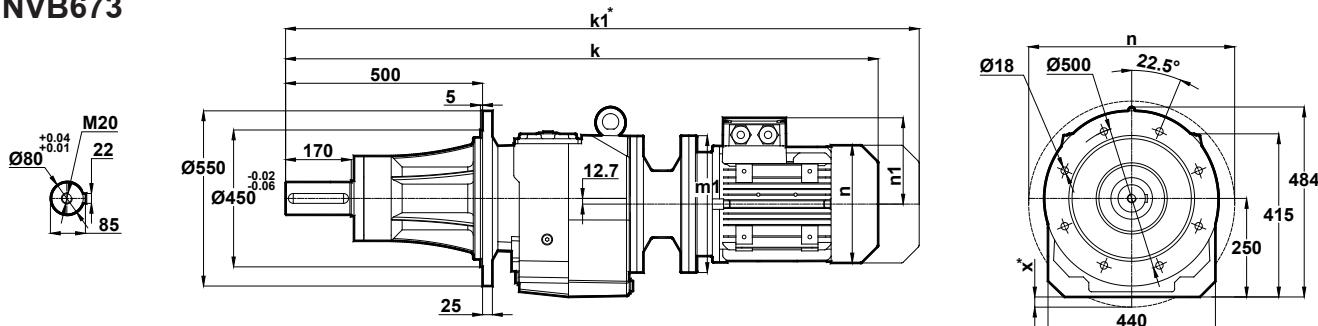


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



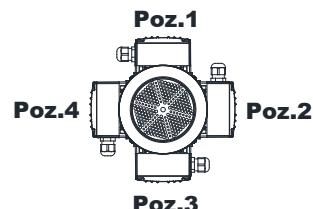
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NVB672**  
**NVB673**



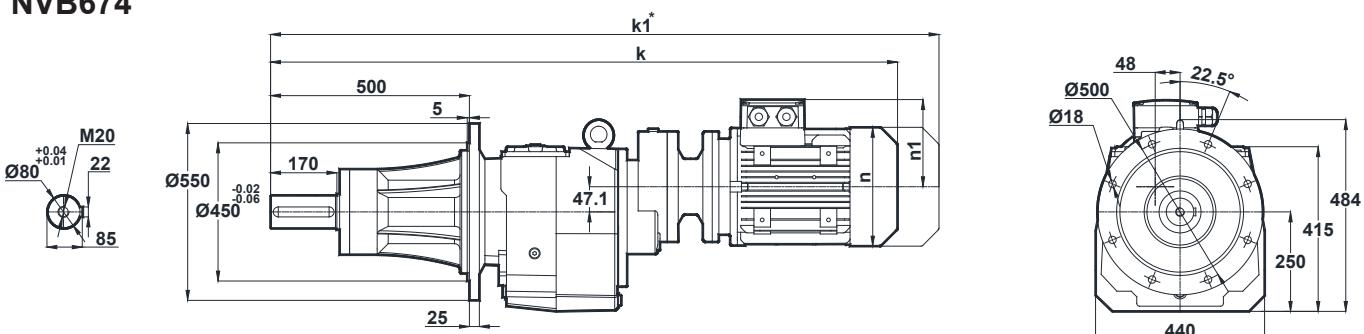
Motor Büyüklüğü / Motor Size / Motorbaugroße										
IEC	112M/B5 132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5	
k	1263.5	1362.5	1362.5	1517.5	1517.5	1605.5	1605.5	1680	1751	1776
k1	1368	1492.5	1492.5	1665.5	1665.5	1764	1764	1866.5	1916	1941
n / n1	215 / 158	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



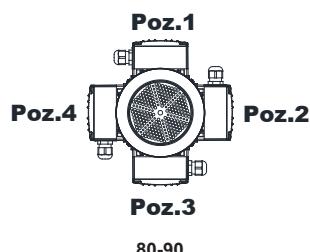
112-132-160-180-200-225

**NVB674**



Motor Büyüklüğü / Motor Size / Motorbaugroße			
IEC	80/B5 90S/B14	90L/B5 90L/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

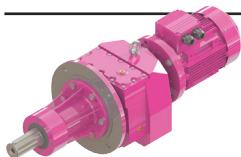
Klemens Kutusu / Terminal Box / Klemmenkasten



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

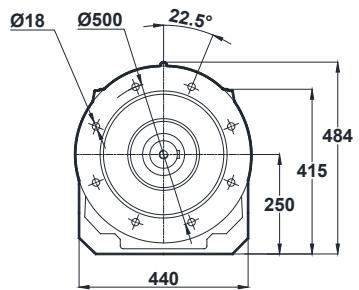
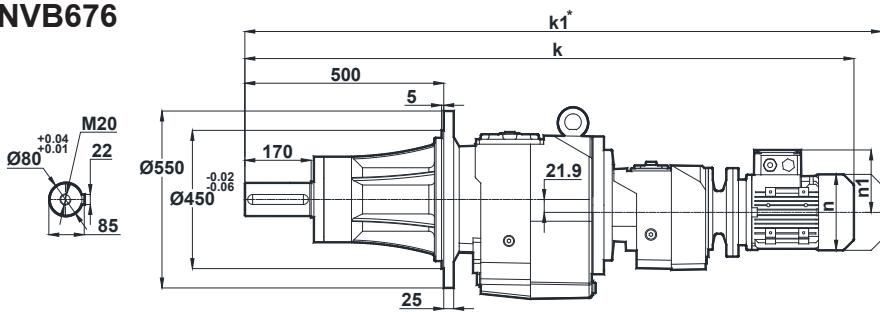


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



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

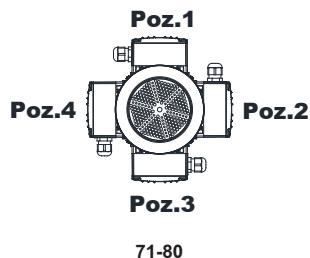
**NVB675**  
**NVB676**



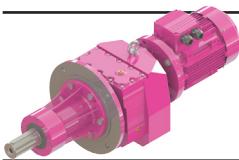
**Motor Büyüklüğü / Motor Size / Motorbaugröße**

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

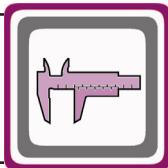
**Klemens Kutusu / Terminal Box / Klemmenkasten**



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

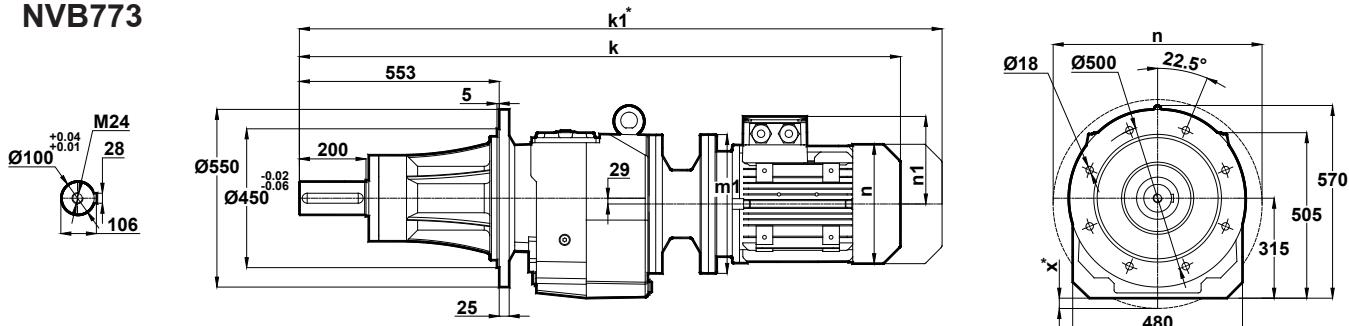


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



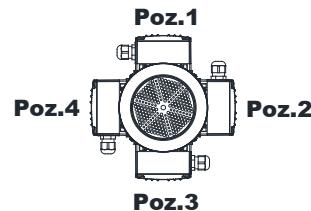
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NVB772**  
**NVB773**



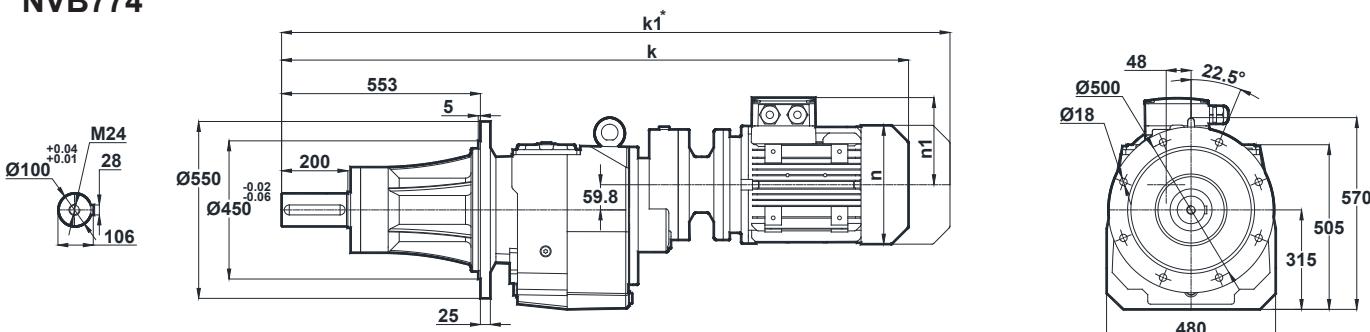
Motor Büyüklüğü / Motor Size / Motorbaugroße										
IEC	132S/B5	132M/B5	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5	250M/B5
k	1465.5	1465.5	1615	1615	1703	1703	1779	1850	1875	1951
k1	1595.5	1595.5	1763	1763	1861.5	1861.5	1965.5	2015	2040	2121.5
n / n1	257 / 179	257 / 179	315 / 219	315 / 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



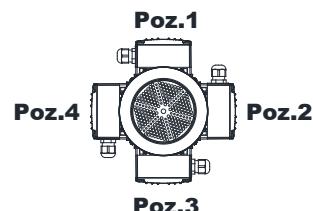
132-160-180-200-225-250

**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

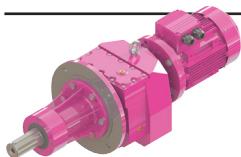
Klemens Kutusu / Terminal Box / Klemmenkasten



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

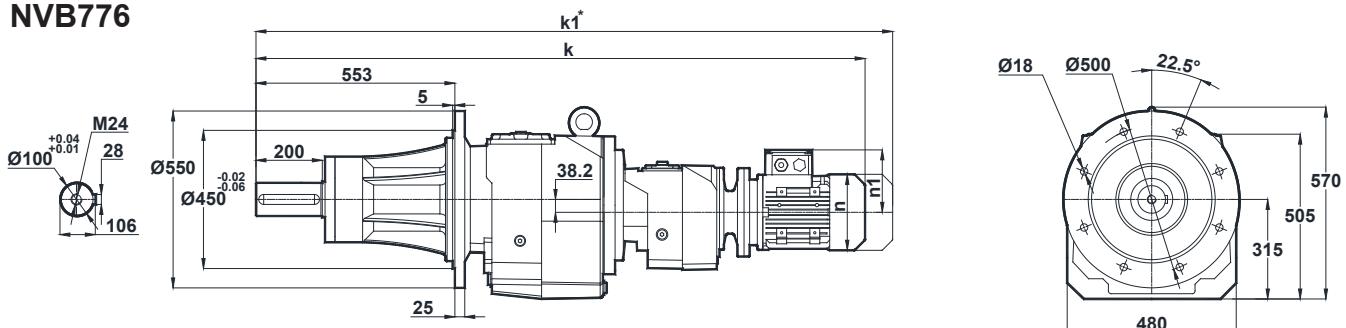


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



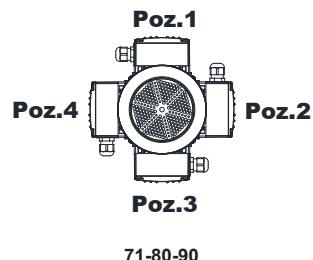
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NVB775**  
**NVB776**



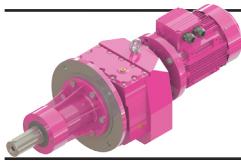
Motor Büyüklüğü / Motor Size / Motorbaugroße				
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	1490	1513	1554	1554
k1	1581	1606	1657.5	1657.5
n / n1	138 / 111	156 / 118	176 / 126	176 / 126
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140

Klemens Kutusu / Terminal Box / Klemmenkasten



71-80-90

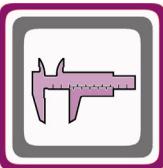
\* "k1" Ölçüsü frenli redüktörlere aittir. Dimension "k1" is for motors with brake. Maße "k1" ist für Bremsenmotoren.



# Ölçü Sayfaları

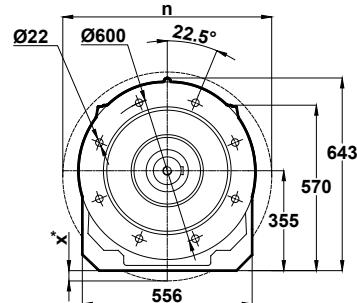
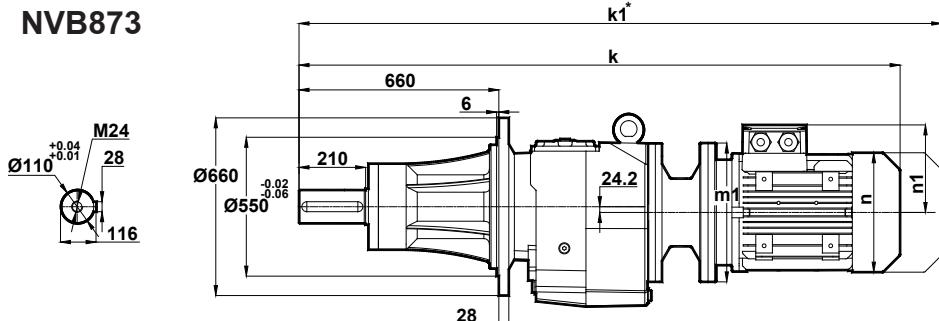
## *Dimension Pages*

### Abmessungsseiten

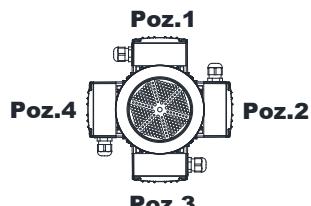


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

NVB872  
NVB873

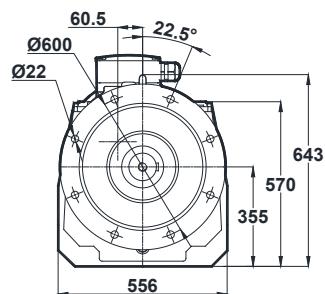
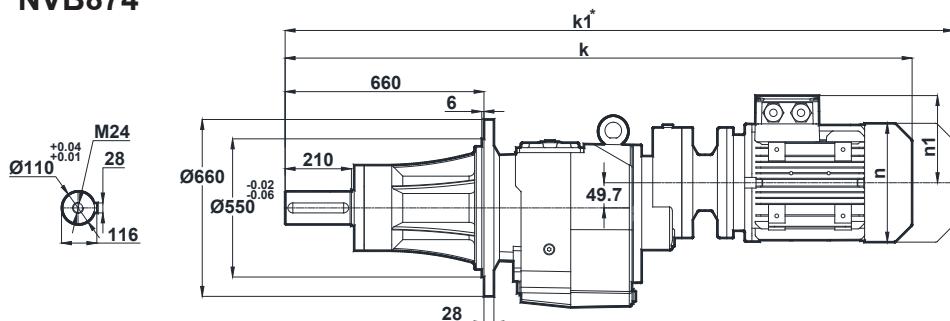


**Klemens Kutusu / Terminal Box / Klemmenkasten**



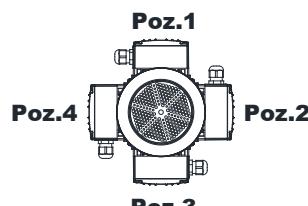
160-180-200-225-250-280

NVB874



Motor Büyüklüğü / Motor Size / Motorbaugroße				
IEC	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14
k	1656	1676.5	1781.5	1781.5
k1	1764.5	1781	1911.5	1911.5
n / n1	193 / 147	215 / 158	257 / 179	257 / 179
m1 (B5)	250	250	300	300
m1 (B14)	-	-	200	200

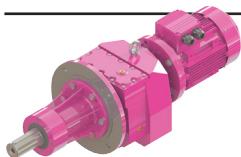
## Klemens Kutusu / Terminal Box / Klemmenkasten



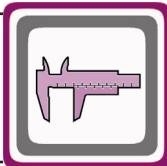
100-112-132

\* "k1" Ölçüsü frenli redüktör'lere 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

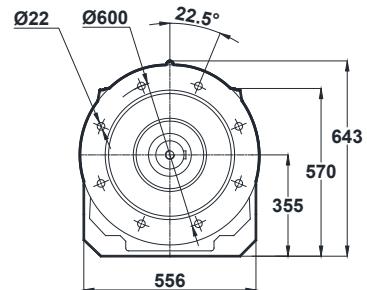
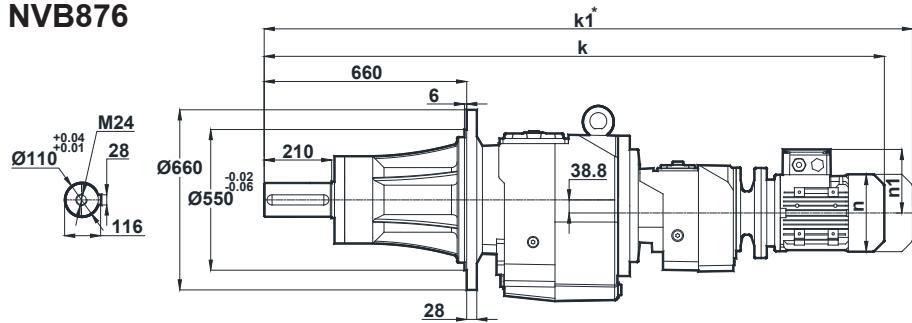


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



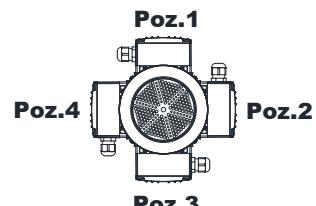
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NVB875**  
**NVB876**



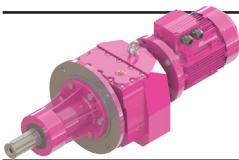
Motor Büyüklüğü / Motor Size / Motorbaugroße					
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	1674	1697	1738	1738	1790.5
k1	1765	1790	1841.5	1841.5	1899
n / n1	137 / 112	155 / 121	176 / 132	176 / 132	193 / 147
m1 (B5)	160	200	200	200	250
m1 (B14)	-	120	140	140	160

Klemens Kutusu / Terminal Box / Klemmenkasten

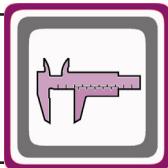


71-80-90-100

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

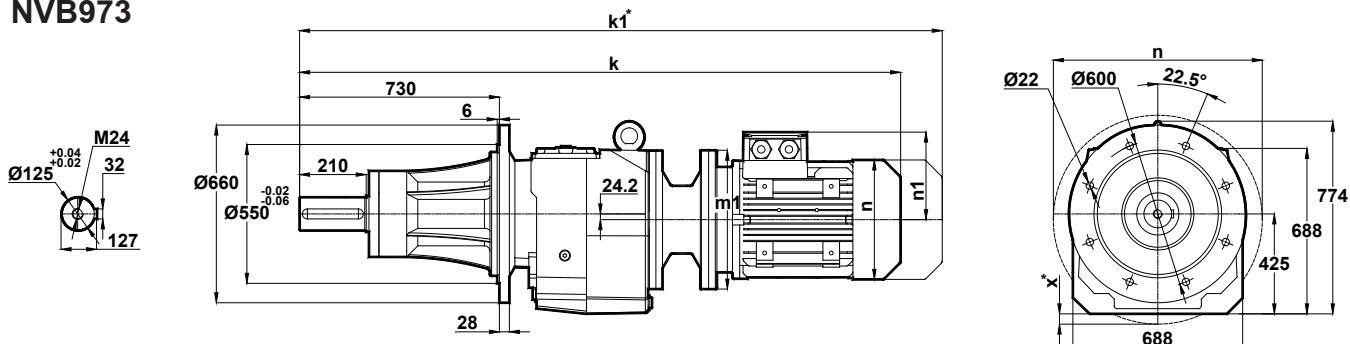


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



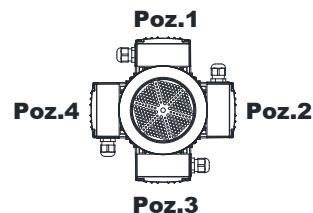
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NVB972**  
**NVB973**



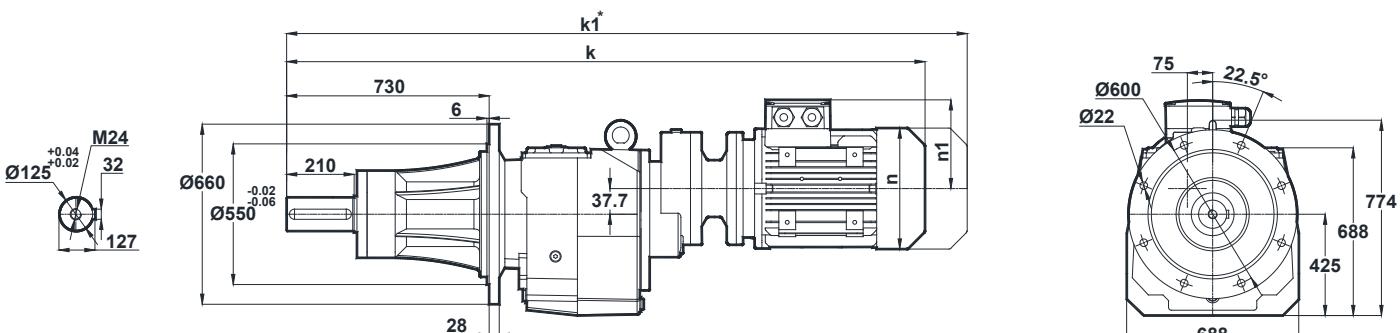
Motor Büyüklüğü / Motor Size / Motorbaugroße												
IEC	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5	250M/B5	280S/B5	280M/B5	315S/B5	315M/B5
k	1925.5	1925.5	2013.5	2013.5	2091.5	2151.5	2176.5	2274.5	2336.5	2336.5	2578.5	2578.5
k1	2073.5	2073.5	2172	2172	2278	2316.5	2341.5	2445	2509.5	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



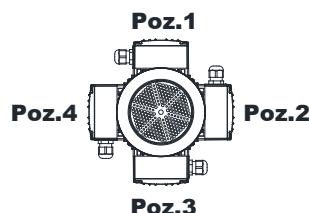
160-180-200-225-250-280-315

**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

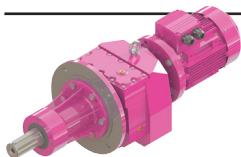
Klemens Kutusu / Terminal Box / Klemmenkasten



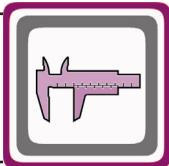
100-112-132

\* "k1" Ölçüsü frenli reduktörlere 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

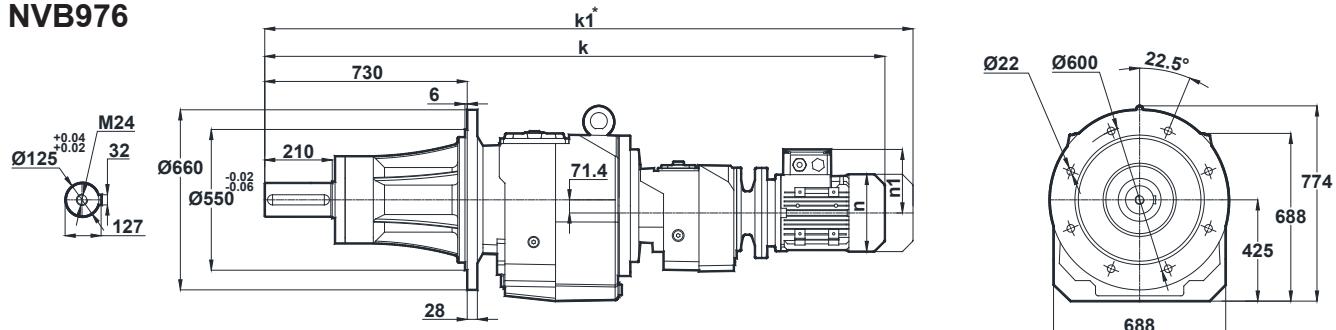


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



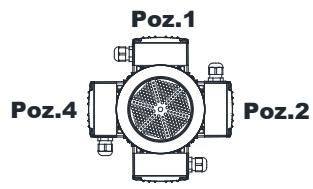
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**NVB975**  
**NVB976**



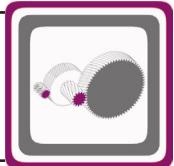
Motor Büyüklüğü / Motor Size / Motorbaugröße						
IEC	80/B5	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14
k	1889	1930	1930	1984	2004.5	2107
k1	1982	2033.5	2033.5	2092.5	2109	2237
n / n1	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179
m1 (B5)	200	200	200	250	250	300
m1 (B14)	-	140	140	160	160	200

Klemens Kutusu / Terminal Box / Klemmenkasten

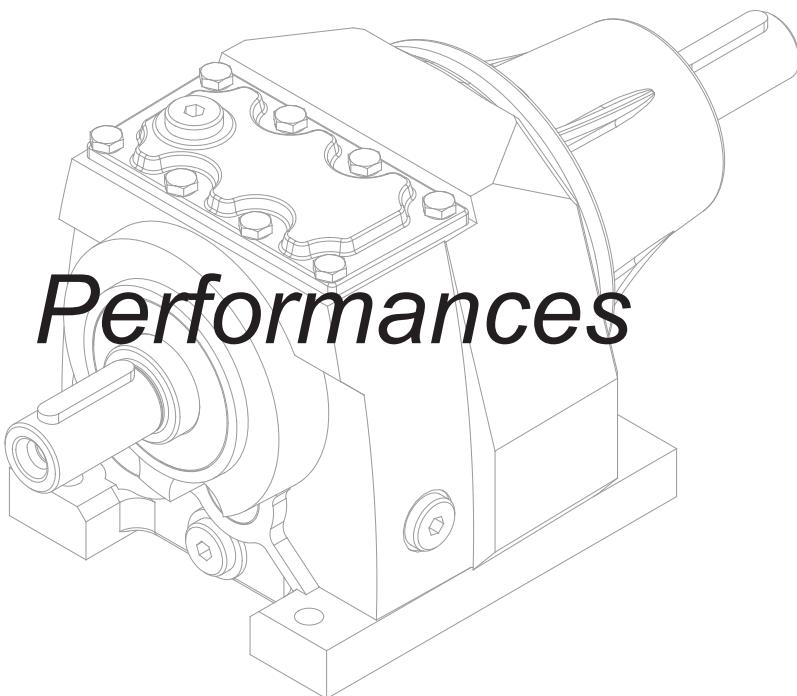


80-90-100-112-132

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



# Güç ve Devir Tabloları

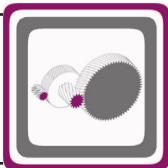


*Performances*

## Leistung und Drehzahlübersicht



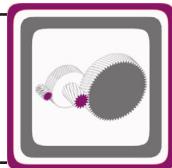
**Motorsuz Güç Devir Sayfaları**  
**Gear Units Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebe**



Anma Momenti  Nominal Torques  Nenn- drehmomente  Ma [Nm] (n1=1450rpm)	Çevrim Oranı  Ratio  Übersetzung  i	Çıkış Devri  Output Speeds  Abtriebs- drehzahlen  n2 [r.p.m] (n1=1450rpm)	Tipi  Type  Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)						Güv. Rad.Yük Çıkış  Per.O.Loads (Output)  Zul.Querkräfte (Abtrieb)  Fqam [N] (n1=1450rpm)	Güv.Rad.Yük Giriş  Per.O.Loads (Input)  Zul.Querkräfte (Antrieb)  Fqem [N] (n1=1450rpm)	Ağırlık Weight	Ölçü Sayfası  Dim. Page Maße Seite					
				Pe= Nominal Power [kW] (For Service Factor fs=1,0)														
				Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0)														
				Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]														
				n1=2900	n1=1450	n1=950	n1=725	n1=475	n1=360									
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	343	NT172	7,4	4,4	3,6	3,2	2,3	1,9	609	-	16						
130	4,78	293		6,9	4,1	3,5	3,1	2,1	1,6	591	-							
135	5,78	242		6,3	3,5	3,2	2,8	1,7	1,3	772	-							
145	6,60	212		5,7	3,3	3,0	2,5	1,5	1,2	888	-							
155	7,08	198		5,6	3,3	2,8	2,3	1,4	1,1	856	-							
160	7,60	184		5,4	3,2	2,6	2,2	1,3	1,0	746	-							
165	8,94	157		4,7	2,8	2,2	1,8	1,1	0,86	861	-							
170	9,53	147		4,6	2,7	2,1	1,7	1,0	0,81	852	-							
180	11,08	126		4,0	2,5	1,8	1,5	0,89	0,69	1257	-							
190	12,66	111		3,6	2,3	1,6	1,3	0,78	0,61	1284	-							



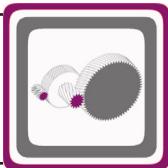
**Motorsuz Güç Devir Sayfaları**  
**Gear Units Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebe**



