

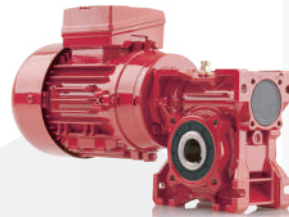


***I.Mak***®  
REDÜKTÖR & VARYATÖR A.Ş.

## ***Sonsuz Vidalı Redüktörler***

***Worm Gearbox / Réducteurs à Roue et Vis Sans Fin***

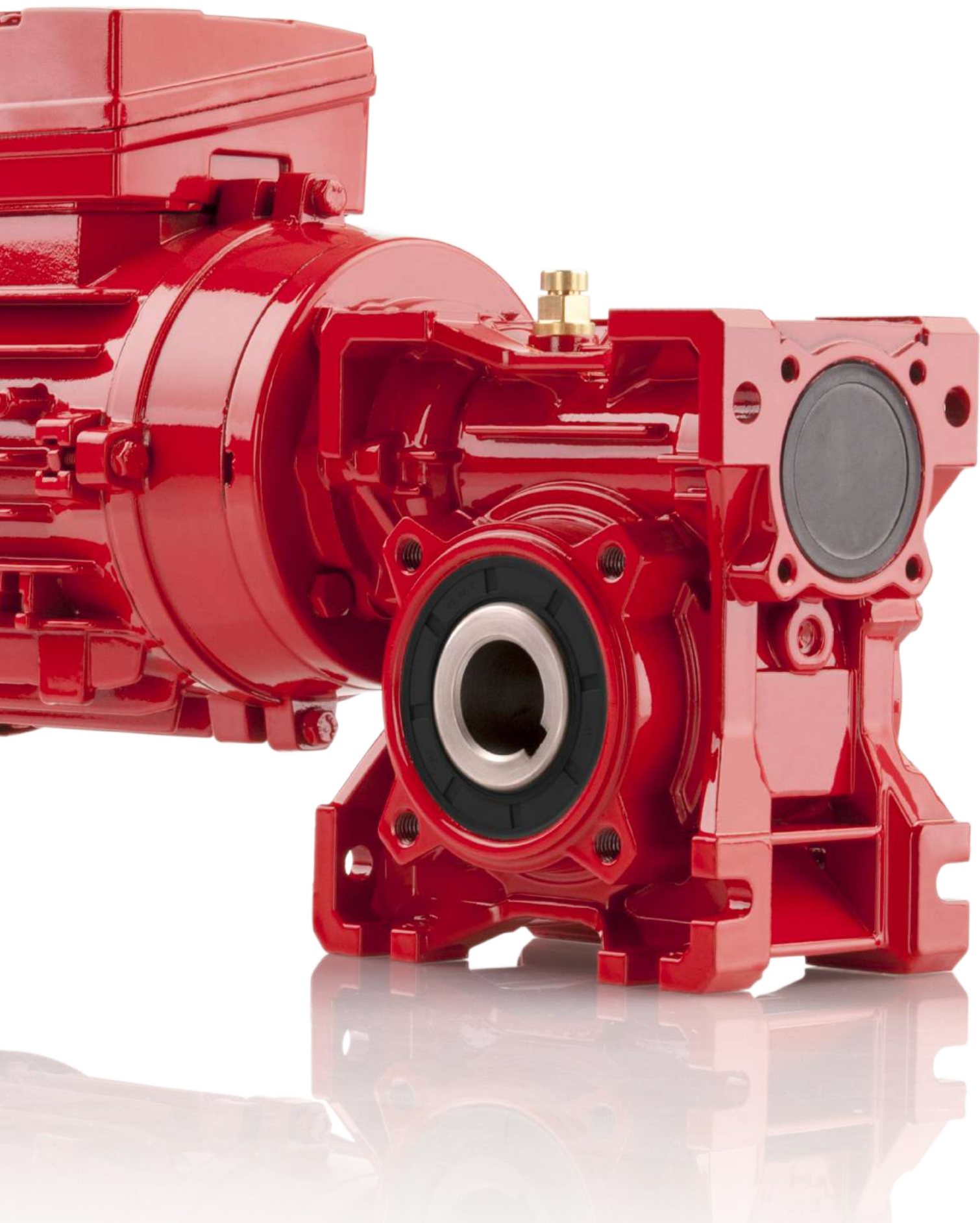
**S00**



SERIES  
S  
IRS  
IRSD

**2023**  
TR | EN | FR

Gearboxes and Drives / Moto Réducteurs



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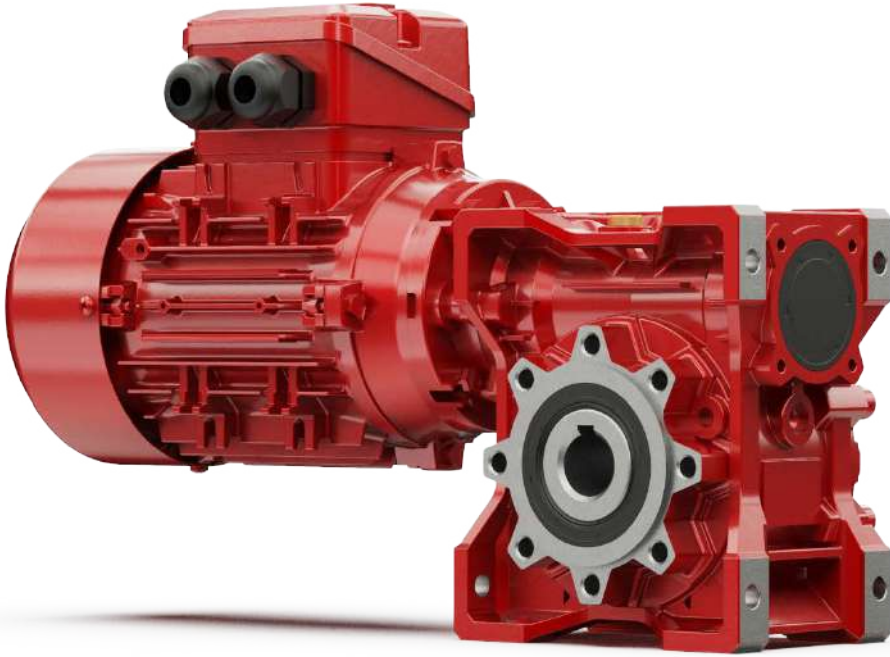
## Genel Bilgiler

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General Information  
*Informations g n rales*

# S

SERİSİ / SERIES / SÉRIES



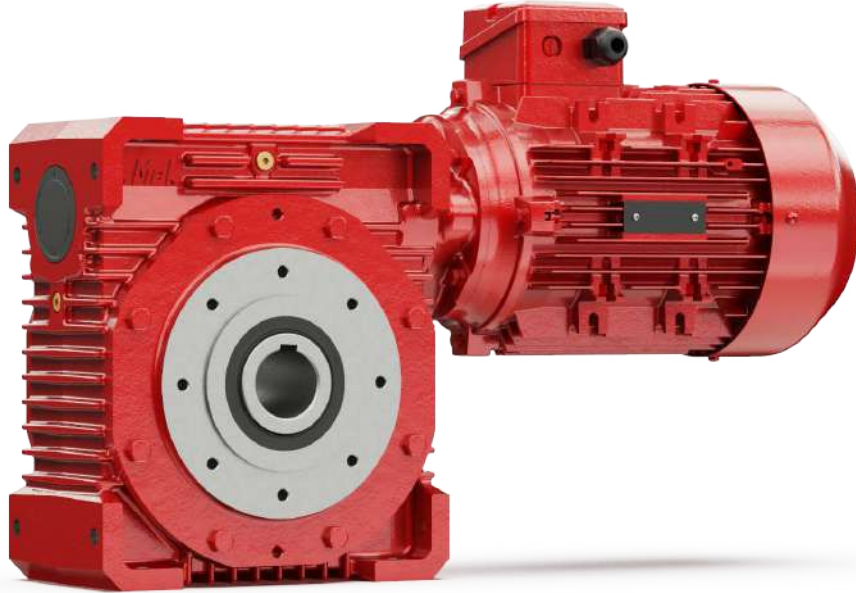
- Aluminyum ve döküm gövdeli sonsuz vidalı redüktörler
- 9 Farklı gövde büyüklüğü
- 13 – 1550 Nm moment aralığı
- 7,5 – 100 Tahvil aralığı

- Worm geared unit with aluminium or cast iron housing
- 9 Size of housing
- Torque range from 13 to 1550 Nm
- Ratio range from 7.5 to 100

- *Réducteur à roue et vis sans fin avec carter en aluminium et fonte*
- *9 tailles de carter*
- *Couple allant de 13 à 1550 Nm*
- *Rapport de réduction compris entre 7.5 et 100*

# IRS

SERİSİ / SERIES / SÉRIES



- Döküm gövdeli sonsuz vidalı redüktörler
- 8 Farklı gövde büyüklüğü
- 96 – 16876 Nm moment aralığı
- 7,25 – 115 Tahvil aralığı

- Worm geared unit with cast iron housing
- 8 Size of housing
- Torque range from 96 to 16876 Nm
- Ratio range from 7.25 to 115

- Réducteur à roue et vis sans fin avec carter en fonte
- 8 tailles de carter
- Couple allant de 96 à 16876 Nm
- Rapport de réduction compris entre 7.25 et 115

# İRSD

SERİSİ / SERIES / SÉRIES



- Döküm gövdeli helisel sonsuz vidalı redüktörler

- 5 Farklı gövde büyüklüğü

- 211 – 4479 Nm moment aralığı

- 25 – 333 Tahvil aralığı

- Helical worm geared unit with cast iron housing

- 5 Size of housing

- Torque range from 211 to 4479 Nm

- Ratio range from 25 to 333

- Réducteur hélicoïdal à roue et vis sans fin avec carter en fonte

- 5 tailles de carter

- Couple allant de 211 à 4479 Nm

- Rapport de réduction compris entre 25 et 4479

**Alüminyum ve döküm gövdeli sonsuz vidalı redüktörler**

Worm geared unit with aluminium or cast iron housing

*Réducteur à roue et vis sans fin avec carter en aluminium et fonte*

Kod	Tip tanımlama	Type designation	Spécifications des types
S...	Giriş millî - ayak montajlı - delik millî	Input shaft - foot mounted - hollow shaft	Arbre d'entrée - a patte - arbre creux
SM...	Motorlu - ayak montajlı - delik millî	With motor - foot mounted - hollow shaft	Avec moteur - a pattes - arbre creux
SP...	IEC B14 giriş flanşlı - ayak montajlı - delik millî	IEC B14 input flange - foot mounted - hollow shaft	Bride d'entrée IEC B14 - a pattes - arbre creux

**Döküm gövdeli sonsuz vidalı redüktörler**

Worm geared unit with cast iron housing

*Réducteurs à roue et vis sans fin, carter en fonte*

Kod	Tip tanımlama	Type designation	Spécifications des types
İRSA...	Giriş millî - ayak montajlı - delik millî	Input shaft - foot mounted - hollow shaft	Arbre d'entrée - a pattes - arbre creux
İRSF...	Giriş millî - flanş montajlı - delik millî	Input shaft - flange mounted - hollow shaft	Arbre d'entrée - bride de sortie - arbre creux
İRSAM...	Motorlu - ayak montajlı - delik millî	With motor - foot mounted - hollow shaft	Avec moteur - a pattes - arbre creux
İRFSM...	Motorlu - flanş montajlı - delik millî	With motor - flange mounted - hollow shaft	Avec moteur - bride de sortie - arbre creux
İRSAp...	IEC B14 giriş flanşlı - ayak montajlı - delik millî	IEC B14 input flange - foot mounted - hollow shaft	Bride d'entrée IEC B14 - a pattes - arbre creux
İRSFp...	IEC B14 giriş flanşlı - flanş montajlı - delik millî	IEC B14 input flange - flange mounted - hollow shaft	Bride d'entrée IEC B14 - bride de sortie - arbre creux

**Döküm gövdeli helisel - sonsuz vidalı redüktörler**

Helical worm geared unit with cast iron housing

*Réducteurs hélicoïdal à roue et vis sans fin, carter en fonte*

Kod	Tip tanımlama	Type designation	Spécifications des types
İRSD...	Giriş millî - ayak montajlı - delik millî	Input shaft - foot mounted - hollow shaft	Arbre d'entrée - a pattes - arbre creux
İRSDf...	Giriş millî - flanş montajlı - delik millî	Input shaft - flange mounted - hollow shaft	Arbre d'entrée - bride de sortie- arbre creux
İRSDM...	Motorlu - ayak montajlı - delik millî	With motor - foot mounted - hollow shaft	Avec moteur - a pattes - arbre creux
İRSDfM...	Motorlu - flanş montajlı - delik millî	With motor - flange mounted - hollow shaft	Avec moteur - bride de sortie- arbre creux
İRSDP...	IEC B14 giriş flanşlı - ayak montajlı - delik millî	IEC B14 input flange - foot mounted - hollow shaft	Bride d'entrée IEC B14 - a pattes - arbre creux
İRSDfP...	IEC B14 giriş flanşlı - flanş montajlı - delik millî	IEC B14 input flange - flange mounted - hollow shaft	Bride d'entrée IEC B14 - bride de sortie - arbre creux
İRSDPM...	IEC pam flanşlı motorlu - ayak montajlı - delik millî	IEC PAM Flange with motor - foot mounted - hollow shaft	Bride d'entrée IEC B14 - avec moteur - arbre creux
İRSDfPM...	IEC pam flanşlı motorlu - flanş montajlı - delik millî	IEC PAM Flange with motor - flange mounted - hollow shaft	Bride d'entrée IEC B14 - avec moteur - bride de sortie - arbre creux



**Redüktör opsiyonları / Gearboxes options / Options des motoréducteurs**

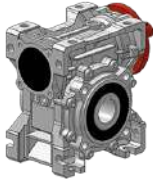
Kod	Opsiyon	Options	Options
FR	Sağ taraf çıkış flanşı	Output flange right	Bride de sortie ( Droite )
FL	Sol taraf çıkış flanşı	Output flange left	Bride de sortie ( Gauche )
FD	Çift çıkış flanşı	Double output flange	Bride de sortie ( Double )
SR	Sağ taraf çıkış mili	Output shaft right	Arbre de sortie ( Droite )
SL	Sol taraf çıkış mili	Output shaft left	Arbre de sortie ( gauche )
SD	Çift çıkış mili	Output shaft double	Arbre de sortie ( Double )
C	Alın mili	Double input shaft	Arbre d'entrée ( Double )
CBR	Alın miline fren bağlantısı	Double input shaft with brake	Double arbre d'entrée avec freins
TR	Sağ tork kolu	Torque arm right	Bras de couple ( Droit )
TL	Sol tork kolu	Torque arm left	Bras de couple ( Gauche )
H *	Çektirme pulu	Retaining screw washer	Epaulement ( vis de fixation )
SDR **	Sağ sıkma bilezik	Shrink disk right	Frette de serrage ( Droit )
SDL **	Sol sıkma bilezik	Shrink disk left	Frette de serrage ( Gauche )
OC	Çıkış koruma kapağı	Output cover	Bouchon ( arbre creux )

\* İRS ve İRSD redüktörler içindir. / Only for IRS and IRSD Series / Uniquement pour les séries IRS et IRSD

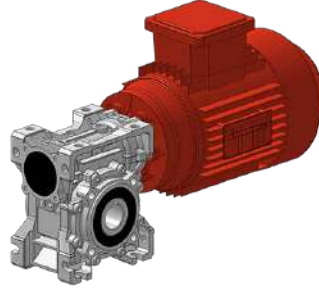
\*\* İRSD Redüktörler içindir / Only for IRSD Series / Uniquement pour la série IRSD

**Motor Opsiyonları / Motor's options / Options moteurs**

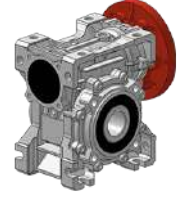
Kod	Opsiyon	Options	Options
BR	Fren	Brake	Frein
BRH	Manuel kollu fren	Brake with hand release	Frein avec ouverture manuel
BD	Çift fren	Double brake	Double frein
BDH	Manuel kollu çift fren	Double brake with hand release	Double frein avec ouverture manuel
E	Enkoder	Encoder	Encoder
EMK	Elektromanyetik kavrama	Electromagnetic clutches	Disque electromagnetique
CF	Harici fan	External fan	Ventilation externe
FG	Kanopi	Canopy	Canopé
U	Fansız motor (güdük)	Without fan	Sans ventilation
M	Monofaze motor	Mono phase motor	Moteur monophasé
BS	Mekanik kilit	Backstop	Roulement anti-retour



**S**  
**Giriş millî**  
Solid input shaft  
Avec arbre de sortie



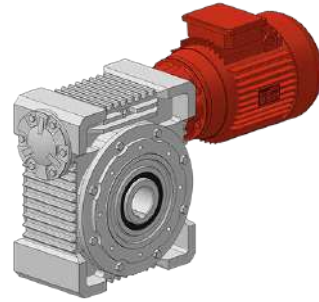
**SM**  
**Motorlu**  
With motor  
Avec moteur



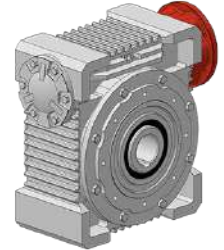
**SP**  
**IEC pam flanşlı**  
IEC input flange  
Avec bride PAM - IEC



**İRSA**  
**Giriş millî**  
Solid input shaft  
Avec arbre de sortie



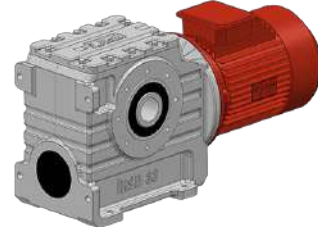
**İRSAM**  
**Motorlu**  
With motor  
Avec moteur



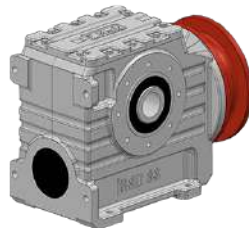
**İRSAP**  
**IEC pam flanşlı**  
IEC input flange  
Avec bride de sortie PAM - IEC



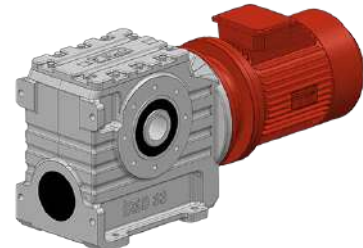
**İRSD**  
**Giriş millî**  
Solid input shaft  
Avec arbre de sortie



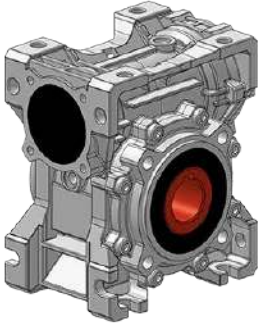
**İRSDM**  
**Motorlu**  
With motor  
Avec moteur



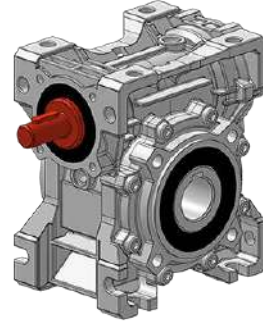
**İRSDP**  
**IEC pam flanşlı**  
IEC input flange  
Avec bride de sortie PAM - IEC



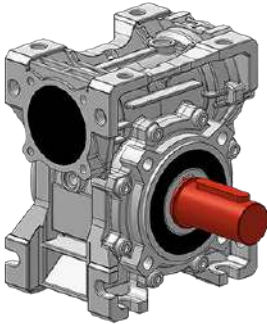
**İRSDPM**  
**IEC pam flanşlı motorlu**  
IEC input flange with motor  
Avec bride de sortie PAM-IEC et moteur



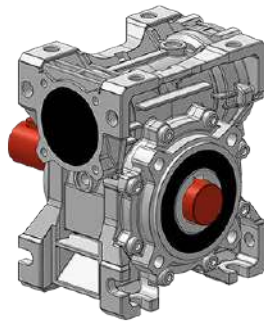
**S..**  
**Delik milli**  
Hollow output shaft  
*Arbre creux*



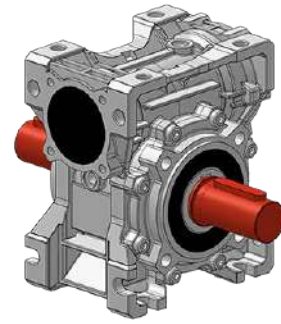
**S...C**  
**Alın milli**  
Input shaft  
*Arbre d'entrée*



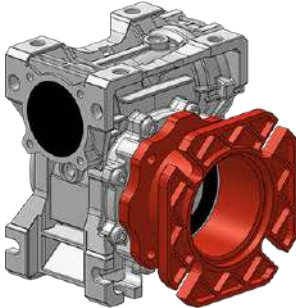
**S....SL**  
**Çıkış milli (sol)**  
Output shaft ( Left )  
*Arbre de sortie ( Gauche )*



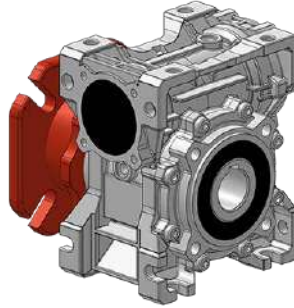
**S...SR**  
**Çıkış milli (Sağ)**  
Output shaft ( Right )  
*Arbre de sortie ( Droite )*



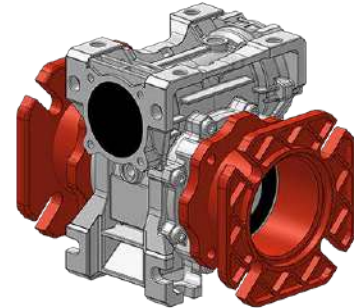
**S...SD**  
**Çift çıkış milli**  
Double output shaft  
*Double arbre de sortie*



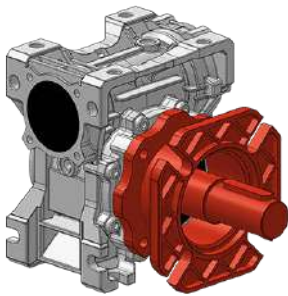
**S...FL**  
**Çıkış flanşlı (sol)**  
Output flange ( Left )  
*Bride de sortie ( Gauche )*



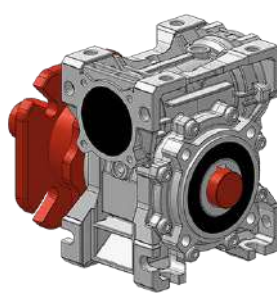
**S...FR**  
**Çıkış flanşlı (Sağ)**  
Output flange ( Right )  
*Bride de sortie ( Droite )*



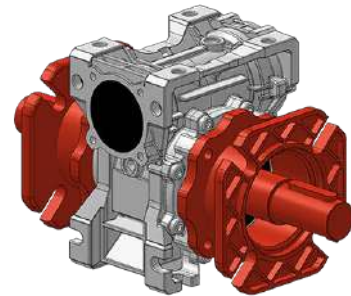
**S...FD**  
**Çift çıkış flanşlı**  
Double output flange  
*Double bride de sortie*



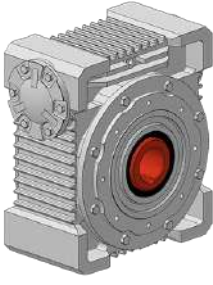
**S...FL-SL**  
**Çıkış milli - Çıkış flanşlı (Sol)**  
Output shaft - Output flange ( Left )  
*Arbre et bride de sortie ( Gauche )*



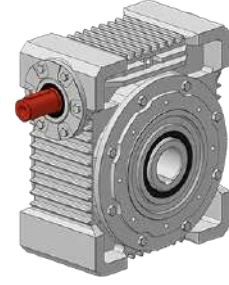
**S...FR-SR**  
**Çıkış milli - Çıkış flanşlı (Sağ)**  
Output shaft - Output flange ( Right )  
*Arbre et bride de sortie ( Droite )*



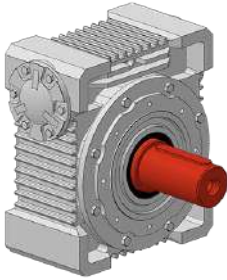
**S...FD-SD**  
**Çift çıkış flanşlı - Çift çıkış milli**  
Double output flange - Double output shaft  
*Bride de sortie double - Arbre de sortie double*



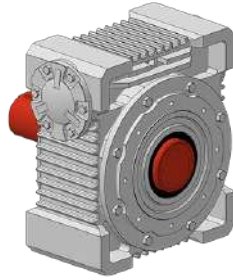
**İRS..**  
**Delik milli**  
Hollow output shaft  
*Arbre creux*



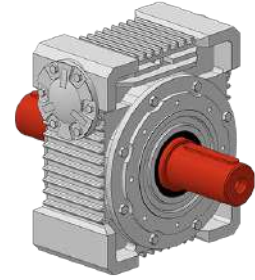
**İRS...C**  
**Alın milli**  
Input shaft  
*Arbre d'entrée*



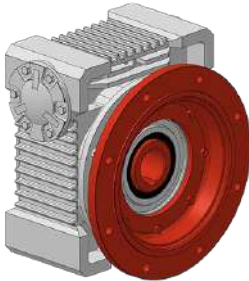
**İRS...SL**  
**Çıkış milli (sol)**  
Output shaft ( Left )  
*Arbre de sortie ( Gauche )*



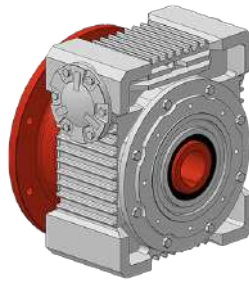
**İRS...SR**  
**Çıkış milli (Sağ)**  
Output shaft (Right)  
*Arbre de sortie ( Droite )*



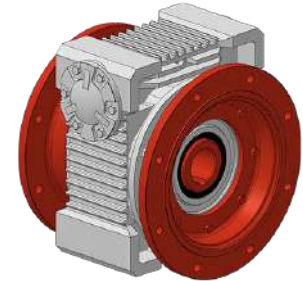
**İRS...SD**  
**Çift çıkış milli**  
Double output shaft  
*Double arbre de sortie*



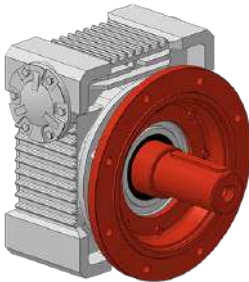
**İRS...FL**  
**Çıkış flanşlı (sol)**  
Output flange ( Left )  
*Bride de sortie ( Gauche )*



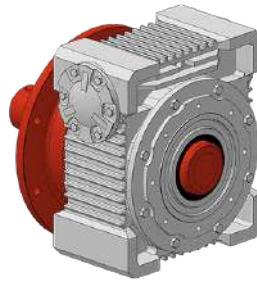
**İRS...FR**  
**Çıkış flanşlı (Sağ)**  
Output flange (Right)  
*Bride de sortie ( Droite )*



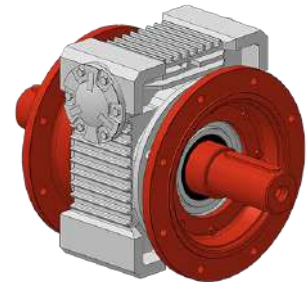
**İRS...FD**  
**Çift çıkış flanşlı**  
Double output flange  
*Double bride de sortie*



**İRS...FL-SL**  
**Çıkış milli - Çıkış flanşlı (Sol)**  
Output shaft - Output flange ( Left )  
*Arbre et bride de sortie ( Gauche )*



**İRS...FR-SR**  
**Çıkış milli - Çıkış flanşlı (Sağ)**  
Output shaft - Output flange (Right)  
*Arbre et bride de sortie ( Droite )*



**İRS...FD-SD**  
**Çift çıkış flanşlı- Çift çıkış milli**  
Double output flange - Double output shaft  
*Bride de sortie double - Arbre de sortie double*

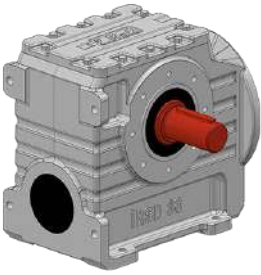




**İRSD..**  
**Delik milli**  
Hollow output shaft  
*Arbre creux*



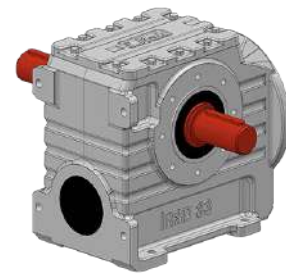
**İRSD...C**  
**Alın milli**  
Input shaft  
*Arbre d'entrée*



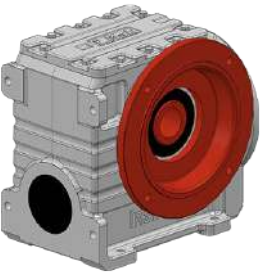
**İRSD....SL**  
**Çıkış milli (sol)**  
Output shaft ( Left )  
*Arbre de sortie ( Gauche )*



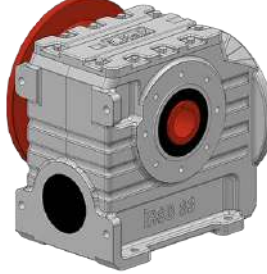
**İRSD...SR**  
**Çıkış milli (Sağ)**  
Output shaft ( Right )  
*Arbre de sortie ( Droite )*



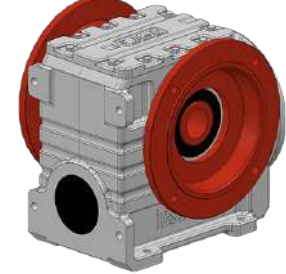
**İRSD...SD**  
**Çift çıkış milli**  
Double output shaft  
*Double arbre de sortie*



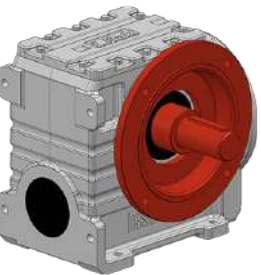
**İRSD...FL**  
**Çıkış flanşlı (sol)**  
Output flange ( Left )  
*Bride de sortie ( Gauche )*



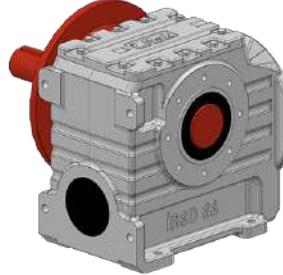
**İRSD...FR**  
**Çıkış flanşlı (Sağ)**  
Output flange ( Right )  
*Bride de sortie ( Droite )*



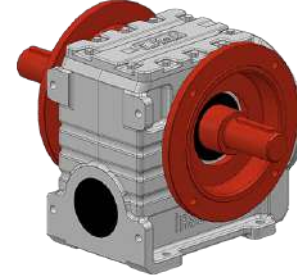
**İRSD...FD**  
**Çift çıkış flanşlı**  
Double output flange  
*Double bride de sortie*



**İRSD...FL-SL**  
**Çıkış milli - Çıkış flanşlı (Sol)**  
Output shaft - Output flange ( Left )  
*Arbre et bride de sortie ( Gauche )*



**İRSD...FR-SR**  
**Çıkış milli - Çıkış flanşlı (Sağ)**  
Output shaft - Output flange ( Right )  
*Arbre et bride de sortie ( Droite )*



**İRSD...FD-SD**  
**Çift çıkış flanşlı - Çift çıkış milli**  
Double output flange - Double output shaft  
*Bride de sortie double - Arbre de sortie double*



**Çıkış mili / Output shaft / Arbre de sortie**

Kod / Code	Varyasyon	Options	Options
111	Özel mil ölçüsü	Special shaft dimensions	Dimensions de l'arbre spécial
112	Özel mil malzemesi	Special shaft materials	Matériel de l'arbre spécial
113	Sertleştirilmiş mil	Hardened shaft	Axe durci
114	Diş çekilmiş mil	Screw	Axe à vis
115	Çoklu kama uygulaması	Shaft with multiple key	Arbre à multi clavette

**Kovan / Hollow shaft / Arbre creux**

Kod / Code	Varyasyon	Options	Options
121	Özel kovan ölçüsü	Dimensions of special shaft	Arbre creux spécial
122	Özel kovan malzemesi	Material of special output shaft	Arbre creux en matériaux spéciaux
123	Sertleştirilmiş kovan *	Hardened steel hollow shaft	Arbre creux en acier trempé
124	Diş çekilmiş kovan**	Hollow shaft with screw	Arbre creux a vis
125	Opsiyonel kovan	Optional output shaft	Arbre creux optionnel
126	Çoklu kama uygulaması	Hollow shaft with splining	Arbre creux cannelé

\* İRSD.. Serisi için geçerlidir. / Only for IRSD Series / Uniquement pour la série IRSD

\*\*İRS.. ve İRSD.. Serileri için geçerlidir. / Only for IRS and IRSD Series / Uniquement pour les séries IRS et IRSD

**Giriş mili - pam mili / Input shaft / Arbre d'entrée**

Kod / Code	Varyasyon	Options	Options
131	Özel mil ölçüsü	Dimensions of the shaft	Dimensions de l'arbre ( Spécial )
132	Özel mil malzemesi	Material of special shaft	Matériaux de l'arbre ( Spécial )
133	Sertleştirilmiş mil	Hardened steel shaft	Arbre en acier trempé
134	Çoklu kama uygulaması	Hollow shaft with screw	Arbre creux a vis
135	Özel alın mili	Spécial input shaft	Arbre d'entrée spécial
136	Diş çekilmiş mil	Shaft with screw	Arbre de sortie avec vis

**Çıkış flanşı / Output flange / Bride de sortie**

Kod / Code	Varyasyon	Options	Options
141	Özel flanş ölçüsü	Dimensions of special output flange	Dimensions de la bride de sortie (Spéciale)
142	Özel flanş malzemesi	Material of special output flange	Matériaux de la bride de sortie (Spéciale)
143	Opsiyonel flanş	Optional output flange	Bride de sortie optionnelle
144	Standart dışı flanş*	Special output flange*	Bride d'entrée spéciale*

\* İstenilen değişiklik ürünün standart flanşı üzerinde yapılamayip yeni bir flanş tasarlanması durumudur. / In the case your configuration require the production of a special flange / Dans le cas où la configuration de votre application requiert une bride d'entrée spéciale.

**Giriş Flanşı / Input flange / Bride d'entrée**

Kod / Code	Varyasyon	Options	Options
151	Özel flanş ölçüsü	Dimension of special input flange	Bride d'entrée ( Spéciale )
152	Özel flanş malzemesi	Material of special input flange	Matériaux de la bride d'entrée ( spéciale )
153	Standart dışı flanş*	Special input flange*	Bride d'entrée ( Spéciale )*
154	IEC B14 Flanş	IEC B14 Flange	IEC B14 Bride
155	IEC B5 Flanş	IEC B5 Flange	IEC B5 Bride

\* İstenilen değişiklik ürünün standart lanşı üzerinde yapılamayip yeni bir lanş tasarlanması durumudur. / In the case your configuration require the production of a special flange / Dans le cas où la configuration de votre application requiert une bride de sorti spéciale.

**Yağ / Oil / Huiles**

Kod / Code	Varyasyon	Options	Options
211	Sentetik yağ VG 220 (SHC 630)	Synthetic oil VG 220 ( SHC 630 )	Huile synthétique VG 220 ( SHC 630 )
212	Gıda uyumlu yağ VG 220 (CIBUS 220)	Food compatible oil VG 220 ( CIBUS 220 )	Huile pour industrie agroalimentaire VG 220 (CIBUS 220)
213	-40C° Uyumlu yağ VG 220 (SHC 630)	Cold resistant oil -40C° VG 220 ( SHC 630 )	Huile base température -40C° VG220 ( SHC 630 )

**Keçe-tapa / Seal-cover / Joint- bouchon**

Kod / Code	Varyasyon	Options	Options
221	Özel ölçü keçe	Dimensions of special seal	Dimensions du joint (Spécial)
222	Özel ölçü tapa	Dimensions of special cover	Dimensions du bouchon ( Spécial )
223	Özel marka keçe	Special brand of seal	Marque du joint ( Spécial )
224	Özel marka tapa	Special brand of cover	Marque du bouchon ( Spécial )
225	Viton keçe	Viton seal	Joint en viton
226	Özel tip keçe uygulaması	Special configuration of seal	Configuration spéciale du joint
227	Toz kapağı	Dust cover	Bouchon anti-poussière

**Rulman / Bearing / Roulement**

Kod / Code	Varyasyon	Options	Options
231	Güçlendirilmiş çıkış rulmanı	Reinforced output bearing	Roulement renforcé ( Sortie )
232	Güçlendirilmiş giriş rulmanı	Reinforced input bearing	Roulement renforcée ( Entrée )
233	Özel marka rulman	Special brand of bearing	Marque du roulement ( Spécial )
234	Özel ölçü rulman	Special dimensions of bearing	Dimensions du roulement ( Spécial )
235	Mekanik kilit CW*	Backstop bearing ( CW )	Roulement anti-retour ( CW )
236	Mekanik kilit CCW*	Backstop bearing ( CCW )	Roulement anti-retour ( CCW )

\* İRO ve YP serileri için geçerlidir, diğer serilerde motora uygulanmaktadır.

\* Available in YP and İRO Series, the other series are equipped with backstop bearings at motor side

\* Disponible pour les séries YP et İRO, les autres séries sont équipés de roulement anti-retour placés sur le moteur.

**Gövde / Housing / Carter**

Kod / Code	Varyasyon	Options	Options
241	Özel işlenmiş gövde	Special housing	Carter spéciale
242	Özel malzeme	Special housing materials	Carter avec matériaux spéciaux

**Boya / Paint / Peinture**

Kod / Code	Varyasyon	Options	Options
251	Özel renk boya	Special paint color	Couleur spéciale
252	Özel tip boya	Special paint type	Type de peinture spéciale
253	Epoksi boya	Epoxy paint	Peinture epoxy
254	Akrilik boya (dış ortam)	Acrylic paint	Peinture acrylique (Environnement extérieur)
255	Su bazlı boya	Water based paint	Peinture à base d'eau
256	Antikorozyon boya	Anti-corrosion paint	Peinture anti-corrosion

**Dişli / Gears / Pignons**

Kod / Code	Varyasyon	Options	Options
261*	Özel imalat dişli	Special gear	Pignons spéciaux
262	Katalog dışı tahvil	Gear ratio ( Catalogue )	Rapport de réduction des pignons (Catalogue)

\* 261 kodu, 262 yi kapsamaktadır. / 261 and 262 codes are equivalent / Les codes 261 et 262 sont équivalents

### Voltaĵ - Frekans / Voltage and frequency / Voltage et frequency

Kod / Code	Varyasyon	Options	Options
311	Özel voltaĵ motor	Special Voltage	Voltage spécial
312	Özel frekans motor	Special frequency	Fréquence spéciale

\*400 V 50 Hz dıřı tüm sarımlar standart dıřı kabul edilir. / 400 V 50 Hz are considered as standard / 400 V 50 Hz sont les normes standards

### Koruma sınıfı / IP Classification / Classification IP

Kod / Code	Varyasyon	Options	Options
321	IP 54	IP 54	IP 54
322	IP 56	IP 56	IP 56
323	IP 65	IP 65	IP 65
324	IP 66	IP 66	IP 66

IP 55 Standart kabul edilir / IP 55 is our standard / IP 55 étant la classe standard

### İzolasyon sınıfı / Isolation class / Classe d'isolations

Kod / Code	Varyasyon	Options	Options
331	B sınıfı	B - class	Classe - B
332	H sınıfı	H - class	Classe - H

\* F izolasyon sınıfı standart kabul edilir. / F class is accepted as a standard / La classe F étant la norme d'isolation standard

\* 0 C° ile 40 C° aralıĵı dıřındaki ortam sıcaklıkları ini fabrikaya danıřınızı. / Adapted for outside environment with temperature in between 0 C° and 40 C° / Adapté aux environnements extérieurs avec une température comprises entre 0° C et 40° C

### Rulman / Bearing / Roulement

Kod / Code	Varyasyon	Options	Options
341	Sıcak ortam rulmanı*	Bearing for hot environment	Roulement pour environnement a températures élevées
342	Soĵuk ortam rulmanı*	Bearing for cold environment	Roulement pour environnement a températures négatives
343	İzole rulman	Isolated bearing	Roulement isolé
344	Gresörlük	Bearing with greasing nipples	Roulement avec graisseurs
345	Mekanik kilit CW	Backstop bearing ( CW )	Roulement anti-retour ( CW )
346	Mekanik kilit CCW	Backstop bearing ( CCW )	Roulement anti-retou ( CCW )

\* 0 C° ile 40 C° aralıĵı dıřındaki ortam sıcaklıkları ini fabrikaya danıřınızı / For outside environment with temperature out of 0C° and 40C° consult our technical team / Pour des environnements avec des température non comprises entre 0C° et 40C° consulté nos équipes techniques.

### Marka / Brand / Marque

Kod / Code	Varyasyon	Options	Options
351	Gamak Motor	Gamak Motor	Gamak Moteur
352	Volt Elektrik Motor	Volt Motor	Volt Moteur
353	Aemot Motor	Aemot Motor	Aemot Moteur
354	Wat Motor	Wat Motor	Wat Moteur
356	Diĵer	Diĵer	Diĵer

Standart olarak İ.Mak Motor kullanılmaktadır. / İ.Mak motor is used as standard / Le moteur İ.Mak est utilisé en standard

### Verim sınıfı / Efficiency classifications / Classes d'efficience énergétique

Kod / Code	Varyasyon	Options	Options
364	IE2	IE2	IE2
363	IE4	IE4	IE4

\* IE3 verim sınıfı standart kabul edilir. / IE3 is the standard category / IE3 étant la norme standard

## Fren markasi / Brake's brand / Marque du frein

Kod / Code	Varyasyon	Options	Options
411	EMF fren	EMF brake	Frein - EMF
412	Fatih fren	Fatih brake	Frein - Fatih
413	Diğer	Other	Autres

## Fren tipi / Type of brake / Type de frein

Kod / Code	Varyasyon	Options	Options
421	220 V soğutmalı	220 V cooler	220 V - avec refroidissement
422	24 V soğutmalı	24 V cooler	24 V - avec refroidissement
423	220 V soğutmasız*	220 V without cooler	220 V - sans refroidissement
424	24 V soğutmasız*	24 V without cooler	24 V - sans refroidissement
425	Çift balatalı fren	Double disk brake	Frein avec double disque
426	Özel tip fren	Special brake type	Type de frein spécial
427	Özel voltaj fren	Special voltage for brake	Frein avec voltage spécial

\* Soğutmasız frenlerde motor fan muhafazası bulunmamaktadır / The brake without cooling are installed without fan or cover / Les freins sans refroidissement ne sont pas équipés de couvercle ou d'hélice.

## Enkoder / Encoder / Codeur

Kod / Code	Varyasyon	Options	Options
431	HPL 100 Pulse rotary enkoder	HPL 100 Pulse rotary encoder	HPL 100 Codeur d'impulsions rotatif
432	HPL 360 Pulse rotary enkoder	HPL 360 Pulse rotary encoder	HPL 360 Codeur d'impulsions rotatif
433	HPL 500 Pulse rotary enkoder	HPL 500 Pulse rotary encoder	HPL 500 Codeur d'impulsions rotatif
434	HPL 1024 Pulse rotary enkoder	HPL 1024 Pulse rotary encoder	HPL 1024 Codeur d'impulsions rotatif
435	HPL 2048 Pulse rotary enkoder	HPL 2048 Pulse rotary encoder	HPL 2048 Codeur d'impulsions rotatif
436	HTL 1024 Pulse rotary enkoder	HTL 1024 Pulse rotary encoder	HTL 1024 Codeur d'impulsions rotatif
437	HTL 2048 Pulse rotary enkoder	HTL 2048 Pulse rotary encoder	HTL 2048 Codeur d'impulsions rotatif
438	TTL 1024 Pulse rotary enkoder	TTL 1024 Pulse rotary encoder	HTL 1024 Codeur d'impulsions rotatif
439	TTL 2048 Pulse rotary enkoder	TTL 2048 Pulse rotary encoder	TTL 2048 Codeur d'impulsions rotatif
440	Diğer	Others	Autres

\* Diğer enkoder çeşitleri için fabrikaya danışınız / For different type of encoder contact our sales team / Pour des type de codeurs différents contactez notre équipe technique

## Termistör - Isitici / Thermistor and heater / Thermistatet chauffage

Kod / Code	Varyasyon	Options	Options
441	PTC X 1 termistör	PTC X 1 thermistor	PTC X 1 Thermistat
442	Bimetal termostat	Bimetallic switch	Interrupteur bilame
443	Basın sensörü	Pressure sensor	Senseur pression
444	110 V sargı ısıtıcı	110 V coil heat	Bobine chauffante 110 V
445	220 V sargı ısıtıcı	220 V coil heat	Bobine chauffante 220 V
446	PT 100	PT 100	PT 100

## Harici fan / External Fan / Ventilateur externe

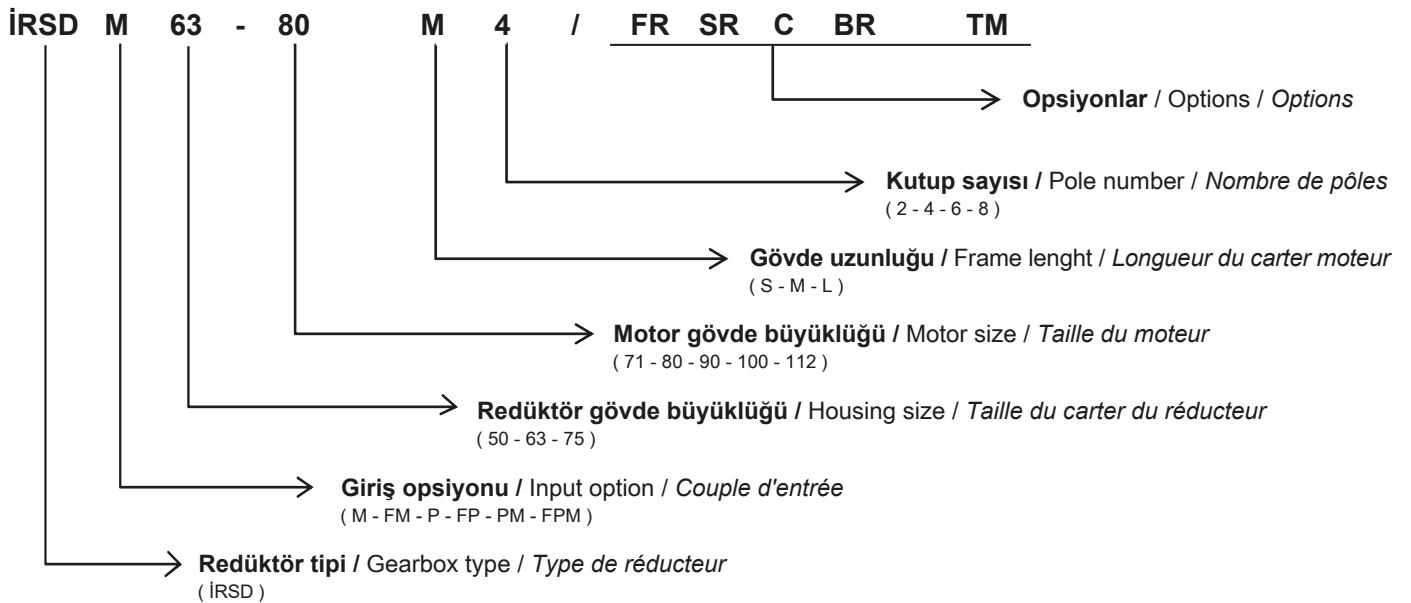
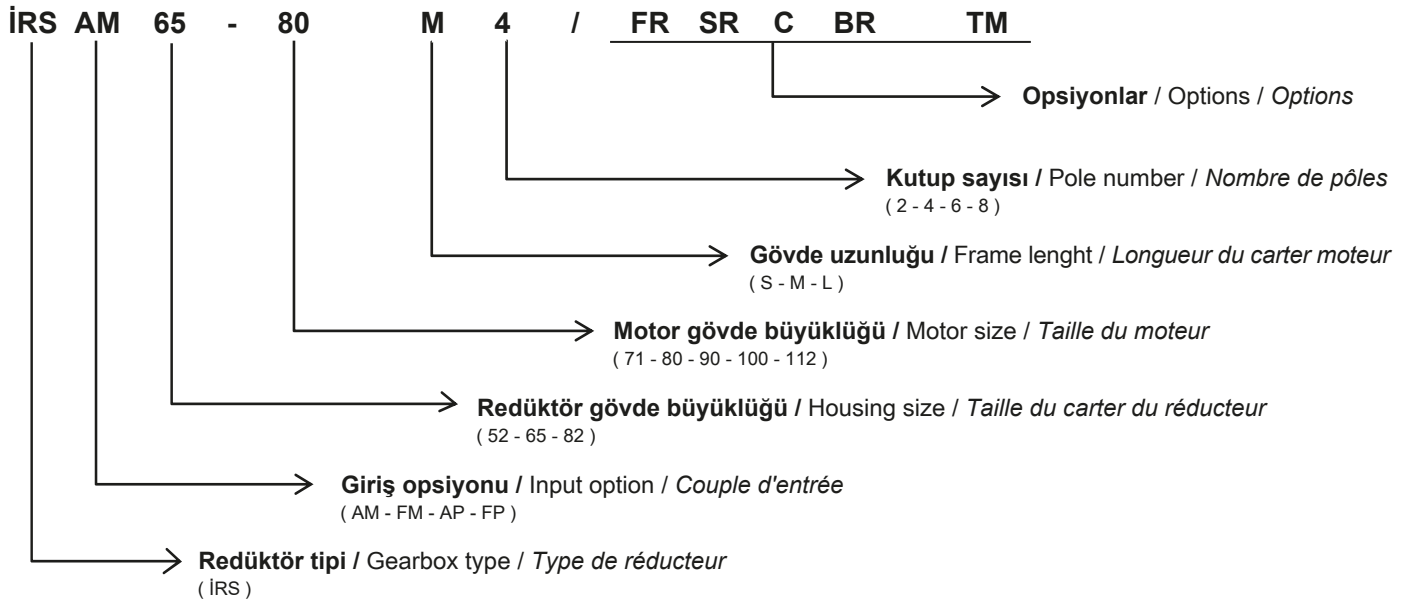
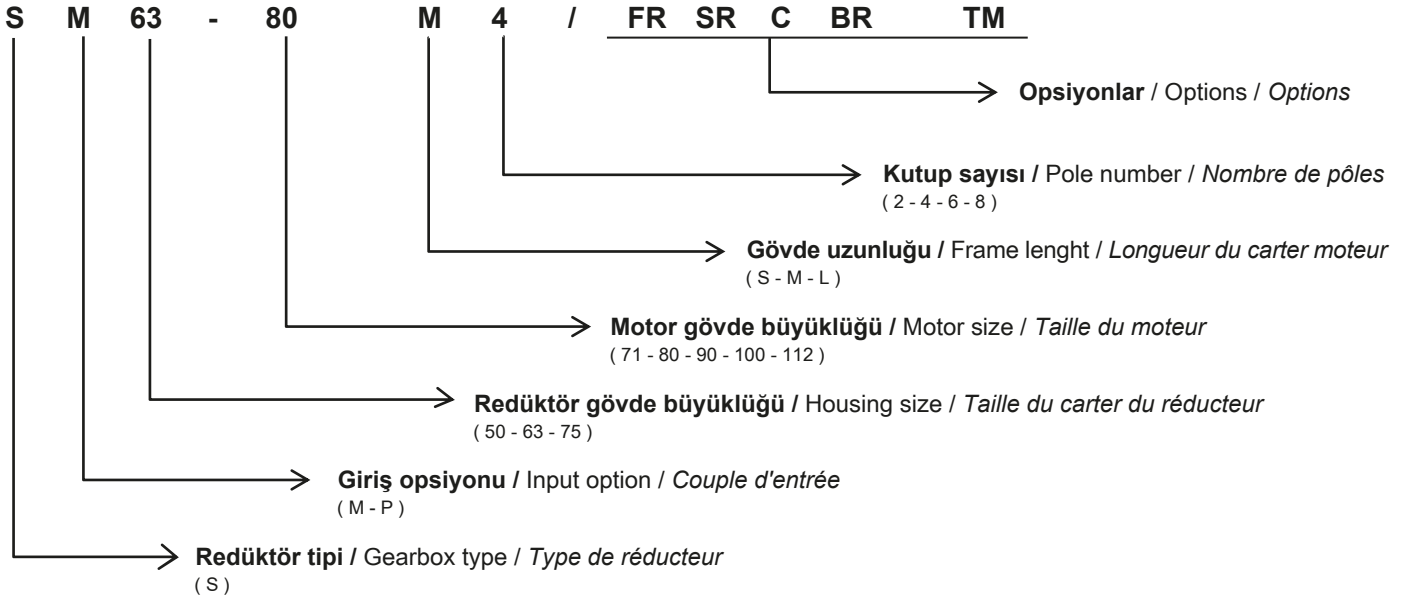
Kod / Code	Varyasyon	Options	Options
451	24 VDC (EBM)	24 VDC (EBM)	24 VDC (EBM)
452	230 VAC (EBM)	230 VAC (EBM)	230 VAC (EBM)
453	380 VAC (EBM)	380 VAC (EBM)	380 VAC (EBM)
454	230 VAC	230 VAC	230 VAC
455	380 VAC	380 VAC	380 VAC

## Özel Motorlar / Special motor / Moteur spécial

Kod / Code	Varyasyon	Options	Options
461	Servo motor*	Servo motor	Servo moteur
462	DC motor*	DC motor	Moteur DC
463	Vektör motor	Vector motor	Moteur vecteur
464	Tork motoru	Tork motor	Moteur à couple élevé
465	Hidro motor*	Hydraulic motor	Moteur hydraulique
466	Pnömatik motor*	Compressed air motor	Moteur a air comprimé
467	Ex-proof motor	Explosion proof motor	Moteur anti-explosion
468	Senkron relüktans motor	Synchronous reluctance motors	Moteur à reluctance synchrone
469	Senkron motor*	Synchronous motors	Moteurs synchrones
470	Müşteri motoru	Customer's motor	Moteur en provenance du client

\* Motorlar firmamız tarafından tedarik edilmemektedir / Our factory is not providing such motors / Moteur non fournis par notre usine  
Özel motor kodları motorların fabrikamız tarafından takıldığı durumlarda uygulanır / Motors installed in our factory / Moteur installés dans notre usine





**Servis Faktörü ( $F_s$ )**

**Servis Faktörü = İşletme Katsayısı = ( $F_s$ )**

Redüktörlerdeki bu değer, tahrik edeceği makinenin bütün teknik ve karakteristik özelliklerine dayanma süresine bağlıdır. Genel olarak makineler yüklenme bakımından üç tip karakteristik gösterirler.

1. HAFİF YÜK (U)
2. ORTA YÜK (M)
3. AĞIR YÜK (H)

Üç değişik yükleme biçiminde çalışan, üç ayrı makinede üretilen momentler birbirine eşitte olsalar, ağır çalışan makinede daha büyük işletme katsayılı Redüktör kullanılmaktadır.

Günlük çalışma saati ise, çalışan dişli ve transmisyon elemanlarının malzeme yorulmasına maruz kalması bakımından, çalışma saatinin fazla olması halinde zararlı yönde etki eder.

Star-Stop durumuna gelince, her makinenin ilk kalkış esnasında en yüksek yüke maruz kaldığı düşünülürse tehlikeli görülür. Müteakip çalışmalarda bu daha aşağıya düşer.

Kataloğumuzda işletme katsayılarının nasıl kullanıldığının anlaşılması için bir misal ile belirtelim.

Önce tablo-1'den makinenin çalışma sahasına göre karakteristiğini belirleyelim. Makinemiz elektrik motor tahrikli ZİNCİR KOVALI EKSKAVATÖR ise yükleme durumu AĞIR' dır. ( H ) Tablo 2'den makine 24 saat çalışacağına göre minimum işletme katsayısı  $F_s = 2$  bulunur.

**Service Factor ( $F_s$ )**

Value of the service factor of a gearbox depends on all technical and characteristic specifications of a driven machine. Generally machines have three types of loading characteristics:

1. UNIFORM LOAD (U)
2. MODERATE LOAD (M)
3. HEAVY LOAD (H)

Even if the torques required by three different machines operating at three different load specifications are equal.

Gearbox of the machine operating under heavy load conditions should have greater service factor.

Daily working period has effect on gearbox elements due to the materials fatigue of working parts.

It must be taken into account that all machines are subject to the greatest load at the first start, so that the number of starts has also effect on service factor.

This is an example how to use the service factor given in the catalogue.

Load specification of machine should be determined first, from table 1 in our example, the machine is CHAIN BUCKET EXCAVATOR driven by electric motor has HEAVY load specification and daily operation time is 24 hours. So that minimum service factor  $F_s = 2$  is taken from Table 2.

**Service facteur ( $F_s$ )**

La valeur du service facteur d'un motoréducteur dépend des caractéristique de l'application. Ont distingue trois type de charges différentes

1. Charges uniformes (U)
2. Charges modérées (M)
3. Charges élevées (H)

Les spécifications des charges restent les même lorsque trois machines différentes sont soumises à des charges distinctes.

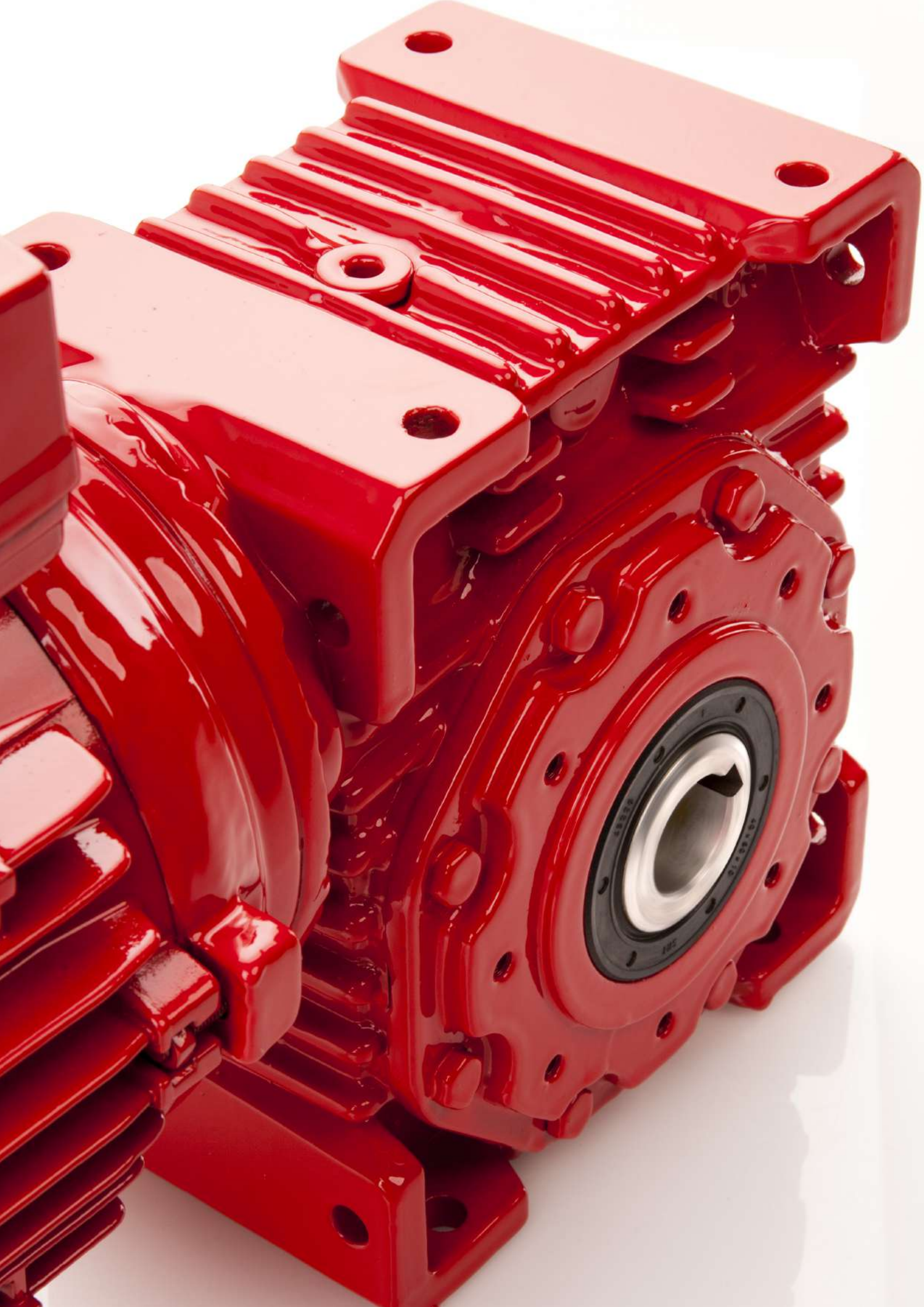
Les réducteurs utilisés dans des applications soumises à de fortes charges doivent obligatoirement avoir des services facteurs élevés.

Le nombre d'heures d'utilisations journalières a une influence directe sur l'usure des pièces et composants du réducteur.

Le réducteur est soumis à une charge maximale lors du démarrage de l'application. Le nombre d'arrêt/rédemarrage est donc à prendre en compte lors de l'analyse du service facteur.

L'exemple çı-dessous explique le processus d'analyse et de calcul du service facteur.

L'application étudiée est un excavateur a godets (Tableau 1) , le réducteur est actionné par un moteur électrique. La charge est "élevée" et la durée de fonctionnement journalière est de 24h. En se basant sur le tableau 2, le service facteur minimum requis est  $F_s = 2$





Ekskavatörler		Excavators		Excavateur	
Zincir kovalı ekskavatörler	H	Chain-Bucket excavators	H	Excavateurs à gaudets	H
Paletli yürüyüşler	H	Travelling gears (Caterpillar)	H	Convoyeur à étage	H
Ray üzerinde yürüyüşler	M	Travelling gears ( Rails )	M	Convoyeur à rails	M
Manevra mekanizmaları	U	Manoeuvring winches	U	Grues à manœuvre	U
Emiş pompaları	M	Pumps	M	Pompes	M
Kovalı çarklar	H	Bucket wheels	H	Roue à gaudets	H
Dönüş mekanizmalar	M	Slewing gears	M	Pignons rotatif	M

İnşaat Makinaları		Building Machines		Machine de Construction	
İnşaat asansörleri	U	Hoists	U	Grues de construction	U
Betoniyerler	M	Concrete mixers	M	Malaxeur à béton	M
Yol inşaat makinaları	M	Road construction machines	M	Machine de construction(routes)	M

Kaldırma ve İletme Tesisleri		Conveyor		Convoyeurs	
Zincirli konveyör	M	Through chain conveyors	M	Convoyeurs à chaines	M
Mafsal bantlı konveyörler	M	Link conveyors	M	Convoyeur à bande souple	M
Lastik bantlı konveyörler (Dökme Yükler)	U	Belt conveyors (Bulk Goods)	U	Convoyeur à bande rigide	U
Lastik bantlı elevatörler	M	Ballast elevators	M	Elevateurs à bande	M
Lastik cepli elevatörler	M	Ballast pocket elevators	M	Elevateur à poche	M
Lastik bantlı konveyörler (Parça Yükler)	M	Belt conveyors (Piece Goods)	M	Convoyeur à bande	M
Askılı konveyörler	U	Chain conveyors	U	Convoyeur à chaines	U
Yük asansörleri	M	Goods lifts	M	Élévateur à chaines	M
Kovalı elevatörler (Toz Malzeme)	U	Bucket elevators (Flour Goods)	U	Élévateur à godets (graviers)	U
Helezon konveyör	M	Screw conveyors	M	Vis d'Archimède	M
Kovalı elevatörler (Parçalı Malzeme)	M	Bucket elevators (Piece Goods)	M	Élévateurs à godets (Roches)	M
Eğik asansörler	H	Inclined hoists	H	Grues inclinées	H
Çelik bantlı konveyörler	M	Steel belt conveyors	M	Convoyeur à bande (Acier)	M
Paletli konveyörler	M	Apron conveyors	M	Convoyeurs à palettes	M

Tahrik Makinası Torque Machine Machines couplées	Günlük Çalışma Müddeti (Saat) Daily Working Period (Hour) Utilisation journalière (Heure)	Makinanın Yükleme Karakteristiği Load Characteristics of Machines Caractéristique des charges		
		Hafif Yük U Uniform Load U Charge uniforme U	Orta Yük M Moderate Load M Charge modérée M	Ağır Yük H Heavy Load H Charge élevée H
<b>Elekt. Motorlu</b> / Elect. Motor / <i>Moteurs élect.</i> <b>Türbin</b> / Turbin / <i>Turbine</i> <b>Hidrolik</b> / Hydraulic / <i>Hydraulique</i>	0.....3	0.8	1	1.5
	3....10	1	1.25	1.75
	10...24	1.25	1.5	2
<b>Pistonlu Makinalar ( 4....6 Silindir</b> Piston Machines ( 4....6 Cylinder ) <i>Machine à pistons ( 4.....6 Cylindres )</i>	0.....3	1	1.25	2
	3....10	1.25	1.5	2
	10...24	1.5	1.75	2
<b>Pistonlu Makinalar ( 1....2 Silindir)</b> Piston Machines ( 1....2 Cylinder ) <i>Machine à pistons ( 1.....2 Cylindres )</i>	0.....3	1.25	1.5	2
	3....10	1.5	1.75	2.25
	10...24	1.75	2	2.5

Kimya Endüstrisi		Chemical Industry		Industrie Chimique	
Soğutma tamburları	M	Cooling drums	M	Tambours de refroidissement	M
Karıştırıcılar	M	Mixers	M	Mixeurs	M
Çalkalayıcılar (Hafif Akışkanlar)	U	Agitators ( Liquids )	U	Agitateurs (Liquides)	U
Çalkalayıcılar (Ağır Akışkanlar)	M	Agitators ( Semi Liquids )	M	Agitateurs (Semi liquide)	M
Tambur kurutucuları	M	Drying drums	M	Tambours de séchage	M
Santrifüjler	U	Centrifuges ( Lights )	U	Centrifugeuse (Légère)	U
Santrifüjler	H	Centrifuges ( Heavy )	H	Centrifugeuse (Lourde)	H

Petrol Endüstrisi		Oil Industry		Pétrole et Hydrocarbures	
Boru hattı pompaları	M	Pipeline pumps	M	Pompes à oléoducs	M
Kuyu açma mekanizmaları	H	Rotary drilling equipment	H	Foreuse à cylindres	H

Ventilatör Ve Aspiratörler		Fans		Ventilations	
Pistonlu ventilatörler	M	Rotary piston blowers	M	Souffleurs rotatifs	M
Ventilatör ( Aksiyal ve Radyal )	U	Blowers ( Axial and Radial )	U	Souffleurs ( Axe et radial )	U
Santrifüj (türbinli) körük	H	Centrifugal	H	Centrifugeuse	H

Kauçuk Makinaları		Rubber Machines		Industrie du Caoutchouc	
Ekstruder ve kanderler	H	Extruders and calenders	H	Extrudeuse	H
Yoğurma makinaları	H	Pug mills	H	Malaxeur	H
Karıştırıcılar	M	Mixers	M	Mixeurs	M
Silindirme makinaları	H	Rolling mills	H	Presse	H

Ağaç İşleme Makinaları		Wood Working Machine		Industries Forestières	
Yontma tamburları	H	Backers	H	Presse à bois	H
Planya makinaları	M	Planing machines	M	Aplanisseuses	M
Ağaç işleme tezgahları	U	Wood working machines	U	Découpe de bois	U
Şerit testereler	H	Band saws	H	Scie	H

Yıkama Makinaları		Washing Machines		Laveuses	
Yıkama makinaları	U	Washing machines	U	Machine de lavage	U
Tamburlu kurutucular	M	Tumblers	M	Tambours	M

Tahrik Makinası Torque Machine Machines couplées	Günlük Çalışma Müddeti (Saat) Daily Working Period (Hour) Utilisation journalière (Heure)	Makinanın Yükleme Karakteristiği Load Characteristics of Machines Caractéristique des charges		
		Hafif Yük U Uniform Load U Charge uniforme U	Orta Yük M Moderate Load M Charge modérée M	Ağır Yük H Heavy Load H Charge élevée H
<b>Elekt. Motorlu</b> / Elect. Motor / <i>Moteurs élect.</i> <b>Türbin</b> / Turbin / <i>Turbine</i> <b>Hidrolik</b> / Hydraulic / <i>Hydraulique</i>	0....3	0.8	1	1.5
	3....10	1	1.25	1.75
	10...24	1.25	1.5	2
<b>Pistonlu Makinalar ( 4....6 Silindir</b> Piston Machines ( 4....6 Cylinder ) <i>Machine à pistons ( 4.....6 Cylindres )</i>	0....3	1	1.25	2
	3....10	1.25	1.5	2
	10...24	1.5	1.75	2
<b>Pistonlu Makinalar ( 1....2 Silindir</b> Piston Machines ( 1....2 Cylinder ) <i>Machine à pistons ( 1.....2 Cylindres )</i>	0....3	1.25	1.5	2
	3....10	1.5	1.75	2.25
	10...24	1.75	2	2.5



Vinç Tesisleri		Cranes		Grues	
Bom kaldırma	H	Derricking jib bomm gear	H	Bras ouvrant	H
Vinç yürüyüşleri	U	Travelling gears	U	Grues(Charriot )	U
Yük kaldırma	H	Hoist gears	H	Grues	H
Dönüş tertibatları	U	Slewing gears	U	Pignons rotatifs	U

Metal İşleme Makinaları		Metal Working Machines		Métallurgie et Acieries	
Planya makineleri	S	Planing machine	S	Aplaniseuses	S
Çekiç tokmak	S	Hammer	S	Marteau	S
Oyma makinesi	S	Engraving machine	S	Graveuses	S
Presler	H	Presses	H	Presses	H
Makaslar ( Giyotin )	M	Shears	M	Découpeuses	M
Sıcak basma presleri	H	Forging presses	H	Presse à forge	H
Takım tezgahları ( Ana Tahrir )	M	Machines tools ( Main Drives )	M	Machine outil ( Axe principal )	M
Takım tezgahları ( Yardımcı Tahrir )	U	Machines tools ( Auxiliarily Drives )	U	Machine outil ( axe secondaire )	U

Gıda Endüstri Makinaları		Food Industry Machines		Industrie Agroalimentaire	
Doldurma makinaları ( Şişe, Kavanoz vs.)	U	Filling machines ( Bottles, Contaniers.)	U	Embouteilleuse	U
Yoğurma makinaları	M	Kneading machines	M	Malaxeurs	M
Ambalaj makinaları	U	Packaging machines	U	Machine d'emballage	U
Şeker kamışı kırıcıları	M	Cane crushers	M	Presse à canne	M
Şeker kamışı kesicileri	M	Cane cutters	M	Découpeuse de canne	M
Şeker kamışı öğütücüleri	H	Cane millis	H	Broyeurs de cannes	H
Şeker pancarı kesicileri	M	Sugar beet cutters	M	Découpeuse de betteraves	M
Şeker pancarı yıkayıcıları	M	Suger beet washers	M	Laveuse à betteraves	M

Pompalar		Pumps		Pompes	
Pistonlu pompalar (Q1 / 100)	H	Piston pumps ( Q1 / 100 )	H	Pompes à piston ( Q1 / 100 )	H
Pistonlu pompalar (Q1 / 100 : 1 / 20)	M	Piston pumps ( Q1 / 100 : 1 / 20 )	M	Pompes à piston ( Q1 / 100 : 1 / 20 )	M
Türbin ( Hafif Akışkan )	U	Turbin ( Light - Liquids )	U	Turbine (Liquides légers)	U
Türbin ( Ağır Akışkan )	M	Turbin ( Semi - Liquids )	M	Turbine (Semi-liquide)	M

Tahrir Makinası Torque Machine Machines couplées	Günlük Çalışma Müddeti (Saat) Daily Working Period (Hour) Utilisation journalière (Heure)	Makinanın Yükleme Karakteristiği Load Characteristics of Machines Caractéristique des charges		
		Hafif Yük U Uniform Load U Charge uniforme U	Orta Yük M Moderate Load M Charge modérée M	Ağır Yük H Heavy Load H Charge élevée H
<b>Elekt. Motorlu</b> / Elect. Motor / Moteurs élect. <b>Türbin</b> / Turbin / Turbine <b>Hidrolik</b> / Hydraulic / Hydraulique	0.....3	0.8	1	1.5
	3....10	1	1.25	1.75
	10...24	1.25	1.5	2
<b>Pistonlu Makinalar ( 4....6 Silindir</b> Piston Machines ( 4....6 Cylinder ) Machine à pistons ( 4.....6 Cylindres )	0.....3	1	1.25	2
	3....10	1.25	1.5	2
	10...24	1.5	1.75	2
<b>Pistonlu Makinalar ( 1....2 Silindir</b> Piston Machines ( 1....2 Cylinder ) Machine à pistons ( 1.....2 Cylindres )	0.....3	1.25	1.5	2
	3....10	1.5	1.75	2.25
	10...24	1.75	2	2.5

Kağıt Endüstri Makinaları		Paper Industry Machines		Industrie Papetière	
Düzleme silindirleri	H	Glazing Cylinders	H	Cylindres appliniseurs	H
Holender	M	Hollenders	M	Holenders	M
Kağıt hamur makineleri	H	Pulpers	H	Pulpeuses	H
Kalender	H	Calender	H	Calendrier	H
Taş presler	H	Stone Presses	H	Presse	H
Vakum presler	H	Vacum Presses	H	Presse à aspiration	H
Kuru silindirler	H	Drying Cylinders	H	Cylindres de séchage	H

Taş ve Kil Makinaları		Stone and Clay Working Machines		Roches et Argiles	
Kırıcılar	H	Breakers	H	Broyeurs	H
Döner fırınlar	M	Rotary ovens	M	Four rotatifs	M
Çekiçli değirmenler	H	Hammer mills	H	Broyeux à marteaux	H
Bilyalı değirmenler	H	Ball mills	H	Broyeurs à billes	H
Çarpmalı öğütücüler	H	Beater mills	H	Broyeux à percussions	H
Tuğla presleri	H	Brick presses	H	Presse à pavès	H

Tekstil Makinaları		Textile Machines		Industrie du Textile	
Sargı makinaları ( Q1 / 100 )	M	Batchers ( Q1 / 100 )	M	Machines d'emballages	M
Basma ve boyama mak.	M	Printing and dyeing machines	M	Presse et imprimante	M
Dokuma tezgahları	M	Looms	M	Tisseuse	M

Kompresörler		Compressors		Compresseurs	
Turbo kompresör	M	Turbo compressors	M	Turbocompresseurs	M

Silindirme ve Çekme Tesisleri		Metal Rolling Mills		Aciéries	
Sac kesme makineleri	H	Sheet metal cutting machines	H	Découpeuses	H
Hız ayarlı silindirler	M	Roller adjustment drivers	M	Ajusteuse à presses	M
Çubuk kesme makinaları	H	Billet shears	H	Scies	H
Kabuk sıyırma makinaları	H	Descaling machines	H	Eplucheuse	H
Tel çekme tesisleri	M	Wire drawing machines	M	Enrouleuses	M
Soğuk çekme tesisleri	H	Cooling beds	H	Bande de refroidissements	H
Rulolu nakil ( Hafif )	M	Roller tables ( Lights )	M	Enrouleuses ( légères )	M
Rulolu nakil ( Ağır )	H	Roller tables ( Heavy )	H	Enrouleuses ( lourdes )	H
Silindir haddeleme	H	Manipulators	H	Cylindres	H

Tahrik Makinası Torque Machine Machines couplées	Günlük Çalışma Müddeti (Saat) Daily Working Period (Hour) Utilisation journalière (Heure)	Makinanın Yükleme Karakteristiği Load Characteristics of Machines Caractéristique des charges		
		Hafif Yük U Uniform Load U Charge uniforme U	Orta Yük M Moderate Load M Charge modérée M	Ağır Yük H Heavy Load H Charge élevée H
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	3....10	1.25	1.5	2
	10...24	1.5	1.75	2
<b>Pistonlu Makinalar ( 1....2 Silindir</b> Piston Machines ( 1....2 Cylinder ) <i>Machine à pistons ( 1.....2 Cylindres )</i>	0....3	1.25	1.5	2
	3....10	1.5	1.75	2.25
	10...24	1.75	2	2.5

## Frenler

### 1) Pervanesiz frenler

Elektrik motorunun arkasındaki soğutma kapağı takılmayarak bunların yerine monte edilen frenlerdir. Kısa süreli çalışan motorlarda bu tip frenler kullanılır.

### 2) Pervaneli frenler

Elektrik motorunun motor mili ve fan kapağı uzatılarak monte edilen frenlerdir. Devamlı çalışan motorlarda bu tip frenler kullanılır.

### 3) Mikro anahtarli frenler

Elektrik motorlarının demeraj akımının yüksek olması ve freni açmada gecikmesi dolayısıyla istenmeyen durumlar meydana gelir. Bunları önlemek için, frenin üzerine konulan bir mikro anahtar vasıtasıyla freni açtıktan hemen sonra motorun çalışması sağlanır. Bu tip frenler özellikle büyük güçteki redüktörlerin elektrik motorları için uygundur.

### Redüktörlerin ani veya gecikmeli frenlenmesi

Gecikmeli veya ani frenlenen redüktörler birçok sanayi makinalarında kullanılmaktadır. Bu sebepten frenler hem ani hem de gecikmeli fren yapacak şekilde dizayn edilmişlerdir. Frenlerin elektrik bağlantısında yapılacak bir değişiklikle ani veya gecikmeli frenleme sağlanır. Her frenli redüktör ile birlikte elektrik bağlantı şeması verilmektedir.

*Frenli redüktörleri teslim aldığınızda fren bağlantısının gecikmeli olarak yapıldığını unutmayınız.*

## Brakes

### 1) Brakes without cooling fan

Brake which is mounted on fan side of electric motor by cancelling cooling fan and fan cover of motor. This type of brake is used for a short period running motors.

### 2) Brakes with cooling fan

Brake which is mounted on fan side of electric motor by extending motor shaft and fan cover to use fan. This type of brake is necessary for continuously running motors

### 3) Brakes with micro switch

Because of high starting current of motors delayed disengagement of magnetic brakes undesirable conditions occur. To prevent this situation, starting of motor is provided after disengagement of brake by means of brake by means of a micro switch installed on the brake. This type of brake is especially suitable for high power geared motors.

### Non-delayed or delayed braking of geared motors

Delayed or non-delayed geared motors are used in many industrial machines. Therefore, brakes are designed to operate in both delayed and non-delayed conditions. This is supplied with each brake mounted geared motor.

*Please do not forget that the brakes are connected for delayed operations standard.*

## Freins

### 1) Freins sans hélices de refroidissements

Freins montés directement à l'emplacement de l'hélice de refroidissement. Dans cette configuration l'hélice et le couvercle extérieur sont retirés. Ce type de configuration est conseillé pour les applications et moteurs avec une durée de fonctionnement réduite.

### 2) Freins avec hélice de refroidissement

Le frein est monté directement à l'arrière de l'emplacement de l'hélice de refroidissement. Ce type de configuration nécessite une prolongation de l'arbre d'entraînement du moteur. Ce type de configuration est conseillé pour les applications nécessitant un usage continu du frein.

### 3) Frein à ouverture manuelle

La forte charge appliquée par le moteur sur certains freins entraîne une prolongation de la période de blocage. Afin d'éviter un arrêt prolongé certains freins sont équipés d'un clé d'ouverture manuelle, cette option permet un redémarrage immédiat du moteur. Ce type de freins est particulièrement adapté aux moteurs à forte puissance.

### Freins avec ou sans retardement d'arrêt.

Les motoréducteurs équipés de freins à retardement d'arrêt sont utilisés dans notre nombreuses applications et secteurs. Les freins sont conçus pour opérés avec ou sans l'option de retardement. Cette option est disponible pour l'ensemble de notre gamme de motoréducteurs. A noter que le freins doit être correctement connecté pour permettre un fonctionnement optimale de cette option.

### Fren alıştırma voltajları

Frenler 24V-DC veya 220V-AC ile çalışacak şekilde imal edilir. 220 voltluk frenlerin bağlantıları motor klemens kutusunda yapılmaktadır. 24V ile çalışan frenlerin bağlantısı için ayrıca 220/30V trafo ile doğrultucu gerekmektedir. İstenildiğinde bunlar firmamızca temin edilmektedir.

Frenli redüktörlerin elektrik motorlarına toprak hattı bağlantısı muhakkak yapılmalıdır.

### Fren siparişlerinde belirtilmesi gereken hususlar

- 1) Fren momenti
- 2) Fren tipi
- 3) Fren voltajı

24V ile çalışan fren siparişlerinde trafolu doğrultucu istenip istenmediğini lütfen belirtiniz.

### Fren bağlantı şemaları

### Operating voltage of brakes

Brakes are manufactured to operate at 24V-DC or 220V-AC. 220V brakes are connected to the motor terminal box directly, but 220/30V transformer with rectifier unit needed for 24V operating brakes. This unit will be supplied if required.

Geared brake motors must be earthed.

### Required ordering data for brakes

- 1) Brake torque
- 2) Brake type
- 3) Brake operating voltage.

Please inform as if you need 220/30V transformer with rectifier unit for 24V operating brakes

### Brake connection types

### Voltage et caractéristique des freins

Les freins sont adaptés à un voltage de 24V-DC ou 220V-AC. Les freins fonctionnant sous 220V sont directement connectés à la boîte de Klemens, Les freins fonctionnant sous 24V doivent impérativement être couplés à un transformateur, cette unité est disponible en option.

### Données Nécessaire à la Commande d'un Frein.

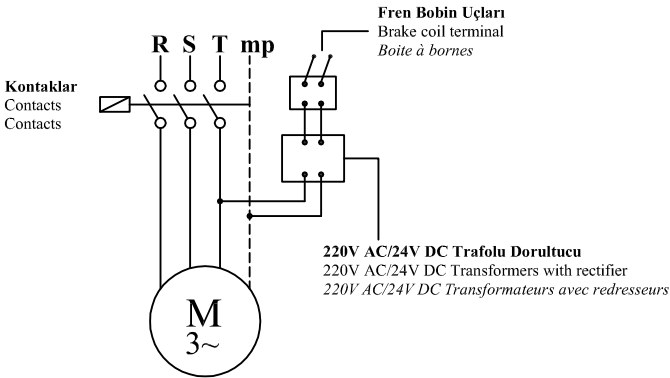
- 1) Couple des freins
- 2) Type de freins
- 3) Type de voltage

Veillez à nous informer si une unité de transformation 220/30V est nécessaire au branchement de votre frein ( 24 V )

### Type de connexion des freins

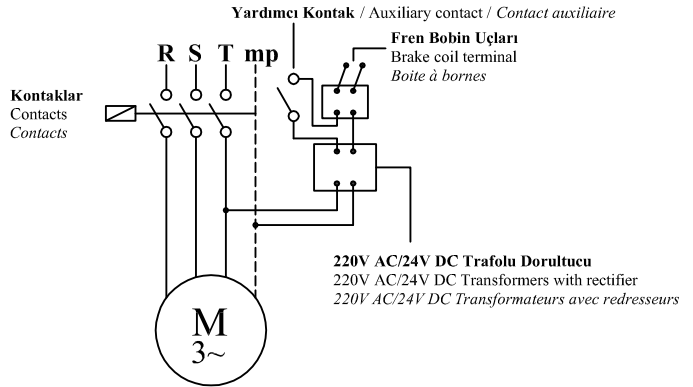
#### Gecikmeli Frenleme (24V)

Delayed Running Brake (24V)  
Frein à retardement (24 V)



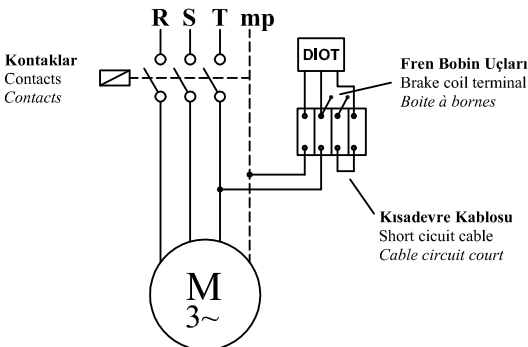
#### Ani Frenleme (24V)

Sudden Running Brake (24V)  
Frein à arrêt immédiat (24 V)



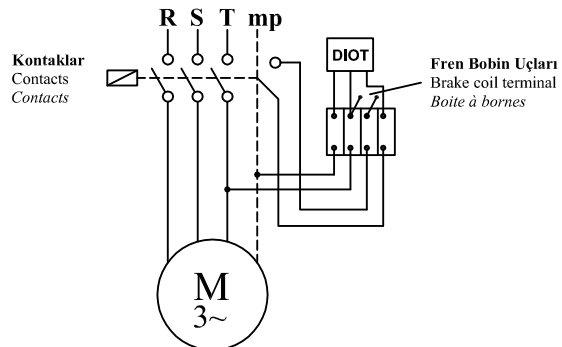
#### Gecikmeli Frenleme (220V)

Delayed Running Brake (220V)  
Frein à retardement (220 V)



#### Ani Frenleme (220V)

Sudden Running Brake (220V)  
Frein à arrêt immédiat (220 V)



**Tablo 1 / Table 1 / Tableau 1**

Motor Büyüklüğü Motor Size Dimensions du moteur	n1 d/d / r.p.m / r.p.m			
	750	1000	1500	3000
	Güç / Power / Puissance [kW]			
63			0,12 - 0,18	0,18 - 0,25
71	0,09 - 0,12	0,18 - 0,28	0,25 - 0,37	0,37 - 0,55
80	0,18 - 0,25	0,37 - 0,55	0,55 - 0,75	0,75 - 1,1
90 S	0,37	0,75	1,1	1,5
90 L	0,55	1,1	1,5	2,2
100	0,75 - 1,1	1,5	2,2 - 3	3
112	1,5	2,2	4	4
132 S	2,2	3	5,5	5,5 - 7,5
132 M	3	4 - 5,5	7,5	11
160 M	4-5,5	7,5	11	15
160 L	7,5	11	15	18,5
180 M			18,5	22
180 L	11	15	22	
200	15	18,5 - 22	30	30 - 37
225 S	18,5		37	
225 M	22	30	45	45
250	30	37	55	55
280 S	37	45	75	75
280 M	45	55	90	90

**Tablo 2 / Table 2 / Tableau 2**

Motor Büyüklüğü Motor Size Dimensions du moteur	Fren Momenti [kgm] Braking Torque [kgm] Puissance de freinage [kgm]																			
	Hafif Frenleme Light Braking Freins legers										Kuvvetli Frenleme Strong Braking Freins lourds									
	0,5	1	2,5	4	5	10	20	30	50	80	0,5	1	2,5	4	5	10	20	30	50	80
63																				
71																				
80																				
90 S																				
90 L																				
100																				
112																				
132 S																				
132 M																				
160 M																				
160 L																				
180 M																				
180 L																				
200																				
225 S																				
225 M																				
250																				
280 S																				
280 M																				

**Redüktörlerin Kontrol ve Bakımları**

- Redüktörlerin yağ seviyesi ve miktarını kontrol ediniz. Yağın cinsini İ.MAK kataloğunda yer alan yağ çizelgelerini kullanarak seçiniz.
- Havalandırma tapasının faal olup olmadığına bakınız. Hava tahliye deliği çalışmaz ise redüktör gövdesinin içinde biriken hava, basınç oluşturarak keçelerden yağ sızmasına sebep olur. Böylece yağ azalarak çevre kirliliğine yol açar ve redüktörün verimli çalışmasını engellemiş olur.
- Redüktör bağlantı cıvatalarının gevşeyip gevşemediğini kontrol ediniz, gevşeyen cıvatalar var ise sıkılmak suretiyle tedbir alınız. Redüktör montajında meydana gelen eksen kaçıklığında zararlı sarsıntılara dikkat ediniz.
- Redüktörün ilk çalıştırmadan 500 saat sonra, sonraki her 6000 saatte periyodik olarak yağını değiştiriniz.
- Özel hususlar ve çalışma şartları hakkında mutlaka firmamıza danışınız.

