RO-RV

KEGELRADGETRIEBE

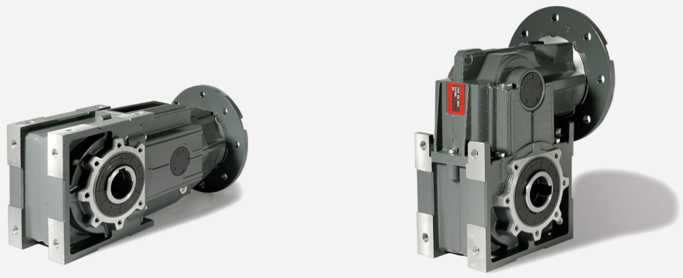
Dreistufig
In-Linie- u. Winkelausführungen

INDEX

VARVEL® KNOW-HOW TO DO IT

RO-RV Getriebe

Beschreibung



Die Getriebe der Baureihe RO-RV nach den ISO Normen konstruiert und anhand von Analysen auf Deformation und Kräfteeinwirkung nachgerechnet sind mit einem gemeinsamen Gehäuse hergestellt und haben somit die gleichen Befestigungsanschlüsse.
Die Gehäusestruktur wird von den Betriebsdrehmomenten und durch außen am Getriebe wirkende Kräfte nahezu nicht beeinflusste. was sich positiv auf die Lebensdauer der Wellen-dichtungen auswirkt.
Die ersten drei Größen der Getriebe der Baureihe RO-RV sind aus Alumiminumdruckguss die restlichen aus Grauguß. Die Aufsteckausführung kann in Flanschausführung B5 nachgerüstet werden mittels eines der vielen zur Auswahl stehenden Ausgangsflansche.
Eine breite Auswahl an Wellenabmessungen am Ausgang (Hohlwelle mit Nut, Hohlwelle mit Schrumpfscheibe oder Vollwelle ein- oder beidseitig) ist verfügbar.
Die Serie RO-RV ist für 6 Baugrößen lieferbar mit 30 Untersetzungen und Ausgangsdrehmomenten zwischen 180 u. 3400 Nm.
Die Serie der RO-RV besteht aus Kegelradgetrieben mit einem konischen und zwei zylindrischen Reduktionsmoment und mit einer Ausgangshohlwelle in Standardausführung.

ATEX Richtlinien
Die Getriebe Varvel-ATEX. ausschließlich auf Anfrage geliefert. sind entsprechend den ATEX-Richtlinien 94/9/ EG "ATEX“ konstruiert und hergestellt und somit zugelassen für die Installation in potentiell zündfähigen Atmosphäre:

- Gefahrenbereiche der Gruppe II
- Kategorie 2 (oder 3)
- Explosiongefärdeter Bereich mit Gase (Gefahrenbereiche 1 oder 2)
- Explosiongefärdeter Bereich mit zundfä-higen Stäube (Gefahrenbereiche 21 oder 22)

Ausführliche Informationen finden Sie auf den Seiten 90 und 91.

Die VARVEL-ATEX Produkte sind mit folgenden zusätzlichen Stempelung versehen:

Ex II 2 GD ck IP66 CE T_{max}=135 °C

RO

RV

	Baureihe RO - RV, Flachgetriebe mit Hohlwelle
Mehrzweckgehäuse	Montage mit Fuß, Fuß/Flansch einheitliches Gehäuse für RO u. RV typen
Gehäuse u. Deckeln	Aluminium-Druckguß (3 Großen) Grauguß (3 Großen)
Eingang	Flansche in IEC- u. NEMA-Ausführung mit elastischer Kupplung oder Hochwelle mit Paßfederverbindung
Verzahnungen	legierter Stahl Vergütet u. gehärtet geschliffen / rasiert Zahnprofil
Wellendichtringe	Nitributadiengummi NBR als Standard;. Viton u. Silikon auf Anfrage
Lager	Kegel- oder Rollenlager nach die Größen u. technische Spezifikationen
Ausgang	metrische Wellen Zollmaß auf Anfrage.
Schmierung	Langzeitschmiermittelfüllung ISO VG 320 ohne zusätzliche Verschlußschrauben Füllung im Werk