Anma Momenti  Nominal Torques  Nenn- drehmomente  Ma [Nm] (n1=1450rpm)	Çevrim Oranı  Ratio  Übersetzung	Çıkış Devri  Output Speeds  Abtriebs- drehzahlen  n2 [r.p.m] (n1=1450rpm)	Tipi  Type  Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)  Pe= Nominal Power [kW] (For Service Factor fs=1,0)  Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0)						Güv. Rad.Yük Çıkış  Per.O.Loads (Output)	Güv.Rad.Yük Giriş  Per.O.Loads (Input)	Ağırlık Weight	Ölçü Sayfası  Dim. Page  Maße Seite
				Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]						Zul. Querkräfte (Abtrieb)	Zul. Querkräfte (Antrieb)	Gewicht	
				n1=2900	n1=1450	n1=950	n1=725	n1=475	n1=360	Fqam [N] (n1=1450rpm)	Fqem [N] (n1=1450rpm)	[kg]	
195	14,57	99	MT172	3,4	2,1	1,4	1,1	0,72	0,54	1360	-	15	336
200	17,14	85	NT172	3,0	1,9	1,2	0,93	0,61	0,46	1534	-	16	
200	18,28	79		2,9	1,7	1,1	0,87	0,57	0,43	1639	-		
200	20,92	69		2,6	1,5	1,00	0,76	0,50	0,38	1869	-		
200	26,10	56	MT173	1,5	1,2	0,81	0,62	0,41	0,31	2811	813	16	336
200	30,26	48	NT173	1,4	1,1	0,70	0,54	0,35	0,27	3008	834	17	
200	36,24	40		1,3	0,90	0,59	0,45	0,30	0,22	3262	860		
200	42,87	34		1,2	0,76	0,50	0,38	0,25	0,19	3514	874		
200	45,90	32		1,2	0,71	0,47	0,36	0,23	0,18	3620	880		
200	49,81	29		1,1	0,65	0,43	0,33	0,22	0,16	3750	975		
200	57,76	25		1,0	0,57	0,37	0,28	0,19	0,14	3995	986		
200	69,16	21		0,94	0,47	0,31	0,24	0,16	0,12	4310	999		
200	81,82	18		0,80	0,40	0,26	0,20	0,13	0,10	4622	1007		
200	87,60	17		0,75	0,38	0,25	0,19	0,12	0,09	4753	1010		
200	99,21	15		0,66	0,33	0,22	0,17	0,11	0,08	5001	1013		
125	3,50	414	MT202	8,9	5,6	4,4	3,5	2,7	2,3	2223	-	20	337
145	4,20	345	NT202	8,6	5,4	4,1	3,3	2,6	2,2	2061	-	22	
150	4,50	322		8,3	5,2	4,0	3,2	2,5	2,1	2072	-		
160	5,08	286		7,7	5,0	3,8	3,1	2,4	2,0	2061	-		
175	5,80	250		7,3	4,8	3,6	2,9	2,3	1,9	1965	-		
185	7,04	206		6,5	4,1	3,2	2,6	2,0	1,6	2876	606		
200	8,40	173		5,8	3,8	2,8	2,3	1,7	1,3	2972	619		
210	10,07	144		5,2	3,3	2,5	2,1	1,5	1,1	3208	719		
215	10,81	134		4,9	3,1	2,4	1,9	1,4	1,0	3283	725		
225	12,18	119		4,7	2,9	2,2	1,8	1,2	0,91	3392	723		
235	13,92	104		4,2	2,7	2,1	1,6	1,1	0,80	3551	726		
240	14,86	98		4,0	2,6	2,0	1,5	0,98	0,75	3633	716		
245	16,03	90		3,8	2,4	1,8	1,4	0,91	0,69	3749	728		
260	18,85	77		3,4	2,2	1,6	1,2	0,78	0,59	3928	663		
260	20,10	72		3,3	2,1	1,5	1,1	0,73	0,55	4129	722		
280	23,01	63		3,0	1,9	1,3	0,97	0,64	0,48	4154	556		
270	23,23	62	MT203	2,9	1,9	1,3	0,98	0,64	0,49	3314	1142	21	337
275	24,77	59	NT203	2,8	1,8	1,2	0,92	0,60	0,46	3406	1141	23	
280	28,35	51		2,6	1,6	1,1	0,80	0,53	0,40	3751	1151		
280	36,02	40		2,0	1,3	0,82	0,63	0,41	0,31	5277	1482		
280	41,16	35		1,8	1,1	0,72	0,55	0,36	0,28	5576	1498		
280	43,94	33		1,8	1,0	0,68	0,52	0,34	0,26	5728	1504		
280	47,39	31		1,7	0,96	0,63	0,48	0,32	0,27	5907	1512		
280	55,74	26		1,5	0,82	0,54	0,41	0,27	0,23	6308	1525		
280	59,43	24		1,4	0,77	0,50	0,39	0,25	0,21	6472	1530		
280	68,03	21		1,3	0,67	0,44	0,34	0,25	0,19	6830	1540		
195	3,16	459	MT272	15	9,6	7,3	6,0	4,7	3,8	566	-	25	338
205	3,69	393	NT272	14	8,7	6,7	5,4	4,2	3,5	602	-	27	
230	4,53	320		12	8,0	5,9	4,9	3,8	3,1	863	-		
265	5,28	274		12	7,9	5,9	4,9	3,5	2,9	479	-		
330	6,21	233		14	8,3	6,2	5,2	3,8	2,9	-	-		
360	8,71	167		10	6,5	4,7	4,0	2,7	2,0	474	-		
375	10,16	143		9,1	5,8	4,4	3,5	2,3	1,7	566	-		
390	11,95	121		8,1	5,1	3,9	3,0	2,0	1,5	695	-		
410	14,21	102		7,2	4,6	3,3	2,5	1,7	1,3	788	-		
425	16,07	90		6,7	4,2	2,9	2,2	1,5	1,1	858	-		
445	18,33	79		6,0	3,8	2,6	2,0	1,3	0,97	880	-		
450	21,43	68		5,4	3,3	2,2	1,7	1,1	0,83	1239	-		
450	25,89	56		4,8	2,8	1,8	1,4	0,91	0,69	1805	-		
435	19,00	76	MT273	5,6	3,7	2,5	1,9	1,3	0,95	190	275	26	338
435	25,55	57	NT273	4,2	2,7	1,9	1,4	0,93	0,71	2013	1276	28	



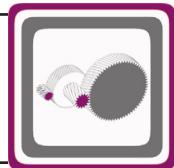
**Motorsuz Güç Devir Sayfaları**  
**Gear Units Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebe**



Anma Momenti  Nominal Torques  Nenn- drehmomente  Ma [Nm] (n1=1450rpm)	Çevrim Oranı  Ratio  Übersetzung  i	Çıkış Devri  Output Speeds  Abtriebs- drehzahlen  n2 [r.p.m] (n1=1450rpm)	Tipi  Type  Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)						Güv. Rad.Yük Çıkış Per.O.Loads (Output)	Güv.Rad.Yük Giriş Per.O.Loads (Input)	Ağırlık Weight	Ölçü Sayfası Dim. Page					
				Pe= Nominal Power [kW] (For Service Factor fs=1,0)														
				Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0)														
				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							



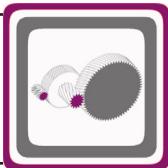
**Motorsuz Güç Devir Sayfaları**  
**Gear Units Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebe**



Anma Momenti  Nominal Torques  Nenn- drehmomente  Ma [Nm] (n1=1450rpm)	Çevrim Oranı  Ratio  Übersetzung  i	Çıkış Devri  Output Speeds  Abtriebs- drehzahlen  n2 [r.p.m] (n1=1450rpm)	Tipi  Type  Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)  Pe= Nominal Power [kW] (For Service Factor fs=1,0)  Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0)						Güv. Rad.Yük Çıkış  Per.O.Loads (Output)	Güv.Rad.Yük Giriş  Per.O.Loads (Input)	Ağırlık Weight	Ölçü Sayfası  Dim. Page					
				Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]														
				n1=2900	<b>n1=1450</b>	n1=950	n1=725	n1=475	n1=360									
										Fqam [N] (n1=1450rpm)	Fqem [N] (n1=1450rpm)	[kg]						
600	54,12	27	MT283	2,7	<b>1,8</b>	1,2	0,90	0,59	0,45	6490	1874	38	340					
600	63,65	23	NT283	2,5	<b>1,5</b>	1,0	0,77	0,50	0,38	6979	1894	40						
600	75,68	19		2,3	<b>1,3</b>	0,85	0,65	0,42	0,32	7530	1913							
600	85,60	17		2,1	<b>1,1</b>	0,75	0,57	0,38	0,29	7942	1924							
600	97,62	15		1,9	<b>1,0</b>	0,66	0,50	0,33	0,25	8400	1934							
600	114,14	13		1,7	<b>0,86</b>	0,56	0,43	0,28	0,24	8973	1945							
600	137,91	11		1,4	<b>0,71</b>	0,47	0,36	0,26	0,20	9150	1956							
600	158,52	9,1	MT284	1,3	<b>0,63</b>	0,41	0,31	0,23	0,17	9150	1581	39	341					
600	175,17	8,3	NT284	1,1	<b>0,57</b>	0,37	0,28	0,21	0,16	9150	1603	41						
600	204,44	7,1		0,97	<b>0,49</b>	0,32	0,27	0,18	0,13	9150	1635							
600	240,47	6,0		0,83	<b>0,41</b>	0,27	0,23	0,15	0,11	9150	1663							
600	285,89	5,1		0,70	<b>0,35</b>	0,25	0,19	0,13	0,10	9150	1688							
600	323,39	4,5		0,62	<b>0,31</b>	0,22	0,17	0,11	0,09	9150	1703							
600	368,77	3,9		0,54	<b>0,27</b>	0,20	0,15	0,10	0,07	9150	1718							
600	431,18	3,4		0,51	<b>0,26</b>	0,19	0,14	0,09	0,07	9150	1778							
600	376,94	3,8	MT285	0,54	<b>0,27</b>	0,20	0,15	0,10	0,07	9150	1053	58	342					
600	443,37	3,3	NT285	0,51	<b>0,26</b>	0,19	0,14	0,09	0,07	9150	1068	60						
600	491,50	3,0		0,46	<b>0,23</b>	0,17	0,13	0,08	0,06	9150	1077							
600	573,81	2,5		0,40	<b>0,20</b>	0,14	0,11	0,07	0,05	9150	1089							
600	669,25	2,2		0,34	<b>0,17</b>	0,12	0,09	0,06	0,05	9150	1098							
600	739,53	2,0		0,31	<b>0,15</b>	0,11	0,09	0,06	0,04	9150	1104							
600	863,11	1,7		0,26	<b>0,13</b>	0,10	0,07	0,05	0,04	9150	1111							
600	1015,21	1,4		0,25	<b>0,11</b>	0,08	0,06	0,04	0,03	9150	1118							
600	1206,98	1,2		0,21	<b>0,09</b>	0,07	0,05	0,03	0,03	9150	1124							
600	1365,28	1,1		0,19	<b>0,08</b>	0,06	0,05	0,03	0,02	9150	1128							
600	1817,07	0,80	MT286	0,14	<b>0,06</b>	0,05	0,04	0,02	0,02	9150	1135	59	342					
600	2119,30	0,68	NT286	0,12	<b>0,06</b>	0,04	0,03	0,02	0,02	9150	1138	61						
600	2341,83	0,62		0,11	<b>0,05</b>	0,04	0,03	0,02	0,01	9150	1140							
600	2733,17	0,53		0,09	<b>0,04</b>	0,03	0,02	0,02	0,01	9150	1143							
600	3214,82	0,45		0,08	<b>0,04</b>	0,03	0,02	0,01	0,01	9150	1145							
385	3,28	443	MT372	29	<b>18</b>	14	11	8,8	7,3	882	-	45	343					
410	3,74	388	NT372	27	<b>17</b>	13	11	8,4	6,9	782	-	48						
445	4,29	338		25	<b>16</b>	12	10	7,8	6,4	531	-							
475	4,96	292		24	<b>15</b>	12	9,3	7,3	6,0	411	-							
510	5,23	277		24	<b>15</b>	12	9,5	7,3	6,1	955	-							
530	5,97	243		22	<b>14</b>	11	8,7	6,8	5,4	1046	-							
560	6,84	212		20	<b>13</b>	9,8	8,0	6,2	4,7	1012	-							
560	8,25	176		17	<b>11</b>	8,1	6,6	5,2	3,9	2345	-							
590	9,41	154		15	<b>9,9</b>	7,5	6,0	4,5	3,4	2379	-							
620	10,80	134		14	<b>9,0</b>	6,8	5,6	3,9	3,0	2456	-							
650	12,48	116		13	<b>8,2</b>	6,3	5,1	3,4	2,6	2586	-							
670	13,53	107		12	<b>7,8</b>	5,9	4,8	3,2	2,4	2623	-							
710	16,20	90		11	<b>6,9</b>	5,3	4,0	2,6	2,0	2807	-							
740	18,45	79		10	<b>6,3</b>	4,6	3,5	2,3	1,8	2952	-							
770	20,62	70		9,3	<b>5,9</b>	4,1	3,2	2,1	1,6	3033	-							
805	23,33	62		8,5	<b>5,5</b>	3,7	2,8	1,8	1,4	3122	-							
650	18,68	78	MT373	8,6	<b>5,5</b>	4,2	3,4	2,3	1,8	4992	1054	47	343					
650	20,64	70	NT373	7,8	<b>5,0</b>	3,9	3,2	2,1	1,6	5243	1219	50						
650	21,65	67		7,5	<b>4,8</b>	3,8	3,0	2,0	1,5	5509	1550							
710	25,27	57		6,8	<b>4,5</b>	3,4	2,6	1,7	1,3	5712	1545							
750	29,47	49		6,1	<b>4,1</b>	2,9	2,2	1,5	1,1	6004	1564							
780	35,25	41		5,4	<b>3,5</b>	2,5	1,9	1,2	0,94	6429	1730							
820	41,16	35		4,8	<b>3,2</b>	2,1	1,6	1,1	0,80	6774	1745							
820	48,00	30		4,3	<b>2,7</b>	1,8	1,4	0,91	0,69	7281	1784							
820	53,04	27		4,1	<b>2,5</b>	1,6	1,3	0,82	0,62	7623	1803							
820	61,91	23		3,5	<b>2,1</b>	1,4	1,1	0,71	0,54	8177	1830							



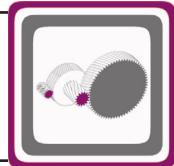
**Motorsuz Güç Devir Sayfaları**  
**Gear Units Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebe**



Anma Momenti  Nominal Torques  Nenn- drehmomente  Ma [Nm] (n1=1450rpm)	Çevrim Oranı  Ratio  Übersetzung  i	Çıkış Devri  Output Speeds  Abtriebs- drehzahlen  n2 [r.p.m] (n1=1450rpm)	Tipi  Type  Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)						Güv. Rad.Yük Çıkış  Per.O.Loads (Output)	Güv.Rad.Yük Giriş  Per.O.Loads (Input)	Ağırlık Weight	Ölçü Sayfası  Dim. Page					
				Pe= Nominal Power [kW] (For Service Factor fs=1,0)														
				Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0)														
				Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]														
				n1=2900	n1=1450	n1=950	n1=725	n1=475	n1=360									
820	72,81	20	MT373	3,2	1,8	1,2	0,92	0,60	0,46	8790	1854	47	343					
820	86,57	17	NT373	2,8	1,5	1,0	0,77	0,51	0,39	9481	1876	50						
820	97,92	15		2,6	1,4	0,89	0,68	0,45	0,34	9999	1889							
820	111,67	13		2,4	1,2	0,79	0,60	0,40	0,30	10574	1902							
820	138,72	10		1,9	0,97	0,64	0,49	0,32	0,27	11581	1919							
820	157,76	9,2		1,7	0,85	0,56	0,43	0,28	0,24	11600	1928							
820	181,34	8,0	MT374	1,5	0,75	0,49	0,37	0,27	0,21	11600	745	57	344					
820	200,38	7,2	NT374	1,4	0,68	0,44	0,34	0,25	0,19	11600	885	60						
820	233,86	6,2		1,2	0,58	0,38	0,29	0,21	0,16	11600	1598							
820	275,08	5,3		0,99	0,49	0,32	0,27	0,18	0,14	11600	1632							
820	327,04	4,4		0,83	0,42	0,27	0,23	0,15	0,11	11600	1662							
820	369,93	3,9		0,74	0,37	0,27	0,20	0,13	0,10	11600	1680							
820	421,85	3,4		0,65	0,32	0,24	0,18	0,12	0,09	11600	1698							
820	524,07	2,8		0,52	0,26	0,19	0,14	0,09	0,07	11600	1722							
820	488,82	3,0	MT375	0,57	0,28	0,21	0,16	0,10	0,08	11600	1076	63	345					
820	533,70	2,7	NT375	0,52	0,26	0,19	0,15	0,10	0,07	11600	1080	66						
820	631,45	2,3		0,49	0,25	0,18	0,14	0,09	0,07	11600	1084							
820	676,02	2,1		0,46	0,23	0,17	0,13	0,08	0,06	11600	1085							
820	765,58	1,9		0,41	0,20	0,15	0,11	0,07	0,06	11600	1087							
820	845,97	1,7		0,37	0,18	0,13	0,10	0,07	0,05	11600	1094							
820	987,33	1,5		0,32	0,16	0,11	0,09	0,06	0,04	11600	1103							
820	1161,33	1,2		0,27	0,13	0,10	0,07	0,05	0,04	11600	1111							
820	1380,71	1,1		0,25	0,11	0,08	0,06	0,04	0,03	11600	1118							
820	1561,78	0,93		0,22	0,10	0,07	0,06	0,04	0,03	11600	1123							
820	1690,05	0,86	MT376	0,21	0,09	0,07	0,05	0,03	0,03	11600	1132	65	345					
820	1999,59	0,73	NT376	0,18	0,08	0,06	0,04	0,03	0,02	11600	1134	68						
820	2140,73	0,68		0,17	0,07	0,05	0,04	0,03	0,02	11600	1134							
820	2424,34	0,60		0,15	0,07	0,05	0,04	0,02	0,02	11600	1135							
820	2678,89	0,54		0,13	0,06	0,04	0,03	0,02	0,02	11600	1137							
820	3126,56	0,46		0,11	0,05	0,04	0,03	0,02	0,01	11600	1140							
820	3677,53	0,39		0,10	0,04	0,03	0,02	0,02	0,01	11600	1142							
820	4372,24	0,33		0,08	0,04	0,03	0,02	0,01	0,01	11600	1145							
820	4945,64	0,29		0,07	0,03	0,02	0,02	0,01	0,01	11600	1146							
590	3,27	444	MT472	-	28	22	18	14	11	5155	-	76	346					
650	3,83	378	NT472	41	26	20	16	13	11	5346	-	80						
710	4,54	320		38	24	19	15	12	9,8	5578	-							
800	4,89	297		41	26	19	16	12	9,8	5471	-							
925	5,66	256		-	26	20	16	12	9,9	5775	-							
985	6,65	218		38	23	17	14	11	8,8	6065	-							
1020	7,87	184		33	20	15	12	9,5	7,8	6482	-							
1025	8,47	171		31	19	14	12	8,8	7,2	6706	-							
1050	9,53	152		28	17	13	11	8,1	6,4	7024	-							
1100	10,79	134		26	16	12	9,7	7,4	5,7	7304	-							
1165	12,05	120		25	15	11	9,2	6,7	5,1	7668	-							
1205	13,56	107		23	14	10	8,5	5,9	4,5	7994	-							
1250	15,35	94		21	13	9,6	7,7	5,2	4,0	8350	-							
1295	17,25	84		19	12	8,9	7,1	4,7	3,5	8693	-							
1450	18,72	77		20	12	8,6	6,5	4,3	3,3	8586	-							
1455	22,15	65		18	10	7,3	5,5	3,6	2,8	9311	-							
1550	18,04	80	MT473	14	14	9,0	6,9	4,5	3,4	7923	-	78	346					
1550	21,74	67	NT473	13	11	7,5	5,7	3,8	2,9	8734	-	82						
1550	25,67	56		14	9,6	6,3	4,8	3,2	2,4	9717	501							
1550	30,93	47		13	8,0	5,2	4,0	2,6	2,0	10629	932							
1550	37,45	39		11	6,6	4,3	3,3	2,2	1,7	11627	1297							
1550	42,75	34		9,7	5,8	3,8	2,9	1,9	1,5	12354	1511							



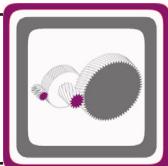
**Motorsuz Güç Devir Sayfaları**  
**Gear Units Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebe**



Anma Momenti  Nominal Torques  Nenn- drehmomente  Ma [Nm] (n1=1450rpm)	Çevrim Oranı  Ratio  Übersetzung	Çıkış Devri  Output Speeds  Abtriebs- drehzahlen  n2 [r.p.m] (n1=1450rpm)	Tipi  Type  Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)  Pe= Nominal Power [kW] (For Service Factor fs=1,0)  Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0)						Güv. Rad.Yük Çıkış  Per.O.Loads (Output)	Güv.Rad.Yük Giriş  Per.O.Loads (Input)	Ağırlık Weight	Ölçü Sayfası  Dim. Page
				Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]						Zul. Querkräfte (Abtrieb)	Zul. Querkräfte (Antrieb)	Gewicht	Maße Seite
				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	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	-		



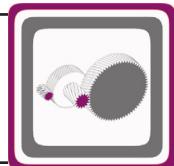
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**Gear Units Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebe**



Anma Momenti  Nominal Torques  Nenn- drehmomente  Ma [Nm] (n1=1450rpm)	Çevrim Oranı  Ratio  Übersetzung  i	Çıkış Devri  Output Speeds  Abtriebs- drehzahlen  n2 [r.p.m] (n1=1450rpm)	Tipi  Type  Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)						Güv. Rad.Yük Çıkış  Per.O.Loads (Output)	Güv.Rad.Yük Giriş  Per.O.Loads (Input)	Ağırlık Weight	Ölçü Sayfası  Dim. Page					
				Pe= Nominal Power [kW] (For Service Factor fs=1,0)														
				Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0)														
				Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]														
				n1=2900	<b>n1=1450</b>	n1=950	n1=725	n1=475	n1=360									
2390	22,64	64	MT573	27	<b>17</b>	13	10	7,0	5,3	15500	470	111	349					
2520	26,54	55	NT573	24	<b>15</b>	11	9,0	5,9	4,5	16343	538	121						
2650	31,38	46		21	<b>13</b>	10	7,7	5,0	3,8	17314	601							
2750	35,31	41		20	<b>12</b>	8,9	6,8	4,5	3,4	18022	595							
2860	39,98	36		18	<b>11</b>	7,9	6,0	4,0	3,0	18799	559							
3000	48,74	30		16	<b>10</b>	6,5	4,9	3,3	2,5	19500	2621							
3000	54,74	26		14	<b>8,8</b>	5,8	4,4	2,9	2,2	19500	2960							
3000	64,72	22		13	<b>7,4</b>	4,9	3,7	2,5	1,9	19500	3030							
3000	72,81	20		12	<b>6,6</b>	4,3	3,3	2,2	1,7	19500	3073							
3000	82,45	18		11	<b>5,8</b>	3,8	2,9	1,9	1,5	19500	3112							
3000	100,53	14		9,5	<b>4,8</b>	3,2	2,4	1,6	1,2	19500	3165							
3000	118,95	12		8,1	<b>4,1</b>	2,7	2,1	1,3	1,0	19500	3202							
3000	134,45	11		7,2	<b>3,6</b>	2,4	1,8	1,2	0,90	19500	3226							
3000	153,61	9,4		6,3	<b>3,2</b>	2,1	1,6	1,0	0,79	19500	3248							
3000	167,32	8,7		5,8	<b>2,9</b>	1,9	1,5	0,96	0,73	19500	3262							
3000	194,15	7,5	MT574	5,1	<b>2,5</b>	1,7	1,3	0,83	0,63	19500	1601	128	350					
3000	221,40	6,5	NT574	4,5	<b>2,2</b>	1,5	1,1	0,73	0,55	19500	1623	138						
3000	258,87	5,6		3,8	<b>1,9</b>	1,3	0,96	0,63	0,47	19500	1647							
3000	291,25	5,0		3,4	<b>1,7</b>	1,1	0,85	0,56	0,42	19500	1712							
3000	301,59	4,8		3,3	<b>1,6</b>	1,1	0,82	0,54	0,41	19500	1826							
3000	343,91	4,2		2,9	<b>1,4</b>	0,94	0,72	0,47	0,36	19500	1840							
3000	402,12	3,6		2,5	<b>1,2</b>	0,81	0,62	0,40	0,31	19500	1855							
3000	485,89	3,0		2,1	<b>1,0</b>	0,67	0,51	0,34	0,25	19500	1871							
3000	574,90	2,5		1,7	<b>0,87</b>	0,57	0,43	0,28	0,24	19500	1927							
3000	620,62	2,3	MT575	1,7	<b>0,82</b>	0,54	0,41	0,27	0,23	19500	1514	132	351					
3000	698,26	2,1	NT575	1,5	<b>0,73</b>	0,48	0,37	0,27	0,20	19500	1548	142						
3000	790,68	1,8		1,3	<b>0,65</b>	0,42	0,32	0,24	0,18	19500	1580							
3000	964,05	1,5		1,1	<b>0,53</b>	0,35	0,27	0,19	0,15	19500	1623							
3000	1140,65	1,3		0,90	<b>0,45</b>	0,29	0,25	0,16	0,12	19500	1564							
3000	1259,61	1,2		0,81	<b>0,41</b>	0,27	0,23	0,15	0,11	19500	1670							
3000	1489,14	0,97		0,69	<b>0,34</b>	0,25	0,19	0,13	0,10	19500	1693							
3000	1675,43	0,87		0,61	<b>0,31</b>	0,22	0,17	0,11	0,08	19500	1708							
3000	1897,20	0,76		0,54	<b>0,27</b>	0,20	0,15	0,10	0,07	19500	1721							
3000	2313,18	0,63		0,49	<b>0,25</b>	0,18	0,14	0,09	0,07	19500	1739							
3000	2736,94	0,53		0,42	<b>0,21</b>	0,15	0,12	0,08	0,06	19500	1752							
3000	2850,22	0,51	MT576	0,41	<b>0,20</b>	0,15	0,11	0,07	0,06	19500	1754	134	351					
3000	3372,36	0,43	NT576	0,35	<b>0,17</b>	0,13	0,10	0,06	0,05	19500	1765	144						
3000	4402,68	0,33		0,27	<b>0,13</b>	0,10	0,07	0,05	0,04	19500	1778							
3000	4953,44	0,29		0,26	<b>0,12</b>	0,09	0,07	0,04	0,03	19500	1783							
3000	6838,96	0,21		0,19	<b>0,09</b>	0,06	0,05	0,03	0,02	19500	1794							
3000	8091,82	0,18		0,16	<b>0,07</b>	0,05	0,04	0,03	0,02	19500	1798							
2150	3,29	440	MT672	-	<b>101</b>	76	62	47	39	8750	-	171	352					
2400	3,79	383	NT672	-	<b>99</b>	74	60	46	38	8825	-	181						
2670	4,37	332		-	<b>95</b>	71	58	44	36	8909	-							
2700	4,53	320		-	<b>93</b>	70	56	43	35	9023	-							
2920	5,08	285		-	<b>90</b>	67	54	42	33	9112	-							
3170	5,73	253		-	<b>86</b>	65	52	39	29	9182	-							
2870	6,88	211		-	<b>65</b>	49	40	30	24	11622	-							
2920	7,91	183		-	<b>58</b>	43	35	27	21	12348	-							
2990	9,13	159		-	<b>51</b>	39	31	24	18	13103	-							
3030	9,47	153		-	<b>50</b>	38	30	23	18	13256	-							
3090	10,62	137		-	<b>46</b>	34	28	21	16	13891	-							
3170	11,97	121		-	<b>42</b>	31	25	19	14	14551	-							
3250	13,58	107		-	<b>38</b>	28	23	16	12	15290	-							
3350	15,53	93		55	<b>34</b>	25	21	14	11	16087	-							
3470	17,93	81		49	<b>30</b>	23	18	12	9,5	16969	-							
3580	20,74	70		44	<b>27</b>	20	16	11	8,2	17939	-							



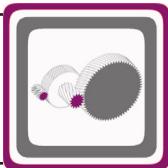
**Motorsuz Güç Devir Sayfaları**  
**Gear Units Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebe**



Anma Momenti  Nominal Torques  Nenn- drehmomente  Ma [Nm] (n1=1450rpm)	Çevrim Oranı  Ratio  Übersetzung  i	Çıkış Devri  Output Speeds  Abtriebs- drehzahlen  n2 [r.p.m] (n1=1450rpm)	Tipi  Type  Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)  Pe= Nominal Power [kW] (For Service Factor fs=1,0)  Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0)  Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]						Güv. Rad.Yük Çıkış  Per.O.Loads (Output)  Zul. Querkräfte (Abtrieb)	Güv.Rad.Yük Giriş  Per.O.Loads (Input)  Zul. Querkräfte (Antrieb)	Ağırlık  Weight  Gewicht	Ölçü Sayfası  Dim. Page  Maße Seite
				n1=2900	n1=1450	n1=950	n1=725	n1=475	n1=360	Fqam [N] (n1=1450rpm)	Fqem [N] (n1=1450rpm)	[kg]	
3680	23,18	63	MT672 NT672	40	25	19	15	9,6	7,3	18689	-	171 181	352
3530	26,66	54	MT673	-	20	16	13	8,5	6,4	20248	2575	199	352
3670	30,20	48	NT673	-	19	15	11	7,5	5,7	21127	2680	209	
3820	34,36	42		-	18	13	10	6,6	5,0	22076	2754		
3990	39,30	37		-	16	11	8,8	5,8	4,4	23099	2779		
4160	45,29	32		23	15	10	7,6	5,0	3,8	24263	2802		
4300	52,68	28		21	13	8,6	6,6	4,3	3,3	25671	2882		
4300	53,99	27		20	13	8,4	6,4	4,2	3,2	25956	3607		
4300	61,42	24		19	11	7,4	5,6	3,7	2,8	26500	3673		
4300	70,26	21		17	9,8	6,5	4,9	3,3	2,5	26500	3733		
4300	80,96	18		16	8,5	5,6	4,3	2,8	2,2	26500	3788		
4300	94,17	15		14	7,4	4,8	3,7	2,4	1,9	26500	3838		
4300	110,55	13		12	6,3	4,1	3,2	2,1	1,6	26500	3903		
4300	124,07	12		11	5,6	3,7	2,8	1,9	1,4	26500	3931		
4300	149,11	9,7		9,3	4,7	3,1	2,4	1,5	1,2	26500	3966		
4300	174,89	8,3		7,9	4,0	2,6	2,0	1,3	1,0	26500	3994		
4300	196,61	7,4		7,1	3,6	2,3	1,8	1,2	0,89	26500	4011		
4300	215,97	6,7	MT674	6,6	3,3	2,2	1,6	1,1	0,81	26500	1707	205	353
4300	245,67	5,9	NT674	5,8	2,9	1,9	1,4	0,95	0,72	26500	1815	215	
4300	281,02	5,2			5,1	2,5	1,7	1,3	0,83	26500	1913		
4300	323,82	4,5			4,4	2,2	1,4	1,1	0,72	26500	2004		
4300	376,69	3,8			3,8	1,9	1,2	0,95	0,62	26500	2088		
4300	442,20	3,3			3,2	1,6	1,1	0,80	0,53	26500	2164		
4300	500,39	2,9			2,9	1,4	0,93	0,71	0,47	26500	2176		
4300	583,04	2,5	MT675	2,5	1,3	0,82	0,62	0,41	0,31	26500	2037	214	354
4300	673,70	2,2	NT675	2,2	1,1	0,71	0,54	0,35	0,27	26500	2047	225	
4300	730,46	2,0			2,0	1,0	0,65	0,50	0,33	26500	2053		
4300	874,56	1,7			1,7	0,84	0,55	0,42	0,27	26500	2063		
4300	995,91	1,5			1,5	0,74	0,48	0,37	0,27	26500	2069		
4300	1113,08	1,3			1,3	0,66	0,43	0,33	0,24	26500	2074		
4300	1259,54	1,2			1,2	0,58	0,38	0,29	0,21	26500	2079		
4300	1432,74	1,01			1,0	0,51	0,34	0,26	0,19	26500	2097		
4300	1638,93	0,88			0,90	0,45	0,29	0,25	0,16	26500	2114		
4300	1888,53	0,77			0,78	0,39	0,26	0,22	0,14	26500	2130		
4300	2196,86	0,66			0,67	0,33	0,24	0,19	0,12	26500	2144		
4300	2578,93	0,56			0,57	0,28	0,21	0,16	0,10	26500	2157		
4300	2863,86	0,51	MT676	0,52	0,26	0,19	0,15	0,10	0,07	26500	2191	217	354
4300	3342,43	0,43	NT676	0,50	0,25	0,18	0,14	0,09	0,07	26500	2193	229	
4300	3931,45	0,37			0,43	0,21	0,15	0,12	0,08	26500	2196		
4300	4674,12	0,31			0,36	0,18	0,13	0,10	0,07	26500	2198		
4300	5287,12	0,27			0,32	0,16	0,12	0,09	0,06	26500	2199		
4300	6029,17	0,24			0,28	0,14	0,10	0,08	0,05	26500	2200		
4300	7490,08	0,19			0,25	0,11	0,08	0,06	0,04	26500	2202		
4300	8518,13	0,17			0,22	0,10	0,07	0,05	0,04	26500	2203		
4300	9689,49	0,15			0,19	0,09	0,06	0,05	0,03	26500	2206		
4300	11083,95	0,13			0,17	0,08	0,06	0,04	0,03	26500	2210		
4300	12771,99	0,11			0,15	0,07	0,05	0,04	0,02	26500	2213		
4300	14857,21	0,10			0,13	0,06	0,04	0,03	0,02	26500	2215		
4300	17441,07	0,08			0,11	0,05	0,04	0,03	0,02	26500	2218		
3680	4,73	307	MT772	-	121	91	73	56	46	46915	-	296	355
3990	5,38	269	NT772	-	115	87	70	54	44	47449	-	365	
4330	6,15	236		-	110	82	67	51	42	48003	-		
4490	6,52	222		-	107	81	65	50	41	48160	-		
4770	7,26	200		-	102	77	62	48	39	48690	-		
6200	8,46	171		-	114	87	71	49	37	46092	-		