**Control and maintenance gearboxes**

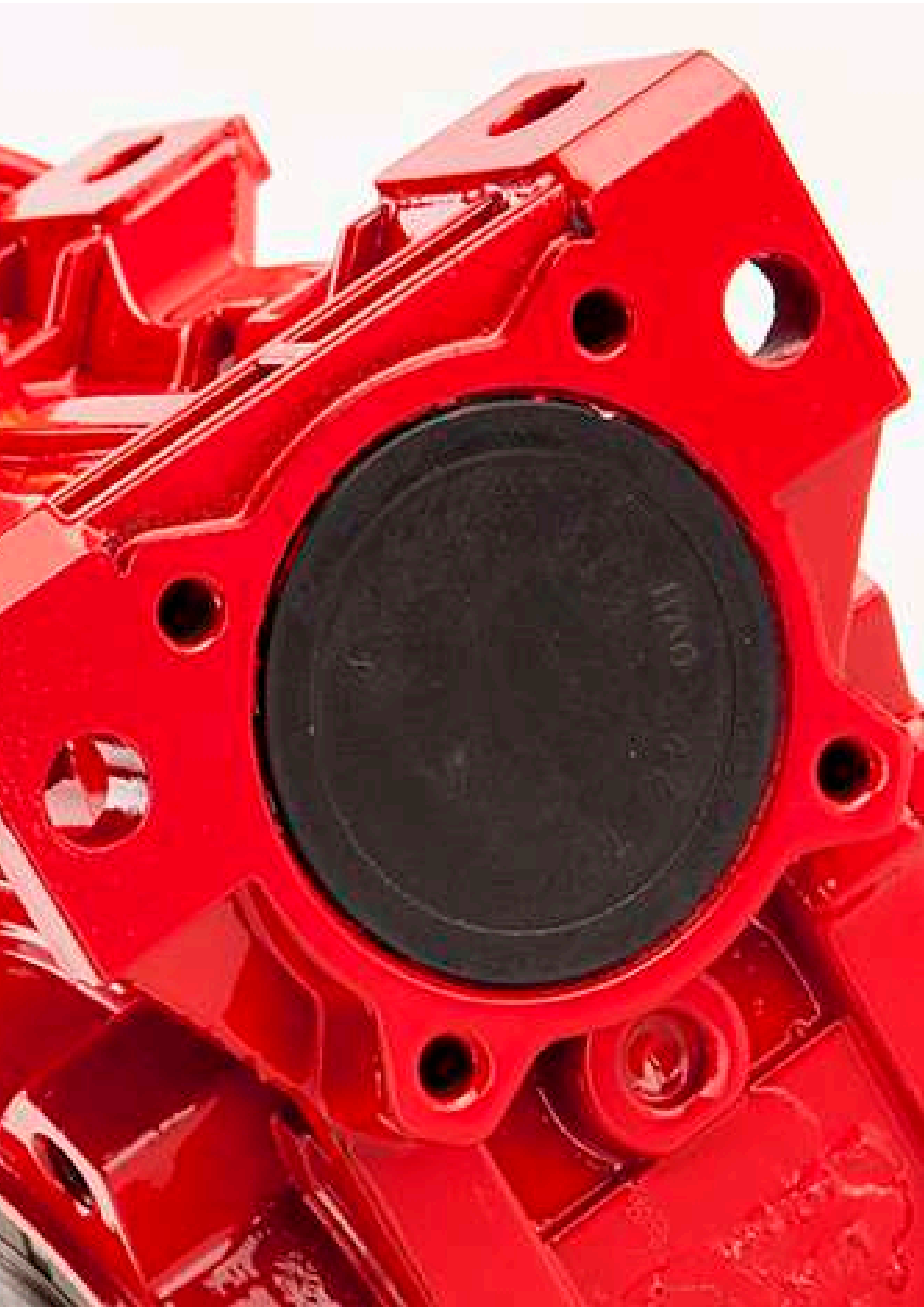
- Check the oil levels and quantity of your gearboxes. Choose the type and quantity of oil from the İ.MAK catalogue.
- Check if the ventilation stopper is active or not. If the air evacuation hole does not work properly, the accumulated air in the gearbox trunk might causes pressure and gas leakage from the mats.
- Before starting your geared motors, proceed to the checking of connection bolts and screw. Check if they have loosened or not during transport or installation. Take measures by firming loosened bolts. A wrong connexion might create vibration to the axis and conduct to damage of the geared motor.
- Change the oil after 500 hours of initial operation and periodically every 6000 hours of operating the geared motor.
- If you are facing any technical issue, please consult the user guide delivered with the geared motor. In case of special issue or emergency please directly contact your reseller or the closest I-MAK technical center.

**Contrôle et maintenance des réducteurs**

- Vérifiez le niveau et la quantité d'huile de façons régulière. Consultez le catalogue I-MAK pour obtenir les niveaux d'huiles requis en fonction du modèle et de la position du réducteur.
- Vérifiez le fonctionnement de la valve d'aération. L'absence d'évacuation de l'air peut provoquer une augmentation de la pression dans le réducteur pouvant conduire à des fuites d'huiles.
- Contrôler les vis et boulons reliant le moteur au réducteur, en cas de mauvaise fermeture le moteur peut créer des vibrations de l'arbre entraînant l'endommagement du motoréducteur.
- La première vidange doit être effectuée après 500 heures d'utilisations du motoréducteur, les vidanges suivantes doivent être effectuées au bout de 6000 heures d'utilisations.
- En cas de problèmes techniques, consultez le manuel d'utilisation fournis à la livraison du motoréducteur. En cas de problèmes particulier ou d'urgence, veuillez à contacter votre revendeur ou le centre technique I-MAK le plus proche.





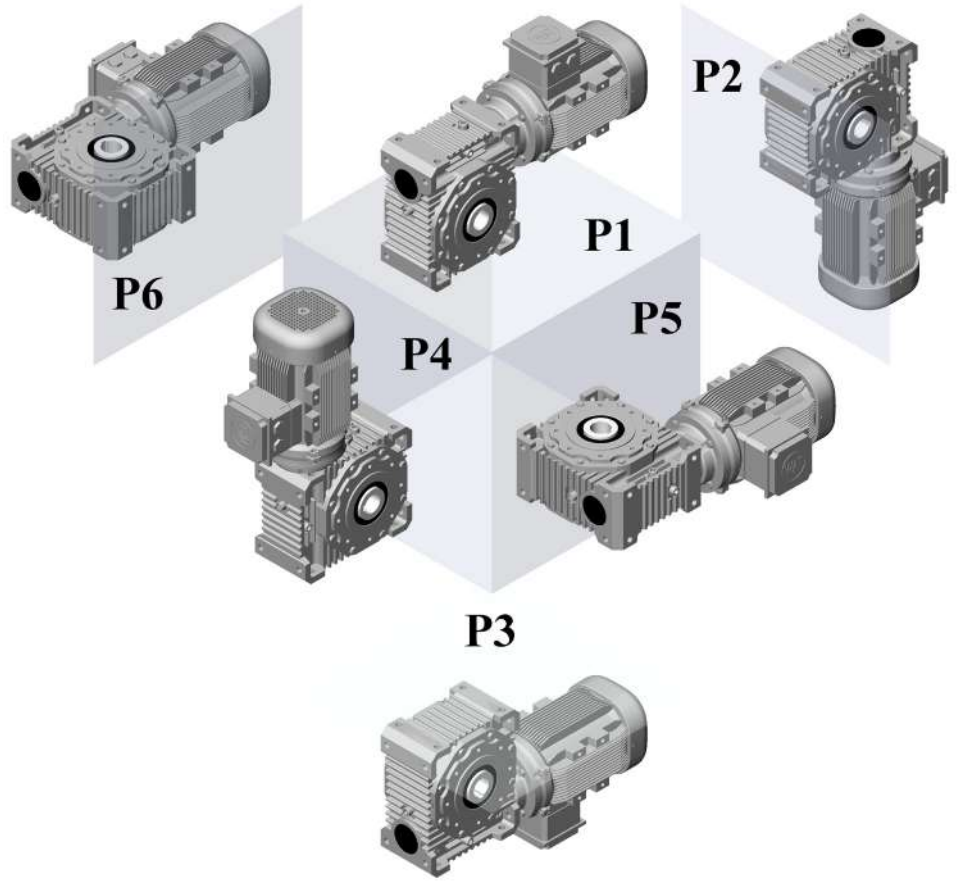


## İRSA.... ,S....

Ayak montajlı redüktörlerde montaj pozisyonu "P" ile gösterilir

Foot mounted gearboxes position are defined as "P"

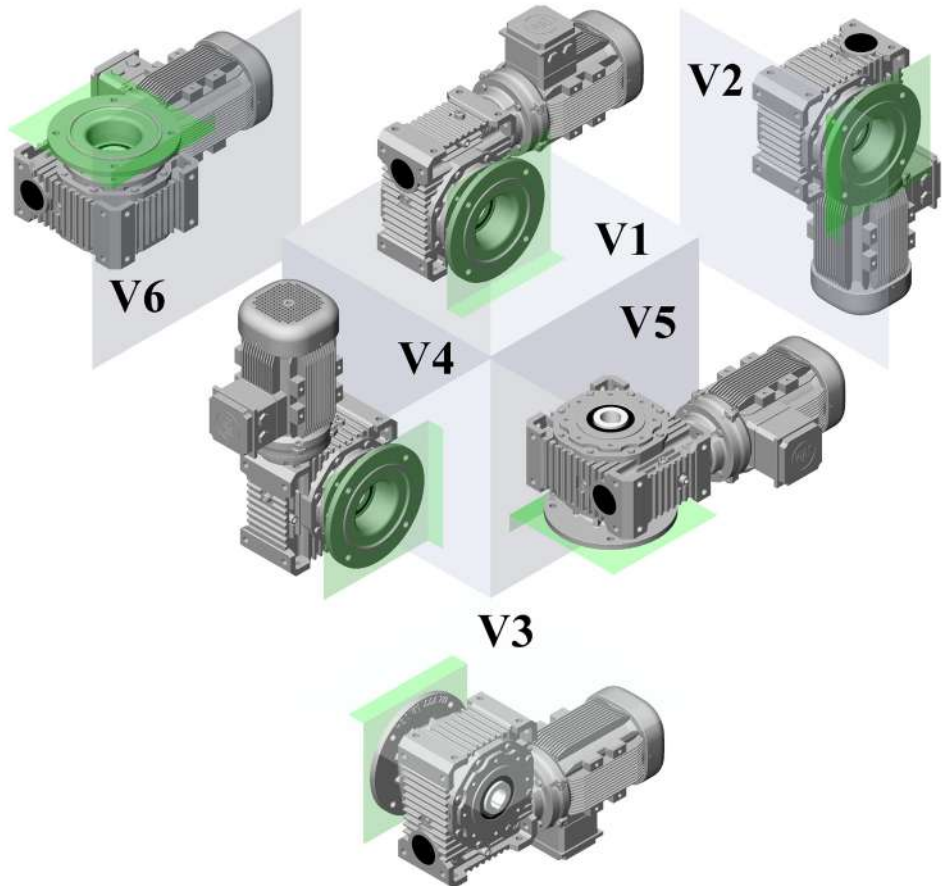
Les positions de montages des réducteurs à pattes sont définis par "P"



Flanş montajlı redüktörlerde montaj pozisyonu "V" ile gösterilir

Flange mounted gearboxes position are defined as "V"

Les positions de montages des réducteurs à brides sont définis par "V"

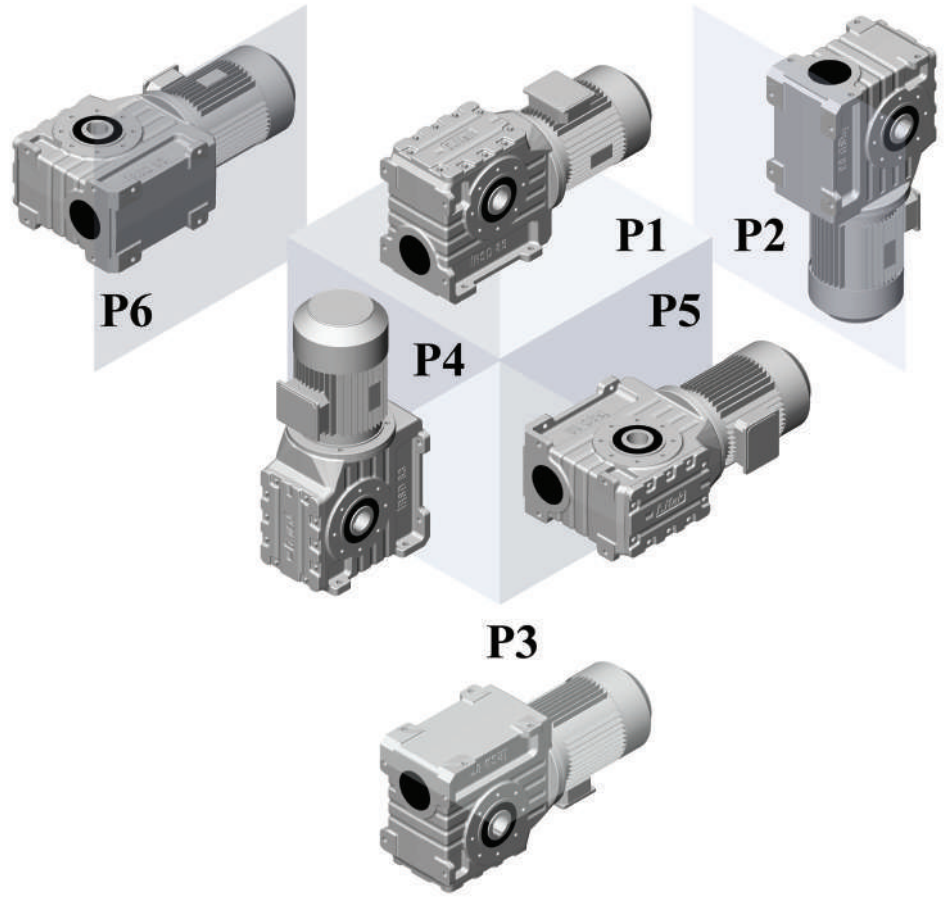


## İRSD

Ayak montajlı redüktörlerde montaj pozisyonu "P" ile gösterilir

Foot mounted gearboxes position are defined as "P"

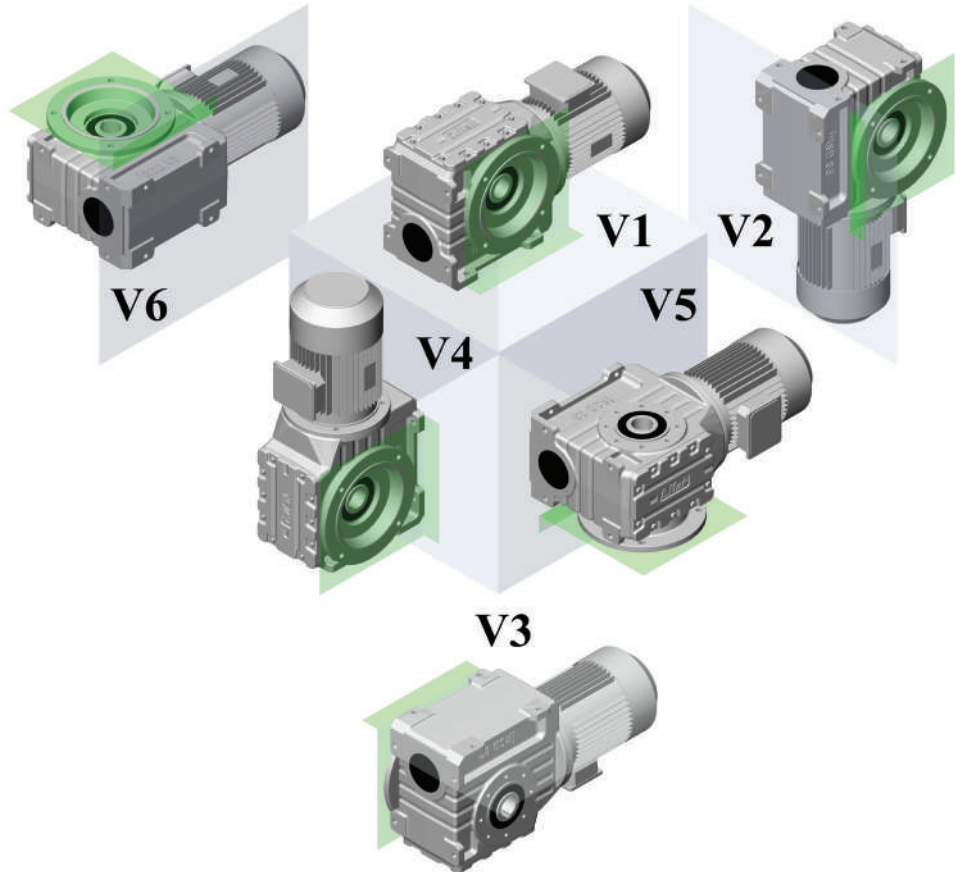
Les positions de montages des réducteurs à pattes sont définis par "P"



Flaş montajlı redüktörlerde montaj pozisyonu "V" ile gösterilir

Flange mounted gearboxes position are defined as "V"

Les positions de montages des réducteurs à brides sont définis par "V"



Yağ Cinsi Lubricant Art des Lubrifiant	ISO Viskozite sinifi Viscosity class Catégorie de viscosite	DIN 51517-3	Kullanım sicaklığı Usage temperature Gebrauchs temperatur d'usage C°	Firma Firm Marque						
				Mobil	ARAL	bp	Shell	Castrol	KLÜBER LUBRICATION	BELGiN
Mineral Yağ Mineral Oil Huile Minéral	ISO VG 320	CLP	-10.....+90	Mobilgear 600XP320	Degol BG 320	Energol GR-XP 320	OmalaS2 GX 320	Alpha SP 320	Klüberoil GEM 1 N 320	Recompound FL 320
	ISO VG 220	CLP	-10.....+90	Mobilgear 600 XP 220	Degol BG 220	Energol GR-XP 220	OmalaS2 GX 220	Alpha SP 220	Klüberoil GEM 1 N 220	Recompound FL 220
	ISO VG 150	CLP	-10.....+90	Mobilgear 600 XP 150	Degol BG 150	Energol GR-XP 150	OmalaS2 GX 150	Alpha SP 150	Klüberoil GEM 1 N 150	Recompound FL 150
	ISO VG 100	CLP	-15.....+90	Mobilgear 600 XP 100	-	-	OmalaS2 GX 100	Alpha SP 100	Klüberoil GEM 1 N 100	Recompound FL 100
Sentetik Yağ Synthetic Oil Huile Synthétique	ISO VG 320	CLP HC	-30.....+110	Mobil SHC Gear 320	Degol GS 320	Energol SG-XP320	OmalaS4 GX V 320	Optigear Synthetic PD 320 ES	Klübersynth GEM 4N 320	Recompound Syn 320
	ISO VG 220	CLP HC	-35.....+110	Mobil SHC Gear 220	Degol GS 220	Energol SG-XP220	OmalaS4 GX V 220	Optigear Synthetic PD 220 ES	Klübersynth GEM 4N 220	Recompound Syn 220
	ISO VG 150	CLP HC	-40.....+110	Mobil SHC Gear 150	Degol GS 150	Energol SG-XP150	OmalaS4 GX V 150	Optigear Synthetic PD 150 ES	Klübersynth GEM 4N 150	Recompound Syn 150
	ISO VG 100	CLP HC	-45.....+110	Mobil SHC 627	-	-	-	Optigear Synthetic PD 100 ES	Klübersynth GEM 4N 100	Recompound Syn 100

Tip Type Type	Bağlantı pozisyonları için yağ miktarları ( litre ) Oil quantities per mounting positions ( liter ) Quantités d'huiles en fonction de la position de montage ( litres )											
	P1	V1	P2	V2	P3	V3	P4	V4	P5	V5	P6	V6
S_30	0,04											
S_40	0,08											
S_50	0,12											
S_63	0,25											
S_75	0,40											
S_90	1,0											
S_110	3,0		2,2		2,2		3,0				2,5	
S_130	4,5		3,3		3,3		4,5				3,5	
S_150	7,0		5,1		5,1		7,0				5,4	

Tip Type Type	Bağlantı pozisyonları için yağ miktarları ( litre ) Oil quantities per mounting positions ( liter ) Quantités d'huiles en fonction de la position de montage ( litres )											
	P1	V1	P2	V2	P3	V3	P4	V4	P5	V5	P6	V6
İRS_52	0,6		0,5		0,3		0,5				0,65	
İRS_65	1,25		1		0,75		1				1,35	
İRS_82	2,25		2		1		2				2,35	
İRS_102	2,3		2		1,5		2				2,5	
İRS_127	4,5		4		3		4				4,75	
İRS_162	12		10		8		10				12,5	
İRS_201	18		21		23		21				24	
İRS_250	31		35		38		35				40	

Tip Type Type	Bağlantı pozisyonları için yağ miktarları ( litre ) Oil quantities per mounting positions ( liter ) Quantités d'huiles en fonction de la position de montage ( litres )											
	P1	V1	P2	V2	P3	V3	P4	V4	P5	V5	P6	V6
İRSD_43	0,5		1		0,6		1				0,5	
İRSD_53	2		1,5		2		1,5				1,8	
İRSD_63	3		2		3		2				2,5	
İRSD_73	5		4		5		4				4	
İRSD_83	13		12		13		12				12	
İRSD_161	17		16		17		16				16	



Bazı uygulamalarda redüktör kullanıcıları redüktör durduğunda sistemin ağırlıkla beraber geri kaymasını istemez. Bu gibi durumlarda redüktörlerde kilitli rulman uygulaması yapılır. Buna göre aşağıda verilen tiplere göre dönüş yönü belirtilmelidir.

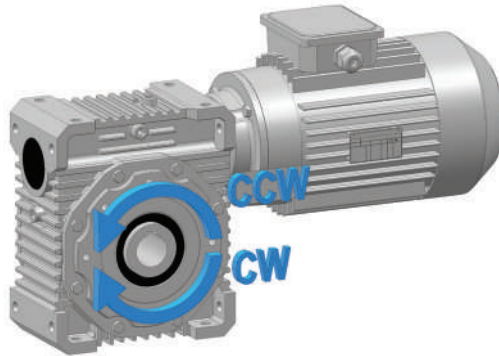
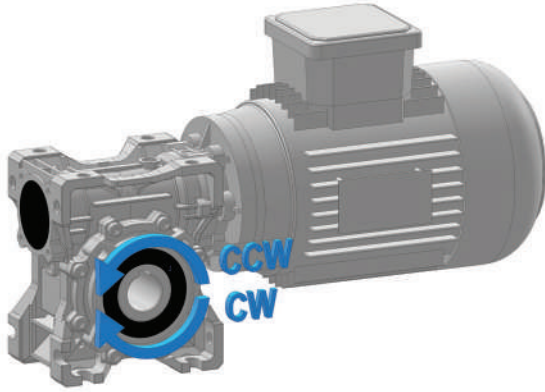
**Ccw : Saat Yönünün Tersİ**  
**Cw : Saat Yönü**

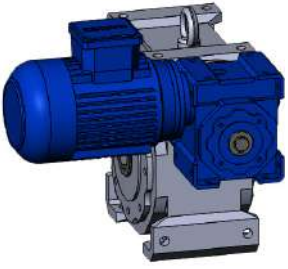
In certain applications when the machinery stops, the operator would not like the gearbox to slip and lose its adjustment. Under these circumstances, the gearbox would be equipped with a locked ball bearing. Accordingly, the direction of rotation should be noted as shown below.

**Ccw : Counterclockwise**  
**Cw : Clockwise**

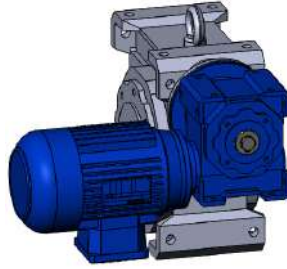
Afin de répondre aux besoins de précision et de sécurité de certaines applications, nos réducteurs sont disponibles avec une option anti-retour. Cette option se compose d'un roulement anti-retour qui permet au réducteur de rester dans la position d'arrêt jusqu'au redémarrage de l'application par l'opérateur.

**Ccw : Sens anti-horaire**  
**Cw : Sens horaire**

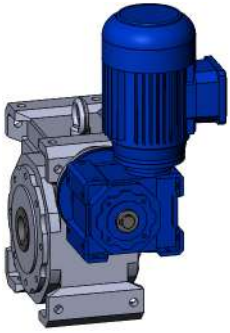




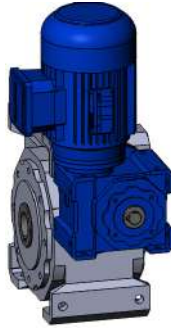
W1



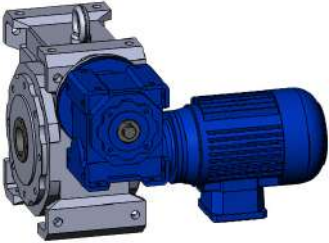
W2



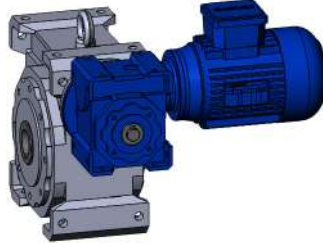
N1



N2



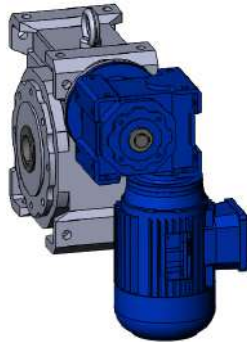
E1



E2



S1



S2

**Standart montaj şekli “W1” dir. Aksi belirtilmediği sürece standart şekilde montajlanır.**

The standard mounting position is “W1”, if the mounting position is not defined during the order, the mounting position is always “W1”

*La position de montage standard est W1, si aucune position de montage n'est précisée lors de la prise de commande, la position W1 sera attribuée par défaut.*

**“1” konumunda ikinci redüktör FL-SL opsiyonları ile birlikte uygulanır. “2” konumunda ikinci redüktör FR-SR opsiyonları ile birlikte uygulanır.**

The first column is defining the mounting position of the second gearbox when on the left side. The second column is defining the mounting position of the second gearbox when on the right side.

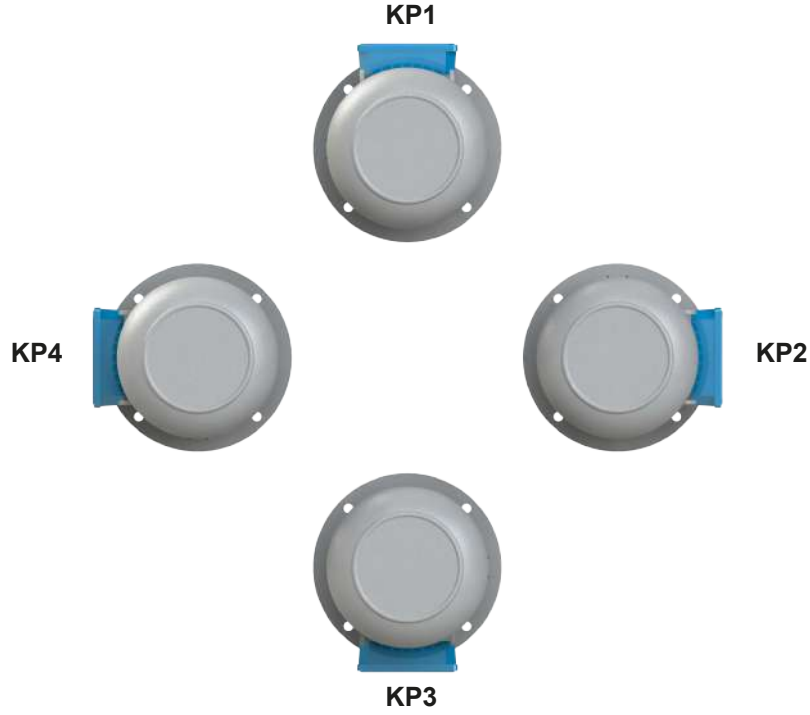
*La première colonne définit la position de montage du second réducteur lorsqu'il est installé sur la gauche du premier réducteur. La seconde colonne définit la position de montage du second réducteur lorsqu'il est installé sur la droite du premier réducteur.*



Standart klemens pozisyonu "KP1" dir, aksi belirtilmediği sürece standart pozisyonda yapılır.

The standard mounting position is "KP1", if the mounting position is not defined during the order, the mounting position is always "KP1"

La position de montage standard est "KP1", si aucune position de montage n'est précisée lors de la prise de commande, la position "KP1" sera attribuée par défaut.



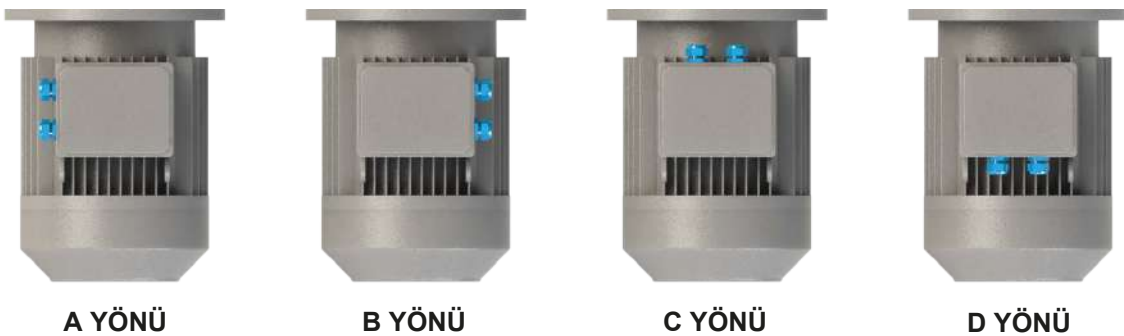
### Rakor Yönleri

Cable Entry / Entrée des câbles

Standart rakor yönü "A" dır, belirtilmediği sürece standart yönde yapılır.

The standard position of the cable entry is "A", if the position is not specified during the order, the mounting position will be accepted as "A"

La position standard de l'entrée des câbles est "A", si aucune position de montage n'est précisée lors de la prise de commande, la position "A" sera attribuée par défaut.



A YÖNÜ

B YÖNÜ

C YÖNÜ

D YÖNÜ

**1500 d/d Motorlar / Motors / Moteurs**

Kod	Güç (KW)	Hız (d/d)	Anma Akımı	Moment (Nm)	Verim		IE Sınıfı	Çalışma Sınıfı
					100%	75%		
Code	Power (KW)	Speed (r.p.m.)	Rated Current	Torque (Nm)	Efficiency		IE Class	Duty Type
					100%	75%		
Code	Puissance (kW)	Vitesse (r.p.m)	Ampère	Couple (Nm)	Efficience		Classe IE	Classe d'utilisation
					100%	75%		
63M4a	0,12	1365	0,41	0,84	57,1	57,1	IE1	S1
63M4b	0,18	1340	0,60	1,28	59,7	59,7	IE1	S1
C63M4	0,25	1350	0,95	1,77	60,7	60,7	IE1	S1
71M4a	0,25	1380	0,81	1,73	61,9	61,8	IE1	S1
71M4b	0,37	1390	1,15	2,54	68,1	68,1	IE1	S1
C71M4	0,55	1385	1,50	3,75	68,6	68,6	IE1	S1
80M4a	0,55	1365	1,60	3,85	69,1	69,0	IE1	S1
80M4b	0,75	1410	2,10	5,08	79,6	79,6	IE2	S1
90S4	1,1	1420	2,60	7,39	82,0	82,0	IE2	S1
90L4	1,5	1430	3,50	10,02	83,0	83,0	IE2	S1
C90L4	2,2	1435	5,00	14,60	84,4	84,5	IE2	S1
100L4a	2,2	1435	5,00	14,60	84,5	84,6	IE2	S1
100L4b	3	1435	6,60	20,00	85,5	85,7	IE2	S1
C100L4	4	1455	8,20	26,30	86,5	86,6	IE2	S1
112M4	4	1455	8,20	26,30	86,7	86,8	IE2	S1
132S4	5,5	1465	11,20	35,90	87,9	88,8	IE2	S1
132M4	7,5	1465	15,40	48,90	89,0	89,1	IE2	S1
C132M4	11	1465	21,00	71,70	89,9	90,0	IE2	S1
160M4	11	1465	21,00	71,70	90,0	90,1	IE2	S1
160L4	15	1465	29,80	97,80	90,6	90,7	IE2	S1
180M4	18,5	1470	34,50	120,00	91,3	91,4	IE2	S1
180L4	22	1470	42,50	143,00	91,7	91,4	IE2	S1

**1000 d/d Motorlar / Motors / Moteurs**

Kod	Güç (KW)	Hız (d/d)	Anma Akımı	Moment (Nm)	Verim		IE Sınıfı	Çalışma Sınıfı
					100%	75%		
Code	Power (KW)	Speed (r.p.m.)	Rated Current	Torque (Nm)	Efficiency		IE Class	Duty Type
					100%	75%		
Code	Puissance (kW)	Vitesse (r.p.m)	Ampère	Couple (Nm)	Efficience		Classe IE	Classe d'utilisation
					100%	75%		
71M6a	0,18	915	0,61	1,88	63,0	62,9	IE1	S1
71M6b	0,25	915	0,83	2,61	63,8	63,7	IE1	S1
80M6a	0,37	910	1,10	3,88	72,9	72,8	IE1	S1
80M6b	0,55	890	1,50	5,90	70,4	70,3	IE1	S1
90S6	0,75	920	2,00	7,79	75,9	75,9	IE2	S1
90L6	1,1	930	2,90	11,30	78,1	78,1	IE2	S1
100L6	1,5	945	3,60	15,20	79,8	79,7	IE2	S1
112M6	2,2	950	5,40	22,00	81,8	81,7	IE2	S1
132S6	3	960	6,90	29,80	83,3	83,2	IE2	S1
132M6a	4	960	9,00	39,80	84,6	84,5	IE2	S1
132M6b	5,5	960	12,30	54,70	86,0	86,0	IE2	S1
160M6	7,5	960	15,00	74,60	87,2	87,2	IE2	S1
160L6	11	965	22,00	108,90	88,7	88,7	IE2	S1
180L6	15	965	29,00	148,00	89,7	89,7	IE2	S1

\* Motor teknik değerleri GAMAK marka motorlar içindir, kullanılan diğer markalar için değişiklik gösterebilir.

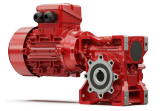
		<b>YERLİ MALİ BELGESİ</b> Domestic goods certificate <i>Certificat de produit national</i>
		<b>TÜRK STANDARTLARI ENSTİTÜSÜ KRİTERE UYGUNLUK BELGESİ</b> Certificate of conformity to Turkish standards <i>Certificats de conformité aux standards Turcs</i>
		<b>MARKA YENİLEME BELGESİ</b> Certificate of trademark registration <i>Certificat d'enregistrement de marque</i>
		<b>ISO 9001:2008 YÖNETİM SİSTEMİ</b> ISO 9000:2008 Quality management system <i>ISO 9000:2008 : Systèmes de management de la qualité</i>
		<b>ISO10002:2004 MÜŞTERİ MEMNUNİYETİ YÖNETİM SİSTEMİ</b> ISO 10002:2004 Customer satisfaction management system <i>ISO 10002:2004 Management de la qualité - Satisfaction clients</i>
		<b>OHSAS 18001:2007 İŞ SAĞLIĞI VE GÜVENLİĞİ YÖNETİM SİSTEMİ</b> OHSAS 18001:2007 : Occupational health and safety management <i>OHSAS 18001:2007 : Management de la santé et de la sécurité au travail</i>
		<b>AT UYGUNLUK BEYANI</b> CE Declaration of conformity <i>Déclaration de conformité aux standards CE</i>
		<b>EC TYPE EXAMINATION CERTIFICATE</b> ATEX Certificate <i>Certificat ATEX</i>

## Sonsuz Vidalı Motorlu Redüktörler Güç ve Devir Tabloları

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Worm Geared Motors - Performances Tables

*Moto-réducteurs à roue et vis sans fin avec moteur - Table de performances*

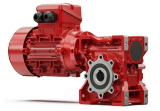


P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg				
0,12 0,16	0,28	5000	0,80	928	10320	SM	110 S 50 / 63 M 4a	99 100	47				
	0,35	4000	1,00	784	10320								
	0,47	3000	1,20	884	10320								
	0,58	2400	0,90	695	8180	SM	90 S 40 / 63 M 4a	97 98	18				
	0,78	1800	0,90	547	8180								
	0,91	1500	1,01	553	8300	İRSAM İRSFM	82 S 40 / 63 M 4a	121 122	29 31				
	1,1	1200	1,19	472	8300								
	1,5	900	1,51	370	8300								
	1,8	750	1,74	322	8300								
	2,3	600	2,09	268	8300								
	3,0	450	2,61	215	8300								
	4,6	300	3,77	149	8300								
	6,1	225	4,84	116	8300								
	0,93	1500	0,90	495	7380					SM	75 S 40 / 63 M 4a	95 96	15
	1,2	1200	1,10	415	7380								
	1,6	900	1,30	335	7380								
	1,9	750	1,50	299	7380								
	2,3	600	1,80	248	7380								
	2,8	500	2,01	188	7380								
	3,5	400	2,50	164	7380								
	4,7	300	3,30	134	7380								
	5,6	250	3,20	120	7380								
	1,6	900	0,80	319	6270	SM	63 S 30 / 63 M 4a	93 94	11				
	1,9	750	1,00	285	6270								
	2,3	600	1,10	237	6270								
	2,8	500	1,10	217	6270								
	3,5	400	1,60	156	6270								
	4,7	300	2,10	127	6270								
	5,6	250	2,00	117	6270								
	7,0	200	2,60	97	6270								
	9,3	150	3,40	77	6270								
	2,8	500	0,70	500	4840					SM	50 S 30 / 63 M 4a	91 92	8
	3,5	400	0,80	400	4840								
	4,7	300	1,20	300	4840								
	5,6	250	1,00	250	4840								
	7,0	200	1,30	200	4788								
	9,3	150	1,80	150	4350								
	14	100	2,60	100	3800	SM	50 / 63 M 4a	77 78	7				
	14	100	1,30	41	4280								
	18	80	1,80	35	3973	SM	40 / 63 M 4a	75 76	6				
14	100	0,70	39	3118									
18	80	1,00	35	2895									
23	60	1,30	29	2630									
28	50	1,60	26	2475									
35	40	2,10	22	2298									
47	30	2,80	17	2087									
56	25	2,50	16	1964									
70	20	3,30	13	1824									
28	50	0,80	23	1286	SM					30 / 63 M 4a	73 74	5	
35	40	1,00	20	1194									
47	30	1,30	16	1085									
56	25	1,60	14	1021									
70	20	1,50	12	948									
93	15	2,00	10	861									
140	10	2,80	7	752									
187	7,5	3,20	5	750									





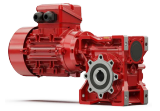
P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg				
0,18 0,25	0,95	1409	0,79	1257	11800	İRSAM İRSFM	102 İR 43 / 63 M 4b	125	50				
	1,2	1091	1,03	974	11800			126	54				
	1,6	842	1,33	751	11800	SM	110 S 50 / 63 M 4b	99	47				
	2,0	685	1,63	611	11800			100					
	0,58	2400	1,10	1113	10320	SM	90 S 40 / 63 M 4b	97	18				
	0,78	1800	1,50	861	10320			98					
	0,93	1500	0,80	735	8180	İRSAM İRSFM	82 S 40 / 63 M 4b	121 122	29 31				
	1,2	1200	1,00	629	8180								
	1,5	900	0,99	565	7700								
	1,8	750	1,14	492	7700								
	2,2	600	1,37	410	7700								
	3,0	450	1,71	328	7700								
	4,5	300	2,46	227	7700								
	6,0	225	3,17	177	7700								
	1,6	900	0,90	502	7420					SM	75 S 40 / 63 M 4b	95 96	15
	1,9	750	1,00	448	7420								
	2,3	600	1,20	372	7420								
	2,8	500	1,30	282	7420								
	3,5	400	1,70	246	7420								
	4,7	300	2,20	200	7420								
	5,6	250	2,10	180	7420	SM	63 S 30 / 63 M 4b	93 94	11				
	7,0	200	2,80	150	7420								
	2,8	500	0,90	265	6245								
	3,5	400	1,10	228	6245								
	4,7	300	1,50	175	6245								
	5,6	250	1,40	171	6110								
	9,3	150	1,90	113	5650	SM	63 / 71 M 6a	79 80	11				
	14	100	1,90	81	4950								
	9,0	100	1,40	92	6250								
	11	80	1,70	71	6030								
	15	60	2,30	68	5450								
	18	50	2,70	59	5100								
	23	40	3,40	50	4750	SM	50 S 30 / 63 M 4b	91 92	8				
	4,7	300	0,80	183	4800								
	7,0	200	0,90	141	4700								
	9,3	150	1,20	112	4400								
	11	80	0,90	76	4521								
	15	60	1,20	64	4156								
	18	50	1,40	57	3920	SM	50 / 71 M 6a	77 78	9				
	23	40	1,80	49	3708								
	30	30	2,40	40	3350								
	36	25	2,10	35	3215								
45	20	2,80	29	3100									
14	100	0,90	61	4310	SM					50 / 63 M 4b	77 78	7	
18	80	1,20	53	3944									
23	40	1,00	48	2662									
30	30	1,40	38	2516	SM	40 / 71 M 6a	75 76	7					
36	25	1,30	35	2405									
45	20	1,70	29	2200									
60	15	2,20	23	2105									
90	10	3,00	16	2043									
23	60	0,90	43	2545					SM	40 / 63 M 4b	75 76	6	
28	50	1,10	39	2426									
35	40	1,40	32	2271									
47	30	1,80	26	2116									
56	25	1,70	23	2078									
70	20	2,20	19	2010									
93	15	2,90	15	1987									



P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg			
<b>0,18</b> 0,25	47	30	0,90	24	1056	<b>SM</b>	<b>30 / 63 M 4b</b>	73 74	5			
	56	25	1,00	21	1041							
	70	20	1,00	18	955							
	93	15	1,30	14	920							
	140	10	1,90	10	853							
	187	7,5	2,40	8	706							
<b>0,25</b> 0,34	0,28	5000	0,70	2251	18000	<b>SM</b>	<b>150 S 63 / 71 M 4a</b>	103 104	96			
	0,35	4000	0,90	2026	18000							
	0,47	3000	1,40	1713	18000							
	0,58	2400	1,80	1446	18000							
	0,78	1800	1,80	1199	18000							
	0,28	5000	0,50	2430	13500					<b>SM</b>	<b>130 S 63 / 71 M 4a</b>	101 102
	0,35	4000	0,60	2046	13500							
	0,47	3000	0,80	1935	13500							
	0,58	2400	1,00	1624	13500							
	0,70	1984	1,27	1409	16500							
	0,86	1600	1,31	1367	16500	<b>İRSAM İRSFM</b>	<b>127 İRS 65 / 71 M 4a</b>	129 130	89 94			
	1,1	1248	1,61	1116	16500							
	1,4	960	2,09	858	16500							
	1,7	800	2,27	789	16500							
	2,2	624	2,80	640	16500							
	0,92	1503	0,96	1858	16500					<b>İRSAM İRSFM</b>	<b>127 İR 43 / 71 M 4a</b>	131 132
	1,4	1019	1,42	1260	16500							
	1,6	838	1,73	1036	16500							
	2,0	675	2,15	835	16500							
	2,4	568	2,55	703	16500							
	3,0	467	3,10	578	16500	<b>SM</b>	<b>110 S 50 / 71 M 4a</b>	99 100	50			
	3,3	416	3,49	514	16500							
	0,78	1800	1,10	1195	10320							
	0,93	1500	1,20	1064	10320							
	1,2	1200	1,30	943	10320							
	0,92	1500	0,90	1114	10500					<b>İRSAM İRSFM</b>	<b>102 İRS 52 / 71 M 4a</b>	123 124
	1,2	1140	1,04	963	10500							
	1,6	870	1,32	757	10500							
	1,8	750	1,45	691	10500							
	2,4	570	1,78	562	10500							
	3,2	435	2,30	434	10500	<b>İRSAM İRSFM</b>	<b>102 İR 43 / 71 M 4a</b>	125 126	53 57			
	2,2	633	1,31	762	10500							
	2,6	533	1,56	641	10500							
	3,1	438	1,89	527	10500							
	3,5	390	2,13	469	10500							
	4,1	337	2,46	406	10500					<b>İRSAM İRSFM</b>	<b>102 İR 42 / 71 M 4a</b>	125 126
5,3	260	3,19	313	10500								
7,6	182	4,55	220	10500								
9,4	147	5,65	177	10500								
1,6	900	0,80	667	8180	<b>SM</b>	<b>90 S 40 / 71 M 4a</b>	97 98	21				
1,9	750	0,90	598	8180								
2,3	600	1,20	512	8180								
1,7	795	0,85	664	7600								
2,3	600	1,01	553	7600								
3,1	450	1,26	443	7600					<b>İRSAM İRSFM</b>	<b>82 S 40 / 71 M 4a</b>	121 122	31 33
4,6	300	1,83	306	7600								
6,1	225	2,35	238	7600								
2,8	500	0,90	391	7420								
3,5	400	1,20	342	7420								
4,7	300	1,60	278	7420	<b>SM</b>	<b>75 S 40 / 71 M 4a</b>	95 96	17				
5,6	250	1,50	250	7420								



P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg
0,25 0,34	7,0	200	2,00	209	7420	SM	75 S 40 / 71 M 4a	95 96	17
	9,3	150	2,60	165	6752				
	14	100	3,00	116	5813				
	11	82	1,76	118	6450	İRSAM İRSFM	65 / 71 M 6b	107 108	22 23
	15	62	2,36	83	6325				
	18	50	3,36	82	6123				
	23	39	4,64	67	5841	SM	63 / 71 M 6b	79 80	14
	9,0	100	1,00	127	6225				
	11	80	1,20	113	6026				
	15	60	1,60	94	5410				
	18	50	2,00	82	5093				
	23	40	2,40	70	4711				
	14	100	1,30	89	5590	SM	63 / 71 M 4a	79 80	12
	18	80	1,50	79	5187				
	23	60	2,10	64	4705				
	28	50	2,50	57	4432				
	35	40	3,10	48	4109				
	15	62	1,32	89	4252				
	18	50	1,68	78	4160				
	24	38	2,52	64	4112				
	32	29	3,41	50	4064				
	37	25	2,52	46	4016				
	48	19	3,60	38	3975				
	63	14,5	4,93	29	3920	SM	50 / 71 M 6b	77 78	12
	15	60	0,90	89	4180				
	18	50	1,00	80	3940				
	23	40	1,30	68	3623				
	30	30	1,70	55	3453				
	36	25	1,50	49	3369				
	45	20	2,00	41	3298	İRSAM İRSFM	52 / 71 M 4a	105 106	15 17
	60	15	2,90	32	3156				
	22	62	1,76	60	4356				
	28	50	2,24	50	4269				
	36	38	3,39	43	4122				
	48	29	4,52	34	4063				
	55	25	3,36	31	4023	SM	50 / 71 M 4a	77 78	10
	73	19	4,85	25	3987				
	95	14,5	6,58	20	3850				
	18	80	0,90	74	4264				
	23	60	1,20	61	4019				
	28	50	1,40	55	3695				
	35	40	1,80	46	3522	SM	40 / 71 M 6b	75 76	10
47	30	2,40	37	3436					
56	25	2,20	33	3364					
70	20	2,90	27	3219					
30	30	1,00	53	2440					
36	25	0,90	48	2285					
45	20	1,20	40	2193	SM	40 / 71 M 4a	75 76	8	
60	15	1,60	31	1945					
90	10	2,20	22	1820					
120	7,5	2,70	17	1785					
35	40	1,00	45	2489					
47	30	1,30	36	2331					
56	25	1,20	32	2237	SM	40 / 71 M 4a	75 76	8	
70	20	1,60	27	1984					
93	15	2,10	21	1856					
140	10	3,00	15	1821					



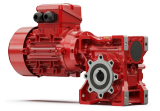
P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg
<b>0,25</b> 0,34	70	20	0,70	25	965	<b>SM</b>	<b>30 / C63 M 4</b>	73 74	7
	93	15	1,00	20	865				
	140	10	1,30	14	795				
	187	7,5	1,70	11	744				
<b>0,37</b> 0,5	0,47	3000	0,90	2555	18000	<b>SM</b>	<b>150 S 63 / 71 M 4b</b>	103 104	96
	0,58	2400	1,20	2141	18000				
	0,78	1800	1,20	1775	18000				
	0,78	1800	0,90	1887	13500	<b>SM</b>	<b>130 S 63 / 71 M 4b</b>	101 102	65
	0,93	1500	1,10	1674	13500				
	0,87	1600	1,00	1793	17300				
	1,1	1248	1,13	1591	17300	<b>İRSAM</b> <b>İRSFM</b>	<b>127 İRS 65 / 71 M 4b</b>	129 130	89 94
	1,5	928	1,47	1219	17300				
	1,7	800	1,61	928	17300				
	2,2	624	1,93	723	17300				
	2,9	480	2,48	506	17300				
	4,5	312	3,54	493	17300				
	2,1	675	1,46	1227	17300	<b>İRSAM</b> <b>İRSFM</b>	<b>127 İR 43 / 71 M 4b</b>	131 132	83 87
	2,4	568	1,74	1032	17300				
	3,0	467	2,11	849	17300				
	3,3	416	2,37	755	17300				
	1,2	1200	0,80	1396	10320	<b>SM</b>	<b>110 S 50 / 71 M 4b</b>	99 100	50
	1,6	900	1,20	1079	10320				
	1,9	750	1,30	950	10320	<b>İRSAM</b> <b>İRSFM</b>	<b>102 İRS 52 / 71 M 4b</b>	123 124	54 60
	1,6	870	0,90	1113	9600				
	1,9	750	0,98	1016	9600				
	2,4	570	1,21	826	9600				
	3,2	435	1,57	638	9600				
	2,2	633	0,89	1120	9600				
	2,6	533	1,06	942	9600	<b>İRSAM</b> <b>İRSFM</b>	<b>102 İR 43 / 71 M 4b</b>	125 126	53 57
	3,2	438	1,29	775	9600				
	3,6	390	1,45	689	9600				
	4,1	337	1,68	596	9600	<b>İRSAM</b> <b>İRSFM</b>	<b>102 İR 42 / 71 M 4b</b>	125 126	52 56
	5,3	260	2,17	460	9600				
	7,6	182	3,10	323	9600				
	9,5	147	3,84	260	9600				
	9,0	100	1,30	212	8180				
	11	80	1,70	185	8180				
	2,3	600	0,80	757	8180	<b>SM</b>	<b>90 / 80 M 6a</b>	83 84	21
	2,8	500	0,90	611	8180				
	3,5	400	1,20	523	8180				
4,7	300	1,50	402	8180					
3,1	450	0,86	651	7550	<b>İRSAM</b> <b>İRSFM</b>	<b>90 S 40 / 71 M 4b</b>	97 98	21	
4,6	300	1,24	450	7550					
6,2	225	1,60	350	7550					
3,5	400	0,80	506	7400					
4,7	300	1,10	412	7400					
5,6	250	1,00	370	7400					
7,0	200	1,40	309	7400	<b>SM</b>	<b>75 S 40 / 71 M 4b</b>	95 96	17	
9,3	150	1,70	245	6852					
14	100	2,10	172	6455					
9,0	100	1,00	200	7380					
11	80	1,30	176	7123					
15	60	1,70	146	6350					
18	50	2,00	126	6241					
23	40	2,60	108	6112					
30	30	3,30	87	6053					
36	25	3,10	77	5987					



P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg
0,37 0,5	11	82	1,2	175	6320	İRSAM İRSFM	65 / 80 M 6a	107 108	22 23
	15	62	1,6	123	6285				
	18	50	2,3	122	6124				
	23	39	3,1	100	6098				
	30	30	3,9	76	6025				
	36	25	3,2	73	5963	İRSAM İRSFM	65 / 80 M 6a	107 108	22 23
	47	20	4,5	58	5951				
	61	15	5,5	44	5820				
	93	9,75	6,7	32	5750				
	11	80	0,80	167	5237				
	15	60	1,10	139	5156				
	18	50	1,30	122	5111				
	23	40	1,70	104	5091				
	30	30	2,10	84	5012				
	36	25	2,00	75	4863				
	45	20	2,70	61	4765				
	14	100	0,90	131	5595	SM	63 / 71 M 4b	79 80	12
	18	80	1,00	117	5525				
	23	60	1,40	95	5123				
	28	50	1,70	85	4982				
	35	40	2,10	72	4713				
	15	62	0,89	132	3850				
	18	50	1,14	116	3810				
	24	38	1,70	96	3756				
	31	29	2,30	74	3701				
	36	25	1,70	68	3640				
	48	19	2,43	56	3562				
	63	14,5	3,33	43	3502	SM	50 / 80 M 6a	77 78	12
	96	9,5	3,55	31	3427				
	126	7,25	4,89	21	3326				
	30	30	1,20	81	3353				
	36	25	1,00	73	3186				
	45	20	1,40	60	2987	İRSAM İRSFM	52 / 71 M 4b	105 106	15 17
	60	15	2,00	47	2740				
	90	10	2,80	33	2417				
	22	62	1,19	88	3927				
	28	50	1,52	74	3848				
	37	38	2,29	64	3831				
	48	29	3,05	50	3738				
	56	25	2,27	46	3676	SM	50 / 71 M 4b	77 78	10
	73	19	3,28	37	3633				
	96	14,5	4,45	29	3607				
146	9,5	4,77	20	3496					
192	7,25	6,49	16	3359					
23	60	0,80	91	3646	SM	40 / 71 M 4b	75 76	8	
28	50	1,00	81	3465					
35	40	1,20	69	3248					
47	30	1,60	55	2980					
56	25	1,50	49	2831					
70	20	1,90	40	2653					
93	15	2,60	31	2433					
47	30	0,90	54	2108	SM	40 / 71 M 4b	75 76	8	
56	25	0,80	48	2003					
70	20	1,10	40	1879					
93	15	1,40	31	1723					
140	10	2,10	21	1519					
187	7,5	2,50	16	1394					

Güç Devir Tabloları / Performance Tables / Table de Performances

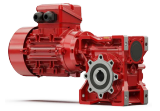




P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg			
0,55 0,75	0,58	2400	0,80	3182	18000	SM	150 S 63 / 80 M 4a	103	98			
	0,78	1800	0,80	2638	18000			104				
	1,2	1200	0,80	2132	13500	SM	130 S 63 / 80 M 4a	101	67			
	1,9	750	1,20	1471	13500			102				
	2,8	500	1,60	996	13500	İRSAM İRSFM	127 İRS 65 / 80 M 4a	129 130	91 96			
	1,1	1248	0,74	2409	12980							
	1,4	960	0,94	1909	12980							
	1,7	800	1,06	1685	12980							
	2,2	624	1,28	1405	12980							
	2,9	480	1,64	1095	12980							
	4,4	312	2,34	766	12980							
	5,8	240	3,00	597	12980	İRSAM İRSFM	127 İR 52 / 80 M 4a	133 134	90 94			
	2,5	550	1,19	1511	12980							
	2,9	482	1,35	1324	12980							
	3,7	378	1,72	1039	12980							
	4,6	303	2,15	833	12980	SM	110 S 50 / 80 M 4a	99 100	52			
	1,9	750	0,90	1411	10320							
	2,3	600	1,00	1181	10320							
	2,8	500	1,10	984	10320							
	3,5	400	1,40	826	10320	İRSAM İRSFM	102 İRS 52 / 80 M 4a	123 124	56 62			
	4,7	300	2,00	639	10320							
	2,4	570	0,80	1250	8470							
	3,2	435	1,03	966	8470							
	4,9	285	1,60	625	8470	İRSAM İRSFM	102 İR 42 / 80 M 4a	125 126	54 58			
	6,4	218	2,07	483	8470							
	5,3	260	1,43	696	8470							
	7,6	182	2,05	488	8470	SM	90 / 80 M 4a	83	21			
	9,4	147	2,54	394	8470			84				
	14	100	1,20	221	7140	SM	90 / 80 M 6b	83	23			
	18	80	1,50	189	6783			84				
	9,0	100	0,90	315	8180			İRSAM İRSFM		82 / 80 M 6b	109	34 36
	11	80	1,10	275	7859						110	
	15	60	1,60	224	7140							
	18	50	2,00	198	6719	SM	75 / 80 M 6b	81	19			
	14	62	2,11	205	7900			82				
	17	53	2,80	206	7850	İRSAM İRSFM	82 / 80 M 6b	109	34 36			
	22	40	3,63	151	7721			110				
	30	30	5,36	122	7516	SM	75 / 80 M 6b	81	19			
	11	80	0,80	262	7033			82				
	15	60	1,10	217	6326			İRSAM İRSFM		65 / 80 M 6b	107	24 25
18	50	1,40	187	5896	108							
23	40	1,70	161	5420	SM	75 / 80 M 4a	81	17				
14	100	0,90	210	6538			82					
18	80	1,10	183	6010			İRSAM İRSFM		65 / 80 M 6b	107	24 25	
23	60	1,40	149	5407						108		
28	50	1,70	131	5039	SM	63 / 80 M 6b	79	16				
35	40	2,20	110	4633			80					
11	82	0,80	266,2	5715	İRSAM İRSFM	65 / 80 M 6b	107	24 25				
14	62	1,07	186,6	5682			108					
18	50	1,53	185,9	5601			SM		63 / 80 M 6b	79	16	
23	39	2,11	152	5496						80		
30	30	2,60	115	5326	SM	63 / 80 M 6b	79	16				
15	60	0,70	207	5257			80					
18	50	0,90	181	4995			İRSAM İRSFM		65 / 80 M 6b	107	24 25	
23	40	1,10	154	4682						108		
30	30	1,40	124	4296	SM	63 / 80 M 6b	79	16				
30	30	1,40	124	4296			80					



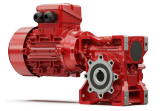
P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg				
0,55 0,75	17	82	1,09	174	5823	İRSAM İRSFM	65 / 80 M 4a	107 108	22 23				
	22	62	1,40	127	5741								
	28	50	2,06	123	5703								
	36	39	2,81	101	5620								
	46	30	3,38	77	5573								
	55	25	2,91	71	5403								
	71	20	4,05	58	5362								
	92	15	4,78	44	5250								
	142	9,75	6,14	31	5123								
	18	80	0,70	174	4808					SM	63 / 80 M 4a	79 80	14
	23	60	0,90	142	4410								
	28	50	1,10	126	4189								
	35	40	1,40	107	3926								
	47	30	1,90	84	3601								
	56	25	1,80	74	3421								
	70	20	2,40	62	3208								
	93	15	3,20	47	2944								
	23	38	1,14	146	3305	İRSAM İRSFM	52 / 80 M 6b	105 106	19 21				
	31	29	1,55	113	3245								
	36	25	1,15	103	3200								
	47	19	1,64	85	3158								
	61	14,5	2,24	66	3091								
	94	9,5	2,39	47	2980					SM	50 / 80 M 6b	77 78	14
	123	7,25	3,29	32	2880								
	30	30	0,80	121	3453								
	36	25	0,70	108	3218								
	45	20	0,90	90	2958								
	60	15	1,30	70	2661	İRSAM İRSFM	52 / 80 M 4a	105 106	17 19				
	22	62	0,80	132	3320								
	28	50	1,02	110	3245								
	36	38	1,54	95	3215								
	48	29	2,05	75	3158								
	55	25	1,53	68	3112								
	73	19	2,20	55	2980								
	96	14,5	2,99	43	2885								
	146	9,5	3,21	30	2756								
	191	7,25	4,37	23	2641					SM	50 / 80 M 4a	77 78	12
	47	30	1,10	82	2703								
	56	25	1,00	72	2568								
	70	20	1,30	60	2407								
93	15	1,70	47	2208									
140	10	2,40	33	1948	SM	40 / C71 M 4	75 76	10					
187	7,5	3,10	25	1787									
70	20	0,70	59	1754									
93	15	0,90	47	1609									
0,75 1	140	10	1,40	32	1419	İRSAM İRSFM	162 İRS 82 / 80 H 4b	137 138	200 225				
	187	7,5	1,70	24	1302								
	0,89	1590	0,82	4095	21500								
	1,2	1200	1,04	3233	21500								
	1,6	900	1,38	2425	21500								
	1,8	795	1,42	2363	21500								
	2,4	600	1,81	1854	21500								
	1,2	1200	1,00	2680	18000					SM	150 S 63 / 80 H 4b	103 104	103
	1,6	900	0,90	2215	18000								
	1,9	750	1,30	1783	18000								
2,3	600	1,70	1529	18000									
	2,8	500	1,80	1291	18000								



P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	İ Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg
0,75 1	1,6	900	0,80	2283	13500	SM	130 S 63 / 80 H 4b	101 102	71
	1,9	750	0,90	2005	13500				
	2,3	600	1,00	1631	13500				
	2,8	500	1,10	1358	13500				
	2,3	624	0,97	1855	11610	İRSAM İRSFM	127 İRS 65 / 80 H 4b	129 130	96 101
	2,9	480	1,24	1445	11610				
	4,5	312	1,77	1012	11610				
	5,9	240	2,28	788	11610	İRSAM İRSFM	127 İR 52 / 80 H 4b	133 134	94 98
	2,6	550	0,90	1995	11610				
	2,9	482	1,03	1748	11610				
	3,7	378	1,31	1372	11610				
	4,7	303	1,63	1100	11610				
	6,1	229	2,15	833	11610				
	7,6	186	2,65	676	11610				
	3,5	400	1,10	1126	10320	SM	110 S 50 / 80 H 4b	73 74	14
	4,7	300	1,50	871	10320				
	3,2	435	0,78	1275	8100	İRSAM İRSFM	102 İRS 52 / 80 H 4b	123 124	61 67
	4,9	285	1,21	825	8100				
	6,5	218	1,57	638	8100				
	9,9	143	1,76	457	8100				
	157	9	2,28	353	8100				
	14	100	0,90	302	7306	SM	90 / 80 H 4b	83 84	25
	18	80	1,10	258	6783				
	23	60	1,50	212	6163				
	28	50	1,80	184	5799				
	15	60	1,10	306	7140	SM	90 / 90 S 6a	83 84	26
	18	50	1,40	271	6719				
	23	40	1,80	226	6238				
	30	30	2,60	179	5667	İRSAM İRSFM	82 / 90 S 6a	109 110	37 39
	15	62	1,55	270	7700				
	17	53	2,05	272	7700				
	23	40	2,67	199	7700				
	31	30	3,93	161	7700				
	35	26,5	2,93	159	7700	SM	75 / 90 S 6a	81 82	22
	46	20	3,73	121	7700				
	15	60	0,80	296	6088				
	18	50	1,00	255	5784				
	23	40	1,30	220	5420				
	30	30	1,60	177	4973				
	36	25	1,60	155	4725				
45	20	2,10	127	4430					
60	15	2,70	99	4065	SM	75 / 80 H 4b	81 82	22	
18	80	0,80	250	5783					
23	60	1,10	203	5304					
28	50	1,30	179	5039					
35	40	1,60	149	4723					
47	30	2,10	118	4334					
56	25	2,10	104	4119	İRSAM İRSFM	65 / 90 S 6a	107 108	27 28	
70	20	2,80	85	3862					
18	50	1,12	245	5423					
24	39	1,55	200	5263					
31	30	1,91	152	5123					
37	25	1,60	146	5050	İRSAM İRSFM	65 / 90 S 6a	107 108	27 28	
47	19,5	2,24	117	4950					
61	15	2,71	89	4812					
94	9,75	3,30	64	4756					



P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg
<b>0,75</b> 1	23	40	0,80	210	4506	<b>SM</b>	<b>63 / 90 S 6a</b>	79 80	19
	30	30	1,00	170	4132				
	36	25	1,00	151	3927				
	45	20	1,30	124	3681				
	60	15	1,70	98	3376				
	90	10	2,30	68	2979				
	120	7,5	2,90	53	2734				
	17	82	0,80	233	5127	<b>İRSAM</b> <b>İRSFM</b>	<b>65 / 80 H 4b</b>	107 108	27 28
	23	62	1,03	170	5296				
	28	50	1,51	165	5200				
	36	39	2,06	135	5055				
	47	30	2,48	104	4955				
	56	25	2,14	95	4957				
	72	19,5	2,97	77	4856				
	94	15	3,51	59	4744				
	145	9,75	4,50	42	4701				
	188	7,5	5,49	32	4635				
	28	50	0,80	171	4189	<b>SM</b>	<b>63 / 80 H 4b</b>	79 80	19
	35	40	1,00	145	3926				
	47	30	1,40	115	3601				
	56	25	1,30	101	3421				
	70	20	1,70	84	3208				
	93	15	2,30	64	2944				
	28	50	0,75	147	2608				
	37	38	1,13	127	2554				
	49	29	1,51	100	2501				
	56	25	1,12	91	2478				
	74	19	1,62	74	2435				
	97	14,5	2,19	57	2397				
	148	9,5	2,35	41	2359				
194	7,25	3,20	31	2321	<b>SM</b>	<b>50 / 80 H 4b</b>	77 78	16	
47	30	0,80	112	2703					
56	25	0,70	99	2568					
70	20	1,00	82	2407					
93	15	1,30	64	2208					
140	10	1,80	45	1948					
187	7,5	2,30	34	1787					
<b>1,1</b> 1,5	1,6	900	0,90	3739	20700	<b>İRSAM</b> <b>İRSFM</b>	<b>162 İRS 82 / 90 S 4a</b>	137 138	201 226
	1,8	795	0,96	3486	20700				
	2,3	600	1,24	2700	20700				
	3,1	450	1,59	2103	20700				
	4,7	300	2,28	1471	20700				
	1,9	755	0,82	4094	20700	<b>İRSAM</b> <b>İRSFM</b>	<b>162 İR 63 / 90 S 4a</b>	139 140	201 224
	2,2	645	0,96	3498	20700				
	2,6	545	1,13	2958	20700				
	1,9	750	0,90	2616	18000				
	2,3	600	1,20	2242	18000				
	2,8	500	1,20	1893	18000	<b>SM</b>	<b>150 S 63 / 90 S 4a</b>	103 104	104
	3,5	400	1,60	1619	18000				
	4,7	300	1,70	1364	18000				
	5,6	250	1,70	1175	18000				
	7,0	200	2,40	966	18000				
	9,3	150	3,10	153	18000				
	2,8	500	0,80	1991	13500				
	3,5	400	1,00	1671	13500				
4,7	300	1,30	1312	13500					

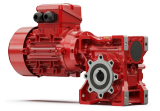


P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg
1,1 1,5	14	100	1,50	480	11200	SM	130 / 90 S 4a	87	66
	18	80	2,10	408	11200			88	
	2,9	480	0,85	2105	10800	İRSAM İRSFM	127 İRS 65 / 90 S 4a	129	97
	4,5	312	1,20	1491	10800			130	
	5,9	240	1,56	1147	10800	İRSAM İRSFM	127 İR 52 / 90 S 4a	133 134	95 99
	3,8	378	0,90	1997	10800				
	4,8	303	1,12	1601	10800				
	6,3	229	1,48	1213	10800				
	7,7	186	1,82	984	10800				
	8,9	161	2,11	851	10800				
	11	130	2,61	687	10800	SM	110 / 90 S 4a	85 86	54
	14	100	1,00	473	7300				
	18	80	1,30	402	7300				
	23	60	1,90	324	7300				
	28	50	2,30	281	7300				
	11	82	1,44	519	7900				
	15	63	1,86	399	7900				
	19	50	2,69	378	7900				
	15	60	0,80	448	7140	SM	90 / 90 L 6b	83 84	28
	18	50	1,00	397	6719				
	23	40	1,20	331	6238				
	30	30	1,80	263	5667				
	36	25	1,60	231	5333	SM	90 / 90 S 4a	83 84	26
	23	60	1,00	311	6163				
	28	50	1,30	270	5799				
	35	40	1,60	225	5383				
	15	62	1,05	392	6852				
	18	53	1,40	395	6700				
	23	40	1,82	289	6623				
	31	30	2,68	234	6496				
	35	27	2,00	230	6382				
	47	20	2,54	176	6267				
	62	15	3,91	134	6153	İRSAM İRSFM	82 / 90 S 4a	109 110	38 40
	93	10	3,95	94	6038				
	23	62	1,36	275	6623				
	27	53	2,09	267	6470				
	36	40	2,34	198	6382	SM	75 / 90 L 6b	81 82	24
	47	30	3,46	160	6247				
	54	27	2,65	149	6153				
	71	20	3,29	115	6057				
	95	15	5,00	90	5960				
	142	10	5,10	63	5800				
23	40	0,90	322	5318					
30	30	1,10	259	4878					
36	25	1,10	228	4635					
45	20	1,40	187	4344					
60	15	1,80	145	3985					
90	10	2,30	100	3516	SM	75 / 90 S 4a	81 82	23	
120	7,5	2,80	77	3195					
23	60	0,70	297	5254					
28	50	0,90	263	4991					
35	40	1,10	219	4678					
47	30	1,40	173	4292					
56	25	1,40	152	4078					
70	20	1,90	125	3824					
93	15	2,40	97	3474					



P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg			
1,1 1,5	24	39	1,06	291	4865	İRSAM İRSFM	65 / 90 L 6b	107 108	29 30			
	31	30	1,30	220	4801							
	37	25	1,09	212	4723							
	48	19,5	1,53	170	4650							
	62	15	1,85	129	4555							
	95	9,75	2,25	93	4489							
	124	7,5	2,90	71	4321							
	45	20	0,90	182	3791	SM	63 / 90 L 6b	79 80	21			
	60	15	1,20	144	3444							
	90	10	1,50	99	3009							
	120	7,5	2,00	77	2734							
	28	50	1,03	240	4910	İRSAM İRSFM	65 / 90 S 4a	107 108	28 29			
	36	39	1,41	196	4801							
	47	30	1,69	151	4723							
	57	25	1,46	139	4650	İRSAM İRSFM	65 / 90 S 4a	107 108	28 29			
	73	19,5	2,02	113	4555							
	95	15	2,39	87	4489							
	146	9,75	3,07	61	4321							
	189	7,5	3,74	47	4259							
	47	30	0,90	169	3533	SM	63 / 90 S 4a	79 80	20			
56	25	0,90	148	3356								
70	20	1,20	123	3146								
93	15	1,60	95	2886								
140	10	2,10	65	2546								
187	7,5	2,60	50	2336	İRSAM İRSFM	162 İRS 82 / 90 H 4a	137 138	204 229				
2,4	600	0,99	3376	19950								
3,2	450	1,28	2629	19950								
4,8	300	1,82	1839	19950								
2,3	600	0,90	3057	18000					SM	150 S 63 / 90 H 4a	103 104	107
2,8	500	0,90	2582	18000								
3,5	400	1,20	2208	18000								
0,47	3000	1,30	1860	18000								
5,6	250	1,30	1602	18000								
7,0	200	1,80	1317	18000								
9,3	150	2,30	1026	18000								
3,5	400	0,70	2279	13500	SM	130 S 63 / 90 H 4a	101 102	76				
4,7	300	1,00	1789	13500	SM	130 / 90 H 4a	87 88	70				
14	100	1,10	635	11200	İRSAM İRSFM	127 İR 52 / 90 H 4a	133 134	99 103				
18	80	1,50	557	11200								
4,7	303	0,83	1475	9650								
6,2	229	1,09	1117	9650								
7,7	186	1,34	907	9650								
8,9	161	1,56	784	9650								
11	130	1,93	632	9650								
11	83	1,80	705	9650								
15	65	2,33	581	9650								
18	52	3,47	544	9650								
24	40	4,67	437	9650	SM	110 / 90 H 4a	85 86	57				
18	80	0,90	548	6800								
23	60	1,40	442	6800								
28	50	1,70	384	6800								
35	40	2,20	319	6800								
12	82	1,05	696	7750	İRSAM İRSFM	102 / 100 L 6a	111 112	62 66				
15	63	1,37	535	7750								
19	50	1,97	508	7750								
24	40	2,61	418	7720								
32	30	3,50	318	7690								
38	25	2,87	296	7520								
47	20	3,80	240	7300								

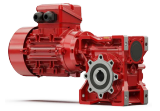




P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg
1,5 2	30	30	1,30	358	5667	SM	90 / 100 L 6a	83 84	35
	36	25	1,20	314	5333				
	45	20	1,50	258	4951				
	60	15	2,10	201	4498				
	90	10	2,70	138	3929				
	23	60	0,80	424	6163	SM	90 / 90 H 4a	83 84	30
	28	50	0,90	368	5799				
	35	40	1,20	307	5383				
	47	30	1,70	239	4891				
	56	25	1,60	210	4603				
	70	20	2,10	172	4273	İRSAM İRSFM	82 / 100 L 6a	109 110	47 49
	18	53	1,03	530	6650				
	24	40	1,33	388	6450				
	32	30	1,97	314	6420				
	36	26,5	1,47	309	6380				
	47	20	1,86	236	6190	İRSAM İRSFM	82 / 90 H 4a	109 110	41 43
	63	15	2,87	180	6050				
	95	10	2,90	126	5960				
	23	62	1,00	373	6450				
	27	53	1,53	361	6420				
	36	40	1,71	268	6380	SM	75 / 100 L 6a	81 82	32
	48	30	2,53	216	6190				
	54	26,5	1,95	202	6050				
	72	20	2,41	156	5960				
	95	15	3,67	122	5800				
	143	10	3,74	85	5680	SM	75 / 90 H 4a	81 82	26
	45	20	1,10	255	4181				
	60	15	1,30	198	3835				
	90	10	1,70	137	3382				
	120	7,5	2,00	105	3103				
	35	40	0,80	299	4547	İRSAM İRSFM	65 / 90 H 4a	107 108	31 32
	47	30	1,00	236	4171				
56	25	1,00	207	3962					
70	20	1,40	170	3713					
93	15	1,70	132	3407					
140	10	2,20	90	3005	SM	63 / 90 H 4a	79 80	23	
187	7,5	2,70	68	2757					
29	50	0,75	325,6	4817					
37	39	1,03	265,7	4707					
48	30	1,24	204,4	4676					
57	25	1,07	187,8	4559	İRSAM İRSFM	162 İR 62 / 100 L 4a	139 140	209 232	
73	19,5	1,48	152,4	4466					
95	15	1,75	117,2	4445					
147	9,75	2,25	83,0	4195					
191	7,5	2,74	63,9	4112					
70	20	1,10	255	4181	İRSAM İRSFM	162 İR 62 / 100 L 4a	139 140	209 232	
93	15	1,30	198	3835					
140	10	1,70	137	3382					
187	7,5	2,00	105	3103					
3,9	366	0,91	3627	19800					İRSAM İRSFM
4,8	302	1,10	2993	19800					
5,6	255	1,30	2530	19800					
6,8	213	1,56	2110	19800					
8,0	180	1,85	1781	19800					
9,0	160	2,08	1582	19800					
11	135	2,47	1335	19800					
13	111	2,99	1103	19800					



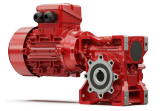
P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg
2,2 3	11	87	2,14	1116	19800	İRSAM İRSFM	162 / 112 M 6a	115	193
	18	54	4,27	836	19800			116	216
	23	42	5,54	659	19800	SM	150 / 100 L 4a	89	110
	14	100	1,00	960	13100			90	
	18	80	1,40	816	13100				
	23	60	1,90	637	13100				
	28	50	2,50	570	13100	SM	130 / 100 L 4a	87	79
	18	80	1,00	816	8900			88	
	23	60	1,40	648	8900				
	28	50	1,70	563	8900				
	35	40	2,20	468	8900	İRSAM İRSFM	127 / 112 M 6a	113	99
	11	83	1,23	1028	9500			114	
	15	65	1,59	848	9500				
	18	52	2,36	794	9500				
	24	40	3,18	637	9420				
	30	32	3,96	531	9300				
	17	83	1,58	753	9500	İRSAM İRSFM	127 / 100 L 4a	113	95
	22	65	2,00	619	9450			114	
	28	52	3,05	548	9300				
	36	40	4,00	433	9220				
	23	60	1,00	648	5400	SM	110 / 100 L 4a	85	66
	28	50	1,20	563	5400			86	
	35	40	1,50	468	5400				
	47	30	2,00	356	5400				
	56	25	2,20	315	5400				
	70	20	2,50	255	5400				
	18	82	1,00	720	7730	İRSAM İRSFM	102 / 100 L 4a	111	65
	23	63	1,20	572	7620			112	
	29	50	1,75	505	7590				
	36	40	2,27	422	7540				
	48	30	3,00	325	7420				
	57	25	2,52	289	7360				
	72	20	3,32	237	7250	İRSAM İRSFM	102 / 100 L 4a	73	27
	96	15	4,36	180	7100			74	
	144	10	4,87	126	7030				
	191	7,5	6,36	96	6950				
	47	30	1,20	351	4891	SM	90 / 100 L 4a	83	39
	56	25	1,10	308	4603			84	
	70	20	1,40	252	4273				
	93	15	1,90	194	3882				
	140	10	2,30	134	3391				
	187	7,5	2,90	101	3081				
45	20	1,00	378	4951	SM	90 / 112 M 6a	83	43	
60	15	1,40	294	4498			84		
90	10	1,80	203	3929					
120	7,5	2,20	156	3570					
27	53	1,04	528	6320	İRSAM İRSFM	82 / 100 L 4a	109	50	
36	40	1,17	392	6250			110		
48	30	1,73	316	6125					
54	26,5	1,33	295	6050					
72	20	1,64	228	5975					
96	15	2,50	178	5950					
144	10	2,55	124	5900	SM	75 / 100 L 4a	81	35	
70	20	0,90	249	3609			82		
93	15	1,20	194	3310					
140	10	1,50	132	2919					
187	7,5	1,80	100	2678					



P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types		 kg		
3 4	5,1	280	1,10	4150	28460	İRSAM İRSFM	201 İR 72 / 100 H 4b	117	329	
	6,4	224	1,40	3323	28460			118	361	
	7,9	182	1,70	2700	28460					
	9,6	150	2,00	2220	28460					
	12	122	2,50	1801	28460					
	14	100	3,10	1477	28460	İRSAM İRSFM	162 / 132 S 6b	115	202	
	11	87	1,57	1506	19800			116	225	
	18	54	3,13	1128	19800					
	23	42	4,07	890	19800					
	32	30	5,73	663	19800					
	14	100	0,80	1310	13100	SM	150 / 100 H 4b	89	113	
	18	80	1,00	1113	13100			90		
	23	60	1,40	896	13100					
	28	50	1,80	778	13100					
	18	80	0,80	1113	7600					
	23	60	1,00	884	7600	SM	130 / 100 H 4b	87	82	
	28	50	1,30	767	7600			88		
	35	40	1,60	638	7600					
	47	30	2,10	491	7600					
	56	25	2,20	430	7600					
	17	83	1,16	1027	9500	İRSAM İRSFM	127 / 100 H 4b	113	98	
	22	65	1,47	844	9400			114		102
	28	52	2,23	747	9320					
	36	40	2,93	591	9240					
	45	32	3,60	486	9520					
	55	26	3,23	420	9360	SM	110 / 100 H 4b	85	69	
	72	20	4,27	327	9210			86		
	90	16	5,40	268	9180					
	110	13	4,73	223	8930					
	28	50	0,90	767	4900					
	35	40	1,10	638	4900	İRSAM İRSFM	102 / 100 H 4b	111	68	
	47	30	1,50	485	4900			112		72
	56	25	1,60	430	4900					
	70	20	1,90	348	4900					
	93	15	2,50	264	4900					
	23	63	0,88	780	7620	SM	90 / 100 H 4b	83	42	
	29	50	1,28	689	7590			84		
	36	40	1,67	575	7480					
	48	30	2,20	443	7620					
	57	25	1,85	394	7530					
72	20	2,43	323	7450	İRSAM İRSFM	82 / 100 H 4b	109	53		
96	15	3,20	246	7360			110		55	
144	10	3,57	172	7290						
191	7,5	4,67	130	7130						
47	30	0,90	479	4891						
56	25	0,80	420	4603	SM	90 / 100 H 4b	83	42		
70	20	1,00	344	4273			84			
93	15	1,40	264	3882						
140	10	1,70	182	3391						
187	7,5	2,10	138	3081						
36	40	0,86	535	6250	İRSAM İRSFM	82 / 100 H 4b	109	53		
48	30	1,27	431	6125			110		55	
54	26,5	0,97	402	6050						
72	20	1,21	311	5975						
96	15	1,83	243	5950						
144	10	1,87	170	5900						
191	7,5	2,70	129	5860						



P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg			
4 5,5	5,2	280	0,83	5457	28460	İRSAM İRSFM	201 İR 72 / 112 M 4b	141 142	368 400			
	6,5	224	1,04	4369	28460							
	8,0	182	1,28	3550	28460							
	9,8	150	1,55	2918	28460							
	12	122	1,91	2369	28460							
	15	100	2,33	1941	28460							
	12	83	2,25	2081	28460	İRSAM İRSFM	201 / 132 M 6a	117 118	349 381			
	15	63	3,27	1780	28460							
	17	55	4,00	1620	28460							
	24	40	4,31	1210	28460	İRSAM İRSFM	162 / 132 M 6a	115 116	212 235			
	11	87	1,18	2008	19800							
	18	54	2,35	1504	19800							
	23	42	3,05	1187	19800							
	32	30	4,30	883	19800							
	46	21	4,38	669	19800							
	18	80	0,80	1484	13100	SM	150 / 112 M 4b	89 90	120			
	23	60	1,10	1195	13100							
	28	50	1,40	1037	13100							
	23	60	0,80	1179	7600	SM	130 / 112 M 4b	87 88	89			
	28	50	1,00	1023	7600							
	35	40	1,20	851	7600							
	47	30	1,60	655	7600							
	56	25	1,60	573	7600							
	18	83	0,87	1351	9406					İRSAM İRSFM	127 / 112 M 4b	113 114
	22	65	1,10	1109	9216							
	28	52	1,67	983	9228							
	36	40	2,20	777	9059							
	45	32	2,70	639	9333							
	56	26	2,42	553	9267							
	73	20	3,20	431	8942							
	91	16	4,05	353	9089							
	112	13	3,55	294	9020							
	29	50	0,96	906	7545	İRSAM İRSFM	102 / 112 M 4b	111 112	75 79			
	36	40	1,25	756	7441							
	49	30	1,65	583	7406							
	58	25	1,39	519	7471							
73	20	1,83	425	7382								
97	15	2,40	323	7376								
146	10	2,68	226	7146								
194	7,5	3,50	171	7218								
70	20	0,80	458	4273	SM					90 / 112 M 4b	83 84	49
93	15	1,00	352	3882								
140	10	1,30	243	3391								
187	7,5	1,60	184	3081	İRSAM İRSFM	82 / C100 L 4	109 110	60 62				
48	30	0,95	575	6127								
54	26,5	0,73	536	6005								
72	20	0,90	415	5990								
96	15	1,38	323	5858								
144	10	1,40	226	5833								
191	7,5	2,02	172	5842	İRSAM İRSFM	201 / 132 M 6b	117 118	363 395				
12	83	1,68	2909	28100								
15	63	2,22	2246	28100								
17	55	2,93	2193	28100								
24	40	4,28	1647	28100								



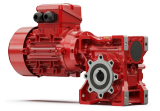
P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg
5,5 7,5	11	87	0,85	2761	19800	İRSAM İRSFM	162 / 132 M 6b	115 116	226 249
	18	54	1,71	2068	19800				
	23	42	2,22	1632	19800				
	32	30	3,13	1215	19800				
	46	21	3,18	919	19800				
	64	15	4,55	681	19800				
	17	87	1,07	1996	19800	İRSAM İRSFM	162 / 132 S 4c	115 116	201 224
	27	54	2,16	1433	19800				
	35	42	2,75	1129	19800				
	49	30	3,82	839	19800				
	54	27	3,16	794	19800				
	70	21	3,95	625	19800				
	98	15	5,55	457	19800	SM	150 / 132 S 4c	89 90	122
	23	60	0,80	1643	9650				
	28	50	1,00	1426	9650				
	35	40	1,30	1171	9650				
	47	30	1,30	934	9650				
	56	25	1,50	788	9650				
	70	20	2,00	645	9650	SM	130 / 132 S 4c	87 88	91
	35	40	0,90	1171	5600				
	47	30	1,20	900	5600				
	56	25	1,20	788	5600				
	70	20	1,40	645	5600				
	93	15	1,90	490	5600				
	140	10	2,50	334	5600	İRSAM İRSFM	127 / 132 S 4c	113 114	107 111
	23	65	0,80	1515	9560				
	28	52	1,22	1342	9520				
	37	40	1,60	1061	9410				
	46	32	1,96	872	9630				
	56	26	1,76	755	9350				
73	20	2,33	588	9260					
92	16	2,95	482	9450					
113	13	2,58	401	9210					
147	10	3,42	312	8960					
70	20	1,00	638	3900	SM	110 / 132 S 4c	85 86	78	
93	15	1,40	484	3900					
140	10	1,80	334	3900					
187	7,5	2,20	253	3900					
7,5 10	12	83	1,20	3901	27500	İRSAM İRSFM	201 / 160 M 6b	117 118	396 428
	15	63	1,75	3337	27500				
	17	55	2,13	3037	27500				
	24	40	2,30	2268	27500				
	18	54	1,25	2820	19800	İRSAM İRSFM	162 / 160 M 6b	115 116	259 282
	23	42	1,63	2225	19800				
	32	30	2,29	1656	19800				
	46	21	2,33	1253	19800				
	64	15	3,33	929	19800				
	17	87	0,79	2722	19800				
	27	54	1,59	1954	19800	İRSAM İRSFM	162 / 132 M 4b	115 116	212 235
	35	42	2,01	1540	19800				
	49	30	2,80	1144	19800				
	70	21	2,89	852	19800				
	98	15	4,07	623	19800				
	35	40	1,00	1596	9650				
	47	30	0,90	1274	9650				
	56	25	1,10	1074	9650				
70	20	1,50	880	9650					



P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg
11 15	35	40	0,70	1596	5090	SM	130 / 132 M 4b	87 88	102
	47	30	0,80	1228	5090				
	56	25	0,90	1074	5090				
	70	20	1,00	880	5090				
	93	15	1,40	668	5090				
	140	10	1,80	455	5090				
	187	7,5	2,10	349	5090				
	37	40	1,17	1447	9373	İRSAM İRSFM	127 / 132 M 4b	113 114	118 122
	46	32	1,44	1189	9333				
	56	26	1,29	1030	9317				
	73	20	1,71	802	9441				
	92	16	2,16	657	9167				
	113	13	1,89	547	9168				
	147	10	2,51	425	9175				
	183	8	3,17	344	9119	SM	110 / 132 M 4b	85 86	89
	93	15	1,00	660	3900				
	140	10	1,30	455	3900				
	187	7,5	1,60	345	3900				
	19	52	2,09	4492	33000				
	24	40	3,55	3547	33000				
	37	26	5,73	2910	33000				
	48	20	6,20	1962	33000	İRSAM İRSFM	250 / 160 L 6b	119 120	615 635
	15	63	1,00	4526	25850				
	18	55	1,36	4251	25850				
	24	40	2,00	3222	25850				
	32	30	2,09	2482	25850				
	18	54	0,85	4115	23250				
	23	42	1,11	3246	23250				
	32	30	1,56	2417	23250	İRSAM İRSFM	162 / 160 L 6b	115 116	285 308
	46	21	1,59	1829	23250				
	64	15	2,27	1355	23250				
	27	54	1,08	2865	23250				
	35	42	1,37	2259	23250				
	49	30	1,91	1678	23250				
	70	21	1,97	1250	23250				
98	15	2,77	914	23250	İRSAM İRSFM	162 / 160 M 4b	115 116	255 278	
140	10,5	2,86	625	23250					
195	7,5	4,00	479	23250					
56	25	0,80	1576	6960					
70	20	1,00	1291	6960					
93	15	1,30	990	6960					
140	10	1,80	675	6960					
187	7,5	2,30	512	6960	SM	150 / 160 M 4b	89 90	176	
37	40	0,80	2123	9465					
46	32	0,98	1744	9333					
56	26	0,88	1510	9317					
73	20	1,16	1176	9441					
92	16	1,47	964	9167					
113	13	1,29	802	9168					
147	10	1,71	624	9175	İRSAM İRSFM	127 / C132 M 4	113 114	161 165	
183	8	2,16	505	9119					
15	63	1,27	5424	32700					
19	52	2,00	5712	32700					
24	40	2,73	4513	32700					
31	31	2,93	3589	32700					
37	26	3,33	3203	32700					
48	20	4,00	2494	32700	İRSAM İRSFM	250 / 180 L 6a	119 120	655 675	