RO-RV Getriebe

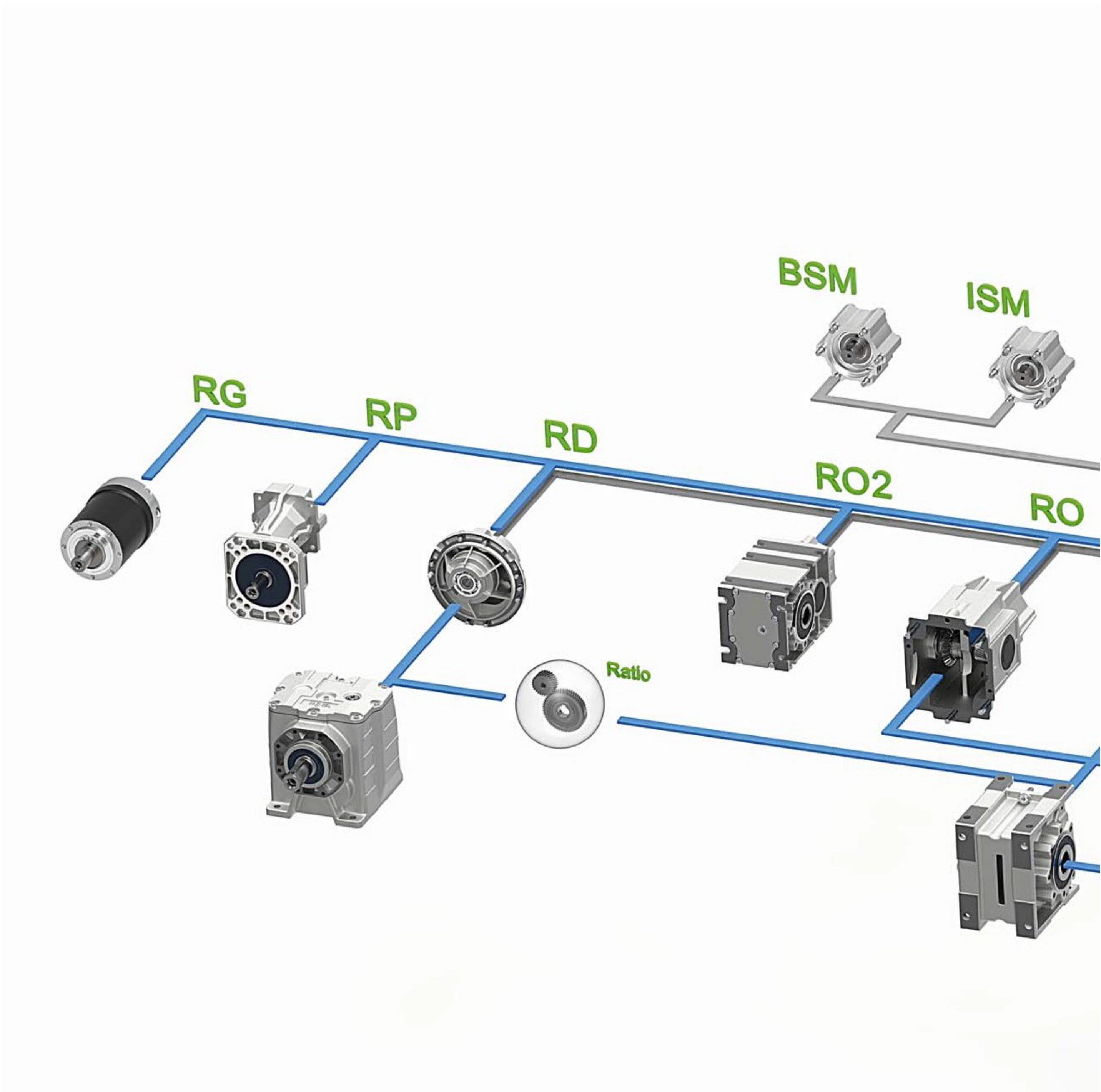
Beschreibung

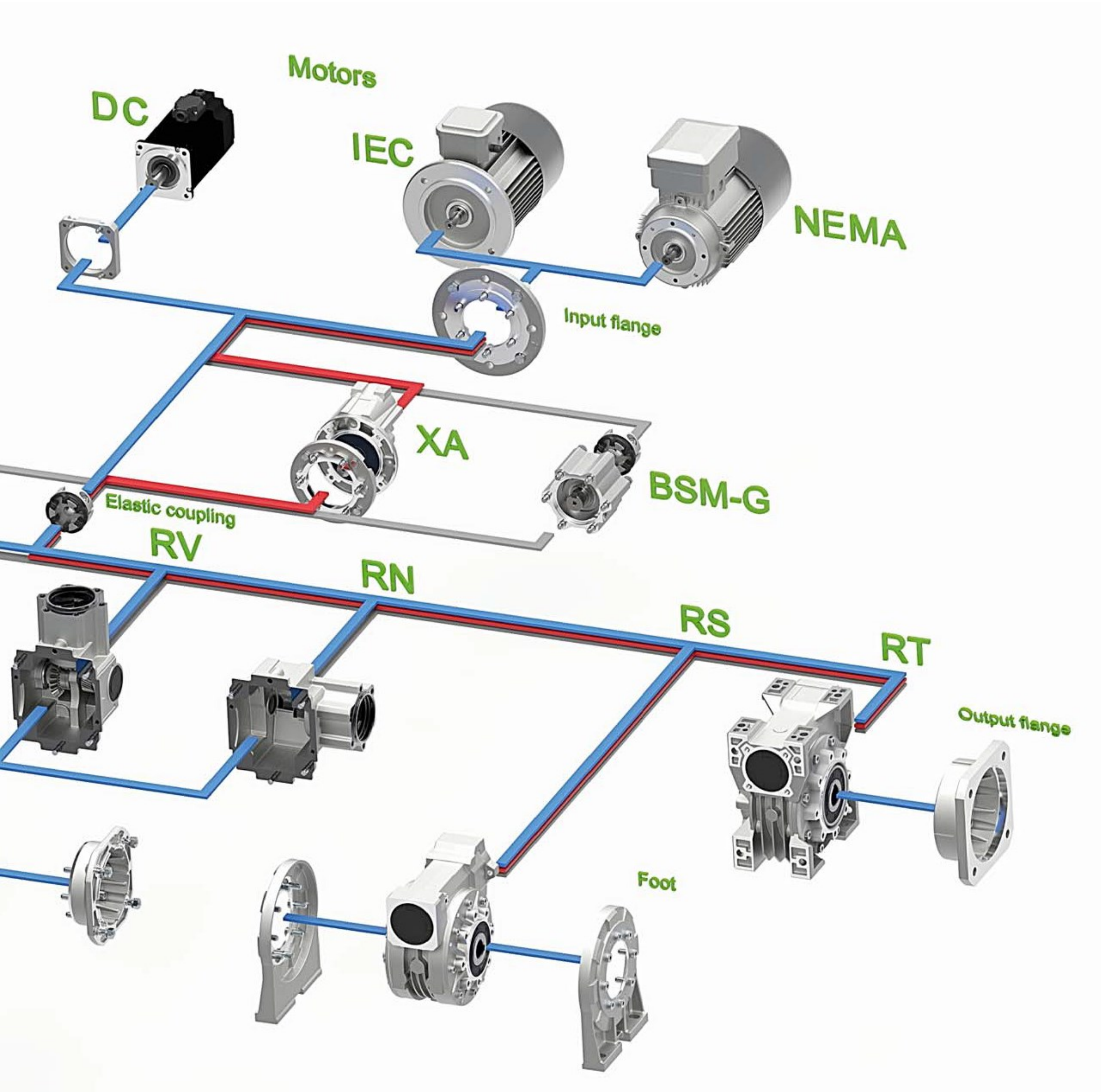
	Allgemeine Eigenschaften
Bereich	6 Baugrößen 30 Dreistufige Übersetzungen 3400 Nm max. Abtriebsmoment
Auslegung	Laut ISO6336/DIN3990 10.000 Stunden Lebensdauer für Verzahnung und Lagerung bei einem Betriebsfaktor SF1
Gehäuse Flansche	Aluminium-Druckguss bis Größe 3 und Grauguss ab Größe 4
Kupplungseingang	Aluminium-Druckguss Größen G3, G5, G6 und Stahl für GS3, GS5, GS6, GS8
Verzahnung	Stahl einsatzgehärtet Zahnprofil geschliffen / rasiert Kegelräder eingelaufen
Abtriebshohlwelle	Duktilen Gusseisen
Wellen	Stahl Toleranzen:Wellen h6 Bohrungen E8 Passfedern nach DIN6885 B1
Lagerung	Kugel- oder Rollenlager entsprechend den technischen Vorschriften
Dichtungen	Typ NBR - Nitril-Butadien Rubber mit zusätzlicher Staublippe entsprechend DIN 3760 Typ FKM - Fluoroelastomer Viton auf Anfrage
Schmierung	Synthetisches Getriebeöl ISO VG 320 als Langzeit-Füllung
Gehäuselackierung	Aluminium bis Größe 3 Epoxydpulverfarbe Standard-farbton RAL 7012 ab Größe 4
ATEX	Auf Anfrage