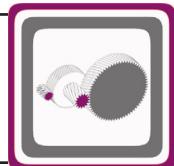
**Motorsuz Güç Devir Sayfaları**  
**Gear Units Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebe**



Anma Momenti  Nominal Torques  Nenn- drehmomente  Ma [Nm] (n1=1450rpm)	Çevrim Oranı  Ratio  Übersetzung  i	Çıkış Devri  Output Speeds  Abtriebs- drehzahlen  n2 [r.p.m] (n1=1450rpm)	Tipi  Type  Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)						Güv. Rad.Yük Çıkış  Per.O.Loads (Output)	Güv.Rad.Yük Giriş  Per.O.Loads (Input)	Ağırlık Weight	Ölçü Sayfası  Dim. Page			
				Pe= Nominal Power [kW] (For Service Factor fs=1,0)												
				Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0)						Zul.Querkräfte (Abtrieb)  Fqam [N] (n1=1450rpm)	Zul.Querkräfte (Antrieb)  Fqem [N] (n1=1450rpm)	Gewicht [kg]				
				Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]												
6470	9,62	151	MT772	-	105	80	65	43	33	47757	-	296	355			
6770	11,00	132	NT772	-	96	73	57	38	29	49515	-	365				
6900	11,65	124		-	93	70	54	35	27	50302	-					
7140	12,98	112		-	86	63	48	32	24	51890	-					
7420	14,54	100		-	80	57	43	28	22	53475	-					
7710	16,39	88		-	74	50	38	25	19	51626	-					
7520	17,40	83	MT773	-	68	48	37	24	18	52000	-	259	355			
7810	19,52	74	NT773	-	63	43	33	21	16	50500	-	320				
8000	22,62	64		-	56	37	28	19	14	48500	-					
8000	25,99	56		-	49	32	25	16	12	48500	-					
8000	30,00	48		-	42	28	21	14	11	48500	-					
8000	31,11	47		-	41	27	21	14	10	48500	-					
8000	34,89	42		-	36	24	18	12	9,2	48500	-					
8000	39,33	37		-	32	21	16	11	8,1	48500	-					
8000	44,17	33		-	29	19	15	9,5	7,3	48500	4355					
8000	50,75	29		-	25	17	13	8,3	6,3	48500	4494					
8000	58,59	25		-	22	14	11	7,2	5,5	48500	4619					
8000	60,76	24		-	21	14	11	7,0	5,3	48500	4629					
8000	68,15	21		-	19	12	9,4	6,2	4,7	48500	4714					
8000	76,81	19		-	17	11	8,4	5,5	4,2	48500	4792					
8000	87,13	17		-	15	9,7	7,4	4,9	3,7	48500	4865					
8000	99,63	15		26	13	8,5	6,5	4,3	3,2	48500	1932					
8000	115,06	13		22	11	7,4	5,6	3,7	2,8	48500	1995					
8000	133,05	11		19	9,7	6,4	4,9	3,2	2,4	48500	5070					
8000	148,73	9,7		17	8,7	5,7	4,4	2,9	2,2	48500	5106					
8000	178,78	8,1		14	7,2	4,8	3,6	2,4	1,8	48500	5159					
8000	208,82	6,9		12	6,2	4,1	3,1	2,1	1,6	48500	5195					
8000	190,96	7,6	MT774	14	6,9	4,5	3,4	2,3	1,7	48500	-	269	356			
8000	214,17	6,8	NT774	12	6,1	4,0	3,1	2,0	1,5	48500	-	330				
8000	241,42	6,0		11	5,5	3,6	2,7	1,8	1,4	48500	546					
8000	273,85	5,3		9,6	4,8	3,2	2,4	1,6	1,2	48500	1188					
8000	313,11	4,6		8,4	4,2	2,8	2,1	1,4	1,1	48500	1634					
8000	361,62	4,0		7,3	3,7	2,4	1,8	1,2	0,91	48500	1764					
8000	418,17	3,5		6,3	3,2	2,1	1,6	1,0	0,78	48500	1877					
8000	467,43	3,1		5,7	2,8	1,9	1,4	0,93	0,70	48500	1953					
8000	532,29	2,7		5,0	2,5	1,6	1,2	0,82	0,62	48500	1976					
8000	594,92	2,4		4,5	2,2	1,5	1,1	0,73	0,55	48500	1997					
8000	641,40	2,3	MT775	4,2	2,1	1,4	1,1	0,69	0,52	48500	1721	328	357			
8000	725,80	2,0	NT775	3,7	1,9	1,2	0,94	0,61	0,46	48500	1736	400				
8000	822,02	1,8		3,3	1,7	1,1	0,82	0,54	0,41	48500	1935					
8000	984,18	1,5		2,8	1,4	0,90	0,69	0,45	0,34	48500	1952					
8000	1120,74	1,3		2,4	1,2	0,80	0,61	0,40	0,30	48500	1962					
8000	1252,60	1,2		2,2	1,1	0,71	0,54	0,36	0,27	48500	1971					
8000	1417,41	1,0		1,9	0,96	0,63	0,48	0,32	0,27	48500	1978					
8000	1589,68	0,91		1,7	0,86	0,56	0,43	0,28	0,24	48500	2006					
8000	1791,91	0,81		1,5	0,76	0,50	0,38	0,28	0,21	48500	2031					
8000	2032,66	0,71		1,4	0,67	0,44	0,34	0,24	0,19	48500	2055					
8000	2324,10	0,62		1,2	0,59	0,39	0,29	0,21	0,16	48500	2077					
8000	2684,10	0,54		1,0	0,51	0,33	0,26	0,19	0,14	48500	2098					
8000	3103,85	0,47		0,88	0,44	0,29	0,24	0,16	0,12	48500	2116					
8000	3814,39	0,38		0,72	0,36	0,26	0,20	0,13	0,10	48500	2121					
8000	4263,81	0,34		0,64	0,32	0,23	0,18	0,12	0,09	48500	2133					
8000	4812,09	0,30		0,57	0,29	0,21	0,16	0,10	0,08	48500	2135					
8000	2916,59	0,50	MT776	0,96	0,48	0,31	0,27	0,17	0,13	48500	2160	332	357			
8000	3222,83	0,45	NT776	0,87	0,43	0,28	0,24	0,16	0,12	48500	2164	405				
8000	3761,39	0,39		0,74	0,37	0,27	0,21	0,14	0,10	48500	2168					



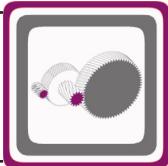
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**Gear Units Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebe**



Anma Momenti  Nominal Torques  Nenn- drehmomente  Ma [Nm] (n1=1450rpm)	Çevrim Oranı  Ratio  Übersetzung  i	Çıkış Devri  Output Speeds  Abtriebs- drehzahlen  n2 [r.p.m] (n1=1450rpm)	Tipi  Type  Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)  Pe= Nominal Power [kW] (For Service Factor fs=1,0)  Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0)						Güv. Rad.Yük Çıkış  Per.O.Loads (Output)	Güv.Rad.Yük Giriş  Per.O.Loads (Input)	Ağırlık Weight	Ölçü Sayfası  Dim. Page
				Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]						Zul. Querkräfte (Abtrieb)	Zul. Querkräfte (Antrieb)	Gewicht	Maße Seite
				n1=2900	n1=1450	n1=950	n1=725	n1=475	n1=360	Fqam [N] (n1=1450rpm)	Fqem [N] (n1=1450rpm)	[kg]	
8000	4424,24	0,33	MT776	0,63	<b>0,32</b>	0,23	0,18	0,12	0,09	48500	2172	332	357
8000	5260,00	0,28	NT776	0,53	<b>0,27</b>	0,19	0,15	0,10	0,07	48500	2175	405	
8000	5949,83	0,24		0,52	<b>0,26</b>	0,19	0,15	0,10	0,07	48500	2177		
8000	6784,90	0,21		0,46	<b>0,23</b>	0,17	0,13	0,08	0,06	48500	2179		
8000	8428,93	0,17		0,37	<b>0,19</b>	0,14	0,10	0,07	0,05	48500	2182		
8000	9585,84	0,15		0,33	<b>0,16</b>	0,12	0,09	0,06	0,05	48500	2184		
8000	10750,89	0,13		0,29	<b>0,15</b>	0,11	0,08	0,05	0,04	48500	2189		
8000	12118,56	0,12		0,26	<b>0,13</b>	0,09	0,07	0,05	0,04	48500	2194		
8000	13746,73	0,11		0,25	<b>0,11</b>	0,08	0,06	0,04	0,03	48500	2198		
8000	15717,68	0,09		0,22	<b>0,10</b>	0,07	0,06	0,04	0,03	48500	2203		
8000	18152,38	0,08		0,19	<b>0,09</b>	0,06	0,05	0,03	0,02	48500	2207		
8000	20991,08	0,07		0,17	<b>0,07</b>	0,05	0,04	0,03	0,02	48500	2210		
8000	23464,25	0,06		0,15	<b>0,07</b>	0,05	0,04	0,02	0,02	48500	2212		
8700	4,32	336	MT872	-	<b>319</b>	238	192	146	118	57369	-	550	358
9000	4,95	293	NT872	-	<b>287</b>	215	173	133	103	59951	-	560	
9550	5,22	278		-	<b>289</b>	216	175	129	98	42712	-		
9900	5,99	242		-	<b>261</b>	196	158	112	85	44736	-		
10200	6,64	218		-	<b>243</b>	182	146	101	77	46180	-		
10600	7,55	192		-	<b>222</b>	166	133	89	68	48005	-		
11200	8,87	163		-	<b>200</b>	149	116	76	58	75086	-		
11500	10,09	144		-	<b>180</b>	134	102	67	51	78329	-		
12700	11,59	125	MT873	-	<b>177</b>	119	91	59	45	74662	-	555	358
13000	13,30	109	NT873	-	<b>158</b>	103	79	52	39	72000	-	565	
13000	14,02	103		-	<b>150</b>	98	75	49	37	56769	-		
13000	16,09	90		-	<b>131</b>	86	65	43	32	61500	-		
13000	17,83	81		-	<b>118</b>	77	59	39	29	65164	-		
13000	20,28	72		-	<b>104</b>	68	52	34	26	69914	-		
13000	23,87	61		-	<b>88</b>	58	44	29	22	72000	-		
13000	27,39	53		-	<b>77</b>	50	38	25	19	72000	-		
13000	30,36	48		-	<b>69</b>	45	35	23	17	72000	-		
13000	34,53	42		-	<b>61</b>	40	30	20	15	72000	-		
13000	40,55	36		-	<b>52</b>	34	26	17	13	72000	570		
13000	46,12	31		-	<b>46</b>	30	23	15	11	72000	1722		
13000	52,86	27		-	<b>40</b>	26	20	13	9,9	72000	2253		
13000	56,54	26		74	<b>37</b>	24	19	12	9,2	72000	-		
13000	64,77	22		65	<b>32</b>	21	16	11	8,1	72000	-		
13000	75,51	19		56	<b>28</b>	18	14	9,1	6,9	72000	3485		
13000	86,51	17		49	<b>24</b>	16	12	8,0	6,0	72000	3895		
13000	99,81	15		42	<b>21</b>	14	11	6,9	5,2	72000	4492		
13000	110,17	13		38	<b>19</b>	12	9,5	6,2	4,7	72000	4631		
13000	107,60	13	MT874	39	<b>20</b>	13	9,9	6,5	4,9	72000	569	590	359
13000	125,70	12	NT874	34	<b>17</b>	11	8,5	5,5	4,2	72000	1172	600	
13000	147,61	9,8		29	<b>14</b>	9,5	7,2	4,7	3,6	72000	1704		
13000	174,68	8,3		24	<b>12</b>	8,0	6,1	4,0	3,0	72000	2176		
13000	188,08	7,7		23	<b>11</b>	7,4	5,7	3,7	2,8	72000	2568		
13000	211,60	6,9		20	<b>10</b>	6,6	5,0	3,3	2,5	72000	2638		
13000	239,61	6,1		18	<b>8,9</b>	5,8	4,5	2,9	2,2	72000	2697		
13000	292,15	5,0		15	<b>7,3</b>	4,8	3,7	2,4	1,8	72000	2774		
13000	345,67	4,2		12	<b>6,2</b>	4,1	3,1	2,0	1,5	72000	2831		
13000	390,74	3,7		11	<b>5,5</b>	3,6	2,8	1,8	1,4	72000	2867		
13000	446,42	3,2		9,6	<b>4,8</b>	3,2	2,4	1,6	1,2	72000	2901		
13000	495,97	2,9	MT875	8,9	<b>4,4</b>	2,9	2,2	1,5	1,1	72000	1470	618	360
13000	537,75	2,7	NT875	8,2	<b>4,1</b>	2,7	2,0	1,3	1,0	72000	1494	628	
13000	643,84	2,3		6,8	<b>3,4</b>	2,2	1,7	1,1	0,85	72000	1535		
13000	718,74	2,0		6,1	<b>3,1</b>	2,0	1,5	1,0	0,76	72000	1607		
13000	807,91	1,8		5,5	<b>2,7</b>	1,8	1,4	0,89	0,68	72000	1676		
13000	915,85	1,6		4,8	<b>2,4</b>	1,6	1,2	0,79	0,60	72000	1742		



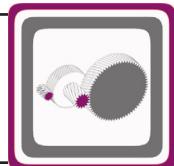
**Motorsuz Güç Devir Sayfaları**  
**Gear Units Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebe**



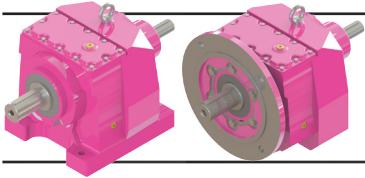
Anma Momenti  Nominal Torques  Nenn- drehmomente  Ma [Nm] (n1=1450rpm)	Çevrim Oranı  Ratio  Übersetzung  i	Çıkış Devri  Output Speeds  Abtriebs- drehzahlen  n2 [r.p.m] (n1=1450rpm)	Tipi  Type  Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)						Güv. Rad.Yük Çıkış  Per.O.Loads (Output)	Güv.Rad.Yük Giriş  Per.O.Loads (Input)	Ağırlık Weight	Ölçü Sayfası  Dim. Page					
				Pe= Nominal Power [kW] (For Service Factor fs=1,0)														
				Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0)														
				Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]														
				n1=2900	n1=1450	n1=950	n1=725	n1=475	n1=360									
13000	1049,18	1,4	MT875	4,2	2,1	1,4	1,1	0,69	0,52	72000	1804	618	360					
13000	1210,51	1,2	NT875	3,6	1,8	1,2	0,91	0,60	0,45	72000	1861	628						
13000	1336,15	1,1		3,3	1,7	1,1	0,83	0,54	0,41	72000	1896							
13000	1521,55	0,95		2,9	1,5	0,95	0,73	0,48	0,36	72000	1908							
13000	1700,56	0,85		2,6	1,3	0,85	0,65	0,43	0,32	72000	1919							
13000	1924,32	0,75		2,3	1,2	0,75	0,58	0,38	0,29	72000	1928							
13000	2108,33	0,69	MT876	2,1	1,1	0,70	0,54	0,35	0,27	72000	2061	620	360					
13000	2460,65	0,59	NT876	1,8	0,92	0,60	0,46	0,30	0,25	72000	2072	630						
13000	2894,28	0,50		1,6	0,78	0,51	0,39	0,26	0,22	72000	2082							
13000	3441,02	0,42		1,3	0,66	0,43	0,33	0,24	0,18	72000	2090							
13000	3892,30	0,37		1,2	0,58	0,38	0,29	0,21	0,16	72000	2096							
13000	4438,59	0,33		1,0	0,51	0,34	0,26	0,19	0,14	72000	2101							
13000	4954,95	0,29		0,92	0,46	0,30	0,26	0,17	0,13	72000	2114							
13000	5569,66	0,26		0,82	0,41	0,27	0,23	0,15	0,11	72000	2127							
13000	6313,78	0,23		0,72	0,36	0,26	0,20	0,13	0,10	72000	2140							
13000	7233,00	0,20		0,63	0,32	0,23	0,18	0,12	0,09	72000	2152							
13000	8345,18	0,17		0,55	0,27	0,20	0,15	0,10	0,08	72000	2162							
13000	11443,34	0,13		0,44	0,22	0,16	0,12	0,08	0,06	72000	2172							
13000	13014,00	0,11		0,39	0,20	0,14	0,11	0,07	0,05	72000	2174							
13000	14977,32	0,10		0,34	0,17	0,12	0,09	0,06	0,05	72000	2176							
13000	17501,59	0,08		0,29	0,15	0,11	0,08	0,05	0,04	72000	2177							
9950	7,11	204	MT972	-	217	163	131	101	83	94943	23900	960	361					
10700	7,92	183	NT972	-	210	157	127	97	80	97294	20793	1010						
11450	8,86	164		-	201	151	122	94	77	99973	15969							
12350	9,99	145		-	192	144	116	89	70	102771	9691							
18000	11,56	125		-	243	159	122	80	61	94500	11034							
18000	12,86	113		-	218	143	110	72	55	94500	15627							
18000	14,40	101		-	195	128	98	64	49	94500	19933							
18000	16,23	89		-	173	114	87	57	43	94500	23900							
18000	18,15	80	MT973	-	156	102	78	52	39	94500	23900	1000	361					
18000	20,36	71	NT973	-	139	91	70	46	35	94500	23900	1050						
18000	22,95	63		-	123	81	62	41	31	94500	23900							
18000	26,03	56		-	109	72	55	36	27	94500	23900							
18000	29,49	49		-	96	63	48	32	24	94500	23900							
18000	33,08	44		-	86	57	43	28	22	94500	23900							
18000	37,29	39		-	76	50	38	25	19	94500	23900							
18000	42,30	34		-	67	44	34	22	17	94500	23900							
18000	48,86	30		-	58	38	29	19	15	94500	23900							
18000	54,80	26		-	52	34	26	17	13	94500	23900							
18000	61,77	23		-	46	30	23	15	12	94500	23900							
18000	70,07	21		-	41	27	21	14	10	94500	23900							
18000	82,20	18		-	35	23	18	12	8,8	94500	23900							
18000	91,56	16		-	31	21	16	10	7,9	94500	23900							
18000	102,69	14		-	28	18	14	9,3	7,1	94500	23900							
18000	116,17	12		-	25	16	13	8,2	6,2	94500	23900							
18000	132,83	11		-	43	22	14	11	7,2	5,5	94500	23900						
18000	150,02	9,7		-	38	19	13	9,7	6,4	4,8	94500	23900						
18000	166,73	8,7		-	35	17	11	8,7	5,8	4,4	94500	23900						
18000	186,95	7,8		-	31	16	10	7,8	5,1	3,9	94500	23900						
18000	172,08	8,4	MT974	34	17	11	8,5	5,6	4,2	94500	-	1050	362					
18000	193,13	7,5	NT974	30	15	10	7,6	5,0	3,8	94500	333	1100						
18000	216,03	6,7		-	27	14	8,9	6,8	4,5	3,4	94500	496						
18000	272,24	5,3		-	22	11	7,1	5,4	3,6	2,7	94500	1009						
18000	305,33	4,7		-	19	9,7	6,3	4,8	3,2	2,4	94500	2129						
18000	344,17	4,2		-	17	8,6	5,6	4,3	2,8	2,1	94500	3134						
18000	390,41	3,7		-	15	7,6	5,0	3,8	2,5	1,9	94500	3339						
18000	457,99	3,2		-	13	6,5	4,2	3,2	2,1	1,6	94500	3565						



**Motorsuz Güç Devir Sayfaları**  
**Gear Units Performance Tables**  
**Leistung und Drehzahlübersicht von Getriebe**



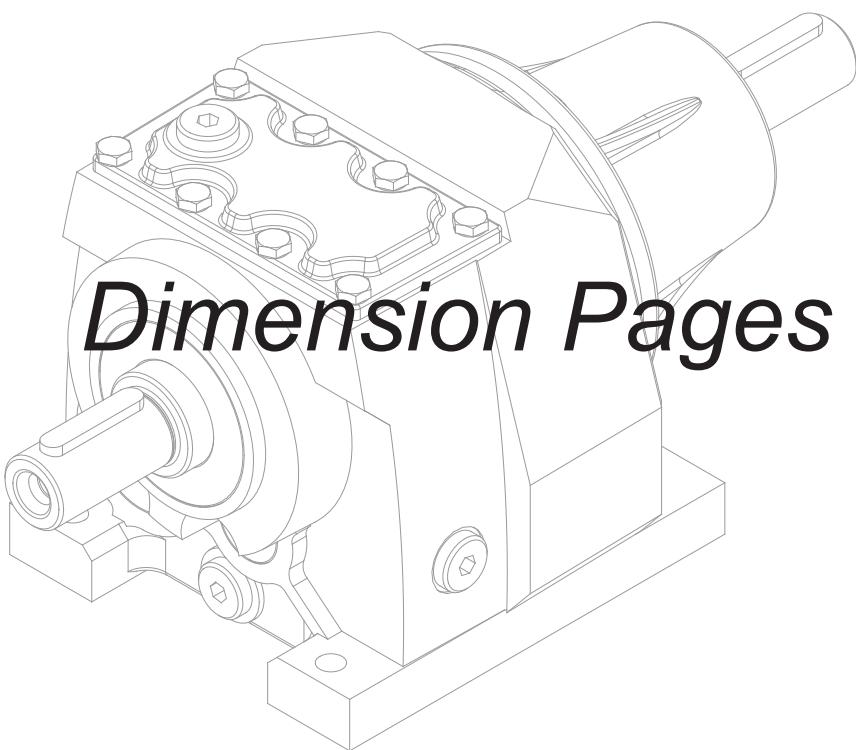
Anma Momenti  Nominal Torques  Nenn- drehmomente  Ma [Nm] (n1=1450rpm)	Çevrim Oranı  Ratio  Übersetzung  i	Çıkış Devri  Output Speeds  Abtriebs- drehzahlen  n2 [r.p.m] (n1=1450rpm)	Tipi  Type  Typ	Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)  Pe= Nominal Power [kW] (For Service Factor fs=1,0)  Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0)  Giriş devri[d/d] / Input speed[rpm] / Antriebsdrehzahl[upm]						Güv. Rad.Yük Çıkış  Per.O.Loads (Output)  Zul. Querkräfte (Abtrieb)	Güv.Rad.Yük Giriş  Per.O.Loads (Input)  Zul. Querkräfte (Antrieb)	Ağırlık  Weight  Gewicht	Ölçü Sayfası  Dim. Page  Maße Seite
				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 NT974</b>	11	<b>5,6</b>	3,6	3,0	1,8	1,4	94500	3755	1050 1100	362
18000	462,18	3,1	<b>MT975</b>	13	<b>6,5</b>	4,3	3,3	2,1	1,6	94500	1743	1100	363
18000	546,94	2,7	<b>NT975</b>	11	<b>5,5</b>	3,6	2,8	1,8	1,4	94500	1801	1150	
18000	588,87	2,5		10	<b>5,1</b>	3,4	2,6	1,7	1,3	94500	1844		
18000	662,54	2,2		9,1	<b>4,6</b>	3,0	2,3	1,5	1,1	94500	1876		
18000	750,24	1,9		8,1	<b>4,0</b>	2,7	2,0	1,3	1,0	94500	1905		
18000	842,80	1,7		7,2	<b>3,6</b>	2,4	1,8	1,2	0,90	94500	1922		
18000	914,74	1,6		6,6	<b>3,3</b>	2,2	1,7	1,1	0,82	94500	1943		
18000	1082,31	1,3		5,6	<b>2,8</b>	1,8	1,4	0,92	0,70	94500	1971		
18000	1213,85	1,2		5,0	<b>2,5</b>	1,7	1,3	0,82	0,62	94500	2040		
18000	1368,27	1,1		4,5	<b>2,2</b>	1,5	1,1	0,73	0,55	94500	2103		
18000	1552,10	0,93		3,9	<b>2,0</b>	1,3	0,98	0,64	0,49	94500	2162		
18000	1820,78	0,80		3,4	<b>1,7</b>	1,1	0,84	0,55	0,42	94500	2226		
18000	2027,97	0,71		3,0	<b>1,5</b>	0,99	0,75	0,49	0,37	94500	2265		
18000	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
18000	3594,81	0,40	<b>NT976</b>	1,7	<b>0,87</b>	0,57	0,43	0,28	0,24	94500	2411	1155	
18000	4227,50	0,34		1,5	<b>0,74</b>	0,48	0,37	0,27	0,20	94500	2463		
18000	4474,67	0,32		1,4	<b>0,70</b>	0,46	0,35	0,25	0,19	94500	2466		
18000	5357,43	0,27		1,2	<b>0,59</b>	0,38	0,29	0,21	0,16	94500	2473		
18000	6842,29	0,21		0,92	<b>0,46</b>	0,30	0,26	0,17	0,13	94500	2491		
18000	8620,11	0,17		0,73	<b>0,36</b>	0,27	0,20	0,13	0,10	94500	2506		
18000	11064,86	0,13		0,57	<b>0,28</b>	0,21	0,16	0,10	0,08	94500	2520		
18000	15951,72	0,09		0,44	<b>0,22</b>	0,16	0,12	0,08	0,06	94500	2535		
18000	20051,59	0,07		0,35	<b>0,18</b>	0,13	0,10	0,06	0,05	94500	2542		



Ölçü Sayfaları  
Dimension Pages  
Abmessungsseiten

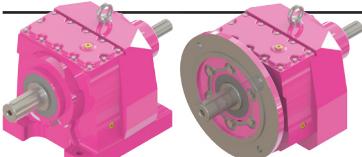


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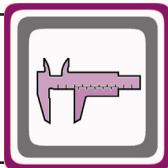


*Dimension Pages*

## Abmessungsseiten

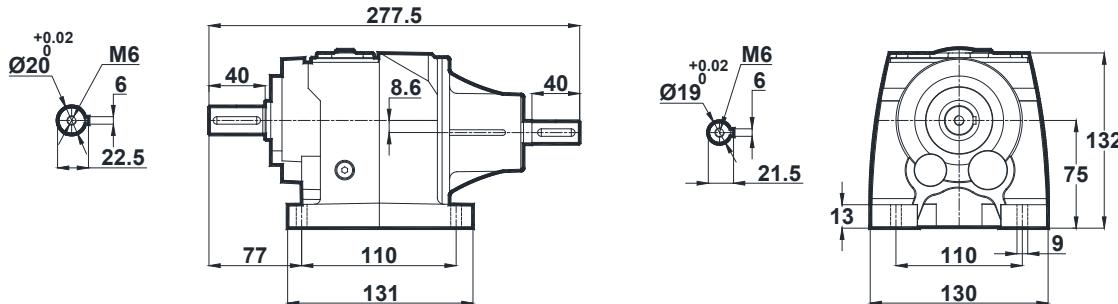


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

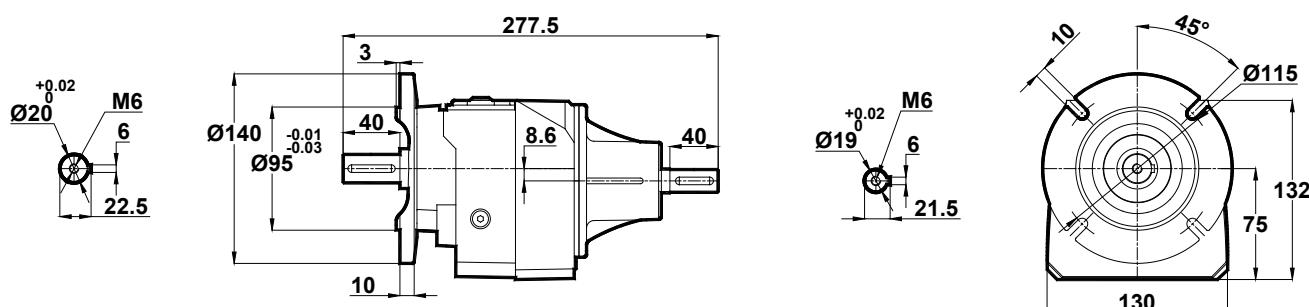


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

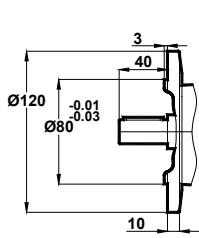
**MT002**  
**MT003**



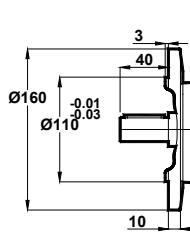
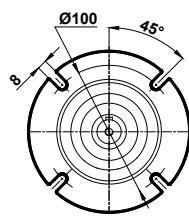
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**NT003**



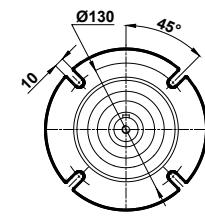
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**

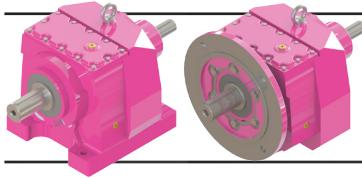


Opt. 1



Opt. 2



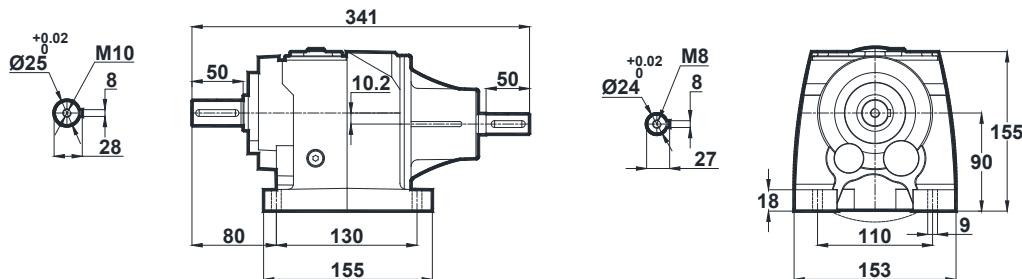


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

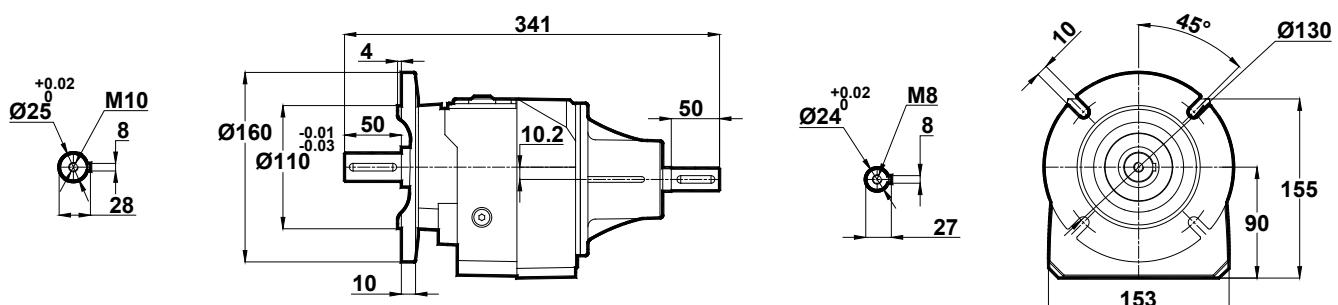


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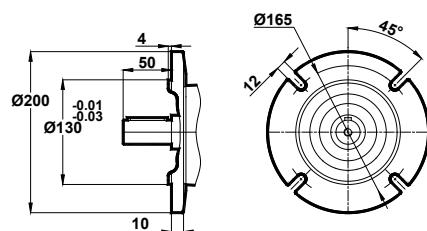
**MT102**  
**MT103**