Güç Devir Tabloları / Performance Tables / Table de Performances





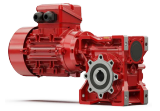
P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg		
15 20	28	52	2,47	3966	32700	İRSAM İRSFM	250 / 160 L 4a		119 120	608 628	
	37	40	3,27	3090	32700						
	47	31	3,93	2395	32700						
	56	26	3,53	2161	32700						
	73	20	4,80	1682	32700						
	95	15,5	5,73	1303	32700						
	147	10	6,93	870	32700						
	27	55	1,33	4033	25100						
	18,5 25	37	40	1,88	3051	25100	İRSAM İRSFM	201 / 160 L 4a		117 118	415 447
		49	30	1,95	2317	25100					
		53	27,5	2,58	2232	25100					
		73	20	2,79	1662	25100					
		98	15	2,79	1261	25100					
		107	13,75	3,77	1183	25100					
		147	10	4,05	870	25100					
		195	7,5	5,51	653	25100					
		35	42	1,01	3114	22400					
		49	30	1,42	2312	22400					
		70	21	1,48	1723	22400					
		98	15	2,06	1260	22400					
22 30	140	10,5	2,11	892	22400	İRSAM İRSFM	162 / 160 L 4a		115 116	278 301	
	195	7,5	2,95	681	22400						
	70	20,0	0,70	1760	6960						
	93	15,0	0,90	1351	6960						
	140	10,0	1,30	921	6960						
	187	7,5	1,70	698	6960						
	28	52	2,00	4875	32450						
	37	40	2,65	3798	32450						
	47	31	3,19	2943	32450						
	57	26	2,86	2656	32450						
18,5 25	74	20	3,89	2067	32450	İRSAM İRSFM	250 / 180 M 4b		119 120	653 673	
	95	15,5	4,65	1602	32450						
	147	10	5,62	1070	32450						
	190	7,75	6,76	829	32450						
	27	55	1,06	4958	24650						
	37	40	1,54	3750	24650						
	49	30	2,04	2848	24650						
	53	28	1,52	2743	24650						
	74	20	2,23	2043	24650						
	98	15	2,99	1550	24650						
	107	13,75	2,21	1454	24650						
	147	10	3,25	1070	24650						
	196	7,5	4,35	802	24650						
	35	42	0,82	3786	21200						
	49	30	1,14	2812	21200						
	70	21	1,17	2095	21200						
	98	15	1,65	1532	21200						
	140	10,5	1,70	1047	21200						
196	7,5	2,38	802	21200							
22 30	28	52	1,68	5797	32200	İRSAM İRSFM	250 / 180 L 4b		119 120	669 689	
	37	40	2,23	4516	32200						
	47	31	2,68	3500	32200						
	74	20	3,27	2458	32200						
	95	15,5	3,91	1905	32200						
	147	10	4,73	1272	32200						
	190	7,75	5,68	986	32200						

## Sonsuz Vidali Redüktörler Güç ve Devir Tabloları

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Worm Geared - Performances Tables

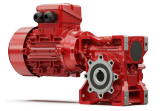
*Moto-réducteurs à roue et vis sans fin avec - Table de performances*



Servis Faktörü Service Factor Service facteur  S <sub>f</sub> = 1	P <sub>1</sub> GÜÇ Power Puissance [kW]	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n <sub>1</sub> =1400rpm)	İ Tahvil Ratio Rapport de réduction	η Verim Efficiency Efficience [ % ]	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q1</sub> Rad. Yük Over Loads Charges radiales [N]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types	kg		
	<b>10-20 Nm</b>	0,05	18	80	48	13	190			1250	S
0,07		23	60	54	15	190	1250				
0,09		28	50	56	17	190	1250				
0,11		35	40	60	18	190	1250				
0,13		47	30	66	18	190	1250				
0,17		56	25	71	21	190	1250				
0,18		70	20	75	18	190	1250				
0,23		93	15	78	18	190	1250				
0,31		140	10	80	17	190	1250				
0,40		187	7,5	83	17	190	1250				
<b>30-40 Nm</b>	0,09	14	100	45	28	330	2100	S	40	75 76	2
	0,12	18	80	49	32	330	2100				
	0,14	23	60	55	32	330	2100				
	0,18	28	50	61	37	330	2100				
	0,22	35	40	65	39	330	2100				
	0,30	47	30	68	42	330	2100				
	0,30	56	25	71	36	330	2100				
	0,35	70	20	74	35	330	2100				
	0,46	93	15	79	37	330	2100				
	0,66	140	10	82	37	330	2100				
0,85	187	7,5	85	37	330	2100					
<b>50-70 Nm</b>	0,16	14	100	46	50	450	3000	S	50	77 78	4
	0,20	18	80	53	58	450	3000				
	0,26	23	60	57	61	450	3000				
	0,31	28	50	61	64	450	3000				
	0,40	35	40	65	71	450	3000				
	0,50	47	30	68	70	450	3000				
	0,50	56	25	71	61	450	3000				
	0,64	70	20	74	65	450	3000				
	0,85	93	15	79	69	450	3000				
	1,11	140	10	82	62	450	3000				
1,54	187	7,5	85	67	450	3000					
<b>100-150 Nm</b>	0,44	23	62	56	104	490	3400	İRSA İRSF	52	105 106	9 11
	0,56	28	50	58	111	490	3400				
	0,85	37	38	66	145	490	3400				
	1,13	48	29	68	152	490	3400				
	0,84	56	25	72	103	490	3400				
	1,21	74	19	77	121	490	3400				
	1,64	97	14,5	78	127	490	3400				
	1,77	147	9,5	84	96	490	3400				
2,4	193	7,25	85	101	490	3400					
<b>110-150 Nm</b>	0,32	14	100	52	114	650	4200	S	63	79 80	6
	0,38	18	80	58	120	650	4200				
	0,50	23	60	60	123	650	4200				
	0,60	28	50	62	127	650	4200				
	0,75	35	40	67	137	650	4200				
	1,00	47	30	71	145	650	4200				
	0,99	56	25	74	125	650	4200				
	1,20	70	20	78	128	650	4200				
	1,60	93	15	80	131	650	4200				
	2,20	140	10	82	123	650	4200				
2,81	187	7,5	85	122	650	4200					
<b>170-220 Nm</b>	0,48	14	100	53	174	700	5800	S	75	81 82	9
	0,56	18	80	58	177	700	5800				
	0,75	23	60	60	184	700	5800				
	0,85	28	50	63	183	700	5800				
	1,1	35	40	67	201	700	5800				



Servis Faktörü Service Factor Service facteur  $S_f = 1$	$P_1$ GÜÇ Power Puissance  [kW]	$n_2$ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] ( $n_1=1400\text{rpm}$ )	$i$ Tahvil Ratio Rapport de réduction	$\eta$ Verim Efficiency Efficience  [ % ]	$M_2$ Çıkış Momenti Output Torque Couple de sortie  [Nm]	$F_{Q1}$ Rad. Yük Over Loads Charges radiales  [N]	$F_{Q10}$ Rad. Yük Over Loads Charges radiales  [N]	Tip Type Types				kg
<b>170-220 Nm</b>	1,5	47	30	72	221	700	5800	S	75	81 82	9	
	1,5	56	25	76	194	700	5800					
	1,8	70	20	78	192	700	5800					
	2,2	93	15	80	180	700	5800					
	3	140	10	84	172	700	5800					
<b>180-280 Nm</b>	4	187	7,5	86	176	700	5800	İRSA İRSF	65	107 108	14 15	
	0,6	17	82	56	188	670	4900					
	0,77	23	62	54	176	670	4900					
	1,13	28	50	65	251	670	4900					
	1,55	36	39	68	280	670	4900					
	1,86	47	30	68	259	670	4900					
	1,6	56	25	75	205	670	4900					
	2,23	72	19,5	78	231	670	4900					
	2,63	93	15	78	210	670	4900					
	3,37	144	9,75	85	191	670	4900					
4,11	187	7,5	85	179	670	4900						
<b>270-410 Nm</b>	0,67	14	100	59	270	900	5200	S	90	83 84	13	
	0,83	18	80	63	285	900	5200					
	1,1	23	60	71	320	900	5200					
	1,4	28	50	71	339	900	5200					
	1,8	35	40	73	359	900	5200					
	2,6	47	30	77	410	900	5200					
	2,4	56	25	83	340	900	5200					
	3,1	70	20	84	355	900	5200					
	4,1	93	15	86	361	900	5200					
	5,1	140	10	89	310	900	5200					
6,3	187	7,5	90	290	900	5200						
<b>330-570 Nm</b>	1,5	23	62	60	381	850	6900	İRSA İRSF	82	109 110	24 26	
	2,3	26	53	68	565	850	6900					
	2,57	35	40	67	470	850	6900					
	3,8	47	30	72	560	850	6900					
	2,92	53	26,5	76	401	850	6900					
	3,62	70	20	78	385	850	6900					
	5,5	93	15	81	456	850	6900					
	5,6	140	10	85	325	850	6900					
8,1	187	7,5	86	356	850	6900						
<b>480-730 Nm</b>	1,1	14	100	64	480	1200	6600	S	110	85 86	40	
	1,4	18	80	67	512	1200	6600					
	2,1	23	60	72	619	1200	6600					
	2,6	28	50	74	656	1200	6600					
	3,3	35	40	78	702	1200	6600					
	4,5	47	30	79	728	1200	6600					
	4,7	56	25	85	681	1200	6600					
	5,6	70	20	84	642	1200	6600					
	7,5	93	15	85	652	1200	6600					
	9,8	140	10	89	595	1200	6600					
12	187	7,5	90	553	1200	6600						
<b>620-1000 Nm</b>	2,20	17	82	60	738	1450	10000	İRSA İRSF	102	111 112	39 43	
	2,64	22	63	62	703	1450	10000					
	3,85	28	50	69	906	1450	10000					
	5,00	35	40	72	982	1450	10000					
	6,60	47	30	74	999	1450	10000					
	5,55	56	25	79	748	1450	10000					
	7,30	70	20	81	807	1450	10000					
	9,60	93	15	82	805	1450	10000					
	10,70	140	10	86	628	1450	10000					
	14,00	187	7,5	87	623	1450	10000					

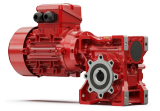




Servis Faktörü Service Factor Service facteur  $S_f = 1$	P <sub>1</sub> GÜÇ Power Puissance [kW]	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n <sub>1</sub> =1400rpm)	İ Tahvil Ratio Rapport de réduction	η Verim Efficiency Efficience [ % ]	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q1</sub> Rad. Yük Over Loads Charges radiales [N]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg
740-1060 Nm	1,7	14	100	64	742	1800	8500	S	130	87 88	53
	2,3	18	80	67	841	1800	8500				
	3,1	23	60	71	901	1800	8500				
	3,8	28	50	76	985	1800	8500				
	4,9	35	40	79	1056	1800	8500				
	6,4	47	30	79	1035	1800	8500				
	6,5	56	25	84	931	1800	8500				
	7,8	70	20	86	915	1800	8500				
	10,3	93	15	87	917	1800	8500				
	13,5	140	10	89	820	1800	8500				
	16,1	187	7,5	91	750	1800	8500				
1000-1550 Nm	2,3	14	100	64	1004	2000	12000	S	150	89 90	84
	3,1	18	80	68	1150	2000	12000				
	4,2	23	60	73	1255	2000	12000				
	5,4	28	50	76	1400	2000	12000				
	7,3	35	40	78	1554	2000	12000				
	7,1	47	30	83	1206	2000	12000				
	8,4	56	25	84	1203	2000	12000				
	11,1	70	20	86	1302	2000	12000				
	13,9	93	15	88	1252	2000	12000				
	20,2	140	10	90	1240	2000	12000				
	25,8	187	7,5	91	1201	2000	12000				
1080-1790 Nm	3,47	17	83	62	1218	2300	17000	İRSA İRSF	127	113 114	69 73
	4,4	22	65	65	1268	2300	17000				
	6,7	27	52	72	1711	2300	17000				
	8,8	35	40	74	1777	2300	17000				
	10,8	44	32	76	1792	2300	17000				
	9,7	54	26	81	1393	2300	17000				
	12,8	70	20	82	1432	2300	17000				
	16,2	88	16	84	1485	2300	17000				
	14,2	108	13	86	1083	2300	17000				
	18,8	140	10	87	1116	2300	17000				
	1870-3350 Nm	4,6	13	111	62	2159	2900				
5,9		16	87	64	2241	2900	21500				
11,9		26	54	74	3244	2900	21500				
15,1		33	42	75	3245	2900	21500				
21,0		47	30	78	3352	2900	21500				
17,4		52	27	82	2628	2900	21500				
21,7		67	21	83	2580	2900	21500				
30,5		93	15	85	2653	2900	21500				
31,5		133	10,5	83	1873	2900	21500				
44,0		187	7,5	89	2003	2900	21500				
3520-5760 Nm		7,5	12	115	65	3824	3250	24750	İRSA İRSF	201	117 118
	11	17	83	68	4235	3250	24750				
	14	22	63	70	4212	3250	24750				
	19	25	55	75	5346	3250	24750				
	27	35	40	78	5746	3250	24750				
	28	47	30	79	4527	3250	24750				
	37	51	27,5	83	5761	3250	24750				
	40	70	20	85	4639	3250	24750				
	40	93	15	86	3520	3250	24750				
	54	102	13,75	88	4457	3250	24750				
	58	140	10	89	3521	3250	24750				
79	187	7,5	89	3597	3250	24750					



Servis Faktörü Service Factor Service facteur  $S_f = 1$	$P_1$ GÜÇ Power Puissance  [kW]	$n_2$ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] ( $n_1=1400\text{rpm}$ )	$i$ Tahvil Ratio Rapport de réduction	$\eta$ Verim Efficiency Efficience  [ % ]	$M_2$ Çıkış Momenti Output Torque Couple de sortie  [Nm]	$F_{Q1}$ Rad. Yük Over Loads Charges radiales  [N]	$F_{Q10}$ Rad. Yük Over Loads Charges radiales  [N]	Tip Type Types			kg
	İRSA	İRSF	250	119	493						
<b>5730-10560</b> <b>Nm</b>	23	22	63	58	5733	3750	29000	İRSA			
	37	27	52	78	10237	3750	29000				
	49	35	40	79	10562	3750	29000				
	59	45	31	79	9856	3750	29000				
	53	54	26	85	7990	3750	29000				
	72	70	20	86	8448	3750	29000				
	86	90	15,5	86	7820	3750	29000				
	104	140	10	89	6314	3750	29000				
	125	181	7,75	89	5881	3750	29000				

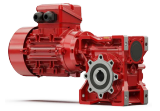




Servis Faktörü Service Factor Service facteur  $S_f = 1$	P <sub>1</sub> GÜÇ Power Puissance  [kW]	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n <sub>1</sub> =900rpm)	İ Tahvil Ratio Rapport de réduction	η Verim Efficiency Efficience  [ % ]	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie  [Nm]	F <sub>Q1</sub> Rad. Yük Over Loads Charges radiales  [N]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales  [N]	Tip Type Types		 kg	
<b>15-22 Nm</b>	0,04	11	80	43	15	190	1300	S	30	73 74	1
	0,06	15	60	45	17	190	1300				
	0,07	18	50	48	18	190	1300				
	0,09	23	40	52	20	190	1300				
	0,11	30	30	61	21	190	1300				
	0,12	36	25	68	22	190	1300				
	0,12	45	20	72	18	190	1300				
	0,16	60	15	74	19	190	1300				
	0,23	90	10	77	19	190	1300				
	0,29	120	7,5	81	19	190	1300				
<b>30-40 Nm</b>	0,07	9	100	42	31	330	2250	S	40	75 76	2
	0,09	11	80	44	34	330	2250				
	0,10	15	60	52	33	330	2250				
	0,12	18	50	55	35	330	2250				
	0,16	23	40	61	41	330	2250				
	0,21	30	30	65	43	330	2250				
	0,21	36	25	69	38	330	2250				
	0,26	45	20	72	40	330	2250				
	0,35	60	15	77	43	330	2250				
	0,49	90	10	80	42	330	2250				
0,64	120	7,5	82	42	330	2250					
<b>50-80 Nm</b>	0,11	9	100	42	49	450	3300	S	50	77 78	4
	0,15	11	80	46	59	450	3300				
	0,20	15	60	52	66	450	3300				
	0,25	18	50	55	73	450	3300				
	0,3	23	40	61	78	450	3300				
	0,35	30	30	65	72	450	3300				
	0,35	36	25	69	64	450	3300				
	0,45	45	20	72	69	450	3300				
	0,65	60	15	77	80	450	3300				
	0,90	90	10	80	76	450	3300				
1,11	120	7,5	84	74	450	3300					
<b>100-170 Nm</b>	0,33	15	62	55	119	490	3550	İRSA İRSF	52	105 106	9 11
	0,42	18	50	60	134	490	3550				
	0,63	24	38	65	165	490	3550				
	0,85	31	29	66	173	490	3550				
	0,63	36	25	70	117	490	3550				
	0,90	47	19	76	138	490	3550				
	1,23	62	14,5	77	146	490	3550				
	1,32	95	9,5	83	110	490	3550				
1,81	124	7,25	74	103	490	3550					
<b>120-160 Nm</b>	0,25	9	100	45	119	650	4350	S	63	79 80	6
	0,27	11	80	52	119	650	4350				
	0,37	15	60	56	132	650	4350				
	0,42	18	50	58	129	650	4350				
	0,55	23	40	63	147	650	4350				
	0,75	30	30	68	162	650	4350				
	0,68	36	25	70	126	650	4350				
	0,90	45	20	74	141	650	4350				
	1,10	60	15	78	137	650	4350				
	1,70	90	10	80	144	650	4350				
2,20	120	7,5	84	147	650	4350					
<b>180-240 Nm</b>	0,35	9	100	48	178	700	6000	S	75	81 82	9
	0,40	11	80	54	183	700	6000				
	0,52	15	60	56	185	700	6000				
	0,62	18	50	59	194	700	6000				
	0,8	23	40	63	214	700	6000				



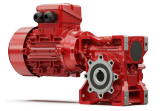
Servis Faktörü Service Factor Service facteur  $S_f = 1$	$P_1$ GÜÇ Power Puissance  [kW]	$n_2$ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] ( $n_1=900rpm$ )	$i$ Tahvil Ratio Rapport de réduction	$\eta$ Verim Efficiency Efficience  [ % ]	$M_2$ Çıkış Momenti Output Torque Couple de sortie  [Nm]	$F_{Q1}$ Rad. Yük Over Loads Charges radiales  [N]	$F_{Q10}$ Rad. Yük Over Loads Charges radiales  [N]	Tip Type Types			 kg
<b>180-240 Nm</b>	1,10	30	30	69	242	700	6000	<b>S</b>	<b>75</b>	81 82	9
	1,10	36	25	72	210	700	6000				
	1,40	45	20	75	223	700	6000				
	1,75	60	15	78	217	700	6000				
	2,5	90	10	81	215	700	6000				
	3	120	7,5	85	203	700	6000				
<b>200-320 Nm</b>	0,44	11	82	55	211	670	4900	<b>İRSA İRSF</b>	<b>65</b>	107 108	14 15
	0,59	15	62	51	198	670	4900				
	0,84	18	50	63	281	670	4900				
	1,16	23	39	66	317	670	4900				
	1,43	30	30	65	296	670	4900				
	1,20	36	25	75	239	670	4900				
	1,68	46	19,5	77	268	670	4900				
	2,03	60	15	76	246	670	4900				
	2,47	92	9,75	84	215	670	4900				
	3,19	120	7,5	84	213	670	4900				
<b>280-460 Nm</b>	0,49	9	100	54	281	1100	6000	<b>S</b>	<b>90</b>	83 84	13
	0,63	11	80	59	316	1100	6000				
	0,86	15	60	64	350	1100	6000				
	1,1	18	50	67	391	1100	6000				
	1,4	23	40	69	410	1100	6000				
	1,90	30	30	76	460	1100	6000				
	1,80	36	25	77	368	1100	6000				
	2,30	45	20	80	390	1100	6000				
	3,1	60	15	85	419	1100	6000				
	4	90	10	87	369	1100	6000				
	4,8	120	7,5	89	340	1100	6000				
<b>330-650 Nm</b>	1,16	15	62	56	427	850	7100	<b>İRSA İRSF</b>	<b>82</b>	109 110	24 26
	1,54	17	53	66	572	850	7100				
	2,00	23	40	64	543	850	7100				
	2,95	30	30	69	648	850	7100				
	2,20	34	26,5	77	476	850	7100				
	2,00	45	20	78	331	850	7100				
	4,3	60	15	79	541	850	7100				
	4,35	90	10	83	383	850	7100				
6,3	120	7,5	85	426	850	7100					
<b>520-840 Nm</b>	0,84	9	100	58	517	1400	7600	<b>S</b>	<b>110</b>	85 86	40
	1,10	11	80	61	570	1400	7600				
	1,60	15	60	67	683	1400	7600				
	2,00	18	50	70	743	1400	7600				
	2,50	23	40	75	796	1400	7600				
	3,50	30	30	75	836	1400	7600				
	3,50	36	25	82	761	1400	7600				
	4,10	45	20	83	722	1400	7600				
	5,60	60	15	83	740	1400	7600				
	7,60	90	10	88	710	1400	7600				
9,20	120	7,5	89	652	1400	7600					
<b>760-1170 Nm</b>	1,58	11	82	56	770	1450	10400	<b>İRSA İRSF</b>	<b>102</b>	111 112	39 43
	2,50	14	63	56	936	1450	10400				
	2,96	18	50	67	1052	1450	10400				
	3,92	23	40	69	1148	1450	10400				
	5,25	30	30	70	1170	1450	10400				
	4,30	36	25	78	890	1450	10400				
	5,70	45	20	79	956	1450	10400				
	7,66	60	15	80	975	1450	10400				
	8,40	90	10	85	758	1450	10400				
	11,20	120	7,5	85	758	1450	10400				





Servis Faktörü Service Factor Service facteur  $S_f = 1$	P <sub>1</sub> GÜÇ Power Puissance [kW]	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n <sub>1</sub> =900rpm)	İ Tahvil Ratio Rapport de réduction	η Verim Efficiency Efficience [ % ]	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q1</sub> Rad. Yük Over Loads Charges radiales [N]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg
<b>780-1170 Nm</b>	1,20	9	100	61	777	1800	9800	<b>S</b>	<b>130</b>	87 88	53
	1,60	11	80	63	856	1800	9800				
	2,10	15	60	70	936	1800	9800				
	2,70	18	50	73	1046	1800	9800				
	3,50	23	40	74	1099	1800	9800				
	4,70	30	30	78	1167	1800	9800				
	4,80	36	25	82	1044	1800	9800				
	5,80	45	20	84	1034	1800	9800				
	7,80	60	15	85	1055	1800	9800				
	10,30	90	10	88	962	1800	9800				
	12,30	120	7,5	90	881	1800	9800				
<b>1150-1790 Nm</b>	1,80	9	100	60	1146	2300	13800	<b>S</b>	<b>150</b>	89 90	84
	2,40	11	80	64	1304	2300	13800				
	3,20	15	60	71	1447	2300	13800				
	4,10	18	50	74	1610	2300	13800				
	5,70	23	40	74	1790	2300	13800				
	5,40	30	30	81	1392	2300	13800				
	6,30	36	25	83	1387	2300	13800				
	8,40	45	20	84	1497	2300	13800				
	10,50	60	15	87	1454	2300	13800				
	15,70	90	10	89	1483	2300	13800				
	19,50	120	7,5	90	1397	2300	13800				
<b>1310-2220 Nm</b>	2,7	11	83	56	1332	2300	17000	<b>İRSA İRSF</b>	<b>127</b>	113 114	69 73
	3,5	14	65	59	1424	2300	17000				
	5,2	17	52	69	1980	2300	17000				
	7	23	40	72	2139	2300	17000				
	8,7	28	32	75	2216	2300	17000				
	7,6	35	26	79	1656	2300	17000				
	10,2	45	20	80	1732	2300	17000				
	13	56	16	81	1788	2300	17000				
	11,2	69	13	85	1313	2300	17000				
	15	90	10	85	1353	2300	17000				
<b>2440-4050 Nm</b>	4,7	10	87	58	2517	2900	21500	<b>İRSA İRSF</b>	<b>162</b>	115 116	163 186
	9,4	17	54	70	3770	2900	21500				
	12,2	21	42	71	3860	2900	21500				
	17,2	30	30	74	4052	2900	21500				
	13,7	33	27	80	3140	2900	21500				
	17,5	43	21	80	3120	2900	21500				
	25,0	60	15	83	3303	2900	21500				
	25,5	86	10,5	86	2443	2900	21500				
	36,0	120	7,5	87	2493	2900	21500				
<b>4390-7240 Nm</b>	6,1	8	115	59	4392	3250	24750	<b>İRSA İRSF</b>	<b>201</b>	117 118	300 332
	9	11	83	63	4994	3250	24750				
	11	14	63	66	4853	3250	24750				
	15	16	55	71	6215	3250	24750				
	22	23	40	74	6910	3250	24750				
	23	30	30	76	5564	3250	24750				
	31	33	27,5	80	7237	3250	24750				
	32	45	20	83	5637	3250	24750				
	33	60	15	84	4412	3250	24750				
	45	65	13,75	86	5646	3250	24750				
	48	90	10	87	4431	3250	24750				
	65	120	7,5	88	4552	3250	24750				



Servis Faktörü Service Factor Service facteur  $S_f = 1$	$P_1$ GÜÇ Power Puissance  [kW]	$n_2$ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] ( $n_1=900\text{rpm}$ )	$i$ Tahvil Ratio Rapport de réduction	$\eta$ Verim Efficiency Efficience  [ % ]	$M_2$ Çıkış Momenti Output Torque Couple de sortie  [Nm]	$F_{Q1}$ Rad. Yük Over Loads Charges radiales  [N]	$F_{Q10}$ Rad. Yük Over Loads Charges radiales  [N]	Tip Type Types			kg
	7370-13230 Nm		İRSA İRSF	250	119 120	493 513					
	19	14	63	58	7367	3750	29000				
	30	17	52	74	12249	3750	29000				
	41	23	40	76	13226	3750	29000				
	44	29	31	78	11289	3750	29000				
	50	35	26	83	11449	3750	29000				
	60	45	20	84	10696	3750	29000				
	72	58	15,5	85	10066	3750	29000				
	80	90	10	88	7470	3750	29750				
	106	116	7,75	89	7758	3750	29750				

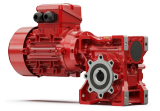


Servis Faktörü Service Factor Service facteur $S_f = 1$	P <sub>1</sub> GÜÇ Power Puissance [kW]	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n <sub>1</sub> =700rpm)	İ Tahvil Ratio Rapport de réduction	η Verim Efficiency Efficience [ % ]	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q1</sub> Rad. Yük Over Loads Charges radiales [N]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types		 kg	
<b>20-30 Nm</b>	0,04	9	80	41	18	190	1350	S	30	73 74	1
	0,05	12	60	43	18	190	1350				
	0,06	14	50	47	19	190	1350				
	0,08	18	40	53	23	190	1350				
	0,09	23	30	60	22	190	1350				
	0,11	28	25	66	25	190	1350				
	0,11	35	20	69	21	190	1350				
	0,15	47	15	72	22	190	1350				
	0,2	70	10	76	21	190	1350				
	0,26	93	7,5	80	21	190	1350				
<b>30-50 Nm</b>	0,06	7	100	40	33	330	2300	S	40	75 76	2
	0,08	9	80	42	37	330	2300				
	0,09	12	60	49	36	330	2300				
	0,12	14	50	52	43	330	2300				
	0,14	18	40	60	46	330	2300				
	0,18	23	30	64	47	330	2300				
	0,18	28	25	68	42	330	2300				
	0,23	35	20	71	45	330	2300				
	0,31	47	15	75	48	330	2300				
	0,44	70	10	78	47	330	2300				
0,56	93	7,5	81	46	330	2300					
<b>60-90 Nm</b>	0,10	7	100	40	55	450	3450	S	50	77 78	4
	0,13	9	80	44	62	450	3450				
	0,17	12	60	49	68	450	3450				
	0,21	14	50	54	77	450	3450				
	0,26	18	40	60	85	450	3450				
	0,33	23	30	64	86	450	3450				
	0,33	28	25	68	77	450	3450				
	0,40	35	20	71	77	450	3450				
	0,57	47	15	75	87	450	3450				
	0,80	70	10	78	85	450	3450				
1,02	93	7,5	82	86	450	3450					
<b>120-210 Nm</b>	0,27	11	62	52	119	490	3850	İRSA İRSF	52	105 106	9 11
	0,35	14	50	55	131	490	3850				
	0,53	18	38	62	170	490	3850				
	0,71	24	29	65	183	490	3850				
	0,52	28	25	69	122	490	3850				
	0,75	37	19	75	146	490	3850				
	1,40	48	14,5	76	210	490	3850				
	1,10	74	9,5	82	117	490	3850				
1,53	97	7,25	83	126	490	3850					
<b>120-170 Nm</b>	0,20	7	100	44	120	650	4470	S	63	79 80	6
	0,23	9	80	50	126	650	4470				
	0,32	12	60	53	139	650	4470				
	0,37	14	50	56	141	650	4470				
	0,49	18	40	61	163	650	4470				
	0,62	23	30	66	167	650	4470				
	0,60	28	25	69	141	650	4470				
	0,77	35	20	72	151	650	4470				
	0,98	47	15	75	150	650	4470				
	1,49	70	10	78	159	650	4470				
1,90	93	7,5	82	159	650	4470					
<b>180-250 Nm</b>	0,29	7	100	46	182	700	6150	S	75	81 82	9
	0,36	9	80	50	196	700	6150				
	0,45	12	60	52	192	700	6150				
	0,53	14	50	57	206	700	6150				
	0,71	18	40	61	236	700	6150				



Servis Faktörü Service Factor Service facteur  $S_f = 1$	$P_1$ GÜÇ Power Puissance  [kW]	$n_2$ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] ( $n_1=700rpm$ )	$i$ Tahvil Ratio Rapport de réduction	$\eta$ Verim Efficiency Efficience  [ % ]	$M_2$ Çıkış Momenti Output Torque Couple de sortie  [Nm]	$F_{Q1}$ Rad. Yük Over Loads Charges radiales  [N]	$F_{Q10}$ Rad. Yük Over Loads Charges radiales  [N]	Tip Type Types				kg
<b>180-250 Nm</b>	0,93	23	30	65	247	700	6150	<b>S</b>	<b>75</b>	81 82	9	
	0,92	28	25	70	220	700	6150					
	1,20	35	20	73	239	700	6150					
	1,52	47	15	75	233	700	6150					
	2,17	70	10	78	231	700	6150					
	2,65	93	7,5	82	222	700	6150					
<b>210-340 Nm</b>	0,37	9	82	52	215	670	5750	<b>İRSA İRSF</b>	<b>65</b>	107 108	14 15	
	0,50	11	62	50	211	670	5750					
	0,70	14	50	61	291	670	5750					
	0,97	18	39	65	335	670	5750					
	1,22	23	30	64	320	670	5750					
	1,00	28	25	74	252	670	5750					
	1,41	36	19,5	76	285	670	5750					
	1,72	47	15	75	264	670	5750					
	2,08	72	9,75	83	230	670	5750					
	2,71	93	7,5	83	230	670	5750					
<b>250-450 Nm</b>	0,38	7	100	49	254	8180	1270	<b>S</b>	<b>90</b>	83 84	13	
	0,49	9	80	55	294	8180	1270					
	0,67	12	60	57	313	8180	1270					
	0,86	14	50	63	370	8174	1270					
	1,09	18	40	65	387	7588	1270					
	1,48	23	30	75	454	6894	1270					
	1,4	28	25	71	339	6487	1270					
	1,79	35	20	76	371	6022	1270					
	2,41	47	15	84	414	5472	1270					
	3,11	70	10	85	361	4780	1270					
3,73	93	7,5	88	336	4343	1270						
<b>420-700 Nm</b>	0,98	11	62	55	456	850	7300	<b>İRSA İRSF</b>	<b>82</b>	109 110	24 26	
	1,29	13	53	65	606	850	7300					
	1,70	18	40	63	584	850	7300					
	2,52	23	30	68	701	850	7300					
	1,85	26	26,5	76	508	850	7300					
	2,39	35	20	75	489	850	7300					
	3,65	47	15	78	583	850	7300					
	3,74	70	10	82	418	850	7300					
5,40	93	7,5	84	464	850	7300						
<b>670-1070 Nm</b>	0,84	7	100	58	665	1500	8000	<b>S</b>	<b>110</b>	85 86	40	
	1,00	9	80	61	666	1500	8000					
	1,60	12	60	67	878	1500	8000					
	2,00	14	50	70	955	1500	8000					
	2,50	18	40	75	1023	1500	8000					
	3,50	23	30	75	1074	1500	8000					
	3,50	28	25	82	979	1500	8000					
	4,10	35	20	83	929	1500	8000					
	5,60	47	15	85	974	1500	8000					
	7,60	70	10	88	912	1500	8000					
9,20	93	7,5	89	838	1500	8000						
<b>830-1270 Nm</b>	1,35	9	82	55	831	1450	11600	<b>İRSA İRSF</b>	<b>102</b>	111 112	39 43	
	1,75	11	63	57	857	1450	11600					
	2,53	14	50	66	1139	1450	11600					
	3,35	18	40	68	1243	1450	11600					
	4,50	23	30	69	1271	1450	11600					
	3,65	28	25	77	959	1450	11600					
	4,90	35	20	78	1043	1450	11600					
	6,60	47	15	79	1067	1450	11600					
	7,20	70	10	84	825	1450	11600					
	9,70	93	7,5	85	844	1450	11600					

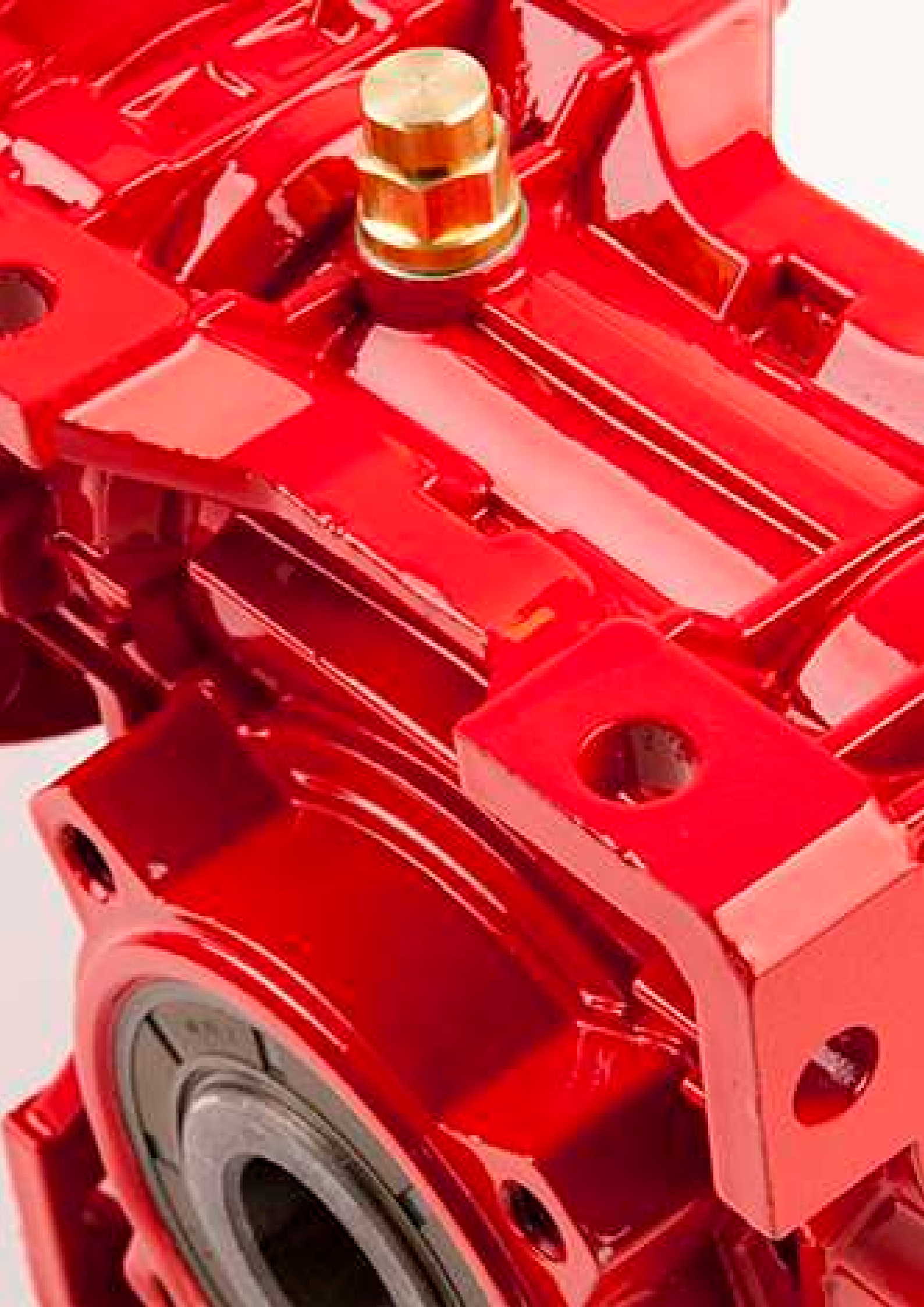




Servis Faktörü Service Factor Service facteur  $S_f = 1$	$P_1$ GÜÇ Power Puissance  [kW]	$n_2$ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] ( $n_1=700rpm$ )	$i$ Tahvil Ratio Rapport de réduction	$\eta$ Verim Efficiency Efficience  [ % ]	$M_2$ Çıkış Momenti Output Torque Couple de sortie  [Nm]	$F_{Q1}$ Rad. Yük Over Loads Charges radiales  [N]	$F_{Q10}$ Rad. Yük Over Loads Charges radiales  [N]	Tip Type Types			kg
1000-1500 Nm	1,20	7	100	61	999	2000	10200	S	130	87 88	53
	1,60	9	80	63	1100	2000	10200				
	2,10	12	60	70	1203	2000	10200				
	2,70	14	50	73	1345	2000	10200				
	3,50	18	40	74	1413	2000	10200				
	4,70	23	30	78	1500	2000	10200				
	4,80	28	25	82	1342	2000	10200				
	5,80	35	20	84	1329	2000	10200				
	7,80	47	15	85	1357	2000	10200				
	10,30	70	10	88	1237	2000	10200				
	12,30	93	7,5	90	1133	2000	10200				
1470-2300 Nm	1,80	7	100	60	1473	2500	14400	S	150	89 90	84
	2,40	9	80	64	1676	2500	14400				
	3,20	12	60	71	1860	2500	14400				
	4,10	14	50	74	2070	2500	14400				
	5,70	18	40	74	2302	2500	14400				
	5,40	23	30	81	1790	2500	14400				
	6,30	28	25	83	1783	2500	14400				
	8,40	35	20	84	1925	2500	14400				
	10,50	47	15	87	1869	2500	14400				
	15,70	70	10	89	1906	2500	14400				
	19,50	93	7,5	90	1796	2500	14400				
1420-2320 Nm	2,32	8	83	57	1497	2300	19000	İRSA İRSF	127	113 114	69 73
	3,00	11	65	57	1516	2300	19000				
	4,40	13	52	68	2123	2300	19000				
	6,00	18	40	69	2259	2300	19000				
	7,60	22	32	70	2323	2300	19000				
	6,50	27	26	78	1798	2300	19000				
	8,80	35	20	79	1897	2300	19000				
	11,3	44	16	80	1973	2300	19000				
	9,50	54	13	84	1415	2300	19000				
	12,9	70	10	85	1496	2300	19000				
2680-4480 Nm	3,1	6	111	57	2676	2900	23500	İRSA İRSF	162	115 116	163 186
	4,1	8	87	58	2823	2900	23500				
	8,1	13	54	69	4117	2900	23500				
	10,6	17	42	69	4191	2900	23500				
	15,2	23	30	72	4479	2900	23500				
	11,8	26	27	79	3434	2900	23500				
	15,4	33	21	79	3486	2900	23500				
	22	47	15	81	3647	2900	23500				
	22,5	67	10,5	84	2707	2900	23500				
	32	93	7,5	86	2816	2900	23500				
4740-8000 Nm	5,3	6	115	57	4740	3250	27300	İRSA İRSF	201	117 118	300 332
	7	8	83	60	4756	3250	27300				
	10	11	63	62	5329	3250	27300				
	13	13	55	68	6633	3250	27300				
	19	18	40	72	7465	3250	27300				
	20	23	30	74	6057	3250	27300				
	27	25	27,5	79	8003	3250	27300				
	28	35	20	81	6188	3250	27300				
	29	47	15	82	4866	3250	27300				
	40	51	13,75	85	6378	3250	27300				
	43	70	10	86	5045	3250	27300				
	59	93	7,5	87	5252	3250	27300				



Servis Faktörü Service Factor Service facteur  $S_f = 1$	$P_1$ GÜÇ Power Puissance  [kW]	$n_2$ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] ( $n_1=700rpm$ )	$i$ Tahvil Ratio Rapport de réduction	$\eta$ Verim Efficiency Efficience  [ % ]	$M_2$ Çıkış Momenti Output Torque Couple de sortie  [Nm]	$F_{Q1}$ Rad. Yük Over Loads Charges radiales  [N]	$F_{Q10}$ Rad. Yük Over Loads Charges radiales  [N]	Tip Type Types			kg
	8840-14540 Nm	18 26 36 39 45 53 65 78 95	11 13 18 23 27 35 45 70 90	63 52 40 31 26 20 15,5 10 7,75	58 72 74 76 81 82 83 87 88	8973 13281 14538 12536 12929 11858 11408 9258 8839	3750 3750 3750 3750 3750 3750 3750 3750 3750				



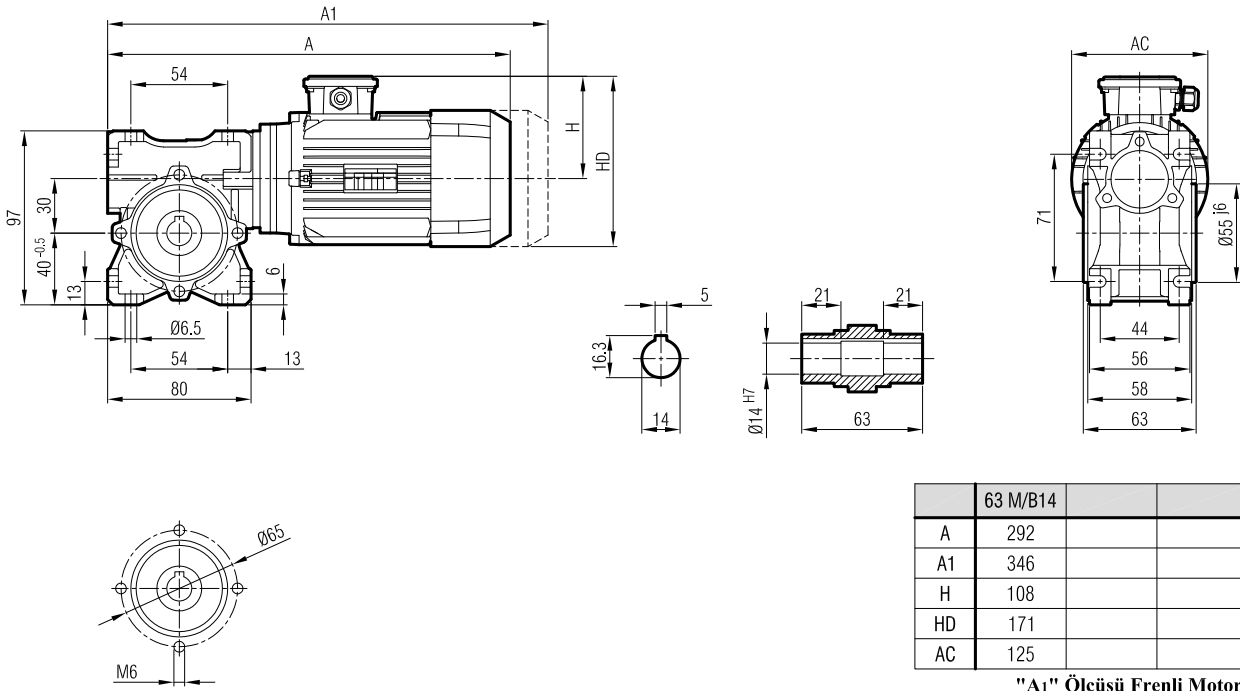
# Sonsuz Vidalı Redüktörler Ölçü Sayfaları

Worm Gearbox Dimension Pages

*Réducteurs à roue et vis sans fin dimensions*

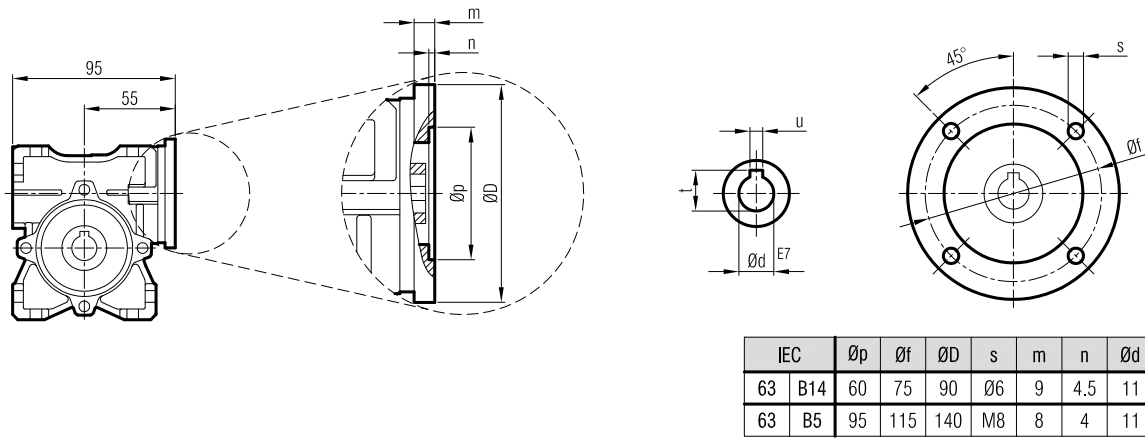


**SM 30**

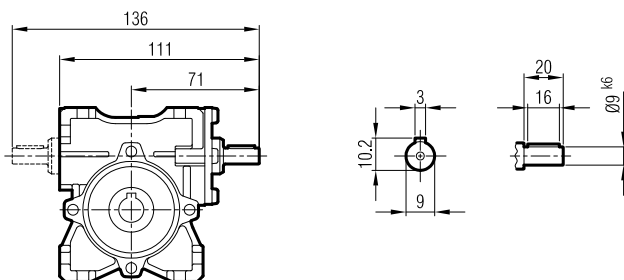


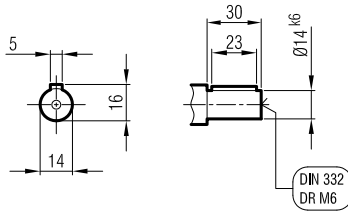
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

**SP 30**

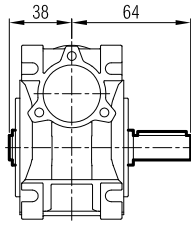


**S 30**

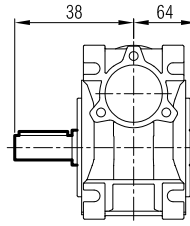




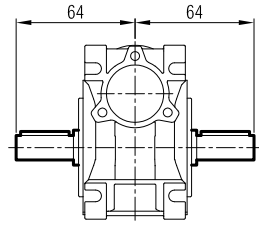
**-SL**



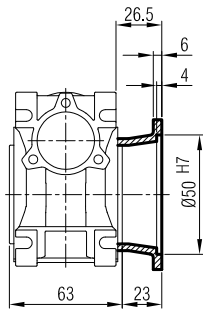
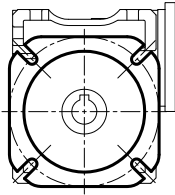
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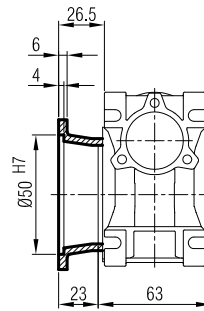
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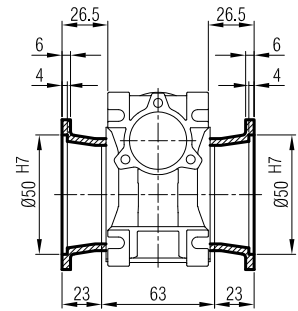
**-FL**



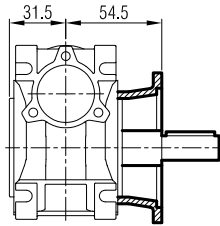
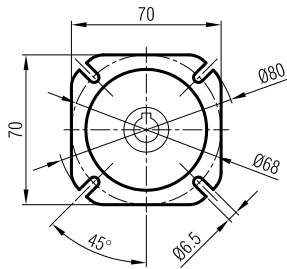
**-FR**



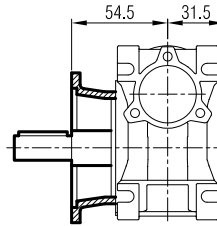
**-FD**



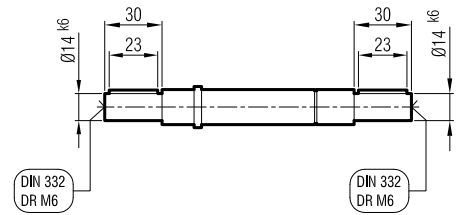
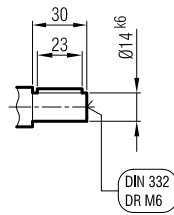
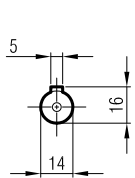
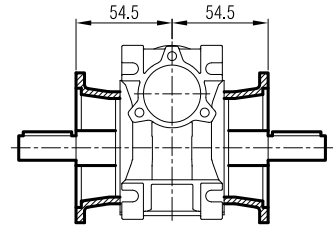
**-FL -SR**



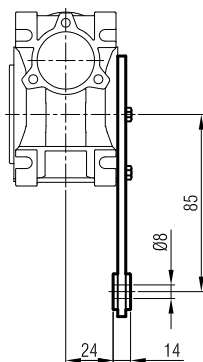
**-FR -SR**



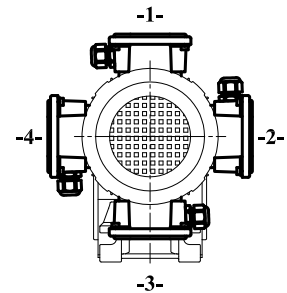
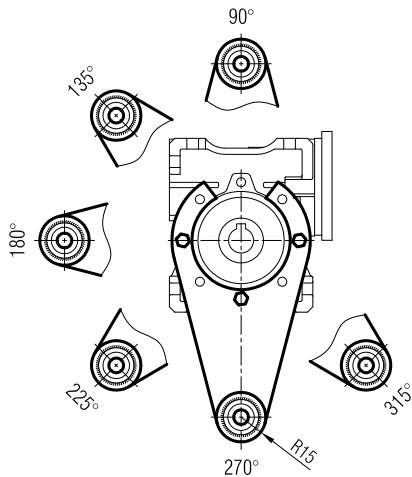
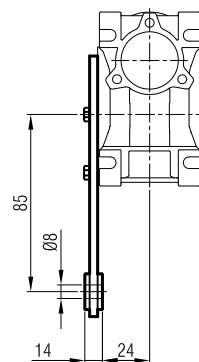
**-FD -SD**



**-TL**



**-TR**

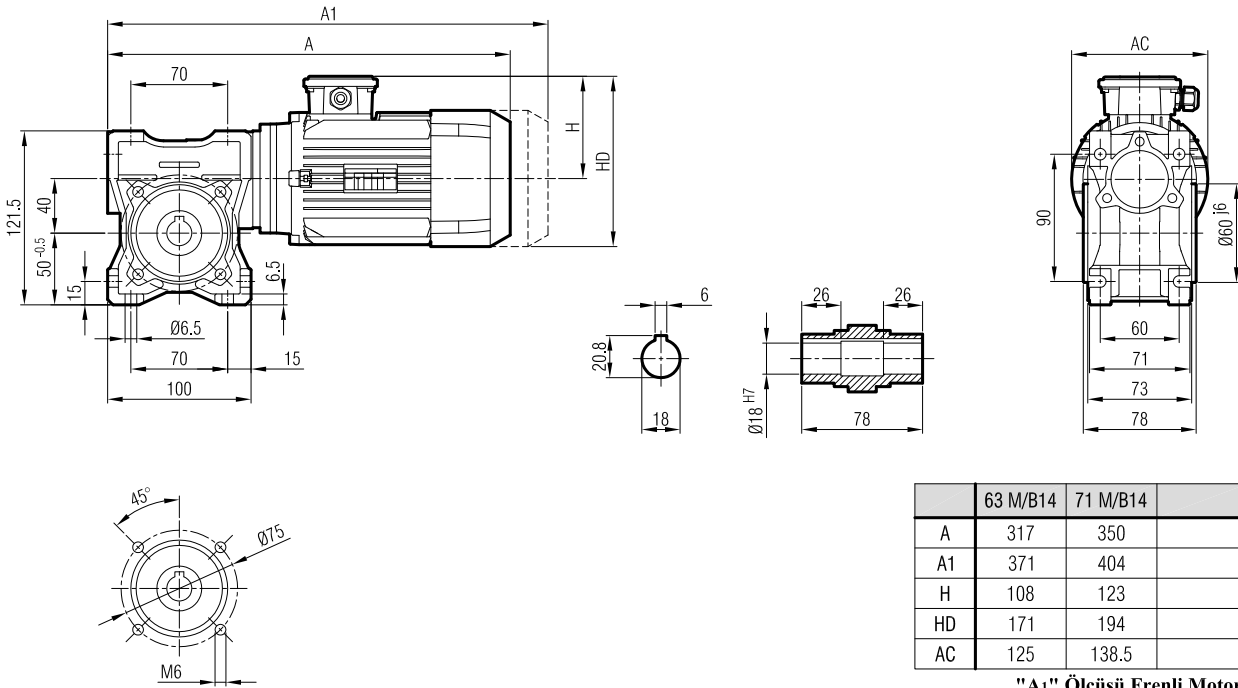


**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



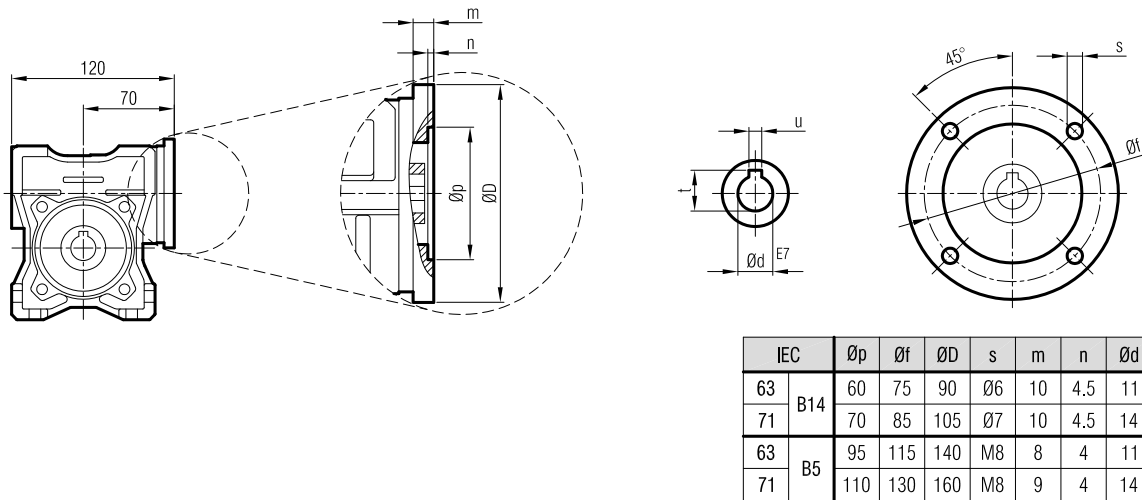


**SM 40**

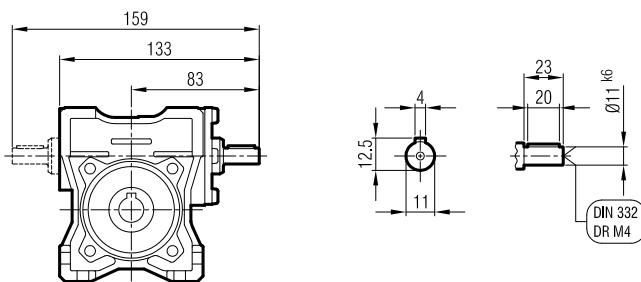


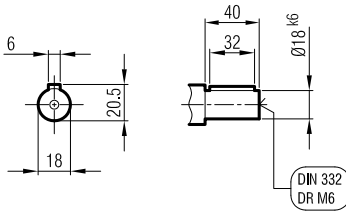
**"A1" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A1" is for motors with brake.  
*Le dimensions "A1" correspond aux moteurs équipés de freins.*

**SP 40**

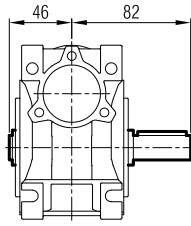


**S 40**

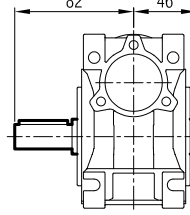




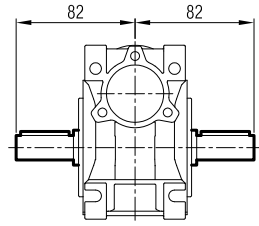
**-SL**



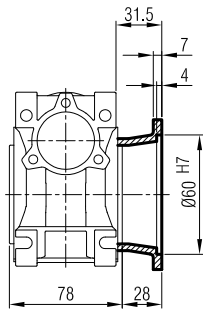
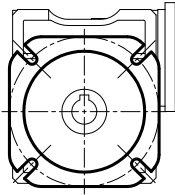
**-SR**



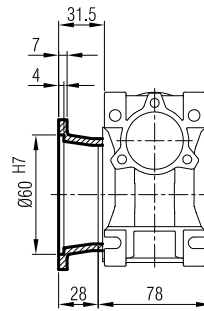
**-SD**



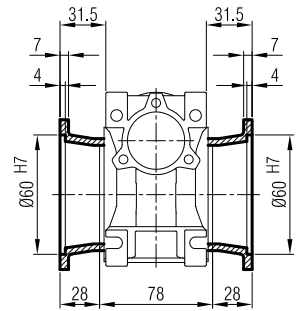
**-FL**



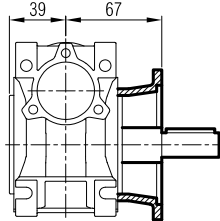
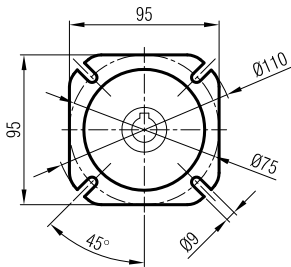
**-FR**



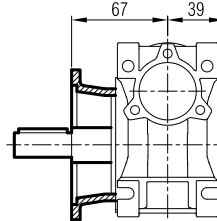
**-FD**



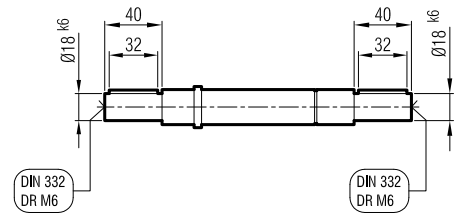
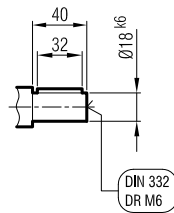
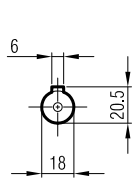
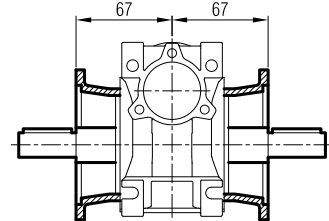
**-FL -SR**



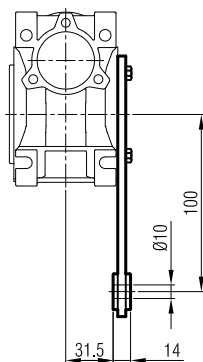
**-FR -SR**



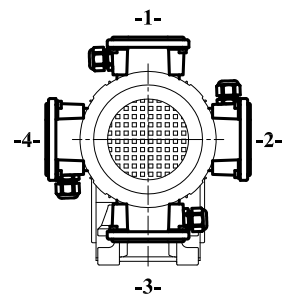
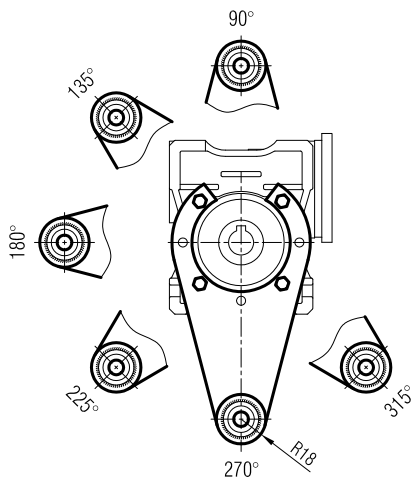
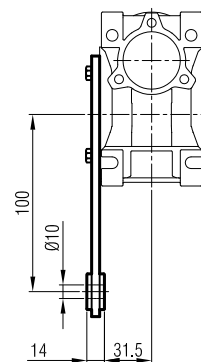
**-FD -SD**



**-TL**



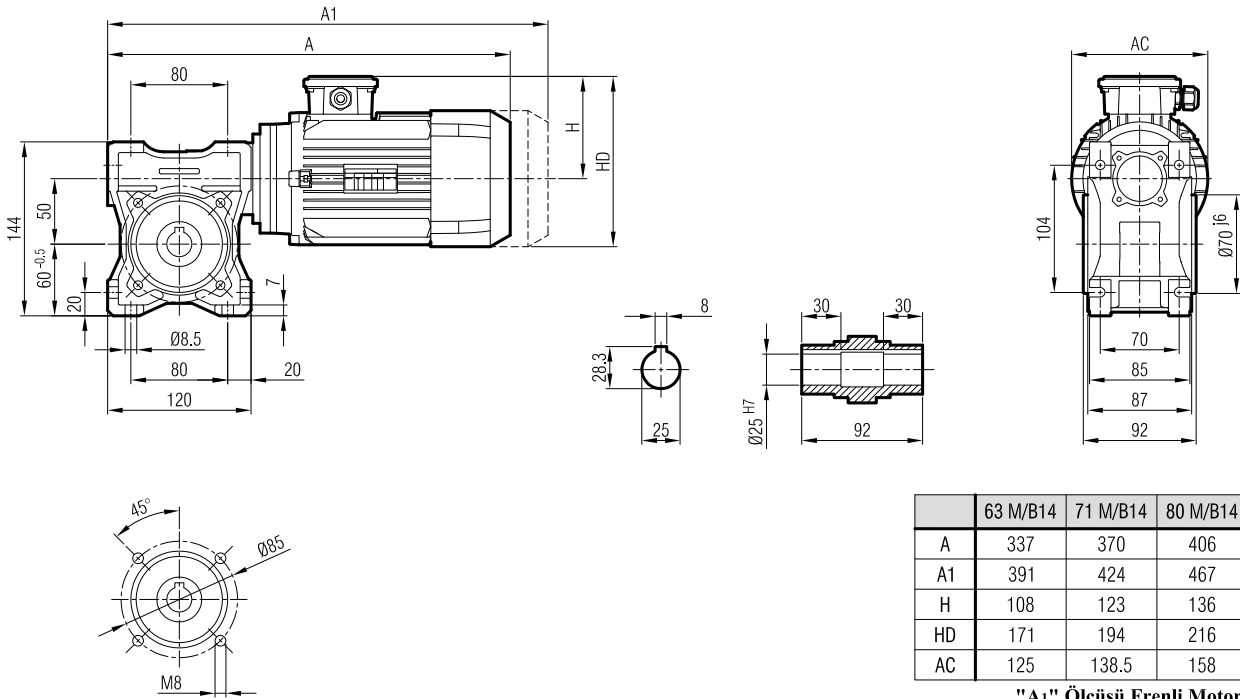
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



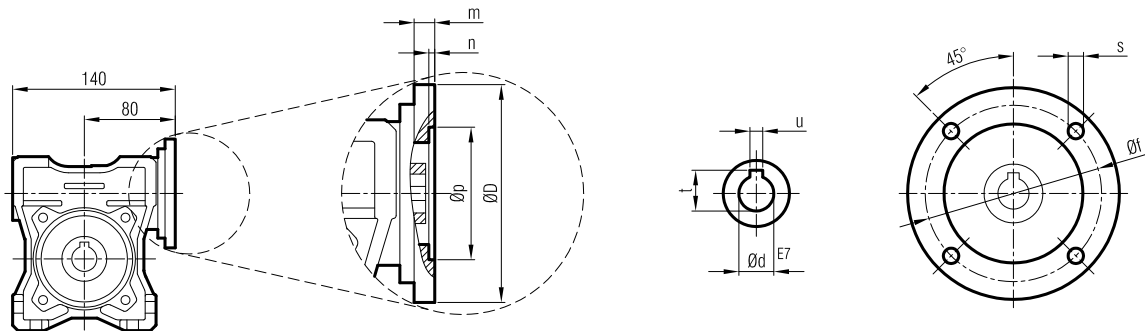
**SM 50**



	63 M/B14	71 M/B14	80 M/B14	80 H/B14
A	337	370	406	433
A1	391	424	467	494
H	108	123	136	136
HD	171	194	216	216
AC	125	138.5	158	158

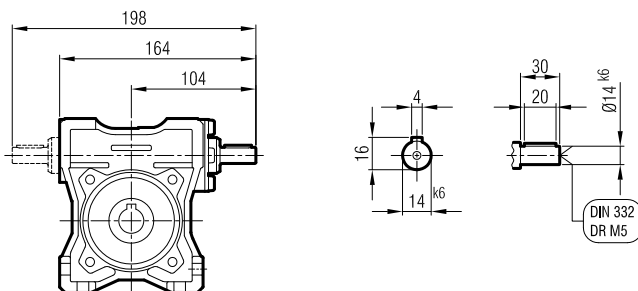
**"A1" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A1" is for motors with brake.  
*Le dimensions "A1" correspond aux moteurs équipés de freins.*

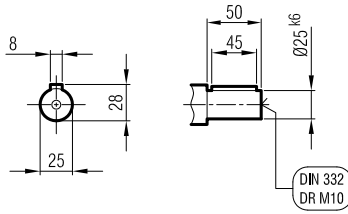
**SP 50**



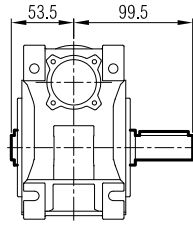
IEC	0.8p	0.8f	0.8D	s	m	n	0.8d	t	u
63	60	75	90	0.6	10	4.5	11	12.8	4
71	70	85	105	0.7	10	4.5	14	16.3	5
80	80	100	120	0.7	10	4.5	19	21.8	6
63	95	115	140	M8	8	4	11	12.8	4
71	110	130	160	M8	10	4	14	16.3	5
80	130	165	200	M10	12	5	19	21.8	6

**S 50**

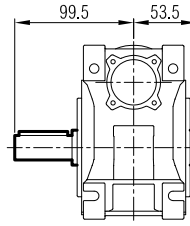




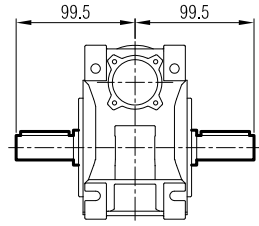
**-SL**



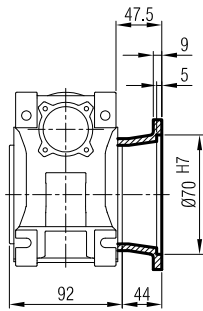
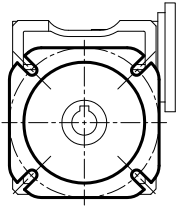
**-SR**



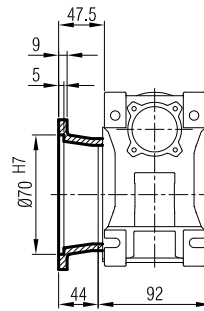
**-SD**



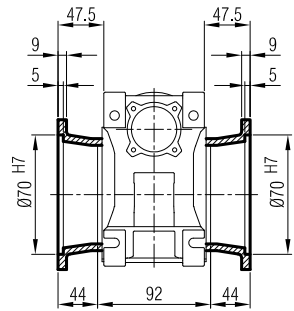
**-FL**



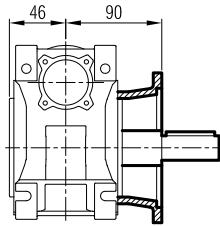
**-FR**



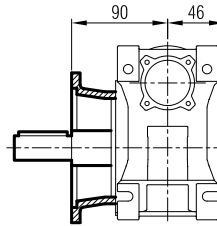
**-FD**



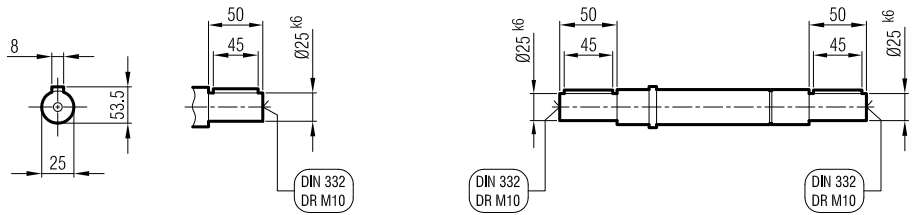
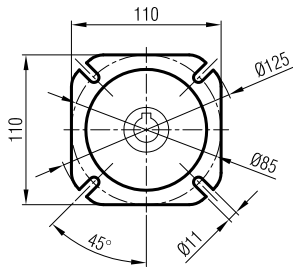
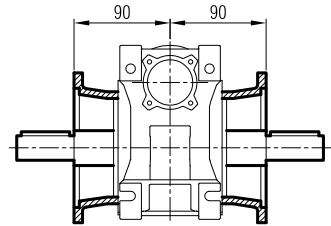
**-FL -SR**



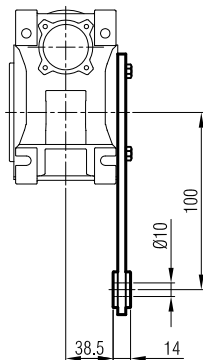
**-FR -SR**



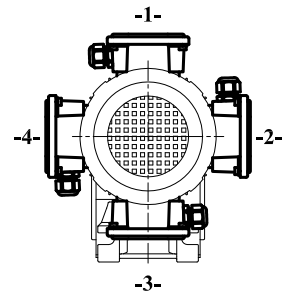
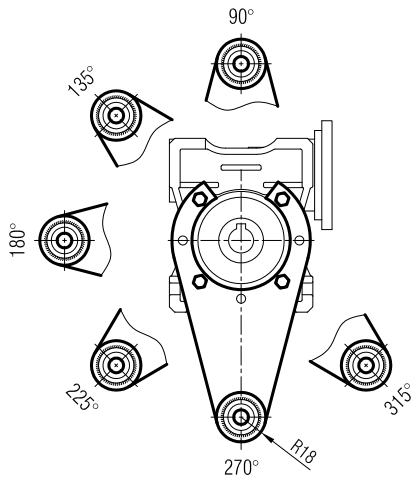
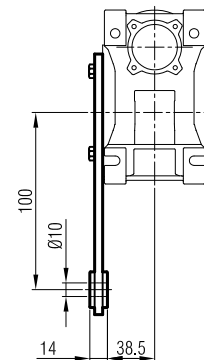
**-FD -SD**



**-TL**

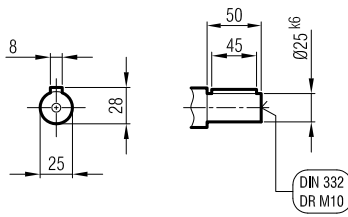


**-TR**

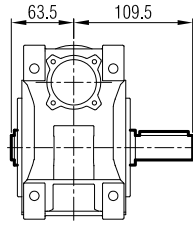


**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes

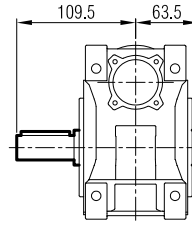




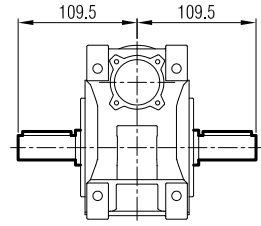
**-SL**



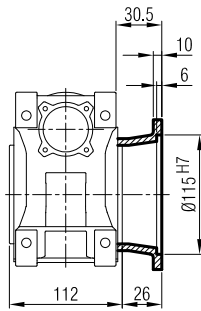
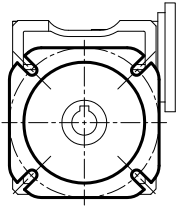
**-SR**



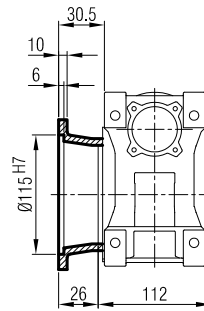
**-SD**



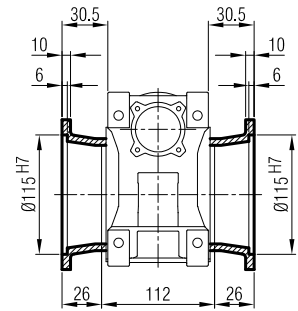
**-FL**



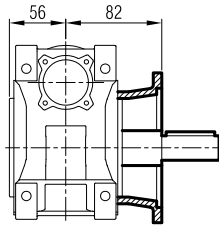
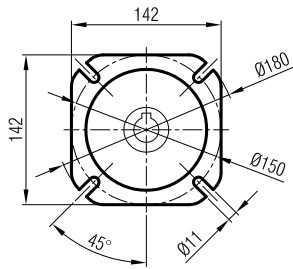
**-FR**



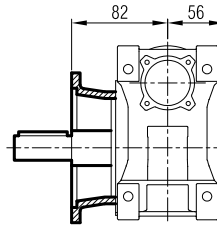
**-FD**



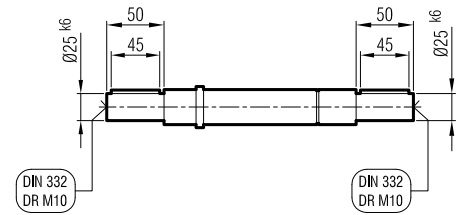
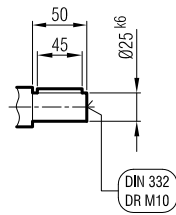
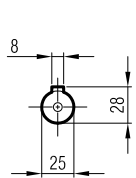
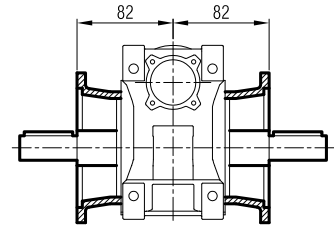
**-FL -SR**



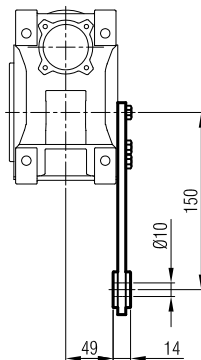
**-FR -SR**



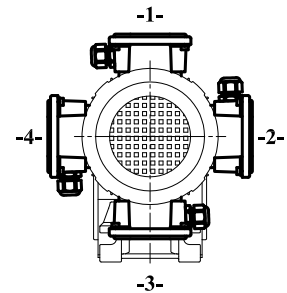
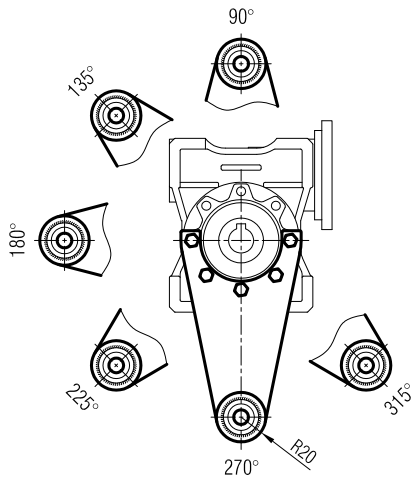
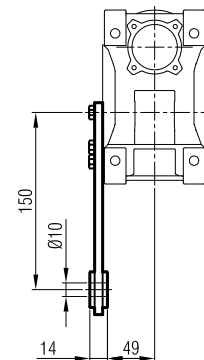
**-FD -SD**



**-TL**



**-TR**

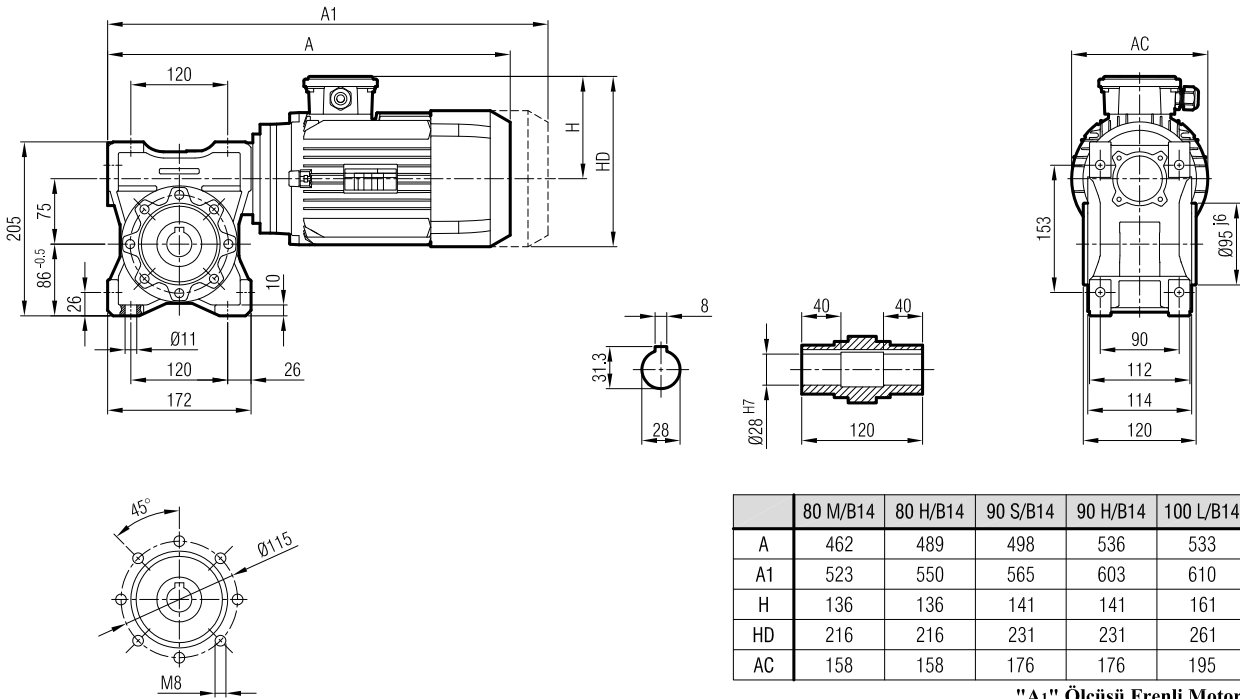


**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes





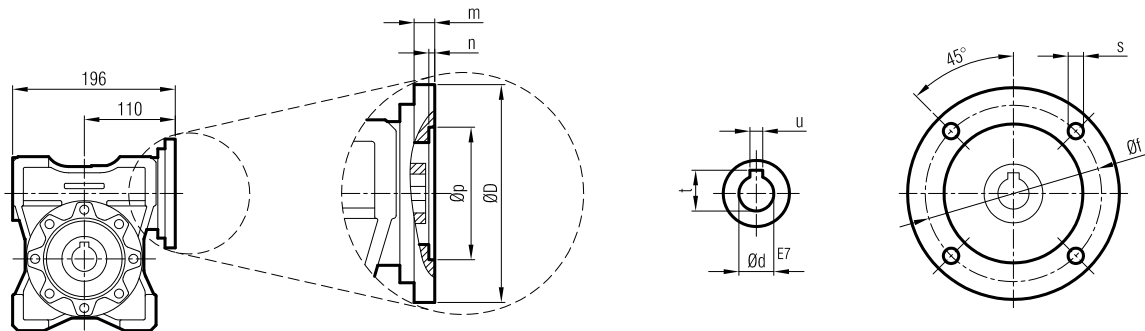
**SM 75**



	80 M/B14	80 H/B14	90 S/B14	90 H/B14	100 L/B14	100 H/B14
A	462	489	498	536	533	568
A1	523	550	565	603	610	645
H	136	136	141	141	161	161
HD	216	216	231	231	261	261
AC	158	158	176	176	195	195

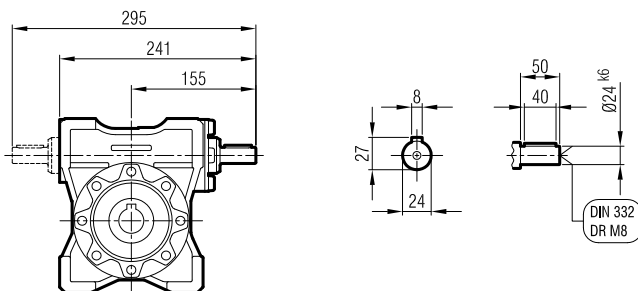
**"A1" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A1" is for motors with brake.  
*Le dimensions "A1" correspond aux moteurs équipés de freins.*

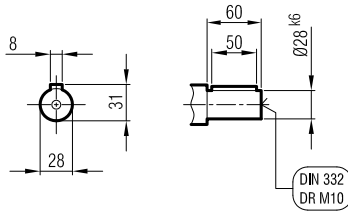
**SP 75**



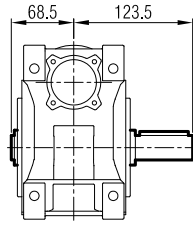
IEC	Øp	Øf	ØD	s	m	n	Ød	t	u
80	80	100	120	Ø7	10	4.5	19	21.8	6
90	95	115	140	Ø9	11	5	24	27.3	8
100	110	130	160	Ø9	11	5	28	31.3	8
80	130	165	200	M10	12	5	19	21.8	6
90	130	165	200	M10	12	5	24	27.3	8
100	180	215	250	M12	13	5	28	31.3	8

**S 75**

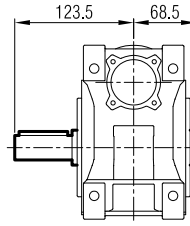




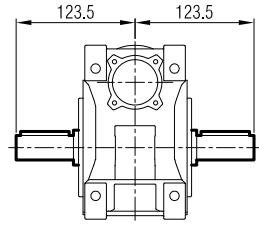
**-SL**



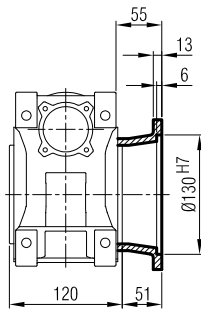
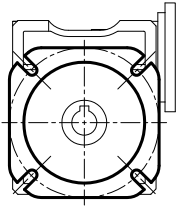
**-SR**



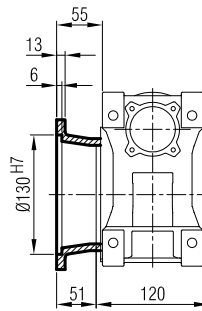
**-SD**



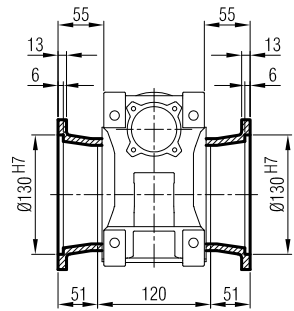
**-FL**



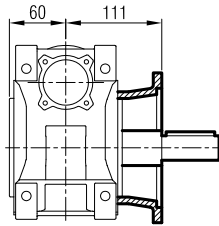
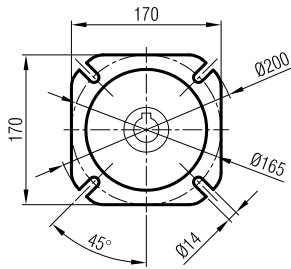
**-FR**



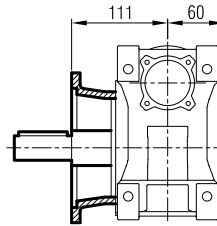
**-FD**



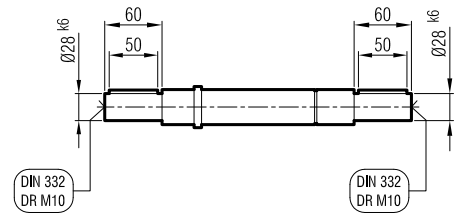
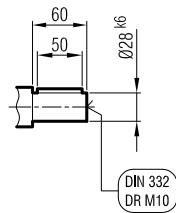
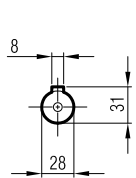
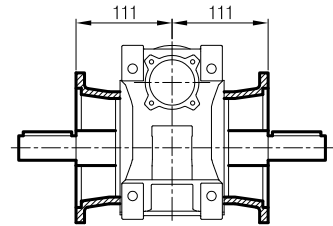
**-FL -SR**



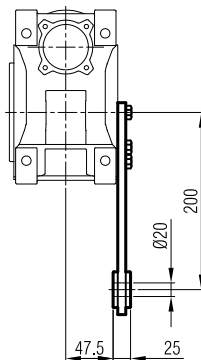
**-FR -SR**



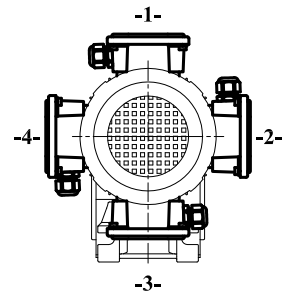
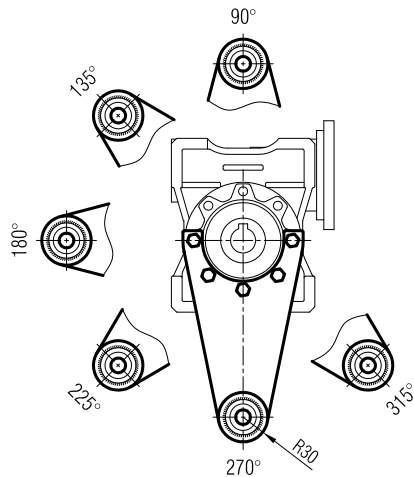
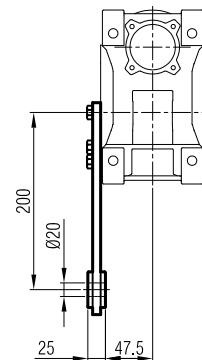
**-FD -SD**



**-TL**



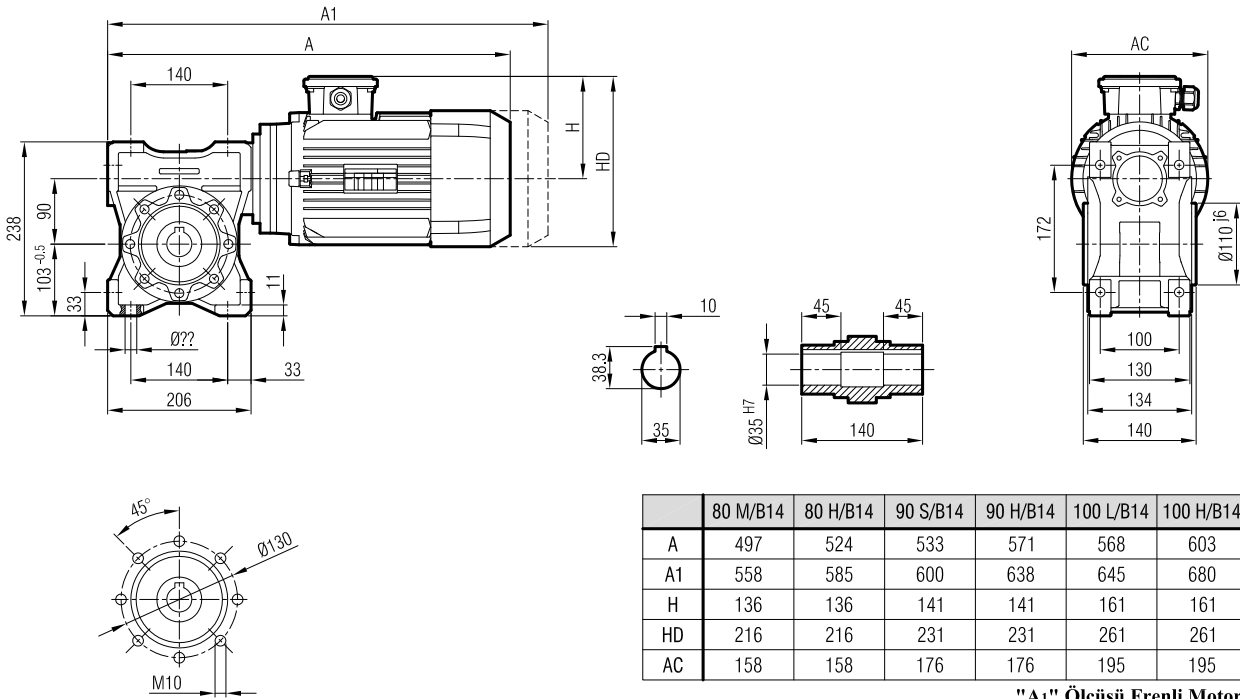
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



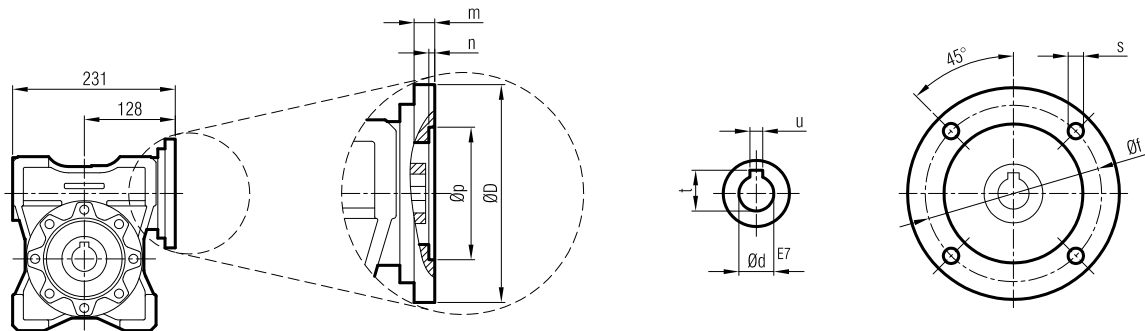
**SM 90**



	80 M/B14	80 H/B14	90 S/B14	90 H/B14	100 L/B14	100 H/B14	112 M/B14
A	497	524	533	571	568	603	575
A1	558	585	600	638	645	680	670
H	136	136	141	141	161	161	170
HD	216	216	231	231	261	261	282
AC	158	158	176	176	195	195	220

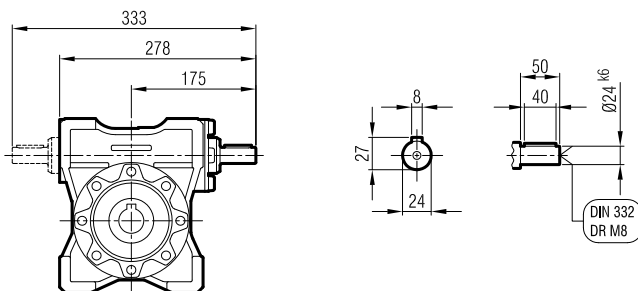
**"A1" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A1" is for motors with brake.  
*Le dimensions "A1" correspond aux moteurs équipés de freins.*

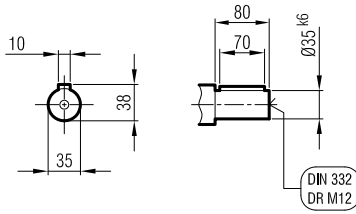
**SP 90**



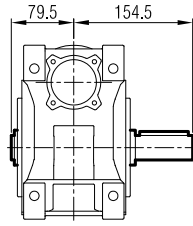
IEC	$\varnothing p$	$\varnothing f$	$\varnothing D$	s	m	n	$\varnothing d$	t	u
80	80	100	120	$\varnothing 7$	10	4.5	19	21.8	6
90	95	115	140	$\varnothing 9$	11	5	24	27.3	8
100	110	130	160	$\varnothing 9$	11	5	28	31.3	8
112	110	130	160	$\varnothing 9$	11	5	28	31.3	8
80	130	165	200	M10	12	5	19	21.8	6
90	130	165	200	M10	12	5	24	27.3	8
100	180	215	250	M12	13	5	28	31.3	8
112	180	215	250	M12	13	5	28	31.3	8

**S 90**

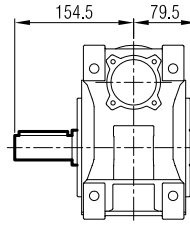




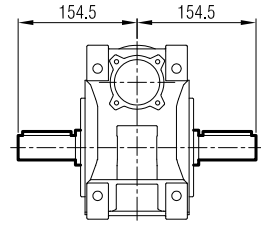
**-SL**



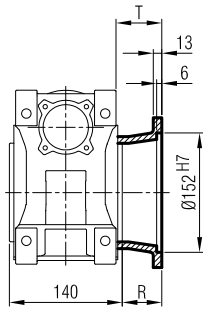
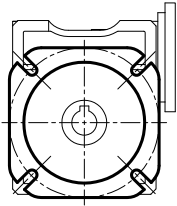
**-SR**



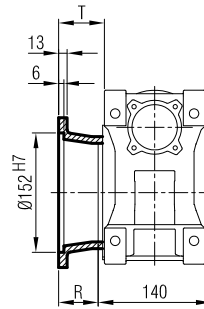
**-SD**



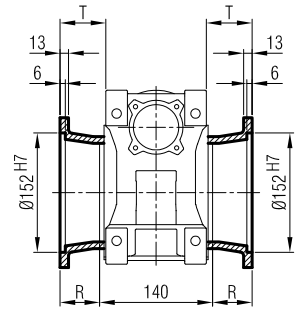
**-FL**



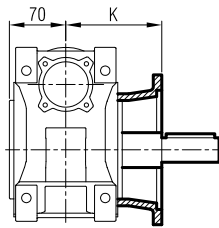
**-FR**



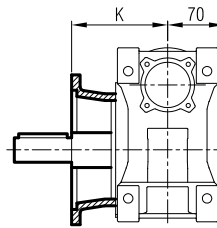
**-FD**



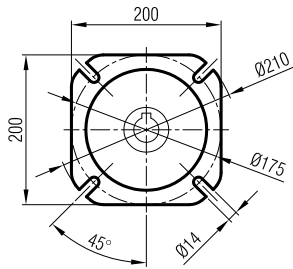
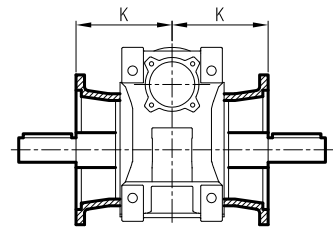
**-FL -SR**



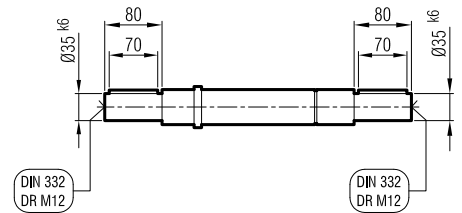
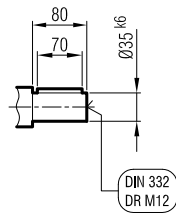
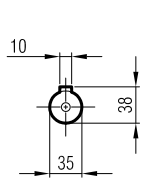
**-FR -SR**



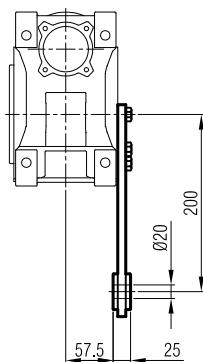
**-FD -SD**



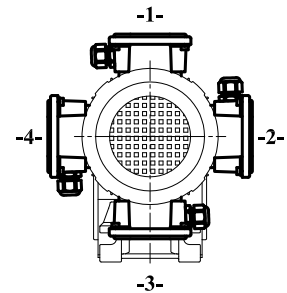
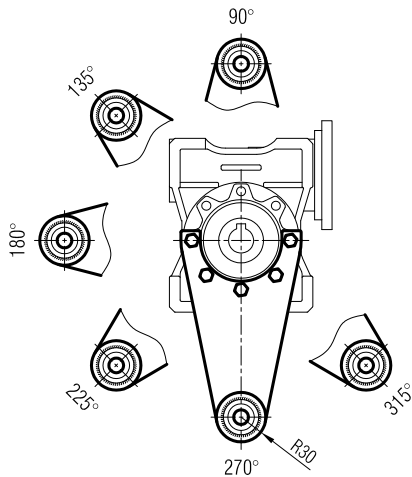
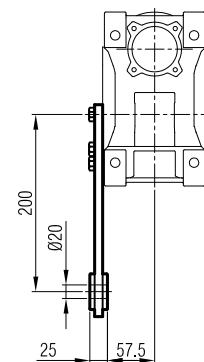
	T	R	K
Std.	46	41	111
Ops.	86	81	151



**-TL**



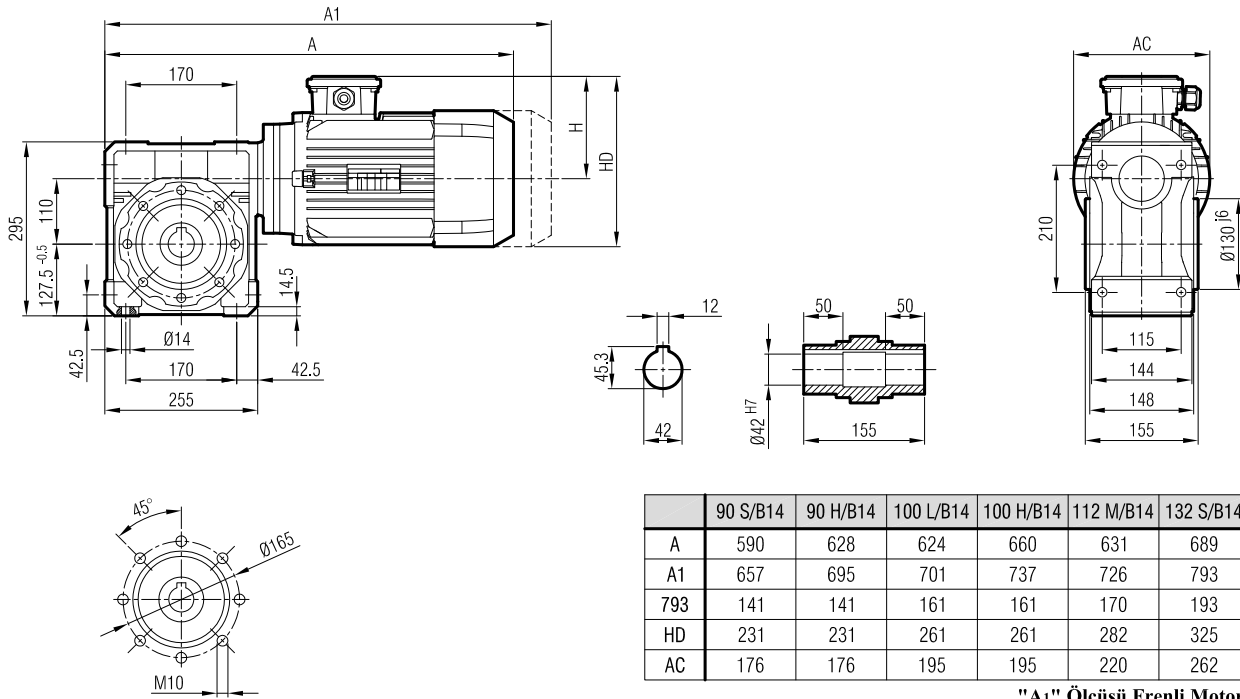
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes

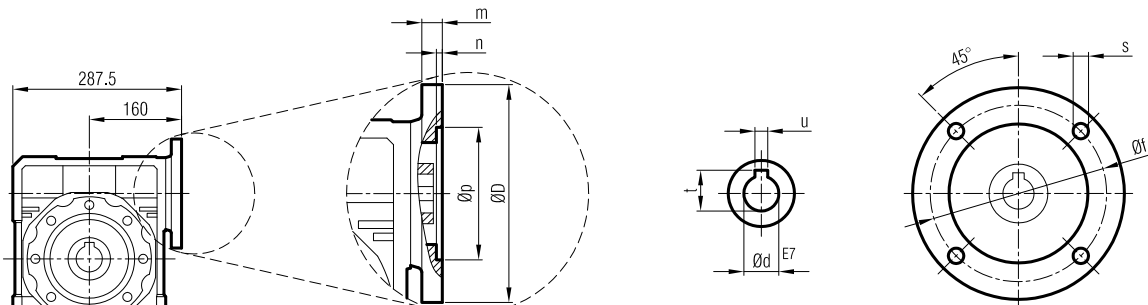


**SM 110**



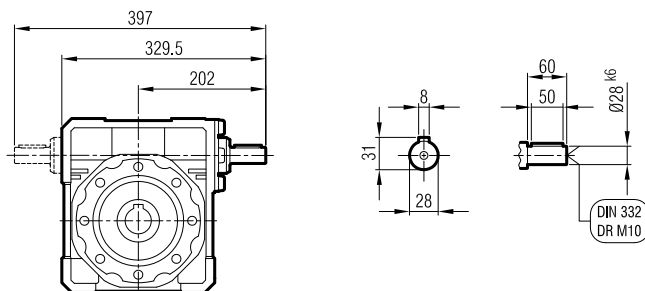
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

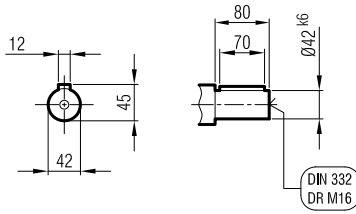
**SP 110**



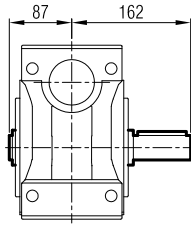
IEC	Øp	Øf	ØD	s	m	n	Ød	t	u	
90	B14	95	115	140	Ø9	11	5	24	27.3	8
100		110	130	160	Ø9	11	5	28	31.3	8
112		110	130	160	Ø9	11	5	28	31.3	8
132		130	165	200	Ø11	12	5	38	41.3	10
90	B5	130	165	200	M10	12	5	24	27.3	8
100		180	215	250	M12	14	5	28	31.3	8
112		180	215	250	M12	14	5	28	31.3	8
132		230	265	300	M12	17	6	38	41.3	10

**S 110**

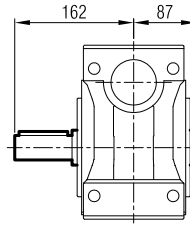




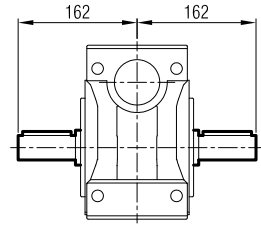
**-SL**



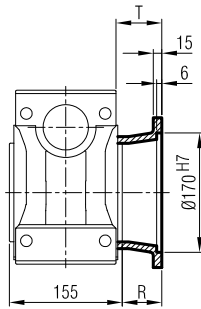
**-SR**



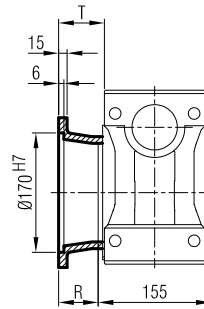
**-SD**



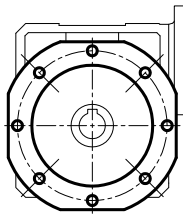
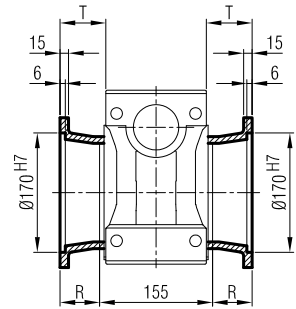
**-FL**



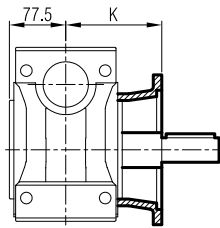
**-FR**



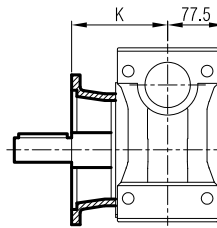
**-FD**



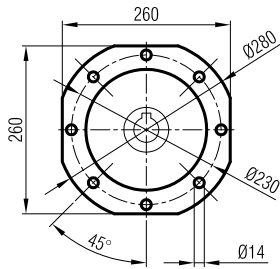
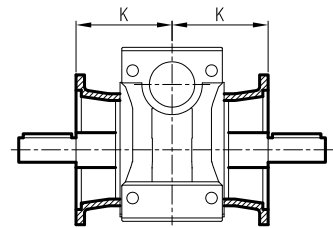
**-FL -SR**



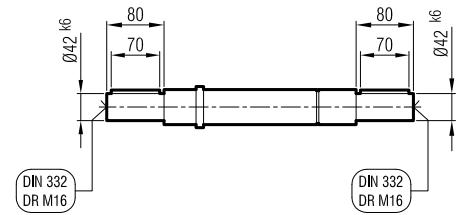
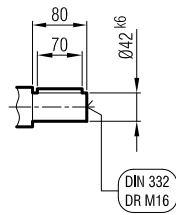
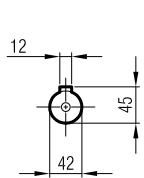
**-FR -SR**



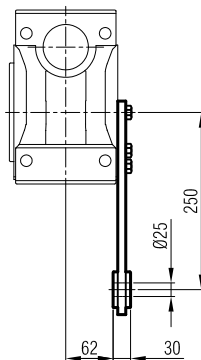
**-FD -SD**



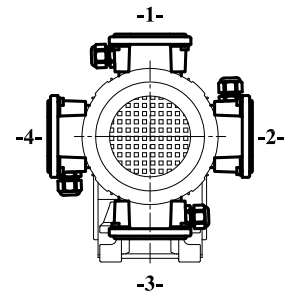
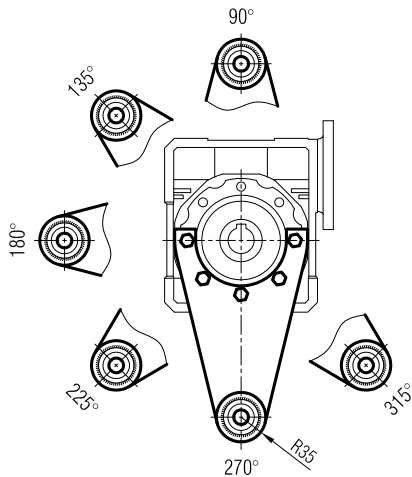
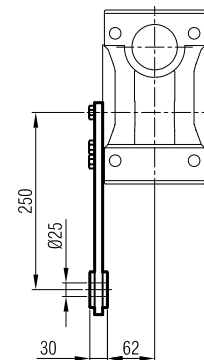
	T	R	K
Std.	59	53.5	131
Ops.	108	102.5	180



**-TL**



**-TR**

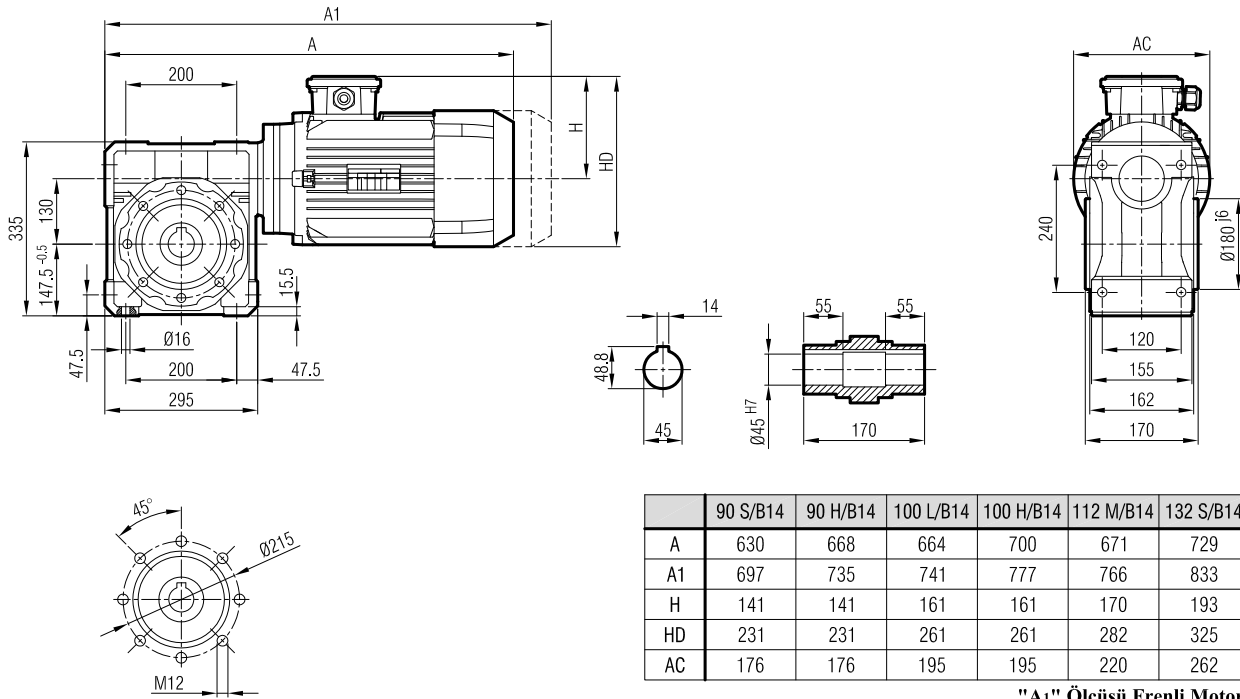


**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



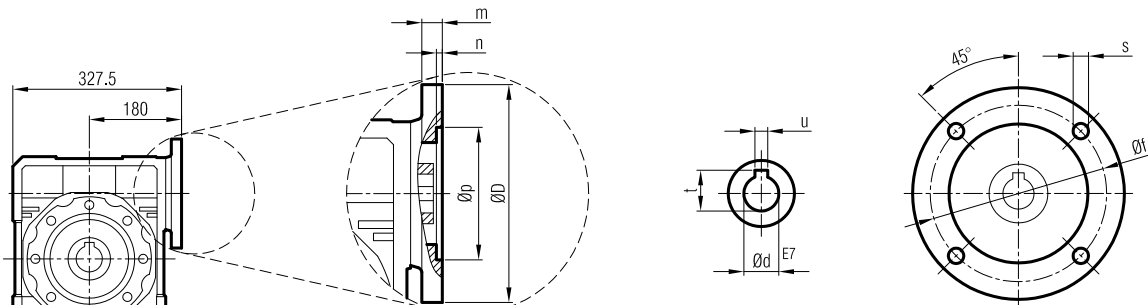


**SM 130**



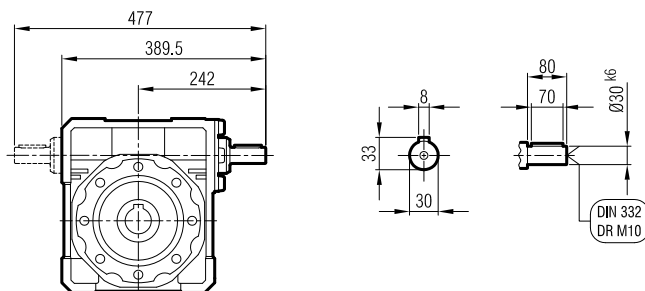
**"A1" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A1" is for motors with brake.  
*Le dimensions "A1" correspond aux moteurs équipés de freins.*

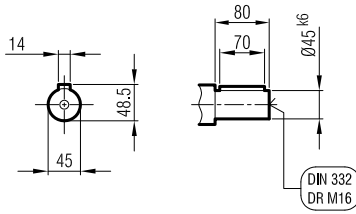
**SP 130**



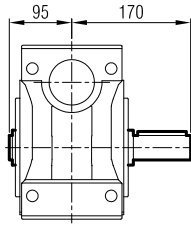
IEC	Øp	Øf	ØD	s	m	n	Ød	t	u	
90	B14	95	115	140	Ø9	11	5	24	27.3	8
100		110	130	160	Ø9	11	5	28	31.3	8
112		110	130	160	Ø9	11	5	28	31.3	8
132		130	165	200	Ø11	13	5	38	41.3	10
90	B5	130	165	200	M10	12	5	24	27.3	8
100		180	215	250	M12	14	5	28	31.3	8
112		180	215	250	M12	14	5	28	31.3	8
132		230	265	300	M12	17	6	38	41.3	10

**S 130**

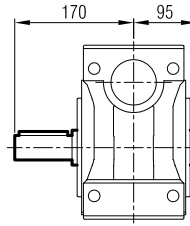




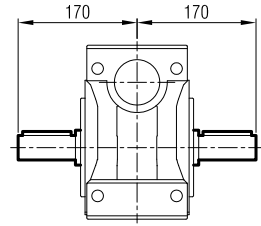
**-SL**



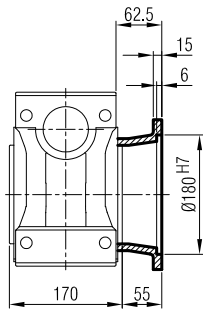
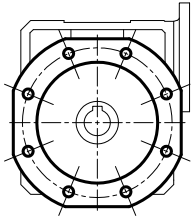
**-SR**



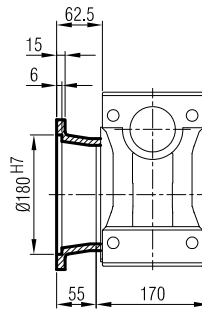
**-SD**



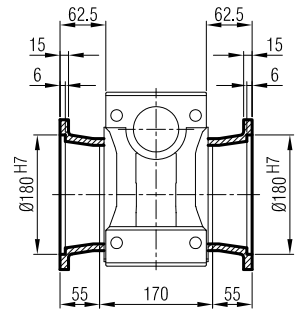
**-FL**



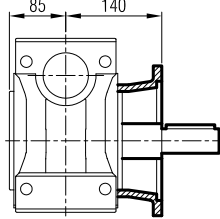
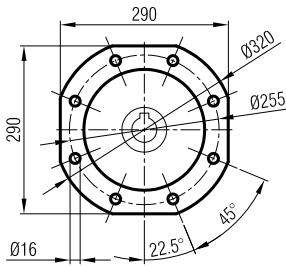
**-FR**



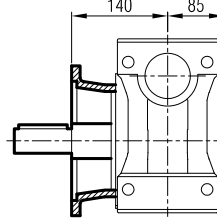
**-FD**



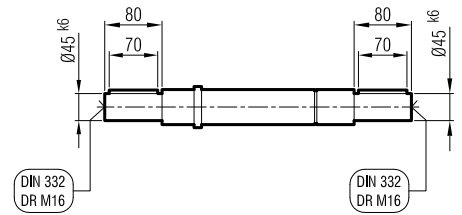
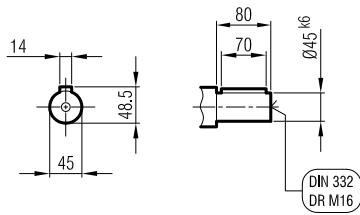
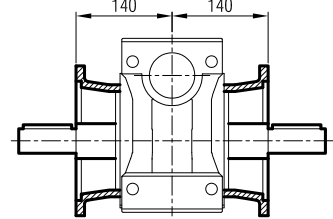
**-FL -SR**



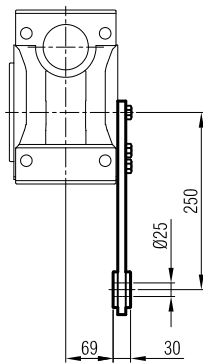
**-FR -SR**



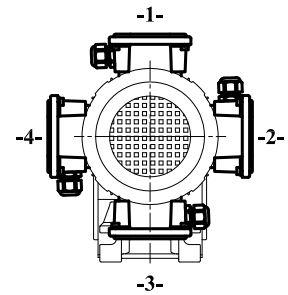
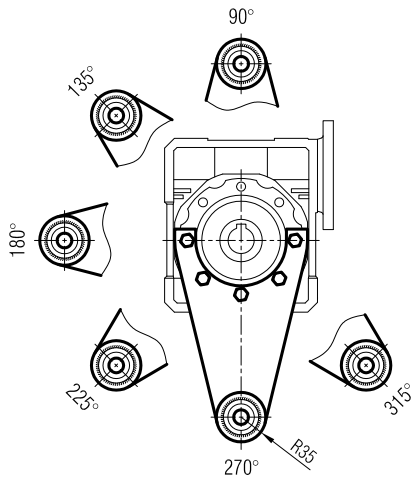
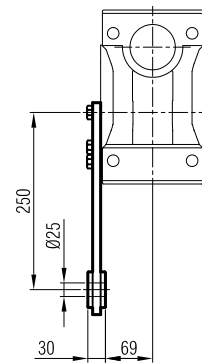
**-FD -SD**



**-TL**



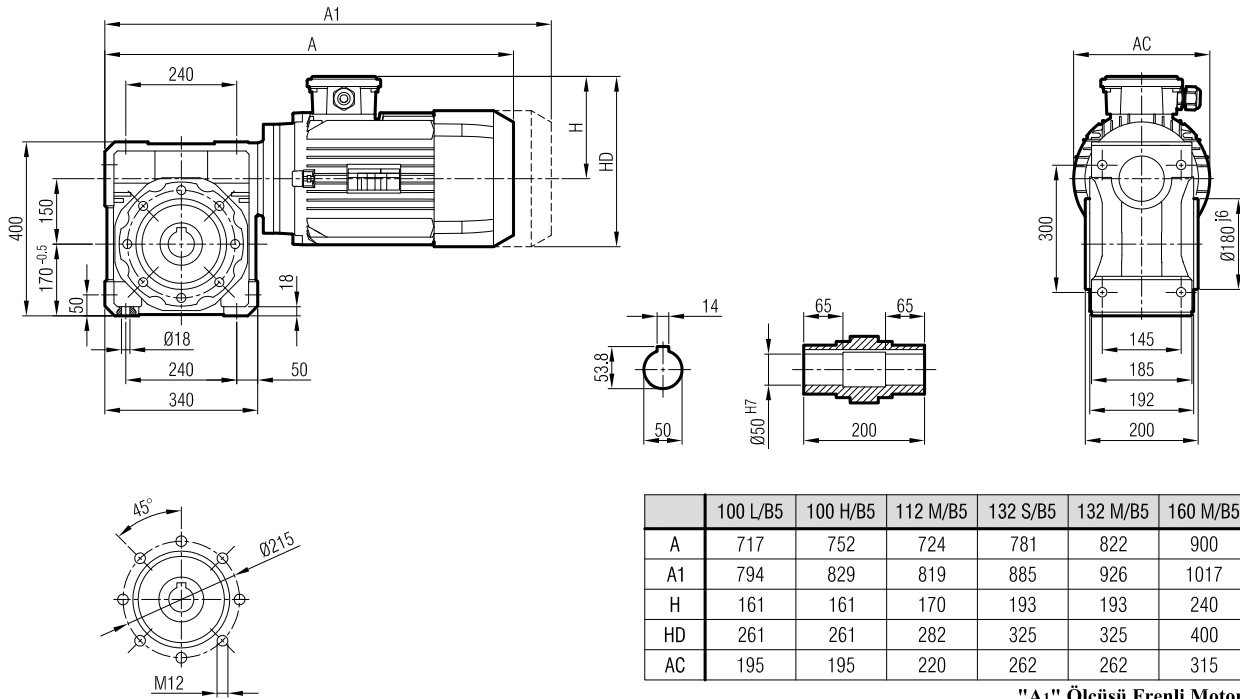
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



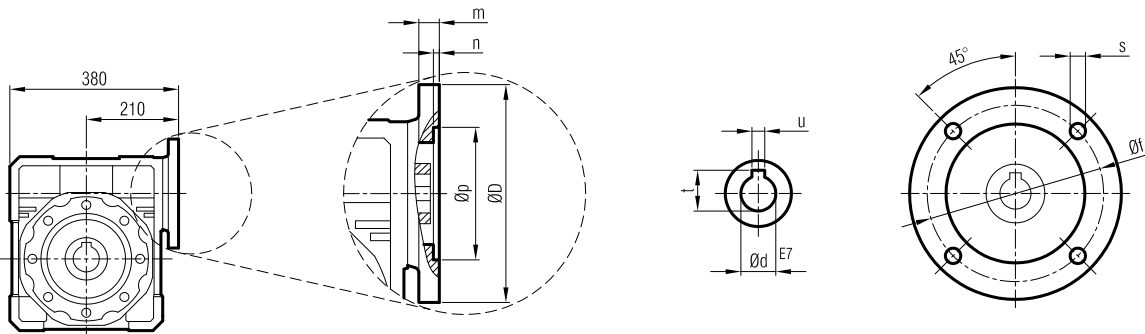
**SM 150**



	100 L/B5	100 H/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5
A	717	752	724	781	822	900	945
A1	794	829	819	885	926	1017	1062
H	161	161	170	193	193	240	240
HD	261	261	282	325	325	400	400
AC	195	195	220	262	262	315	315

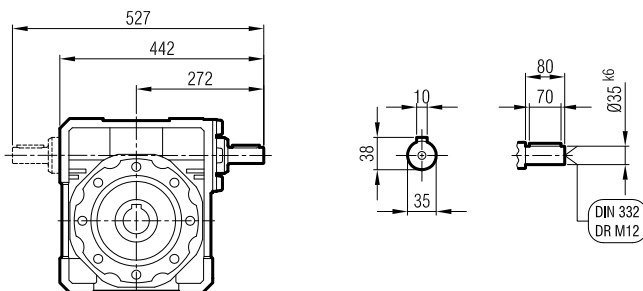
**"A1" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

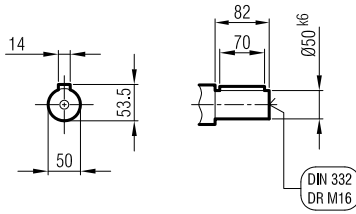
**SP 150**



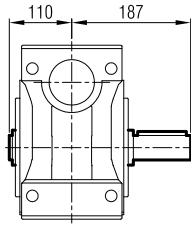
IEC	Øp	Øf	ØD	s	m	n	Ød	t	u	
100	B5	180	215	250	M12	15	5	28	31.3	8
112		180	215	250	M12	15	5	28	31.3	8
132		230	265	300	M12	18	6	38	41.3	10
160		250	300	350	M14	20	6.5	42	45.3	12

**S 150**

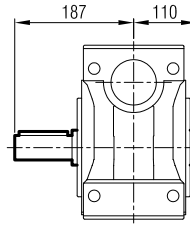




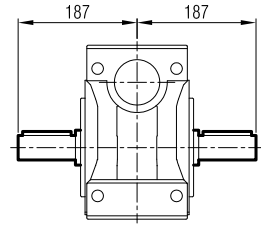
**-SL**



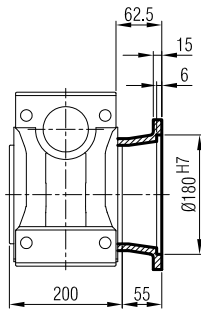
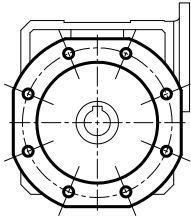
**-SR**



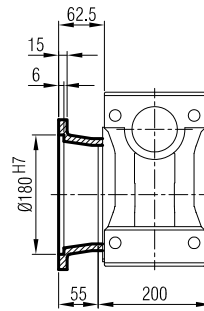
**-SD**



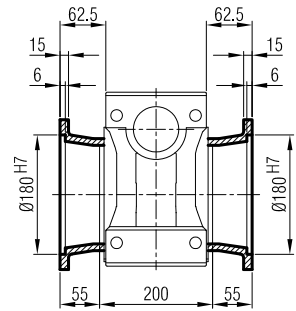
**-FL**



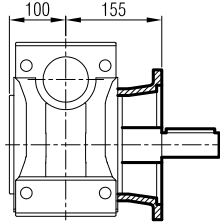
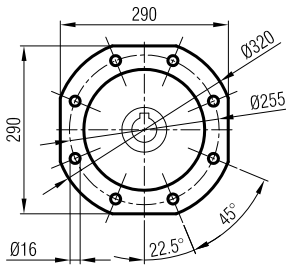
**-FR**



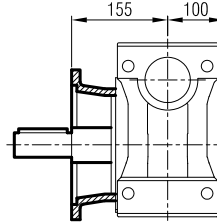
**-FD**



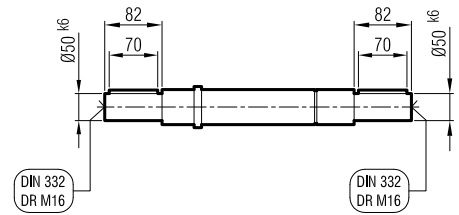
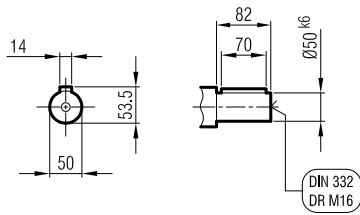
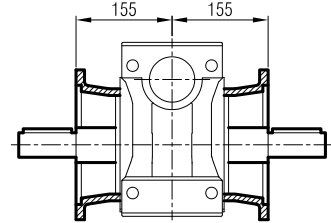
**-FL -SR**



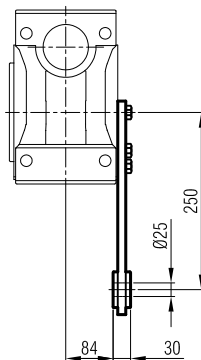
**-FR -SR**



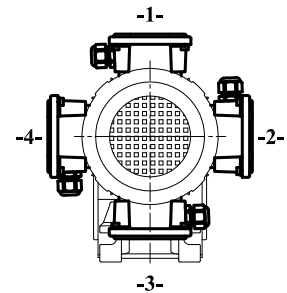
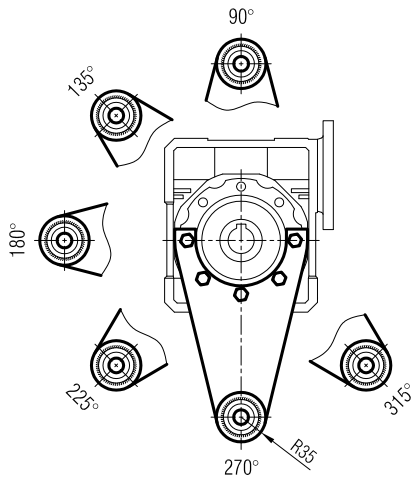
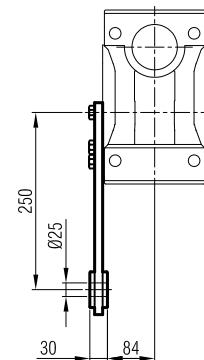
**-FD -SD**



**-TL**



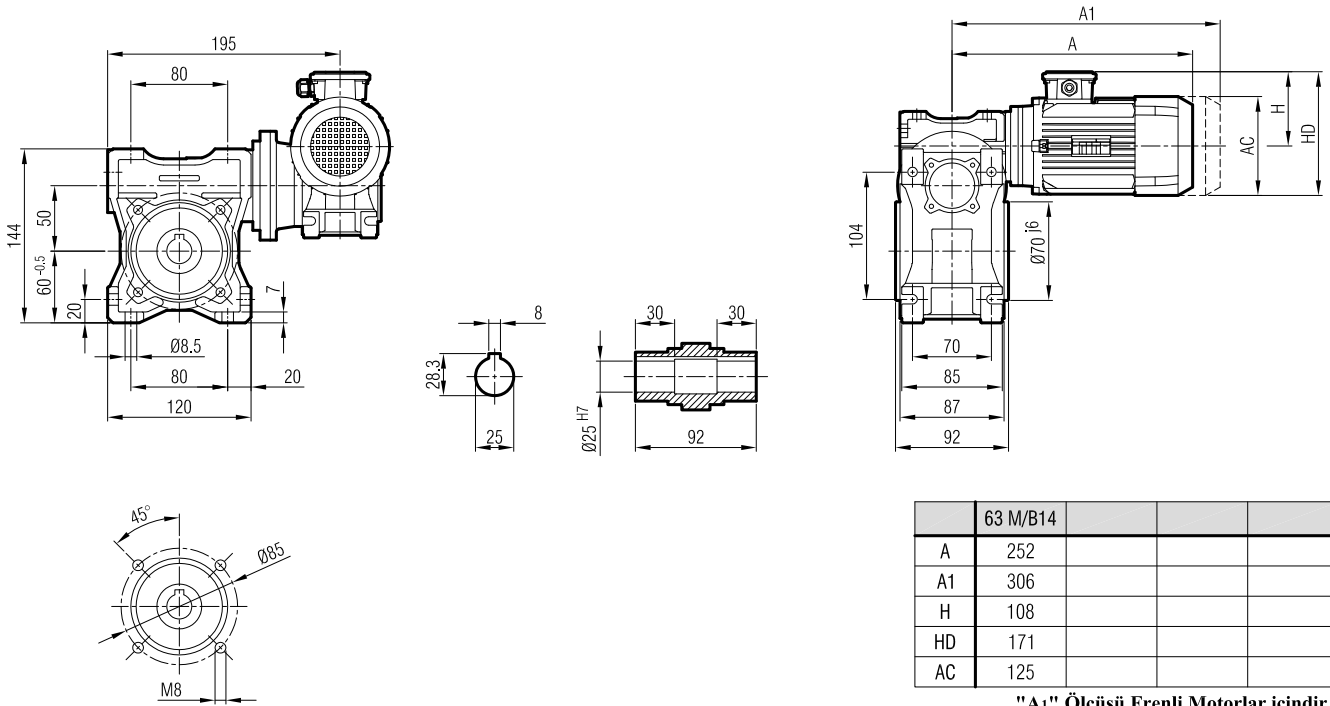
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes

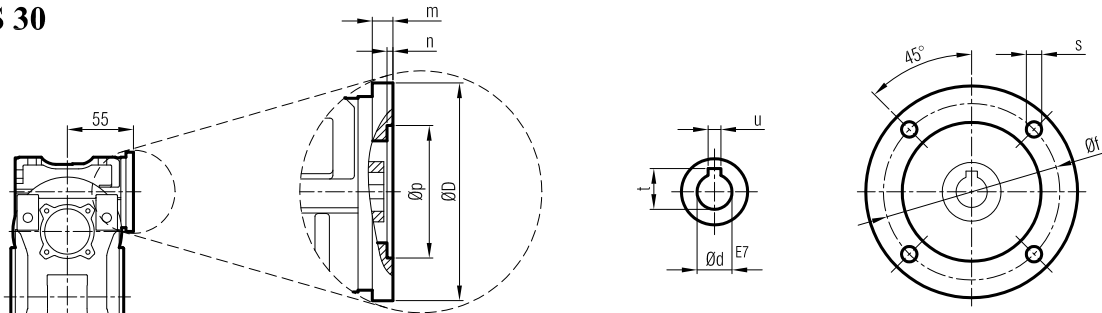


**SM 50 S 30**



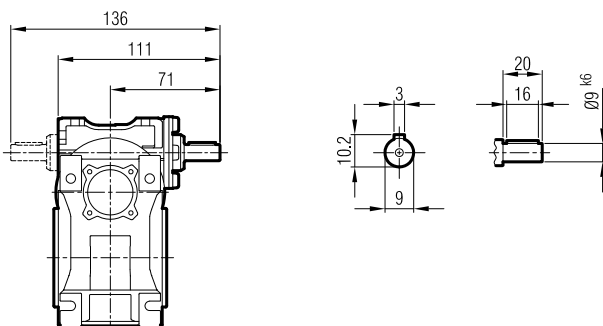
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

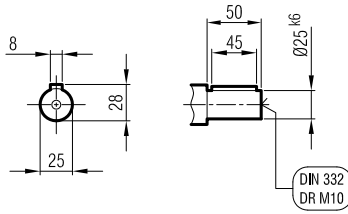
**SP 50 S 30**



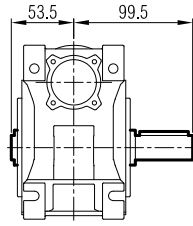
IEC	Øp	Øf	ØD	s	m	n	Ød	t	u	
63	B14	60	75	90	Ø6	9	4.5	11	12.8	4
63	B5	95	115	140	M8	8	4	11	12.8	4

**S 50 S 30**

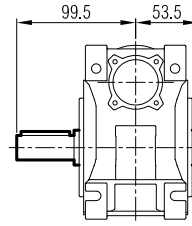




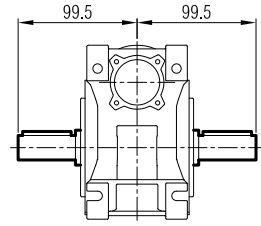
**-SL**



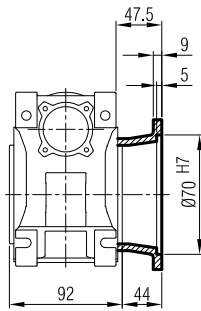
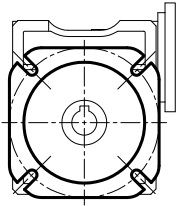
**-SR**



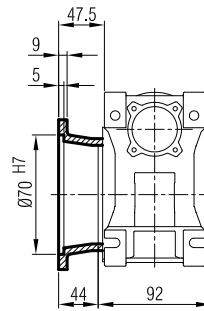
**-SD**



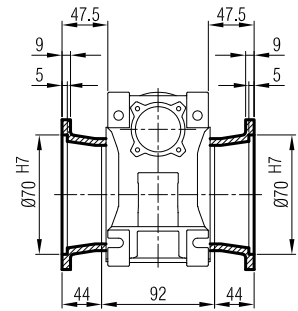
**-FL**



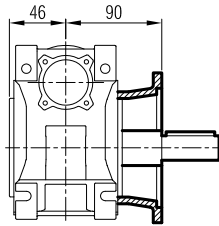
**-FR**



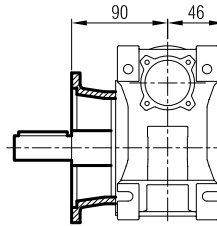
**-FD**



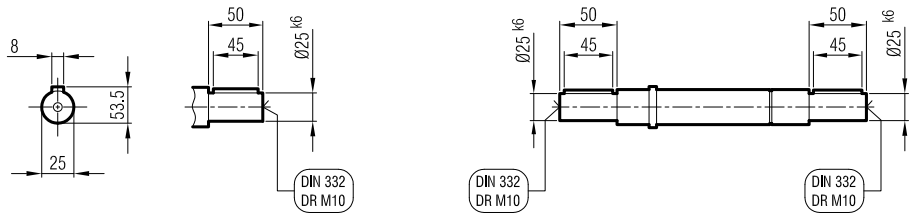
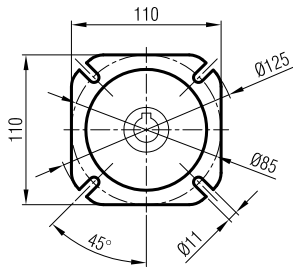
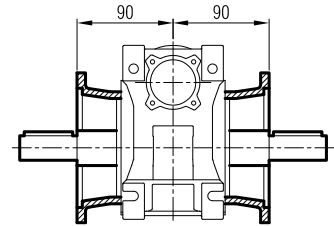
**-FL -SR**



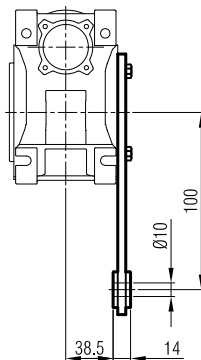
**-FR -SR**



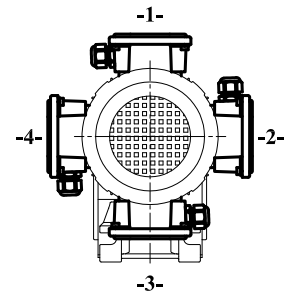
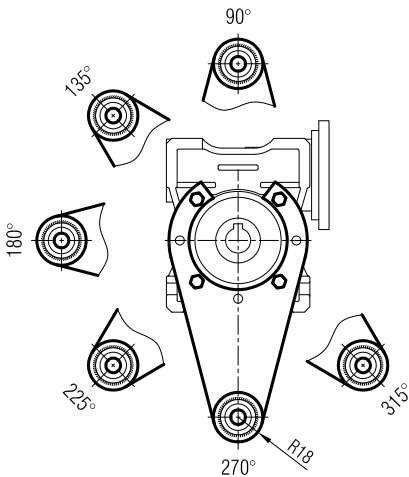
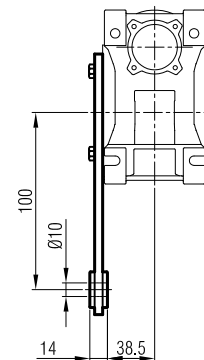
**-FD -SD**



**-TL**



**-TR**

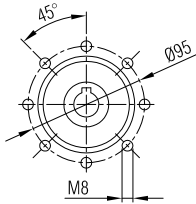
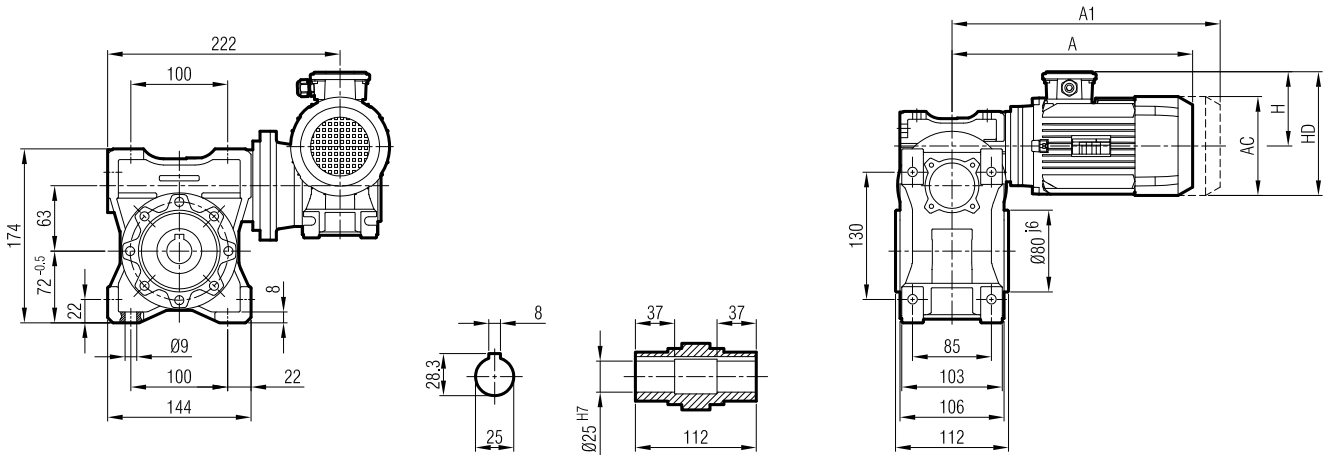


**Klemens Pozisyonları**  
 Positions of Terminal Box  
 Position de la boîte à bornes





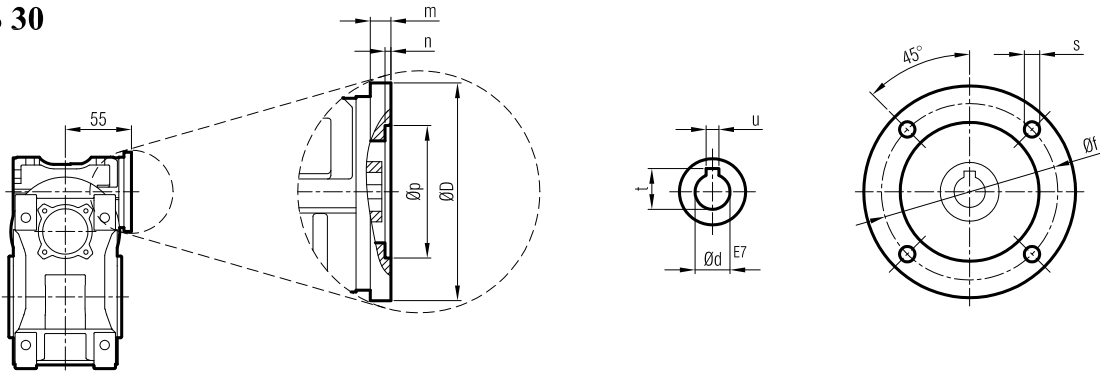
**SM 63 S 30**



	63 M/B14			
A	252			
A1	306			
H	108			
HD	171			
AC	125			

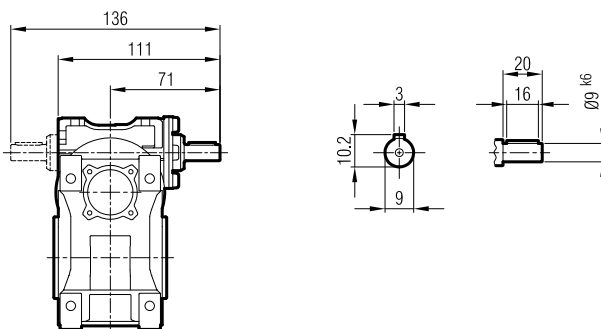
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

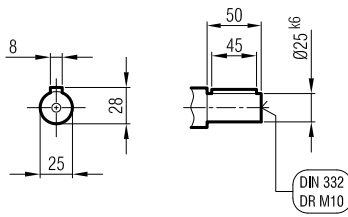
**SP 63 S 30**



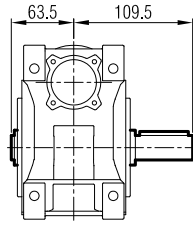
IEC	Øp	Øf	ØD	s	m	n	Ød	t	u	
63	B14	60	75	90	Ø6	9	4.5	11	12.8	4
63	B5	95	115	140	M8	8	4	11	12.8	4

**S 63 S 30**

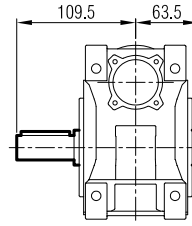




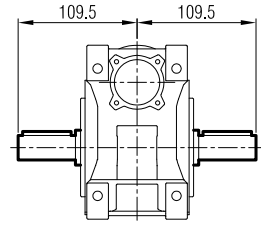
**-SL**



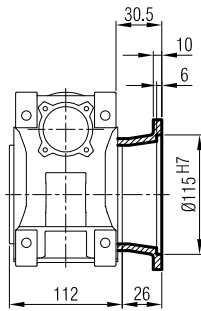
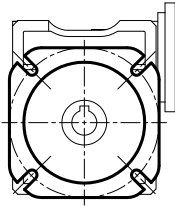
**-SR**



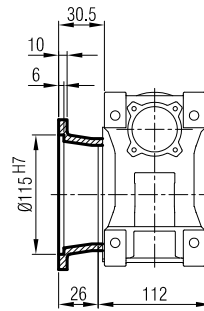
**-SD**



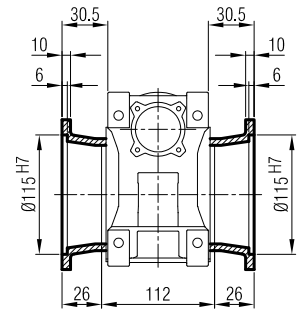
**-FL**



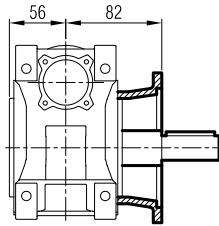
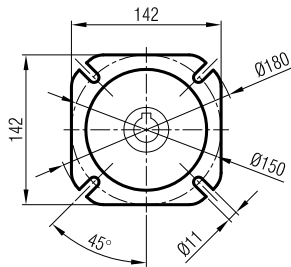
**-FR**



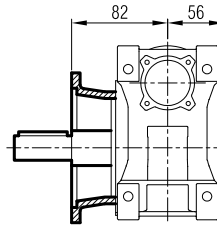
**-FD**



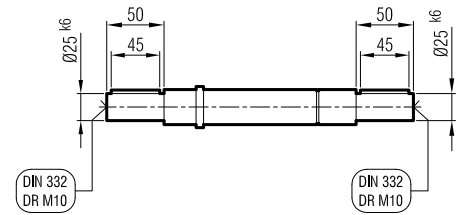
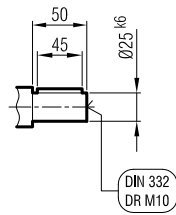
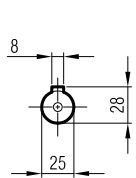
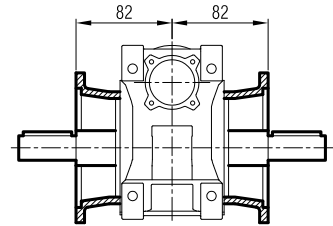
**-FL -SR**



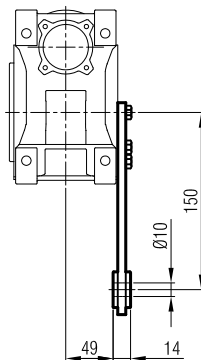
**-FR -SR**



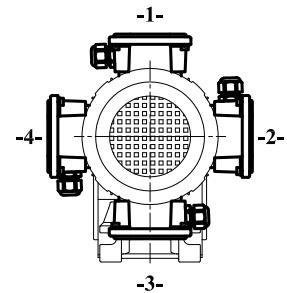
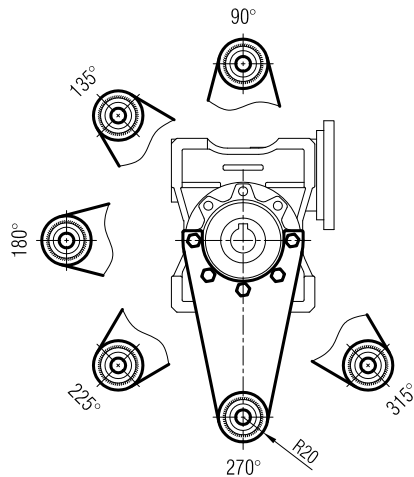
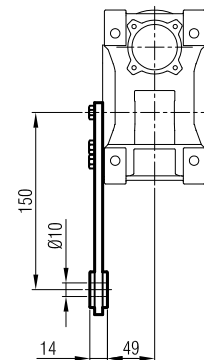
**-FD -SD**



**-TL**



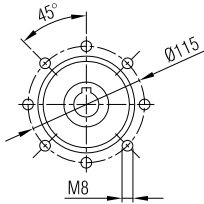
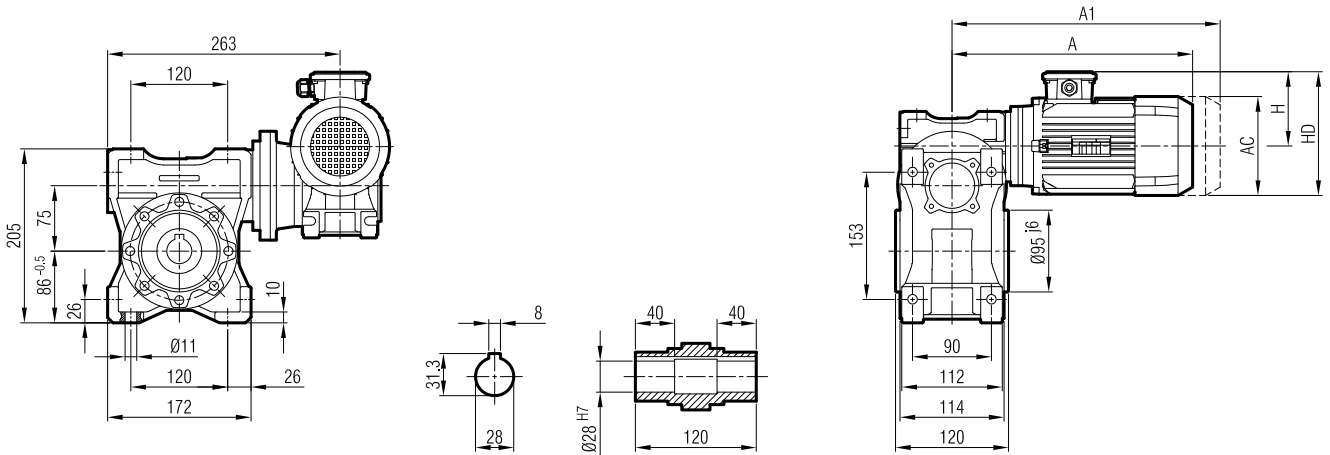
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



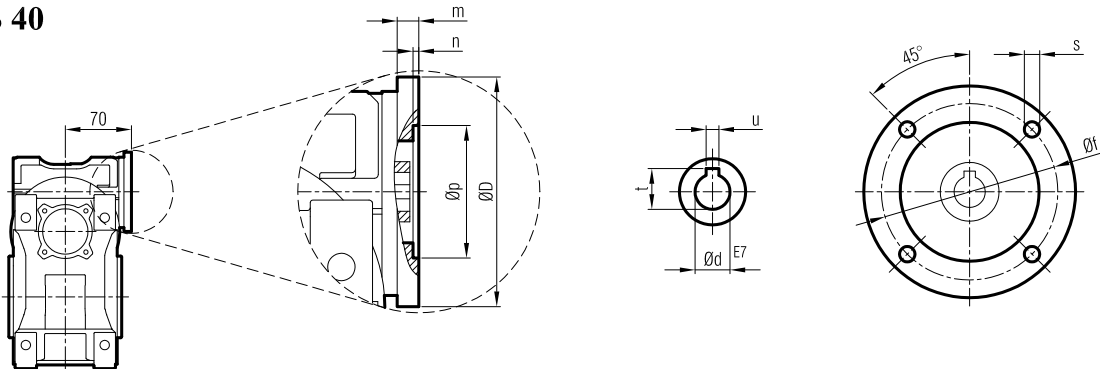
**SM 75 S 40**



	63 M/B14	71 M/B14		
A	267	300		
A1	321	354		
H	108	123		
HD	171	194		
AC	125	138.5		

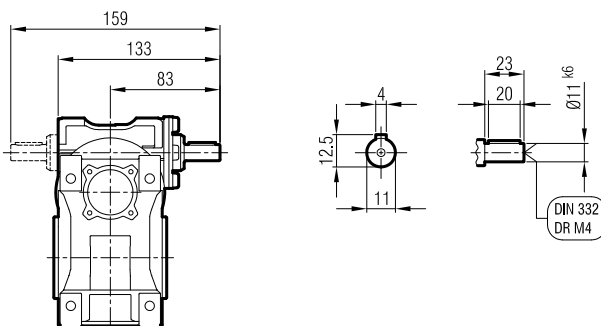
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

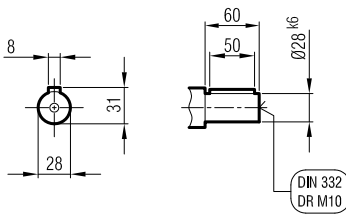
**SP 75 S 40**



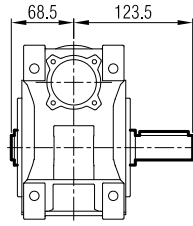
IEC		Øp	Øf	ØD	s	m	n	Ød	t	u
63	B14	60	75	90	Ø6	10	4.5	11	12.8	4
71		70	85	105	Ø7	10	4.5	14	16.3	5
63	B5	95	115	140	M8	8	4	11	12.8	4
71		110	130	160	M8	9	4	14	16.3	5

**S 75 S 40**

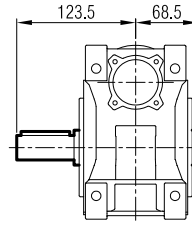




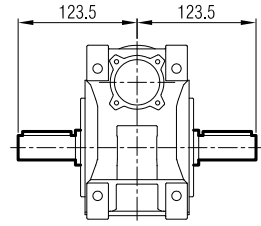
**-SL**



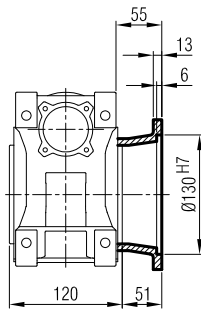
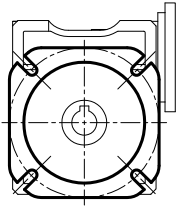
**-SR**



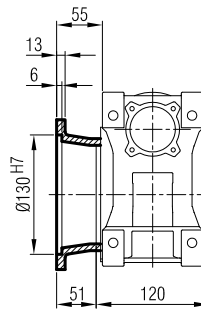
**-SD**



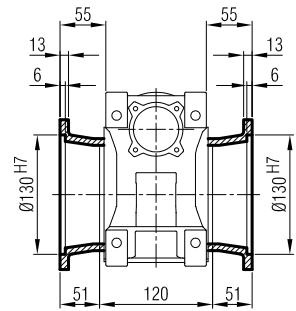
**-FL**



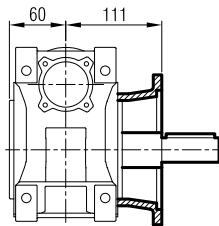
**-FR**



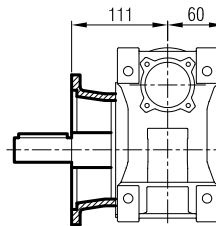
**-FD**



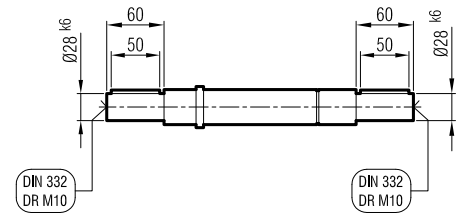
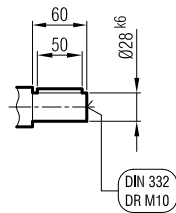
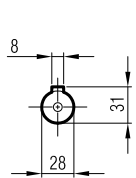
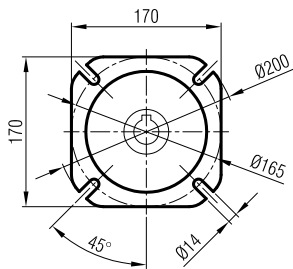
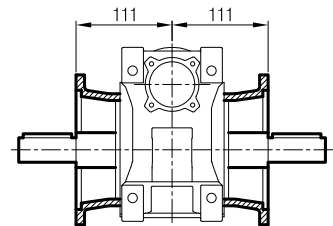
**-FL -SR**



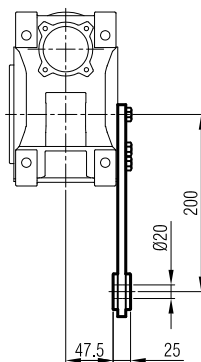
**-FR -SR**



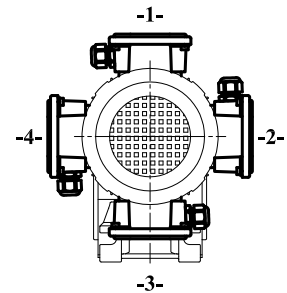
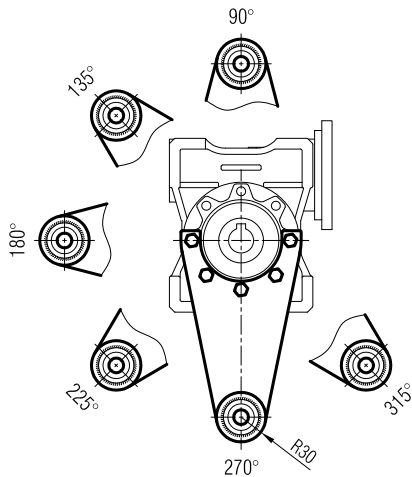
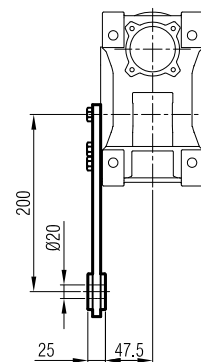
**-FD -SD**



**-TL**



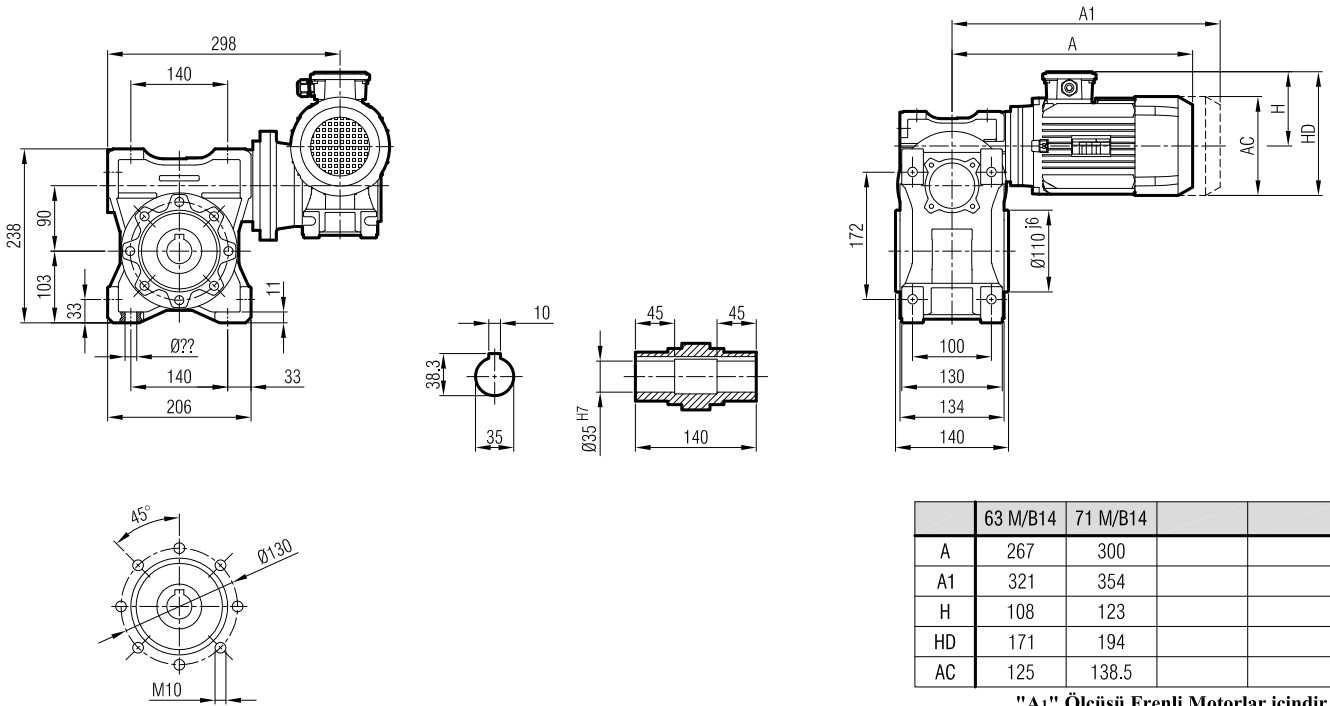
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



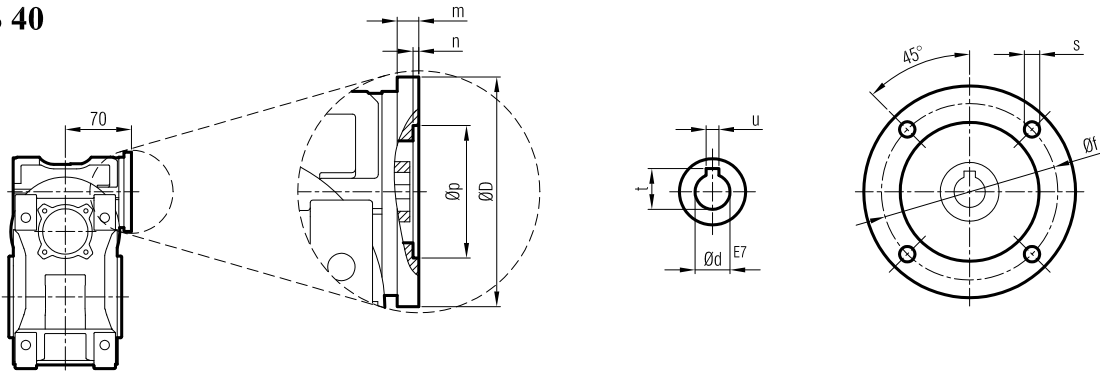
**SM 90 S 40**



	63 M/B14	71 M/B14		
A	267	300		
A1	321	354		
H	108	123		
HD	171	194		
AC	125	138.5		

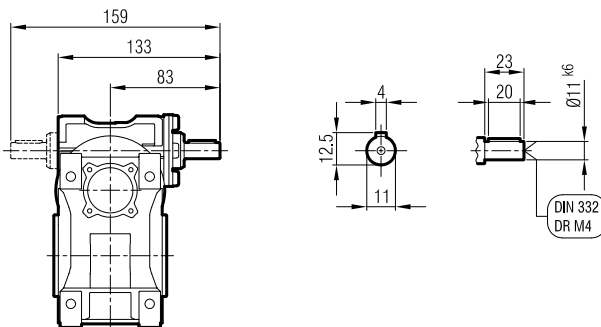
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

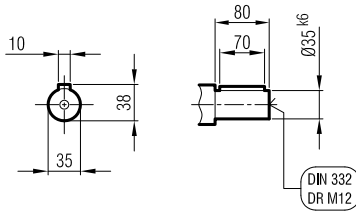
**SP 90 S 40**



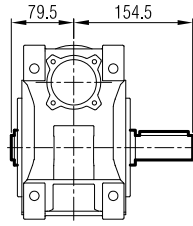
IEC	Øp	Øf	ØD	s	m	n	Ød	t	u	
63	B14	60	75	90	Ø6	10	4.5	11	12.8	4
71		70	85	105	Ø7	10	4.5	14	16.3	5
63	B5	95	115	140	M8	8	4	11	12.8	4
71		110	130	160	M8	9	4	14	16.3	5

**S 90 S 40**

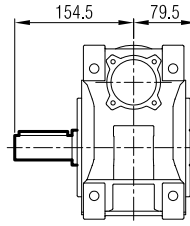




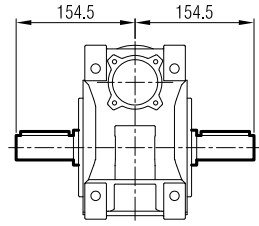
**-SL**



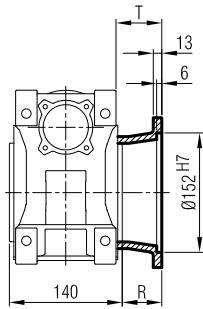
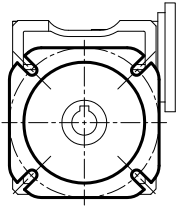
**-SR**



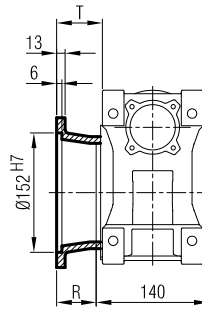
**-SD**



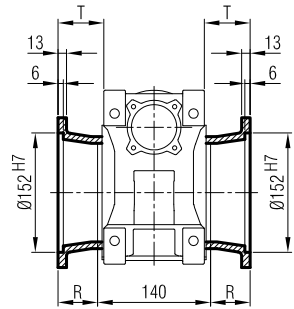
**-FL**



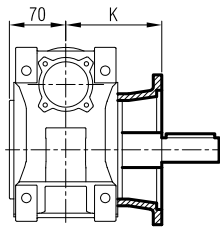
**-FR**



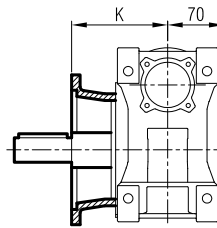
**-FD**



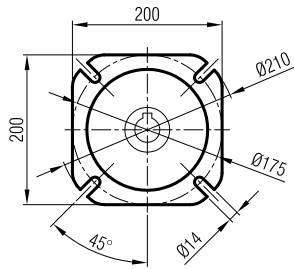
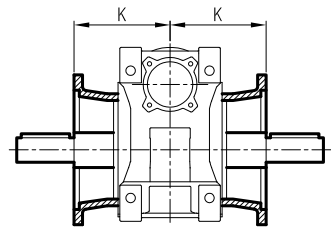
**-FL -SR**



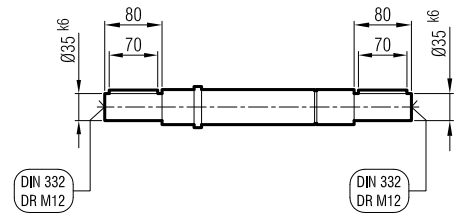
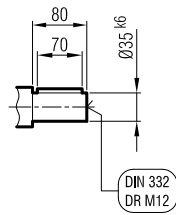
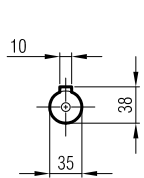
**-FR -SR**



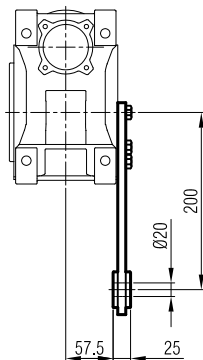
**-FD -SD**



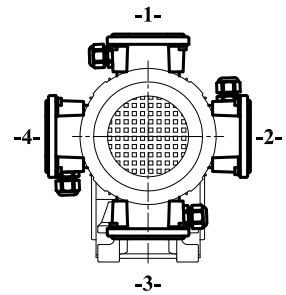
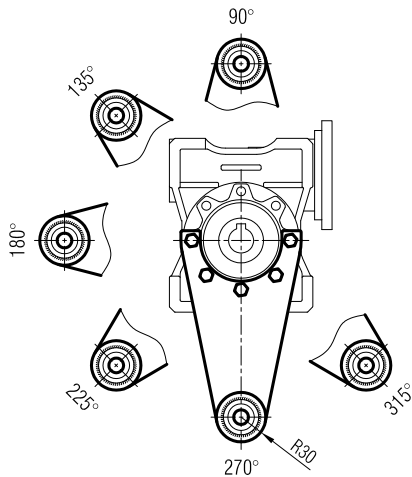
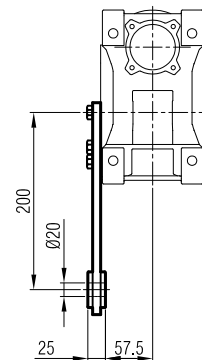
	T	R	K
Std.	46	41	111
Ops.	86	81	151



**-TL**



**-TR**

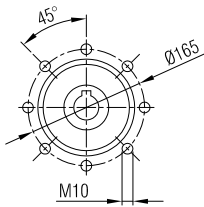
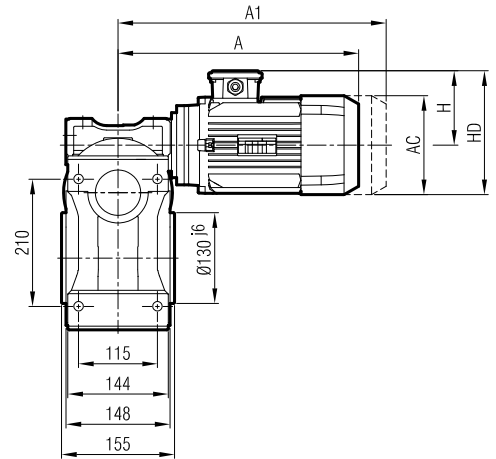
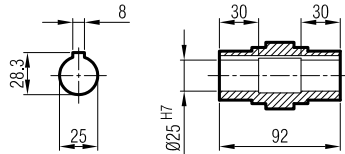
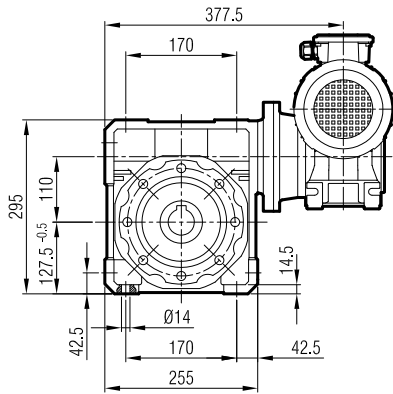


**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes





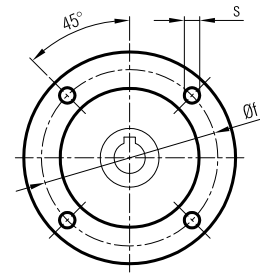
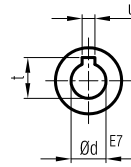
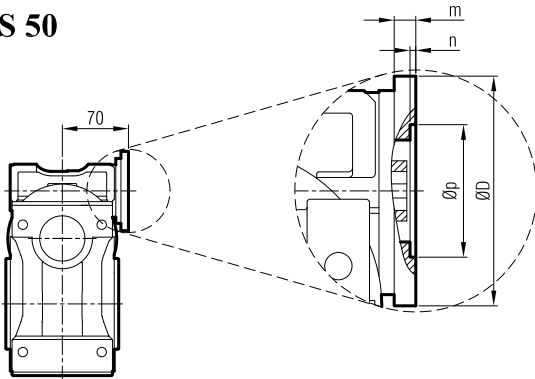
**SM 110 S 50**



	63 M/B14	71 M/B14	80 M/B14	80 H/B14
A	277	310	346	373
A1	331	364	407	434
H	108	123	136	136
HD	171	194	216	216
AC	125	138.5	158	158

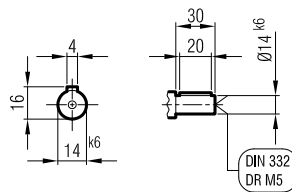
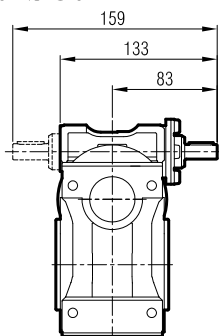
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

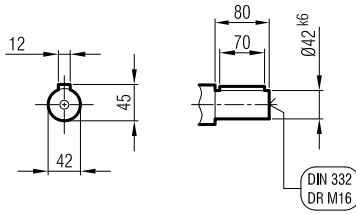
**SP 110 S 50**



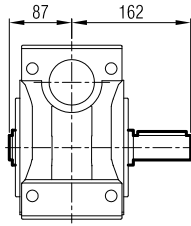
IEC	Øp	Øf	ØD	s	m	n	Ød	t	u
63	60	75	90	Ø6	10	4.5	11	12.8	4
71	70	85	105	Ø7	10	4.5	14	16.3	5
80	80	100	120	Ø7	10	4.5	19	21.8	6
63	95	115	140	M8	8	4	11	12.8	4
71	110	130	160	M8	10	4	14	16.3	5
80	130	165	200	M10	12	5	19	21.8	6

**S 110 S 50**

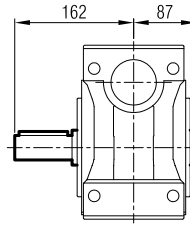




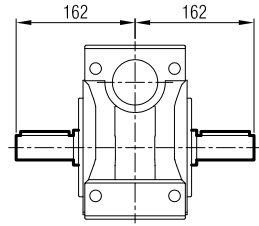
**-SL**



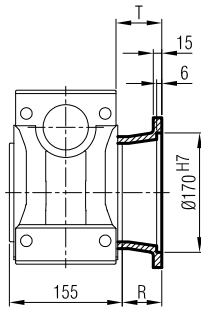
**-SR**



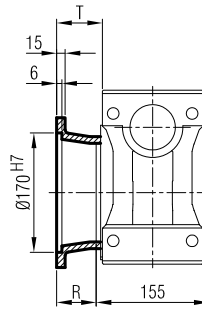
**-SD**



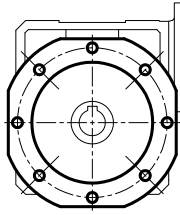
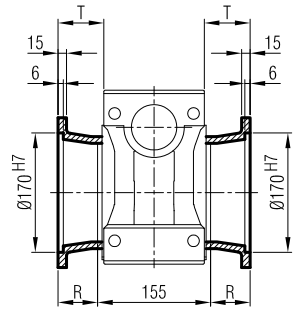
**-FL**



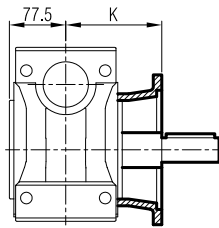
**-FR**



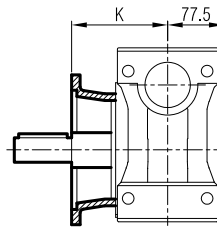
**-FD**



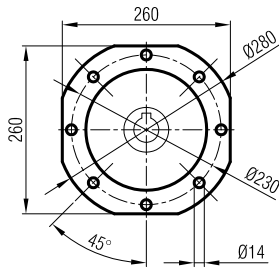
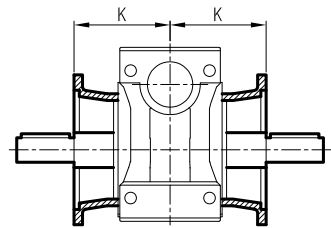
**-FL -SR**



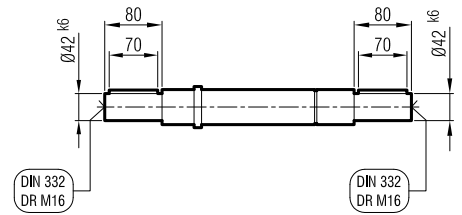
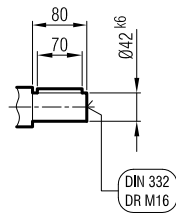
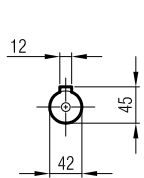
**-FR -SR**



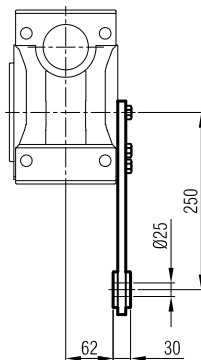
**-FD -SD**



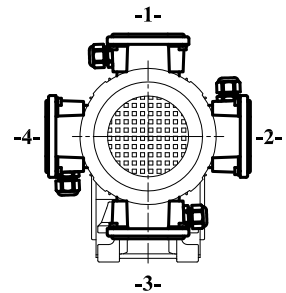
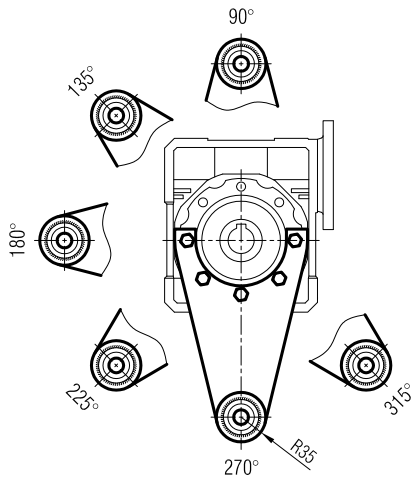
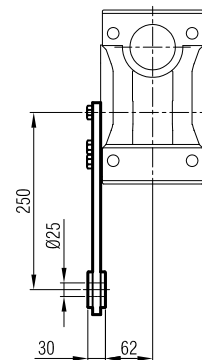
	T	R	K
Std.	59	53.5	131
Ops.	108	102.5	180



**-TL**



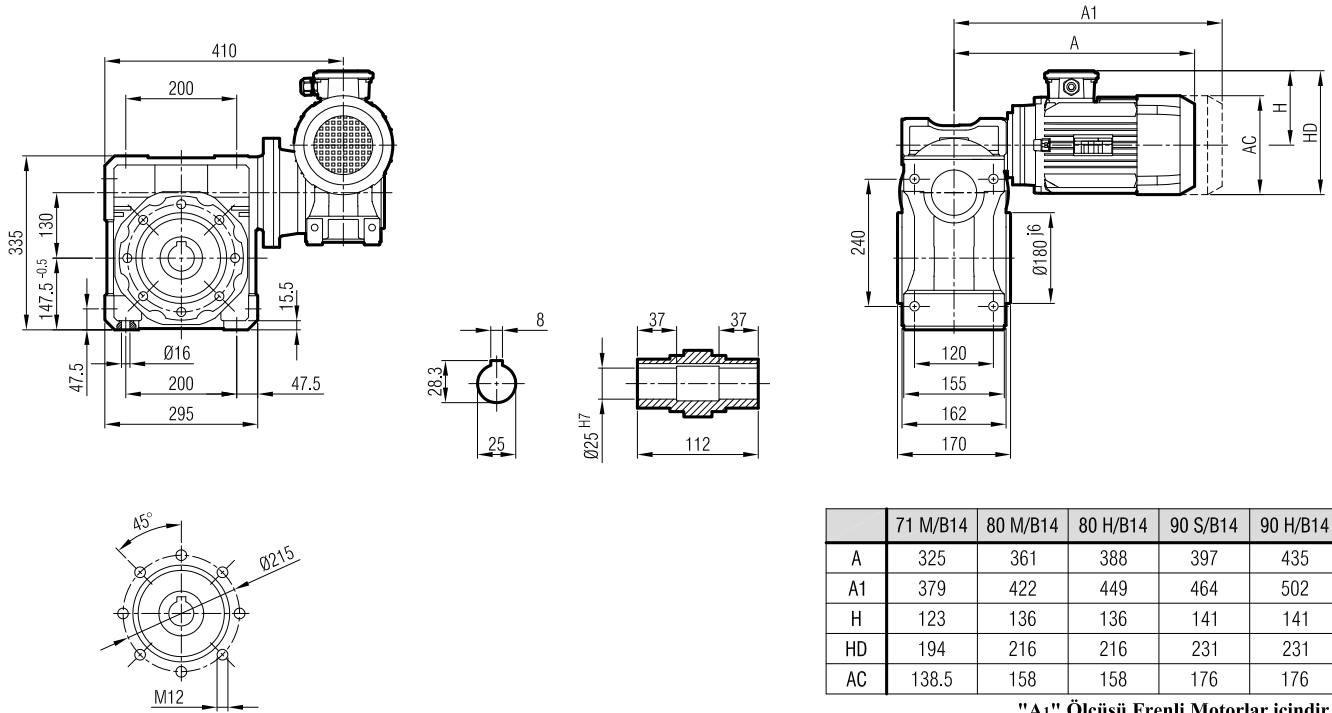
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes