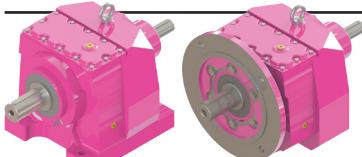
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**NT103**



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



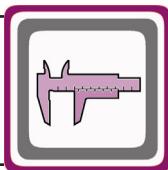
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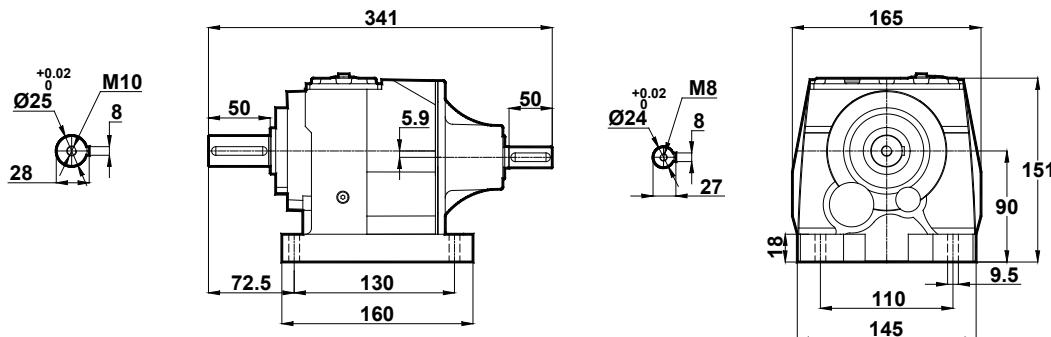
## *Dimension Pages*

### Abmessungsseiten

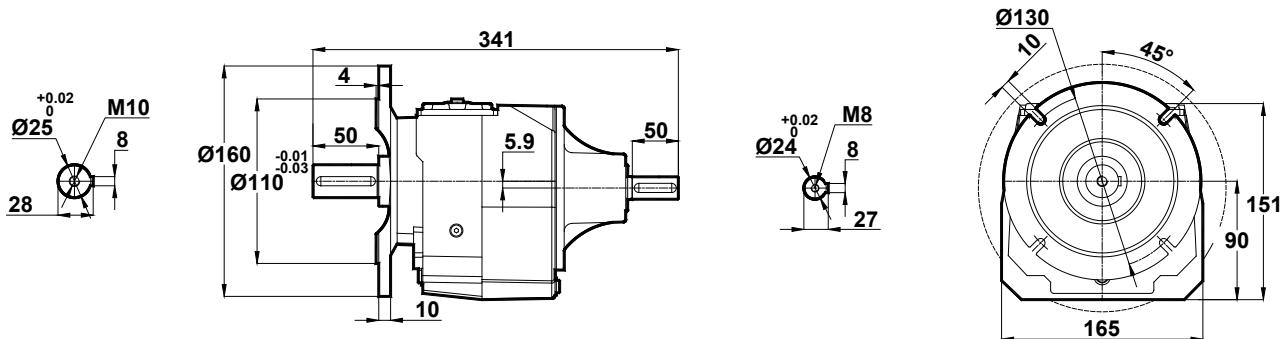


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

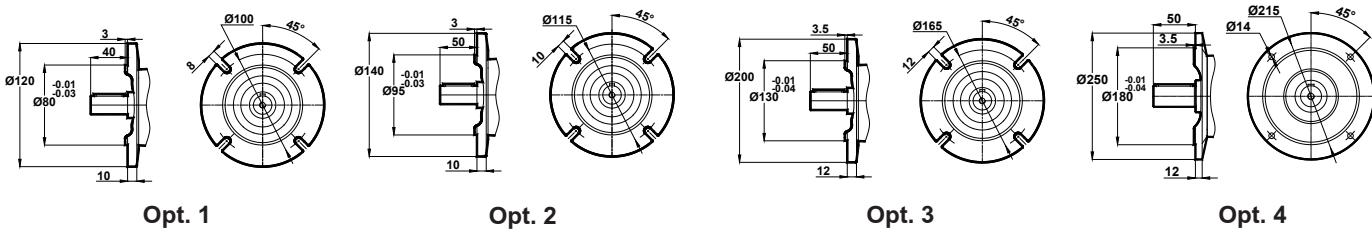
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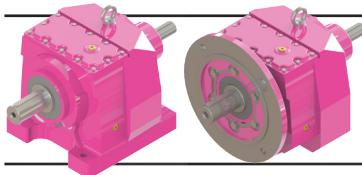


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NT173

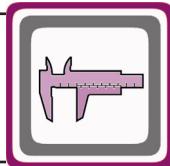


**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



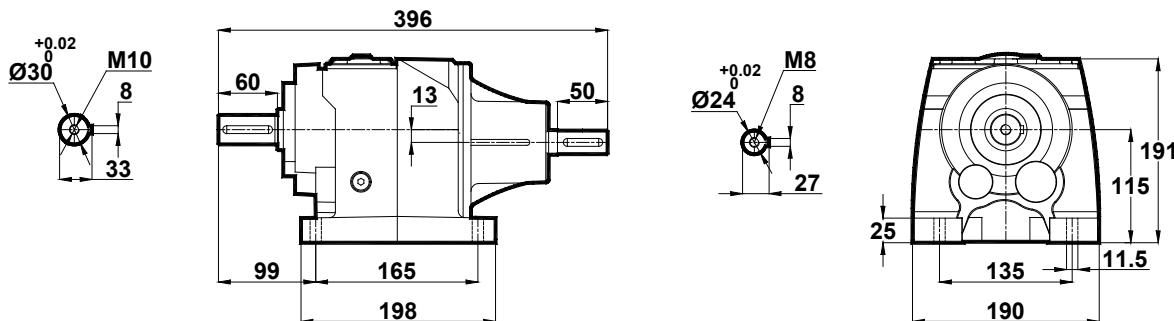


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

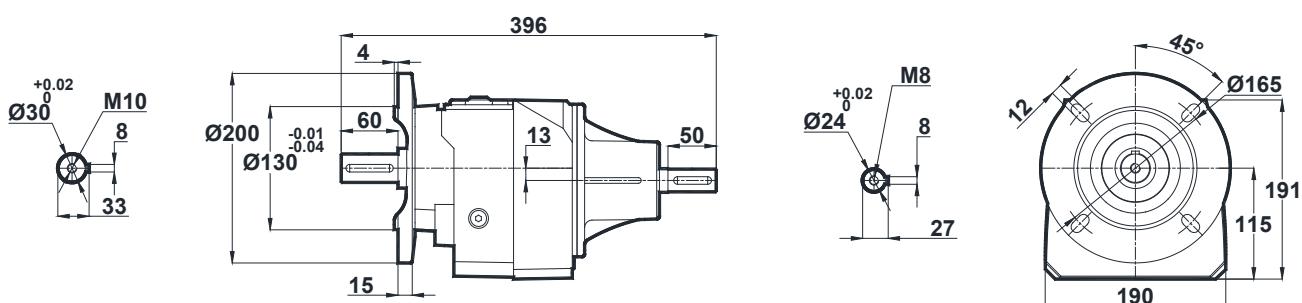


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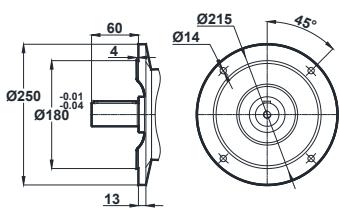
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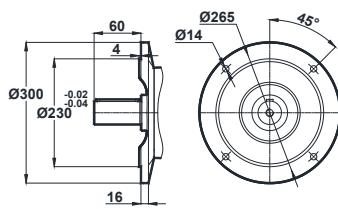
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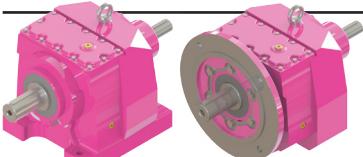
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



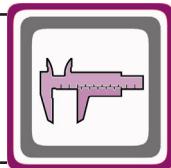
Opt. 1



Opt. 2

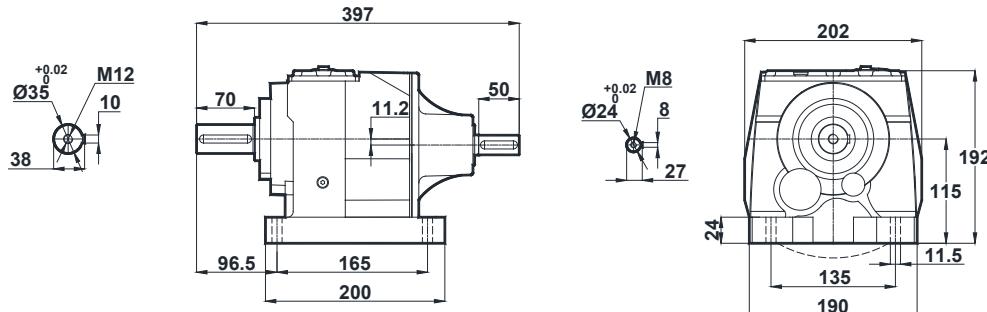


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

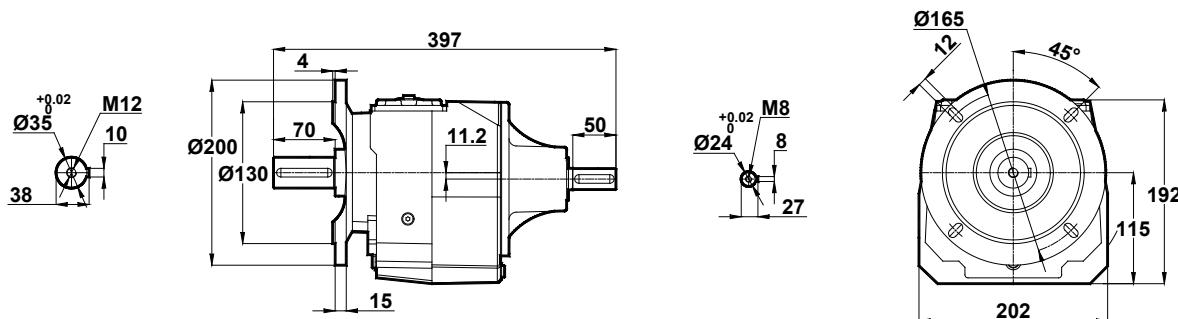


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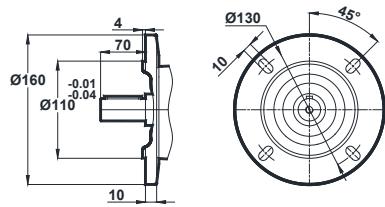
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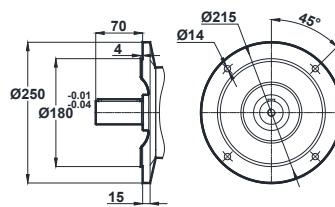
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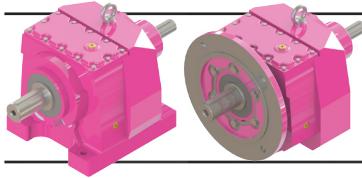
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



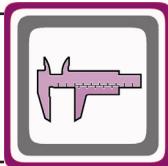
Opt. 1



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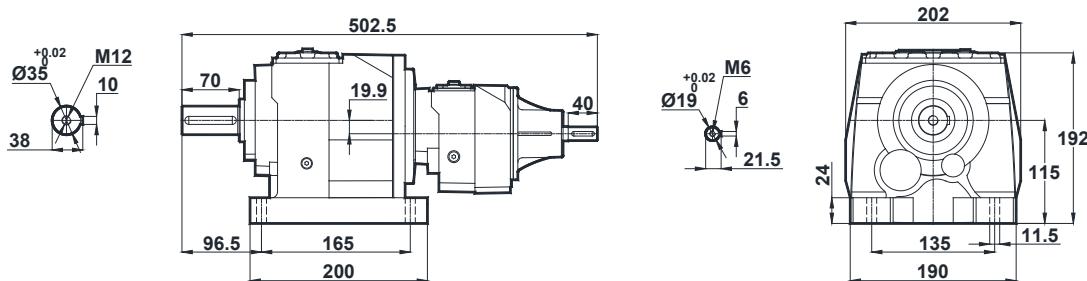


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

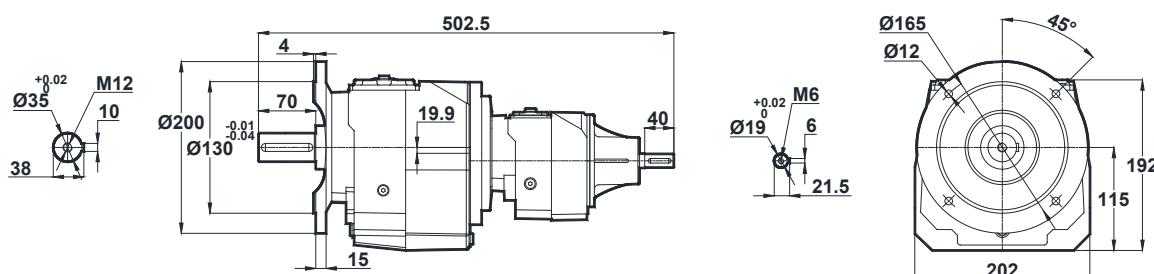


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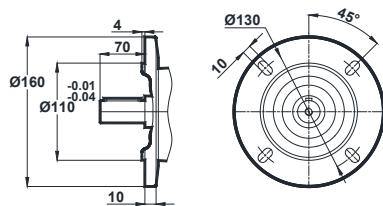
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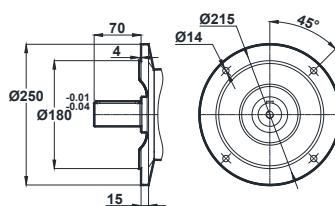
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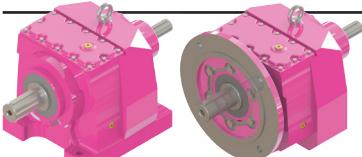
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



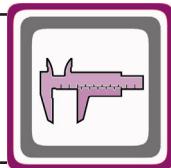
**Opt. 1**



**Opt. 2**

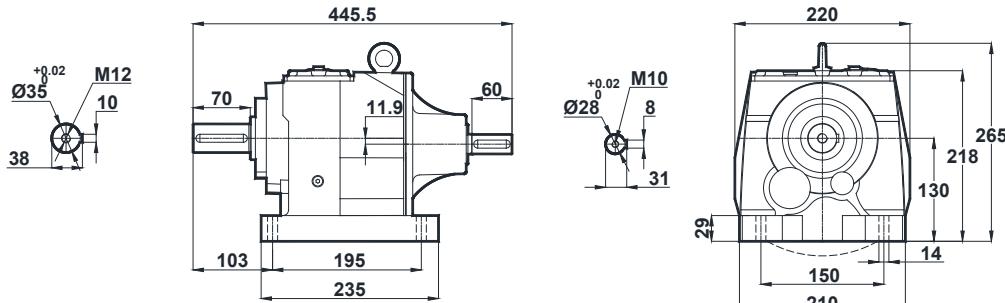


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

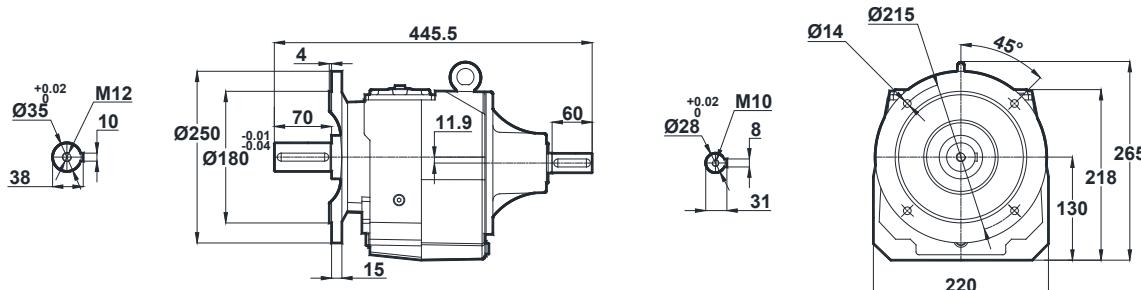


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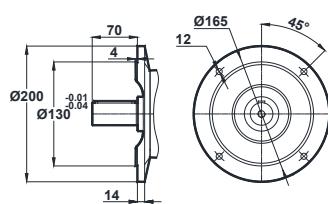
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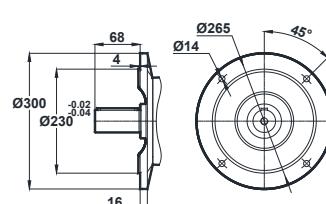
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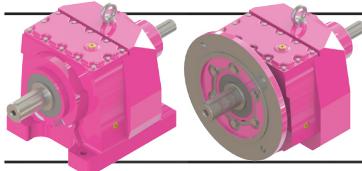
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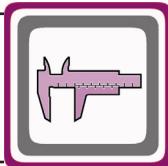
Opt. 1



Opt. 2

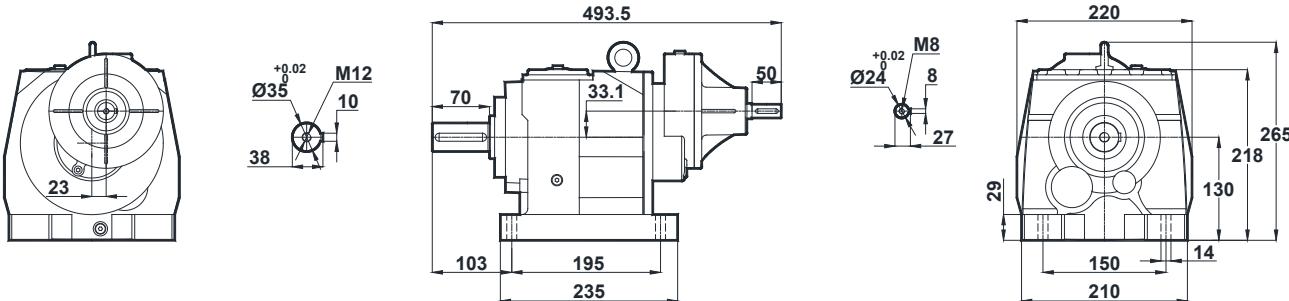


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

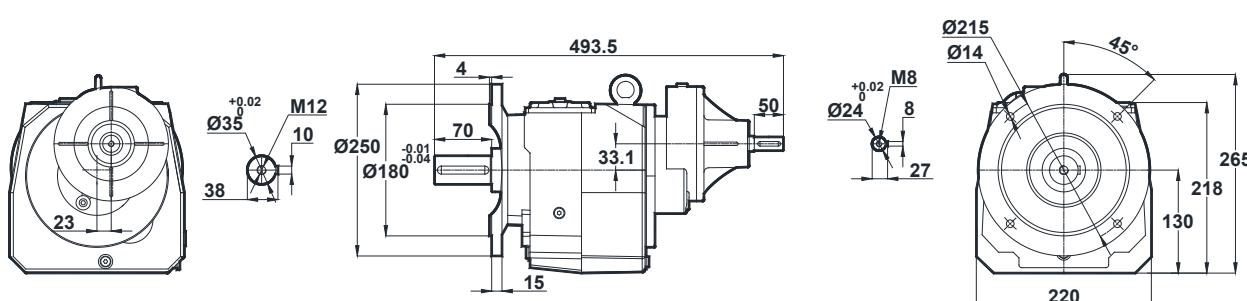


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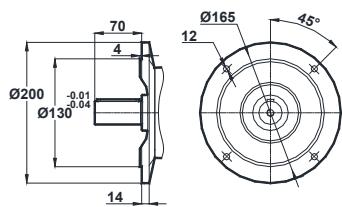
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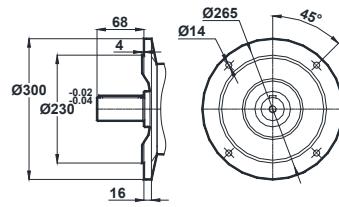
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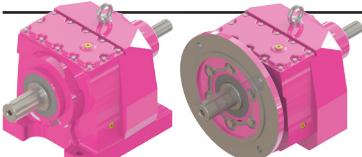
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



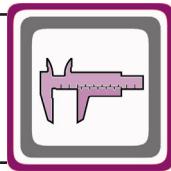
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Opt. 2

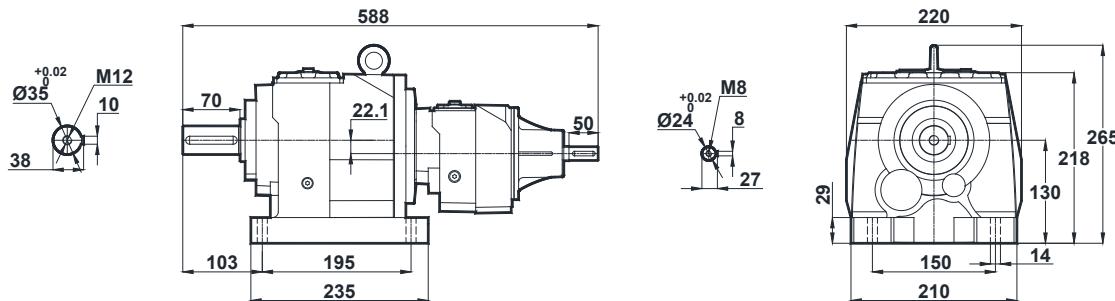


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

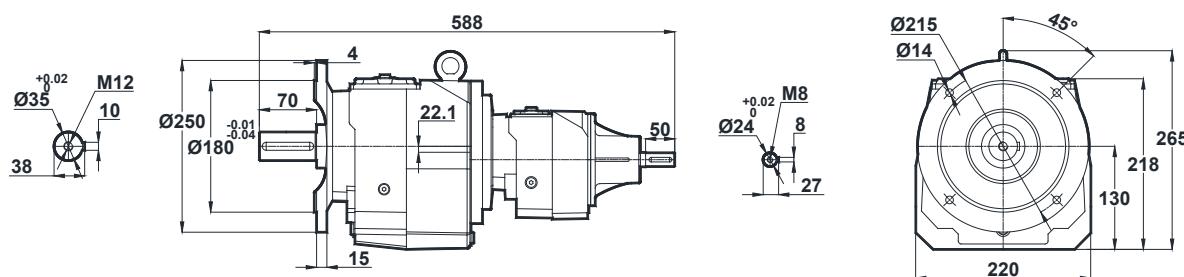


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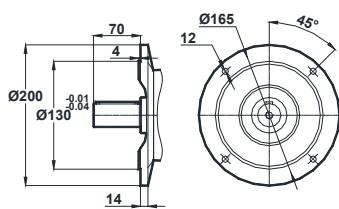
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**MT286**



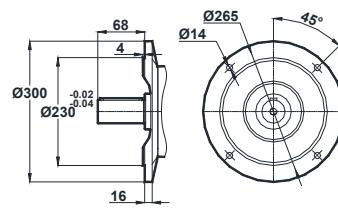
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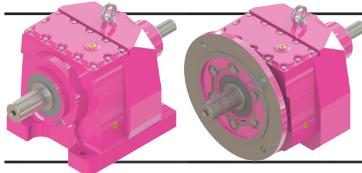
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



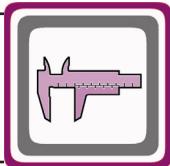
Opt. 1



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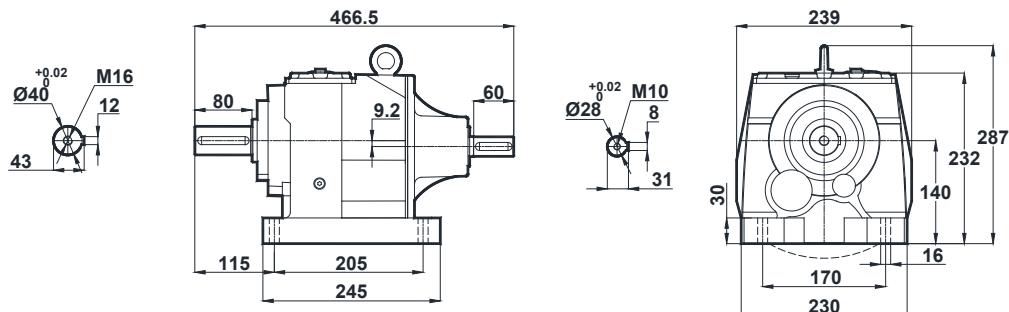


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

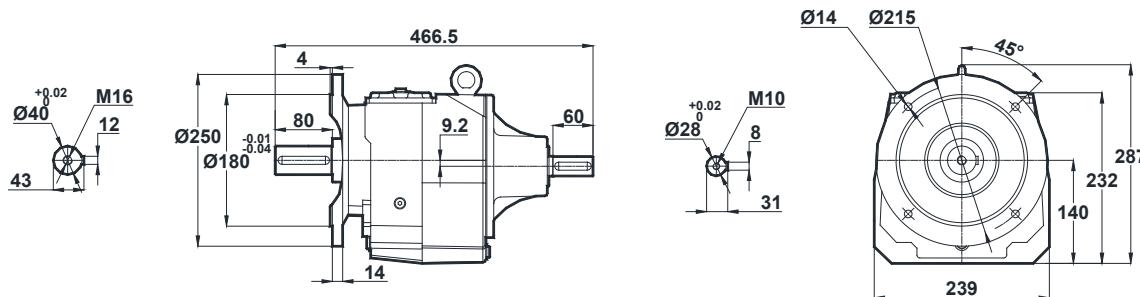


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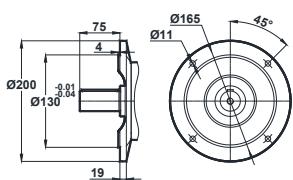
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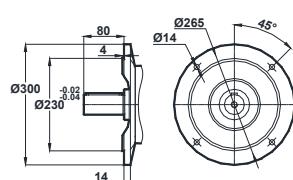
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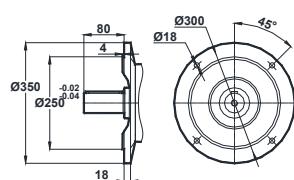
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



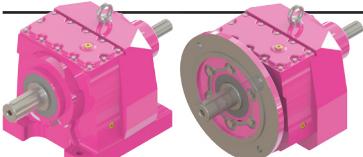
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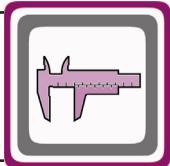
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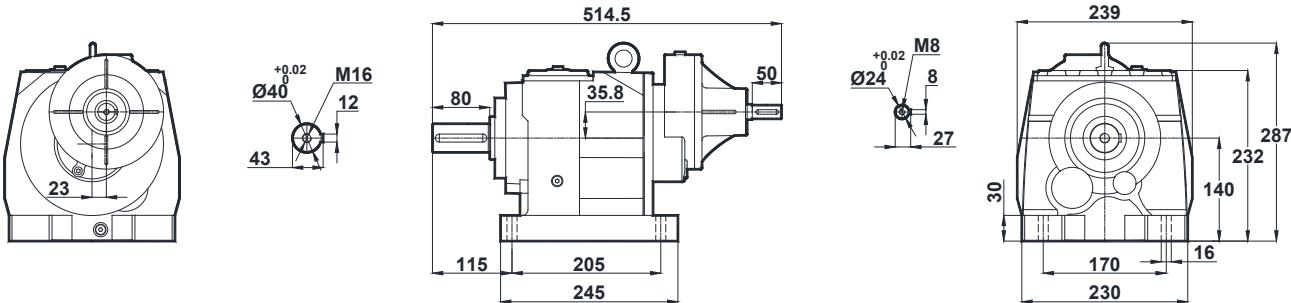


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

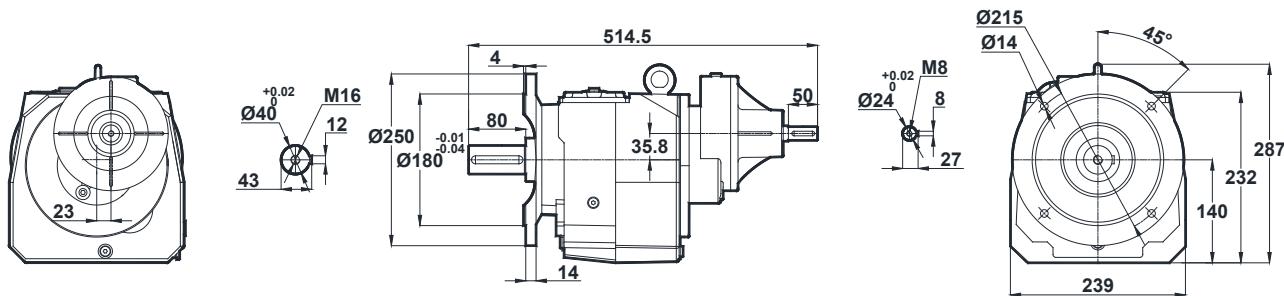


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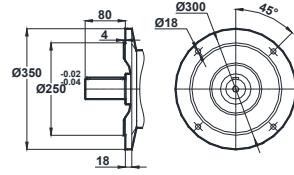
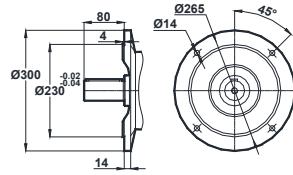
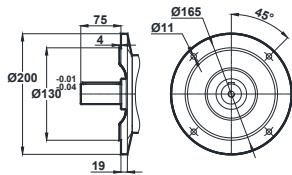
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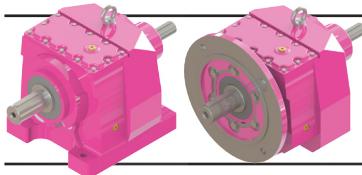


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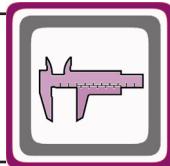


### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



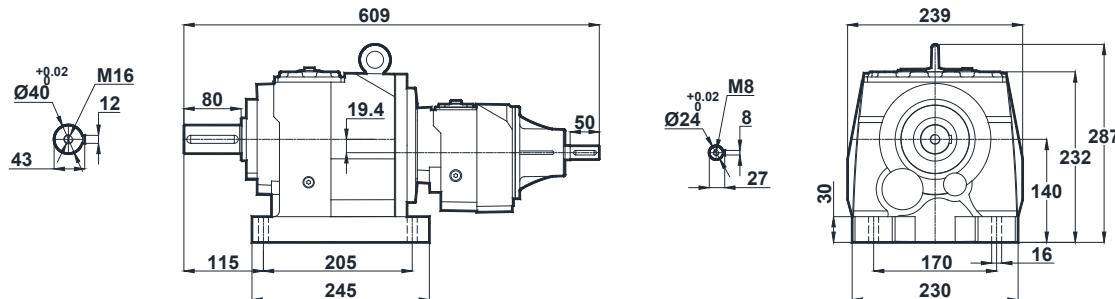


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

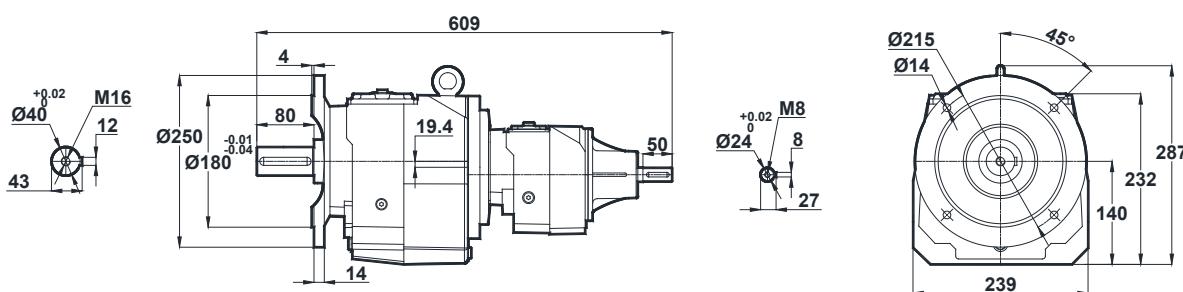


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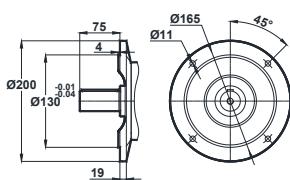
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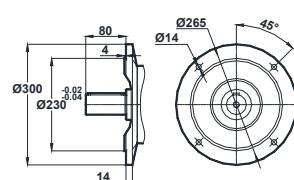
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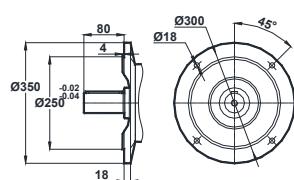
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