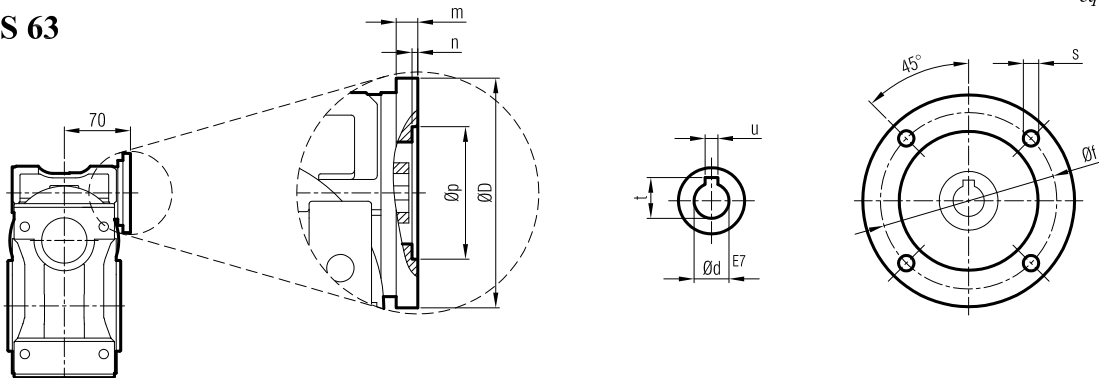


**SM 130 S 63**



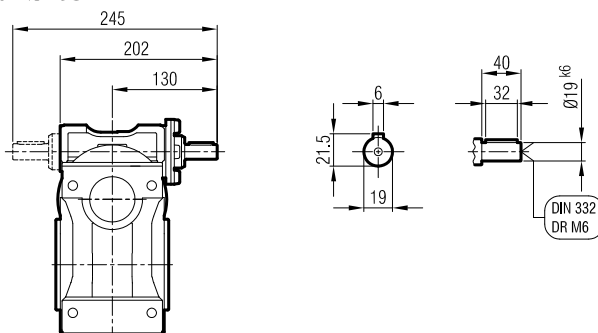
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

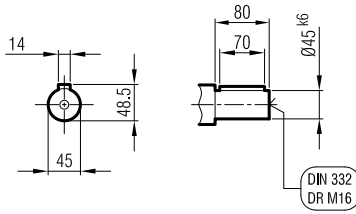
**SP 130 S 63**



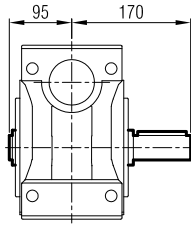
IEC	Øp	Øf	ØD	s	m	n	Ød	t	u
71	70	85	105	Ø7	10	4.5	14	16.3	5
80	80	100	120	Ø7	10	4.5	19	21.8	6
90	95	115	140	Ø9	11	5	24	27.3	8
71	110	130	160	M8	10	4	14	16.3	5
80	130	165	200	M10	12	5	19	21.8	6
90	130	165	200	M10	12	5	24	27.3	8

**S 130 S 63**

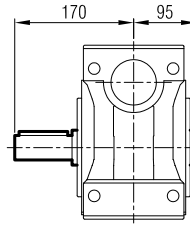




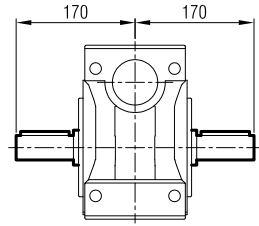
**-SL**



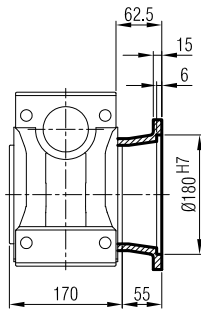
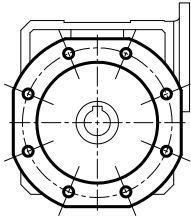
**-SR**



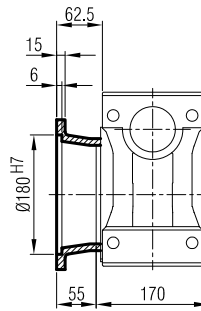
**-SD**



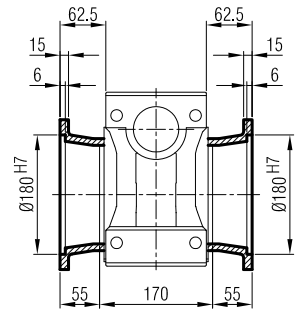
**-FL**



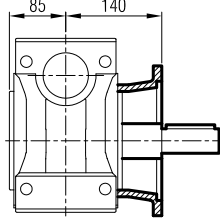
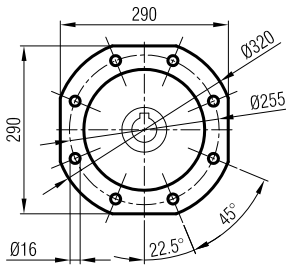
**-FR**



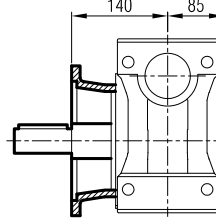
**-FD**



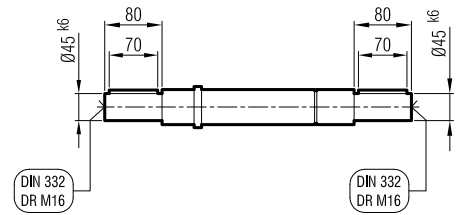
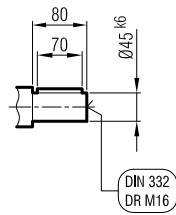
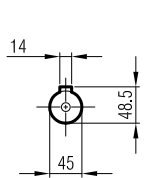
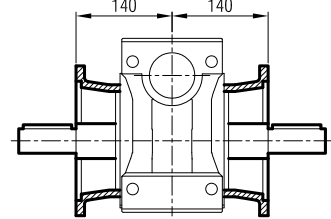
**-FL -SR**



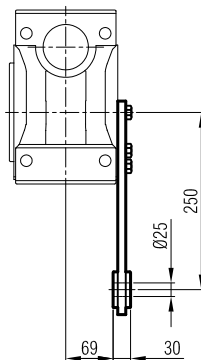
**-FR -SR**



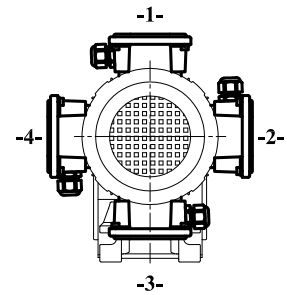
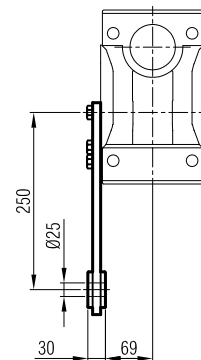
**-FD -SD**



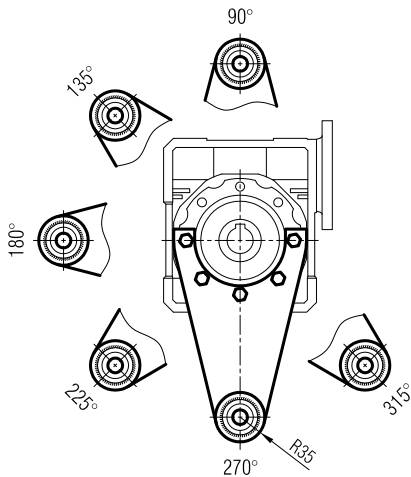
**-TL**



**-TR**

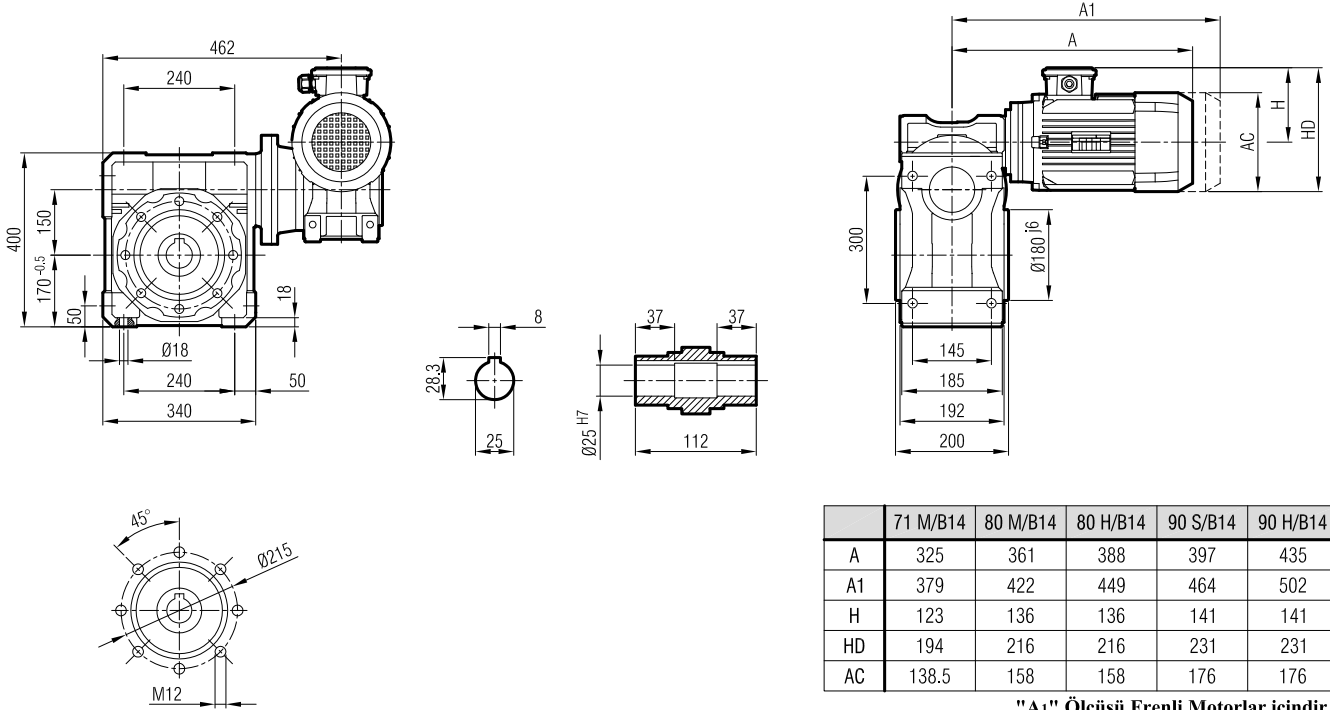


**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes





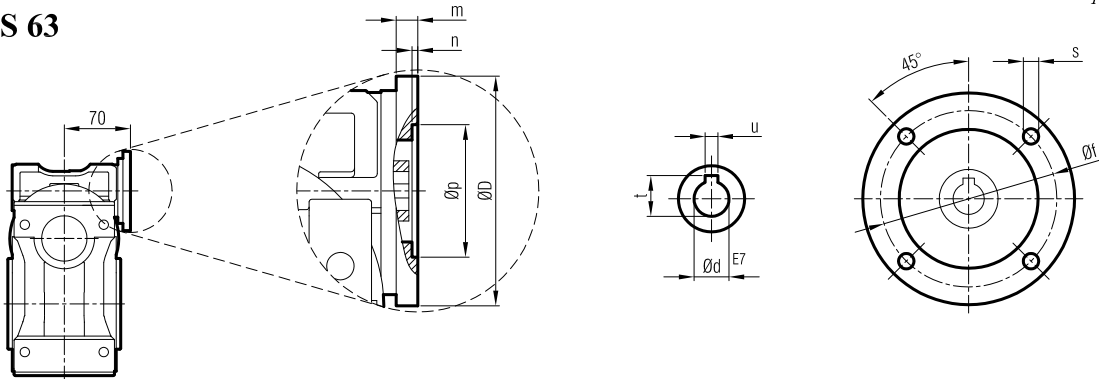
**SM 150 S 63**



	71 M/B14	80 M/B14	80 H/B14	90 S/B14	90 H/B14
A	325	361	388	397	435
A1	379	422	449	464	502
H	123	136	136	141	141
HD	194	216	216	231	231
AC	138.5	158	158	176	176

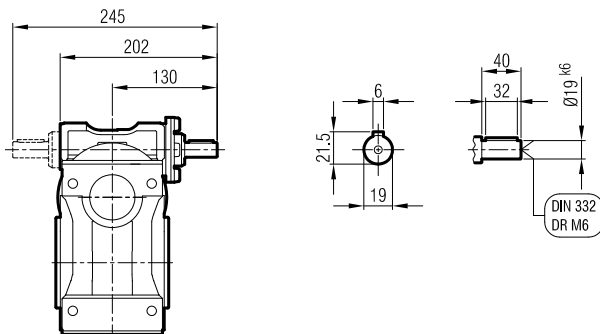
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

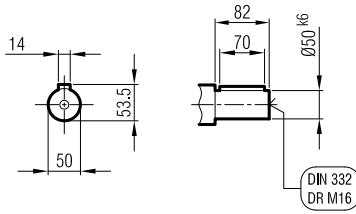
**SP 150 S 63**



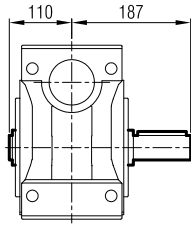
IEC	Øp	Øf	ØD	s	m	n	Ød	t	u
71	70	85	105	Ø7	10	4.5	14	16.3	5
80	80	100	120	Ø7	10	4.5	19	21.8	6
90	95	115	140	Ø9	11	5	24	27.3	8
71	110	130	160	M8	10	4	14	16.3	5
80	130	165	200	M10	12	5	19	21.8	6
90	130	165	200	M10	12	5	24	27.3	8

**S 150 S 63**

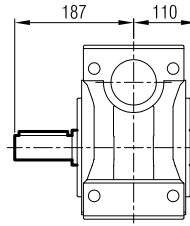




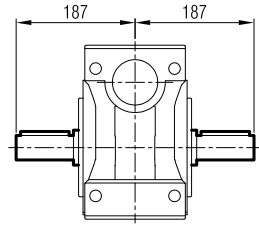
**-SL**



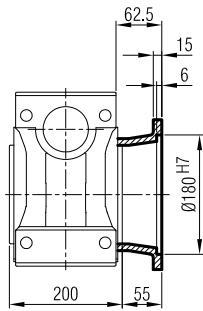
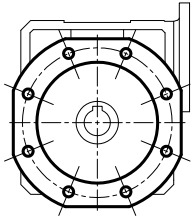
**-SR**



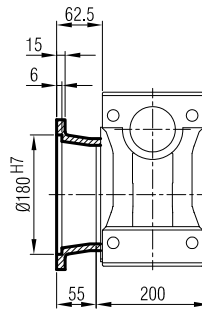
**-SD**



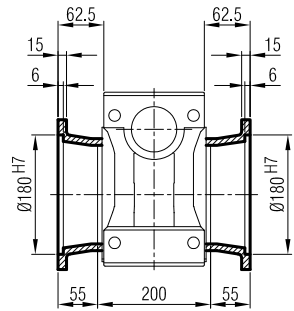
**-FL**



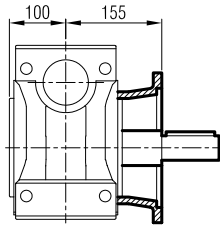
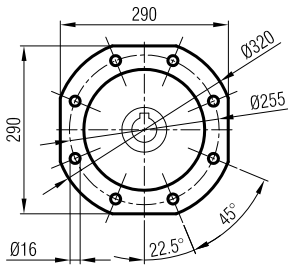
**-FR**



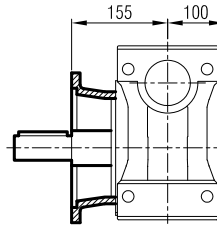
**-FD**



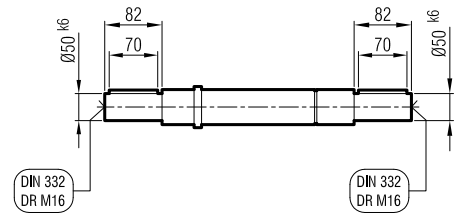
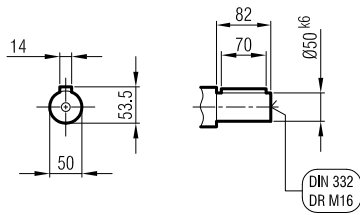
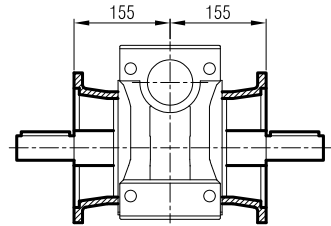
**-FL -SR**



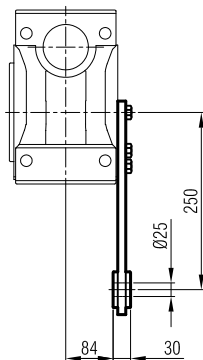
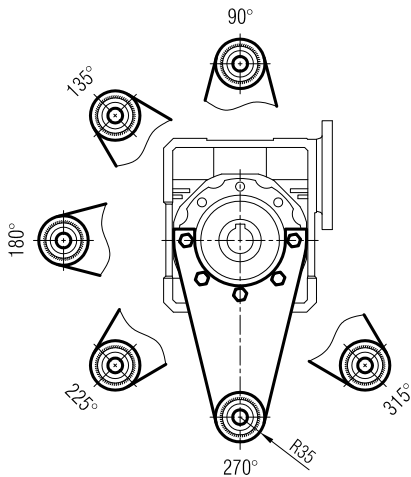
**-FR -SR**



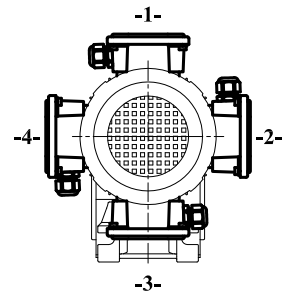
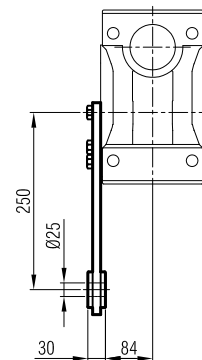
**-FD -SD**



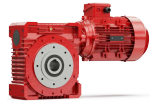
**-TL**



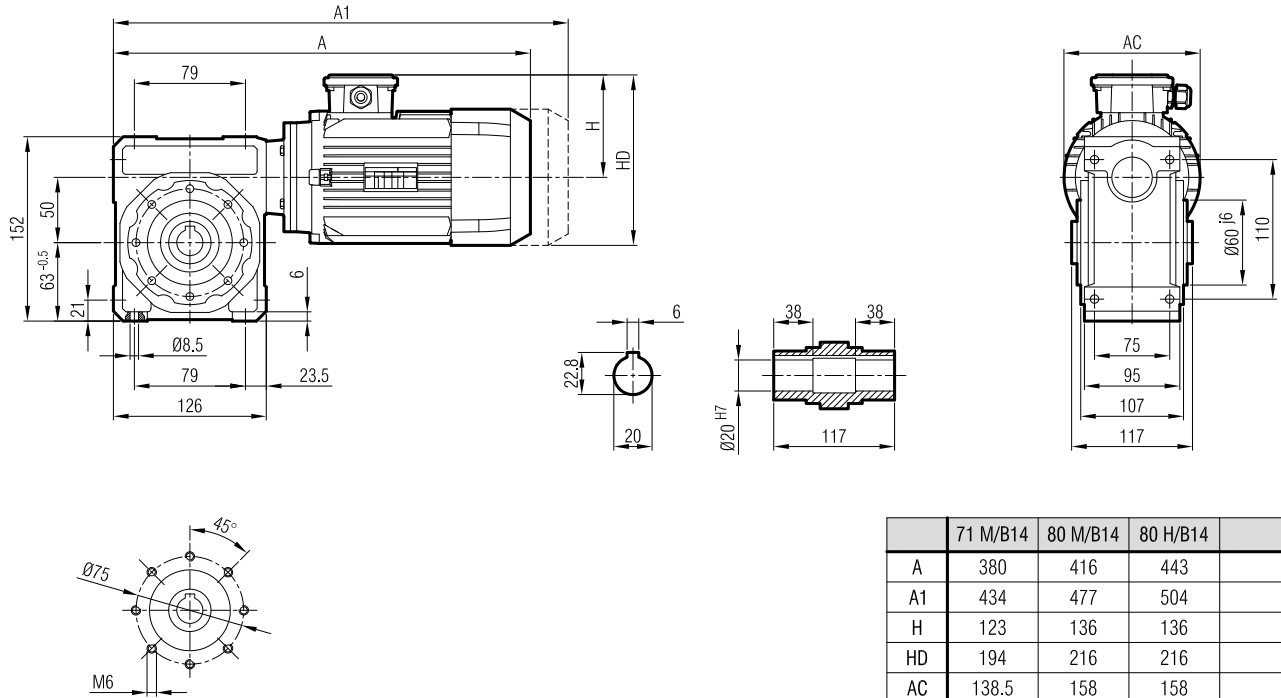
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



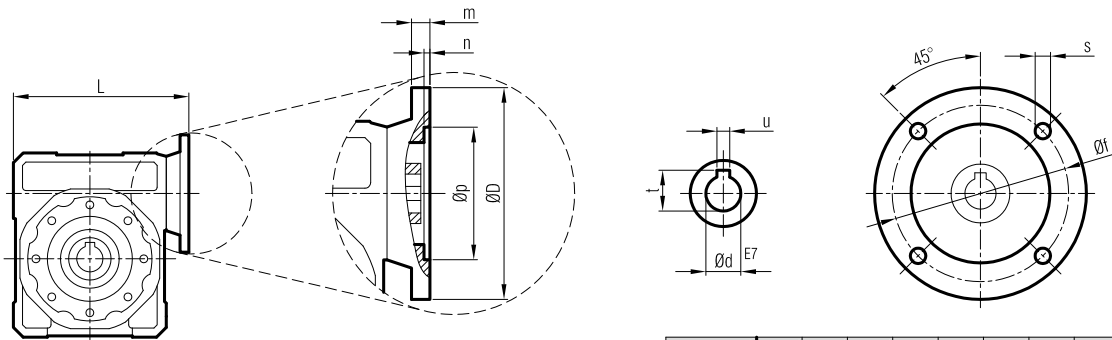
**İRSAM 52**



	71 M/B14	80 M/B14	80 H/B14
A	380	416	443
A1	434	477	504
H	123	136	136
HD	194	216	216
AC	138.5	158	158

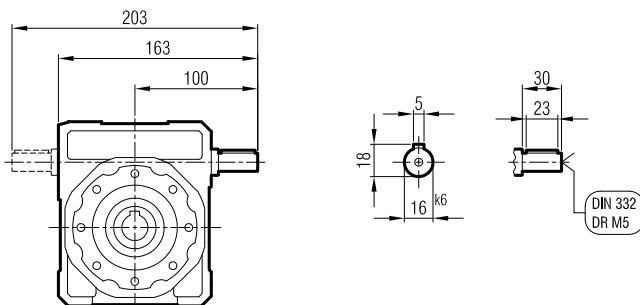
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

**İRSAP 52**

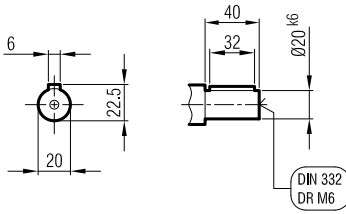


IEC	L	Øp	Øf	ØD	s	m	n	Ød	t	u
71	150	70	85	105	Ø7	8	3.5	14	16.3	5
80		80	100	120	Ø7	8	3.5	19	21.8	6
71	150	110	130	160	M8	10	4	14	16.3	5
80		130	165	200	M10	11	5	19	21.8	6

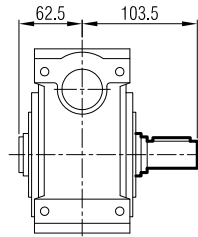
**İRSA 52**



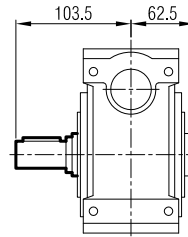




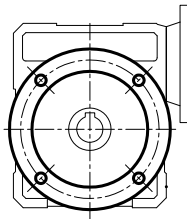
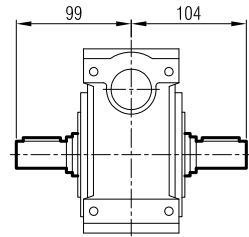
**-SL**



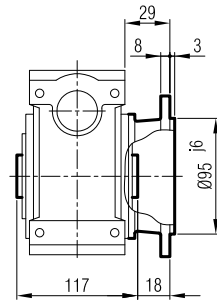
**-SR**



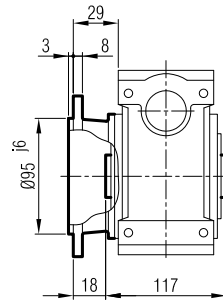
**-SD**



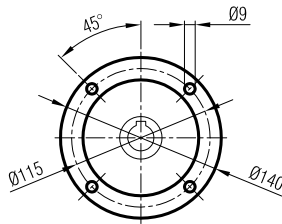
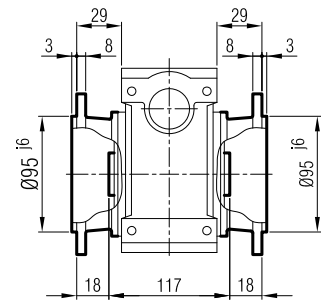
**-FL**



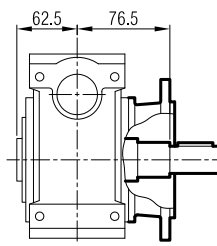
**-FR**



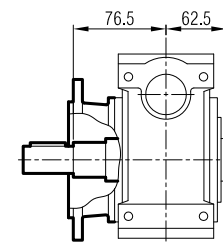
**-FD**



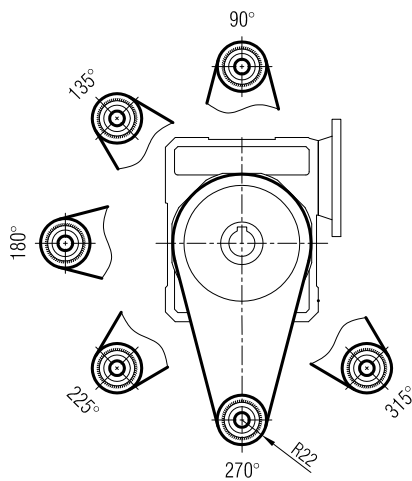
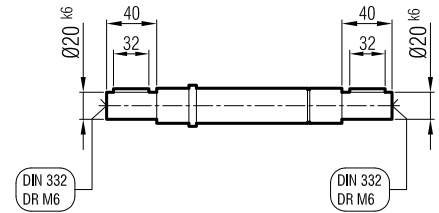
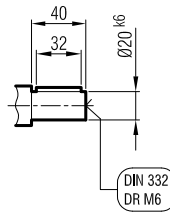
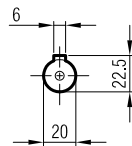
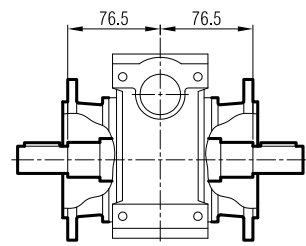
**-FL -SR**



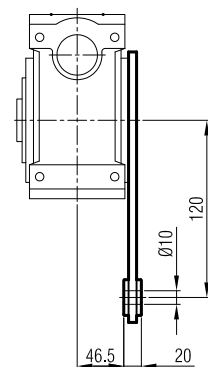
**-FR -SR**



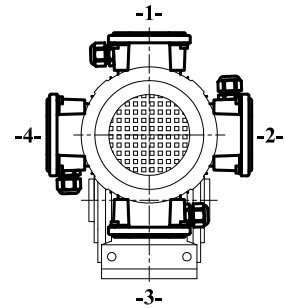
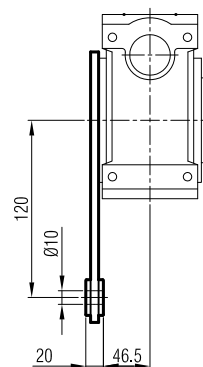
**-FD -SD**



**-TL**

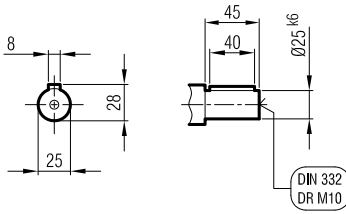


**-TR**

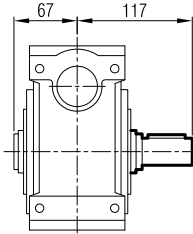


**Klemens Pozisyonları**  
 Positions of Terminal Box  
 Position de la boîte à bornes

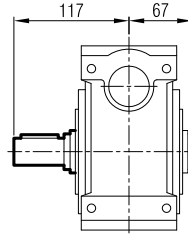




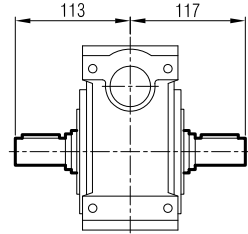
**-SL**



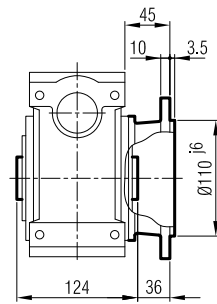
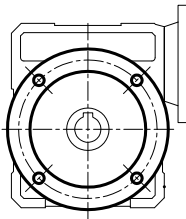
**-SR**



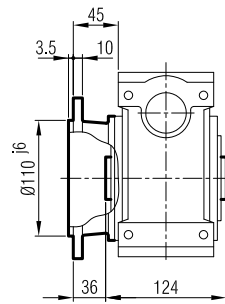
**-SD**



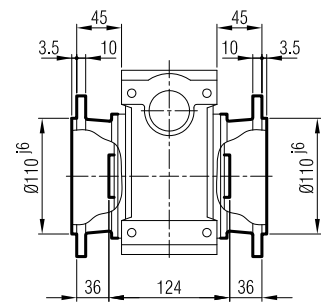
**-FL**



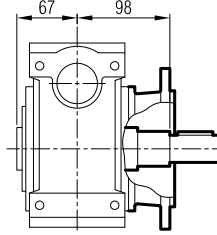
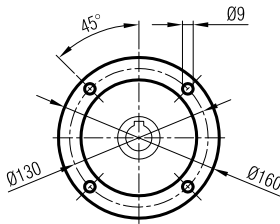
**-FR**



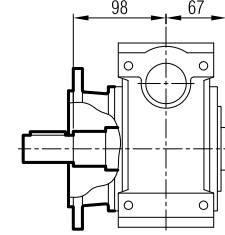
**-FD**



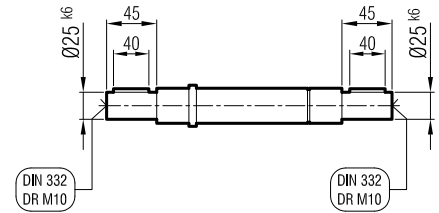
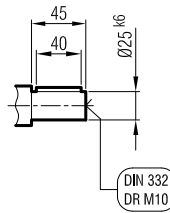
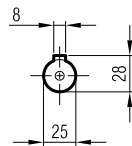
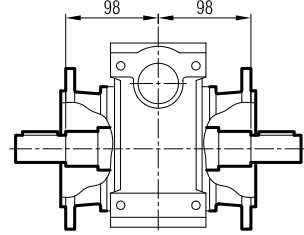
**-FL -SR**



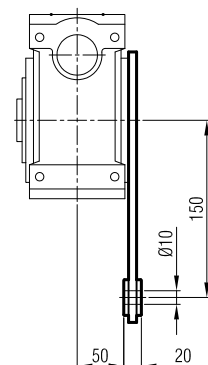
**-FR -SR**



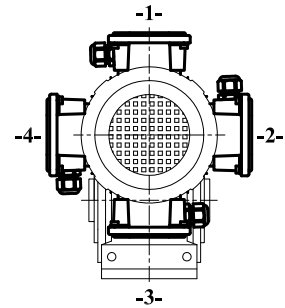
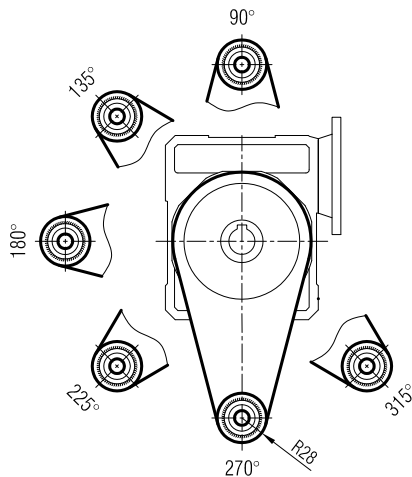
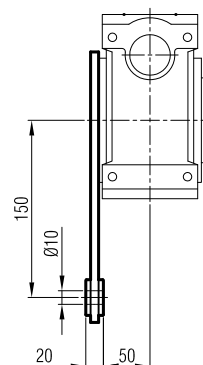
**-FD -SD**



**-TL**

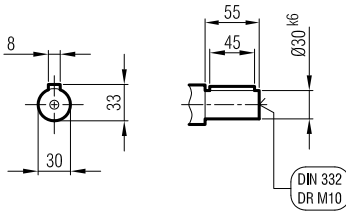


**-TR**

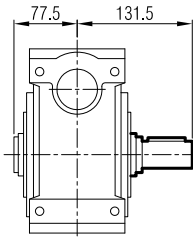


**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes

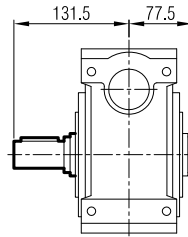




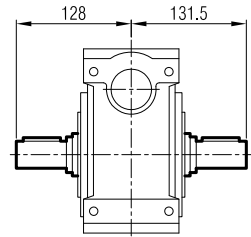
**-SL**



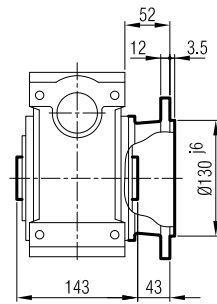
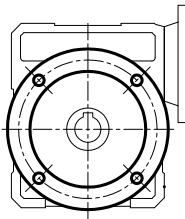
**-SR**



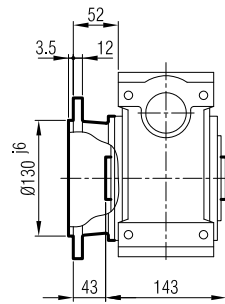
**-SD**



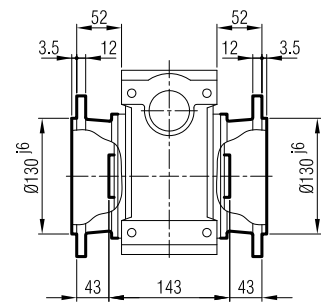
**-FL**



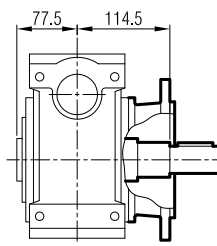
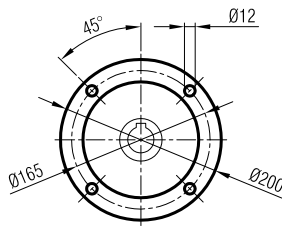
**-FR**



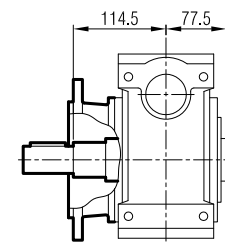
**-FD**



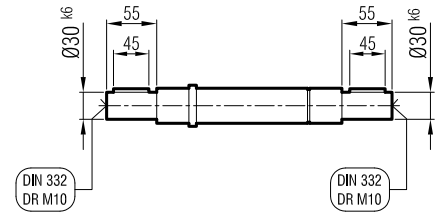
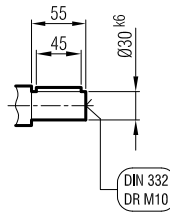
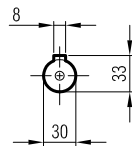
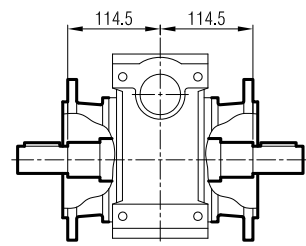
**-FL -SR**



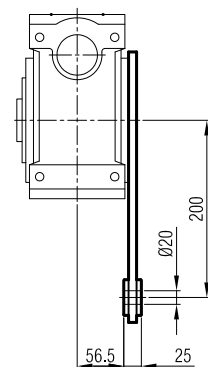
**-FR -SR**



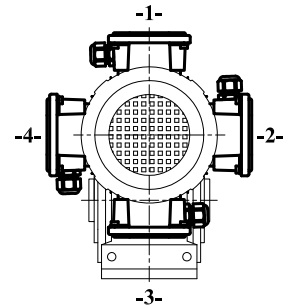
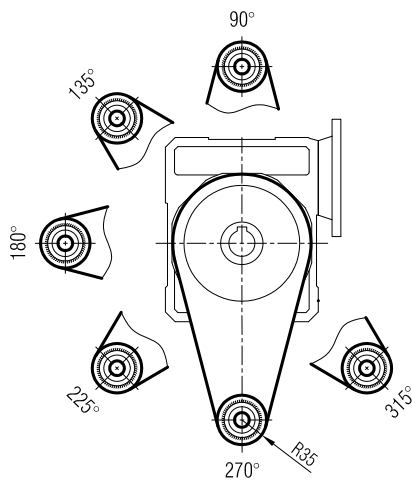
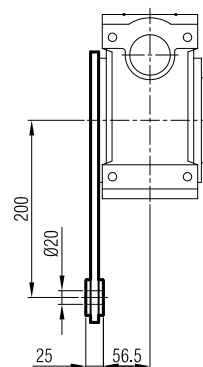
**-FD -SD**



**-TL**



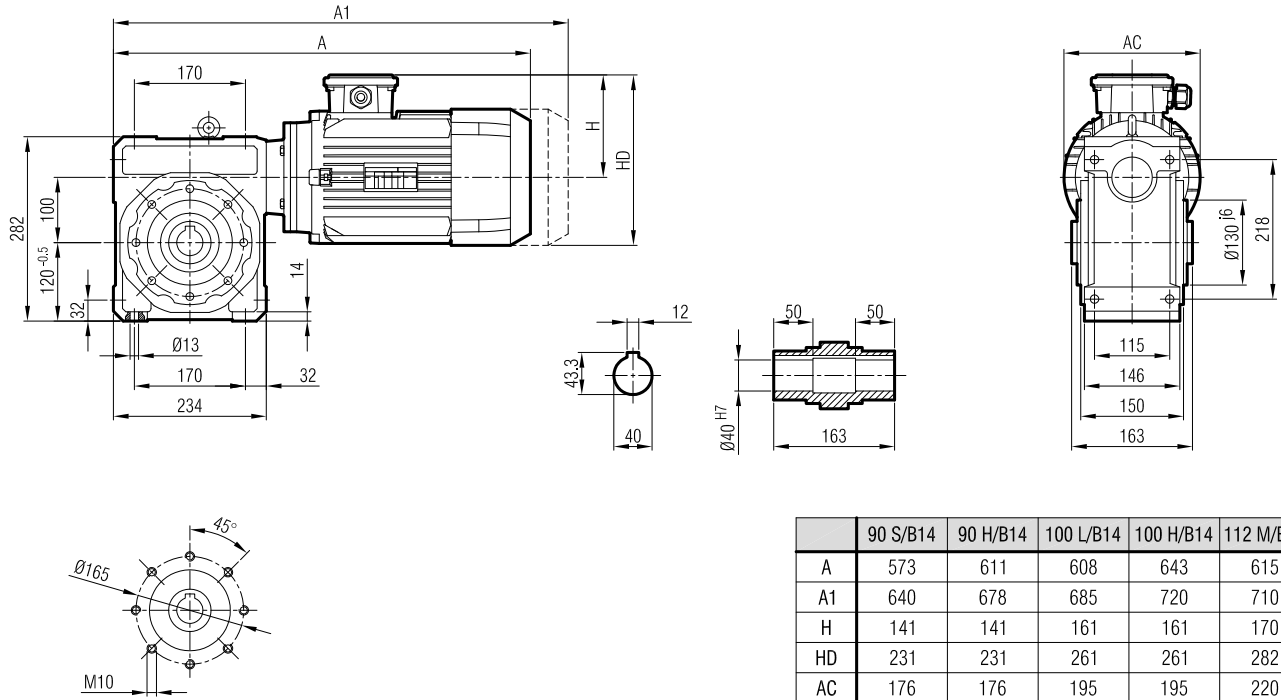
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



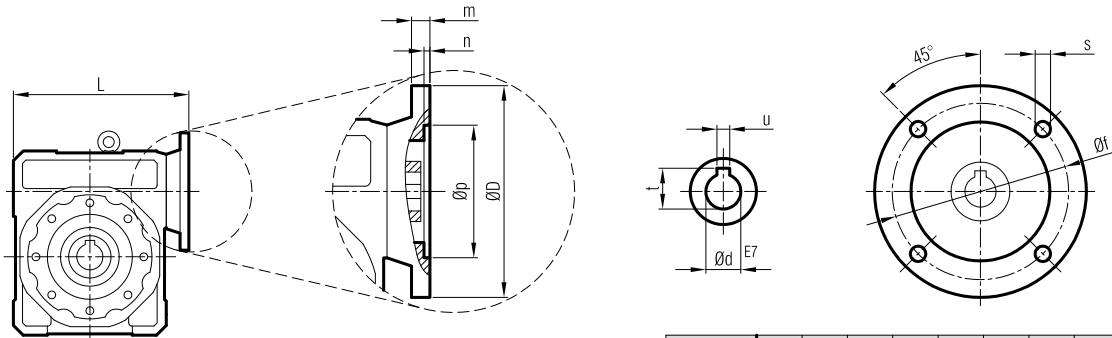
**İRSAM 102**



	90 S/B14	90 H/B14	100 L/B14	100 H/B14	112 M/B14
A	573	611	608	643	615
A1	640	678	685	720	710
H	141	141	161	161	170
HD	231	231	261	261	282
AC	176	176	195	195	220

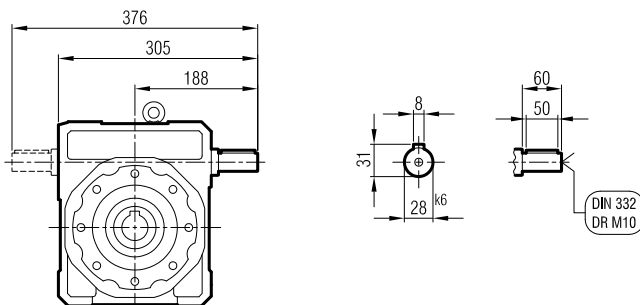
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

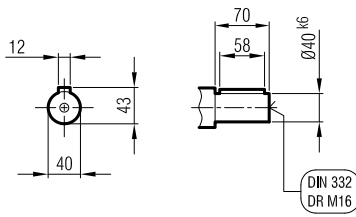
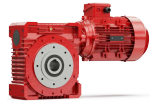
**İRSAP 102**



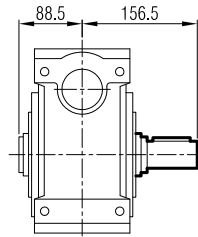
IEC	L	Øp	Øf	ØD	s	m	n	Ød	t	u	
90	B14	271	95	115	140	Ø9	10	5	24	27.3	8
100		271	110	130	160	Ø9	10	5	28	31.3	8
112		271	110	130	160	Ø9	10	5	28	31.3	8
90	B5	271	130	165	200	M10	12	5	24	27.3	8
100		271	180	215	250	M12	14	5	28	31.3	8
112		271	180	215	250	M12	14	5	28	31.3	8

**İRSA 102**

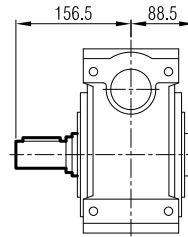




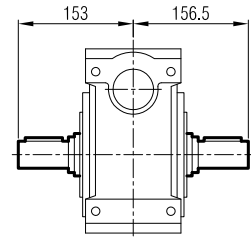
**-SL**



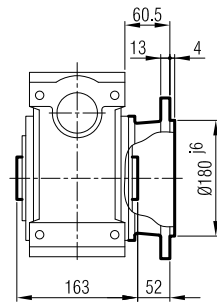
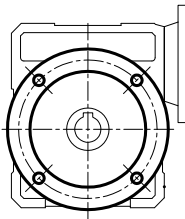
**-SR**



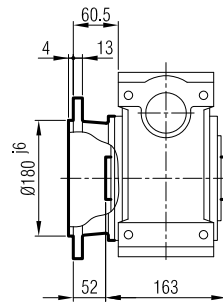
**-SD**



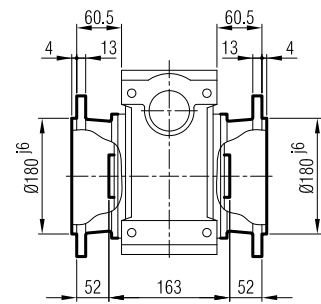
**-FL**



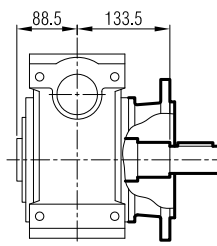
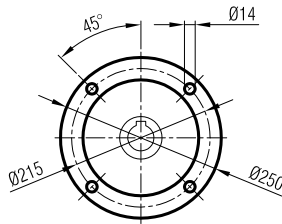
**-FR**



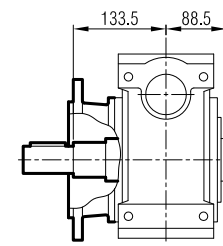
**-FD**



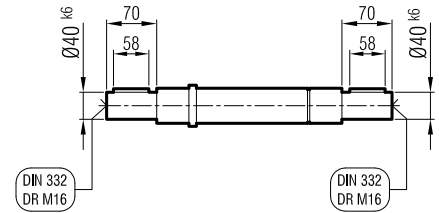
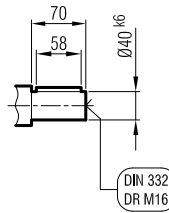
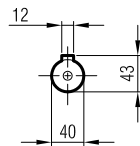
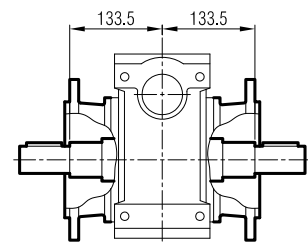
**-FL -SR**



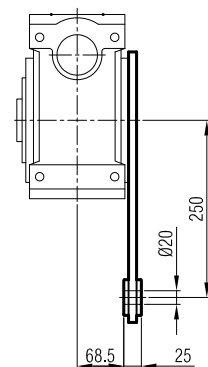
**-FR -SR**



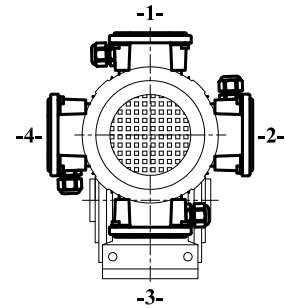
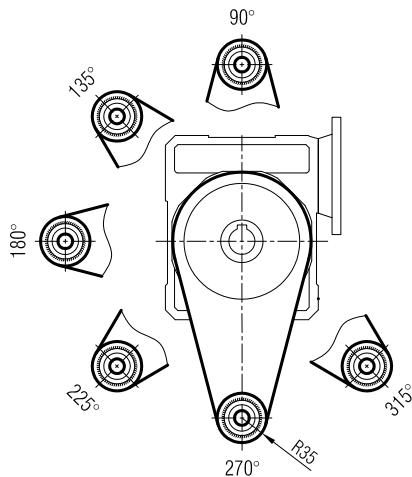
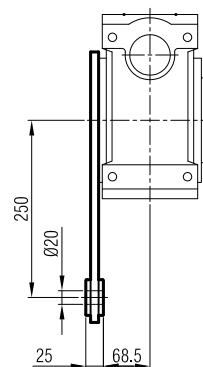
**-FD -SD**



**-TL**



**-TR**

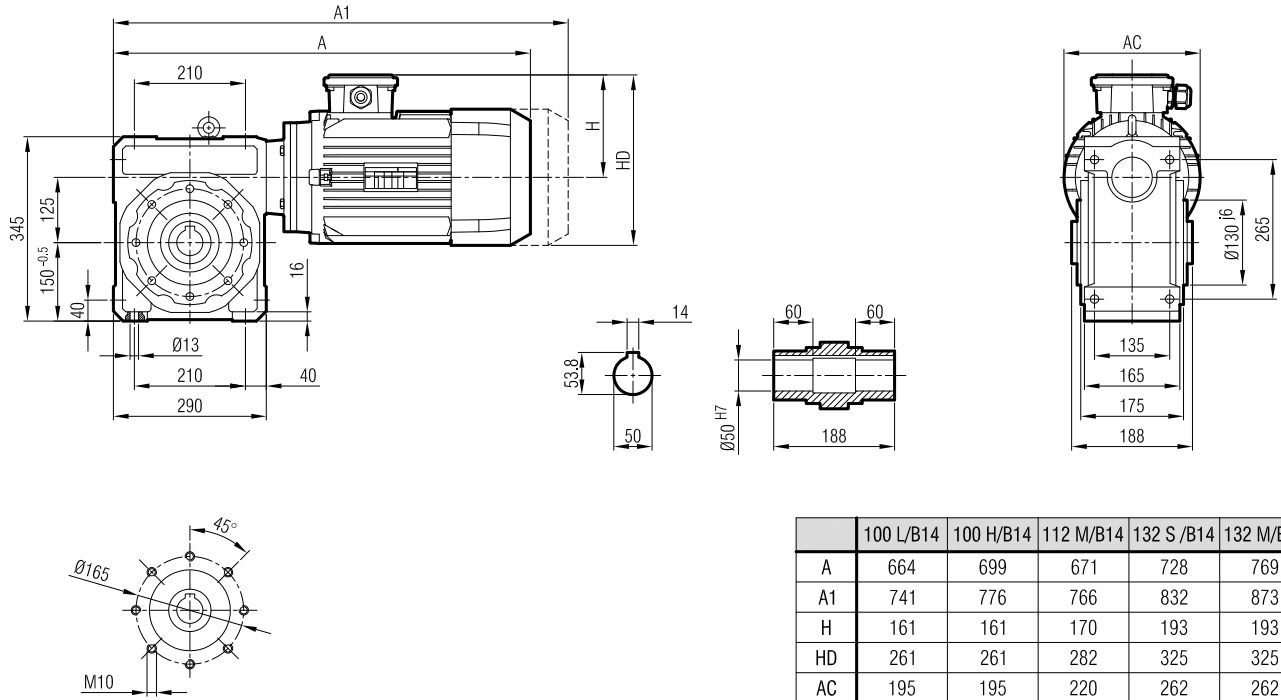


**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes





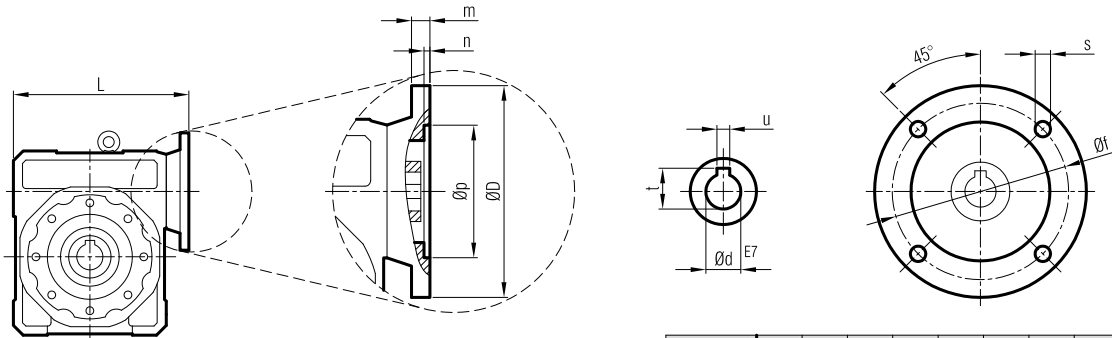
**İRSAM 127**



	100 L/B14	100 H/B14	112 M/B14	132 S/B14	132 M/B14
A	664	699	671	728	769
A1	741	776	766	832	873
H	161	161	170	193	193
HD	261	261	282	325	325
AC	195	195	220	262	262

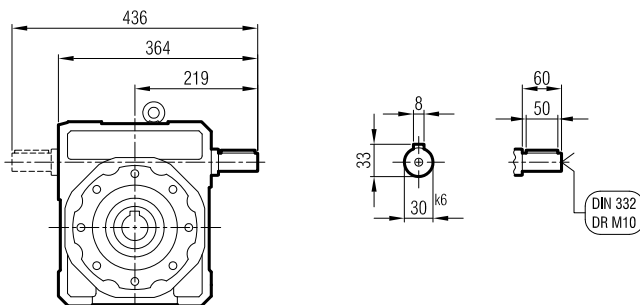
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

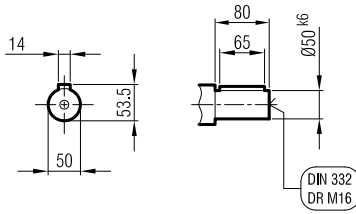
**İRSAP 127**



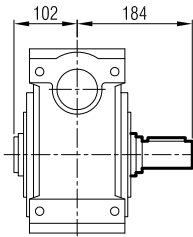
IEC	L	Øp	Øf	ØD	s	m	n	Ød	t	u
100	327	110	130	160	Ø9	11	5	28	31.3	8
112										
132	327	130	165	200	Ø11	11	5	38	41.3	10
100	327	180	215	250	M12	25	7	28	31.3	8
112										
132										

**İRSA 127**

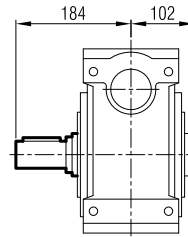




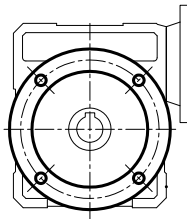
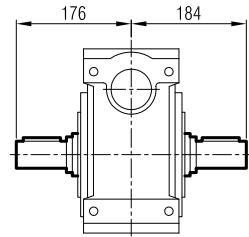
**-SL**



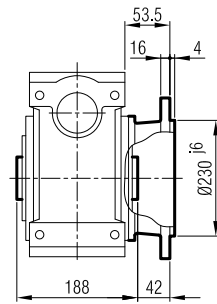
**-SR**



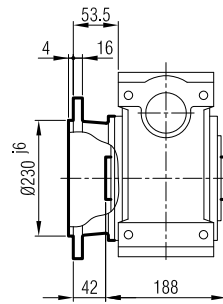
**-SD**



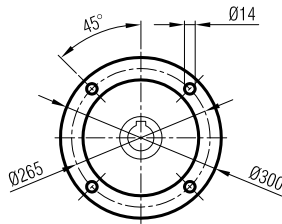
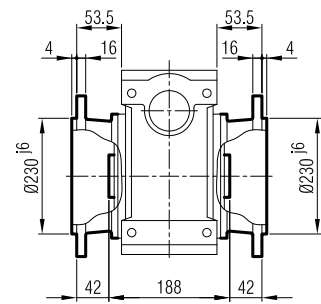
**-FL**



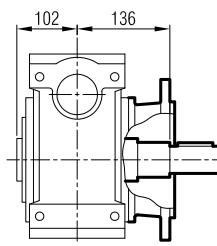
**-FR**



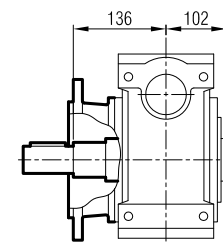
**-FD**



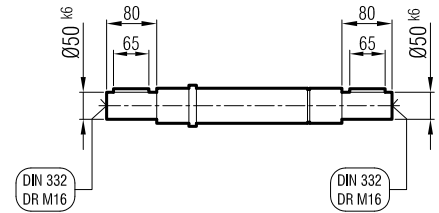
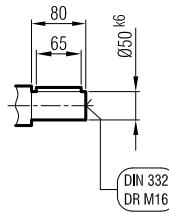
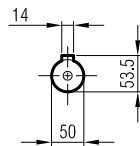
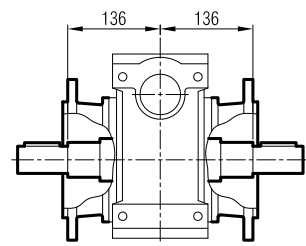
**-FL -SR**



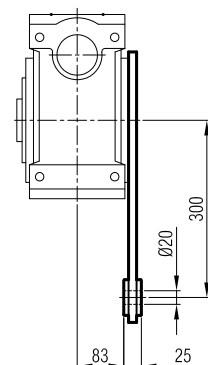
**-FR -SR**



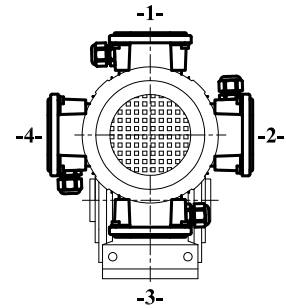
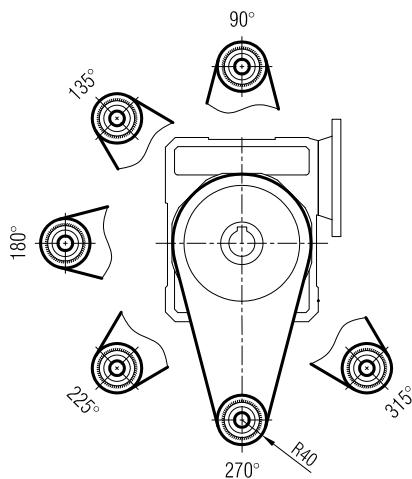
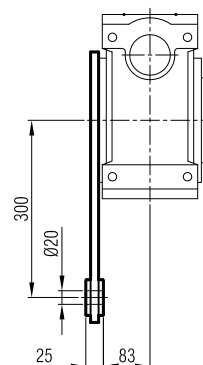
**-FD -SD**



**-TL**

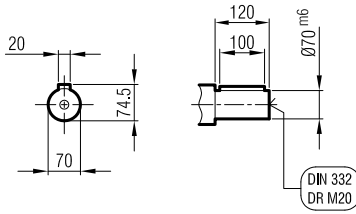


**-TR**

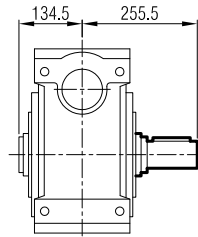


**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes

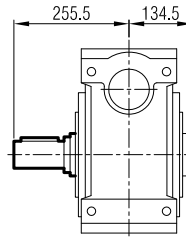




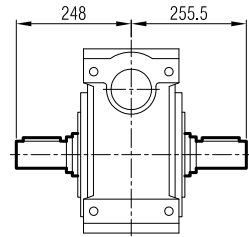
**-SL**



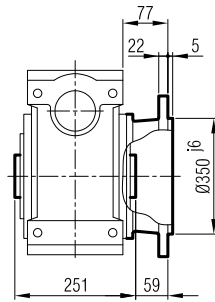
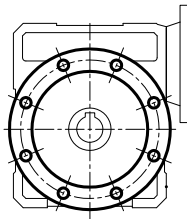
**-SR**



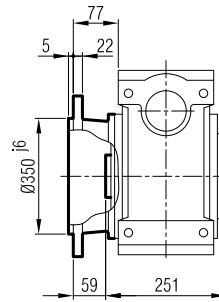
**-SD**



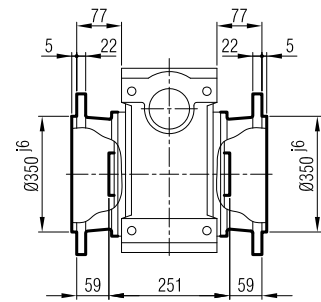
**-FL**



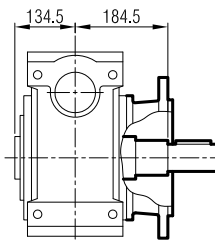
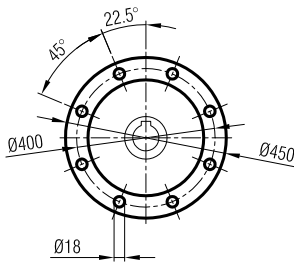
**-FR**



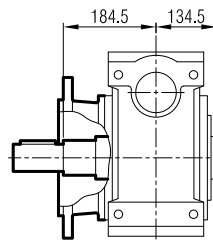
**-FD**



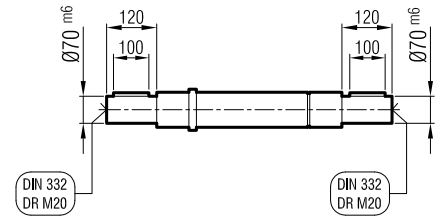
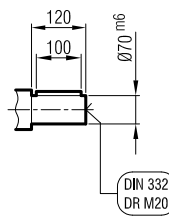
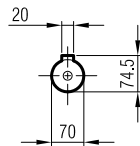
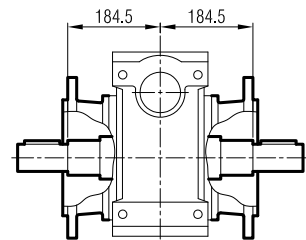
**-FL -SR**



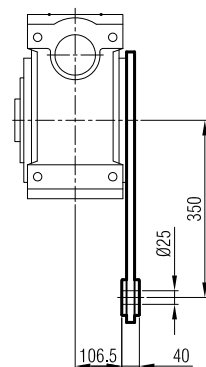
**-FR -SR**



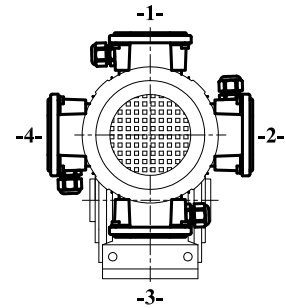
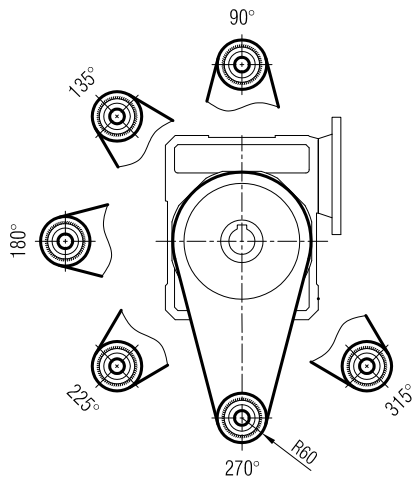
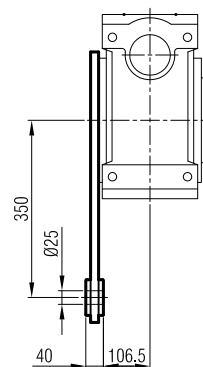
**-FD -SD**



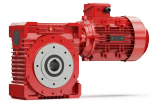
**-TL**



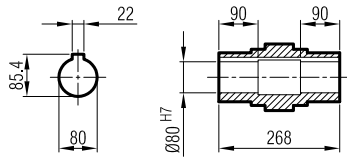
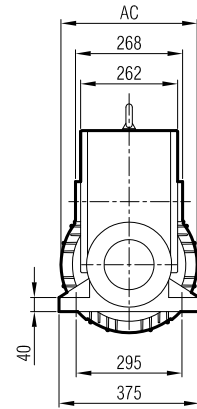
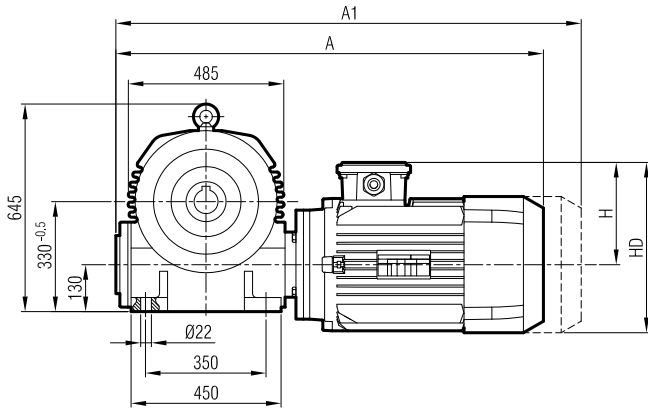
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



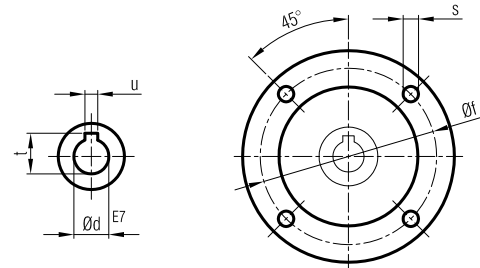
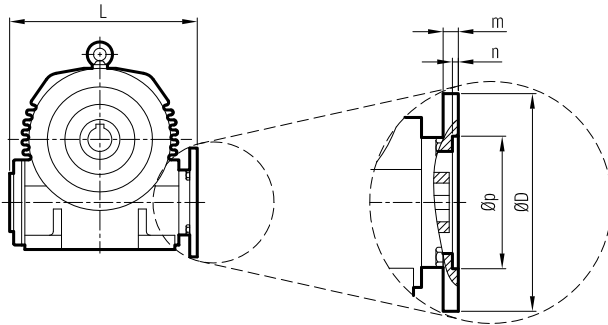
**İRSAM 201**



	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5
A	966	1007	1085	1130	1165	1165
A1	1070	1111	1202	1247	1301	1301
H	193	193	240	240	260	260
HD	325	325	400	400	440	440
AC	262	262	315	315	357	357

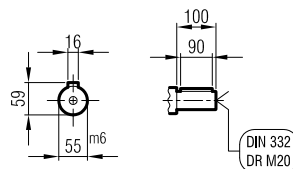
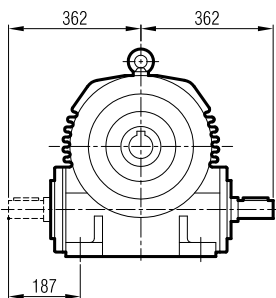
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

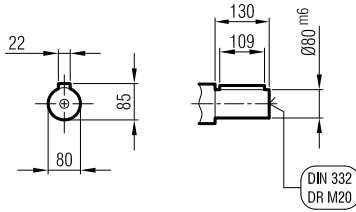
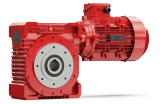
**İRSAP 201**



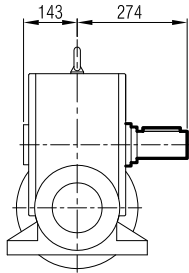
IEC	L	Øp	Øf	ØD	s	m	n	Ød	t	u	
132	B5	564	230	265	300	M12	17	5	38	41.3	10
160		524	250	300	350	M14	20	7	42	45.3	12
180		524	250	300	350	M14	20	7	48	51.8	14
132	B14	564	130	165	200	Ø11	16	5	38	41.3	10
160		565	180	215	250	Ø13	17	5	42	45.3	12

**İRSA 201**

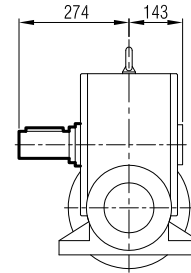




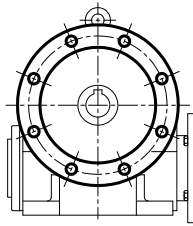
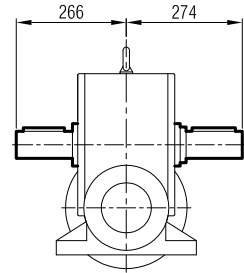
**-SL**



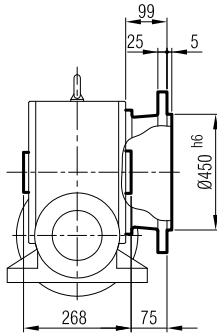
**-SR**



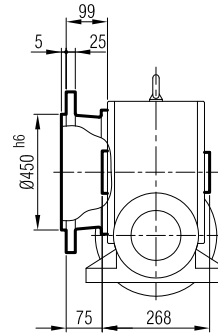
**-SD**



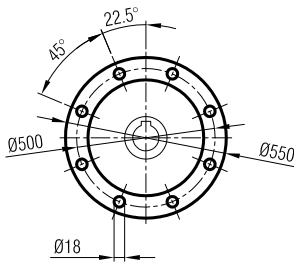
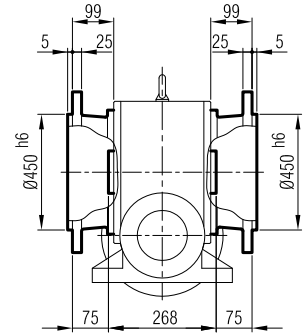
**-FL**



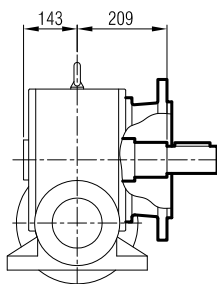
**-FR**



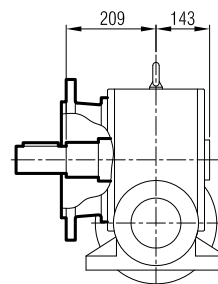
**-FD**



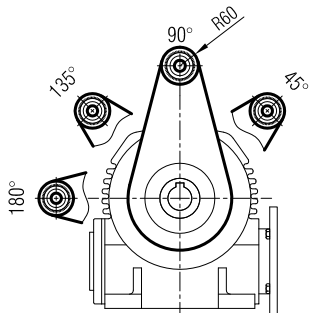
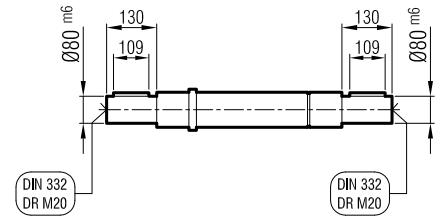
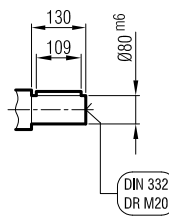
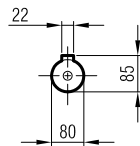
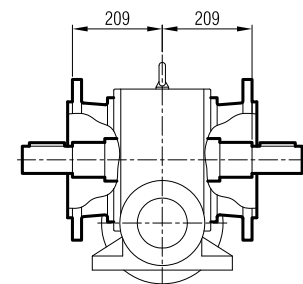
**-FL -SR**



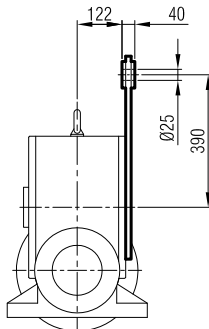
**-FR -SR**



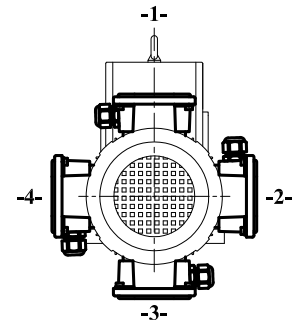
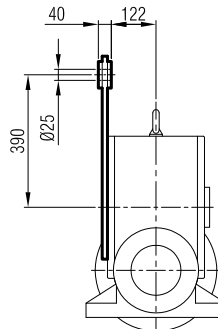
**-FD -SD**



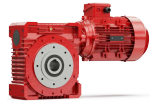
**-TL**



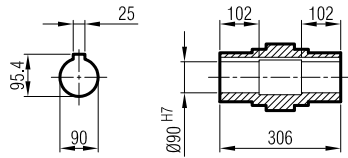
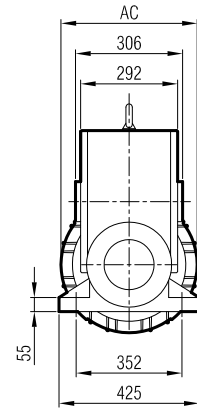
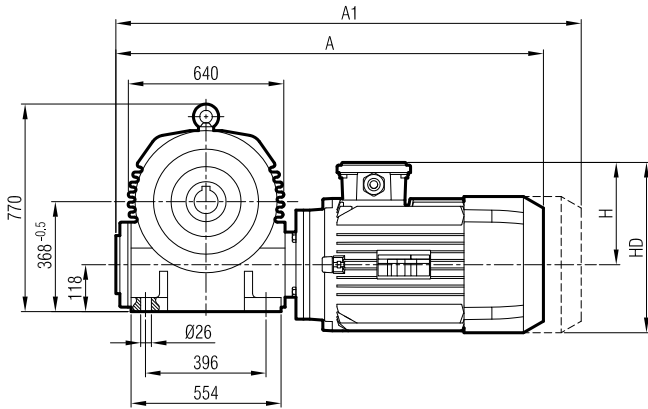
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



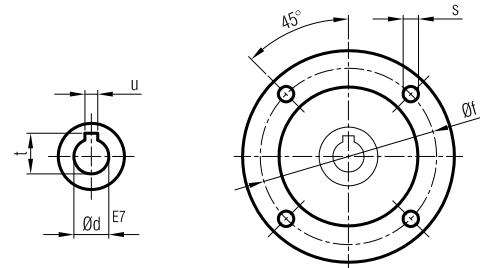
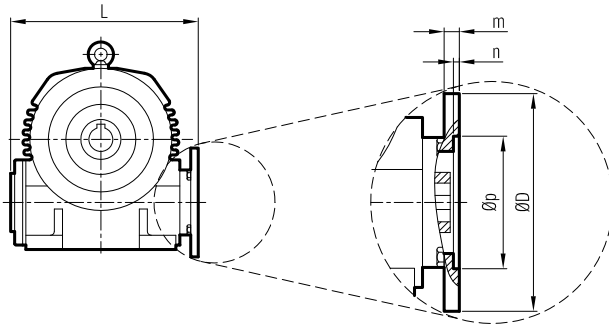
**İRSAM 250**



	160 M/B5	160 L/B5	180 M/B5	180 L/B5
A	1165	1210	1286	1286
A1	1282	1327	1422	1422
H	240	240	260	260
HD	400	400	440	440
AC	315	315	357	357

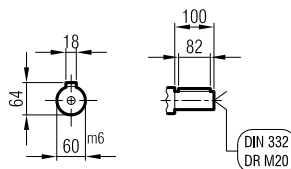
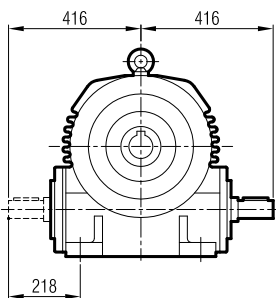
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

**İRSAP 250**

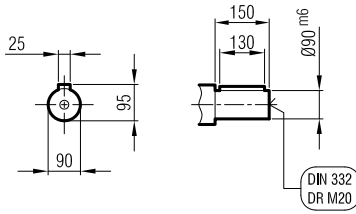


IEC	L	Øp	Øf	ØD	s	m	n	Ød	t	u	
160	B5	645	250	300	350	M14	22	6.5	42	45.3	12
180		645	250	300	350	M14	22	6.5	48	51.8	14

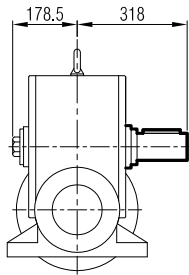
**İRSA 250**



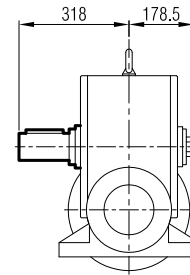




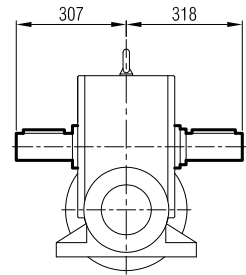
**-SL**



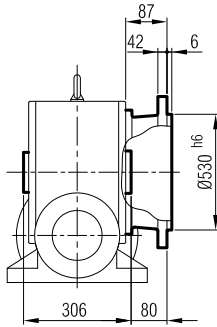
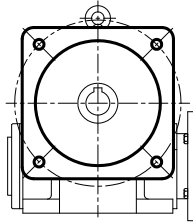
**-SR**



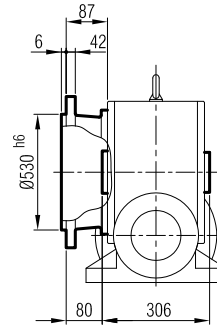
**-SD**



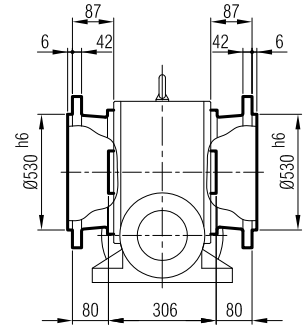
**-FL**



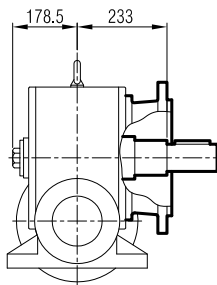
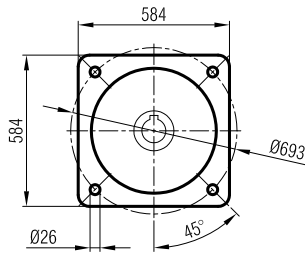
**-FR**



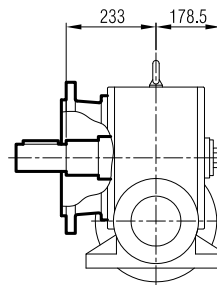
**-FD**



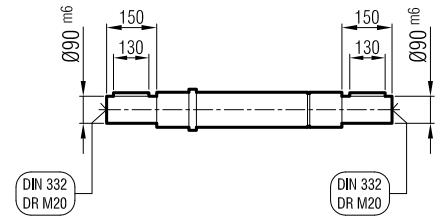
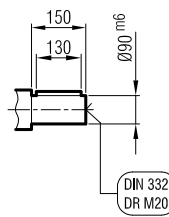
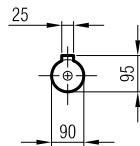
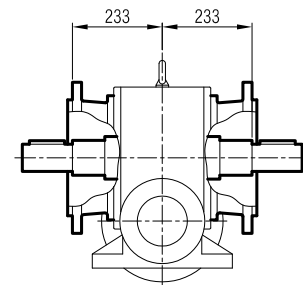
**-FL -SR**



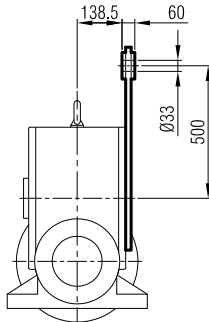
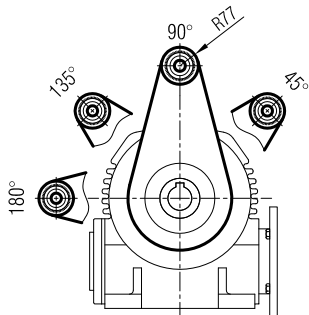
**-FR -SR**



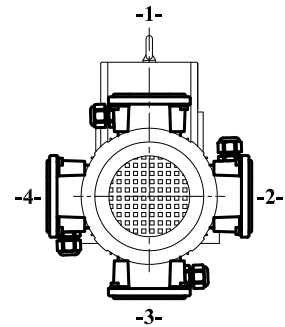
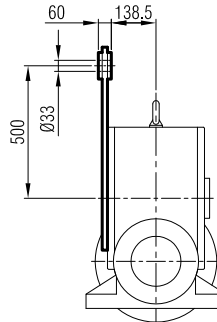
**-FD -SD**



**-TL**



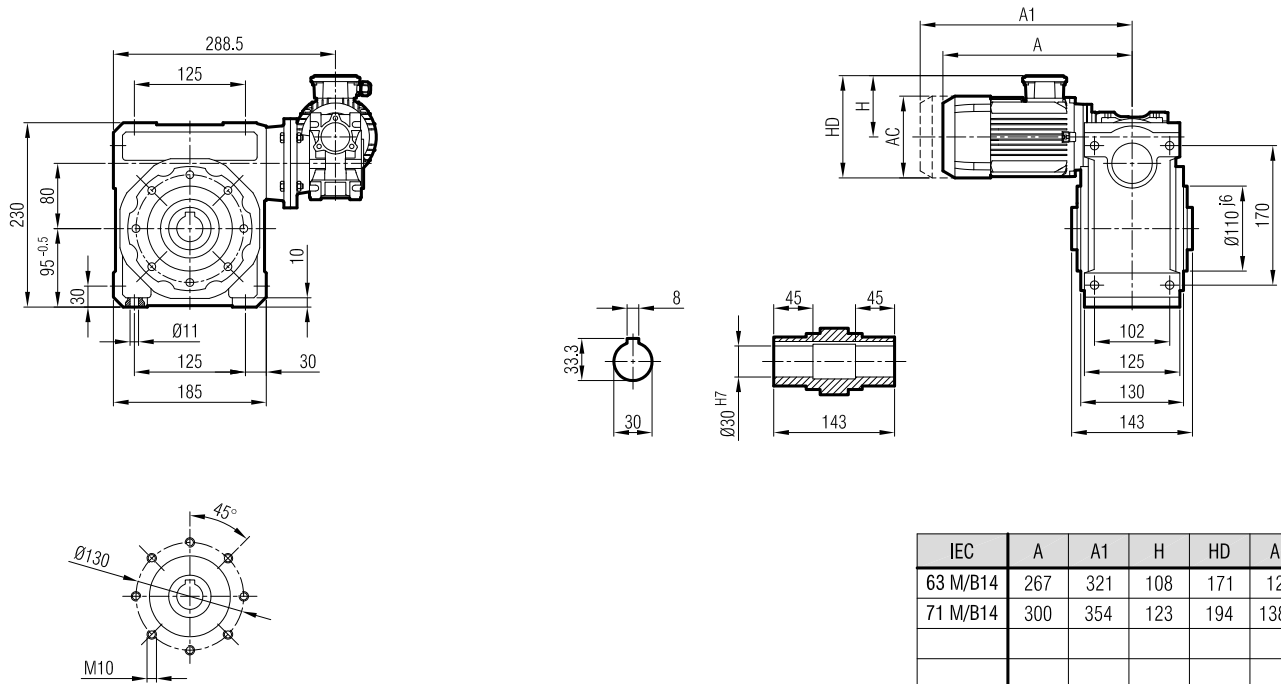
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



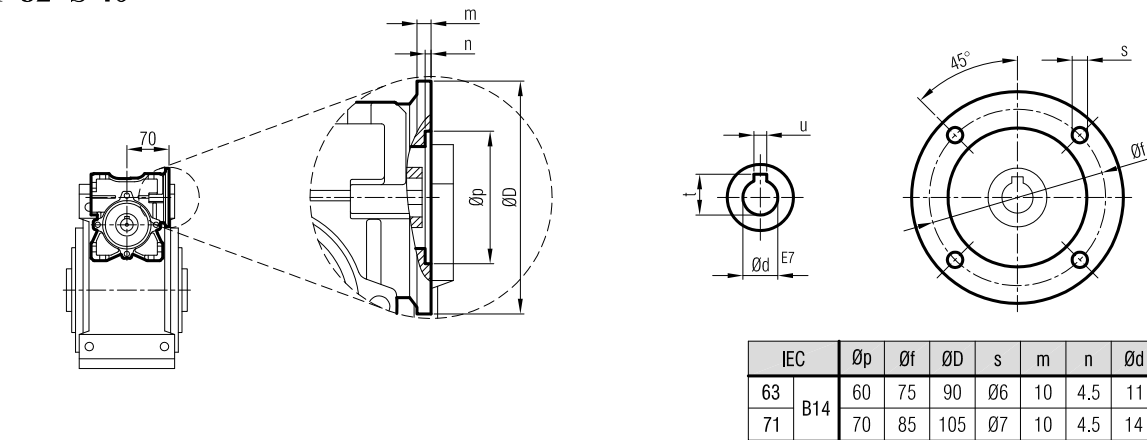
**İRSAM 82 S 40**



IEC	A	A1	H	HD	AC
63 M/B14	267	321	108	171	125
71 M/B14	300	354	123	194	138.5

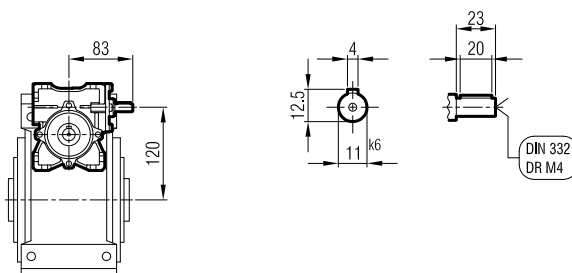
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

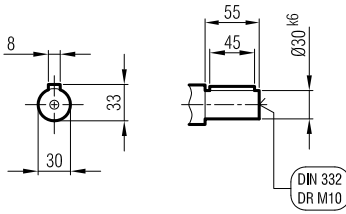
**İRSAP 82 S 40**



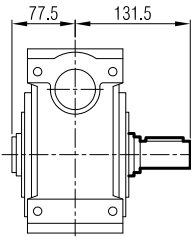
IEC	Øp	Øf	ØD	s	m	n	Ød	t	u	
63	B14	60	75	90	Ø6	10	4.5	11	12.8	4
71		70	85	105	Ø7	10	4.5	14	16.3	5

**İRSA 82 S 40**

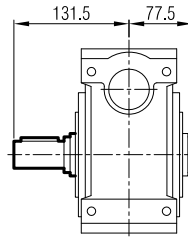




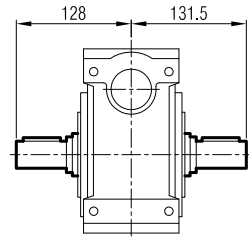
**-SL**



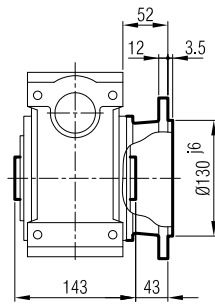
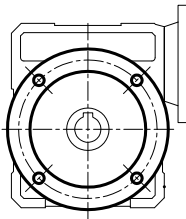
**-SR**



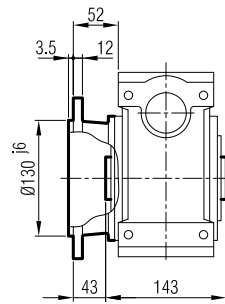
**-SD**



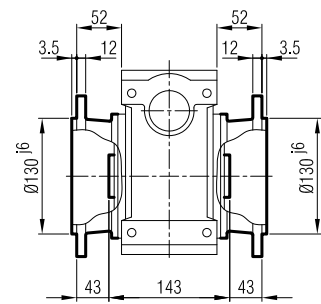
**-FL**



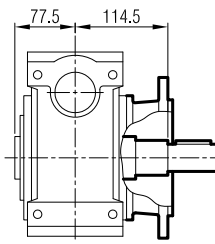
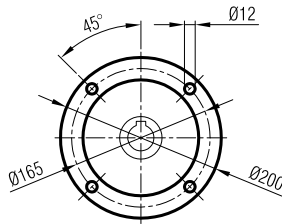
**-FR**



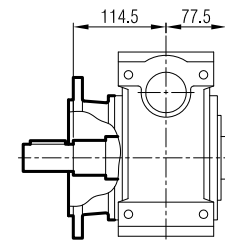
**-FD**



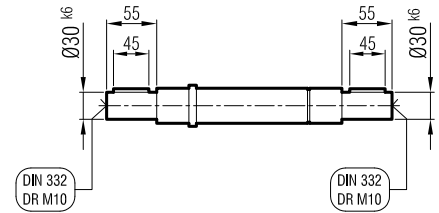
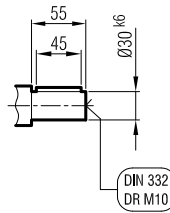
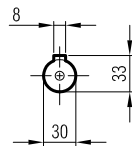
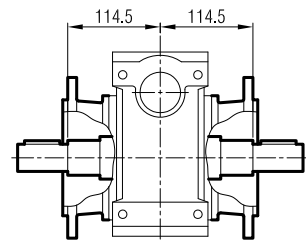
**-FL -SR**



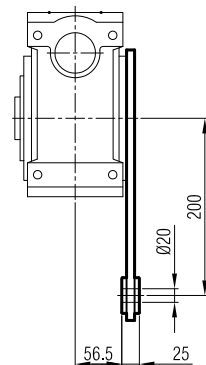
**-FR -SR**



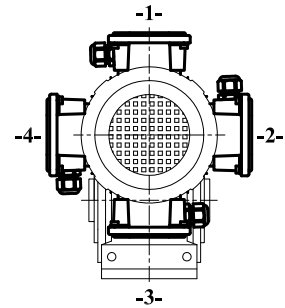
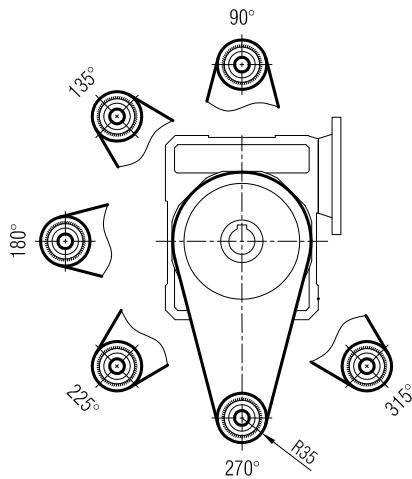
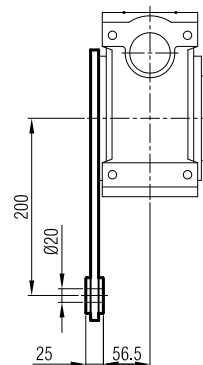
**-FD -SD**