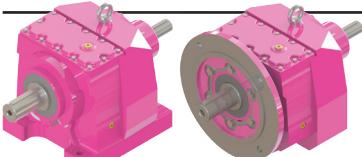
Opt. 1



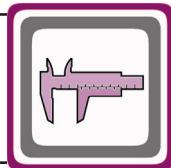
Opt. 2



Opt. 3

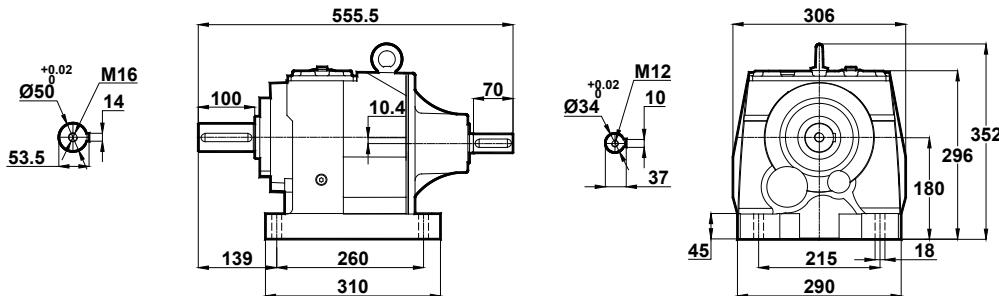


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

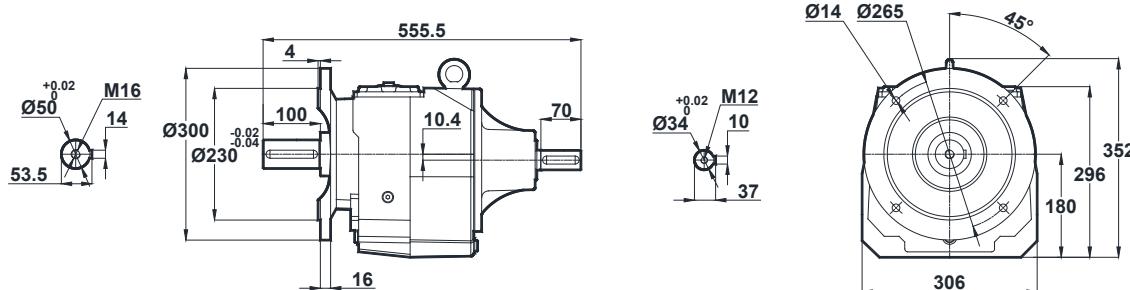


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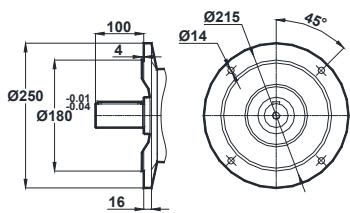
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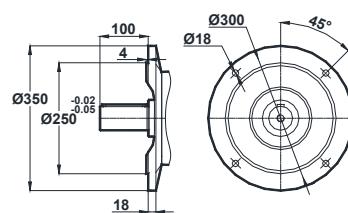
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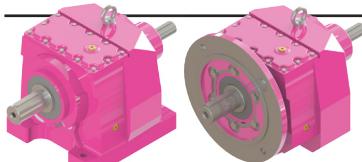
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



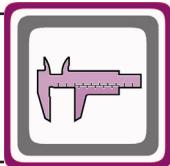
Opt. 1



Opt. 2

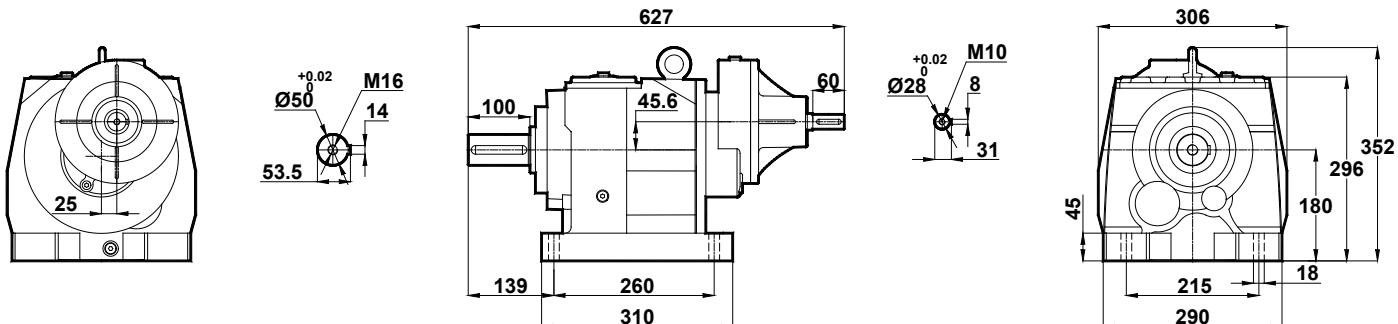


Ölçü Sayfaları  
Dimension Pages  
Abmessungsseiten

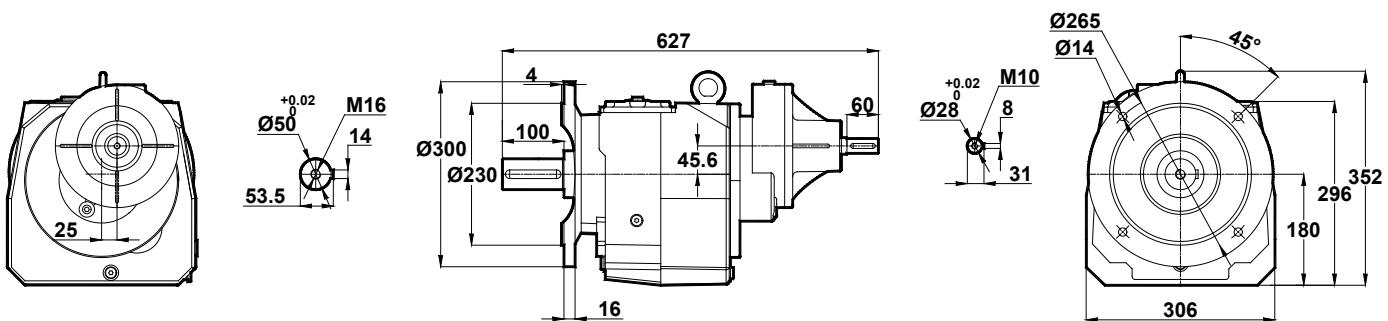


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

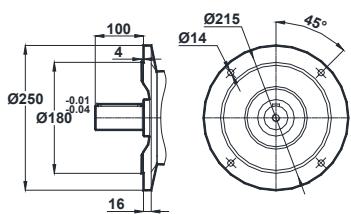
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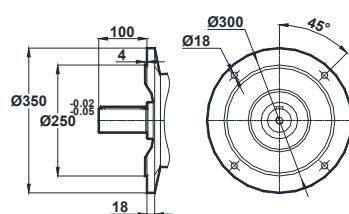
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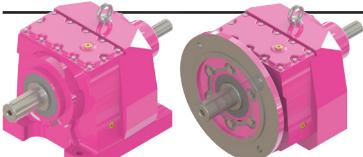
### Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



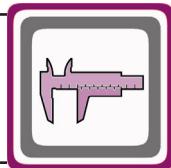
Opt. 1



Opt. 2

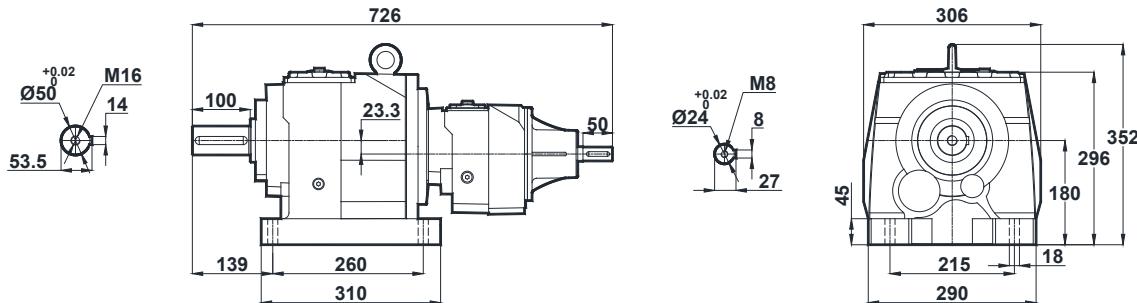


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

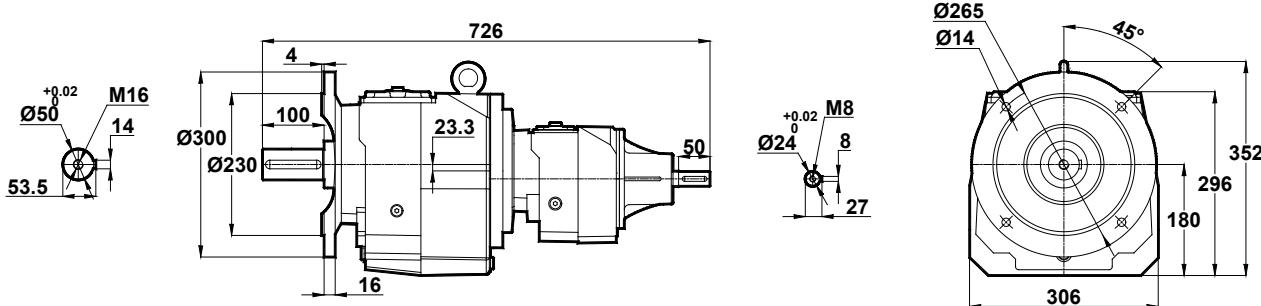


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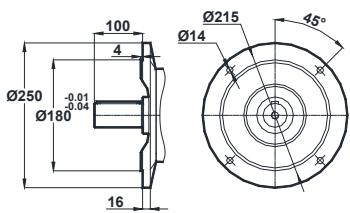
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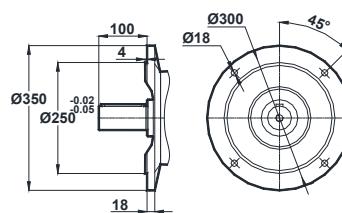
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**NT476**



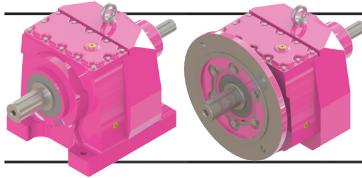
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



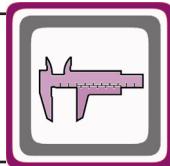
Opt. 1



Opt. 2

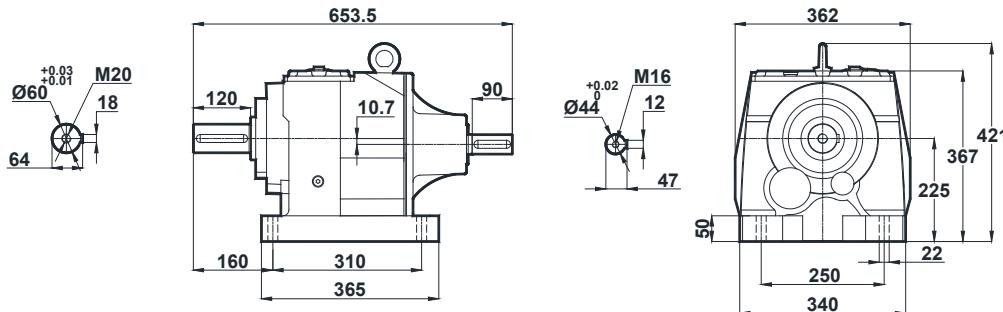


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

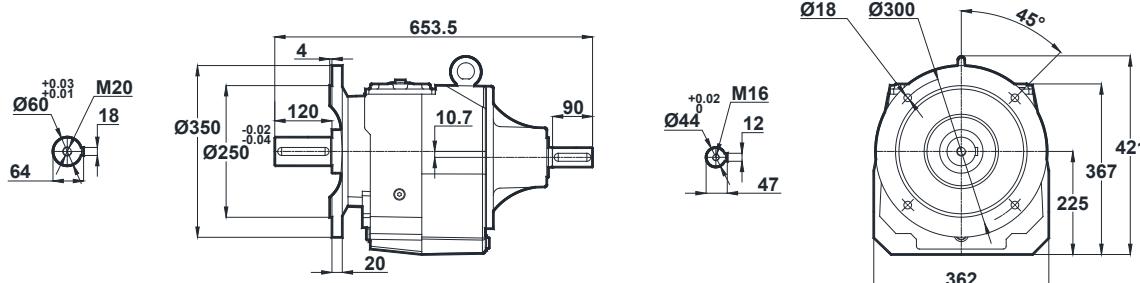


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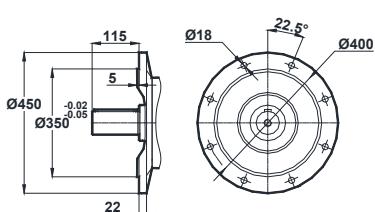
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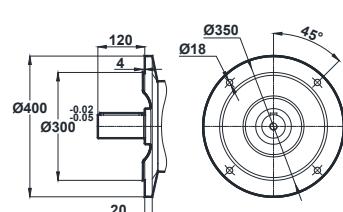
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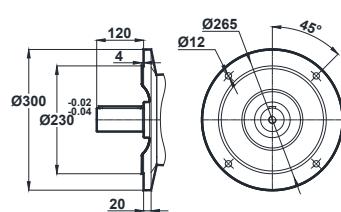
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



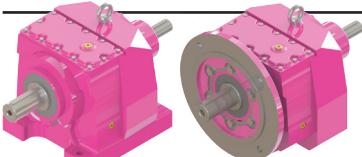
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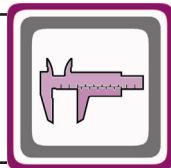
Opt. 2



Opt. 3

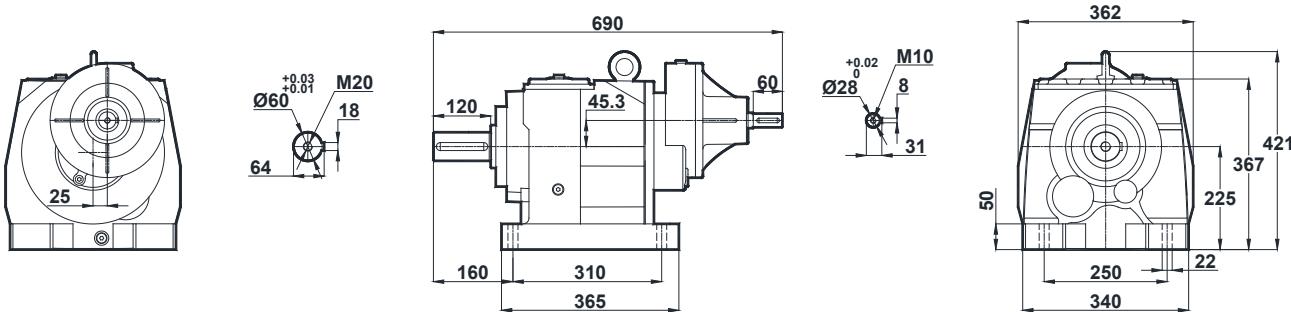


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

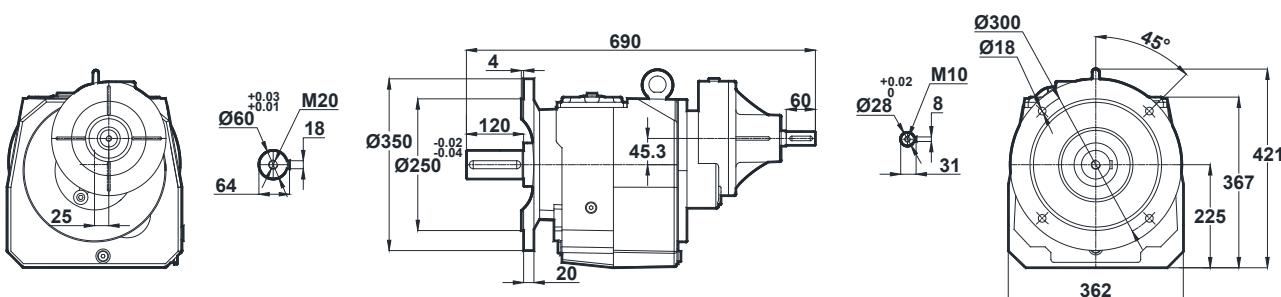


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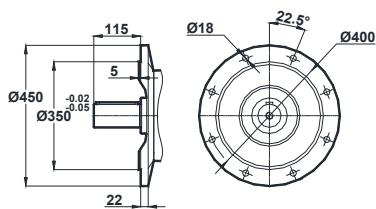
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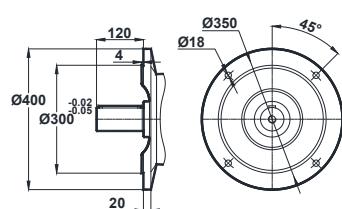
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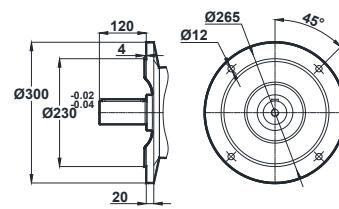
### Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



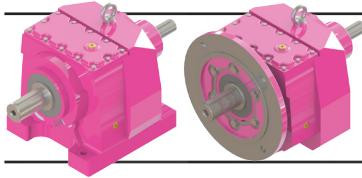
Opt. 1



Opt. 2



Opt. 3

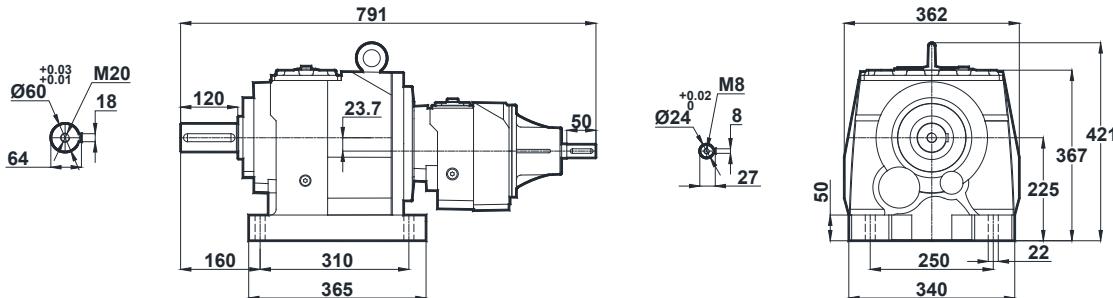


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

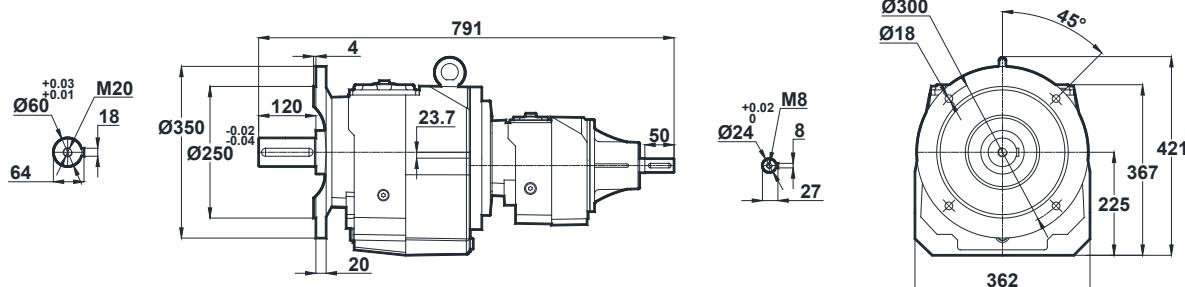


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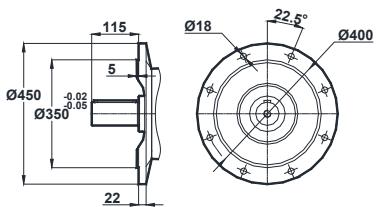
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**MT576**



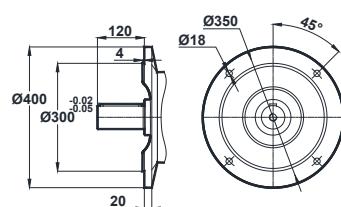
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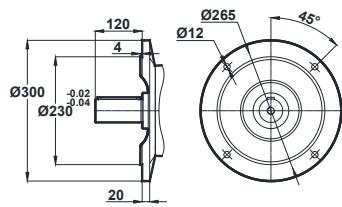
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



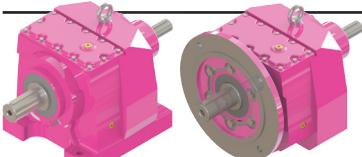
Opt. 1



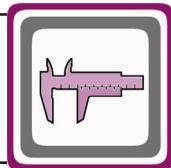
Opt. 2



Opt. 3

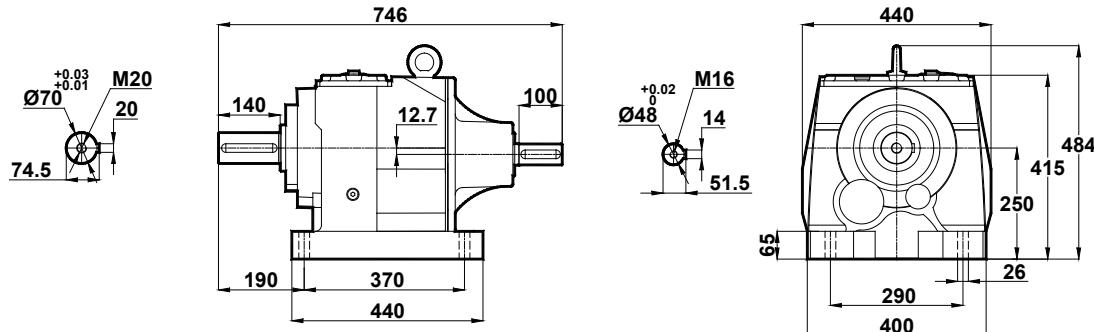


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

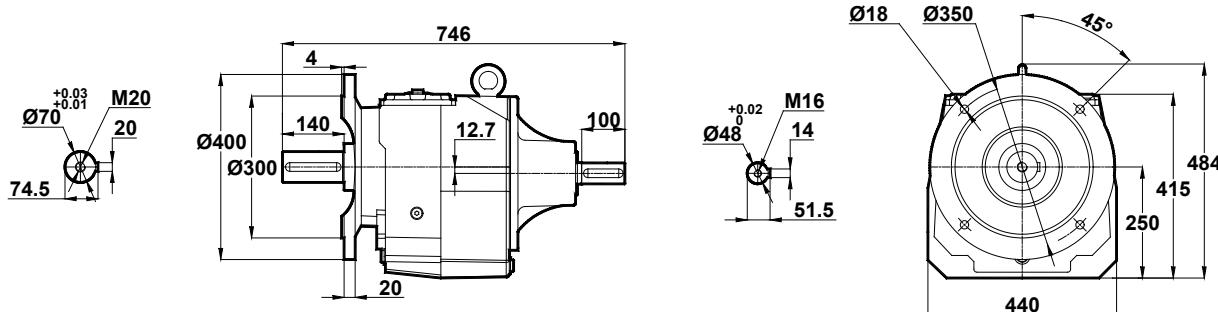


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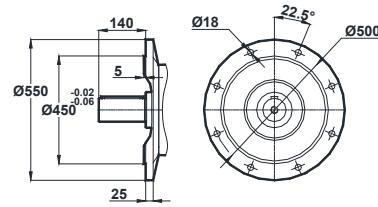
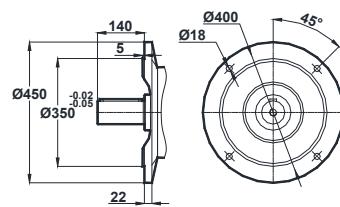
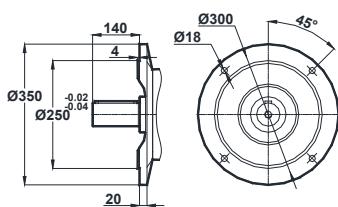
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**MT673**

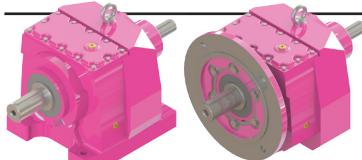


**NT672**  
**NT673**



**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



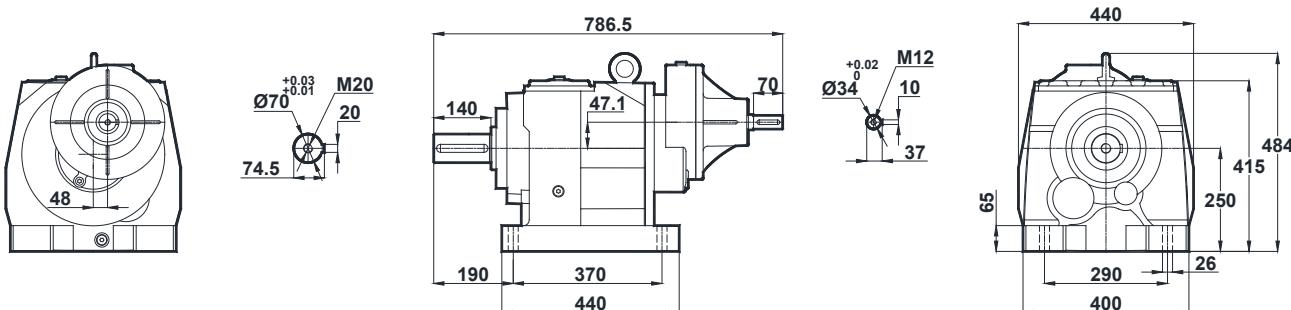


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*

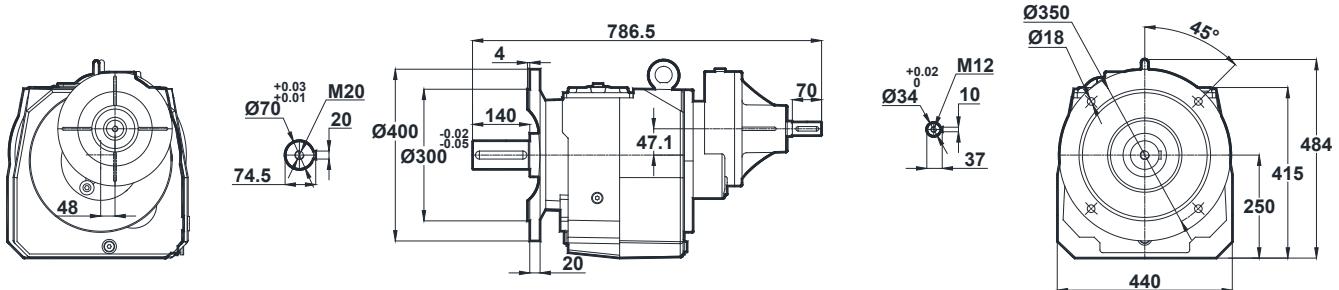


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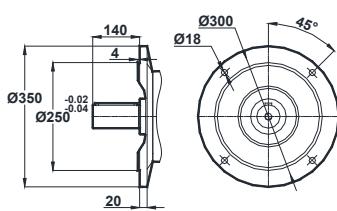
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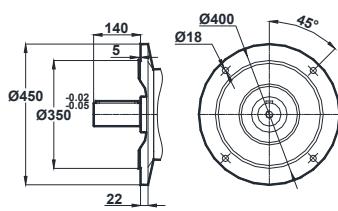
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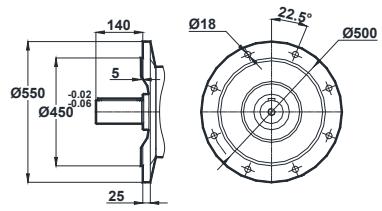
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



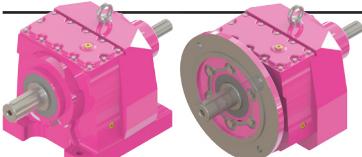
Opt. 1



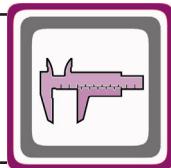
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Opt. 3

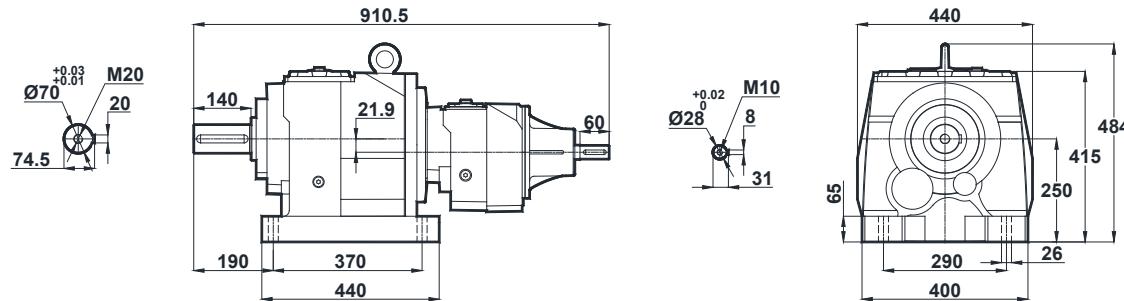


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

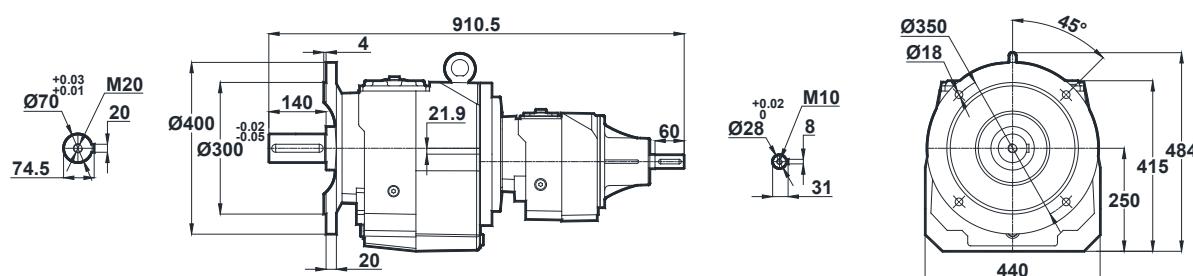


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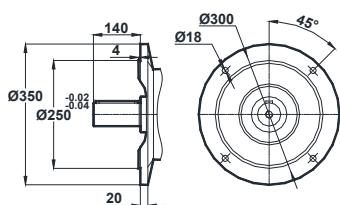
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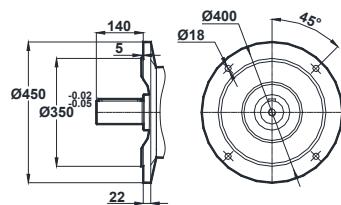
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**NT676**



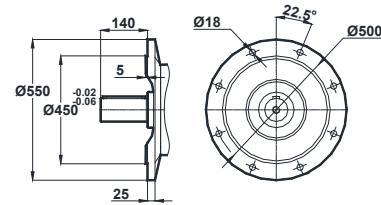
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



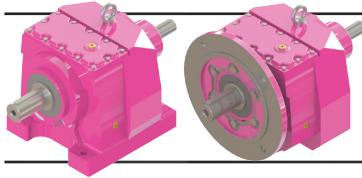
Opt. 1



Opt. 2



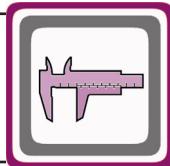
Opt. 3



# Ölçü Sayfaları

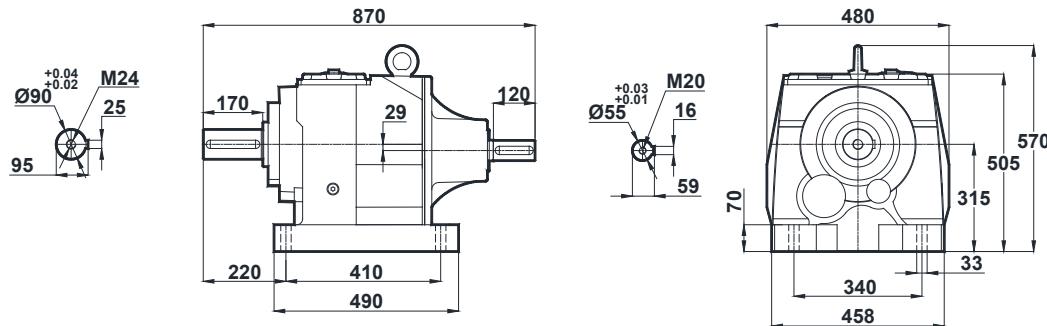
## Dimension Pages

## Abmessungsseiten

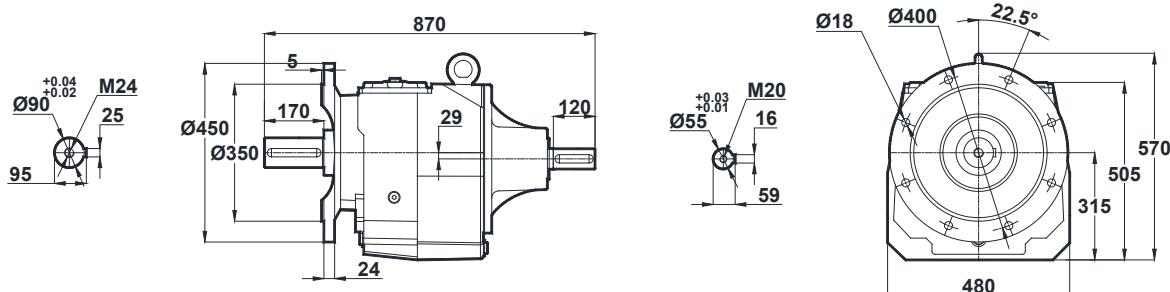


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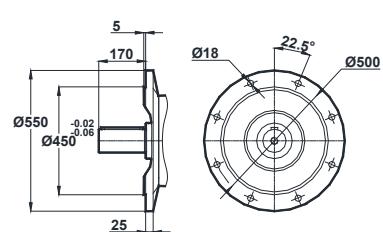
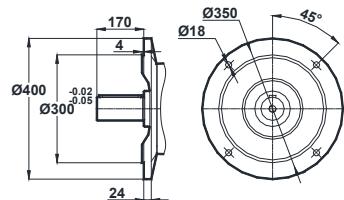
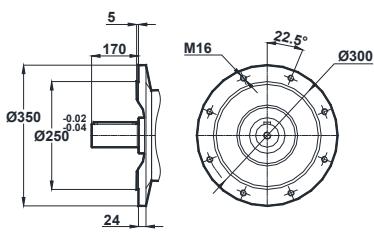
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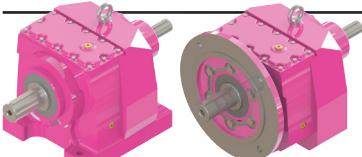


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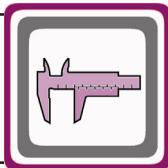


**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



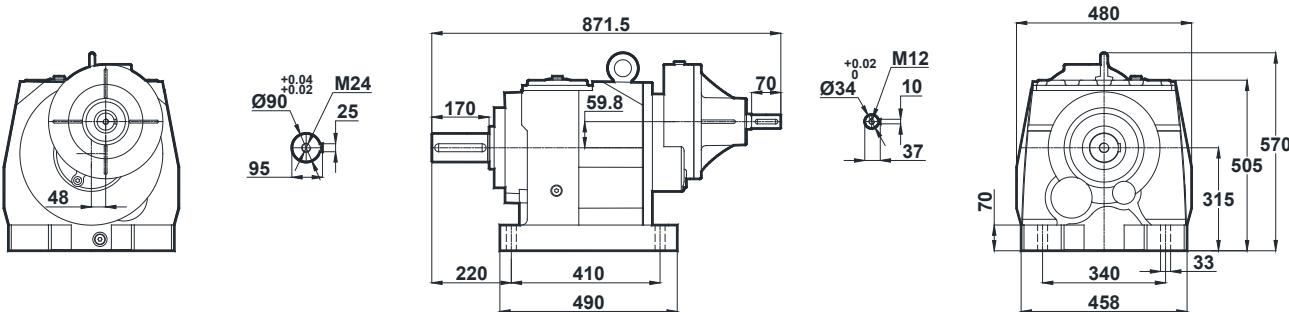


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

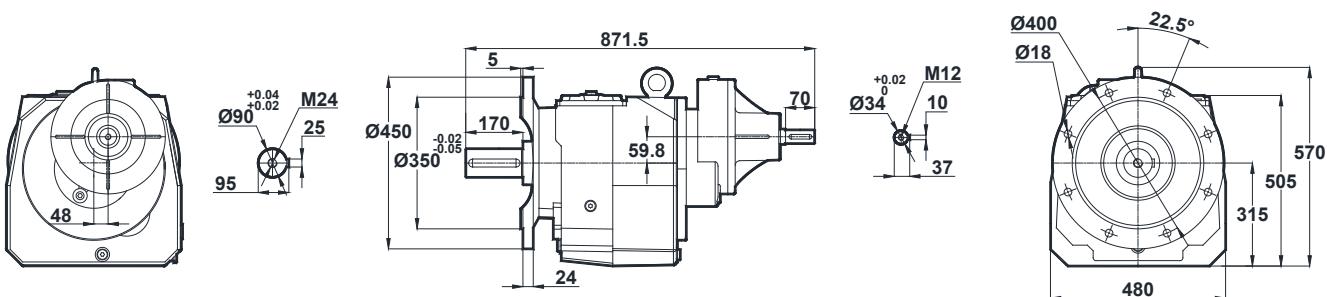


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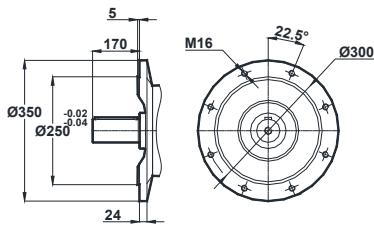
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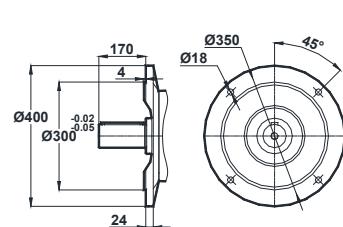
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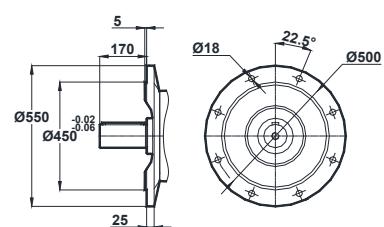
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



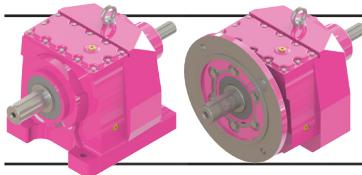
Opt. 1



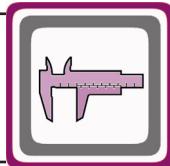
Opt. 2



Opt. 3

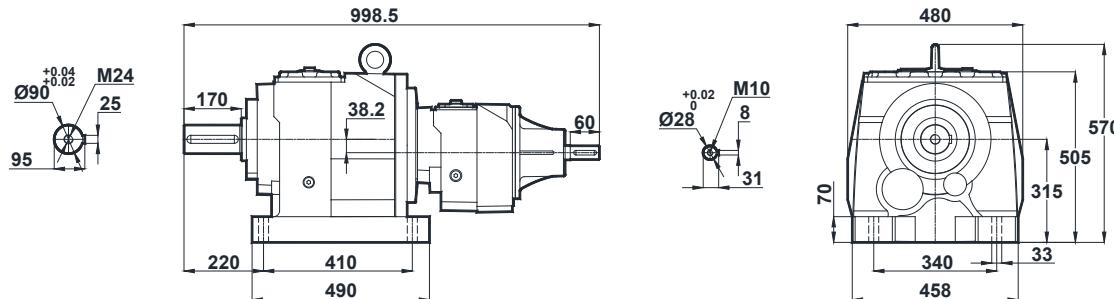


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

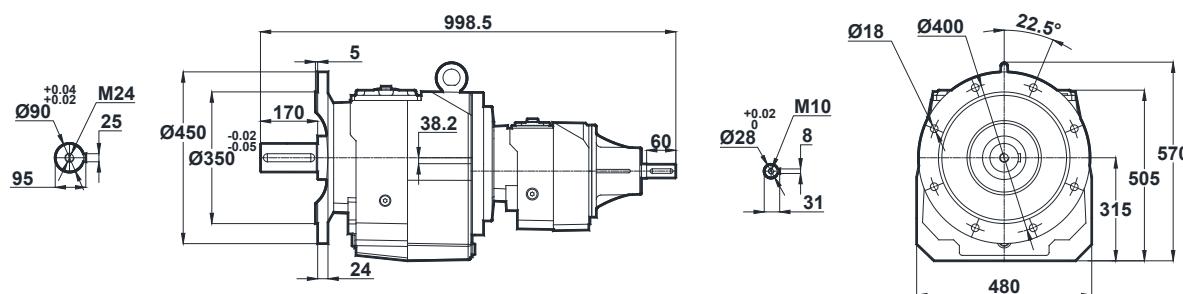


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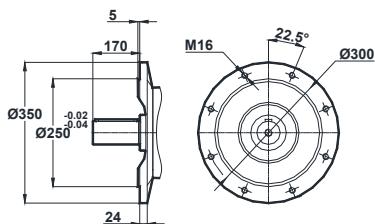
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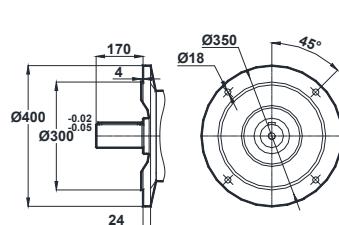
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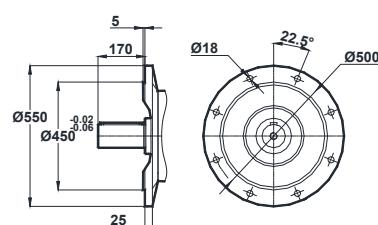
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



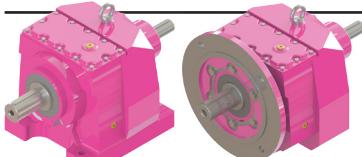
Opt. 1



Opt. 2



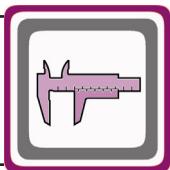
Opt. 3



# Ölçü Sayfaları

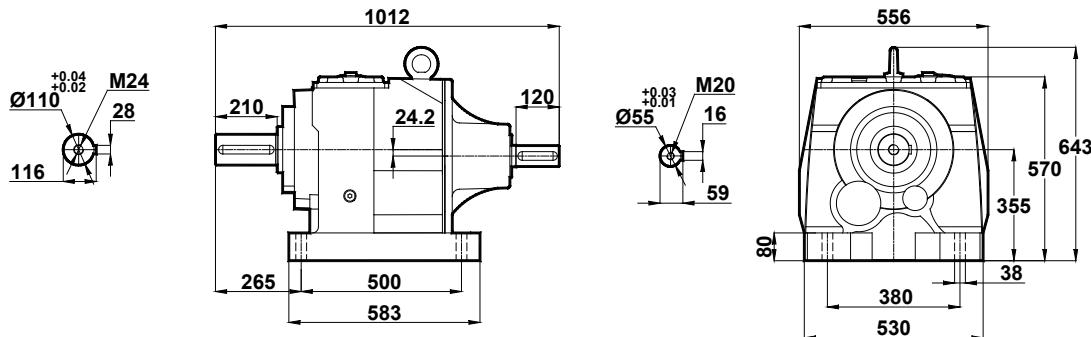
## *Dimension Pages*

### Abmessungsseiten

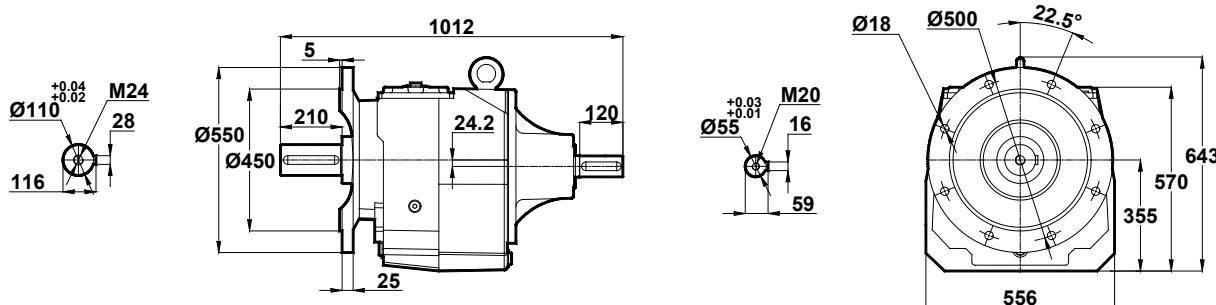


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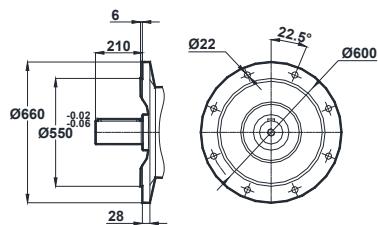
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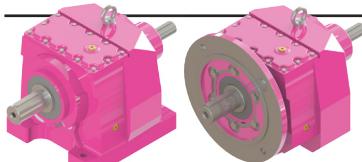
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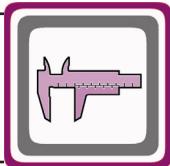
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



**Opt. 1**

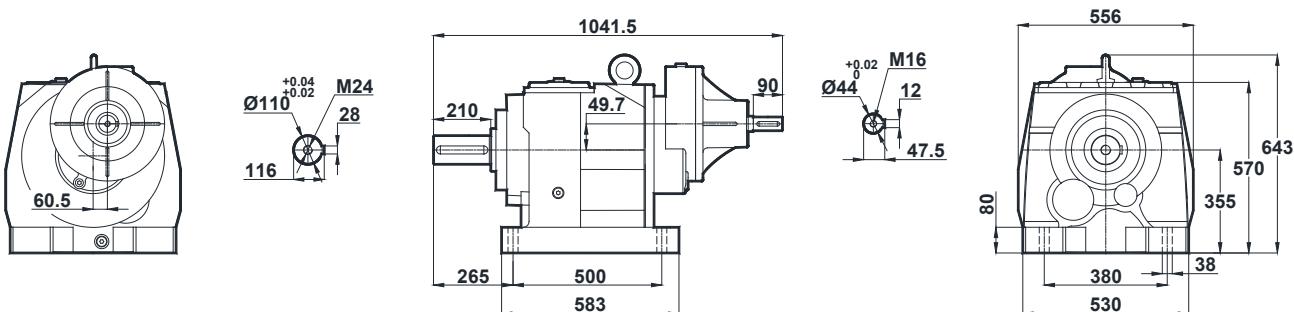


## Ölçü Sayfaları Dimension Pages Abmessungsseiten

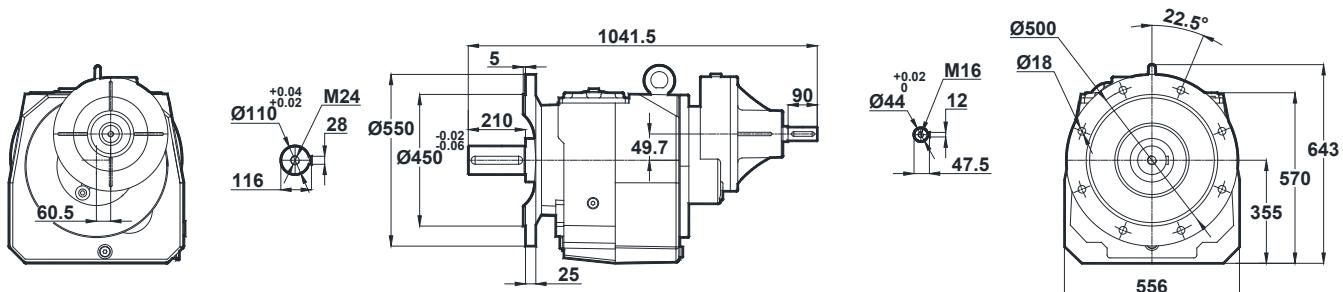


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

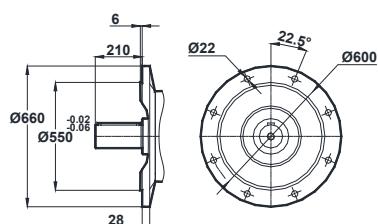
### MT874



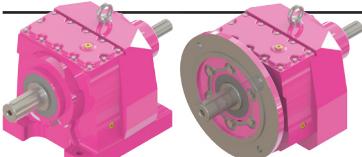
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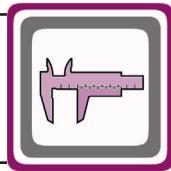
### Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1

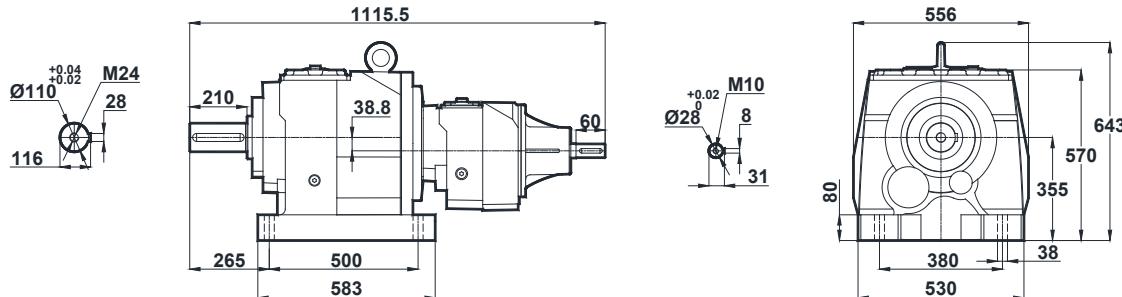


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

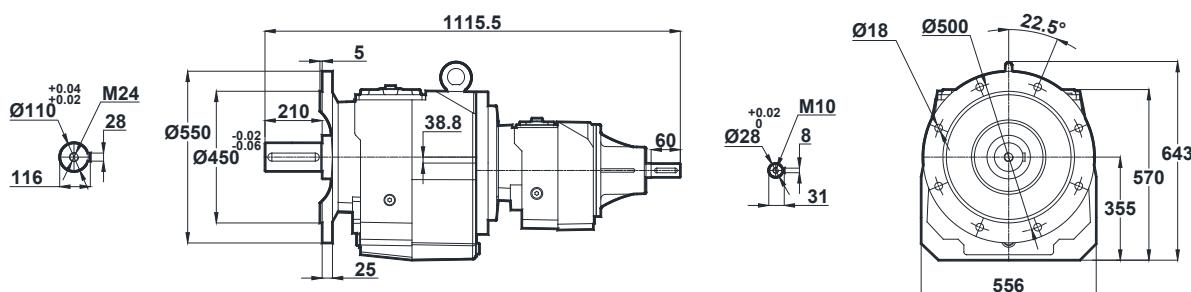


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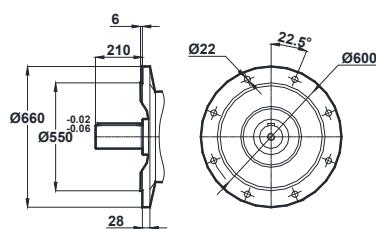
**MT875**  
**MT876**

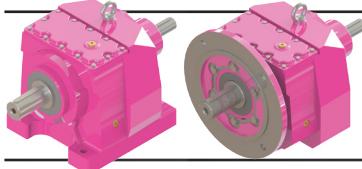


**NT875**  
**NT876**



**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**

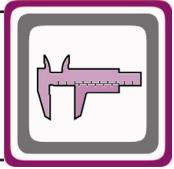




# Ölçü Sayfaları

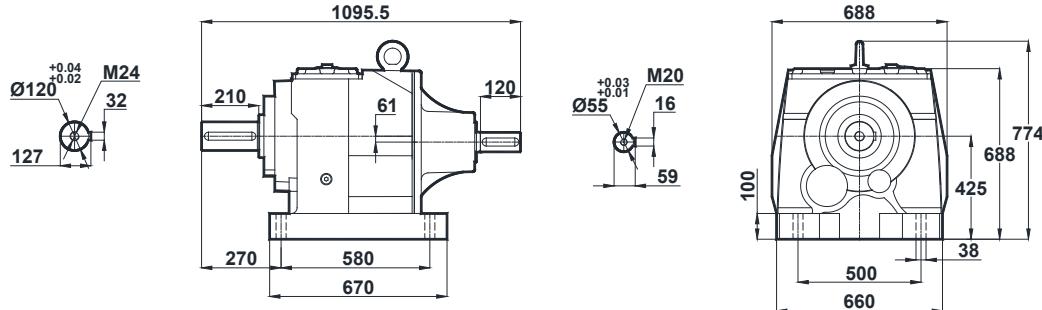
## *Dimension Pages*

### Abmessungsseiten

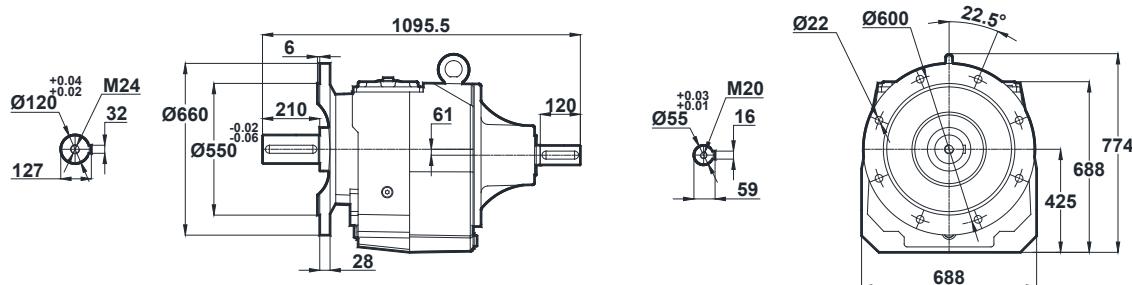


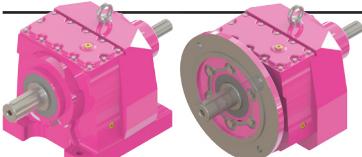
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MT972**  
**MT973**

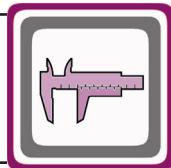


NT972  
NT973



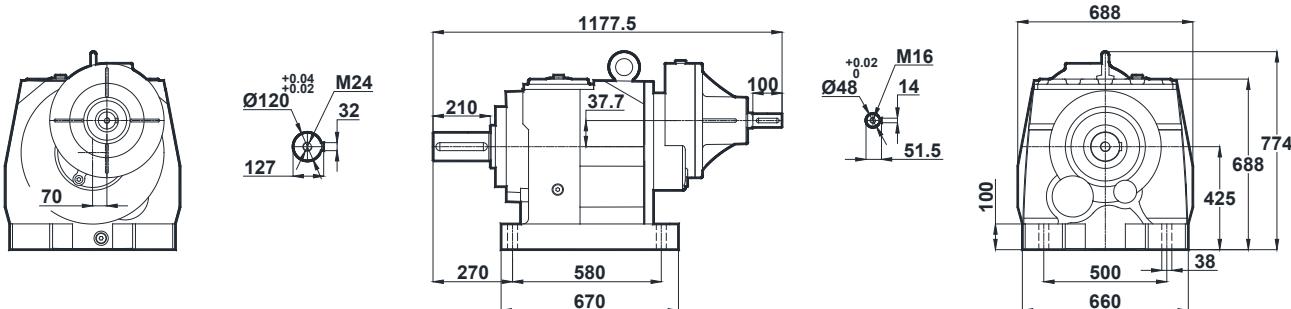


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*

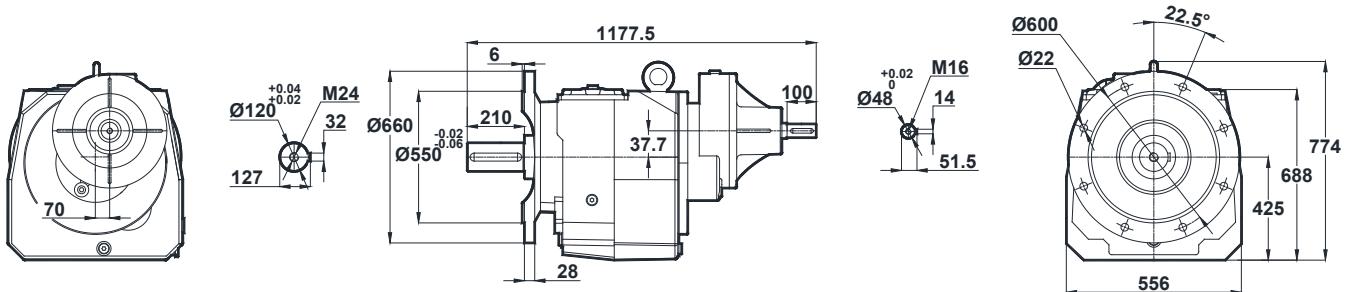


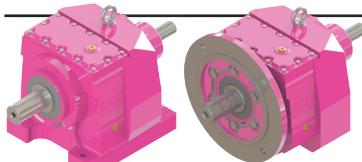
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### MT974

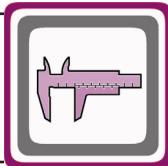


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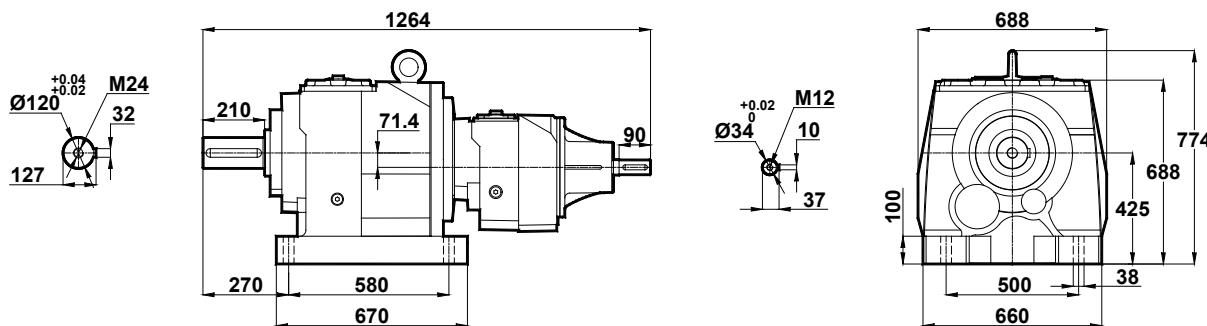


Ölçü Sayfaları  
Dimension Pages  
Abmessungsseiten

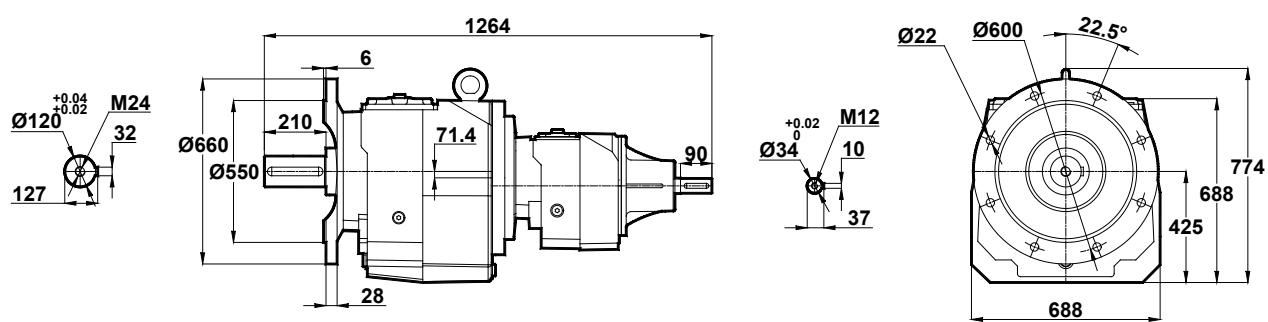


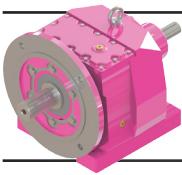
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**MT975**  
**MT976**



**NT975**  
**NT976**

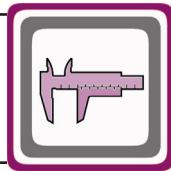




# Ölçü Sayfaları

## Dimension Pages

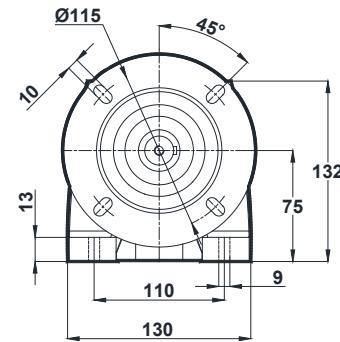
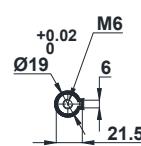
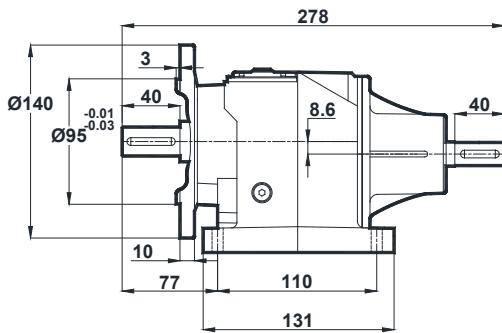
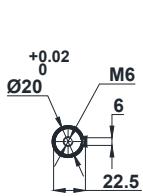
## Abmessungsseiten



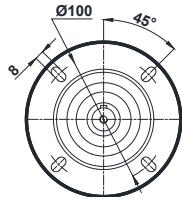
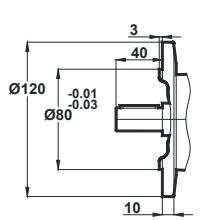
-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

**MTF002**

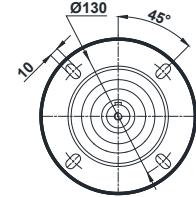
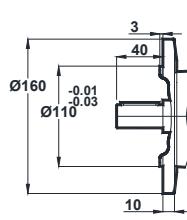
**MTF003**



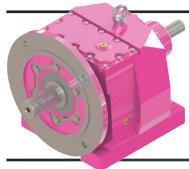
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