**-TL**



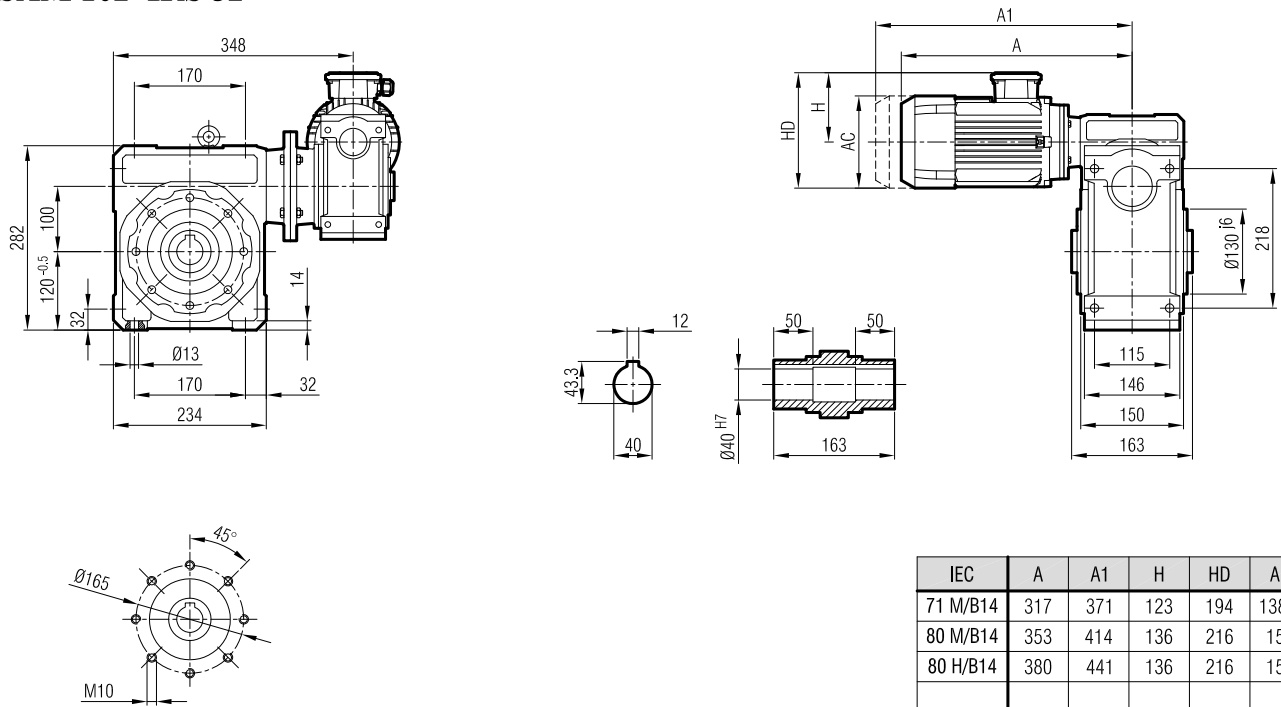
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



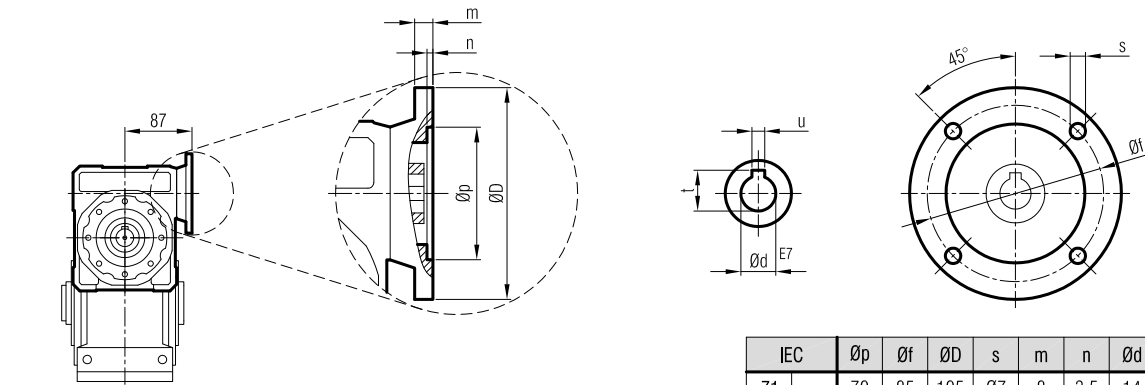
**İRSAM 102 İRS 52**



IEC	A	A1	H	HD	AC
71 M/B14	317	371	123	194	138.5
80 M/B14	353	414	136	216	158
80 H/B14	380	441	136	216	158

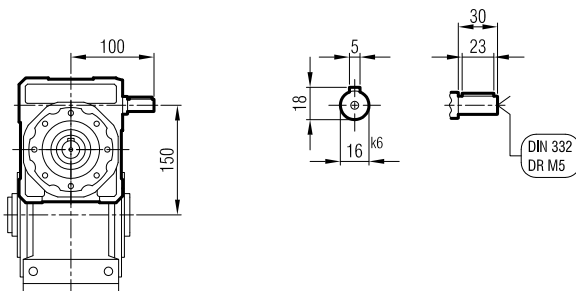
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

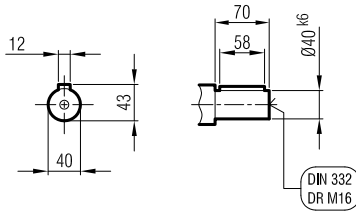
**İRSAP 102 İRS 52**



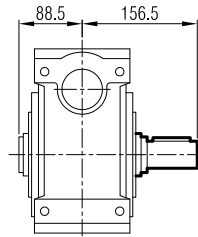
IEC	Øp	Øf	ØD	s	m	n	Ød	t	u	
71	B14	70	85	105	Ø7	8	3.5	14	16.3	5
80		80	100	120	Ø7	8	3.5	19	21.8	6
71	B5	110	130	160	M8	10	4	14	16.3	5
80		130	165	200	M10	11	5	19	21.8	6

**İRSA 102 İRS 52**

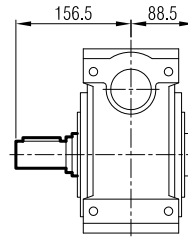




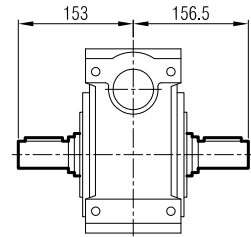
**-SL**



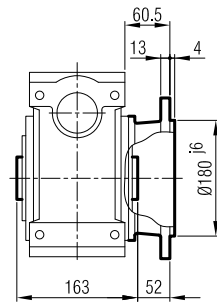
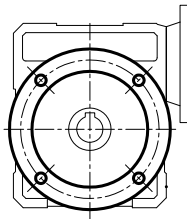
**-SR**



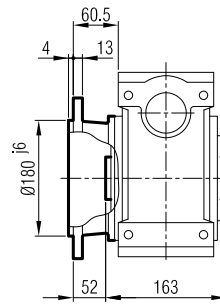
**-SD**



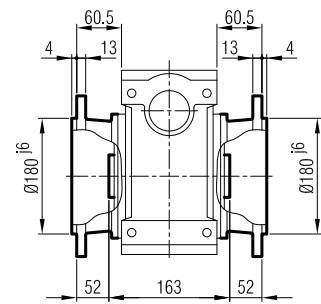
**-FL**



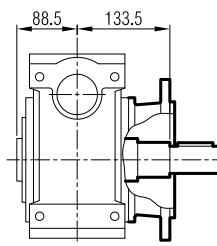
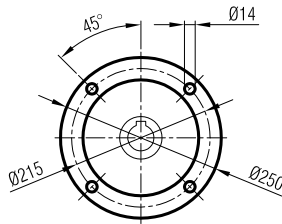
**-FR**



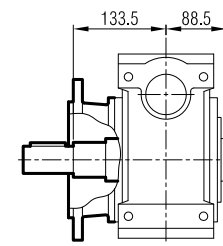
**-FD**



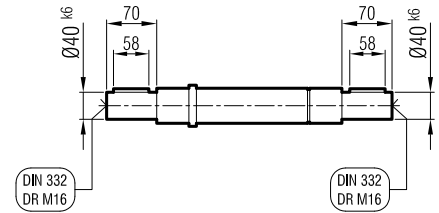
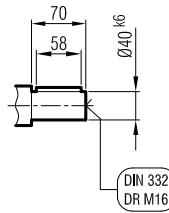
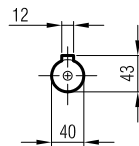
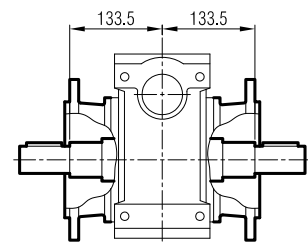
**-FL -SR**



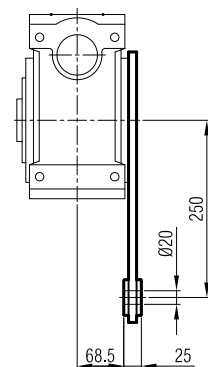
**-FR -SR**



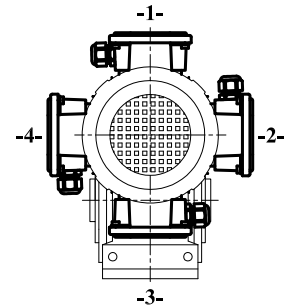
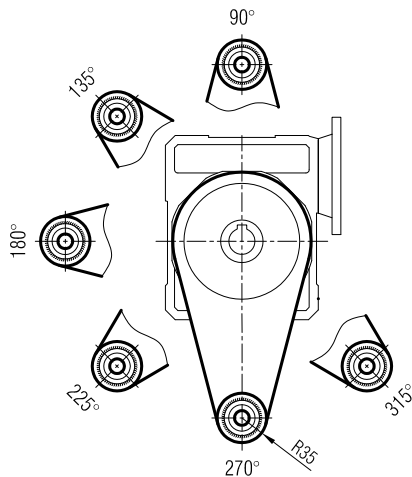
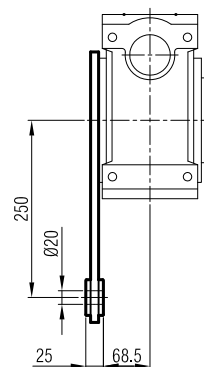
**-FD -SD**



**-TL**



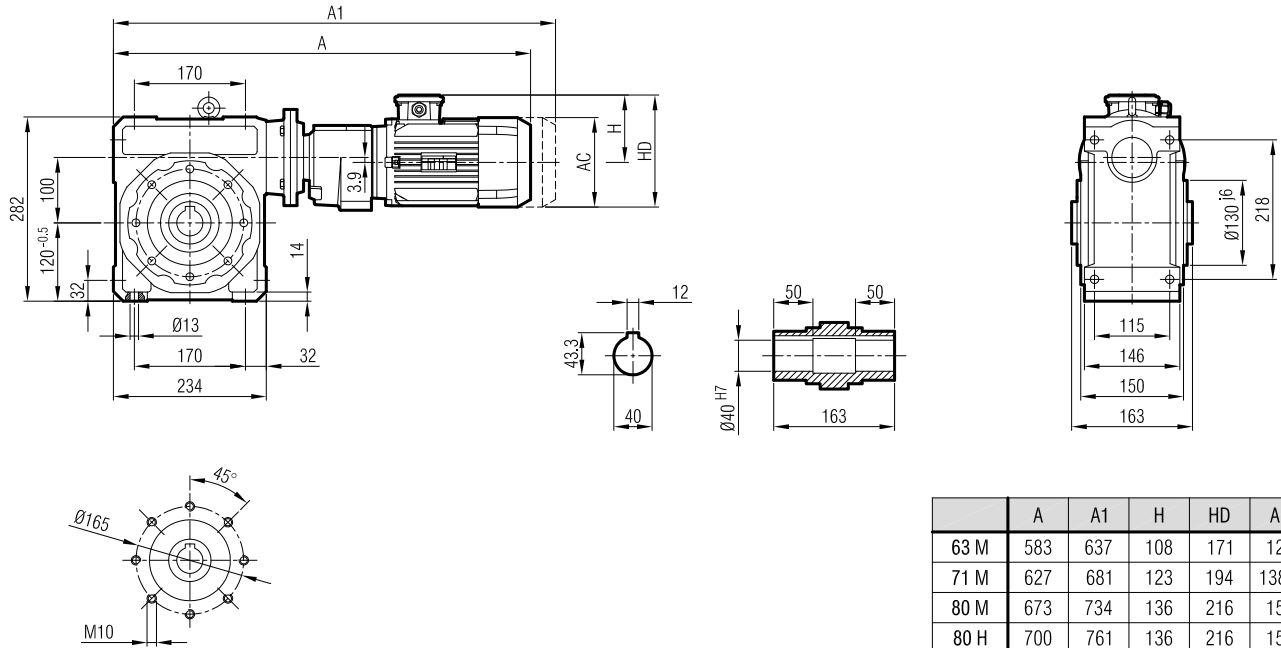
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



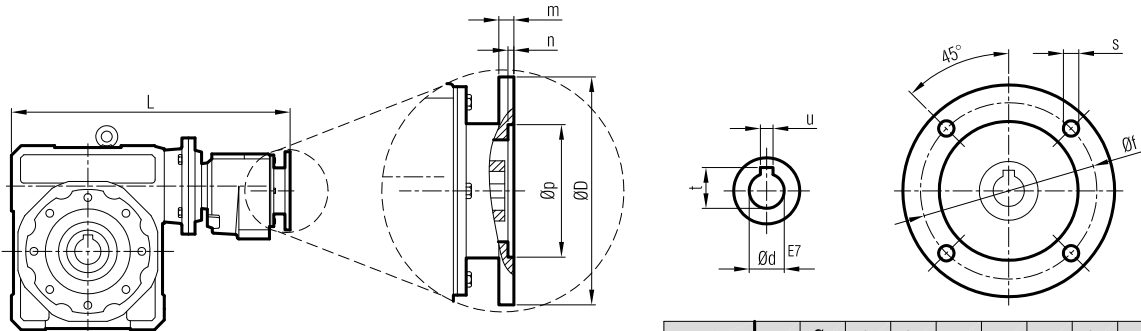
**İRSAM 102 İR 43**  
**İRSAM 102 İR 42**



	A	A1	H	HD	AC
63 M	583	637	108	171	125
71 M	627	681	123	194	138.5
80 M	673	734	136	216	158
80 H	700	761	136	216	158

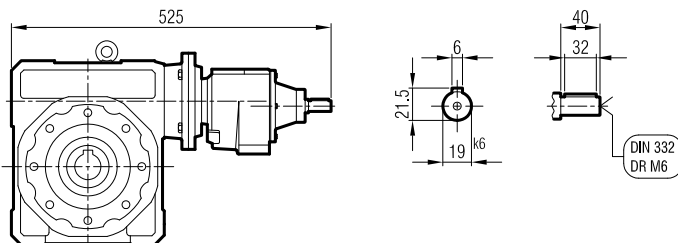
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

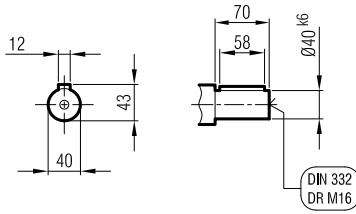
**İRSAP 102 İR 43**  
**İRSAP 102 İR 42**



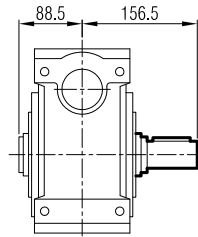
IEC	L	Øp	Øf	ØD	s	m	n	Ød	t	u	
63	B14	432	60	75	90	Ø7	7	3.5	11	12.8	4
71		441	70	85	105	Ø7	10	3	14	16.3	5
80		442	80	100	120	Ø7	8	4	19	21.8	6
63	B5	432	95	115	140	M8	8	4	11	12.8	4
71		440	110	130	160	M8	9	4	14	16.3	5
80		442	130	165	200	M10	12	5	19	21.8	6

**İRSA 102 İR 43**  
**İRSA 102 İR 42**

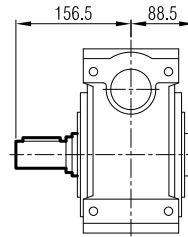




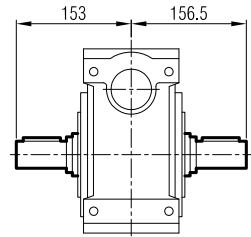
**-SL**



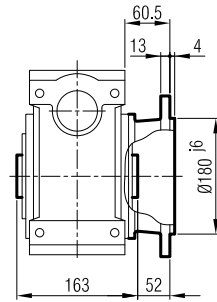
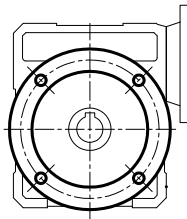
**-SR**



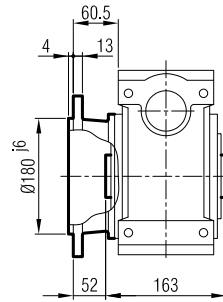
**-SD**



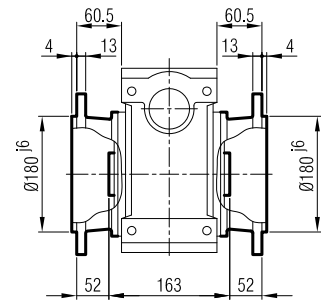
**-FL**



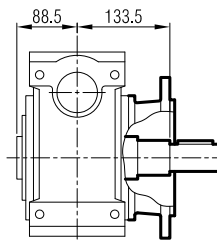
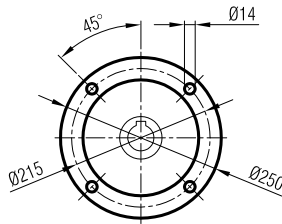
**-FR**



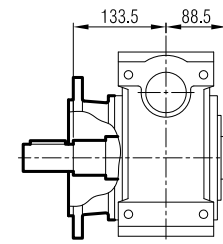
**-FD**



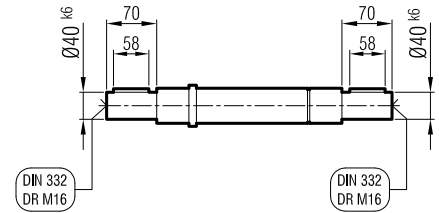
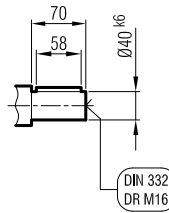
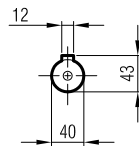
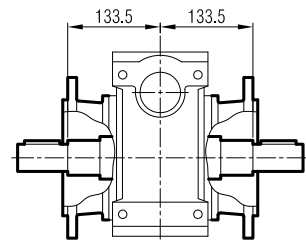
**-FL -SR**



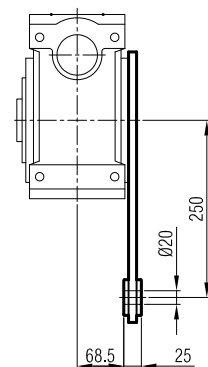
**-FR -SR**



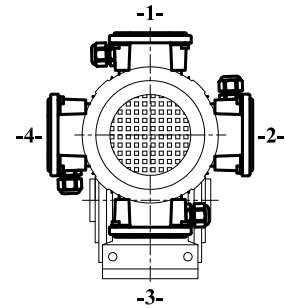
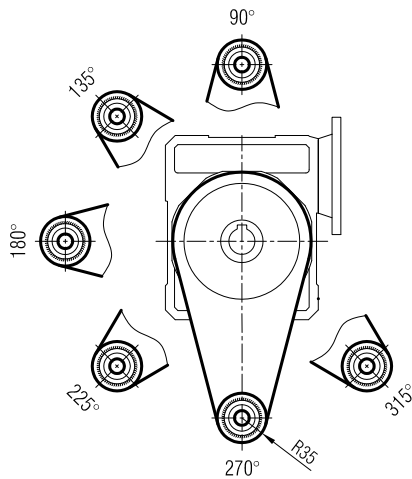
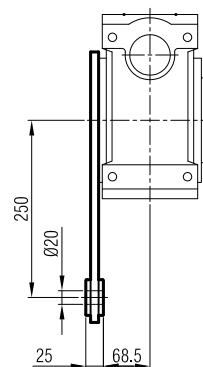
**-FD -SD**



**-TL**



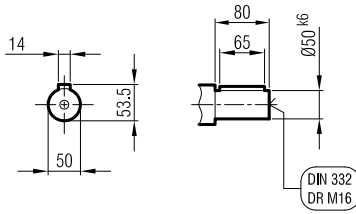
**-TR**



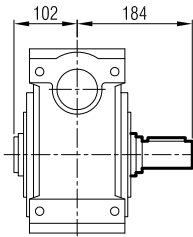
**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



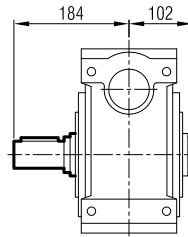




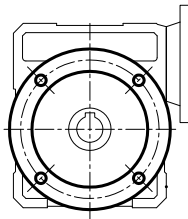
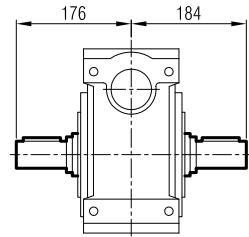
**-SL**



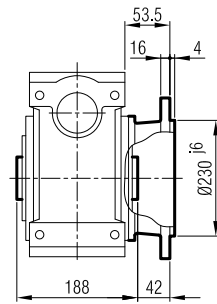
**-SR**



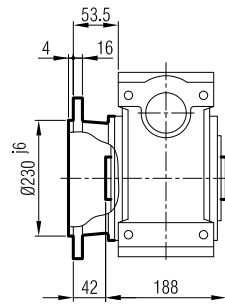
**-SD**



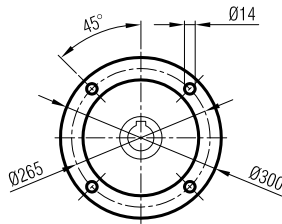
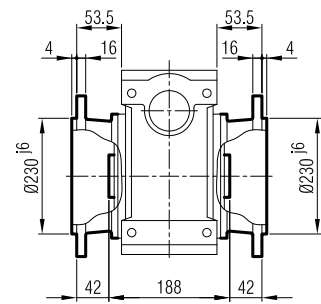
**-FL**



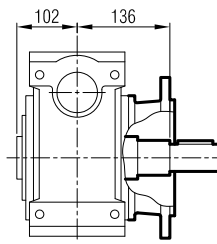
**-FR**



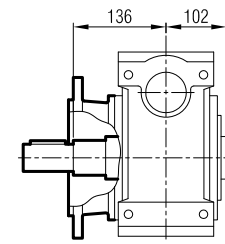
**-FD**



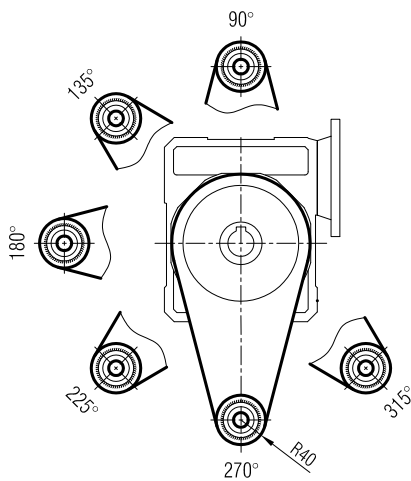
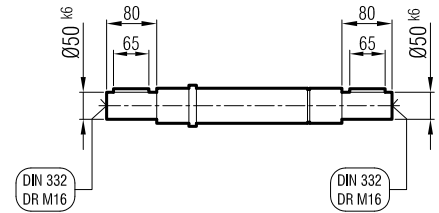
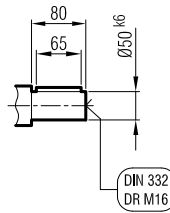
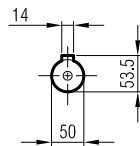
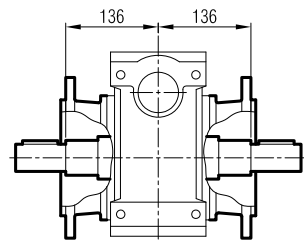
**-FL -SR**



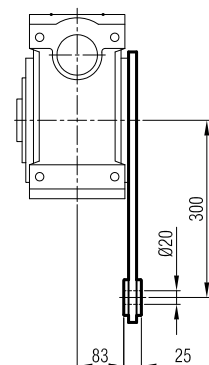
**-FR -SR**



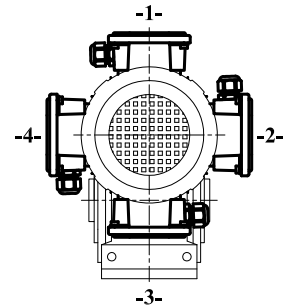
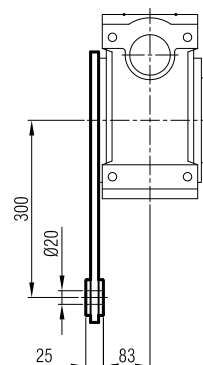
**-FD -SD**



**-TL**



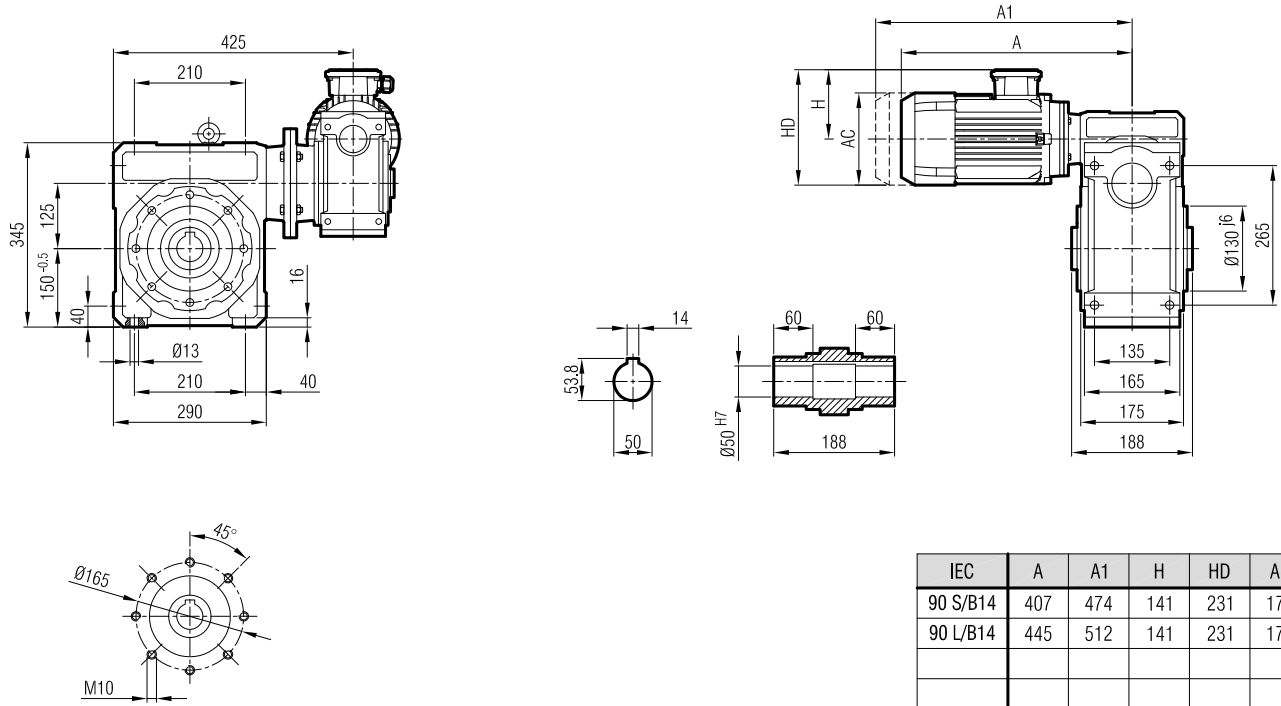
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



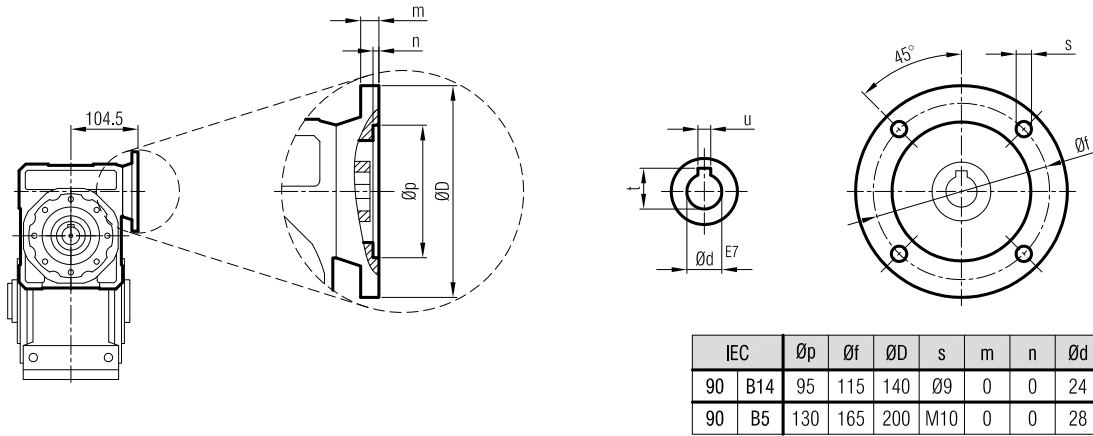
**İRSAM 127 İRS 65**



IEC	A	A1	H	HD	AC
90 S/B14	407	474	141	231	176
90 L/B14	445	512	141	231	176

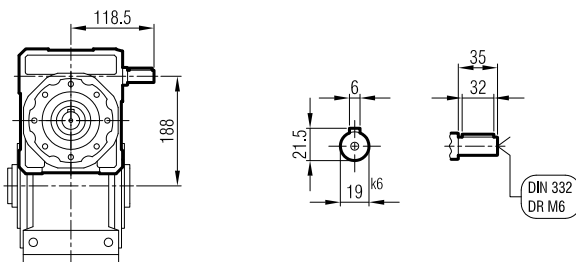
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

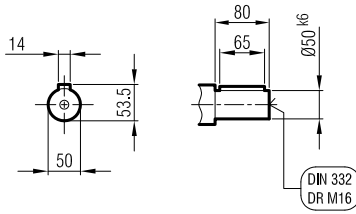
**İRSAP 127 İRS 65**



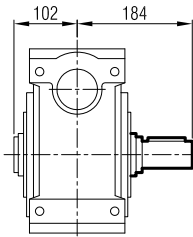
IEC	Øp	Øf	ØD	s	m	n	Ød	t	u
90 B14	95	115	140	Ø9	0	0	24	27.3	8
90 B5	130	165	200	M10	0	0	28	31.3	8

**İRSA 127 İRS 65**

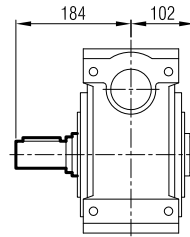




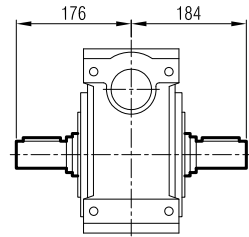
**-SL**



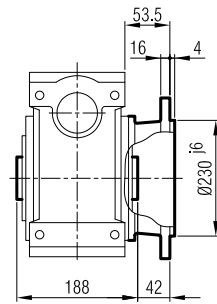
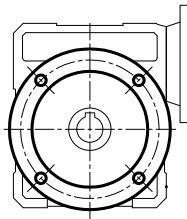
**-SR**



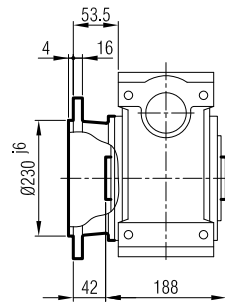
**-SD**



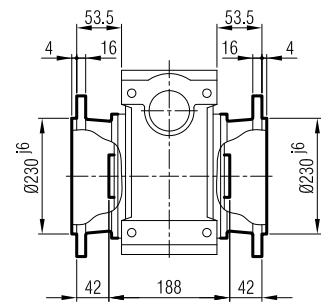
**-FL**



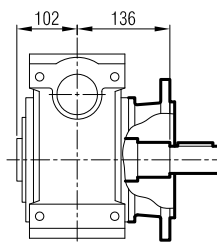
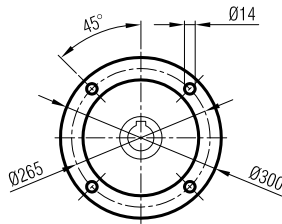
**-FR**



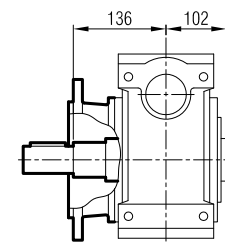
**-FD**



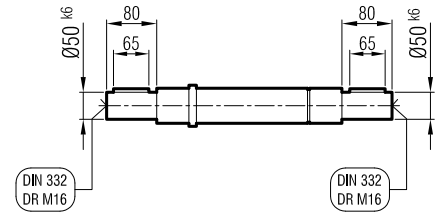
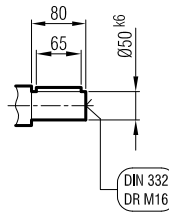
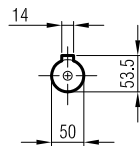
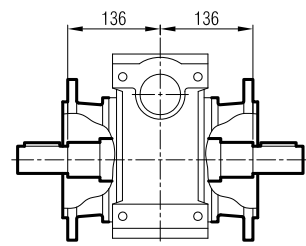
**-FL -SR**



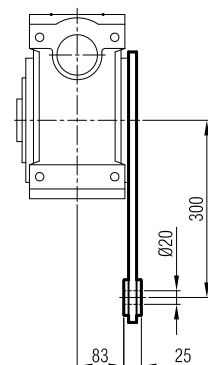
**-FR -SR**



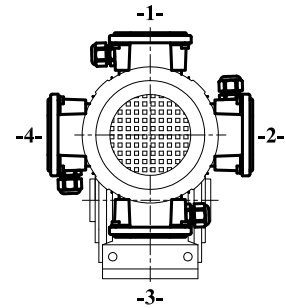
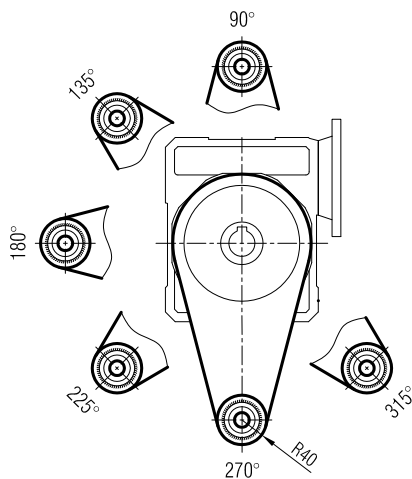
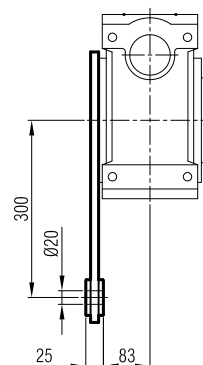
**-FD -SD**



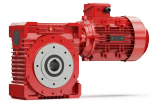
**-TL**



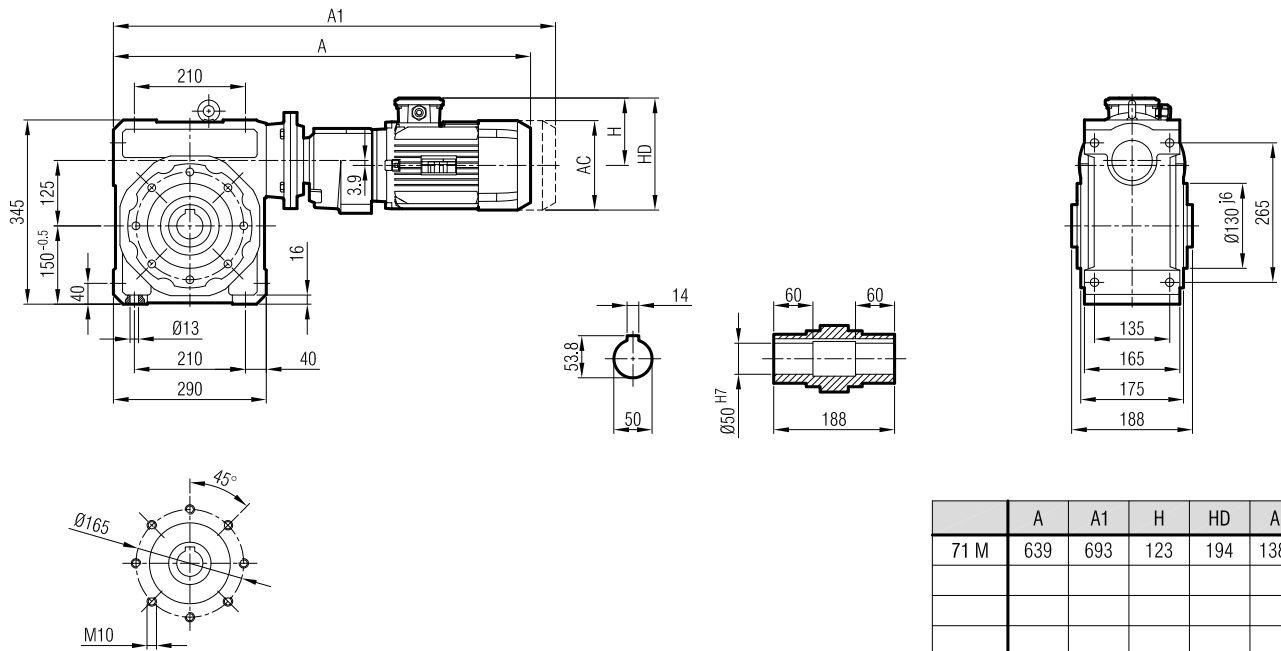
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



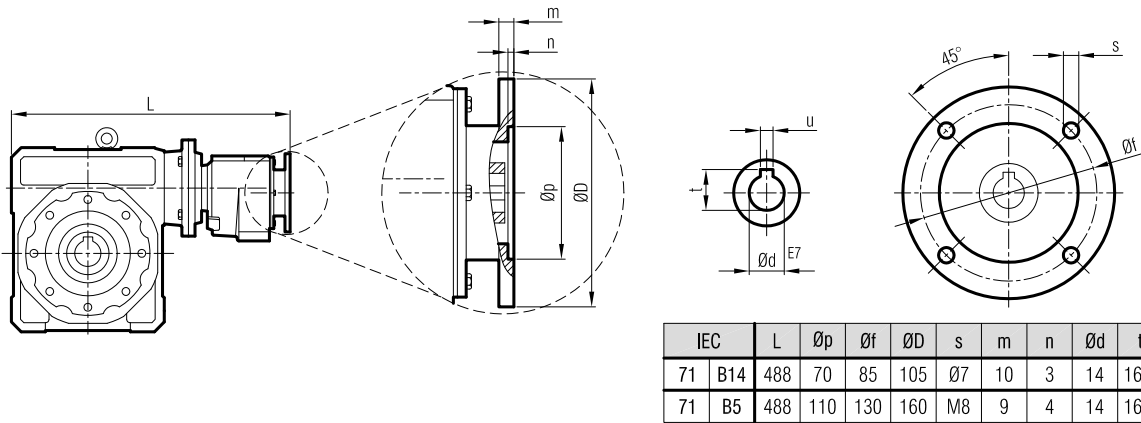
**İRSAM 127 İR 43**



	A	A1	H	HD	AC
71 M	639	693	123	194	138.5

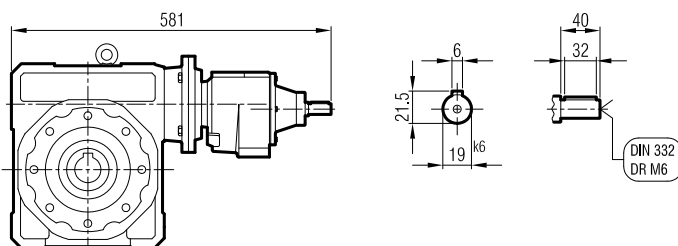
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

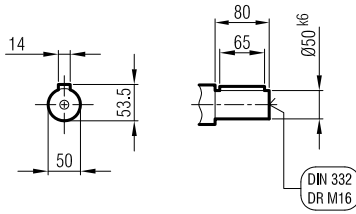
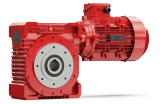
**İRSAP 127 İR 43**



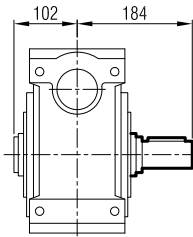
IEC	L	Øp	Øf	ØD	s	m	n	Ød	t	u
71 B14	488	70	85	105	Ø7	10	3	14	16.3	5
71 B5	488	110	130	160	M8	9	4	14	16.3	5

**İRSA 127 İR 43**

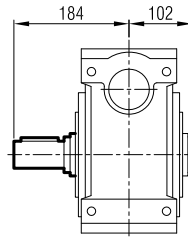




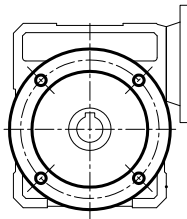
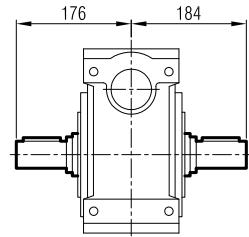
**-SL**



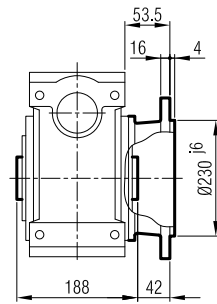
**-SR**



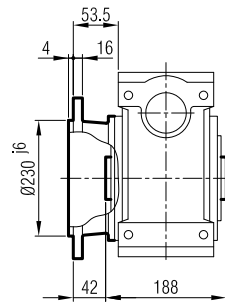
**-SD**



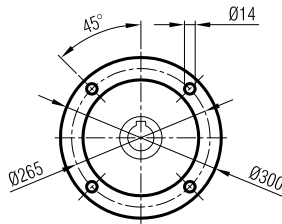
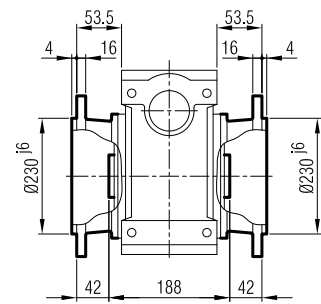
**-FL**



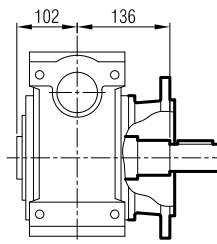
**-FR**



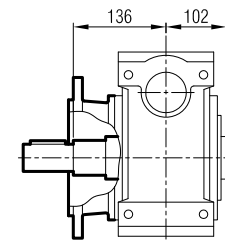
**-FD**



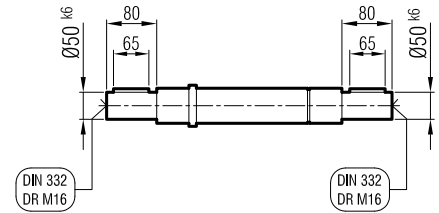
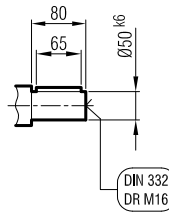
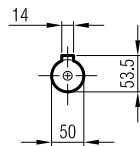
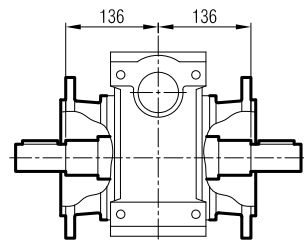
**-FL -SR**



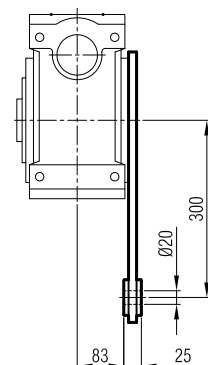
**-FR -SR**



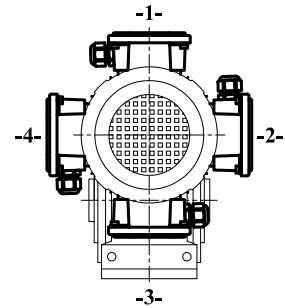
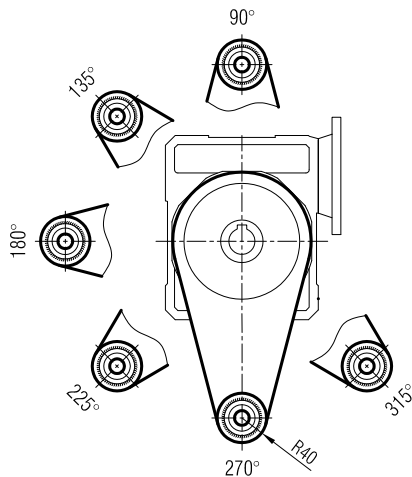
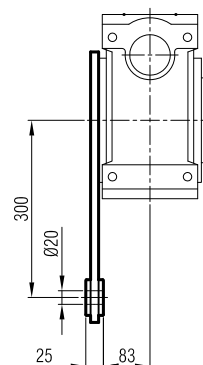
**-FD -SD**



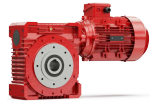
**-TL**



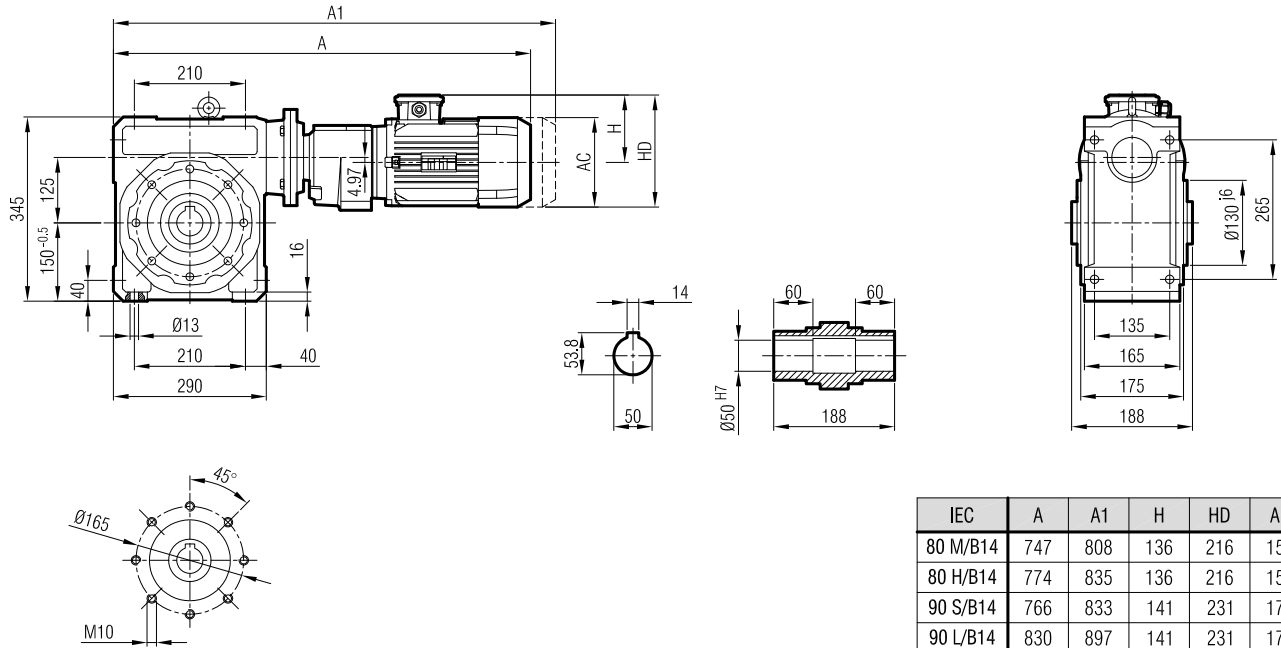
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



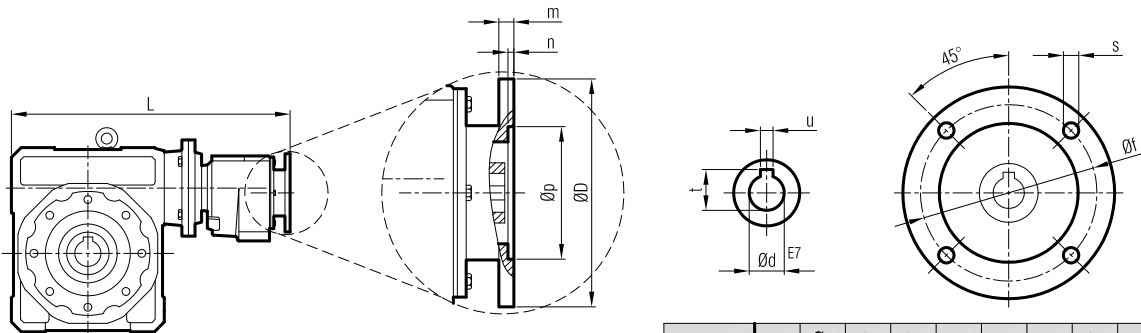
**İRSAM 127 İR 52**



IEC	A	A1	H	HD	AC
80 M/B14	747	808	136	216	158
80 H/B14	774	835	136	216	158
90 S/B14	766	833	141	231	176
90 L/B14	830	897	141	231	176

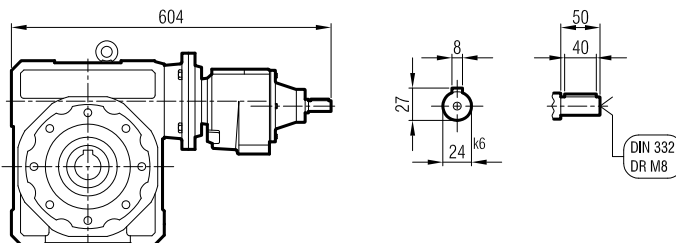
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

**İRSAP 127 İR 52**

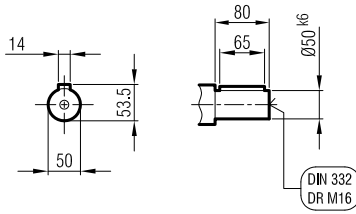


IEC	L	Øp	Øf	ØD	s	m	n	Ød	t	u
80	521	80	100	120	Ø7	8	4	19	21.8	6
90		95	115	140	Ø7	10	4	24	27.3	8
80	521	130	165	200	M10	12	5	19	21.8	6
90		130	165	200	M10	12	5	24	27.3	8

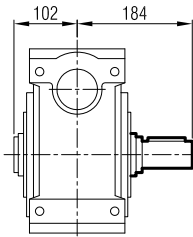
**İRSA 127 İR 52**



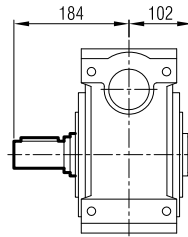




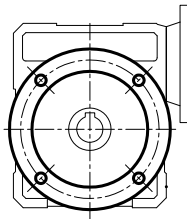
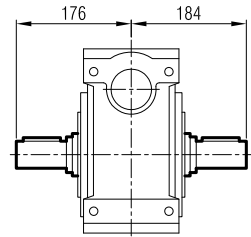
**-SL**



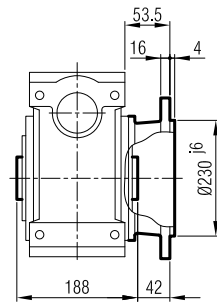
**-SR**



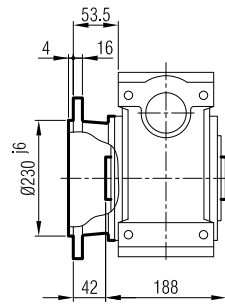
**-SD**



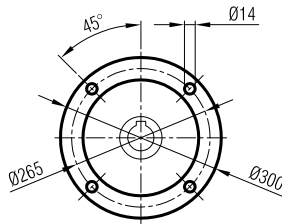
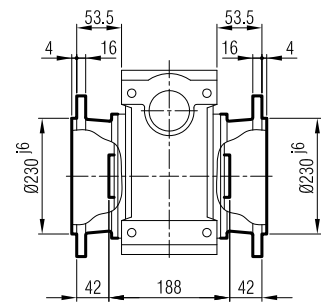
**-FL**



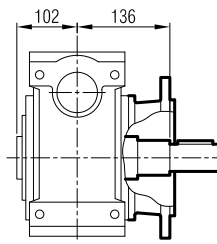
**-FR**



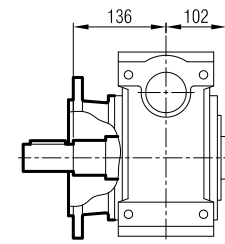
**-FD**



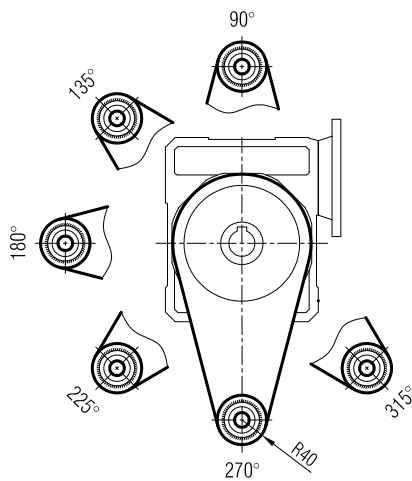
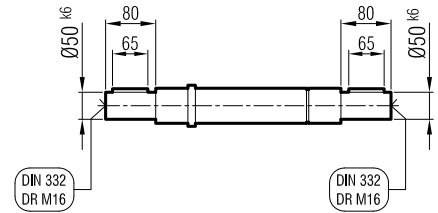
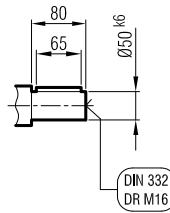
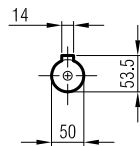
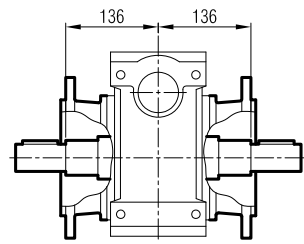
**-FL -SR**



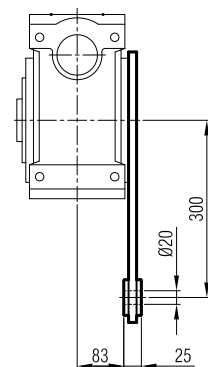
**-FR -SR**



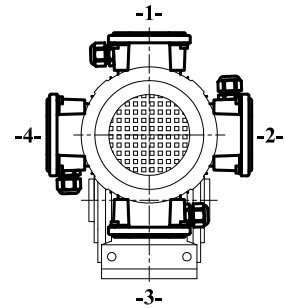
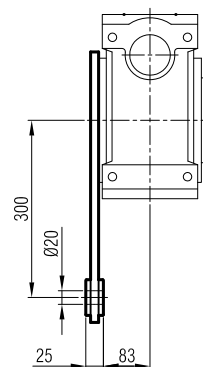
**-FD -SD**



**-TL**



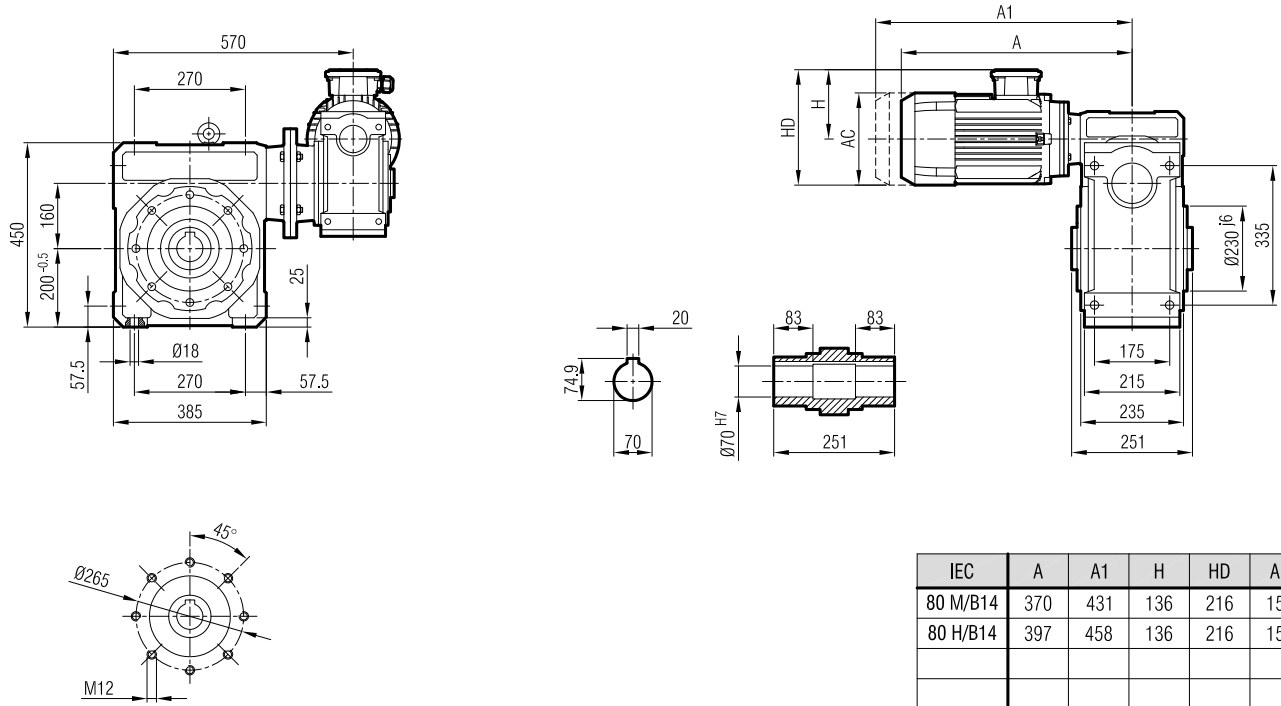
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



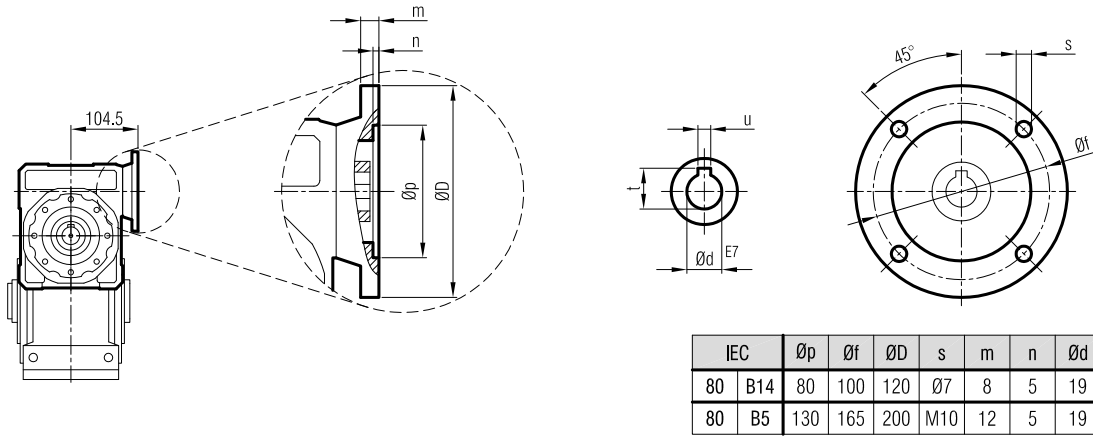
**İRSAM 162 İRS 65**



IEC	A	A1	H	HD	AC
80 M/B14	370	431	136	216	158
80 H/B14	397	458	136	216	158

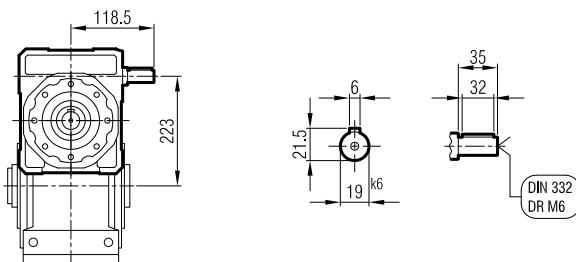
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

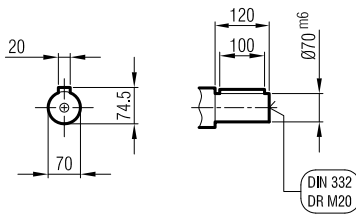
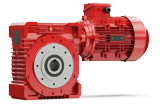
**İRSAP 162 İRS 65**



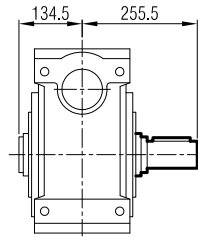
IEC	Øp	Øf	ØD	s	m	n	Ød	t	u
80 B14	80	100	120	Ø7	8	5	19	21.8	6
80 B5	130	165	200	M10	12	5	19	21.8	6

**İRSA 162 İRS 65**

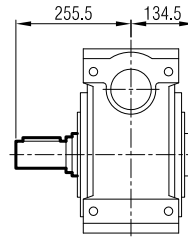




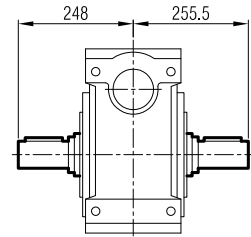
**-SL**



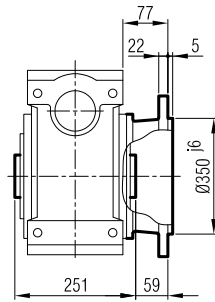
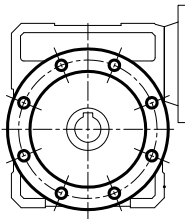
**-SR**



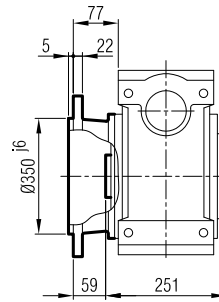
**-SD**



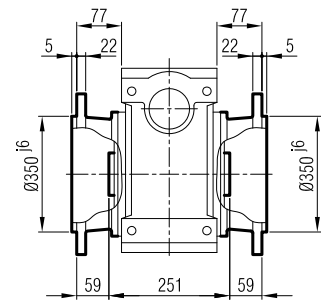
**-FL**



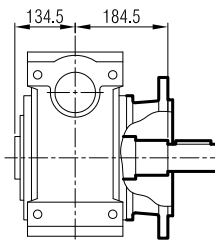
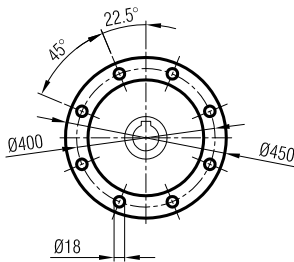
**-FR**



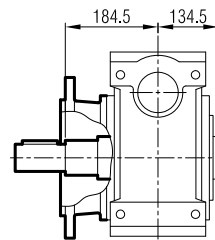
**-FD**



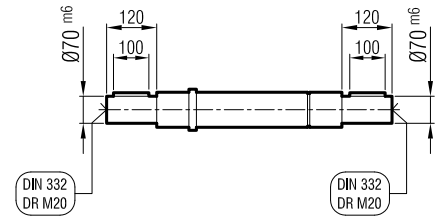
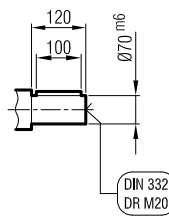
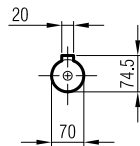
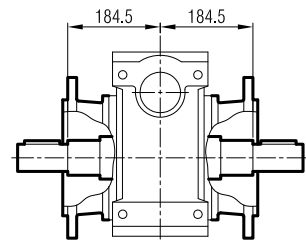
**-FL -SR**



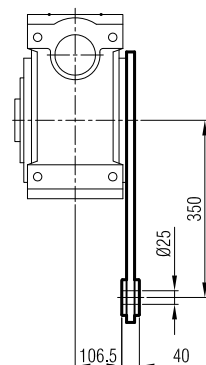
**-FR -SR**



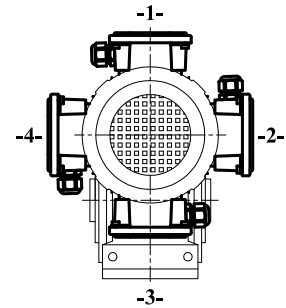
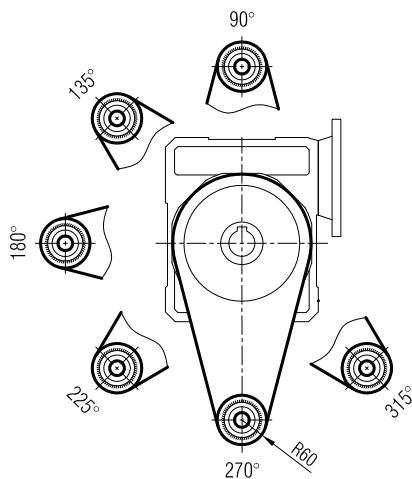
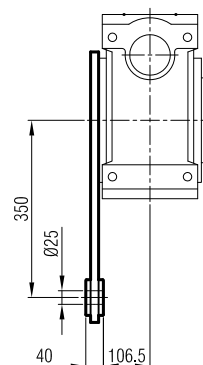
**-FD -SD**



**-TL**



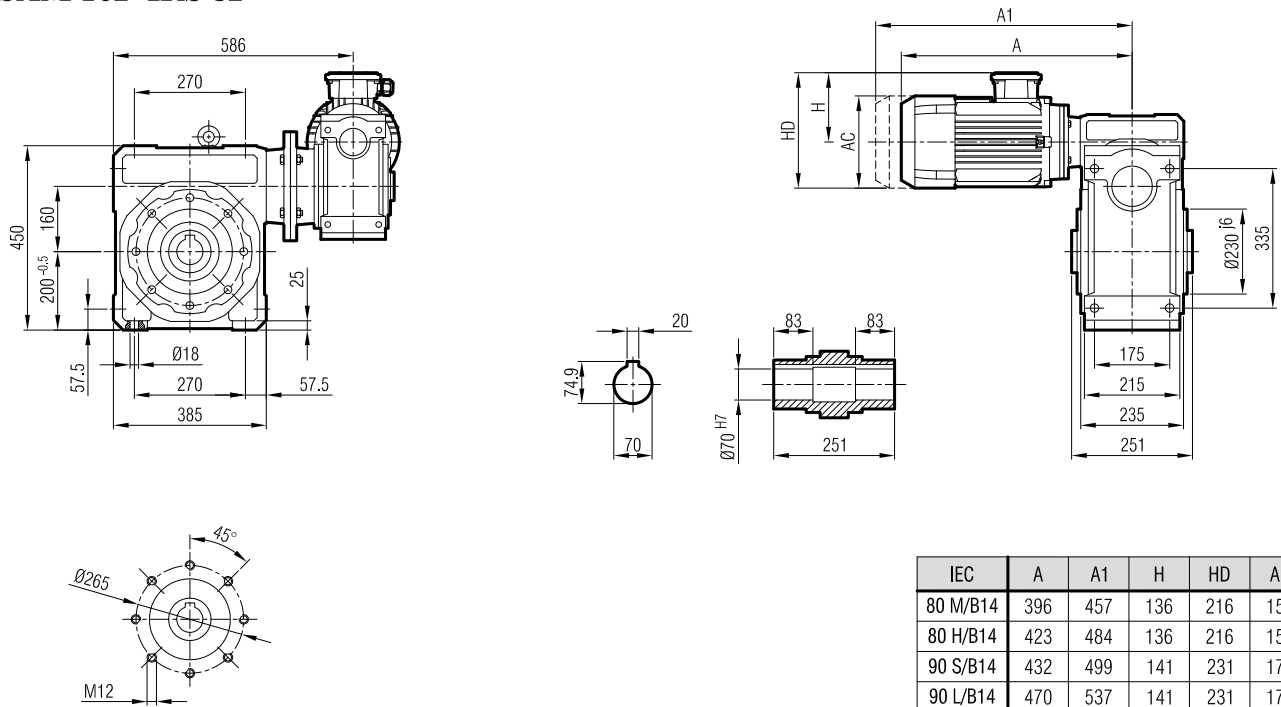
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



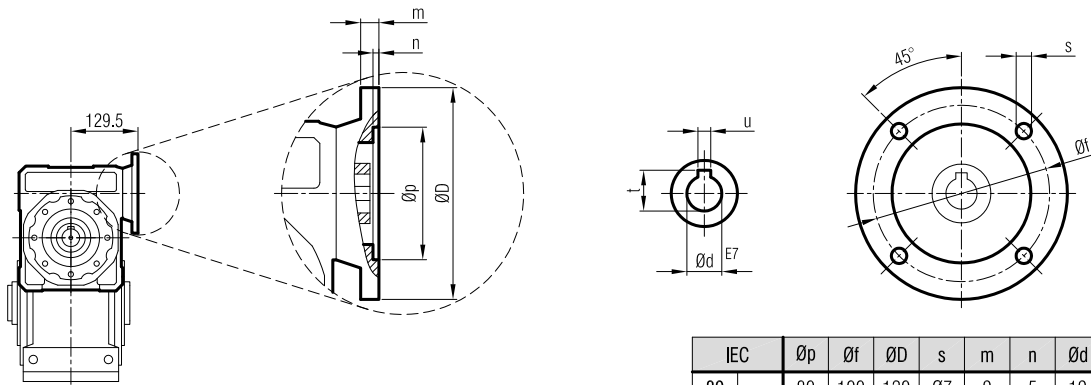
**İRSAM 162 İRS 82**



IEC	A	A1	H	HD	AC
80 M/B14	396	457	136	216	158
80 H/B14	423	484	136	216	158
90 S/B14	432	499	141	231	176
90 L/B14	470	537	141	231	176

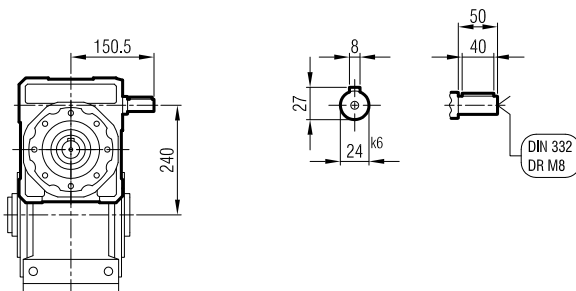
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

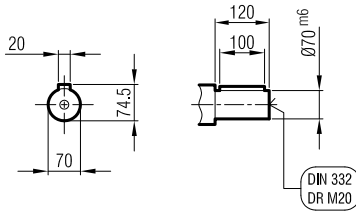
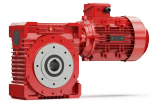
**İRSAP 162 İRS 82**



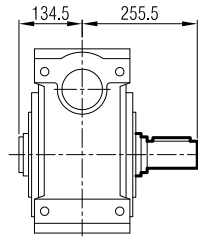
IEC	Øp	Øf	ØD	s	m	n	Ød	t	u	
80	B14	80	100	120	Ø7	9	5	19	21.8	6
90		95	115	140	Ø7	10	5	24	27.3	8
80	B5	130	165	200	M10	11	5	19	21.8	6
90		130	165	200	M10	11	5	24	27.3	8

**İRSA 162 İRS 82**

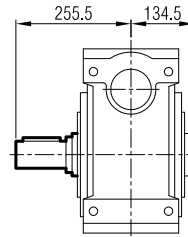




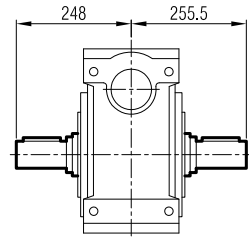
**-SL**



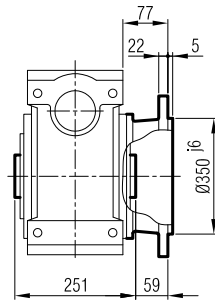
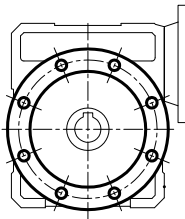
**-SR**



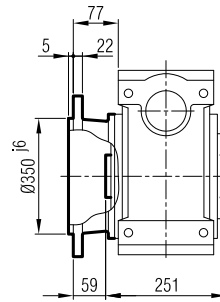
**-SD**



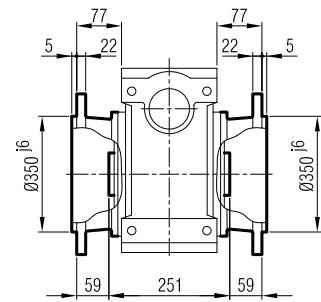
**-FL**



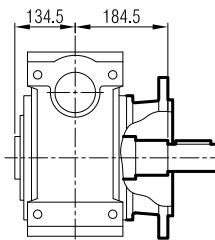
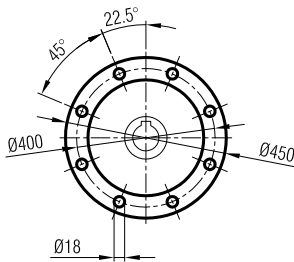
**-FR**



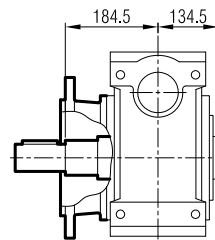
**-FD**



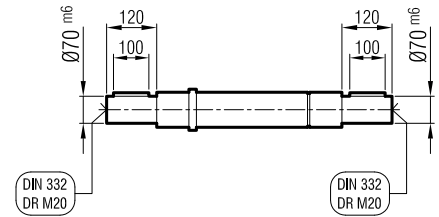
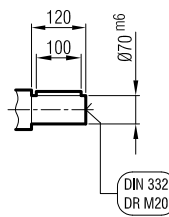
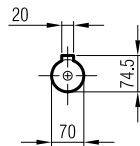
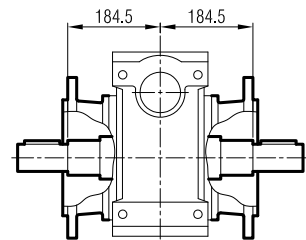
**-FL -SR**



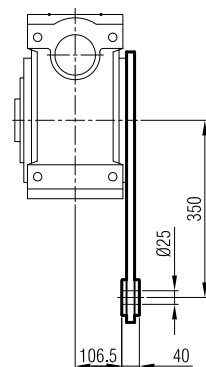
**-FR -SR**



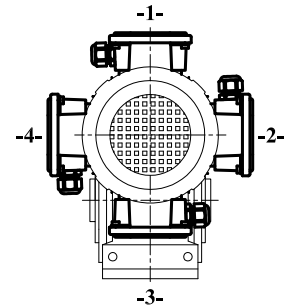
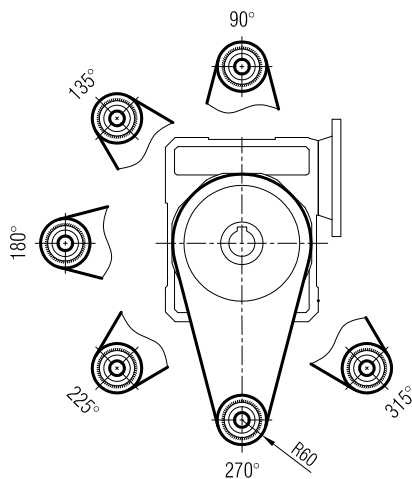
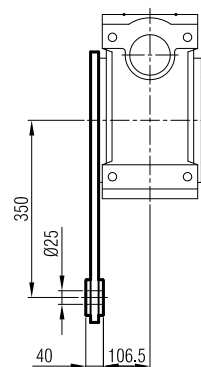
**-FD -SD**



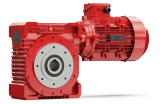
**-TL**



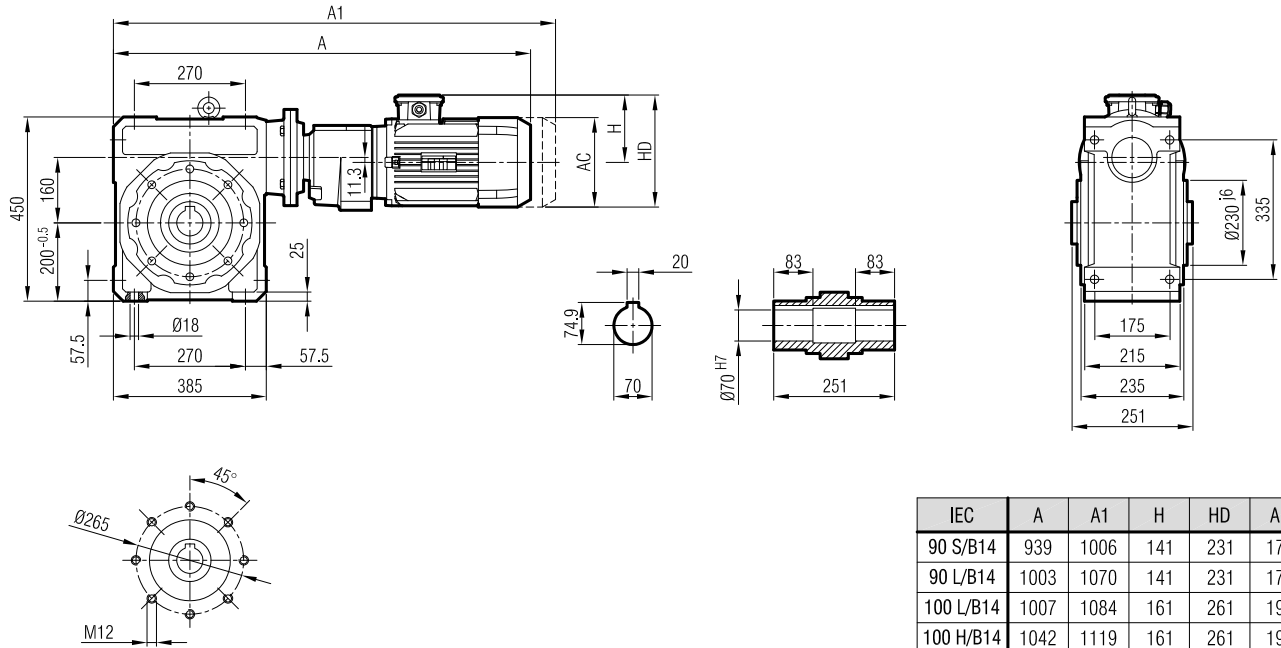
**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



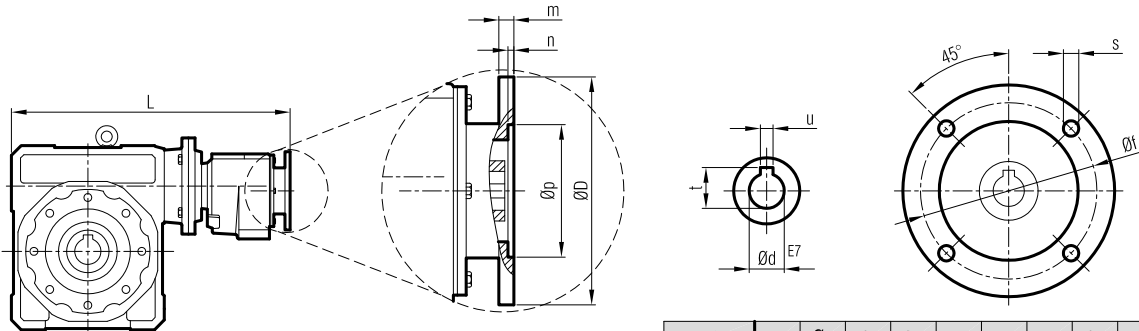
**İRSAM 162 İR 63**  
**İRSAM 162 İR 62**



IEC	A	A1	H	HD	AC
90 S/B14	939	1006	141	231	176
90 L/B14	1003	1070	141	231	176
100 L/B14	1007	1084	161	261	195
100 H/B14	1042	1119	161	261	195

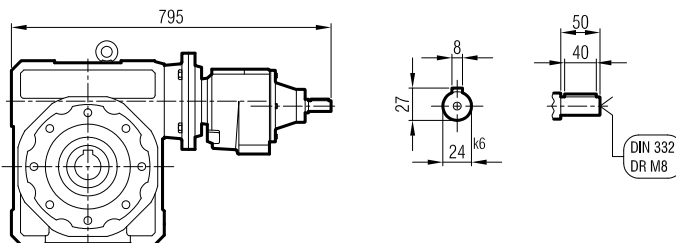
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

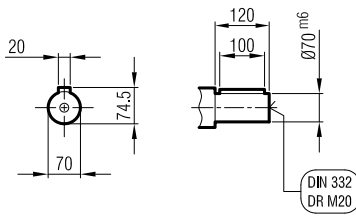
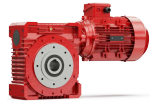
**İRSAP 162 İR 63**  
**İRSAP 162 İR 62**



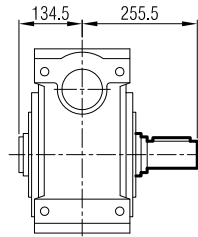
IEC	L	0p	0f	0D	s	m	n	0d	t	u
90	702	95	115	140	09	10	4	24	27.3	8
100		110	130	160	09	10	4.5	28	31.3	8
90	702	130	165	200	M10	12	5	24	27.3	8
100		180	215	250	M12	14	5	28	31.3	8

**İRSA 162 İR 63**  
**İRSA 162 İR 62**

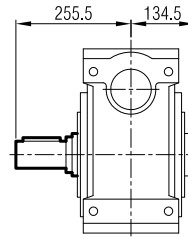




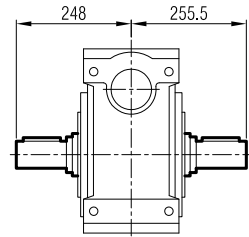
**-SL**



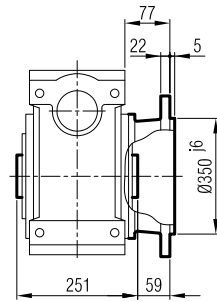
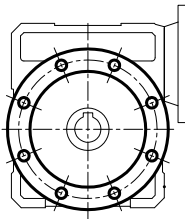
**-SR**



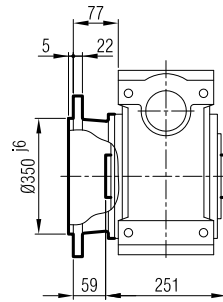
**-SD**



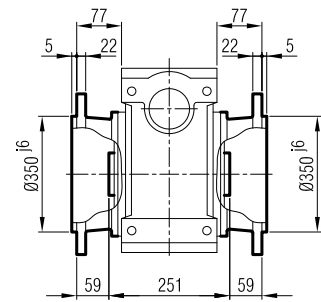
**-FL**



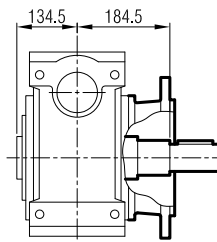
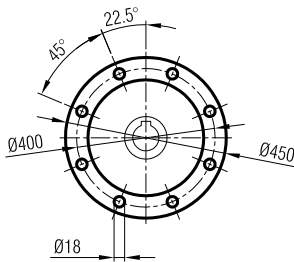
**-FR**



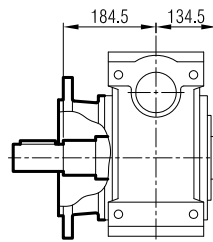
**-FD**



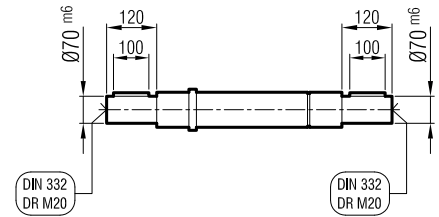
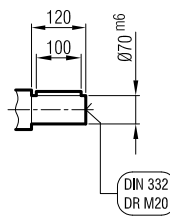
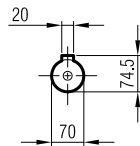
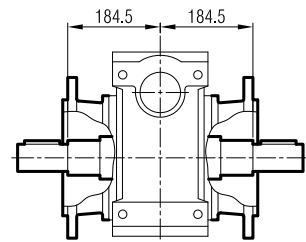
**-FL -SR**



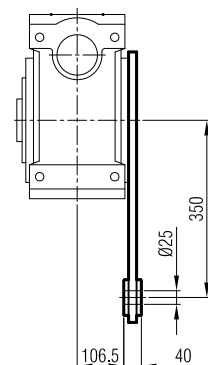
**-FR -SR**



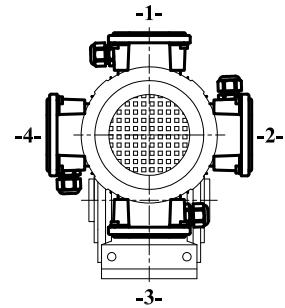
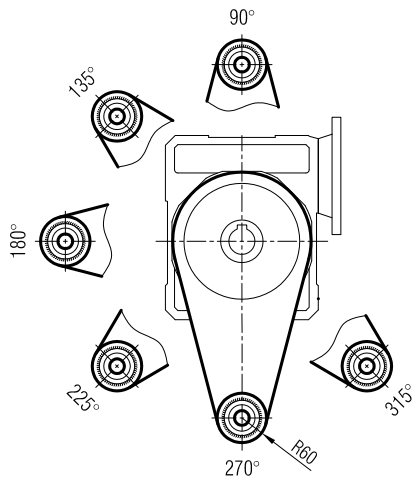
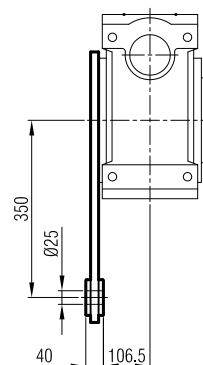
**-FD -SD**



**-TL**



**-TR**

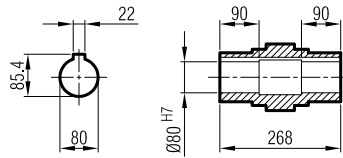
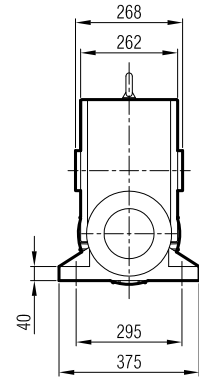
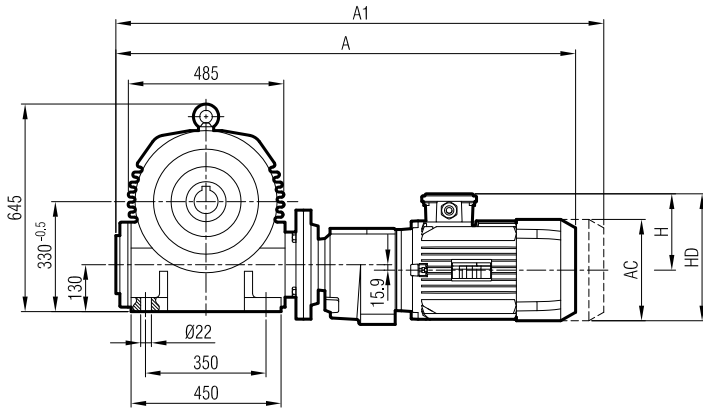


**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes





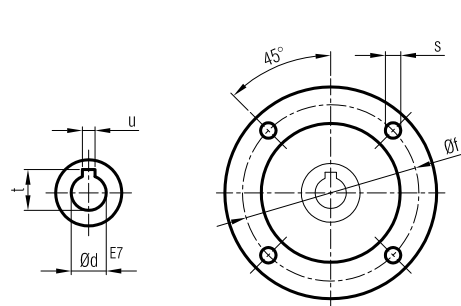
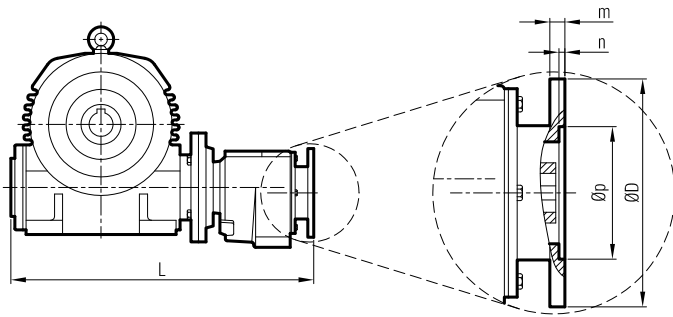
**İRSAM 201 İR 72**



IEC	A	A1	H	HD	AC
100 L/B14	1136	1213	161	261	195
100 H/B14	1171	1248	161	261	195
112 M/B14	1146	1241	170	282	220

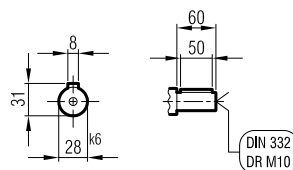
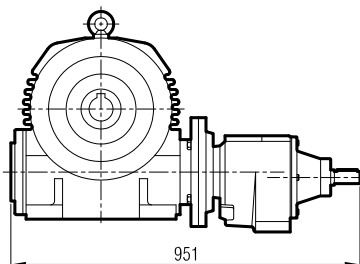
"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