**Opt. 1**



**Opt. 2**

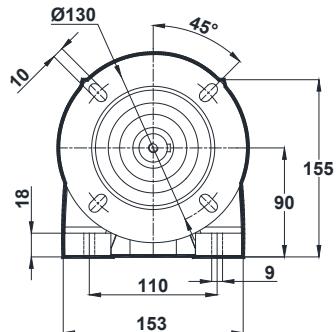
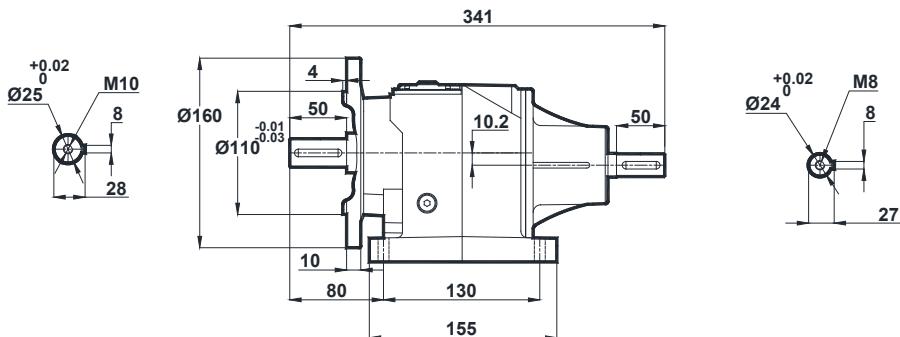


**Ölçü Sayfaları**  
*Dimension Pages*  
**Abmessungsseiten**

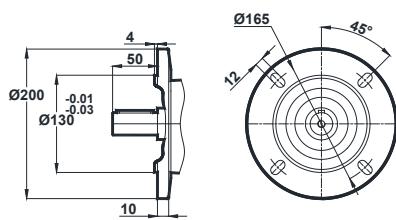


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

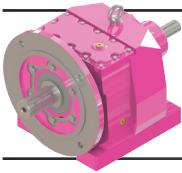
**MTF102**  
**MTF103**



**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



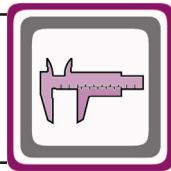
**Opt. 1**



# Ölçü Sayfaları

## Dimension Pages

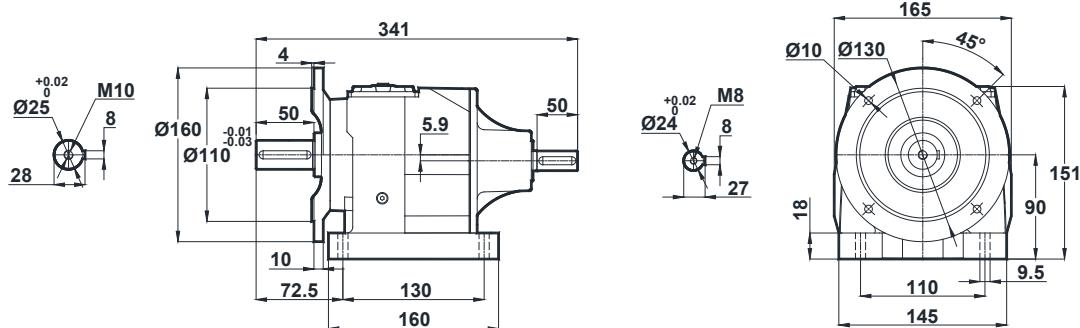
## Abmessungsseiten



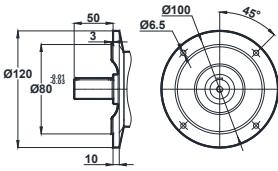
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**MTF172**

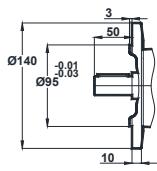
**MTF173**



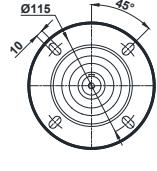
**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



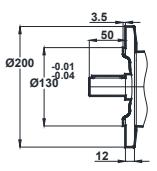
Opt. 1



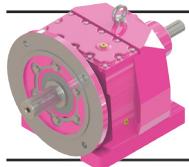
Opt. 2



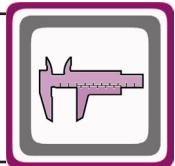
Opt. 3



Opt. 4

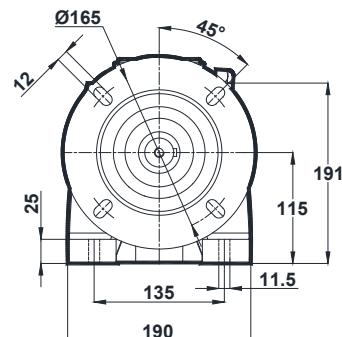
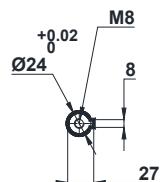
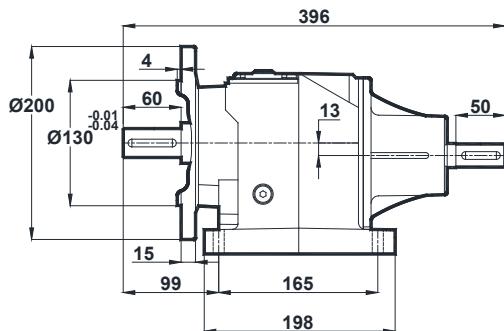
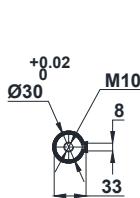


Ölçü Sayfaları  
Dimension Pages  
Abmessungsseiten

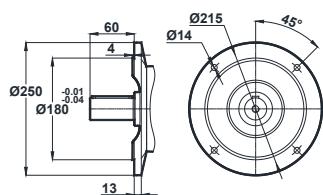


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

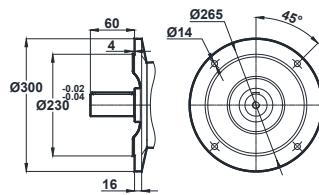
MTF202  
MTF203



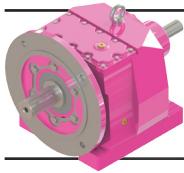
Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen



Opt. 1



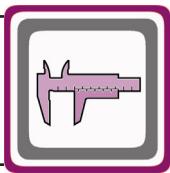
Opt. 2



# Ölçü Sayfaları

## *Dimension Pages*

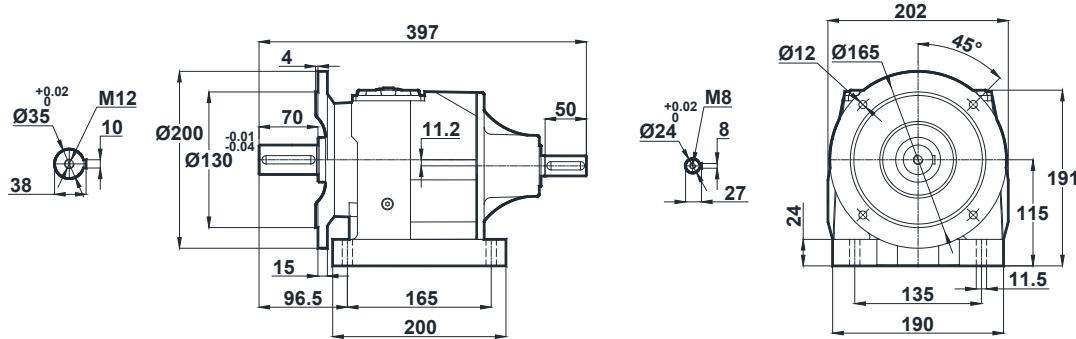
### Abmessungsseiten



-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

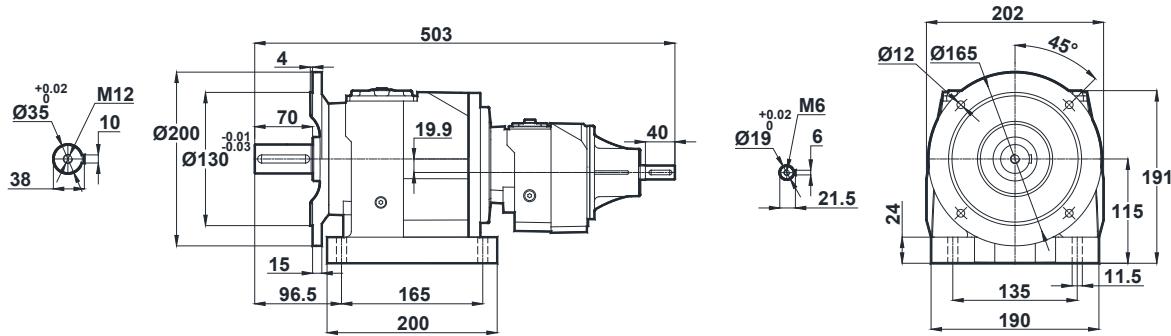
MTF272

MTF273

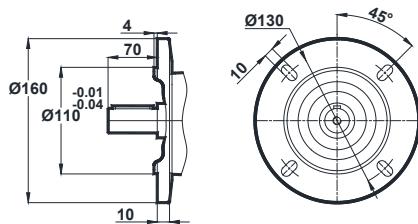


MTF275

MTF276



**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



**Opt. 1**

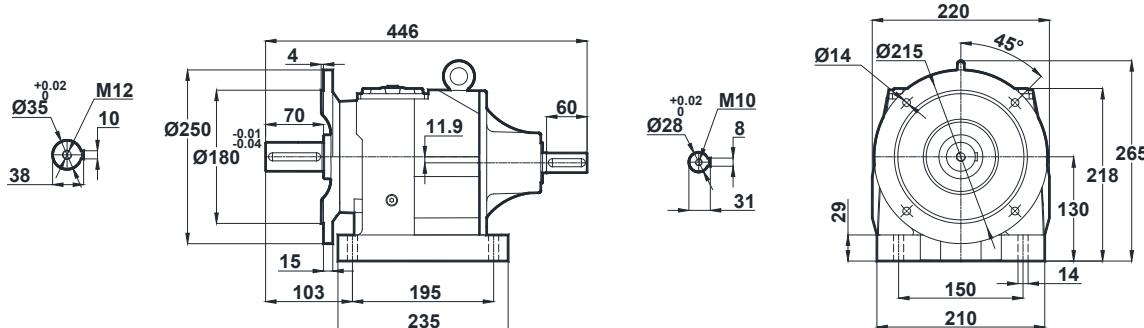


Ölçü Sayfaları  
Dimension Pages  
Abmessungsseiten

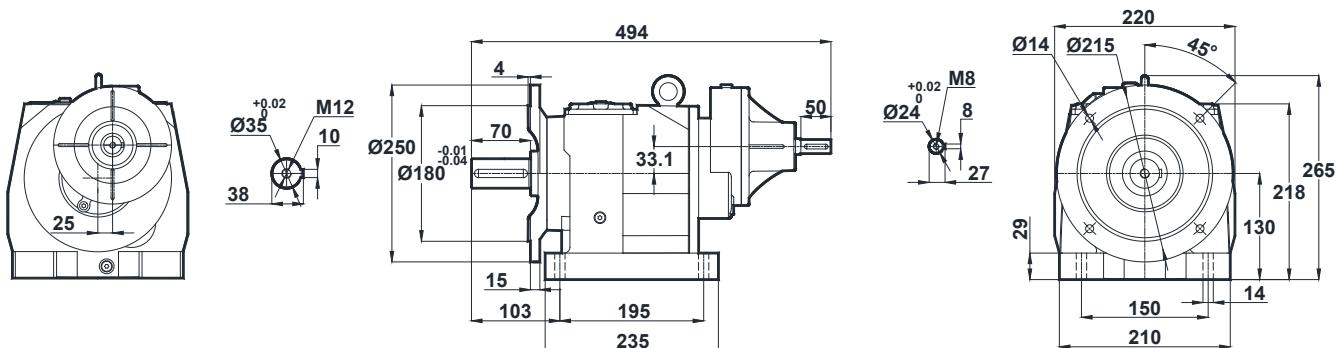


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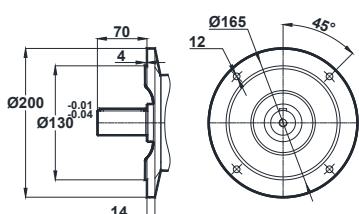
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**MTF283**



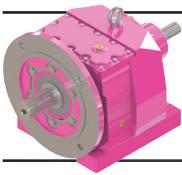
**MTF284**



**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



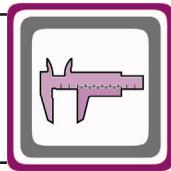
Opt. 1



# Ölçü Sayfaları

## Dimension Pages

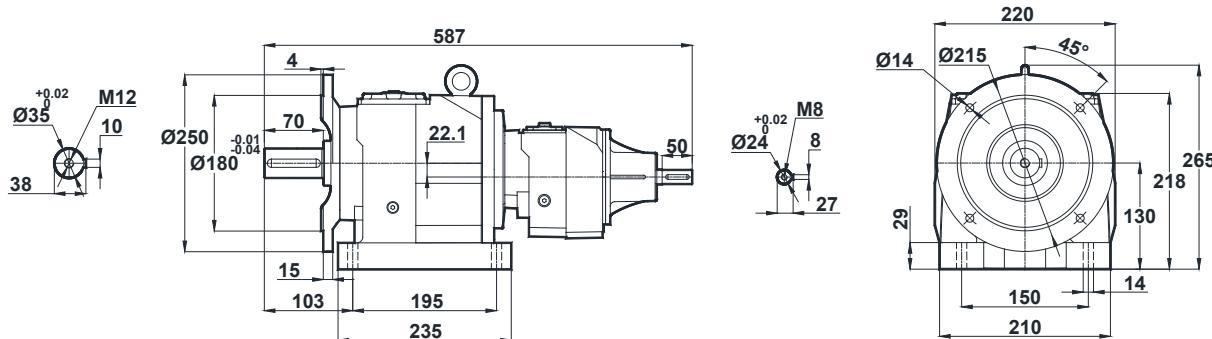
## Abmessungsseiten



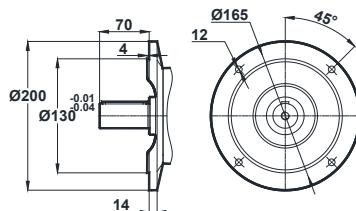
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**MTF285**

**MTF286**



**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



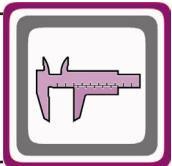
Opt. 1



# Ölçü Sayfaları

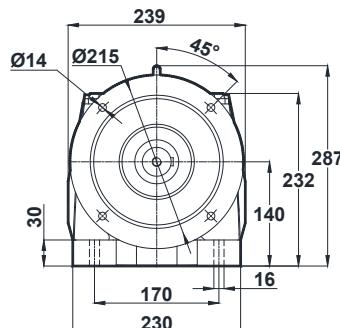
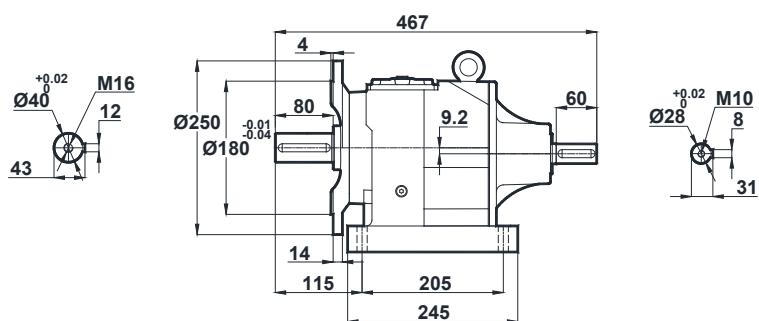
## *Dimension Pages*

### Abmessungsseiten

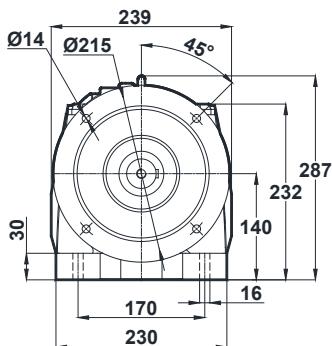
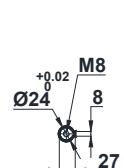
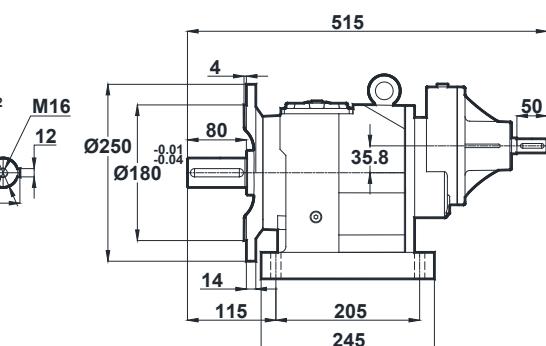
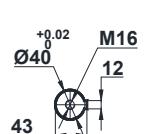
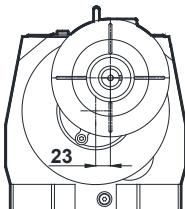


-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

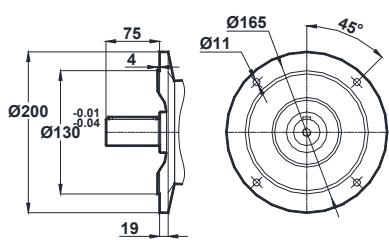
**MTF372  
MTF373**



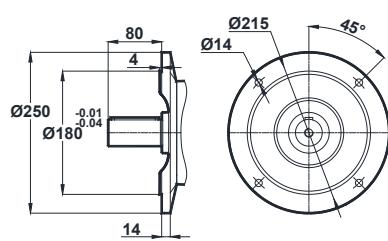
MTF374



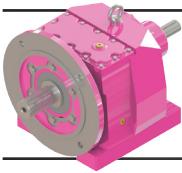
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



**Opt. 1**



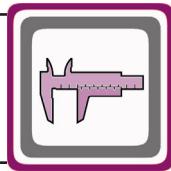
## Opt. 2



# Ölçü Sayfaları

## Dimension Pages

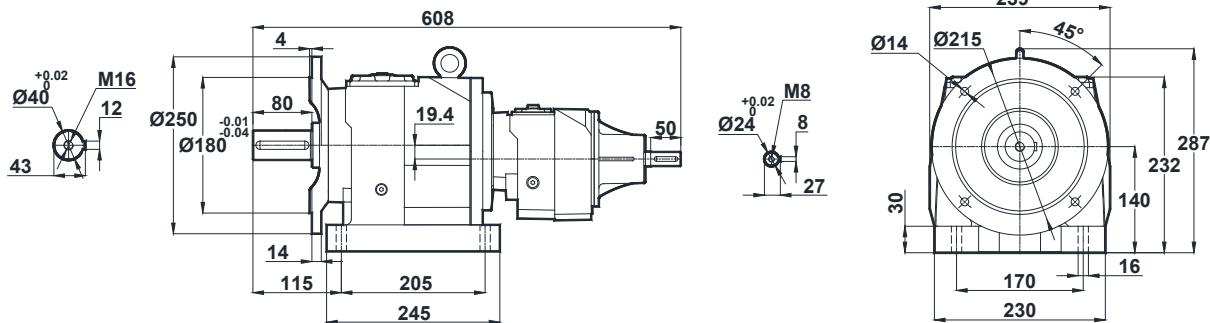
## Abmessungsseiten



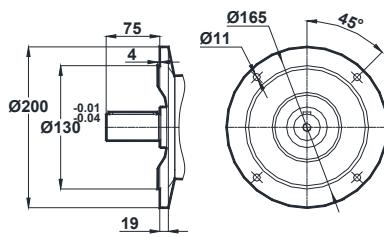
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**MTF375**

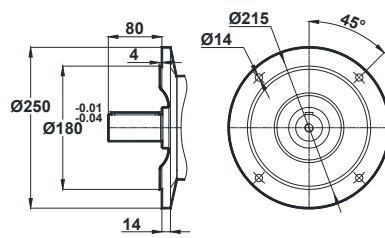
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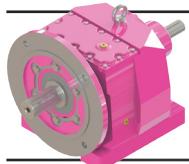
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1



Opt. 2

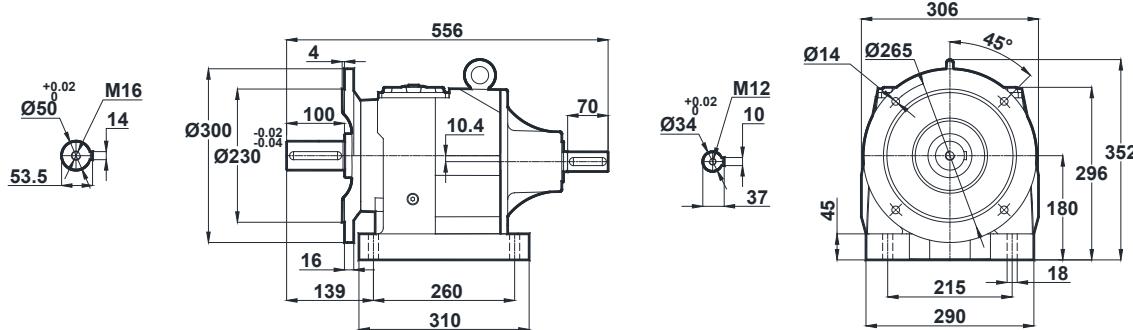


**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**

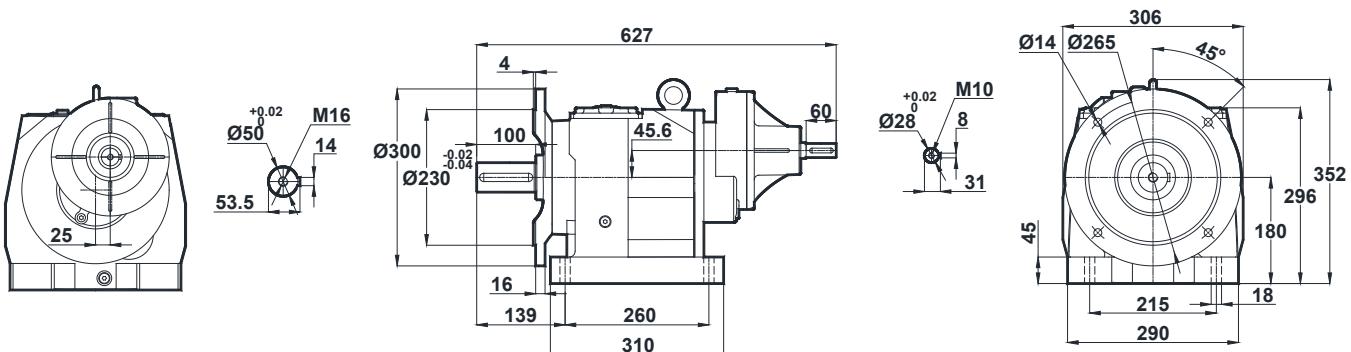


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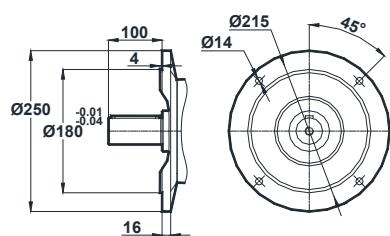
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**MTF473**



**MTF474**



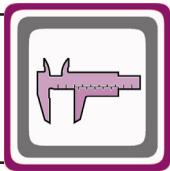
**Opsiyonel Flans Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



**Opt. 1**



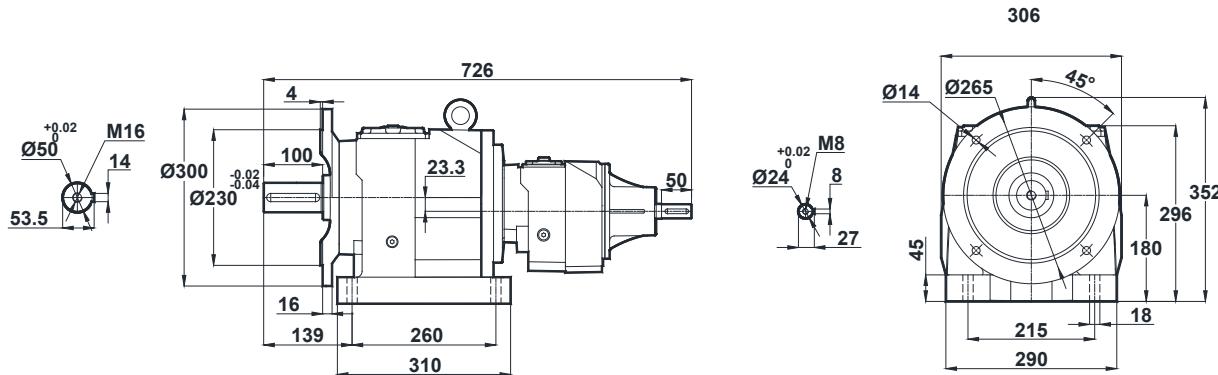
**Ölçü Sayfaları**  
**Dimension Pages**  
**Abmessungsseiten**



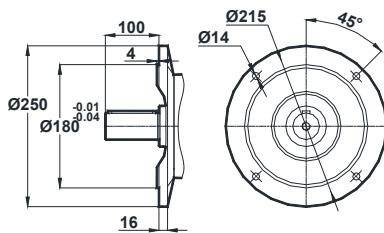
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**MTF475**

**MTF476**

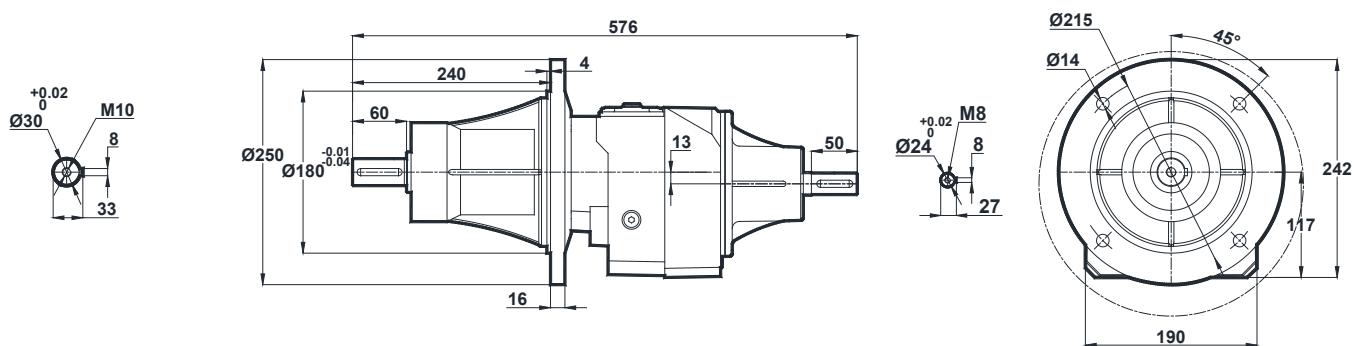


**Opsiyonel Flanş Ölçüleri / Optional Flange Dimensions / Auswählbare Flanschabmessungen**



Opt. 1

**NTB202**  
**NTB203**





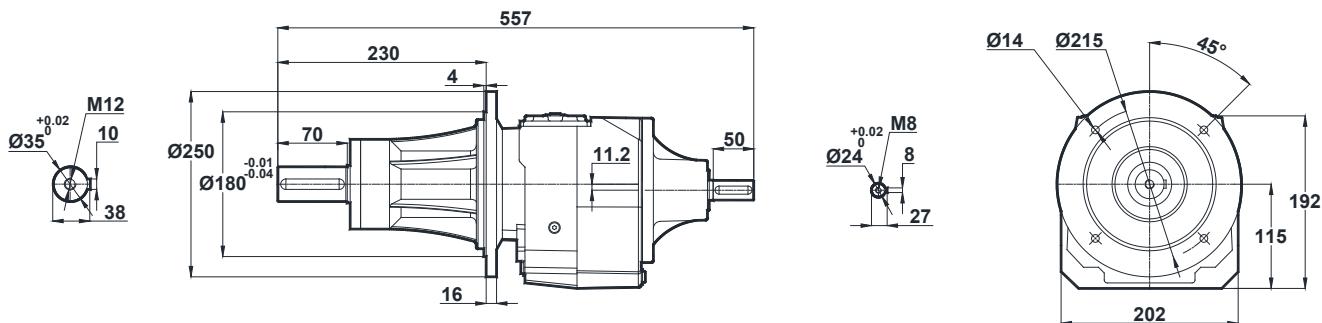
**Ölçü Sayfaları**  
*Dimension Pages*  
Abmessungsseiten



-Mil ucu çekirme deliği DIN 332 sayfa 2 / Tapped center hole to DIN 332, sheet 2 / Zentrierung mit Gewinde DIN 332, Blatt 2

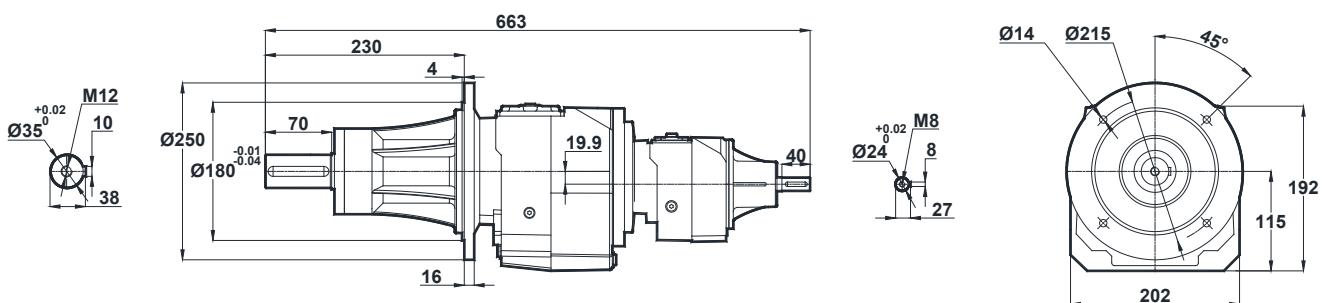
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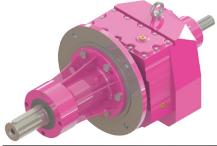
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**NTB275**

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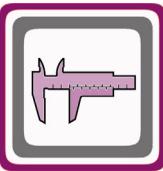




# Ölçü Sayfaları

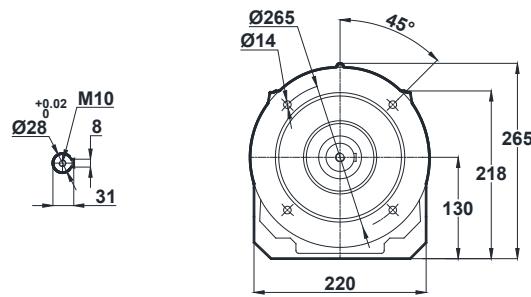
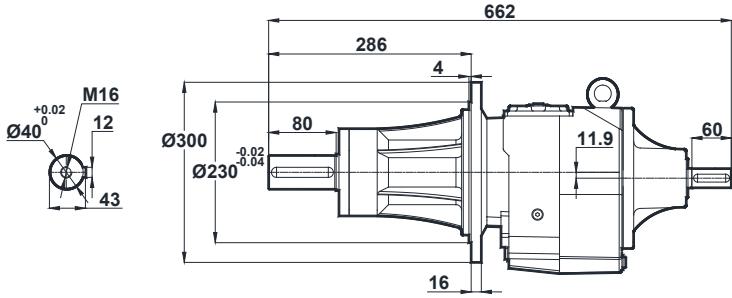
## *Dimension Pages*