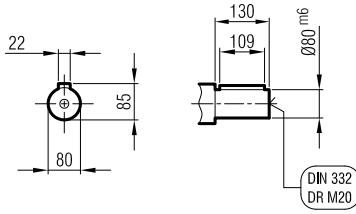
**İRSAP 201 İR 72**



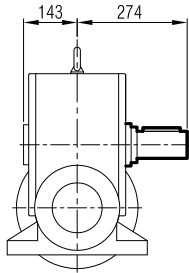
IEC	L	Øp	Øf	ØD	s	m	n	Ød	t	u
100	863	110	130	160	Ø9	12	5	28	31.3	8
112										
100	859	180	215	250	M12	14	5	28	31.3	8
112										

**İRSA 201 İR 72**

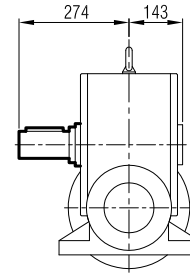




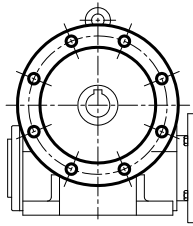
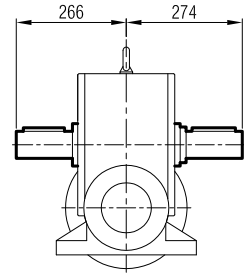
**-SL**



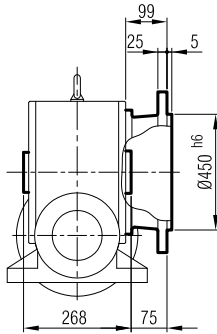
**-SR**



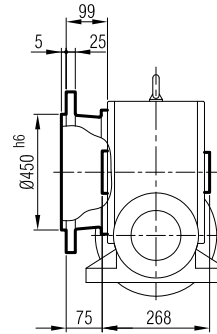
**-SD**



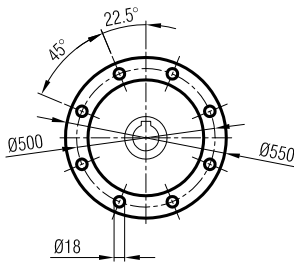
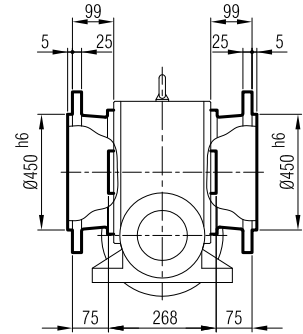
**-FL**



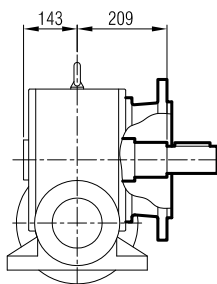
**-FR**



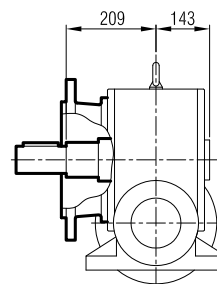
**-FD**



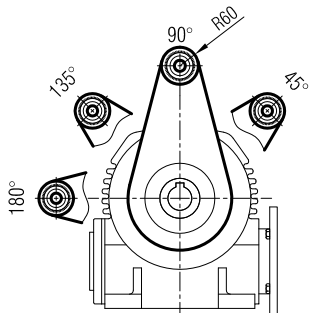
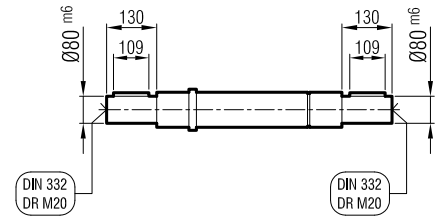
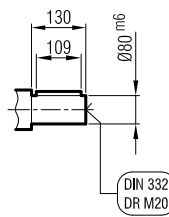
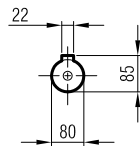
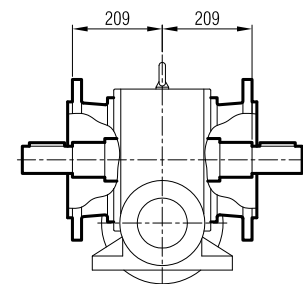
**-FL -SR**



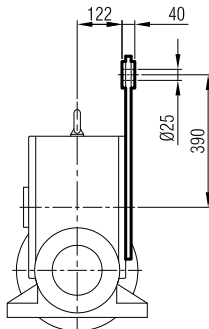
**-FR -SR**



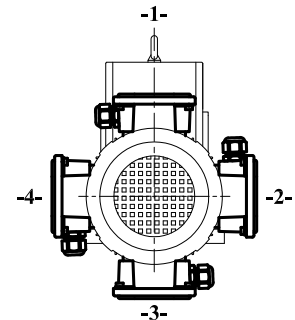
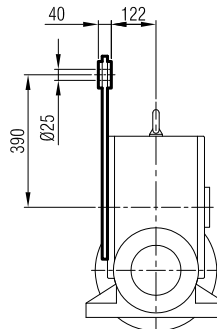
**-FD -SD**



**-TL**



**-TR**



**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes

# IRSDM Series

Helical Worm Geared Motor



# Helisel Sonsuz Vidalı Motorlu Redüktörler Güç ve Devir Tabloları



Helical Worm Geared Motors - Performances Tables

*Moto-réducteurs hélicoïdaux à roue et vis sans fin avec moteur - Table de performances*



P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i <sub>s</sub> Sonsuz Vida Tahvili Worm Ratio Rapport de réduction	i <sub>t</sub> Toplam Tahvil Total Ratio Raapport de réduction total	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Radyal Yük Over Loads Charges radiales [N]	Tip Type Types		 kg	
<b>0,12</b> 0,16	5,4	83	258,76	1,13	110	3850	İRSDPM İRSDFPM	43 / 63 M 4a	175 176	15 16
	6,3	83	222,79	1,27	95	3850				
	7,2	62	193,29	1,62	87	3850				
	8,4	62	166,42	1,83	75	3850				
	9,7	62	144,67	2,04	66	3850				
	11	62	126,70	2,25	58	3850				
	12	50	116,67	2,63	55	3850				
	14	50	102,17	2,90	49	3850				
16	38	88,67	3,90	48	3850					
<b>0,18</b> 0,25	3,1	62	285,89	2,00	328	9900	İRSDPM İRSDFPM	63 / 71 M 6a	179 180	32 36
	3,4	62	267,58	2,10	308	9900				
	3,9	53	228,74	2,70	295	9900	İRSDM İRSDFM	63 / 71 M 6a	179 180	32 36
	4,3	62	210,26	2,60	235	9900				
	5,0	53	179,74	3,30	230	9900	İRSDM İRSDFM	53 / 71 M 6a	177 178	25 27
	3,3	82	271,89	0,95	285	6150				
	3,8	82	238,19	1,07	250	6150				
	4,4	62	205,58	1,36	210	6150				
	5,0	62	180,10	1,51	183	6150				
	5,4	50	165,79	1,83	204	6150				
	6,2	50	145,24	2,00	175	6150				
	6,3	83	222,79	0,85	142	3800				
	7,2	62	193,29	1,08	131	3800				
	8,4	62	166,42	1,22	112	3800	İRSDPM İRSDFPM	43 / 63 M 4b	175 176	15 16
	9,7	62	144,67	1,36	99	3800				
	11	62	126,70	1,50	87	3800				
	12	50	116,67	1,75	83	3800				
	14	50	102,17	1,93	73	3800				
	16	38	88,67	2,60	72	3800				
	18	38	77,65	2,92	63	3800				
21	29	67,67	3,56	56	3800					
24	29	59,26	3,93	50	3800					
32	19	44,33	3,74	42	3800					
<b>0,25</b> 0,34	2,1	106	429,05	2,90	661	21000	İRSDM İRSDFM	83 / 80 M 6a	183 184	100 108
	2,4	106	382,52	3,10	603	21000				
	2,6	106	343,44	3,40	533	21000				
	2,7	83	335,95	4,00	522	21000	İRSDPM İRSDFPM	63 / 71 M 6b	179 180	35 39
	3,1	62	285,89	1,44	455	9900				
	3,4	62	267,58	1,51	428	9900				
	3,9	53	228,74	1,94	410	9900	İRSDM İRSDFM	63 / 71 M 6b	179 180	35 39
	4,3	62	210,26	1,87	328	9900				
	5,0	53	179,74	2,38	320	9900	İRSDPM İRSDFPM	63 / 71 M 4a	179 180	33 37
	4,9	62	285,89	2,10	288	9900				
	5,2	62	267,58	2,20	270	9900				
	6,1	53	228,74	2,80	262	9900	İRSDM İRSDFM	63 / 71 M 4a	179 180	33 37
	6,7	62	210,26	2,70	210	9900				
	7,8	53	179,74	3,40	205	9900				
	8,2	62	169,93	3,10	172	9900	İRSDM İRSDFM	53 / 71 M 6b	177 178	28 30
	3,8	82	238,19	0,77	345	6100				
	4,4	62	205,58	0,98	295	6100				
	5,0	62	180,10	1,08	255	6100				
5,4	50	165,79	1,32	283	6100					



P <sub>1</sub> GÜÇ Power Puissance [kW] Hp	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i <sub>s</sub> Sonsuz Vida Tahvili Worm Ratio Rapport de réduction	i <sub>t</sub> Toplam Tahvil Total Ratio Raapport de réduction total	S <sub>r</sub> Servis Faktörü Service Factor Service facteur	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q10</sub> Radyal Yük Over Loads Charges radiales [N]	Tip Type Types		 kg					
<b>0,25</b> 0,34	6,2	50	145,24	1,44	245	6100	<b>İRSDM</b> <b>İRSDFM</b>	<b>53 / 71 M 6b</b>	177	28				
	7,0	39	129,32	2,70	215	6100			178	30				
	7,9	39	113,29	2,10	190	6100			<b>İRSDM</b> <b>İRSDFM</b>	<b>53 / 71 M 4a</b>	177 178	26 28		
	9,0	39	100,04	2,30	170	6100								
	5,1	82	271,89	0,99	260	6100								
	5,9	82	238,19	1,11	220	6100								
	6,8	62	205,58	1,39	185	6100								
	7,8	62	180,10	1,51	160	6100								
	8,4	50	165,79	1,91	182	6100								
	9,6	50	145,24	2,10	160	6100								
	11	39	129,32	2,60	140	6100								
	12	39	113,29	2,90	130	6100								
	14	39	100,04	3,20	109	6100								
	16	39	88,92	3,50	95	6100								
	18	39	79,44	3,80	90	6100								
	8,4	62	166,42	0,88	158	3750	<b>İRSDPM</b> <b>İRSDFPM</b>	<b>43 / 71 M 4a</b>	175	17				
	9,7	62	144,67	0,98	138	3750			176	18				
	11	62	126,70	1,08	121	3750	<b>İRSDM</b> <b>İRSDFM</b>	<b>43 / 71 M 4a</b>	175 176	17 18				
	12	50	116,67	1,26	115	3750								
	14	50	102,17	1,39	101	3750								
16	38	88,67	1,87	100	3750									
18	38	77,65	2,10	87	3750									
21	29	67,67	2,56	78	3750									
24	29	59,26	2,83	69	3750									
27	29	52,20	3,10	61	3750									
32	19	44,33	2,69	58	3750									
36	19	38,83	2,96	51	3750									
41	14,5	33,83	3,70	45	3750									
63	9,5	22,17	3,94	32	3750									
<b>0,37</b> 0,5	2,1	106	429,05	1,96	978	21000	<b>İRSDM</b> <b>İRSDFM</b>	<b>83 / 80 M 6a</b>	183 184	100 108				
	2,4	106	382,52	2,09	893	21000								
	2,6	106	343,44	2,30	790	21000								
	2,7	83	335,95	2,70	774	21000								
	3,0	83	299,52	2,84	696	21000	<b>İRSDPM</b> <b>İRSDFPM</b>	<b>83 / 71 M 4b</b>	183 184	98 106				
	3,4	65	263,10	3,72	615	21000								
	3,8	65	234,57	4,01	550	21000								
	3,3	106	429,05	2,80	685	21000								
	3,7	106	382,52	3,00	609	21000								
	4,1	106	343,44	3,30	548	21000								
	4,2	83	335,95	3,80	514	21000								
	2,6	82	340,95	1,43	800	15250					<b>İRSDM</b> <b>İRSDFM</b>	<b>73 / 80 M 6a</b>	181 182	57 63
	3,0	82	300,67	1,59	695	15250								
	3,4	63	261,95	2,00	635	15250								
	3,9	63	231,00	2,20	550	15250								
	4,3	50	207,89	2,70	559	15250								
	4,1	82	340,95	2,00	510	15250								
	5,3	63	261,95	2,80	260	15250	<b>İRSDM</b> <b>İRSDFM</b>	<b>73 / 71 M 4b</b>	181 182	55 61				
	3,1	62	285,89	0,97	674	9800					<b>İRSDPM</b> <b>İRSDFPM</b>	<b>63 / 80 M 6a</b>	179 180	35 39
	3,4	62	267,58	1,02	633	9800	<b>İRSDM</b> <b>İRSDFM</b>	<b>63 / 80 M 6a</b>	179 180	35 39				
3,9	53	228,74	1,31	607	9800									
4,3	62	210,26	1,26	485	9800									
5,0	53	179,74	1,61	474	9800									



P <sub>1</sub>	n <sub>2</sub>	i <sub>s</sub>	i <sub>t</sub>	S <sub>r</sub>	M <sub>2</sub>	F <sub>Q10</sub>	Tip			
GÜÇ	Çıkış Devri	Sonsuz Vida Tahvili	Toplam Tahvil	Servis Faktörü	Çıkış Momenti	Radyal Yük	Type			
Power	Output Speeds	Worm Ratio	Total Ratio	Service Factor	Output Torque	Over Loads	Types			
Puissance	Vitesse de sortie	Rapport de réduction	Raapport de réduction total	Service facteur	Couple de sortie	Charges radiales				
[kW]	[r.p.m]				[Nm]	[N]				kg
Hp										
0,37 0,5	4,9	62	285,89	1,42	425	9800	İRSDPM İRSDFPM	63 / 71 M 4b	179	33
	5,2	62	267,58	1,49	400	9800			180	37
	6,1	53	228,74	1,89	388	9800	İRSDM İRSDFM	63 / 71 M 4b	179 180	33 37
	6,7	62	210,26	1,82	303	9800				
	7,8	53	179,74	2,30	255	9800				
	8,2	62	169,93	2,09	245	9800				
	9,6	53	145,26	2,77	233	9800				
	10	40	135,57	3,18	215	9800				
	11	53	131,59	2,97	180	9800				
	13	40	109,63	3,72	165	9800	İRSDM İRSDFM	53 / 80 M 6a	177 178	28 30
	5,4	50	165,79	0,89	419	6040				
	6,2	50	145,24	0,97	365	6040				
	7,0	39	129,32	1,80	320	6040				
	7,9	39	113,29	1,41	285	6040				
	9,0	39	100,04	1,53	252	6040				
	6,8	62	205,58	0,94	275	6040				
	7,8	62	180,10	1,02	180	6040				
	8,4	50	165,79	1,29	269	6040				
	9,6	50	145,24	1,41	235	6040				
	11	39	129,32	1,80	205	6040				
	12	39	113,29	1,99	190	6040				
	14	39	100,04	2,20	162	6040	İRSDM İRSDFM	43 / 71 M 4b	175 176	17 18
	16	39	88,92	2,40	140	6040				
	18	39	79,44	2,60	130	6040				
	20	30	68,40	2,90	120	6040				
	23	30	61,11	3,20	100	6040				
	26	30	54,83	3,40	90	6040				
	28	30	49,35	3,70	85	6040				
	12	50	116,67	0,85	171	3700				
	14	50	102,17	0,94	150	3700				
	16	38	88,67	1,26	148	3700				
	18	38	77,65	1,42	129	3700				
	21	29	67,67	1,73	116	3700				
24	29	59,26	1,91	102	3700					
27	29	52,20	2,09	90	3700					
32	19	44,33	1,82	86	3700					
36	19	38,83	2,00	75	3700					
41	14,5	33,83	2,50	67	3700					
47	14,5	29,63	2,80	58	3700					
54	14,5	26,10	3,00	51	3700					
63	9,5	22,17	2,66	47	3700					
72	9,5	19,41	2,94	41	3700					
82	9,5	17,10	3,27	36	3700					
93	9,5	15,13	3,57	32	3700					
0,55 0,75	2,1	106	429,05	1,32	1454	21000	İRSDM İRSDFM	83 / 80 M 6b	183 184	102 110
	2,4	106	382,52	1,41	1328	21001				
	2,6	106	343,44	1,55	1175	21002				
	2,7	83	335,95	1,82	1150	21003				
	3,0	83	299,52	1,91	1035	21004				
	3,4	65	263,10	2,50	913	21005				
	3,8	65	234,57	2,70	817	21006				
	4,3	52	210,48	3,40	843	21007				
4,8	52	187,65	3,70	755	21008					



P <sub>1</sub>	n <sub>2</sub>	i <sub>s</sub>	i <sub>t</sub>	S <sub>r</sub>	M <sub>2</sub>	F <sub>Q10</sub>	Tip			
GÜÇ	Çıkış Devri	Sonsuz Vida Tahvili	Toplam Tahvil	Servis Faktörü	Çıkış Momenti	Radyal Yük	Type			
Power	Output Speeds	Worm Ratio	Total Ratio	Service Factor	Output Torque	Over Loads	Types			
Puissance	Vitesse de sortie	Rapport de réduction	Raapport de réduction total	Service facteur	Couple de sortie	Charges radiales				
[kW]	[r.p.m]				[Nm]	[N]				kg
Hp										
0,55 0,75	3,3	106	429,05	1,88	1019	21000	İRSDM İRSDFM	83 / 80 M 4a	183 184	100 108
	3,7	106	382,52	2,02	906	21000				
	4,1	106	343,44	2,22	815	21000				
	4,2	83	335,95	2,56	764	21000				
	4,7	83	299,52	2,83	683	21000				
	5,3	65	263,10	3,43	635	21000				
	6,0	65	234,57	3,76	261	21000	İRSDM İRSDFM	73 / 80 M 6b	181 182	59 65
	2,6	82	340,95	0,96	1195	15170				
	3,0	82	300,67	1,07	1135	15170				
	3,4	63	261,95	1,35	940	15170				
	3,9	63	231,00	1,48	820	15170				
	4,3	50	207,89	1,82	830	15170				
	4,1	82	340,95	1,35	755	15170	İRSDM İRSDFM	73 / 80 M 4a	181 182	57 63
	4,7	82	300,67	1,55	675	15170				
	5,3	63	261,95	1,88	505	15170				
	6,1	63	231,00	2,09	525	15170				
	6,7	50	207,89	2,69	533	15170				
	7,6	50	183,33	2,96	470	15170				
	8,6	50	163,04	3,23	420	15170	İRSDM İRSDFM	63 / 80 M 6b	179 180	37 41
	9,6	50	145,24	3,48	370	15170				
	11	50	128,26	3,80	325	15170				
	3,9	53	228,74	0,88	902	9670				
	4,3	62	210,26	0,85	720	9670				
	5,0	53	179,74	1,08	704	9670				
	4,9	62	285,89	0,95	630	9670	İRSDPM İRSDFPM	63 / 80 M 4a	179 180	35 39
	5,2	62	267,58	1,00	595	9670	İRSDM İRSDFM	63 / 80 M 4a	179 180	35 39
	6,1	53	228,74	1,27	577	9670				
	6,7	62	210,26	1,23	460	9670				
	7,8	53	179,74	1,55	450	9670				
	8,2	62	169,93	1,41	375	9670				
	9,6	53	145,26	1,86	365	9670				
	10	40	135,57	2,14	345	9670				
	11	53	131,59	2,00	320	9670				
	13	40	109,63	2,50	265	9670				
	14	30	101,74	3,12	265	9670				
	14	40	99,31	2,68	248	9670				
	16	40	90,32	2,86	216	9670				
	17	30	82,22	3,68	220	9670	İRSDM İRSDFM	53 / 80 M 6b	177 178	30 32
	19	40	75,43	3,22	183	9670				
	22	40	63,59	3,60	158	9670				
	23	40	60,74	3,70	150	9670				
	7,0	39	129,32	0,84	480	5890				
7,9	39	113,29	0,95	425	5890					
9,0	39	100,04	1,03	374	5890	İRSDM İRSDFM	53 / 80 M 4a	177 178	28 30	
8,4	50	165,79	0,87	400	5890					
9,6	50	145,24	0,95	350	5891					
11	39	129,32	1,21	305	5890					
12	39	113,29	1,34	280	5890					
14	39	100,04	1,47	240	5890					
16	39	88,92	1,60	210	5890					
18	39	79,44	1,73	195	5890					
18	30	76,96	1,86	195	5890					
20	30	68,40	1,99	175	5890					
23	30	61,11	2,10	150	5890					
26	30	54,83	2,30	135	5890					





P <sub>1</sub>	n <sub>2</sub>	i <sub>s</sub>	i <sub>t</sub>	S <sub>r</sub>	M <sub>2</sub>	F <sub>Q10</sub>	Tip			
GÜÇ	Çıkış Devri	Sonsuz Vida Tahvili	Toplam Tahvil	Servis Faktörü	Çıkış Momenti	Radyal Yük	Type			
Power	Output Speeds	Worm Ratio	Total Ratio	Service Factor	Output Torque	Over Loads	Types			
Puissance	Vitesse de sortie	Rapport de réduction	Raapport de réduction total	Service facteur	Couple de sortie	Charges radiales				
[kW]	[r.p.m]				[Nm]	[N]				kg
Hp										
0,55 0,75	28	30	49,35	2,50	125	5890	İRSDM İRSDFM	53 / 80 M 4a	177 178	28 30
	31	30	44,55	2,70	115	5890				
	35	30	40,29	2,80	100	5890				
	37	30	38,28	2,90	95	5890				
	41	30	33,87	3,10	85	5890				
	46	15	30,56	3,00	85	5890				
	51	15	27,41	3,30	80	5890				
	57	15	24,68	3,50	70	5890				
	63	15	22,27	3,80	65	5890				
	16	38	88,67	0,85	220	3600				
	18	38	77,65	0,95	192	3600				
	21	29	67,67	1,16	173	3600				
	24	29	59,26	1,28	151	3600				
	27	29	52,20	1,41	133	3600				
	32	19	44,33	1,22	128	3600				
	36	19	38,83	1,35	112	3600				
	41	14,5	33,83	1,68	99	3600				
	47	14,5	29,63	1,88	87	3600				
	54	14,5	26,10	2,02	76	3600				
	63	9,5	22,17	1,79	70	3600				
72	9,5	19,41	1,98	61	3600					
82	9,5	17,10	2,20	54	3600					
93	9,5	15,13	2,40	48	3600					
0,75 1	2,4	87	370,90	2,49	1626	25200	İRSDPM İRSDFPM	161 / 90 S 6a	185 186	173 183
	2,7	87	327,29	2,79	1402	25200				
	3,1	87	291,26	3,28	1130	25200				
	2,1	106	429,05	0,97	1983	21000				
	2,4	106	382,52	1,03	1810	21001				
	2,6	106	343,44	1,13	1601	21002				
	2,7	83	335,95	1,33	1568	21003				
	3,0	83	299,52	1,40	1412	21004				
	3,4	65	263,10	1,83	1245	21005				
	3,8	65	234,57	1,98	1115	21006				
	4,3	52	210,48	2,49	1149	21007				
	4,8	52	187,65	2,71	1029	21008				
	3,3	106	429,05	1,38	1390	21000				
	3,7	106	382,52	1,48	1235	21001				
	4,1	106	343,44	1,63	1112	21002				
	4,2	83	335,95	1,87	1042	21003				
	4,7	83	299,52	2,07	931	21004				
	5,3	65	263,10	2,52	865	21005				
	6,0	65	234,57	2,76	765	21006				
	6,7	52	210,48	3,60	759	21007				
	7,5	52	187,65	3,88	678	21008				
	3,0	82	300,67	0,78	1410	15060				
	3,4	63	261,95	0,99	1285	15060				
	3,9	63	231,00	1,09	1120	15060				
	4,3	50	207,89	1,33	1133	15060				
	4,1	82	340,95	0,99	1030	15060				
	4,7	82	300,67	1,13	920	15060				
	5,3	63	261,95	1,38	825	15060				
6,1	63	231,00	1,53	717	15060					
6,7	50	207,89	1,97	727	15060					
7,6	50	183,33	2,17	641	15060					
8,6	50	163,04	2,37	573	15060					



P <sub>1</sub>	n <sub>2</sub>	i <sub>s</sub>	i <sub>t</sub>	S <sub>r</sub>	M <sub>2</sub>	F <sub>Q10</sub>	Tip Type Types					
GÜÇ	Çıkış Devri	Sonsuz Vida Tahvili	Toplam Tahvil	Servis Faktörü	Çıkış Momenti	Radyal Yük						
Power	Output Speeds	Worm Ratio	Total Ratio	Service Factor	Output Torque	Over Loads						
Puissance	Vitesse de sortie	Rapport de réduction	Raapport de réduction total	Service facteur	Couple de sortie	Charges radiales						
[kW] Hp	[r.p.m]				[Nm]	[N]			kg			
<b>0,75</b> 1	9,6	50	145,24	2,55	505	15060	İRSDM İRSDFM	73 / 80 H 4b	181	61		
	11	50	128,26	2,79	440	15060			182	68		
	12	40	116,19	3,43	425	15060						
	14	40	102,61	3,73	360	15060						
	6,1	53	228,74	0,93	785	9490	İRSDM İRSDFM	63 / 80 H 4b	179	40		
	6,7	62	210,26	0,90	630	9491					180	43
	7,8	53	179,74	1,13	615	9492						
	8,2	62	169,93	1,03	515	9493						
	9,6	53	145,26	1,37	500	9494						
	10	40	135,57	1,57	470	9495						
	11	53	131,59	1,47	435	9496						
	13	40	109,63	1,83	364	9497						
	14	30	101,74	2,29	364	9498						
	14	40	99,31	1,97	338	9499						
	16	40	90,32	2,10	295	9500						
	17	30	82,22	2,70	298	9501						
	19	40	75,43	2,36	245	9502	İRSDM İRSDFM	63 / 80 H 4b	179	40		
	19	30	74,48	2,90	265	9503					180	43
	21	30	67,74	3,08	240	9504						
	22	40	63,59	2,64	215	9505						
	23	40	60,74	2,71	205	9506						
	25	30	56,57	3,52	203	9507						
	26	40	53,79	2,90	180	9508						
	29	30	47,69	3,81	175	9509						
	11	39	129,32	0,89	420	5650	İRSDM İRSDFM	53 / 80 H 4b	177	32		
	12	39	113,29	0,98	380	5650					178	34
	14	39	100,04	1,08	328	5650						
	16	39	88,92	1,17	285	5650						
	18	39	79,44	1,27	270	5650						
	18	30	76,96	1,37	265	5650						
	20	30	68,40	1,46	240	5650						
	23	30	61,11	1,58	210	5650						
	26	30	54,83	1,70	185	5650						
	28	30	49,35	1,82	170	5650						
	31	30	44,55	1,97	155	5650						
	35	30	40,29	2,10	135	5650						
	37	30	38,28	2,10	130	5650						
	41	30	33,87	2,30	115	5650						
	46	15	30,56	2,20	120	5650						
	51	15	27,41	2,40	108	5650						
	57	15	24,68	2,60	95	5650						
	63	15	22,27	2,80	85	5650						
70	15	20,14	2,90	78	5650							
73	15	19,14	3,00	75	5650							
83	15	16,94	3,20	65	5650							
21	29	67,67	0,85	235	3500	İRSDM İRSDFM	43 / 80 H 4b	175	24			
24	29	59,26	0,94	206	3500					176	25	
27	29	52,20	1,03	182	3500							
32	19	44,33	0,90	175	3500							
36	19	38,83	0,99	153	3500							
41	14,5	33,83	1,23	135	3500							
47	14,5	29,63	1,38	118	3500							
54	14,5	26,10	1,48	104	3500							
63	9,5	22,17	1,31	95	3500							
72	9,5	19,41	1,45	83	3500							
82	9,5	17,10	1,61	73	3500							
93	9,5	15,13	1,76	65	3500							



P <sub>1</sub>	n <sub>2</sub>	i <sub>s</sub>	i <sub>t</sub>	S <sub>r</sub>	M <sub>2</sub>	F <sub>Q10</sub>	Tip			
GÜÇ	Çıkış Devri	Sonsuz Vida Tahvili	Toplam Tahvil	Servis Faktörü	Çıkış Momenti	Radyal Yük	Type			
Power	Output Speeds	Worm Ratio	Total Ratio	Service Factor	Output Torque	Over Loads	Types			
Puissance	Vitesse de sortie	Rapport de réduction	Raapport de réduction total	Service facteur	Couple de sortie	Charges radiales				
[kW]	[r.p.m]				[Nm]	[N]				kg
Hp										
1,1 1,5	2,4	87	370,90	1,70	2386	25000	İRSDPM İRSDFPM	161 / 90 L 6b	185 186	175 185
	2,7	87	327,29	1,90	2056	25000				
	3,1	87	291,26	2,06	1863	25000				
	3,4	87	261,00	2,24	1657	25000				
	3,9	54	230,21	3,25	1808	25000				
	4,4	54	203,14	3,61	1573	25000				
	5,0	54	180,78	3,94	1392	25000				
	5,6	54	162,00	4,30	1247	25000				
	2,7	83	335,95	0,91	2300	20750	İRSDM İRSDFM	83 / 90 L 6b	183 184	107 115
	3,0	83	299,52	0,95	2070	20750				
	3,4	65	263,10	1,25	1827	20750				
	3,8	65	234,57	1,35	1635	20750				
	4,3	52	210,48	1,70	1685	20750				
	4,8	52	187,65	1,85	1510	20750				
	3,3	106	429,05	0,94	2038	20750				
	3,7	106	382,52	1,01	1812	20751				
	4,1	106	343,44	1,11	1631	20752	İRSDM İRSDFM	83 / 90 S 4a	183 184	105 113
	4,2	83	335,95	1,28	1530	20753				
	4,7	83	299,52	1,41	1366	20754				
	5,3	65	263,10	1,72	1270	20755				
	6,0	65	234,57	1,88	1121	20756				
	6,7	52	210,48	2,45	1113	20757				
	7,5	52	187,65	2,65	994	20758				
	8,6	40	161,90	3,40	891	20759				
	9,7	40	144,35	3,70	798	20760	İRSDM İRSDFM	73 / 90 S 4a	181 182	62 69
	4,7	82	300,67	0,77	1350	14750				
	5,3	63	261,95	0,94	1210	14750				
	6,1	63	231,00	1,04	1050	14750				
	6,7	50	207,89	1,35	1066	14750				
	7,6	50	183,33	1,48	940	14750				
	8,6	50	163,04	1,61	840	14750				
	9,6	50	145,24	1,74	745	14750				
	11	50	128,26	1,90	650	14750	İRSDM İRSDFM	73 / 90 S 4a	181 182	62 69
	12	40	116,19	2,34	620	14750				
	14	40	102,61	2,54	530	14750				
	15	40	91,20	2,80	495	14750				
	16	30	87,14	3,20	480	14750				
	18	30	76,96	3,50	425	14750				
	20	30	68,40	3,80	380	14750				
	9,6	53	145,26	0,93	730	9250				
10	40	135,57	1,07	690	9250					
11	53	131,59	1,00	640	9250					
13	40	109,63	1,25	530	9250					
14	30	101,74	1,56	530	9250					
14	40	99,31	1,34	495	9250					
16	40	90,32	1,43	430	9250					
17	30	82,22	1,84	438	9250					
19	40	75,43	1,61	365	9250					
19	30	74,48	1,98	390	9250					
21	30	67,74	2,10	355	9250					
22	40	63,59	1,80	315	9250					
23	40	60,74	1,85	301	9250					
25	30	56,57	2,40	298	9250					
26	40	53,79	1,98	265	9250					
29	30	47,69	2,60	255	9250					
31	30	45,56	2,70	240	9250					
35	30	40,34	2,90	213	9250					





P <sub>1</sub>	n <sub>2</sub>	İ <sub>s</sub>	İ <sub>t</sub>	S <sub>r</sub>	M <sub>2</sub>	F <sub>Q10</sub>	Tip			
GÜÇ	Çıkış Devri	Sonsuz Vida Tahvili	Toplam Tahvil	Servis Faktörü	Çıkış Momenti	Radyal Yük	Type			
Power	Output Speeds	Worm Ratio	Total Ratio	Service Factor	Output Torque	Over Loads	Types			
Puissance	Vitesse de sortie	Rapport de réduction	Raapport de réduction total	Service facteur	Couple de sortie	Charges radiales				
[kW]	[r.p.m]				[Nm]	[N]				kg
Hp										
1,1 1,5	16	39	88,92	0,80	420	5400	İRSDM İRSDFM	53 / 90 S 4a	177 178	33 35
	18	39	79,44	0,86	395	5400				
	18	30	76,96	0,93	390	5400				
	20	30	68,40	1,00	350	5400				
	23	30	61,11	1,08	305	5400				
	26	30	54,83	1,16	270	5400				
	28	30	49,35	1,24	250	5400				
	31	30	44,55	1,34	225	5400				
	35	30	40,29	1,42	200	5400				
	37	30	38,28	1,45	190	5400				
	41	30	33,87	1,57	170	5400				
	46	15	30,56	1,54	175	5400				
	51	15	27,41	1,65	155	5400				
	57	15	24,68	1,78	140	5400				
	63	15	22,27	1,90	128	5400				
	70	15	20,14	2,00	115	5400				
	73	15	19,14	2,10	110	5400				
	83	15	16,94	2,20	95	5400				
1,5 2	54	14,5	26,10	1,01	153	3400	İRSDM İRSDFM	43 / 90 S 4a	175 176	25 26
	82	9,5	17,10	1,10	108	3400				
	93	9,5	15,13	1,20	95	3400				
	2,4	87	370,90	1,25	3252	24700				
	2,7	87	327,29	1,39	2804	24700				
	3,4	87	261,00	1,64	2259	24700				
	3,8	87	235,22	1,76	2034	24700				
	3,4	65	263,10	0,92	2491	20000				
	3,8	65	234,57	0,99	2229	20000				
	4,3	52	210,48	1,25	2298	20000				
	4,8	52	187,65	1,36	2059	20000				
	4,1	106	343,44	0,81	2223	20000				
	4,2	83	335,95	0,94	2084	20001				
	4,7	83	299,52	1,04	1862	20000				
	5,3	65	263,10	1,26	1731	20000				
	6,0	65	234,57	1,38	1529	20000				
	6,7	52	210,48	1,80	1517	20000				
	7,5	52	187,65	1,94	1355	20000				
	8,6	40	161,90	2,50	1215	20000				
	9,7	40	144,35	2,70	1088	20000				
	11	40	129,60	2,94	950	20000				
	12	40	117,04	3,16	871	20000				
	13	40	104,00	3,38	804	20000				
	6,7	50	207,89	0,99	1454	14440				
	7,6	50	183,33	1,09	1282	14440				
	8,6	50	163,04	1,18	1146	14440				
	9,6	50	145,24	1,28	1015	14440				
	11	50	128,26	1,39	885	14440				
	12	40	116,19	1,72	845	14440				
	14	40	102,61	1,86	725	14440				
	15	40	91,20	2,05	675	14440				
	16	30	87,14	2,35	650	14440				
	18	30	76,96	2,57	580	14440				
	20	30	68,40	2,79	520	14440				
	23	30	61,11	3,08	454	14440				
	26	30	54,83	3,23	400	14440				
28	30	49,35	3,37	370	14440					
31	30	44,55	3,52	335	14440					
35	30	40,29	3,81	298	14440					
38	30	36,49	3,96	275	14440					



P <sub>1</sub>	n <sub>2</sub>	i <sub>s</sub>	i <sub>t</sub>	S <sub>r</sub>	M <sub>2</sub>	F <sub>Q10</sub>	Tip Type Types			
GÜÇ	Çıkış Devri	Sonsuz Vida Tahvili	Toplam Tahvil	Servis Faktörü	Çıkış Momenti	Radyal Yük				
Power	Output Speeds	Worm Ratio	Total Ratio	Service Factor	Output Torque	Over Loads				
Puissance [kW] Hp	Vitesse de sortie [r.p.m]	Rapport de réduction	Raapport de réduction total	Service facteur	Couple de sortie [Nm]	Charges radiales [N]				
1,5 2	13	40	109,63	0,92	725	8900	İRSDM İRSDFM	63 / 90 H 4a	179 180	44 48
	14	30	101,74	1,14	725	8900				
	14	40	99,31	0,98	675	8900				
	16	40	90,32	1,05	590	8900				
	17	30	82,22	1,35	598	8900				
	19	40	75,43	1,18	495	8900				
	19	30	74,48	1,45	535	8900				
	21	30	67,74	1,54	485	8900				
	22	40	63,59	1,32	430	8900				
	23	40	60,74	1,36	410	8900				
	25	30	56,57	1,76	405	8900				
	26	40	53,79	1,45	360	8900				
	29	30	47,69	1,91	350	8900				
	31	30	45,56	1,98	325	8900				
	35	30	40,34	2,13	290	8900				
	23	30	61,11	0,79	415	5400				
	26	30	54,83	0,85	370	5400				
	28	30	49,35	0,91	340	5400				
	31	30	44,55	0,98	310	5400				
	35	30	40,29	1,04	275	5400				
37	30	38,28	1,07	260	5400					
41	30	33,87	1,15	235	5400					
46	15	30,56	1,13	240	5400					
51	15	27,41	1,21	215	5400					
57	15	24,68	1,30	190	5400					
63	15	22,27	1,39	175	5400					
70	15	20,14	1,47	155	5400					
73	15	19,14	1,52	150	5400					
83	15	16,94	1,63	130	5400					
82	9,5	17,10	0,81	147	3350					
93	9,5	15,13	0,88	130	3350					
2,2 3	4,8	87	291,26	1,38	2687	24350	İRSDM İRSDFM	161 / 100 L 4a	185 186	186 196
	5,4	87	261,00	1,49	2393	24350				
	6,0	87	235,22	1,59	2194	24350				
	6,9	54	203,14	2,47	2186	24350				
	7,7	54	180,78	2,68	1937	24350				
	8,6	54	162,00	2,90	1738	24350				
	9,6	54	146,00	3,10	1561	24350				
	4,3	52	210,48	0,85	3370	19450				
	4,8	52	187,65	0,93	3020	19450				
	5,3	65	263,10	0,86	2539	19450				
	6,0	65	234,57	0,94	2243	19450				
	6,7	52	210,48	1,23	2225	19450				
	7,5	52	187,65	1,32	1988	19450				
	8,6	40	161,90	1,70	1782	19450				
	9,7	40	144,35	1,85	1596	19450				
	11	40	129,60	2,00	1393	19450				
	12	40	117,04	2,15	1277	19450				
	13	40	104,00	2,30	1179	19450				
	15	32	93,63	2,80	1049	19450				
	17	32	83,20	3,00	926	19450				
19	32	74,67	3,14	828	19450					
21	32	67,31	3,41	749	19450					
23	32	59,83	3,55	684	19450					
25	32	55,73	3,82	629	19450					





P <sub>1</sub>	n <sub>2</sub>	i <sub>s</sub>	i <sub>t</sub>	S <sub>r</sub>	M <sub>2</sub>	F <sub>Q10</sub>	Tip Type Types			
GÜÇ	Çıkış Devri	Sonsuz Vida Tahvili	Toplam Tahvil	Servis Faktörü	Çıkış Momenti	Radyal Yük				
Power	Output Speeds	Worm Ratio	Total Ratio	Service Factor	Output Torque	Over Loads				
Puissance [kW] Hp	Vitesse de sortie [r.p.m]	Rapport de réduction	Raapport de réduction total	Service facteur	Couple de sortie [Nm]	Charges radiales [N]				
2,2 3	8,6	50	163,04	0,81	1681	14100	İRSDM İRSDFM	73 / 100 L 4a	181 182	75 81
	9,6	50	145,24	0,87	1485	14100				
	11	50	128,26	0,95	1300	14100				
	12	40	116,19	1,17	1240	14100				
	14	40	102,61	1,27	1065	14100				
	15	40	91,20	1,40	990	14100				
	16	30	87,14	1,60	955	14100				
	18	30	76,96	1,75	850	14100				
	20	30	68,40	1,90	765	14100				
	23	30	61,11	2,10	655	14100				
	26	30	54,83	2,20	590	14100				
	28	30	49,35	2,30	545	14100				
	31	30	44,55	2,40	495	14100				
	35	30	40,29	2,60	435	14100				
	38	30	36,49	2,70	403	14100				
	42	30	33,08	2,90	365	14100				
	46	15	30,66	3,00	369	14100				
	51	15	27,41	3,20	330	14100				
	57	15	24,68	3,40	300	14100				
	63	15	22,27	3,60	270	14100				
	70	15	20,14	3,80	240	14100				
	17	30	82,22	0,92	877	8700				
	19	40	75,43	0,81	730	8700				
	19	30	74,48	0,99	785	8700				
	21	30	67,74	1,05	710	8700				
	22	40	63,59	0,90	630	8700				
	23	40	60,74	0,93	603	8700				
	25	30	56,57	1,20	595	8700				
26	40	53,79	0,99	530	8700					
29	30	47,69	1,30	515	8700					
31	30	45,56	1,35	480	8700					
35	30	40,34	1,45	425	8700					
41	30	33,87	0,78	340	5400					
46	15	30,56	0,77	350	5400					
51	15	27,41	0,82	215	5400					
57	15	24,68	0,89	280	5400					
63	15	22,27	0,95	255	5400					
70	15	20,14	1,00	230	5400					
73	15	19,14	1,04	220	5400					
83	15	16,94	1,11	195	5400					
3 4	5,4	87	261,00	1,09	3263	24100	İRSDM İRSDFM	161 / 100 H 4b	185 186	189 199
	6,0	87	235,22	1,17	2991	24100				
	6,6	87	213,00	1,24	2678	24100				
	7,2	87	193,65	1,31	2425	24100				
	8,6	54	162,00	2,13	2370	24100				
	9,6	54	146,00	2,27	2119	24100				
	11	54	132,21	2,43	1932	24100				
	12	54	120,19	2,58	1753	24100				
	6,7	52	210,48	0,90	3034	19100				
	7,5	52	187,65	0,97	2710	19100				
	8,6	40	161,90	1,25	2430	19100				
	9,7	40	144,35	1,35	2175	19100				
	11	40	129,60	1,47	1899	19100				
	12	40	117,04	1,58	1741	19100				
	13	40	104,00	1,69	1607	19100				
	15	32	93,63	2,00	1430	19100				
	17	32	83,20	2,20	1262	19100				





P <sub>1</sub>	n <sub>2</sub>	i <sub>s</sub>	i <sub>t</sub>	S <sub>r</sub>	M <sub>2</sub>	F <sub>Q10</sub>	Tip Type Types			
GÜÇ	Çıkış Devri	Sonsuz Vida Tahvili	Toplam Tahvil	Servis Faktörü	Çıkış Momenti	Radyal Yük				
Power	Output Speeds	Worm Ratio	Total Ratio	Service Factor	Output Torque	Over Loads				
Puissance [kW] Hp	Vitesse de sortie [r.p.m]	Rapport de réduction	Raapport de réduction total	Service facteur	Couple de sortie [Nm]	Charges radiales [N]				
3 4	19	32	74,67	2,30	1129	19100	İRSDM İRSDFM	83 / 100 H 4b	183 184	121 129
	21	32	67,31	2,50	1022	19100				
	23	32	59,83	2,60	933	19100				
	25	32	55,73	2,80	858	19100				
	28	32	50,29	2,90	766	19100				
	31	32	45,84	3,10	692	19100				
	33	32	41,85	3,20	650	19100				
	37	32	38,24	3,40	580	19100				
	41	32	33,94	3,60	523	19100				
	12	40	116,19	0,86	1695	13700				
	14	40	102,61	0,93	1450	13700				
	15	40	91,20	1,03	1355	13700				
	16	30	87,14	1,17	1305	13700				
	18	30	76,96	1,28	1160	13700				
	20	30	68,40	1,39	1045	13700				
	23	30	61,11	1,54	908	13700				
	26	30	54,83	1,61	800	13700				
	28	30	49,35	1,69	745	13700				
	31	30	44,55	1,76	675	13700				
	35	30	40,29	1,91	596	13700				
	38	30	36,49	1,98	550	13700				
	42	30	33,08	2,13	495	13700				
	46	15	30,66	2,20	500	13700				
	51	15	27,41	2,35	450	13700				
	57	15	24,68	2,49	405	13700				
	63	15	22,27	2,64	365	13700				
	70	15	20,14	2,79	330	13700				
	77	15	18,24	2,93	300	13700				
85	15	16,54	3,08	270	13700					
4 5,5	25	30	56,57	0,88	810	8700	İRSDM İRSDFM	63 / 100 H 4b	179 180	56 60
	29	30	47,69	0,95	700	8700				
	31	30	45,56	0,99	655	8700				
	35	30	40,34	1,06	580	8700				
	5,4	87	261,00	0,82	4351	23500				
	6,0	87	235,22	0,88	3989	23500				
	6,6	87	213,00	0,93	3521	23500				
	6,9	54	203,14	1,36	3974	23500				
	7,7	54	180,78	1,48	3523	23500				
	8,6	54	162,00	1,60	3160	23500				
	9,6	54	146,00	1,70	2839	23500				
	11	54	132,21	1,82	2577	23500				
	11	42	126,00	2,10	2495	23500				
	12	54	120,19	1,93	2338	23500				
	12	42	113,56	2,25	2236	23500				
	14	42	102,83	2,39	2027	23500				
	15	42	93,48	2,52	1844	23500				
	8,6	40	161,90	0,94	3240	18500				
	9,7	40	144,35	0,98	2900	18500				
	11	40	129,60	1,10	2533	18500				
	12	40	117,04	1,19	2322	18500				
	13	40	104,00	1,27	2143	18500				
	15	32	93,63	1,47	1907	18500				
	17	32	83,20	1,65	1683	18500				
	19	32	74,67	1,73	1506	18500				



P <sub>1</sub>	n <sub>2</sub>	i <sub>s</sub>	i <sub>t</sub>	S <sub>r</sub>	M <sub>2</sub>	F <sub>Q10</sub>	Tip Type Types			
GÜÇ	Çıkış Devri	Sonsuz Vida Tahvili	Toplam Tahvil	Servis Faktörü	Çıkış Momenti	Radyal Yük				
Power	Output Speeds	Worm Ratio	Total Ratio	Service Factor	Output Torque	Over Loads				
Puissance	Vitesse de sortie	Rapport de réduction	Raapport de réduction total	Service facteur	Couple de sortie	Charges radiales				
[kW] Hp	[r.p.m]				[Nm]	[N]			kg	
4 5,5	21	32	67,31	1,88	1362	18500	İRSDM İRSDFM	83 / 112 M 4b	183 184	128 136
	23	32	59,83	1,95	1244	18500				
	25	32	55,73	2,10	1144	18500				
	28	32	50,29	2,18	1022	18500				
	31	32	45,84	2,33	923	18500				
	33	32	41,85	2,40	867	18500				
	37	32	38,24	2,55	773	18500				
	41	32	33,94	2,70	698	18500				
	15	40	91,20	0,77	1805	13200				
	16	30	87,14	0,88	1740	13200				
	18	30	76,96	0,96	1545	13200				
	20	30	68,40	1,05	1390	13200				
	23	30	61,11	1,16	1210	13200				
	26	30	54,83	1,21	1070	13200				
	28	30	49,35	1,27	995	13200				
	31	30	44,55	1,32	898	13200				
	35	30	40,29	1,43	795	13200				
	38	30	36,49	1,49	730	13200				
	42	30	33,08	1,60	660	13200				
	46	15	30,66	1,65	670	13200				
51	15	27,41	1,76	605	13200					
57	15	24,68	1,87	540	13200					
63	15	22,27	1,98	490	13200					
70	15	20,14	2,09	440	13200					
77	15	18,24	2,20	400	13200					
85	15	16,54	2,31	360	13200					
5,5 7,5	8,7	87	161,57	0,80	3740	23500	İRSDM İRSDFM	161 / 132 S 4c	185 186	198 208
	9,5	87	148,13	0,84	3427	23500				
	10	87	136,08	0,88	3136	23500				
	13	54	109,63	1,48	2942	23000				
	14	54	100,28	1,57	2675	23000				
	15	54	91,95	1,65	2450	23000				
	16	42	85,27	1,94	2322	23000				
	18	42	78,00	2,25	2116	23000				
	20	42	71,51	2,14	1937	23000				
	23	30	60,91	2,76	1634	23000				
	25	30	55,71	2,89	1495	23000				
	27	30	51,08	3,03	1372	23000				
	30	30	46,92	3,15	1260	23000				
	42	30	33,66	3,66	903	23000				
	11	40	129,60	0,80	3482	17250				
	12	40	117,04	0,86	3192	17250				
	13	40	104,00	0,92	2947	17250				
	15	32	93,63	1,07	2623	17250				
	17	32	83,20	1,20	2314	17250				
	19	32	74,67	1,25	2070	17250				
21	32	67,31	1,36	1873	17250					
23	32	59,83	1,42	1710	17250					
25	32	55,73	1,53	1574	17250					
28	32	50,29	1,58	1405	17250					
31	32	45,84	1,69	1269	17250					
33	32	41,85	1,75	1192	17250					
37	32	38,24	1,85	1063	17250					
41	32	33,94	1,96	960	17250					







P <sub>1</sub>	n <sub>2</sub>	i <sub>s</sub>	i <sub>t</sub>	S <sub>r</sub>	M <sub>2</sub>	F <sub>Q10</sub>	Tip			
GÜÇ	Çıkış Devri	Sonsuz Vida Tahvili	Toplam Tahvil	Servis Faktörü	Çıkış Momenti	Radyal Yük	Type			
Power	Output Speeds	Worm Ratio	Total Ratio	Service Factor	Output Torque	Over Loads	Types			
Puissance	Vitesse de sortie	Rapport de réduction	Raapport de réduction total	Service facteur	Couple de sortie	Charges radiales				
[kW]	[r.p.m]				[Nm]	[N]				kg
Hp										
5,5 7,5	20	30	68,40	0,76	1915	13200	İRSDM İRSDFM	73 / 132 S 4c	181 182	87 93
	23	30	61,11	0,84	1665	13200				
	26	30	54,83	0,88	1470	13200				
	28	30	49,35	0,92	1365	13200				
	31	30	44,55	0,96	1235	13200				
	35	30	40,29	1,04	1095	13200				
	38	30	36,49	1,08	1008	13200				
	42	30	33,08	1,16	910	13200				
	46	15	30,66	1,20	920	13200				
	51	15	27,41	1,28	830	13200				
	57	15	24,68	1,36	745	13200				
	63	15	22,27	1,44	670	13200				
	70	15	20,14	1,52	605	13200				
	77	15	18,24	1,60	550	13200				
85	15	16,54	1,68	500	13200					
7,5 10	13	54	109,63	1,08	4012	22440	İRSDM İRSDFM	161 / 132 M 4b	185 186	209 219
	14	54	100,28	1,15	3648	22440				
	15	54	91,95	1,21	3342	22440				
	16	42	85,27	1,42	3166	22440				
	18	42	78,00	1,65	2885	22440				
	20	42	71,51	1,57	2642	22440				
	21	42	65,69	1,64	2437	22440				
	23	30	60,91	2,02	2228	22440				
	25	30	55,71	2,12	2039	22440				
	27	30	51,08	2,22	1869	22440				
	30	30	46,92	2,31	1718	22440				
	42	30	33,66	2,68	1232	22440				
	15	32	93,63	0,79	3576	17000				
	17	32	83,20	0,88	3156	17000				
	19	32	74,67	0,92	2824	17000				
	21	32	67,31	1,00	2555	17000				
	23	32	59,83	1,04	2333	17000				
	25	32	55,73	1,12	2146	17000				
	28	32	50,29	1,16	1916	17000				
	31	32	45,84	1,24	1731	17000				
33	32	41,85	1,28	1626	17000					
37	32	38,24	1,36	1450	17000					
41	32	33,94	1,44	1308	17000					
35	30	40,29	0,76	1490	13200					
38	30	36,49	0,79	1375	13200					
42	30	33,08	0,85	1245	13200					
46	15	30,66	0,88	1255	13200					
51	15	27,41	0,94	1135	13200					
57	15	24,68	1,00	1015	13200					
63	15	22,27	1,06	920	13200					
70	15	20,14	1,11	825	13200					
77	15	18,24	1,17	750	13200					
85	15	16,54	1,23	680	13200					
11 15	16	42	85,27	0,97	4573	22440	İRSDM İRSDFM	161 / C132 M 4	185 186	252 262
	18	42	78,00	1,13	4202	22440				
	20	42	71,51	1,07	3887	22440				
	21	42	65,69	1,12	3534	22440				
	23	30	60,91	1,38	3397	22440				
	25	30	55,71	1,45	3071	22440				
	27	30	51,08	1,52	2851	22440				



## Helisel Sonsuz Vidalı Motorlu Redüktörler Güç ve Devir Tablosu

Helical Worm Geared Motors - Performances Tables / Moto-réducteurs hélicoïdaux à roue et vis sans fin avec moteur - Table de performances

**i.Mak**<sup>®</sup>

P <sub>1</sub>	n <sub>2</sub>	i <sub>s</sub>	i <sub>t</sub>	S <sub>r</sub>	M <sub>2</sub>	F <sub>Q10</sub>	Tip Type Types			
GÜÇ	Çıkış Devri	Sonsuz Vida Tahvili	Toplam Tahvil	Servis Faktörü	Çıkış Momenti	Radyal Yük				
Power	Output Speeds	Worm Ratio	Total Ratio	Service Factor	Output Torque	Over Loads				
Puissance	Vitesse de sortie	Rapport de réduction	Raapport de réduction total	Service facteur	Couple de sortie	Charges radiales				
[kW] Hp	[r.p.m]				[Nm]	[N]			kg	
<b>11</b> <b>15</b>	30	30	46,92	1,57	2575	22440	<b>İRSDM</b> <b>İRSDFM</b>	<b>161 / C132 M 4</b>	185 186	252 262
	42	30	33,66	1,83	1857	22440				
	46	15	30,45	2,01	1855	22440				
	50	15	27,86	2,11	1710	22440				
	55	15	25,54	2,20	1557	22440				
	60	15	23,46	2,28	1429	22440				
	83	15	16,83	2,66	1026	22440	<b>İRSDM</b> <b>İRSDFM</b>	<b>83 / 160 M 4b</b>	183 184	184 192
	28	32	50,29	0,79	2810	17000				
	31	32	45,84	0,85	2538	17000				
	33	32	41,85	0,87	2384	17000				
	37	32	38,24	0,93	2126	17000				
	41	32	33,94	0,98	1919	17000				

# IRSD Series

Helical Worm Gearbox



 **i.Mak**<sup>®</sup>  
GEARBOXES AND DRIVES

## Helisel Sonsuz Vidalı Redüktörler Güç ve Devir Tabloları

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Helical Worm Gear Unit - Performances Tables

*Réducteurs Hélicoïdaux à roue et vis sans fin - Table de performances*



Servis Faktörü Service Factor Service facteur  $S_f = 1$	$P_1$	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type Types			kg		
	GÜÇ Power Puissance  [kW]	Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] ( $n_1=1400$ rpm)	Sonsuz Vida Tahvili Worm Ratio Rapport de réduction	Toplam Tahvil Total Ratio Raapport de réduction	Verim Efficiency Eficiencia  [ % ]	Çıkış Momenti Output Torque Couple de sortie  [Nm]	Rad. Yük Over Loads Charges radiales  [N]	Rad. Yük Over Loads Charges radiales  [N]						
<b>113-197 Nm</b>	0,14	5,41	83	259	52	123	260	3800	<b>İRSDF</b>	<b>43</b>			175	11
	0,15	6,28		223		120	260	3800						
	0,19	7,24		62		193	56	141						
	0,22	8,41	166		138	260		3800						
	0,24	9,68	145		133	260		3800						
	0,27	11,05	127		129	260		3800						
	0,32	12,00	50	117	58	144	260	3800						
	0,35	13,70		102		139	260	3800						
	0,47	15,79	38	88,67	66	184	260	3800						
	0,53	18,03		77,65		181	260	3800						
	0,64	20,69	29	67,67	68	197	260	3800						
	0,71	23,62		59,26		191	260	3800						
	0,77	26,82		52,20		184	260	3800						
	0,68	31,58	19	44,33	77	155	260	3800						
	0,74	36,05		38,83		149	260	3800						
	0,92	41,38	15	33,83	78	164	260	3800						
	1,0	47,25		29,63		161	260	3800						
	1,1	53,64		26,10		152	260	3800						
	0,98	63,15		22,17		123	260	3800						
	1,1	72,13	10	19,41	84	119	260	3800						
1,2	81,87	17,10		117		260	3800							
1,3	92,53	15,13		113		260	3800							
<b>270-420 Nm</b>	0,26	5,15	82	272	56	270	420	6000	<b>İRSDF</b>	<b>53</b>			177	20
	0,30	5,88		238		270	420	6000						
	0,36	6,81	62	206	54	270	420	6000						
	0,41	7,77		180		270	420	6000						
	0,37	8,44	50	166	65	270	420	6000						
	0,46	9,64		145		290	420	6000						
	0,74	10,83	39	129	68	420	420	6000						
	0,85	12,36		113		420	420	6000						
	0,66	13,99		100		290	420	6000						
	1,1	15,74	30	88,92	78	420	420	6000						
	1,2	17,62		79,44		420	420	6000						
	1,2	18,19		76,96		410	420	6000						
	1,3	20,47		68,40		410	420	6000						
	1,5	22,91	15	61,11	78	410	420	6000						
	1,6	25,53		54,83		410	420	6000						
	1,8	28,37		49,35		410	420	6000						
	2,0	31,43		44,55		410	420	6000						
	2,2	34,75		40,29		410	420	6000						
	2,3	36,58		38,28		410	420	6000						
	2,6	41,33	15	33,87	78	410	420	6000						
	2,6	45,82		30,56		410	420	6000						
	2,9	51,07		27,41		410	420	6000						
	3,2	56,73		24,68		410	420	6000						
	3,5	62,86		22,27		410	420	6000						
	3,9	69,51		20,14		410	420	6000						
	4,1	73,16		19,14		410	420	6000						
4,6	82,67	16,94		410		420	6000							



Servis Faktörü Service Factor Service facteur  $S_f = 1$	$P_1$	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type Types			
	GÜÇ Power Puissance [kW]	Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] ( $n_1=1400$ rpm)	Sonsuz Vida Tahvili Worm Ratio Rapport de réduction	Toplam Tahvil Total Ratio Raapport de réduction	Verim Efficiency Eficiencia [%]	Çıkış Momenti Output Torque Couple de sortie [Nm]	Rad. Yük Over Loads Charges radiales [N]	Rad. Yük Over Loads Charges radiales [N]				
<b>510-870 Nm</b>	0,55	4,90	62	286	60	634	700	8700	<b>İRSDF</b>	<b>63</b>	179 180	27 31
	0,55	5,23		268		594	700	8700				
	0,66	6,12	53	229	68	692	700	8700				
	0,75	6,66	62	210	60	636	700	8700				
	0,77	7,79	53	180	68	636	700	8700				
	0,75	8,24	62	170	60	514	700	8700				
	1,1	9,64	53	145	68	730	700	8700				
	1,1	10,33	40	136	67	662	700	8700				
	1,0	10,64	53	132	68	602	700	8700				
	1,5	12,77	40	110	67	741	700	8700				
	1,4	13,76	30	102	72	698	700	8700				
	1,5	14,10	40	99,31	67	671	700	8700				
	1,5	15,50		90,32		610	700	8700				
	2,2	17,03	30	82,22	72	876	700	8700				
	2,2	18,56	40	75,43	67	747	700	8700				
	2,4	18,80	30	74,48		793	700	8700				
	2,4	20,67		67,74		721	700	8700				
	2,2	22,02	40	63,59		630	700	8700				
	2,2	23,05		60,74	602	700	8700					
	2,2	24,75	30	56,57	72	602	700	8700				
3,4	26,03	40	53,79	67	821	700	8700					
3,0	29,36	30	47,69	72	693	700	8700					
3,0	30,73		45,56		662	700	8700					
4,5	34,70		40,34		871	700	8700					
<b>680-1870 Nm</b>	0,75	4,11	82	341	60	1031	1100	13300	<b>İRSDF</b>	<b>73</b>	181 182	49 55
	1,1	4,66		301		1334	1100	13300				
	1,1	5,34	63	262	62	1201	1100	13300				
	1,1	6,06		231		1059	1100	13300				
	1,5	6,73	50	208	69	1284	1100	13300				
	1,5	7,64		183		1150	1100	13300				
	1,5	8,59		163		1033	1100	13300				
	2,2	9,64		145		1482	1100	13300				
	2,2	10,92	40	128	72	1309	1100	13300				
	3,0	12,05		116		1687	1100	13300				
	3,0	13,64		103		1490	1100	13300				
	4,0	15,35		91,20		1766	1100	13300				
	4,0	16,07		87,14		1734	1100	13300				
	4,0	18,19		76,96		1531	1100	13300				
	5,5	20,47	30	68,40	74	1872	1100	13300				
	5,5	22,91		61,11		1672	1100	13300				
	5,5	25,53		54,83		1500	1100	13300				
	5,5	28,37		49,35		1350	1100	13300				
	5,5	31,43		44,55		1219	1100	13300				
	7,5	34,75		40,29		1503	1100	13300				
	7,5	38,37		36,49		1361	1100	13300				
	7,5	42,33		33,08		1234	1100	13300				
	7,5	45,67		30,66		1267	1100	13300				
	7,5	51,07		27,41		1133	1100	13300				
	7,5	56,73	24,68	1020	1100	13300						
	7,5	62,86	15	22,27	82	921	1100	13300				
	7,5	69,51		20,14		833	1100	13300				
7,5	76,74	18,24		754		1100	13300					
7,5	84,65	16,54		684		1100	13300					



Servis Faktörü Service Factor Service facteur  $S_f = 1$	$P_1$	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type Types			
	GÜÇ Power Puissance [kW]	Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] ( $n_1=1400$ rpm)	Sonsuz Vida Tahvili Worm Ratio Rapport de réduction	Toplam Tahvil Total Ratio Raapport de réduction	Verim Efficiency Eficiencia [%]	Çıkış Momenti Output Torque Couple de sortie [Nm]	Rad. Yük Over Loads Charges radiales [N]	Rad. Yük Over Loads Charges radiales [N]				
<b>1670-3540 Nm</b>	1,2	3,26	106	429	63	2038	1550	18800	<b>İRSDF</b>	<b>83</b>	183 184	92 100
	1,2	3,66		383		1812	1550	18800				
	1,2	4,08		343		1631	1550	18800				
	1,3	4,17	83	336	62	1873	1550	18800				
	1,5	4,67		300		1873	1550	18800				
	2,2	5,32	65	263	65	2529	1550	18800				
	2,2	5,97		235		2255	1550	18800				
	3,0	6,65	52	210	72	3056	1550	18800				
	3,0	7,46		188		2725	1550	18800				
	3,1	8,65		162		2447	1550	18800				
	3,2	9,70		144		2209	1550	18800				
	5,5	10,80	40	130	74	3546	1550	18800				
	5,5	11,96		117		3202	1550	18800				
	5,5	13,46		104		2846	1550	18800				
	5,5	14,95		93,63		2554	1550	18800				
	7,5	16,83	32	83,20	76	3188	1550	18800				
	7,5	18,75		74,67		2861	1550	18800				
	7,5	20,80		67,31		2579	1550	18800				
	7,5	23,40		59,83		2293	1550	18800				
	7,5	25,12		55,73		2135	1550	18800				
11,0	27,84	50,29		2826		1550	18800					
11,0	30,54	45,84		2576		1550	18800					
11,0	33,46	41,85		2352		1550	18800					
11,0	36,61	38,24		2149		1550	18800					
11,0	41,25	33,94		1907		1550	18800					
<b>3400-6000 Nm</b>	2,6	5,36	54	261	73	3274	2120	22000	<b>İRSDF</b>	<b>161</b>	185 186	160 170
	3,0	5,95		235		3430	2120	22000				
	3,2	6,57		213		3317	2120	22000				
	3,4	7,23		194		3186	2120	22000				
	6,3	6,89	87	203	63	5380	2120	22000				
	6,8	7,74		181		5213	2120	22000				
	7,4	8,64		162		5045	2120	22000				
	7,8	9,59	87	146	63	4834	2120	22000				
	8,4	10,59		132		4687	2120	22000				
	8,9	11,65		120		4518	2120	22000				
	8,3	11,11		42		126	74	5222				
	8,9	12,33	114		5039	2120		22000				
	9,1	13,62	103		4652	2120		22000				
	10,0	14,98	93,48		4652	2120		22000				
	10,6	16,42	85,27		4481	2120		22000				
	12,3	17,95	78,00		4756	2120		22000				
	11,7	19,58	71,51		4153	2120		22000				
	12,2	21,31	65,69		3988	2120		22000				
	14,3	22,99	30	60,90	77	4518	2120	22000				
	15,0	25,13		55,71		4330	2120	22000				
15,7	27,41	51,08		4162		2120	22000					
16,4	29,84	46,92		3976		2120	22000					
18,8	41,60	33,65		3270		2120	22000					



Servis Faktörü Service Factor Service facteur  $S_f = 1$	$P_1$	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type Types			kg		
	GÜÇ Power Puissance [kW]	Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] ( $n_1=900$ rpm)	Sonsuz Vida Tahvili Worm Ratio Rapport de réduction	Toplam Tahvil Total Ratio Raapport de réduction	Verim Efficiency Eficiencia [%]	Çıkış Momenti Output Torque Couple de sortie [Nm]	Rad. Yük Over Loads Charges radiales [N]	Rad. Yük Over Loads Charges radiales [N]						
<b>120-307 Nm</b>	0,09	3,48	83	259	52	123	260	3800	<b>İRSDF</b>	<b>43</b>			175	11
	0,10	4,04		223		120	260	3800						
	0,19	4,66	62	193	56	220	260	3800						
	0,22	5,41		166		214	260	3800						
	0,24	6,22		145		207	260	3800						
	0,27	7,10		127		200	260	3800						
	0,32	7,71	50	117	58	223	260	3800						
	0,35	8,81		102		216	260	3800						
	0,47	10,15	38	88,67	66	286	260	3800						
	0,53	11,59		77,65		282	260	3800						
	0,64	13,30	29	67,67	68	307	260	3800						
	0,71	15,19		59,26		297	260	3800						
	0,77	17,24		52,20		287	260	3800						
	0,68	20,30	19	44,33	77	241	260	3800						
	0,74	23,18		38,83		232	260	3800						
	0,92	26,60	15	33,83	78	255	260	3800						
	1,0	30,37		29,63		250	260	3800						
	1,1	34,48		26,10		236	260	3800						
	0,98	40,60		22,17		191	260	3800						
	1,1	46,37	10	19,41	84	185	260	3800						
1,2	52,63	17,10		181		260	3800							
1,3	59,48	15,13		175		260	3800							
<b>270-420 Nm</b>	0,17	3,31	82	272	56	270	420	6000	<b>İRSDF</b>	<b>53</b>			177	20
	0,19	3,78		238		270	420	6000						
	0,23	4,38	62	206	54	270	420	6000						
	0,27	5,00		180		270	420	6000						
	0,24	5,43	50	166	65	270	420	6000						
	0,29	6,20		145		290	420	6000						
	0,48	6,96	39	129	68	420	420	6000						
	0,55	7,94		113		420	420	6000						
	0,43	9,00		100		290	420	6000						
	0,69	10,12		88,92		420	420	6000						
	0,78	11,33	30	79,44	78	420	420	6000						
	0,75	11,69		76,96		410	420	6000						
	0,84	13,16		68,40		410	420	6000						
	0,94	14,73		61,11		410	420	6000						
	1,1	16,42		54,83		410	420	6000						
	1,2	18,24		49,35		410	420	6000						
	1,3	20,20		44,55		410	420	6000						
	1,4	22,34		40,29		410	420	6000						
	1,5	23,51	15	38,28	78	410	420	6000						
	1,7	26,57		33,87		410	420	6000						
	1,6	29,46		30,56		410	420	6000						
	1,8	32,83		27,41		410	420	6000						
	2,0	36,47		24,68		410	420	6000						
	2,3	40,41		22,27		410	420	6000						
	2,5	44,68		20,14		410	420	6000						
	2,6	47,03		19,14		410	420	6000						
	3,0	53,14		16,94		410	420	6000						





Servis Faktörü Service Factor Service facteur  $S_f = 1$	$P_1$	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type Types			
	GÜÇ Power Puissance  [kW]	Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] ( $n_1=900$ rpm)	Sonsuz Vida Tahvili Worm Ratio Rapport de réduction	Toplam Tahvil Total Ratio Raapport de réduction	Verim Efficiency Eficiencia  [ % ]	Çıkış Momenti Output Torque Couple de sortie  [Nm]	Rad. Yük Over Loads Charges radiales  [N]	Rad. Yük Over Loads Charges radiales  [N]				
<b>510-870 Nm</b>	0,35	3,15	62	286	60	634	700	8700	<b>İRSDF</b>	<b>63</b>	179 180	27 31
	0,35	3,36		268		594	700	8700				
	0,43	3,93	53	229	68	692	700	8700				
	0,48	4,28	62	210	60	636	700	8700				
	0,50	5,01	53	180	68	636	700	8700				
	0,48	5,30	62	170	60	514	700	8700				
	0,71	6,20	53	145	68	730	700	8700				
	0,70	6,64	40	136	67	662	700	8700				
	0,64	6,84	53	132	68	602	700	8700				
	0,96	8,21	40	110	67	741	700	8700				
	0,91	8,85	30	102	72	698	700	8700				
	0,96	9,06	40	99,31	67	671	700	8700				
	0,96	9,96		90,32		610	700	8700				
	1,4	10,95	30	82,22	72	876	700	8700				
	1,4	11,93	40	75,43	67	747	700	8700				
	1,5	12,08	30	74,48		793	700	8700				
	1,5	13,29		67,74		721	700	8700				
	1,4	14,15	40	63,59		630	700	8700				
	1,4	14,82		60,74	602	700	8700					
	1,4	15,91	30	56,57	72	602	700	8700				
2,2	16,73	40	53,79	67	821	700	8700					
1,9	18,87	30	47,69	72	693	700	8700					
1,9	19,76		45,56		662	700	8700					
2,9	22,31		40,34		871	700	8700					
<b>680-1870 Nm</b>	0,48	2,64	82	341	60	1031	1100	13300	<b>İRSDF</b>	<b>73</b>	181 182	49 55
	0,71	2,99		301		1334	1100	13300				
	0,71	3,44	63	262	62	1201	1100	13300				
	0,71	3,90		231		1059	1100	13300				
	0,95	4,33	50	208	69	1284	1100	13300				
	0,97	4,91		183		1150	1100	13300				
	0,98	5,52		163		1033	1100	13300				
	1,4	6,20		145		1482	1100	13300				
	1,4	7,02	40	128	72	1309	1100	13300				
	1,9	7,75		116		1687	1100	13300				
	1,9	8,77		103		1490	1100	13300				
	2,6	9,87		91,20		1766	1100	13300				
	2,6	10,33	30	87,14	74	1734	1100	13300				
	2,6	11,69		76,96		1531	1100	13300				
	3,5	13,16		68,40		1872	1100	13300				
	3,5	14,73		61,11		1672	1100	13300				
	3,5	16,42		54,83		1500	1100	13300				
	3,5	18,24		49,35		1350	1100	13300				
	3,5	20,20		44,55		1219	1100	13300				
	4,8	22,34		40,29		1503	1100	13300				
	4,8	24,67	15	36,49	82	1361	1100	13300				
	4,8	27,21		33,08		1234	1100	13300				
	4,8	29,36		30,66		1267	1100	13300				
	4,8	32,83		27,41		1133	1100	13300				
	4,8	36,47		24,68		1020	1100	13300				
	4,8	40,41		22,27		921	1100	13300				
4,8	44,68	20,14		833		1100	13300					
4,8	49,33	18,24		754		1100	13300					
4,8	54,42	16,54	684	1100	13300							



Servis Faktörü Service Factor Service facteur  $S_f = 1$	$P_1$	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type Types			
	GÜÇ Power Puissance [kW]	Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] ( $n_1=900$ rpm)	Sonsuz Vida Tahvili Worm Ratio Rapport de réduction	Toplam Tahvil Total Ratio Raapport de réduction	Verim Efficiency Eficiencia [%]	Çıkış Momenti Output Torque Couple de sortie [Nm]	Rad. Yük Over Loads Charges radiales [N]	Rad. Yük Over Loads Charges radiales [N]				
<b>1670-3540 Nm</b>	0,77	2,10	106	429	63	2038	1550	18800	<b>İRSDF</b>	<b>83</b>	183 184	92 100
	0,77	2,35		383		1812	1550	18800				
	0,77	2,62		343		1631	1550	18800				
	0,86	2,68	83	336	62	1873	1550	18800				
	0,96	3,00		300		1873	1550	18800				
	1,4	3,42	65	263	65	2529	1550	18800				
	1,4	3,84		235		2255	1550	18800				
	1,9	4,28	52	210	72	3056	1550	18800				
	1,9	4,80		188		2725	1550	18800				
	2,0	5,56		162		2447	1550	18800				
	2,0	6,23		144		2209	1550	18800				
	3,5	6,94	40	130	74	3546	1550	18800				
	3,5	7,69		117		3202	1550	18800				
	3,5	8,65		104		2846	1550	18800				
	3,5	9,61		93,63		2554	1550	18800				
	4,8	10,82	32	83,20	76	3188	1550	18800				
	4,8	12,05		74,67		2861	1550	18800				
	4,8	13,37		67,31		2579	1550	18800				
	4,8	15,04		59,83		2293	1550	18800				
	4,8	16,15		55,73		2135	1550	18800				
	7,1	17,90		50,29		2826	1550	18800				
	7,1	19,63		45,84		2576	1550	18800				
	7,1	21,51		41,85		2352	1550	18800				
	7,1	23,53	38,24	2149	1550	18800						
7,1	26,52	33,94	1907	1550	18800							
<b>3400-6000 Nm</b>	1,6	3,45	54	261	73	3274	2120	22000	<b>İRSDF</b>	<b>161</b>	185 186	160 170
	1,9	3,83		235		3430	2120	22000				
	2,0	4,23		213		3317	2120	22000				
	2,2	4,65		194		3186	2120	22000				
	4,0	4,43	87	203	63	5380	2120	22000				
	4,4	4,98		181		5213	2120	22000				
	4,7	5,56		162		5045	2120	22000				
	5,0	6,16	87	146	63	4834	2120	22000				
	5,4	6,81		132		4687	2120	22000				
	5,7	7,49		120		4518	2120	22000				
	5,4	7,14	42	126	74	5222	2120	22000				
	5,7	7,93		114		5039	2120	22000				
	5,8	8,75		103		4652	2120	22000				
	6,4	9,63		93,48		4652	2120	22000				
	6,8	10,55		85,27		4481	2120	22000				
	7,9	11,54		78,00		4756	2120	22000				
	7,5	12,59		71,51		4153	2120	22000				
	7,8	13,70		65,69		3988	2120	22000				
	9,2	14,78	60,90	4518	2120	22000						
	9,7	16,16	30	55,71	77	4330	2120	22000				
	10,1	17,62		51,08		4162	2120	22000				
	10,5	19,18		46,92		3976	2120	22000				
	12,1	26,75		33,65		3270	2120	22000				



Servis Faktörü Service Factor Service facteur  $S_f = 1$	$P_1$	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type Types			
	GÜÇ Power Puissance  [kW]	Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] ( $n_1=700$ rpm)	Sonsuz Vida Tahvili Worm Ratio Rapport de réduction	Toplam Tahvil Total Ratio Raapport de réduction	Verim Efficiency Eficiencia  [ % ]	Çıkış Momenti Output Torque Couple de sortie  [Nm]	Rad. Yük Over Loads Charges radiales  [N]	Rad. Yük Over Loads Charges radiales  [N]				
<b>120-394 Nm</b>	0,07	2,71	83	259	52	123	260	3800	<b>İRSDF</b>	<b>43</b>	175	11
	0,08	3,14		223		120	260	3800				
	0,19	3,62	62	193	56	283	260	3800				
	0,22	4,21		166		275	260	3800				
	0,24	4,84		145		267	260	3800				
	0,27	5,52		127		258	260	3800				
	0,32	6,00	50	117	58	287	260	3800				
	0,35	6,85		102		277	260	3800				
	0,47	7,89	38	88,67	66	368	260	3800				
	0,53	9,01		77,65		362	260	3800				
	0,64	10,34	29	67,67	68	394	260	3800				
	0,71	11,81		59,26		382	260	3800				
	0,77	13,41		52,20		369	260	3800				
	0,68	15,79	19	44,33	77	310	260	3800				
	0,74	18,03		38,83		298	260	3800				
	0,92	20,69	15	33,83	78	327	260	3800				
	1,0	23,62		29,63		322	260	3800				
	1,1	26,82		26,10		304	260	3800				
	0,98	31,57		22,17		246	260	3800				
	1,1	36,06	10	19,41	84	238	260	3800				
1,2	40,94	17,10		233		260	3800					
1,3	46,27	15,13		226		260	3800					
<b>270-420 Nm</b>	0,13	2,57	82	272	56	270	420	6000	<b>İRSDF</b>	<b>53</b>	177	20
	0,15	2,94		238		270	420	6000				
	0,18	3,41	62	206	54	270	420	6000				
	0,21	3,89		180		270	420	6000				
	0,19	4,22	50	166	65	270	420	6000				
	0,23	4,82		145		290	420	6000				
	0,37	5,41	39	129	68	420	420	6000				
	0,42	6,18		113		420	420	6000				
	0,33	7,00		100		290	420	6000				
	0,54	7,87		88,92		420	420	6000				
	0,60	8,81	30	79,44	78	420	420	6000				
	0,58	9,10		76,96		410	420	6000				
	0,66	10,23		68,40		410	420	6000				
	0,73	11,45		61,11		410	420	6000				
	0,82	12,77		54,83		410	420	6000				
	0,91	14,18		49,35		410	420	6000				
	1,0	15,71	15	44,55	78	410	420	6000				
	1,1	17,38		40,29		410	420	6000				
	1,2	18,29		38,28		410	420	6000				
	1,3	20,67		33,87		410	420	6000				
	1,3	22,91		30,56		410	420	6000				
	1,4	25,54		27,41		410	420	6000				
	1,6	28,37		24,68		410	420	6000				
	1,8	31,43		22,27		410	420	6000				
	1,9	34,75	20,14	410	420	6000						
	2,0	36,58	19,14	410	420	6000						
2,3	41,33	16,94	410	420	6000							



Servis Faktörü Service Factor Service facteur  S <sub>f</sub> = 1	P <sub>1</sub> GÜÇ Power Puissance [kW]	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n <sub>1</sub> =700rpm)	İ <sub>s</sub> Sonsuz Vida Tahvili Worm Ratio Rapport de réduction	İ <sub>t</sub> Toplam Tahvil Total Ratio Raapport de réduction	η Verim Efficiency Eficiencia [ % ]	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q1</sub> Rad. Yük Over Loads Charges radiales [N]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg
<b>510-870 Nm</b>	0,27	2,45	62	286	60	634	700	8700	İRSDF	63	179 180	27 31
	0,28	2,62		268		594	700	8700				
	0,33	3,06	53	229	68	692	700	8700				
	0,37	3,33	62	210	60	636	700	8700				
	0,39	3,89	53	180	68	636	700	8700				
	0,37	4,12	62	170	60	514	700	8700				
	0,55	4,82	53	145	68	730	700	8700				
	0,54	5,16	40	136	67	662	700	8700				
	0,50	5,32	53	132	68	602	700	8700				
	0,75	6,39	40	110	67	741	700	8700				
	0,71	6,88	30	102	72	698	700	8700				
	0,75	7,05	40	99,31	67	671	700	8700				
	0,75	7,75		90,32		610	700	8700				
	1,1	8,51	30	82,22	72	876	700	8700				
	1,1	9,28	40	75,43	67	747	700	8700				
	1,2	9,40	30	74,48		793	700	8700				
	1,2	10,33		67,74	721	700	8700					
	1,1	11,01	40	63,59	72	630	700	8700				
	1,1	11,52		60,74		602	700	8700				
	1,1	12,37	30	56,57	67	602	700	8700				
	1,7	13,01	40	53,79	72	821	700	8700				
	1,5	14,68	30	47,69	72	693	700	8700				
1,5	15,37	45,56		662		700	8700					
2,2	17,35	40,34		871		700	8700					
<b>680-1870 Nm</b>	0,37	2,05	82	341	60	1031	1100	13300	İRSDF	73	181 182	49 55
	0,55	2,33		301		1334	1100	13300				
	0,55	2,67	63	262	62	1201	1100	13300				
	0,55	3,03		231		1059	1100	13300				
	0,74	3,37	50	208	69	1284	1100	13300				
	0,75	3,82		183		1150	1100	13300				
	0,76	4,29		163		1033	1100	13300				
	1,1	4,82	40	145	72	1482	1100	13300				
	1,1	5,46		128		1309	1100	13300				
	1,5	6,02	40	116	72	1687	1100	13300				
	1,5	6,82		103		1490	1100	13300				
	2,0	7,68	30	91,20	74	1766	1100	13300				
	2,0	8,03		87,14		1734	1100	13300				
	2,0	9,10	30	76,96	74	1531	1100	13300				
	2,8	10,23		68,40		1872	1100	13300				
	2,7	11,45	30	61,11	74	1672	1100	13300				
	2,7	12,77		54,83		1500	1100	13300				
	2,7	14,18	30	49,35	74	1350	1100	13300				
	2,8	15,71		44,55		1219	1100	13300				
	3,7	17,38	15	40,29	82	1503	1100	13300				
	3,7	19,19		36,49		1361	1100	13300				
	3,7	21,16	15	33,08	82	1234	1100	13300				
	3,7	22,83		30,66		1267	1100	13300				
	3,7	25,54	15	27,41	82	1133	1100	13300				
	3,7	28,37		24,68		1020	1100	13300				
	3,8	31,43	15	22,27	82	921	1100	13300				
	3,8	34,75		20,14		833	1100	13300				
	3,7	38,37	15	18,24	82	754	1100	13300				
3,8	42,33	16,54		684		1100	13300					



Servis Faktörü Service Factor Service facteur  S <sub>f</sub> = 1	P <sub>1</sub> GÜÇ Power Puissance  [kW]	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n <sub>1</sub> =700rpm)	İ <sub>s</sub> Sonsuz Vida Tahvili Worm Ratio Rapport de réduction	İ <sub>t</sub> Toplam Tahvil Total Ratio Raapport de réduction	η Verim Efficiency Eficiencia  [ % ]	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie  [Nm]	F <sub>Q1</sub> Rad. Yük Over Loads Charges radiales  [N]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales  [N]	Tip Type Types			kg
<b>1670-3540 Nm</b>	0,60	1,63	106	429	63	2038	1550	18800	İRSDF	83	183	92
	0,60	1,83		383		1812	1550	18800				
	0,60	2,04		343		1631	1550	18800				
	0,67	2,08	83	336	62	1873	1550	18800				
	0,75	2,34		300		1873	1550	18800				
	1,1	2,66	65	263	65	2529	1550	18800				
	1,1	2,98		235		2255	1550	18800				
	1,5	3,33	52	210	72	3056	1550	18800				
	1,5	3,73		188		2725	1550	18800				
	1,6	4,32		162		2447	1550	18800				
	1,6	4,85		144		2209	1550	18800				
	2,7	5,40	40	130	74	3546	1550	18800				
	2,7	5,98		117		3202	1550	18800				
	2,8	6,73		104		2846	1550	18800				
	2,7	7,48		93,63		2554	1550	18800				
	3,7	8,41	32	83,20	76	3188	1550	18800				
	3,7	9,38		74,67		2861	1550	18800				
	3,7	10,40		67,31		2579	1550	18800				
	3,8	11,70		59,83		2293	1550	18800				
	3,7	12,56		55,73		2135	1550	18800				
5,5	13,92	50,29		2826		1550	18800					
5,5	15,27	45,84		2576		1550	18800					
5,5	16,73	41,85		2352		1550	18800					
5,5	18,30	38,24	2149	1550	18800							
5,5	20,63	33,94	1907	1550	18800							
<b>3400-6000 Nm</b>	1,3	2,68	54	261	73	3274	2120	22000	İRSDF	161	185	160
	1,5	2,98		235		3430	2120	22000				
	1,6	3,29		213		3317	2120	22000				
	1,7	3,61		194		3186	2120	22000				
	3,1	3,45	87	203	63	5380	2120	22000				
	3,4	3,87		181		5213	2120	22000				
	3,7	4,32		162		5045	2120	22000				
	3,9	4,79	87	146	63	4834	2120	22000				
	4,2	5,30		132		4687	2120	22000				
	4,4	5,82		120		4518	2120	22000				
	4,2	5,56		126		5222	2120	22000				
	4,5	6,16	42	114	74	5039	2120	22000				
	4,5	6,81		103		4652	2120	22000				
	5,0	7,49		93,48		4652	2120	22000				
	5,3	8,21		85,27		4481	2120	22000				
	6,1	8,97		78,00		4756	2120	22000				
	5,8	9,79		71,51		4153	2120	22000				
	6,1	10,66		65,69		3988	2120	22000				
	7,2	11,49		60,90		4518	2120	22000				
	7,5	12,57	30	55,71	77	4330	2120	22000				
7,9	13,70	51,08		4162		2120	22000					
8,2	14,92	46,92		3976		2120	22000					
9,4	20,80	33,65		3270		2120	22000					



Servis Faktörü Service Factor Service facteur  S <sub>f</sub> = 1	P <sub>1</sub> GÜÇ Power Puissance [kW]	n <sub>2</sub> Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n <sub>1</sub> =500rpm)	İ <sub>s</sub> Sonsuz Vida Tahvili Worm Ratio Rapport de réduction	İ <sub>t</sub> Toplam Tahvil Total Ratio Raapport de réduction	η Verim Efficiency Eficiencia [ % ]	M <sub>2</sub> Çıkış Momenti Output Torque Couple de sortie [Nm]	F <sub>Q1</sub> Rad. Yük Over Loads Charges radiales [N]	F <sub>Q10</sub> Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			kg
120-552 Nm	0,05	1,93	83	259	52	123	260	3800	İRSDF	43	175	11
	0,06	2,24		223		120	260	3800				
	0,19	2,59	62	193	56	396	260	3800				
	0,22	3,00		166		385	260	3800				
	0,24	3,46		145		373	260	3800				
	0,27	3,95		127		361	260	3800				
	0,32	4,29	50	117	58	402	260	3800				
	0,35	4,89		102		388	260	3800				
	0,47	5,64	38	88,67	66	516	260	3800				
	0,53	6,44		77,65		507	260	3800				
	0,64	7,39	29	67,67	68	552	260	3800				
	0,71	8,44		59,26		535	260	3800				
	0,77	9,58		52,20		516	260	3800				
	0,68	11,28	19	44,33	77	434	260	3800				
	0,74	12,88		38,83		418	260	3800				
	0,92	14,78	15	33,83	78	458	260	3800				
	1,0	16,87		29,63		450	260	3800				
	1,1	19,16		26,10		425	260	3800				
	0,98	22,55		22,17		344	260	3800				
	1,1	25,76	10	19,41	84	334	260	3800				
1,2	29,24	17,10		326		260	3800					
1,3	33,05	15,13		316		260	3800					
270-420 Nm	0,09	1,84	82	272	56	270	420	6000	İRSDF	53	177	20
	0,11	2,10		238		270	420	6000				
	0,13	2,43	62	206	54	270	420	6000				
	0,15	2,78		180		270	420	6000				
	0,13	3,02	50	166	65	270	420	6000				
	0,16	3,44		145		290	420	6000				
	0,27	3,87	39	129	68	420	420	6000				
	0,30	4,41		113		420	420	6000				
	0,24	5,00		100		290	420	6000				
	0,39	5,62		88,92		420	420	6000				
	0,43	6,29	30	79,44	78	420	420	6000				
	0,42	6,50		76,96		410	420	6000				
	0,47	7,31		68,40		410	420	6000				
	0,52	8,18		61,11		410	420	6000				
	0,58	9,12		54,83		410	420	6000				
	0,65	10,13		49,35		410	420	6000				
	0,72	11,22		44,55		410	420	6000				
	0,80	12,41		40,29		410	420	6000				
	0,84	13,06	15	38,28	78	410	420	6000				
	0,95	14,76		33,87		410	420	6000				
	0,91	16,36		30,56		410	420	6000				
	1,0	18,24		27,41		410	420	6000				
	1,1	20,26	15	24,68	78	410	420	6000				
	1,3	22,45		22,27		410	420	6000				
	1,4	24,82		20,14		410	420	6000				
	1,5	26,13		19,14		410	420	6000				
	1,6	29,52		16,94		410	420	6000				



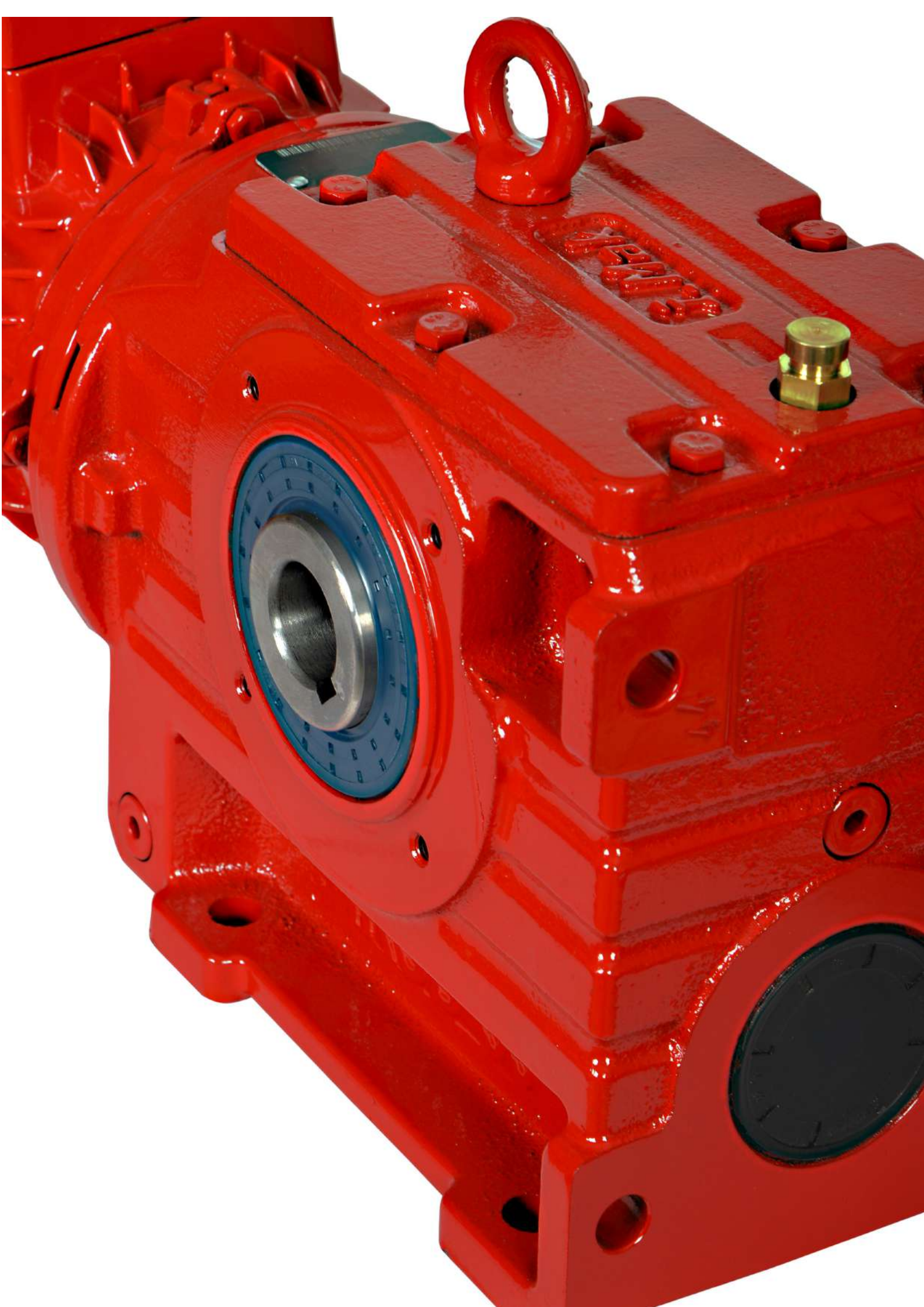
Servis Faktörü Service Factor Service facteur  $S_f = 1$	$P_1$ GÜÇ Power Puissance  [kW]	$n_2$ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] ( $n_1=500$ rpm)	$i_s$ Sonsuz Vida Tahvili Worm Ratio Rapport de réduction	$i_t$ Toplam Tahvil Total Ratio Raapport de réduction	$\eta$ Verim Efficiency Eficiencia  [%]	$M_2$ Çıkış Momenti Output Torque Couple de sortie  [Nm]	$F_{Q1}$ Rad. Yük Over Loads Charges radiales  [N]	$F_{Q10}$ Rad. Yük Over Loads Charges radiales  [N]	Tip Type Types			kg
<b>510-870 Nm</b>	0,20	1,75	62	286	60	634	700	8700	<b>İRSDF</b>	<b>63</b>	179	27
	0,20	1,87		268		594	700	8700				
	0,24	2,19	53	229	68	692	700	8700				
	0,27	2,38	62	210	60	636	700	8700				
	0,28	2,78	53	180	68	636	700	8700				
	0,27	2,94	62	170	60	514	700	8700				
	0,39	3,44	53	145	68	730	700	8700				
	0,39	3,69	40	136	67	662	700	8700				
	0,36	3,80	53	132	68	602	700	8700				
	0,54	4,56	40	110	67	741	700	8700				
	0,51	4,91	30	102	72	698	700	8700				
	0,54	5,03	40	99,31	67	671	700	8700				
	0,54	5,54		90,32		610	700	8700				
	0,79	6,08	30	82,22	72	876	700	8700				
	0,79	6,63	40	75,43	67	747	700	8700				
	0,84	6,71	30	74,48		793	700	8700				
	0,84	7,38		67,74	721	700	8700					
	0,79	7,86	40	63,59	72	630	700	8700				
	0,79	8,23		60,74		602	700	8700				
	0,79	8,84	30	56,57	72	602	700	8700				
1,2	9,29	40	53,79	67	821	700	8700					
1,1	10,48	30	47,69	72	693	700	8700					
1,1	10,98		45,56		662	700	8700					
1,6	12,39		40,34		871	700	8700					
<b>680-1870 Nm</b>	0,27	1,47	82	341	60	1031	1100	13300	<b>İRSDF</b>	<b>73</b>	181	49
	0,39	1,66		301		1334	1100	13300				
	0,39	1,91	63	262	62	1201	1100	13300				
	0,39	2,16		231		1059	1100	13300				
	0,53	2,41	50	208	69	1284	1100	13300				
	0,54	2,73		183		1150	1100	13300				
	0,54	3,07		163		1033	1100	13300				
	0,79	3,44	40	145	72	1482	1100	13300				
	0,79	3,90		128		1309	1100	13300				
	1,1	4,30	30	116	74	1687	1100	13300				
	1,1	4,87		103		1490	1100	13300				
	1,4	5,48		91,20		1766	1100	13300				
	1,4	5,74	15	87,14	82	1734	1100	13300				
	1,4	6,50		76,96		1531	1100	13300				
	2,0	7,31	15	68,40	82	1872	1100	13300				
	2,0	8,18		61,11		1672	1100	13300				
	2,0	9,12	15	54,83	82	1500	1100	13300				
	2,0	10,13		49,35		1350	1100	13300				
	2,0	11,22	15	44,55	82	1219	1100	13300				
	2,7	12,41		40,29		1503	1100	13300				
	2,7	13,70	15	36,49	82	1361	1100	13300				
	2,7	15,12		33,08		1234	1100	13300				
	2,7	16,31	15	30,66	82	1267	1100	13300				
	2,7	18,24		27,41		1133	1100	13300				
	2,7	20,26	15	24,68	82	1020	1100	13300				
	2,7	22,45		22,27		921	1100	13300				
	2,7	24,82	15	20,14	82	833	1100	13300				
	2,7	27,41		18,24		754	1100	13300				
2,7	30,23	15	16,54	82	684	1100	13300					





Servis Faktörü Service Factor Service facteur  $S_f = 1$	$P_1$	$n_2$	$i_s$	$i_t$	$\eta$	$M_2$	$F_{Q1}$	$F_{Q10}$	Tip Type Types			
	GÜÇ Power Puissance [kW]	Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] ( $n_1=500$ rpm)	Sonsuz Vida Tahvili Worm Ratio Rapport de réduction	Toplam Tahvil Total Ratio Raapport de réduction	Verim Efficiency Eficiencia [%]	Çıkış Momenti Output Torque Couple de sortie [Nm]	Rad. Yük Over Loads Charges radiales [N]	Rad. Yük Over Loads Charges radiales [N]				
<b>1670-3540 Nm</b>	0,43	1,17	106	429	63	2038	1550	18800	<b>İRSDF</b>	<b>83</b>	183 184	92 100
	0,43	1,31		383		1812	1550	18800				
	0,43	1,46		343		1631	1550	18800				
	0,48	1,49	83	336	62	1873	1550	18800				
	0,54	1,67		300		1873	1550	18800				
	0,79	1,90	65	263	65	2529	1550	18800				
	0,79	2,13		235		2255	1550	18800				
	1,1	2,38	52	210	72	3056	1550	18800				
	1,1	2,66		188		2725	1550	18800				
	1,1	3,09		162		2447	1550	18800				
	1,1	3,46		144		2209	1550	18800				
	2,0	3,86	40	130	74	3546	1550	18800				
	2,0	4,27		117		3202	1550	18800				
	2,0	4,81		104		2846	1550	18800				
	2,0	5,34		93,63		2554	1550	18800				
	2,7	6,01	32	83,20	76	3188	1550	18800				
	2,7	6,70		74,67		2861	1550	18800				
	2,7	7,43		67,31		2579	1550	18800				
	2,7	8,36		59,83		2293	1550	18800				
	2,7	8,97		55,73		2135	1550	18800				
	3,9	9,94		50,29		2826	1550	18800				
	3,9	10,91		45,84		2576	1550	18800				
	3,9	11,95		41,85		2352	1550	18800				
	3,9	13,07		38,24		2149	1550	18800				
3,9	14,73	33,94		1907		1550	18800					
<b>3400-6000 Nm</b>	0,91	1,92	54	261	73	3274	2120	22000	<b>İRSDF</b>	<b>161</b>	185 186	160 170
	1,1	2,13		235		3430	2120	22000				
	1,1	2,35		213		3317	2120	22000				
	1,2	2,58		194		3186	2120	22000				
	2,2	2,46	87	203	63	5380	2120	22000				
	2,4	2,77		181		5213	2120	22000				
	2,6	3,09	162	5045	2120	22000						
	2,8	3,42	87	146	63	4834	2120	22000				
	3,0	3,78		132		4687	2120	22000				
	3,2	4,16	120	4518	2120	22000						
	3,0	3,97	42	126	74	5222	2120	22000				
	3,2	4,40		114		5039	2120	22000				
	3,2	4,86		103		4652	2120	22000				
	3,6	5,35		93,48		4652	2120	22000				
	3,8	5,86		85,27		4481	2120	22000				
	4,4	6,41		78,00		4756	2120	22000				
	4,2	6,99		71,51		4153	2120	22000				
	4,4	7,61		65,69		3988	2120	22000				
	5,1	8,21		60,90		4518	2120	22000				
	5,4	8,98		55,71		4330	2120	22000				
	5,6	9,79	51,08	4162	2120	22000						
	5,8	10,66	46,92	3976	2120	22000						
	6,7	14,86	33,65	3270	2120	22000						





## Helisel Sonsuz Vidalı Redüktörler Ölçü Sayfaları

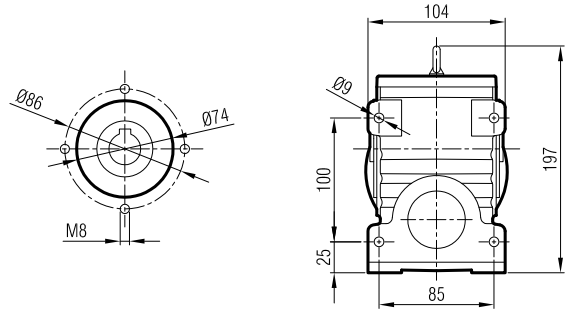
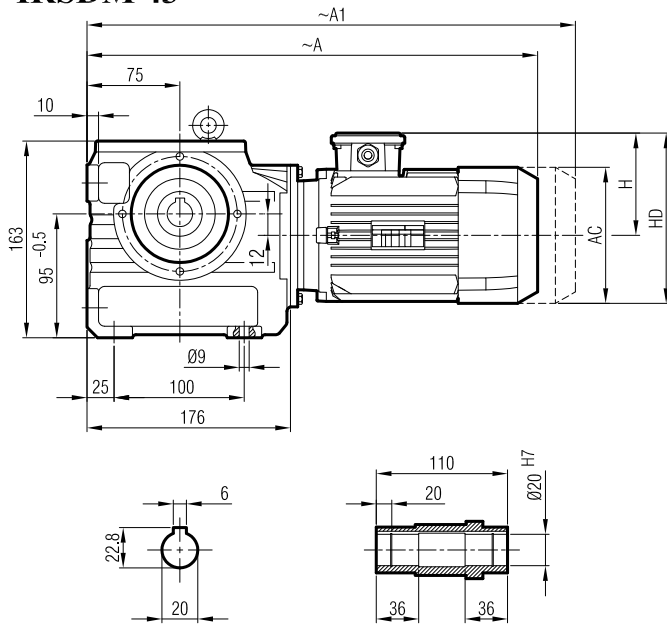
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Helical, Worm Gearbox

*Réducteurs hélicoïdaux à roue et vis sans fin*



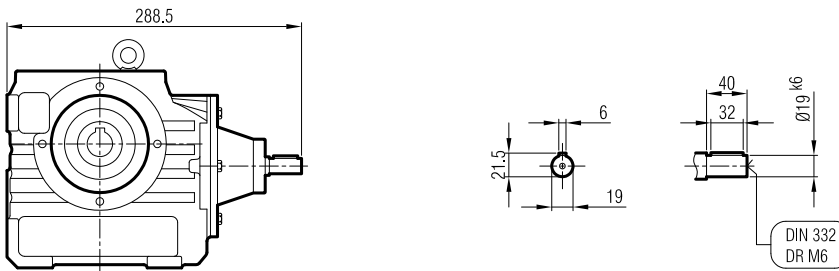
**İRSDM 43**



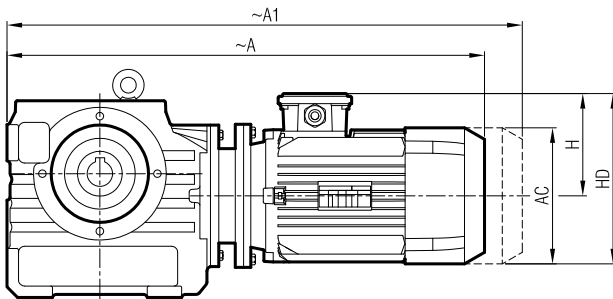
	71 M	80 M	80 H	90 S	90 H		
A	405	449	476	467	531		
A1	459	510	537	534	598		
H	123	136	136	141	141		
HD	194	216	216	231	231		
AC	138.5	158	158	176	176		

"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspondent aux moteurs équipés de freins.

**İRSD 43**



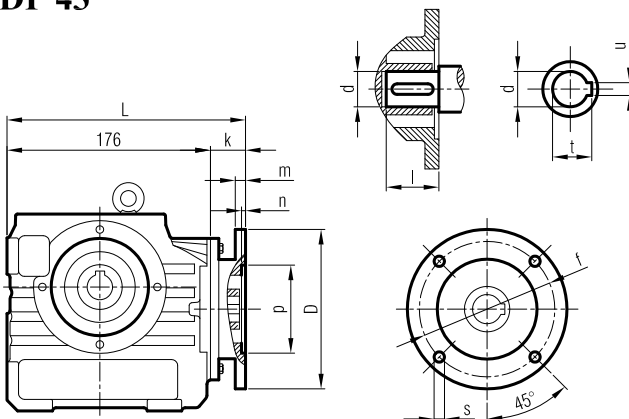
**İRSDPM 43**



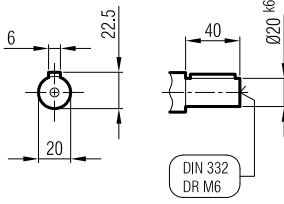
IEC	63 M/B5	71 M/B5	80 M/B5	80 H/B5	90 S/B5	90 H/B5
A	409	450	493	520	529	567
A1	463	504	554	581	596	634
H	108	123	136	136	141	141
HD	171	194	216	216	231	231
AC	125	138.5	158	158	176	176

"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspondent aux moteurs équipés de freins.

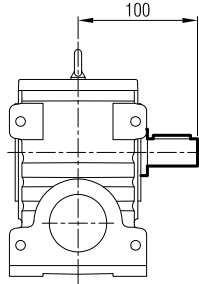
**İRSDP 43**



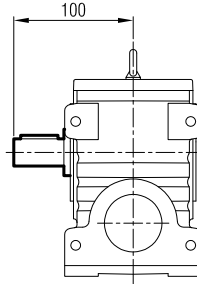
IEC	L	Øp	Øf	ØD	s	k	m	n	Ød	l	t	u	
63	B5	212	95	115	140	M8	35.5	8	4	11	23	12.8	4
71		220	110	130	160	M8	44	9	4	14	30	16.3	5
80		227	130	165	200	M10	51	12	4	19	40	21.8	6
90		227	130	165	200	M10	51	12	4	24	50	27.3	8
63	B14	212	60	75	90	Ø6	35.5	7	3,5	11	23	12.8	4
71		220	70	85	105	Ø7	44	10	3	14	30	16.3	5
80		227	80	100	120	Ø7	51	8	4	19	40	21.8	6
90		227	95	115	140	Ø9	51	10	4	24	50	27.3	8



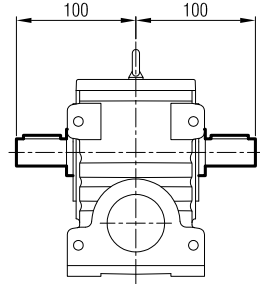
... -SL



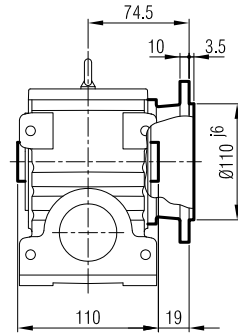
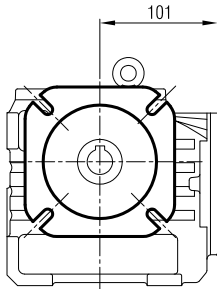
... -SR



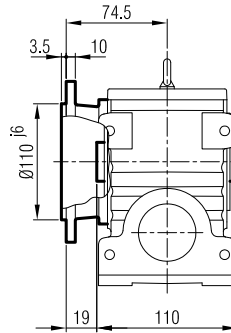
... -SD



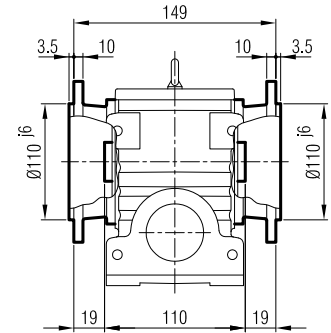
... -FL



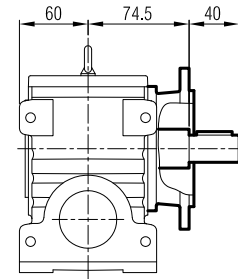
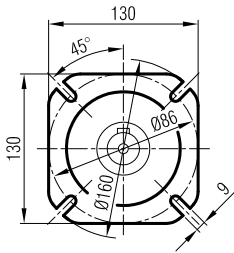
... -FR



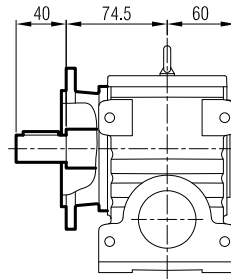
... -FD



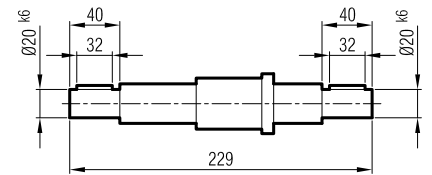
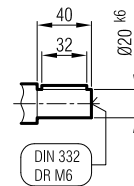
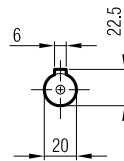
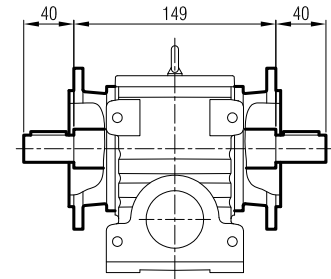
... -FL -SL



... -FR -SR

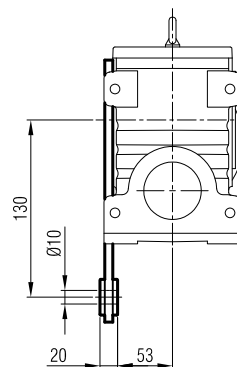
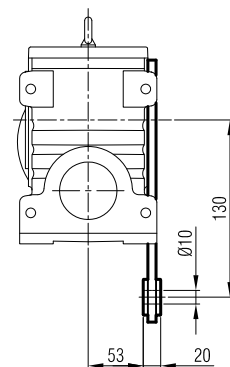
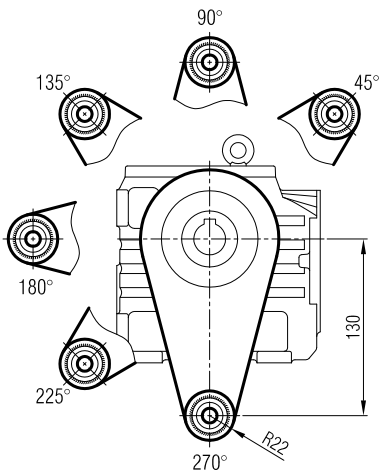


... -FD -SD

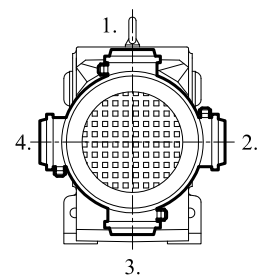


-TL

-TR

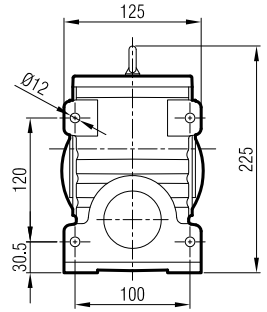
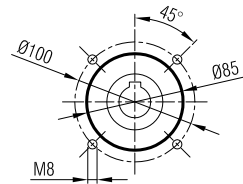
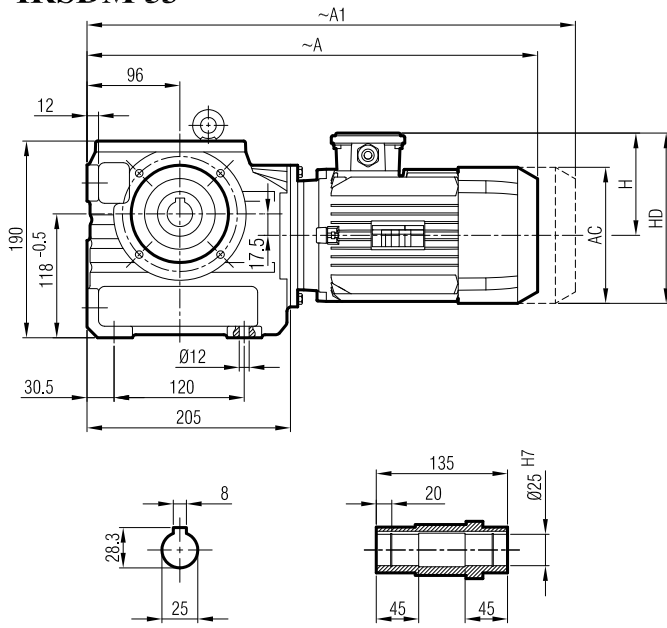


**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes





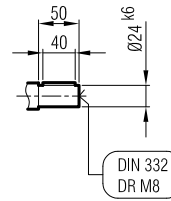
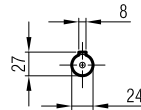
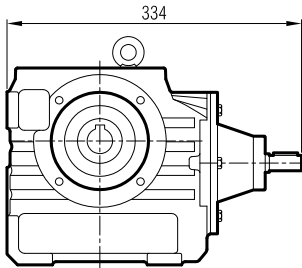
**İRSDM 53**



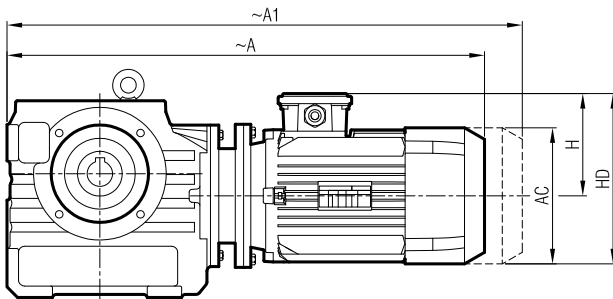
	71 M	80 M	80 H	90 S	90 H	100 L	100 H
A	434	477	504	496	560	565	600
A1	488	538	565	563	627	642	677
H	123	136	136	141	141	161	161
HD	194	216	216	231	231	261	261
AC	138.5	158	158	176	176	195	195

**"A1" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A1" is for motors with brake.  
*Le dimensions "A1" correspondent aux moteurs équipés de freins.*

**İRSD 53**



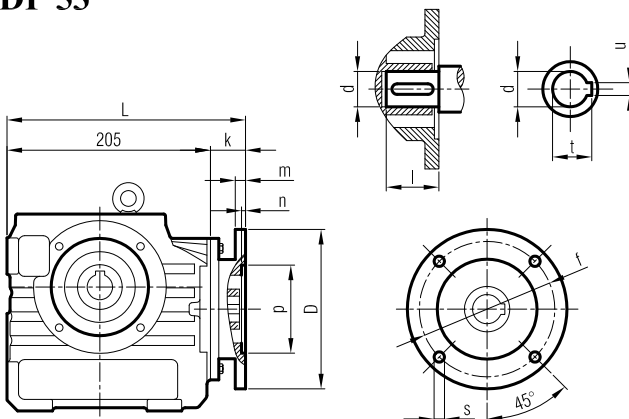
**İRSDPM 53**



IEC	71 M/B5	80 M/B5	80 H/B5	90 S/B5	90 H/B5	100 L/B5	100 H/B5
A	479	517	544	553	591	602	637
A1	533	578	605	620	658	679	714
H	123	136	136	141	141	161	161
HD	194	216	216	231	231	261	261
AC	138.5	158	158	176	176	195	195

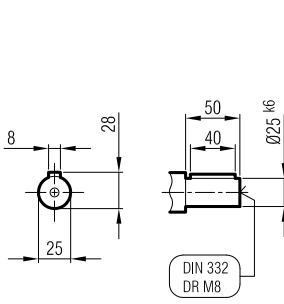
**"A1" Ölçüsü Frenli Motorlar içindir.**  
Dimension "A1" is for motors with brake.  
*Le dimensions "A1" correspondent aux moteurs équipés de freins.*

**İRSDP 53**

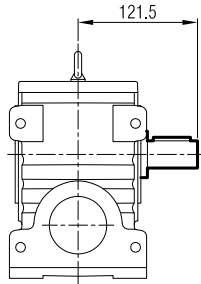


IEC	L	øp	øf	ØD	s	k	m	n	Ød	l	t	u	
71	B5	249	110	130	160	M8	44	9	4	14	30	16.3	5
80		251	130	165	200	M10	46	12	5	19	40	21.8	6
90		251	130	165	200	M10	46	12	5	24	50	27.3	8
100		265	180	215	250	M12	60	14	5	28	60	31.3	8
71	B14	250	70	85	105	Ø7	45	10	3	14	30	16.3	5
80		251	80	100	120	Ø7	46	8	4	19	40	21.8	6
90		251	95	115	140	Ø9	46	10	4	24	50	27.3	8
100		265	110	130	160	Ø9	60	10	4.5	28	60	31.3	8

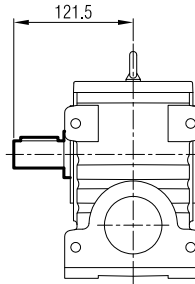




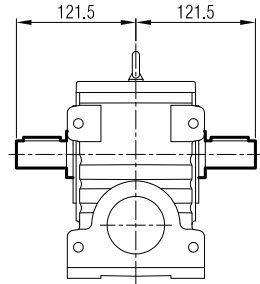
... -SL



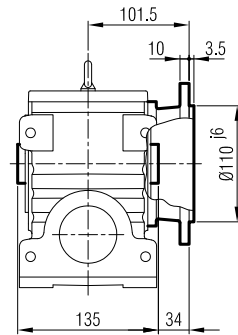
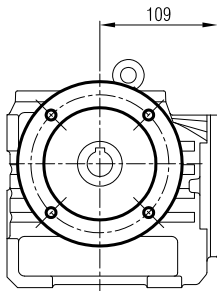
... -SR



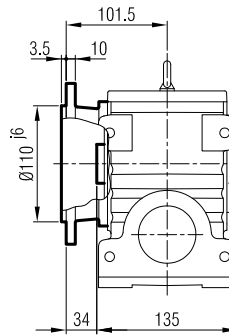
... -SD



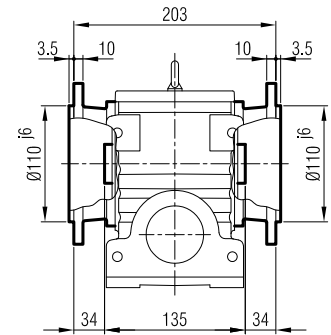
... -FL



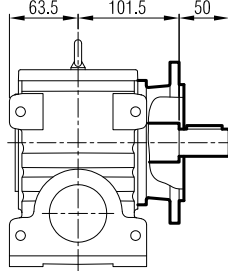
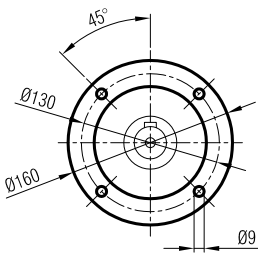
... -FR



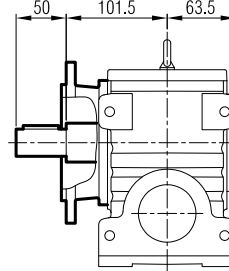
... -FD



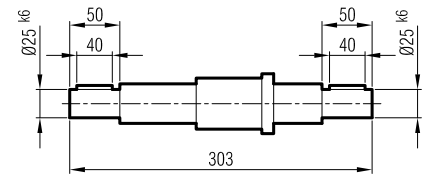
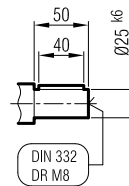
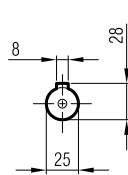
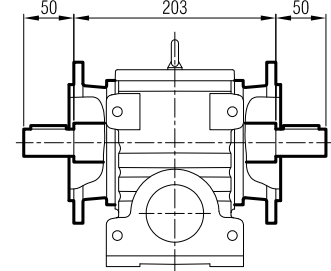
... -FL -SL



... -FR -SR

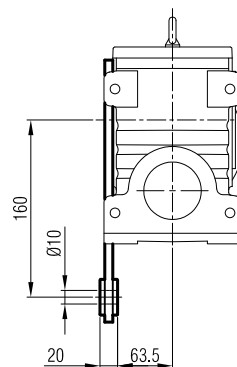
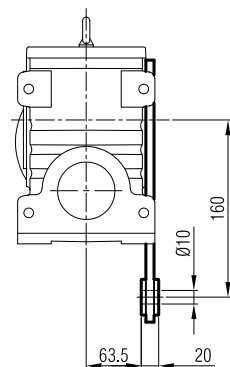
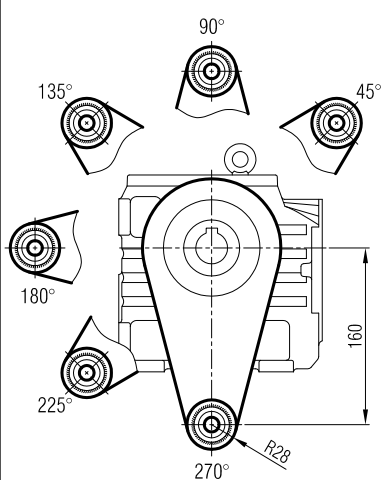


... -FD -SD

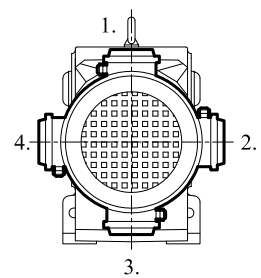


-TL

-TR

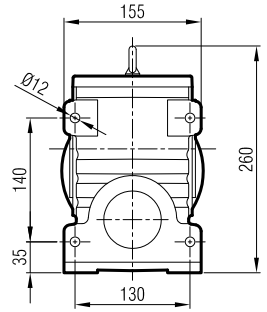
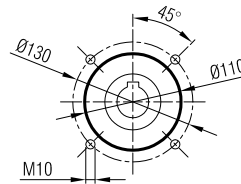
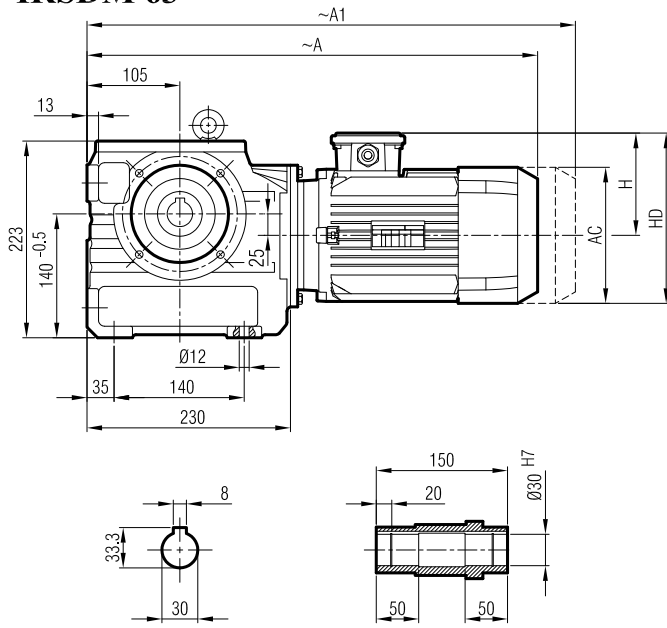


**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes





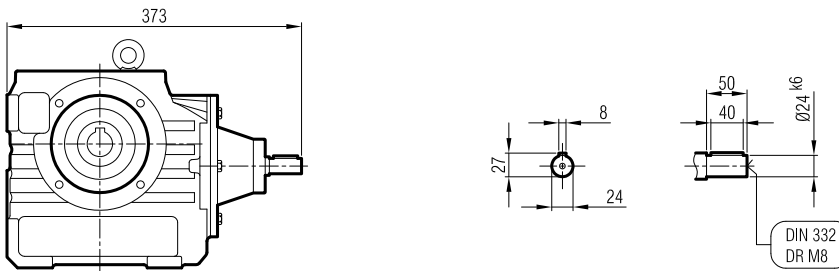
**İRSDM 63**



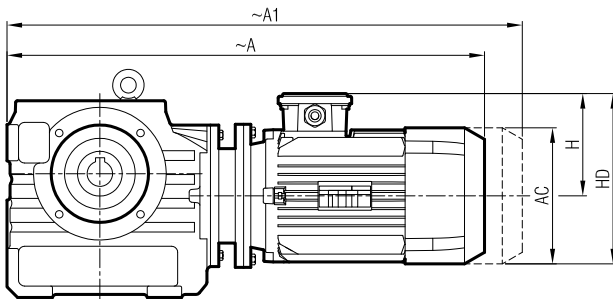
	71 M	80 M	80 H	90 S	90 H	100 L	100 H	112 M
A	452	497	524	517	581	585	620	592
A1	506	558	585	584	648	662	697	687
H	123	136	136	141	141	161	161	170
HD	194	216	216	231	231	261	261	282
AC	138.5	158	158	176	176	195	195	220

"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspondent aux moteurs équipés de freins.

**İRSD 63**



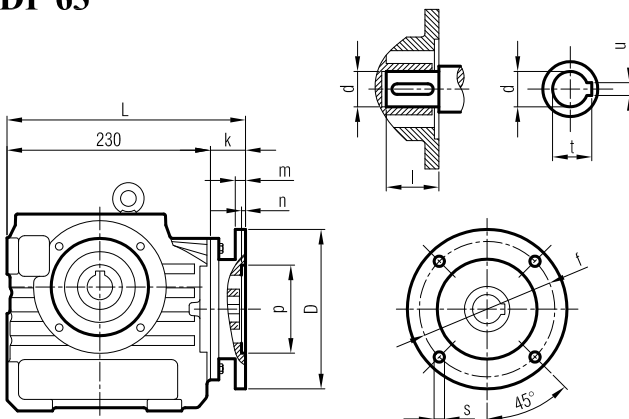
**İRSDPM 63**



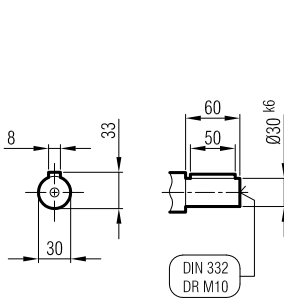
IEC	71 M/B5	80 M/B5	80 H/B5	90 S/B5	90 H/B5	100 L/B5	100 H/B5	112 M/B5
A	505	546	573	582	620	630	665	637
A1	559	607	634	649	687	707	742	732
H	123	136	136	141	141	161	161	170
HD	194	216	216	231	231	261	261	282
AC	138.5	158	158	176	176	195	195	220

"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspondent aux moteurs équipés de freins.

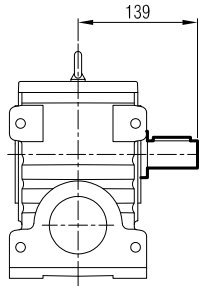
**İRSDP 63**



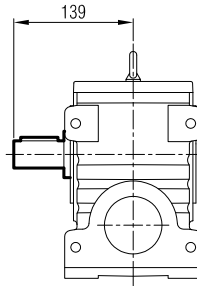
IEC	L	Øp	Øf	ØD	s	k	m	n	Ød	l	t	u	
71	B5	275	110	130	160	M8	45	9	4	14	30	16.3	5
80		280	130	165	200	M10	50	12	5	19	40	21.8	6
90		280	130	165	200	M10	50	12	5	24	50	27.3	8
100		293	180	215	250	M12	63	14	5	28	60	31.3	8
112		293	180	215	250	M12	63	14	5	28	60	31.3	8
71	B14	275	70	85	105	Ø7	45	8	4	14	30	16.3	5
80		280	80	100	120	Ø7	50	8	4	19	40	21.8	6
90		280	95	115	140	Ø9	50	10	4	24	50	27.3	8
100		293	110	130	160	Ø9	63	10	4.5	28	60	31.3	8
112		293	110	130	160	Ø9	63	10	4.5	28	60	31.3	8



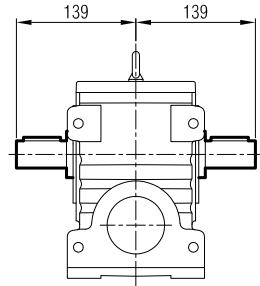
... -SL



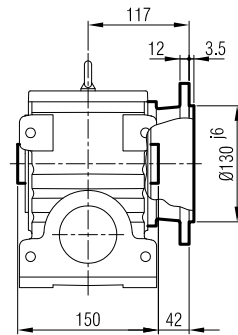
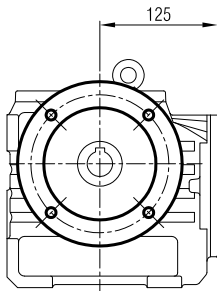
... -SR



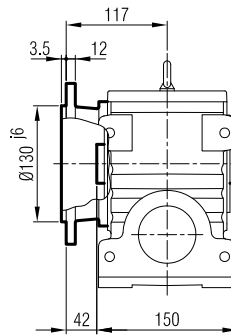
... -SD



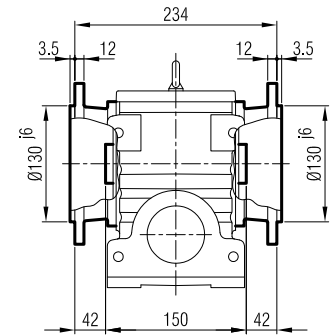
... -FL



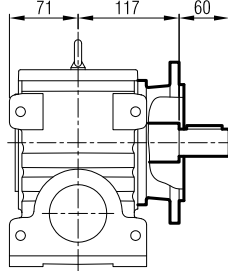
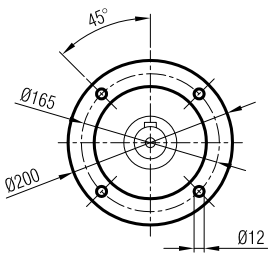
... -FR



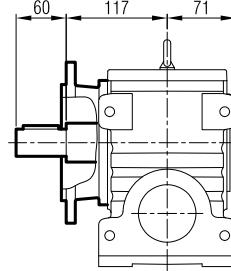
... -FD



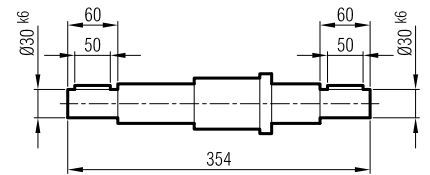
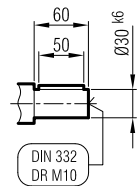
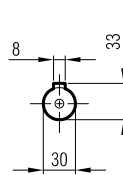
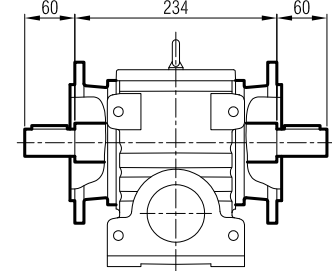
... -FL -SL



... -FR -SR

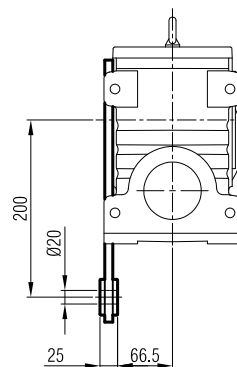
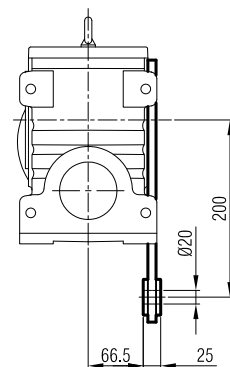
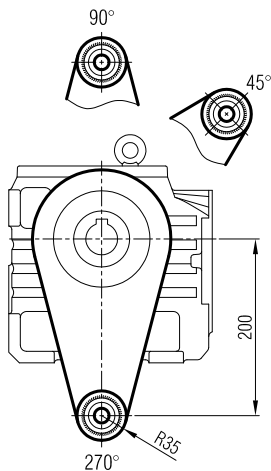


... -FD -SD

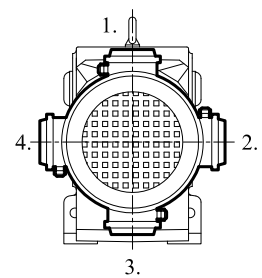


-TL

-TR



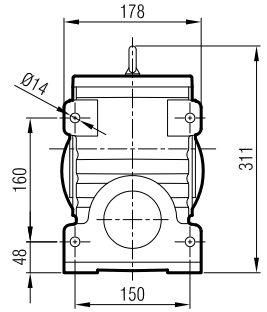
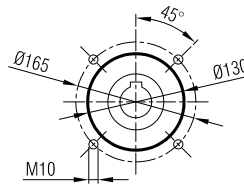
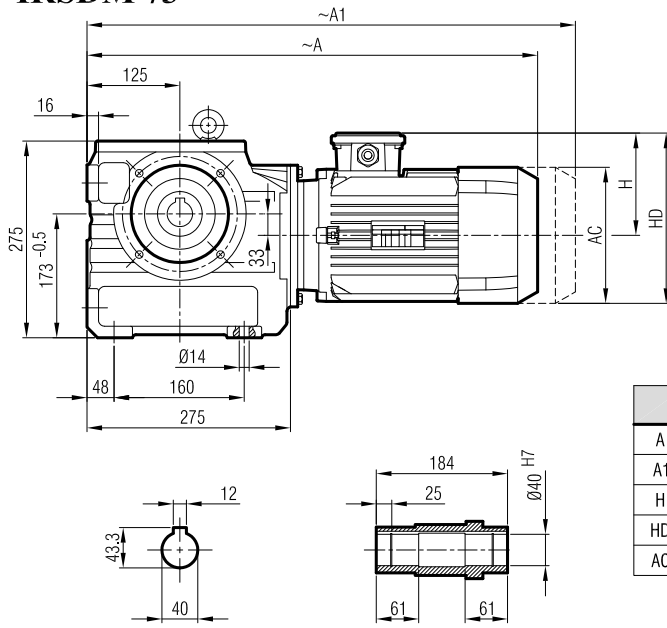
**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes







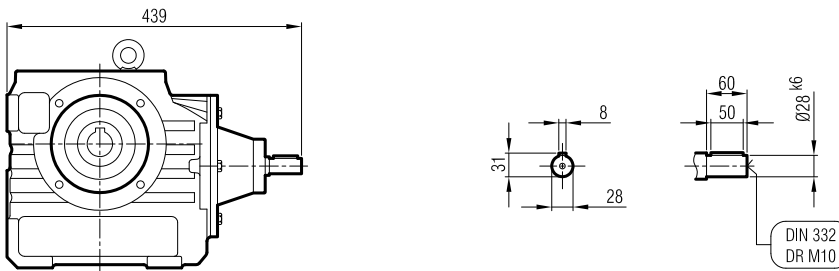
**İRSDM 73**



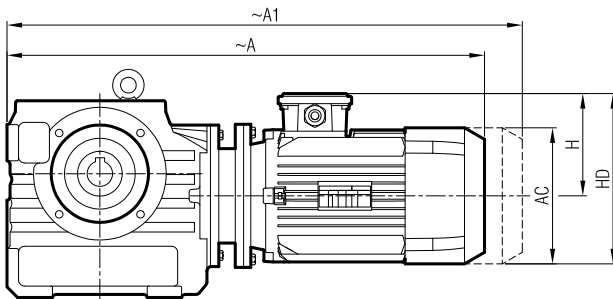
	71 M	80 M	80 H	90 S	90 H	100 L	100 H	112 M	132 S	132 M
A	488	534	561	554	618	624	659	634	705	750
A1	542	595	622	621	685	701	736	729	809	854
H	123	136	136	141	141	161	161	170	193	193
HD	194	216	216	231	231	261	261	282	325	325
AC	138.5	158	158	176	176	195	195	220	262	262

"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

**İRSD 73**



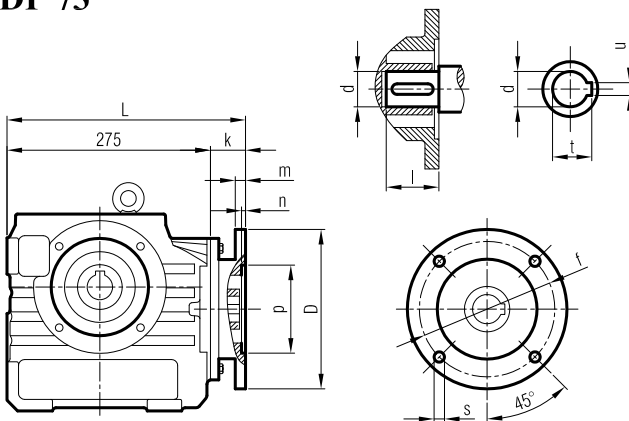
**İRSDPM 73**



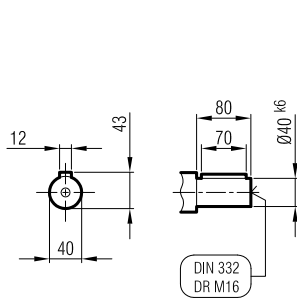
IEC	A	A1	H	HD	AC	IEC	A	A1	H	HD	AC	
71 M	560	614	123	194	138.5	100 L	683	760	161	261	195	
80 M	608	669	136	216	158	100 H	719	796	161	261	195	
80 H	B5	635	696	136	216	158	B5	690	785	170	282	220
90 S		644	711	141	231	176	132 S	772	876	193	325	262
90 L		682	749	141	231	176	132 M	812	916	193	325	262

"A1" Ölçüsü Frenli Motorlar içindir.  
Dimension "A1" is for motors with brake.  
Le dimensions "A1" correspond aux moteurs équipés de freins.

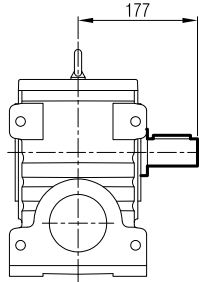
**İRSDP 73**



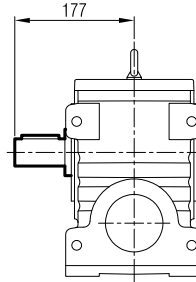
IEC	L	Øp	Øf	ØD	s	k	m	n	Ød	l	t	u	
71	B5	330	110	130	160	M8	55	10	4	14	30	16.3	5
80		342	130	165	200	M10	67	12	5	19	40	21.8	6
90		342	130	165	200	M10	67	12	5	24	50	27.3	8
100		347	180	215	250	M12	71.5	14	5	28	60	31.3	8
112		347	180	215	250	M12	71.5	14	5	28	60	31.3	8
132		371	230	265	300	M12	95.5	17	5	38	80	41.3	10
71	B14	330	70	85	105	Ø7	55	10	4	14	30	16.3	5
80		342	80	100	120	Ø7	67	12	4	19	40	21.8	6
90		342	95	115	140	Ø9	67	12	5	24	50	27.3	8
100		351	110	130	160	Ø9	76	12	5	28	60	31.3	8
112		351	110	130	160	Ø9	76	12	5	28	60	31.3	8
132		354	130	165	200	Ø11	79	13	5	38	80	41.3	10



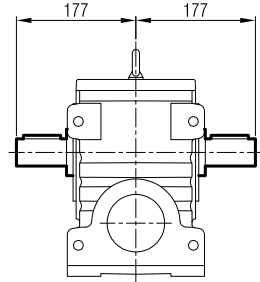
... -SL



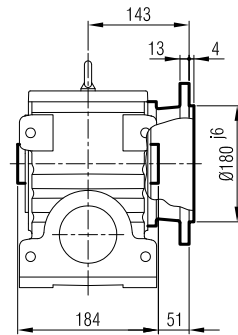
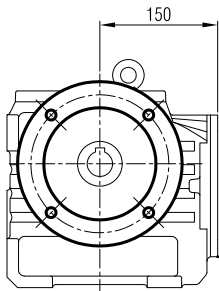
... -SR



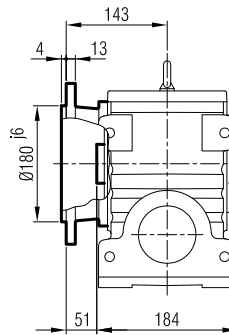
... -SD



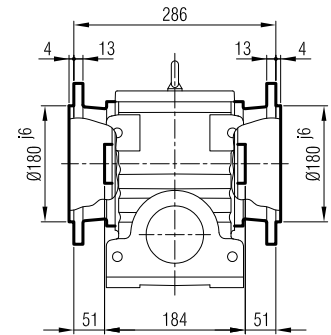
... -FL



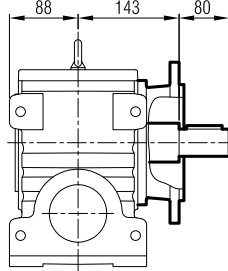
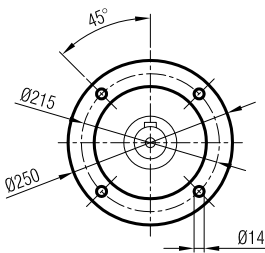
... -FR



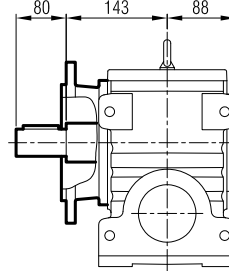
... -FD



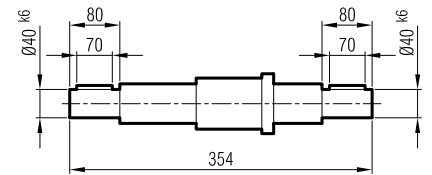
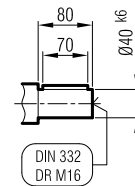
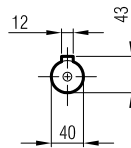
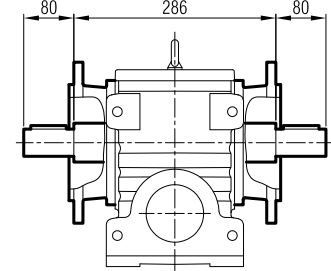
... -FL -SL



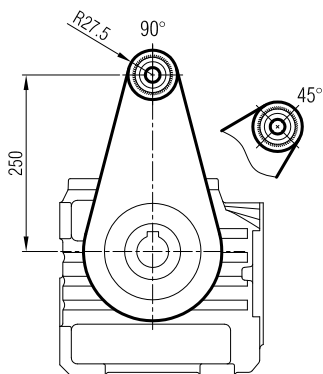
... -FR -SR



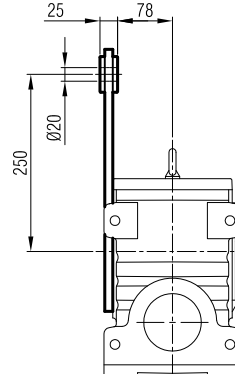
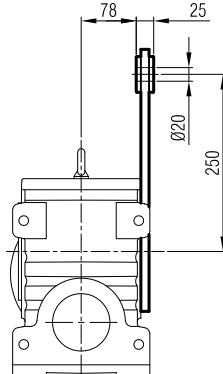
... -FD -SD



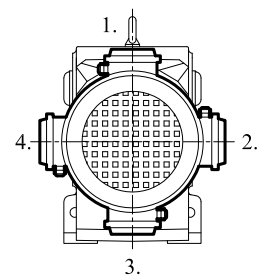
-TL



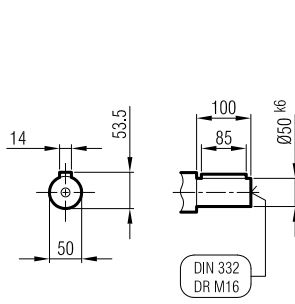
-TR



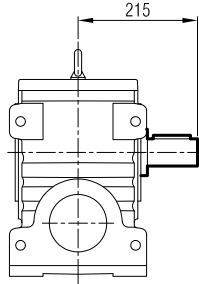
**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



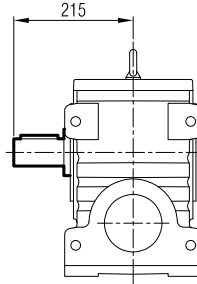




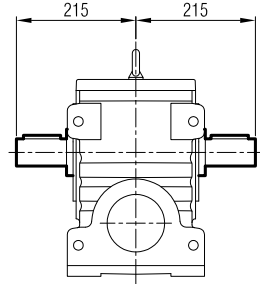
... -SL



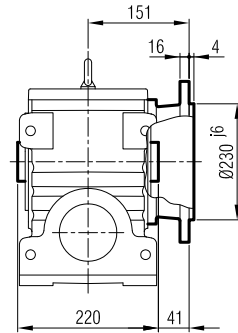
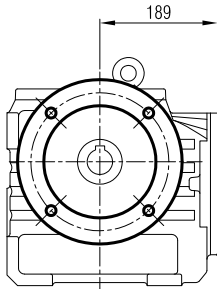
... -SR



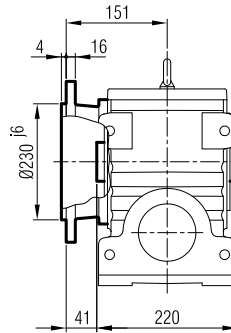
... -SD



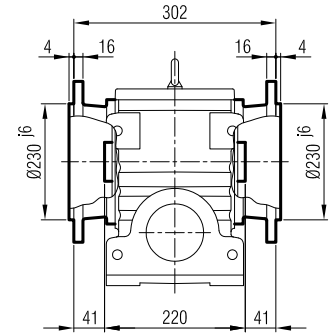
... -FL



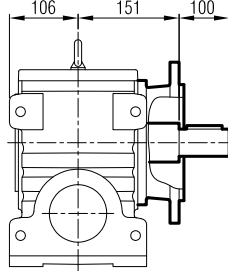
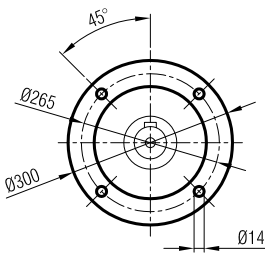
... -FR



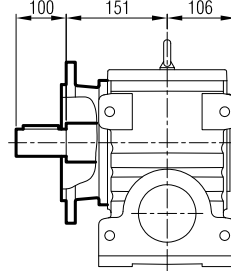
... -FD



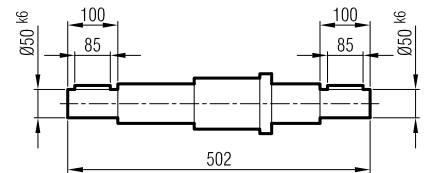
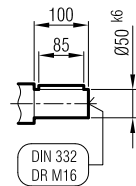
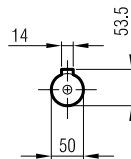
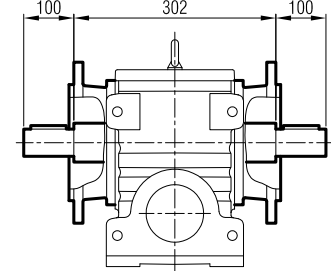
... -FL -SL



... -FR -SR

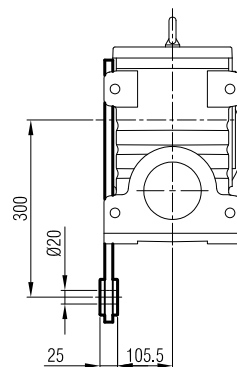
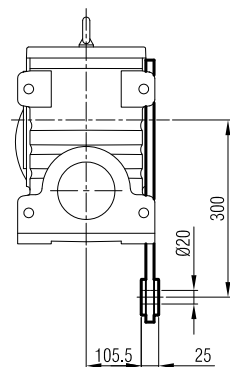
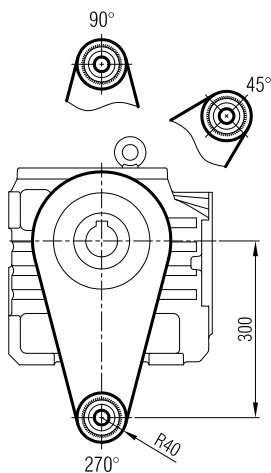


... -FD -SD

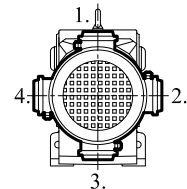


-TL

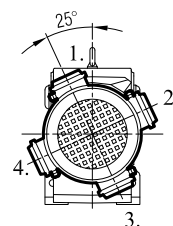
-TR



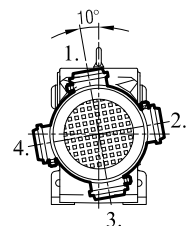
**Klemens Pozisyonları**  
Positions of Terminal Box  
Position de la boîte à bornes



90, 100, 132, 160 Tip/Type/Typ

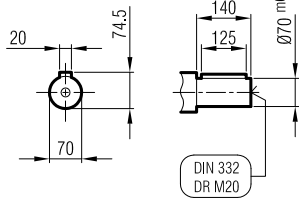


80 Tip/Type/Typ

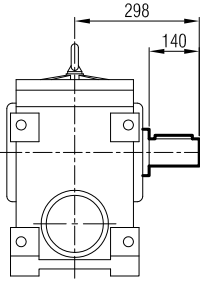


112 Tip/Type/Typ

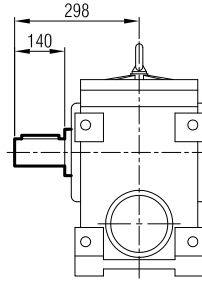




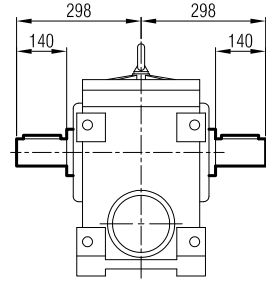
... -SL



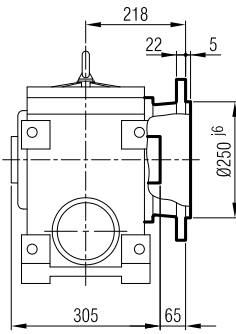
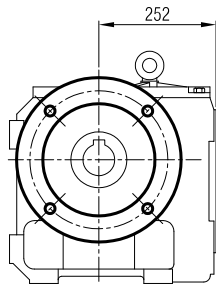
... -SR



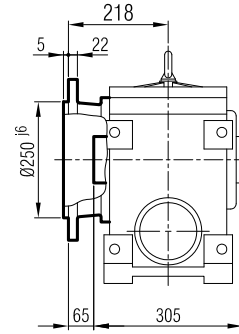
... -SD



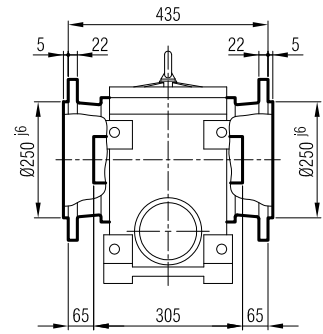
... -FL



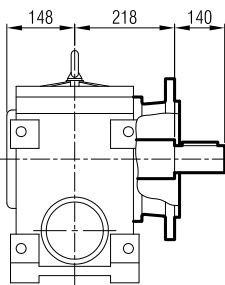
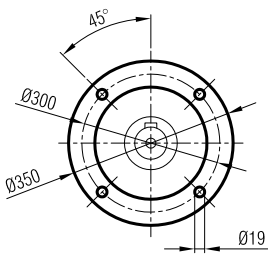
... -FR



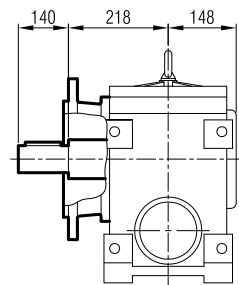
... -FD



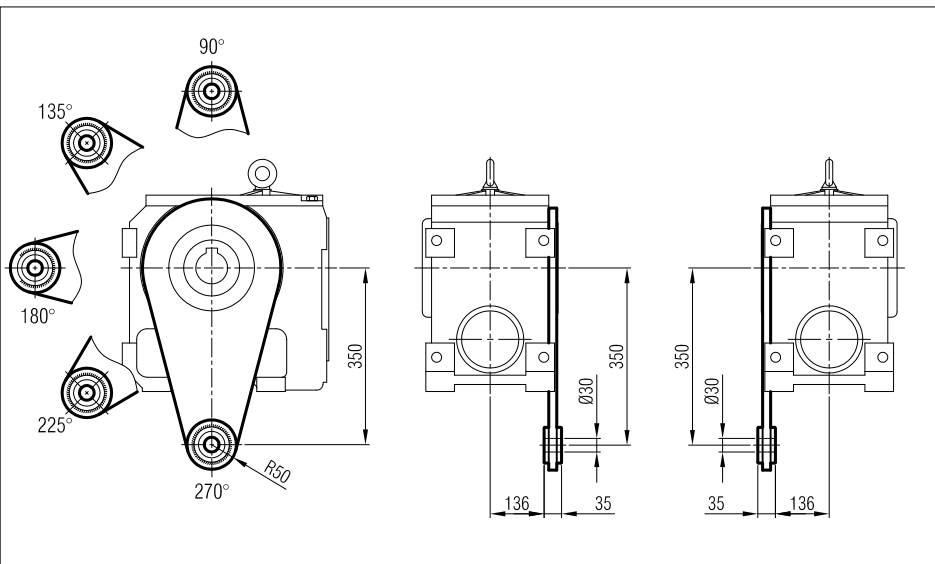
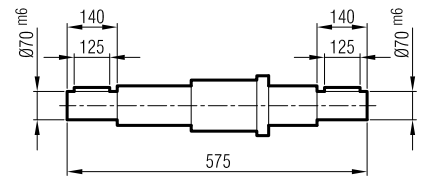
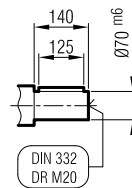
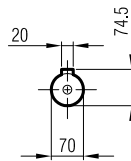
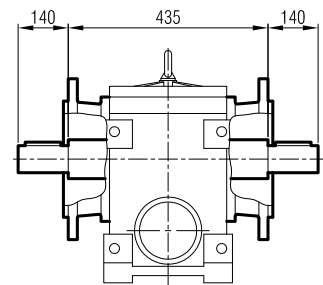
... -FL -SL



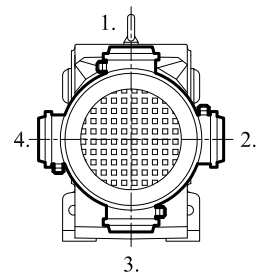
... -FR -SR



... -FD -SD



**Klemens Pozisyonları**  
Terminal Box Positions  
Klemenskasten Positionen







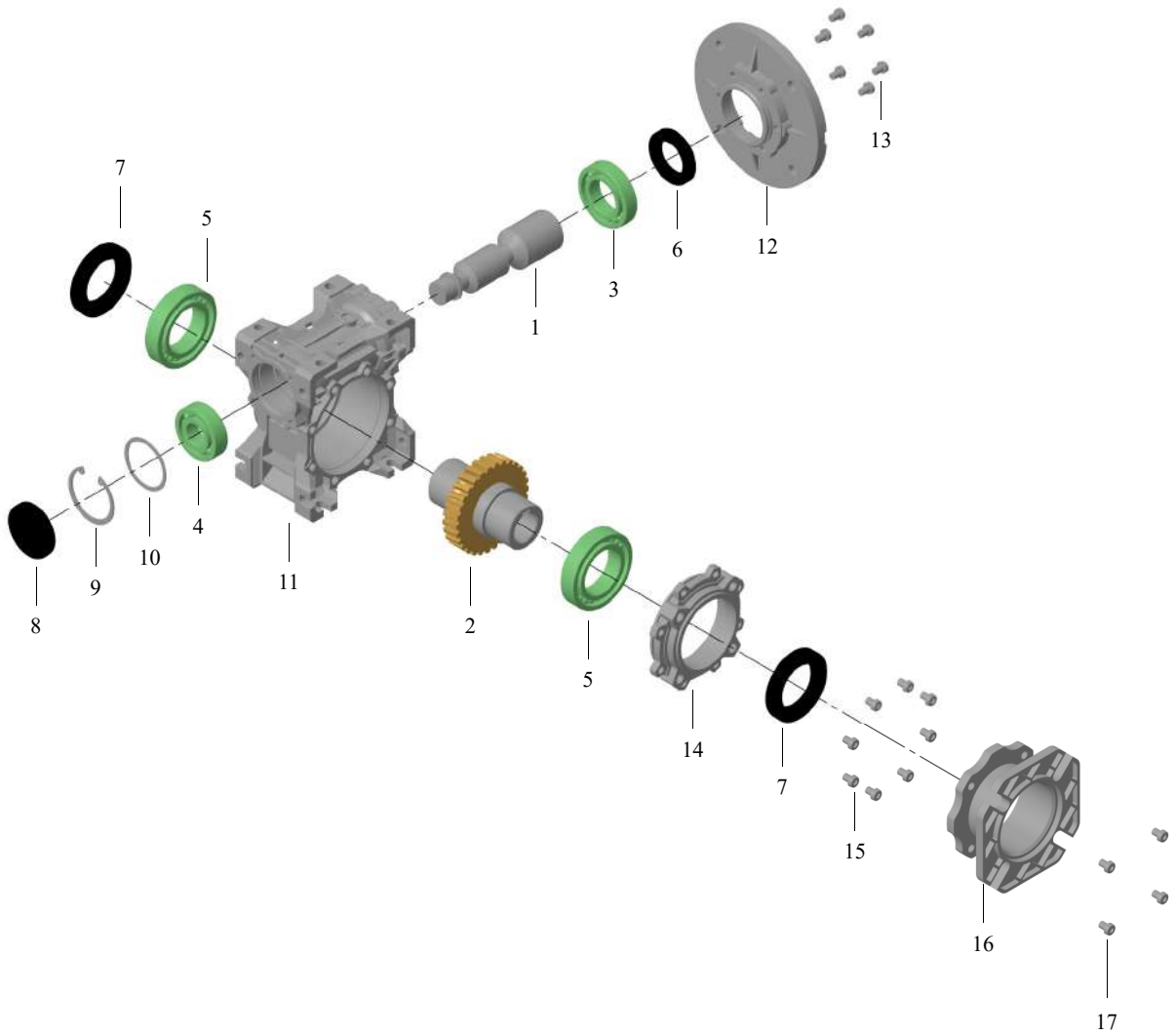


## Yedek Parça Listeleri

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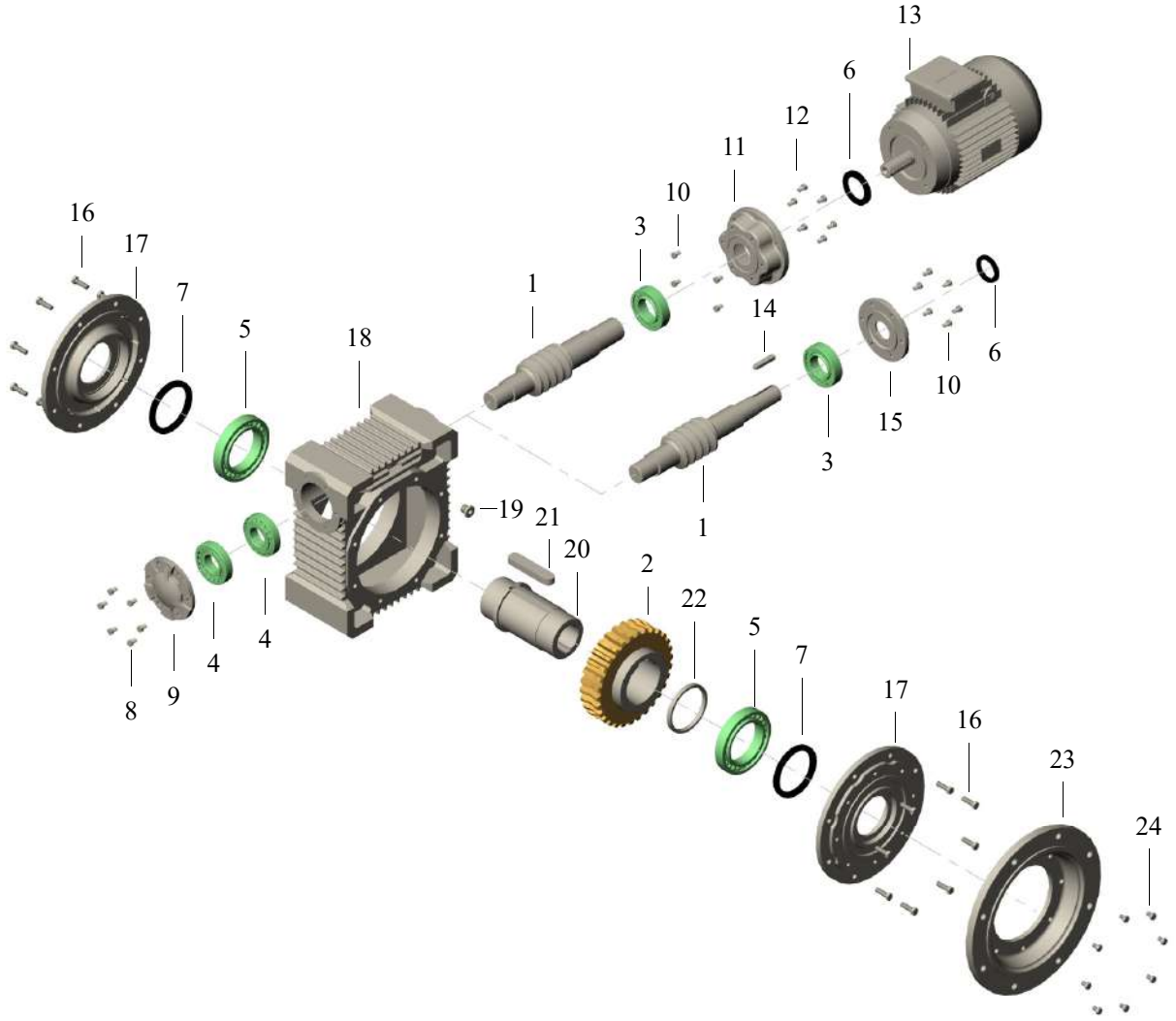
General Parts List

*Liste des composants*

**TİP / TYPE****SM / SP / S } 30-40-50-63-75-90-110-130-150**

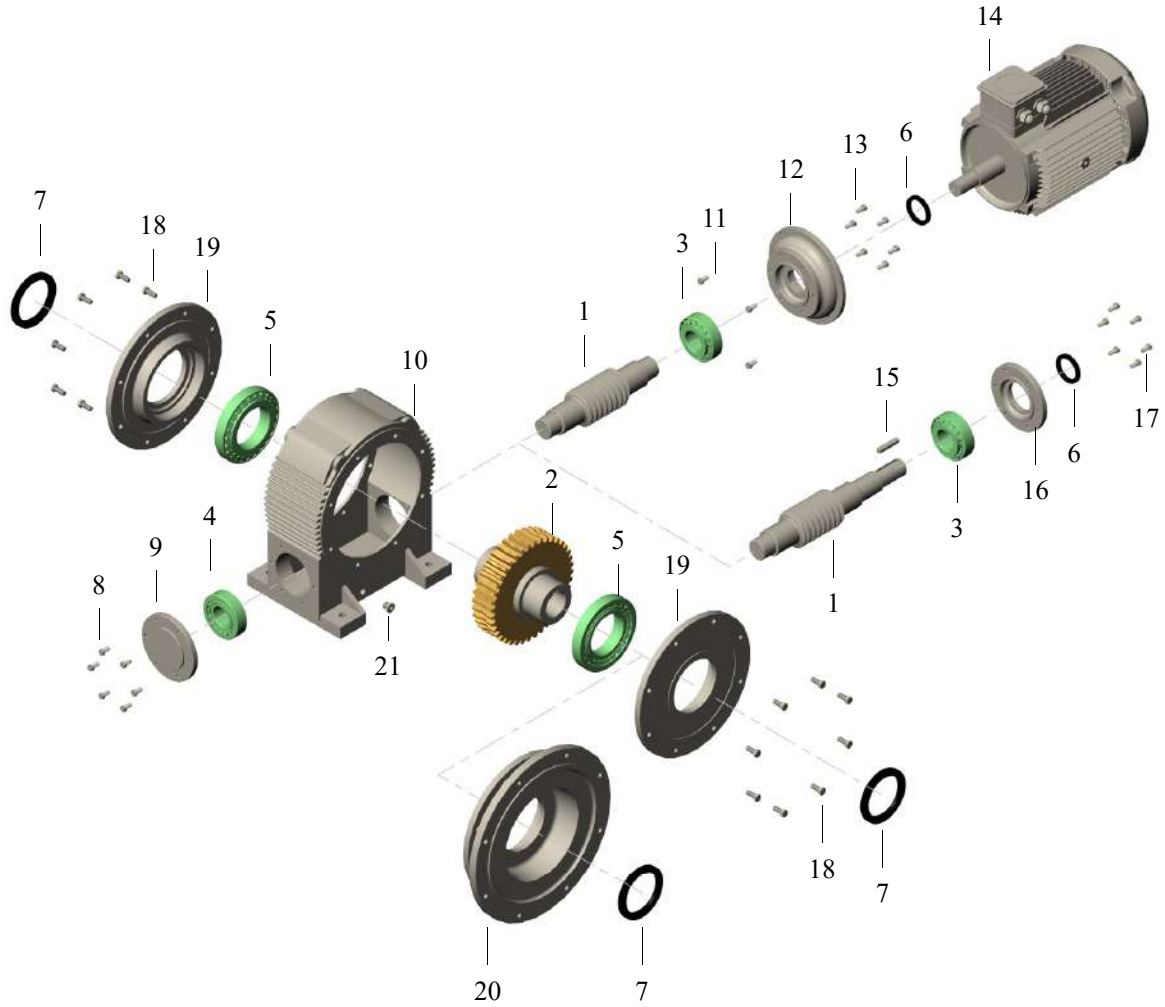
**TİP / TYPE****SM / SP / S } 30-40-50-63-75-90-110-130-150**

<b>1 - Sonsuz Vida</b>	1 - Worm	1 - Roue
<b>2 - Sonsuz Vida Çarkı</b>	2 - Worm Wheel	2 - Vis sans fin
<b>3 - Rulman</b>	3 - Bearing	3 - Roulement
<b>4 - Rulman</b>	4 - Bearing	4 - Roulement
<b>5 - Rulman</b>	5 - Bearing	5 - Roulement
<b>6 - Keçe</b>	6 - Seal	6 - Joint
<b>7 - Keçe</b>	7 - Seal	7 - Joint
<b>8 - Tapa</b>	8 - Locking Cover	8 - Bouchon
<b>9 - Segman</b>	9 - Circlip	9 - Circlip
<b>10 - Pul</b>	10 - Washer	10 - Joint
<b>11 - Gövde</b>	11 - Gear Case	11 - Carter
<b>12 - Pam Flanş (IEC)</b>	12 - IEC Flange	12 - Bride IEC
<b>13 - Cıvata</b>	13 - Bolt	13 - Vis
<b>14 - Kapak</b>	14 - Cover	14 - Couvercle
<b>15 - Cıvata</b>	15 - Bolt	15 - Vis
<b>16 - Flanş</b>	16 - Flange	16 - Bride
<b>17 - Cıvata</b>	17 - Bolt	17 - Vis

**TİP / TYPE****İRSA / İRSF / İRSAP / İRSFP / İRSAM / İRSFM } 52-65-82-102-127-162**

**TİP / TYPE****İRSA / İRSF / İRSAP / İRSFP / İRSAM / İRSFM } 52-65-82-102-127-162**

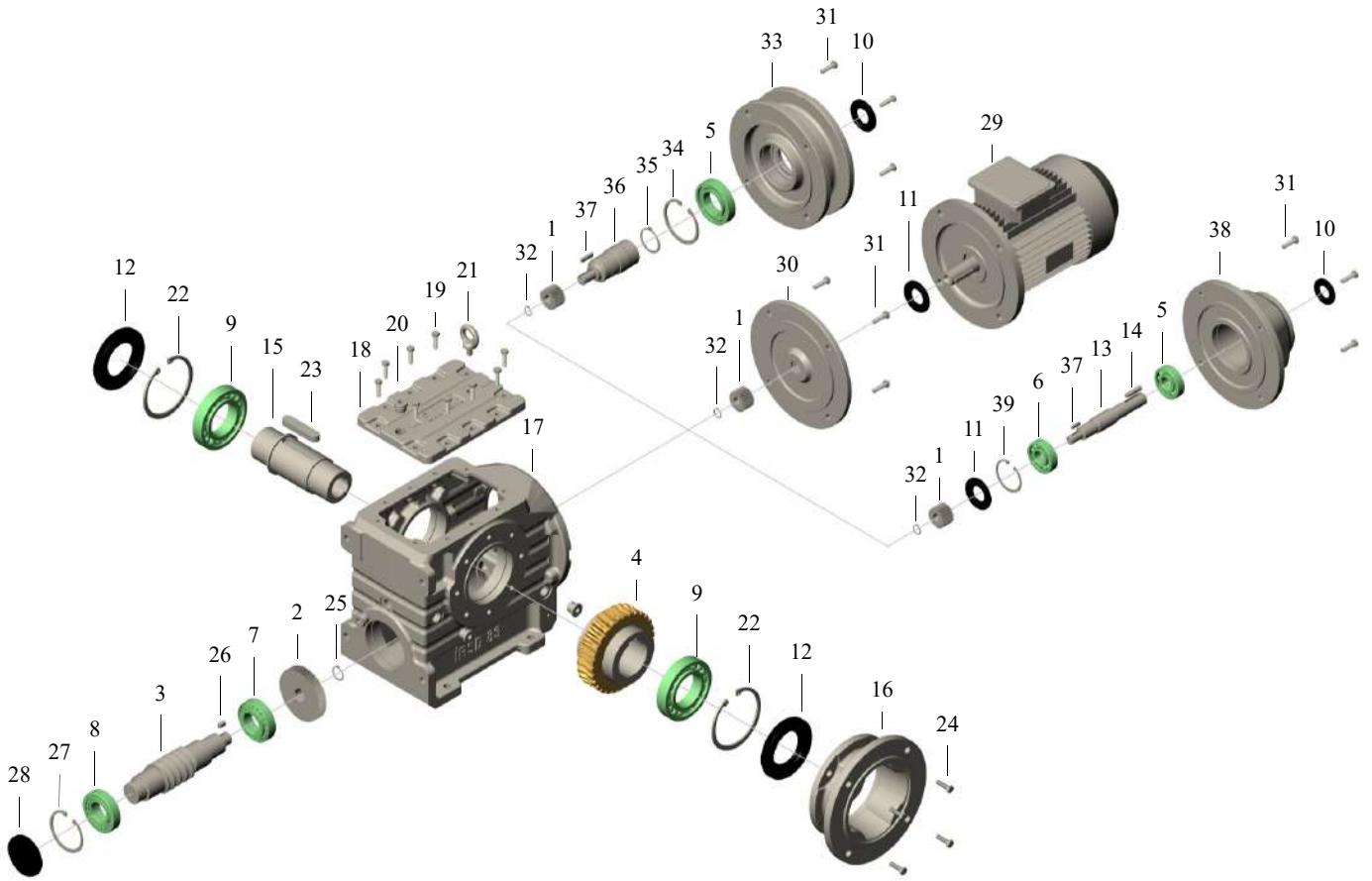
<b>1 - Sonsuz Vida</b>	1 - Worm	<i>1 - Roue</i>
<b>2 - Sonsuz Vida Çarkı</b>	2 - Worm Wheel	<i>2 - Vis sans fin</i>
<b>3 - Rulman</b>	3 - Bearing	<i>3 - Roulement</i>
<b>4 - Rulman</b>	4 - Bearing	<i>4 - Roulement</i>
<b>5 - Rulman</b>	5 - Bearing	<i>5 - Roulement</i>
<b>6 - Keçe</b>	6 - Seal	<i>6 - Joint</i>
<b>7 - Keçe</b>	7 - Seal	<i>7 - Joint</i>
<b>8 - Cıvata</b>	8 - Bolt	<i>8 - Vis</i>
<b>9 - Rulman Baskı Kapağı</b>	9 - Bearing Cover	<i>9 - Couverture</i>
<b>10 - Cıvata</b>	10 - Bolt	<i>10 - Vis</i>
<b>11 - Pam Flanş (IEC)</b>	11 - IEC Flange	<i>11 - Bride IEC</i>
<b>12 - Cıvata</b>	12 - Bolt	<i>12 - Vis</i>
<b>13 - Motor</b>	13 - Electric Motor	<i>13 - Moteur électrique</i>
<b>14 - Kama</b>	14 - Key	<i>14 - Clavette</i>
<b>15 - Keçe Kapağı</b>	15 - Seal Cover	<i>15 - Joint</i>
<b>16 - Cıvata</b>	16 - Bolt	<i>16 - Vis</i>
<b>17 - Keçe Kapağı</b>	17 - Seal Cover	<i>17 - Joint</i>
<b>18 - Gövde</b>	18 - Gear Case	<i>18 - Carter</i>
<b>29 - Yağ Tapası</b>	29 - Oil Plug	<i>29 - Bouchon d'huile</i>
<b>20 - Kovan</b>	20 - Hollow Shaft	<i>20 - Arbre creux</i>
<b>21 - Kama</b>	21 - Key	<i>21 - Clavette</i>
<b>22 - Burç</b>	22 - Spacer	<i>22 - Anneau d'espacement</i>
<b>23 - Flanş</b>	23 - Flange	<i>23 - Bride</i>
<b>24 - Cıvata</b>	24 - Bolt	<i>24 - Vis</i>

**TİP / TYPE****İRSA / İRSF / İRSAP / İRSFP / İRSAM / İRSFM } 201-250**

**TİP / TYPE****İRSA / İRSF / İRSAP / İRSFP / İRSAM / İRSFM } 201-250**

<b>1 - Sonsuz Vida</b>	1 - Worm	1 - Roue
<b>2 - Sonsuz Vida Çarkı</b>	2 - Worm Wheel	2 - Vis sans fin
<b>3 - Rulman</b>	3 - Bearing	3 - Roulement
<b>4 - Rulman</b>	4 - Bearing	4 - Roulement
<b>5 - Rulman</b>	5 - Bearing	5 - Roulement
<b>6 - Keçe</b>	6 - Seal	6 - Joint
<b>7 - Keçe</b>	7 - Seal	7 - Joint
<b>8 - Cıvata</b>	8 - Bolt	8 - Vis
<b>9 - Rulman Baskı Kapağı</b>	9 - Bearing Cover	9 - Couvercle
<b>10 - Gövde</b>	10 - Gear Case	10 - Carter
<b>11 - Cıvata</b>	11 - Bolt	11 - Vis
<b>12 - Motor Bağlantı Kapağı</b>	12 - Motor Mounting Adapter	12 - Motoranschlussflansch
<b>13 - Cıvata</b>	13 - Bolt	13 - Vis
<b>14 - Motor</b>	14 - Electric Motor	14 - Moteur électrique
<b>15 - Kama</b>	15 - Key	15 - Clavette
<b>16 - Keçe Kapağı</b>	16 - Seal Cover	16 - Joint
<b>17 - Cıvata</b>	17 - Bolt	17 - Vis
<b>18 - Cıvata</b>	18 - Bolt	18 - Vis
<b>19 - Keçe Kapağı</b>	19 - Seal Cover	19 - Joint
<b>20 - Flanş</b>	20 - Flange	20 - Bride
<b>21 - Yağ Tapası</b>	21 - Oil Plug	21 - Bouchon d'huile



**TİP / TYPE****İRSD / İRSDF / İRSDP / İRSDFP / İRSDM / İRSDFM } 43-53-63-73-83**

**TİP / TYPE****İRSD / İRSDF / İRSDP / İRSDFP / İRSDM / İRSDFM } 53-63-73-83**

1 - Dişli Z1	1 - Gear Z1	1 - Pignon Z1
2 - Dişli Z2	2 - Gear Z2	2 - Pignon Z2
3 - Sonsuz Vida	3 - Worm	3 - Roue
4 - Sonsuz Vida Çarkı	4 - Worm Wheel	4 - Vis sans fin
5 - Rulman	5 - Bearing	5 - Roulement
6 - Rulman	6 - Bearing	6 - Roulement
7 - Rulman	7 - Bearing	7 - Roulement
8 - Rulman	8 - Bearing	8 - Roulement
9 - Rulman	9 - Bearing	9 - Roulement
10 - Keçe	10 - Seal	10 - Joint
11 - Keçe	11 - Seal	11 - Joint
12 - Keçe	12 - Seal	12 - Joint
13 - Giriş Mili	13 - Input Shaft	13 - Arbre d'entrée
14 - Kama	14 - Key	14 - Clavette
15 - Kovan	15 - Hollow Shalt	15 - Arbre creux
16 - Flanş	16 - Flange	16 - Bride
17 - Gövde	17 - Gear Case	17 - Carter
18 - Kapak	18 - Cover	18 - Couvercle
19 - Cıvata	19 - Bolt	19 - Vis
20 - Yağ Tapası	20 - Oil Plug	20 - Bouchon d'huile
21 - Taşıma Kancası	21 - Lifting Eye Bolt	21 - Anneau de levage
22 - Segman	22 - Circlip	22 - Circlip
23 - Kama	23 - Key	23 - Clavette
24 - Cıvata	24 - Bolt	24 - Vis
25 - Segman	25 - Circlip	25 - Circlip
26 - Kama	26 - Key	26 - Clavette
27 - Segman	27 - Circlip	27 - Circlip
28 - Tapa	28 - Locking Cover	28 - Bouchon
29 - Motor	29 - Electric Motor	29 - Moteur électrique
30 - Motor Bağlantı Kapağı	30 - Motor Mounting Adapter	30 - Bride moteur
31 - Cıvata	31 - Bolt	31 - Vis
32 - Segman	32 - Circlip	32 - Circlip
33 - Pam Flanş	33 - IEC Flange	33 - Bride IEC
34 - Segman	34 - Circlip	34 - Circlip
35 - Segman	35 - Circlip	35 - Circlip
36 - Ara Bağlantı Mili	36 - Connection Shaft	36 - Arbre connecteur
37 - Kama	37 - Key	37 - Clavette
38 - Motorsuz Kapak	38 - Input cover	38 - Bride d'entrée
39 - Segman	39 - Circlip	39 - Circlip





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