### Abmessungsseiten

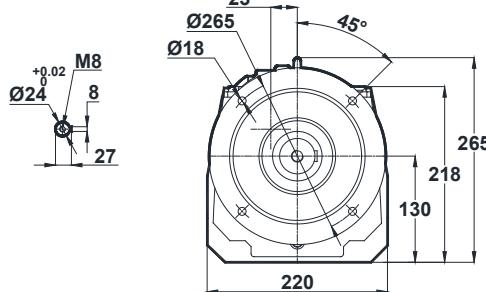
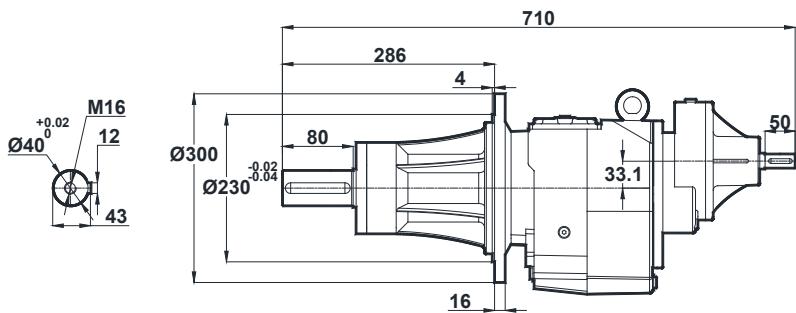


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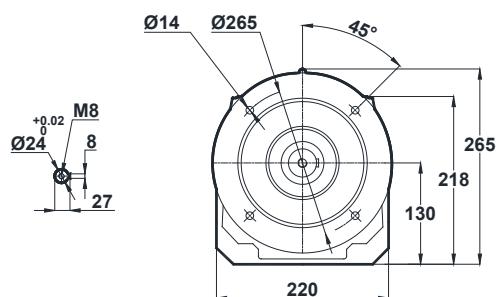
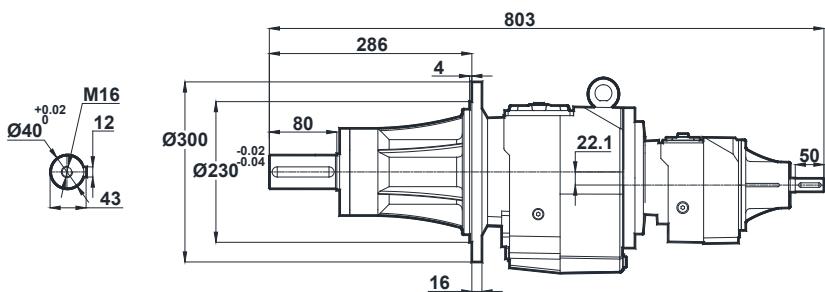
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**NTB283**



NTB284



NTB285  
NTB286

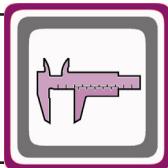




# Ölçü Sayfaları

## Dimension Pages

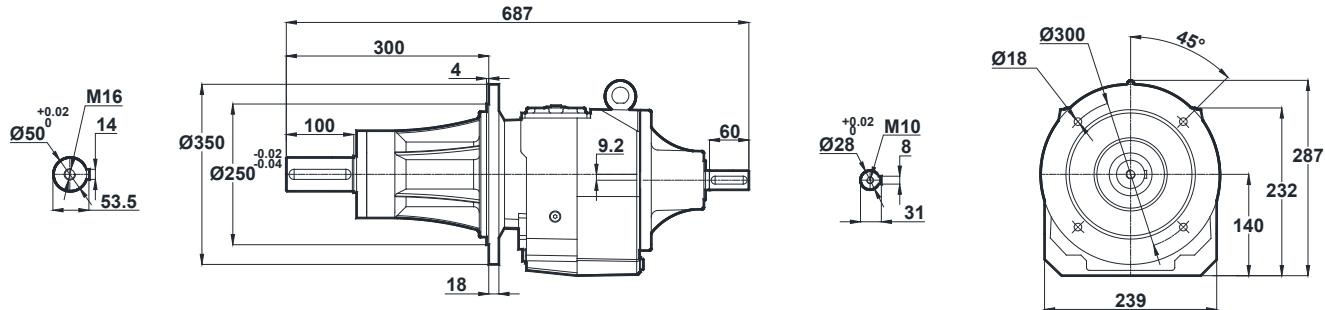
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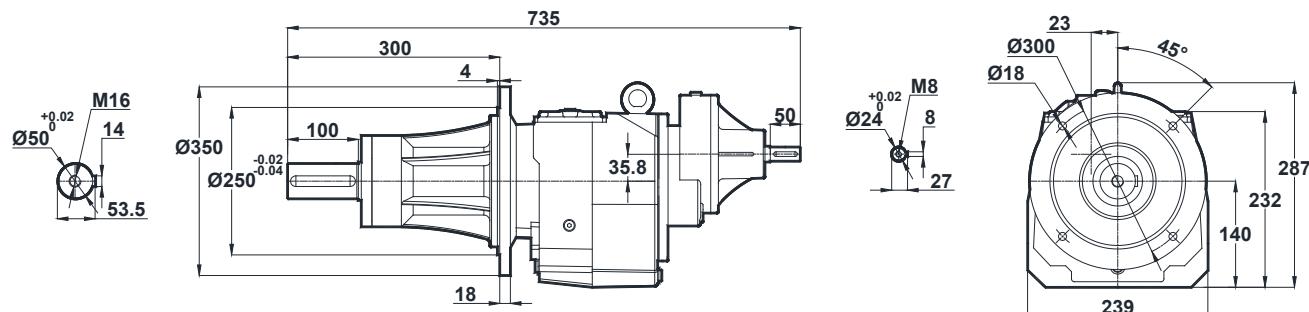
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### NTB372

### NTB373

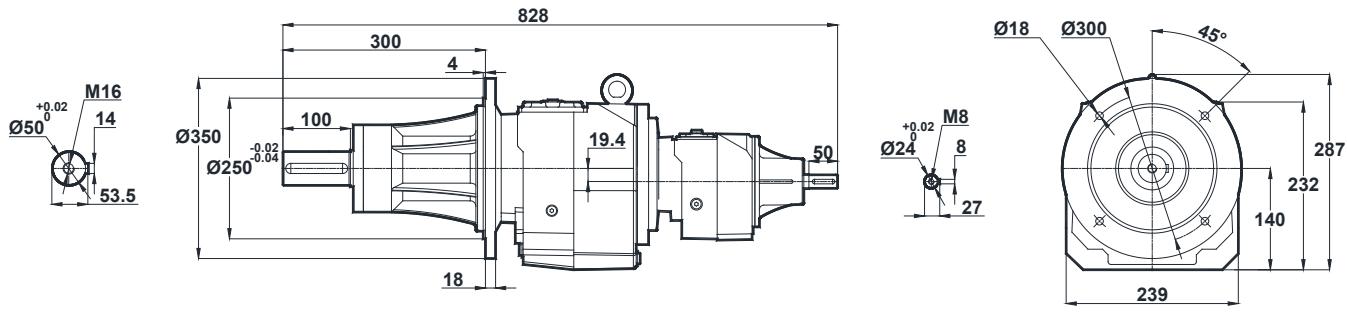


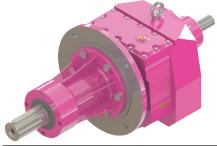
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### NTB375

### NTB376

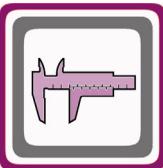




# Ölçü Sayfaları

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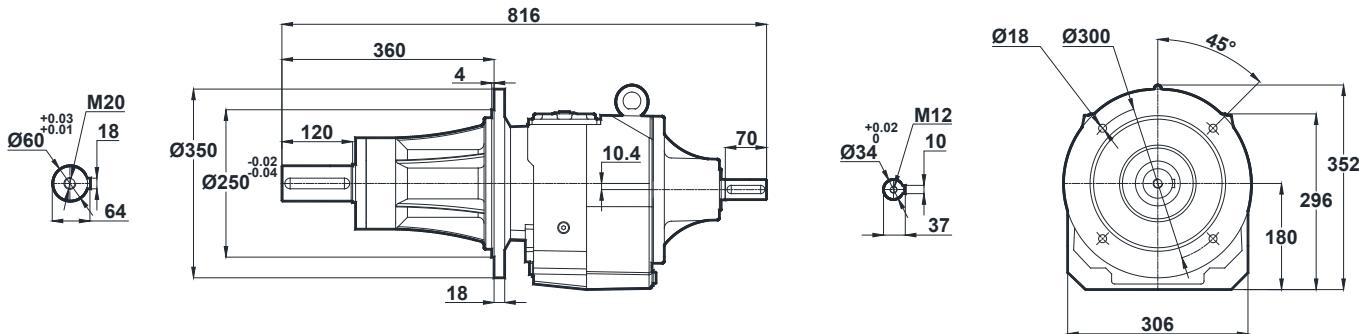
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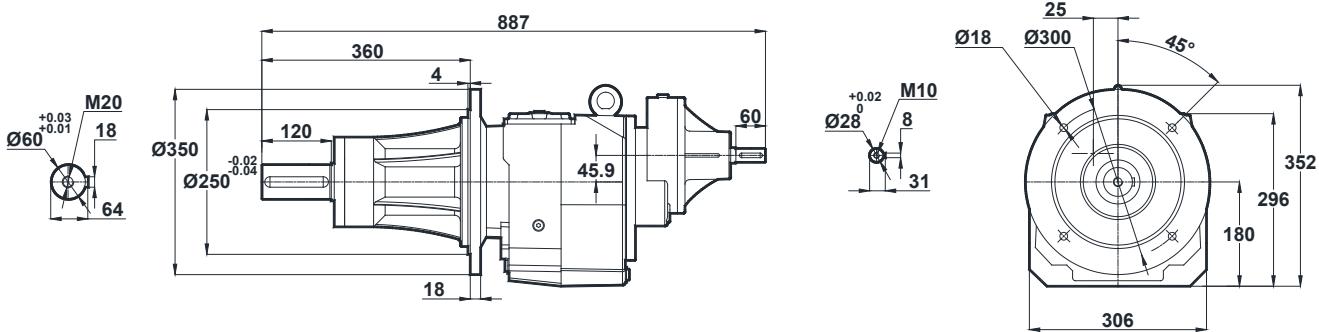
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NTB472

NTB473

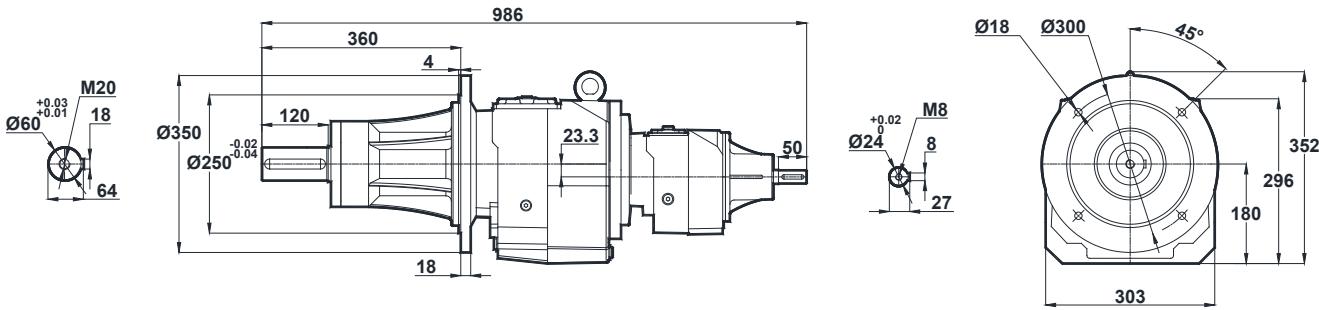


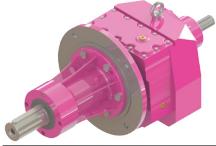
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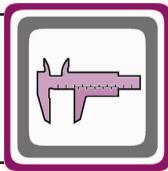
NTB475

NTB476



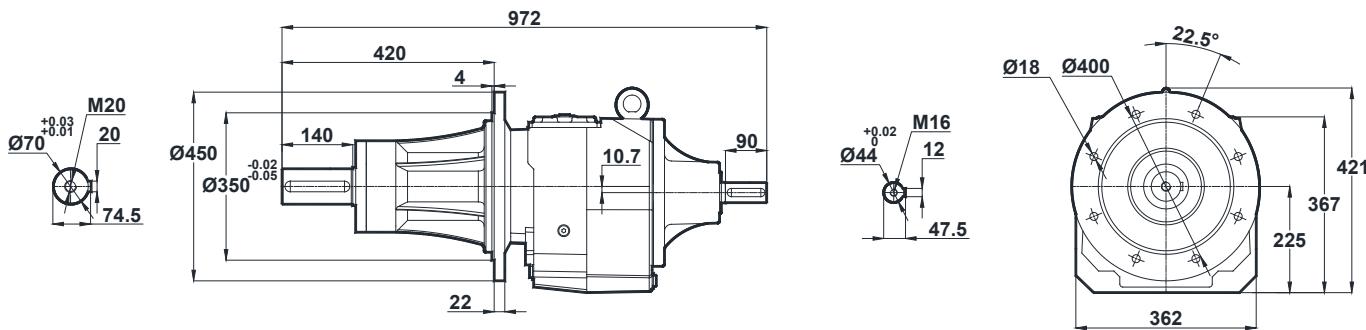


**Ölçü Sayfaları**  
*Dimension Pages*  
*Abmessungsseiten*

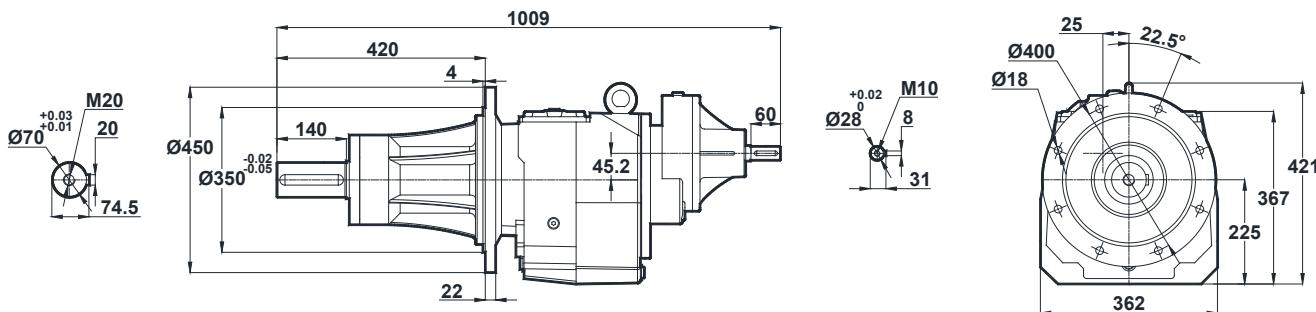


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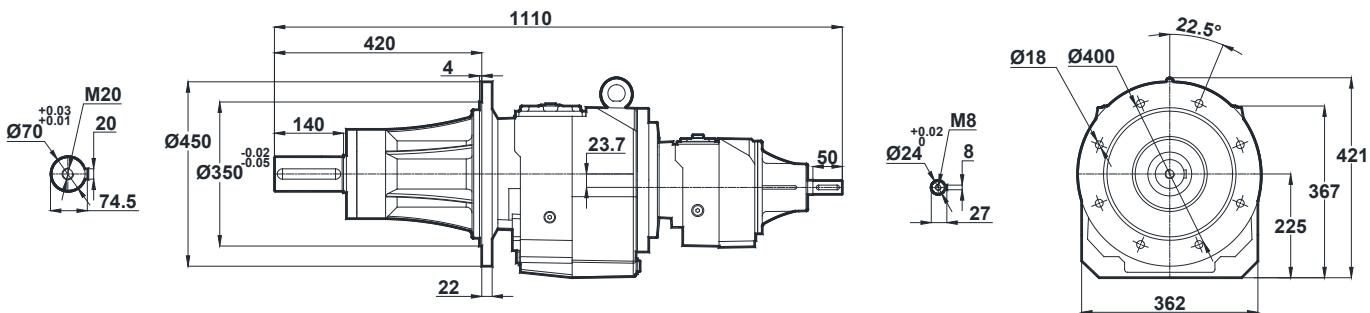
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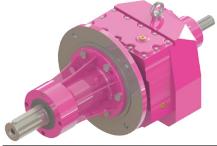


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**NTB576**

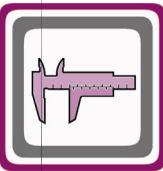




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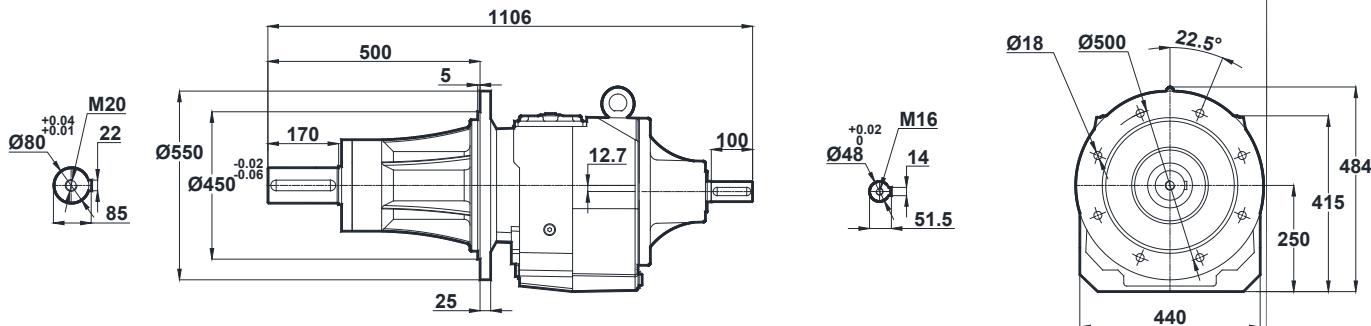
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### Abmessungsseiten

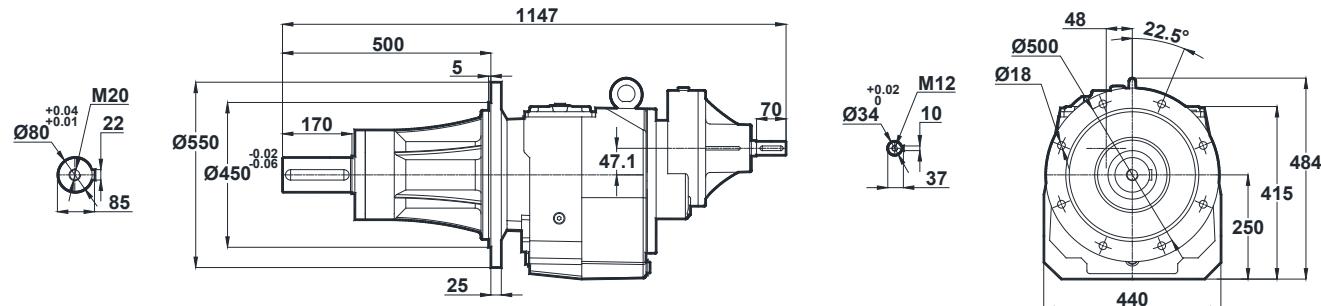


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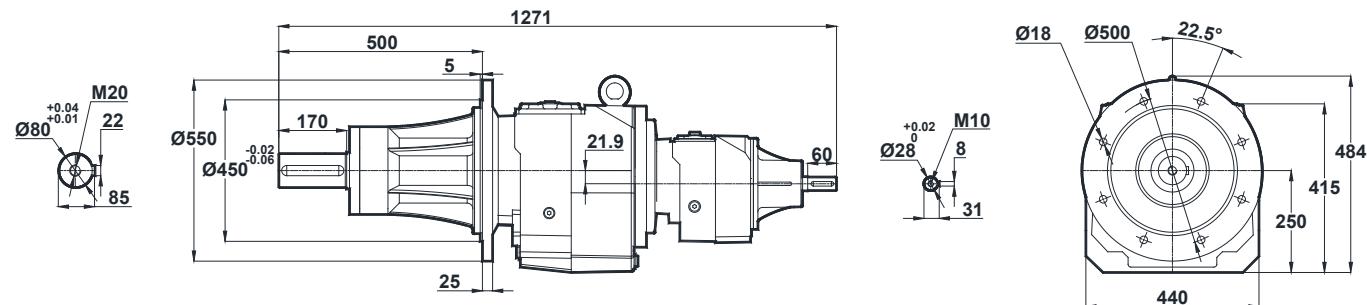
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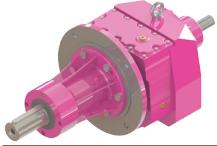


NTB674

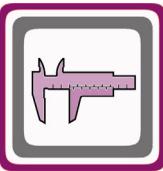


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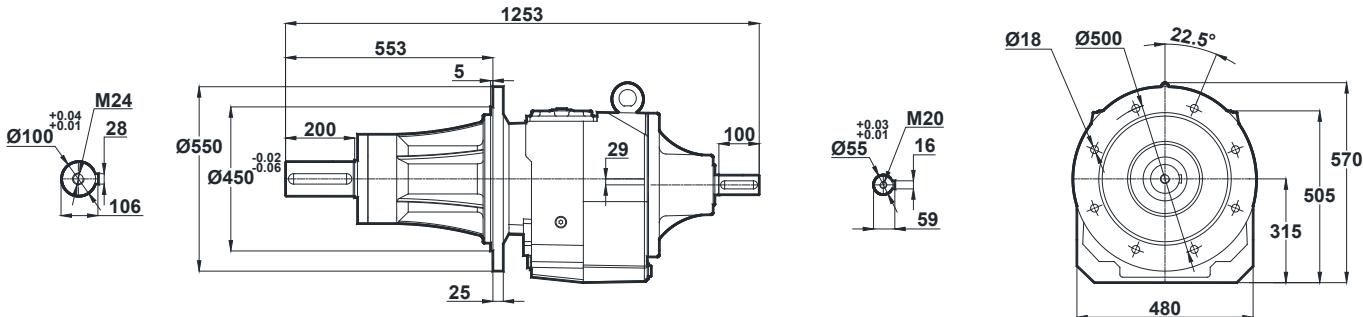


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Abmessungsseiten

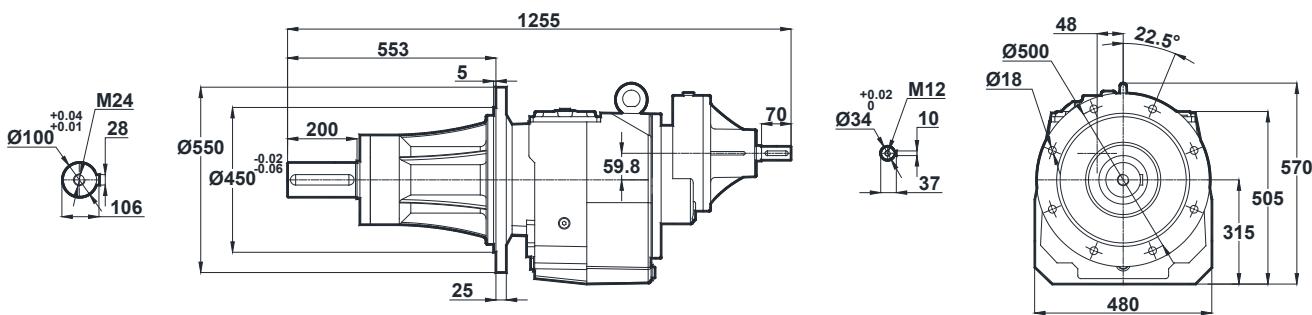


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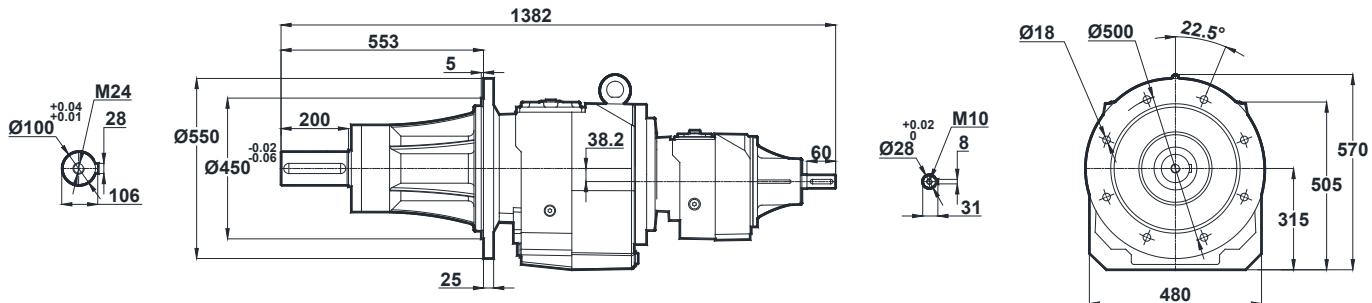
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NTB774



**NTB775**  
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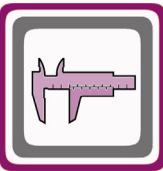




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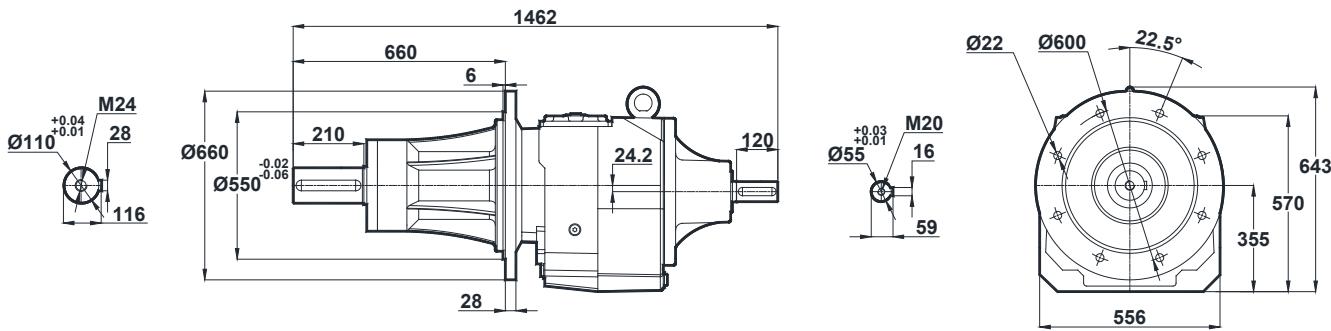
## *Dimension Pages*

### Abmessungsseiten

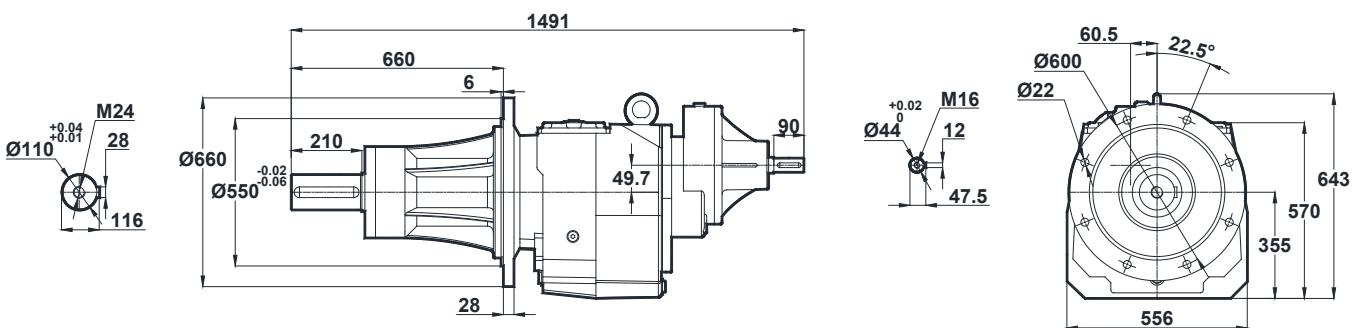


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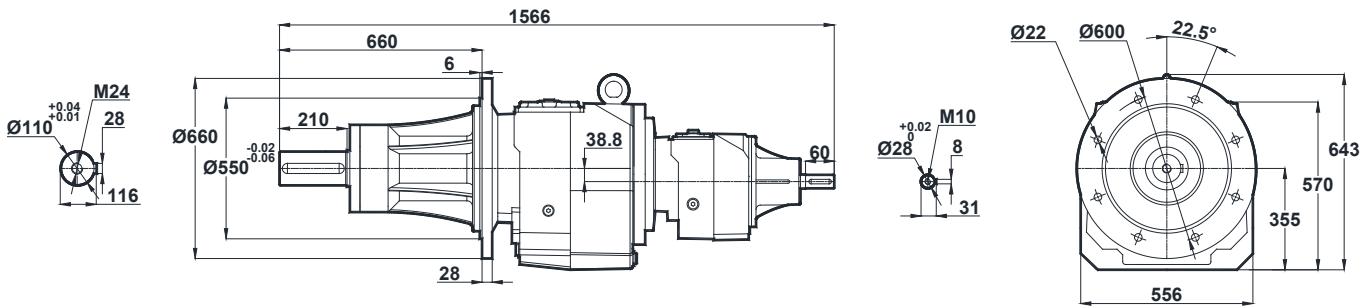
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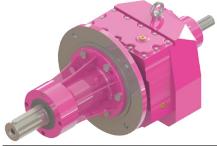


NTB874



**NTB875**  
**NTB876**

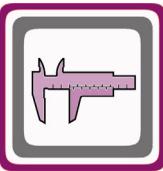




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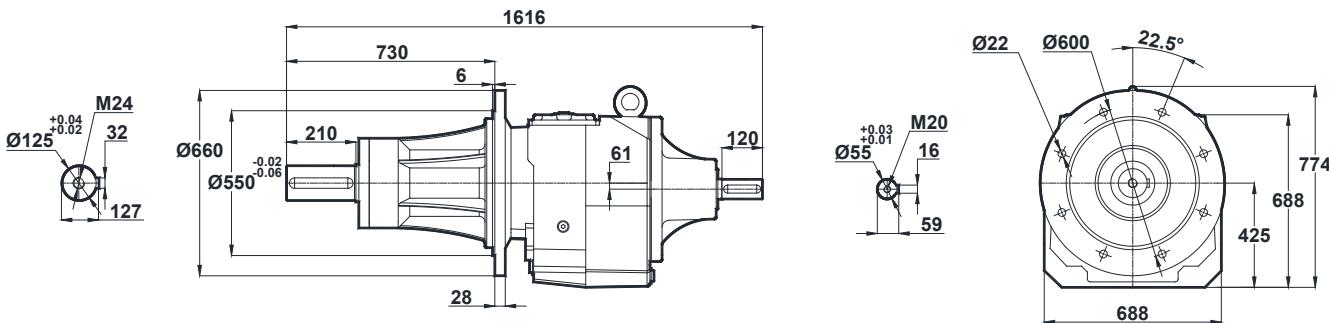
## *Dimension Pages*

### Abmessungsseiten

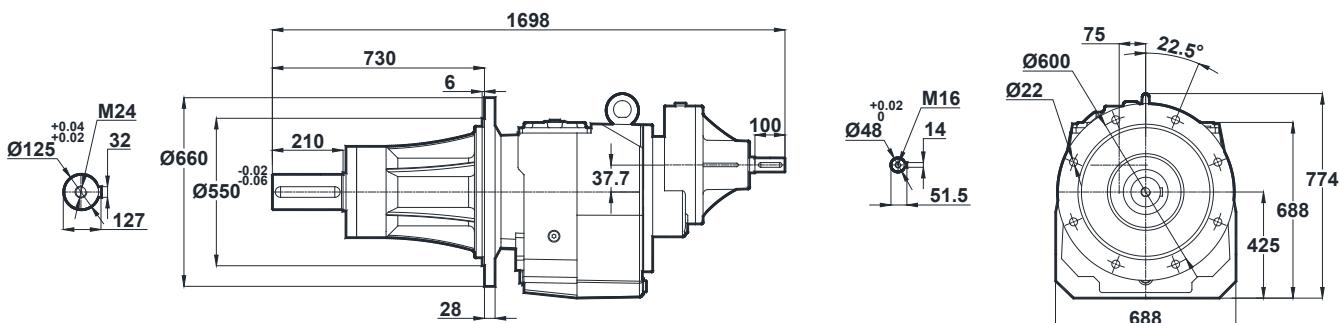


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**NTB972**  
**NTB973**



NTB974



**NTB975**  
**NTB976**