Abkürzung	Beschreibung
D [mm]	Wirkkreisdurchmesser des Übertragungselementes $k_{(t)}$
F_r [N]	Radialkraft der Anwendung
F_{r1} [N]	Radialkraft aus dem Katalog (Eingang)
F_{r2} [N]	Radialkraft aus dem Katalog (Ausgang)
$F_{r2b(x)}$ [N]	Zulässige Radialkraft an der Position “X” der Ausgangswelle basierend auf der Lagerlebensdauer
$F_{r2s(x)}$ [N]	Zulässige Radialkraft wie $F_{r2b(x)}$ aber basierend auf Biegung und Verdrehung der Ausgangswelle.
FS	Betriebsfaktor $FS = \frac{M2}{M(app)}$
i_n	Nominelle Übersetzung
i_r	Tatsächliche Übersetzung
J_1 [kgm^2]	Trägheitsmoment des Getriebes an der Eingangswelle
J_2 [kgm^2]	Trägheitsmoment der Anwendung
J_m [kgm^2]	Trägheitsmoment des Motors
$k_{(a)}$	Beschleunigungsfaktor der Massen
$k_{(t)}$	Kennwert des Übertragungs-Elements
Lub H/V [l]	Schmierstoff (Liter) H - waagrechte Einbaulage V - senkrechte Einbaulage
M_2 [Nm]	Abtriebsdrehmoment des Getriebes $M2 = \frac{9550 * P1 * \eta}{n2}$
$M_{(app)}$ [Nm]	Erforderliches Drehmoment der Anwendung
n_1 [rpm]	Eingangsdrehzahl
n_2 [rpm]	Ausgangsdrehzahl
P_1 [kW]	Motorleistung $P1 = \frac{M2 * n2}{9550 * \eta}$
$P_{(kg)}$ [kg]	Gewicht für Bauform B3H und durchschnittliche Getriebeuntersetzungen
η	Wirkungsgrad η = 0.96 für 2 Stufen η = 0.94 für 3 Stufen

RO-RV Getriebe

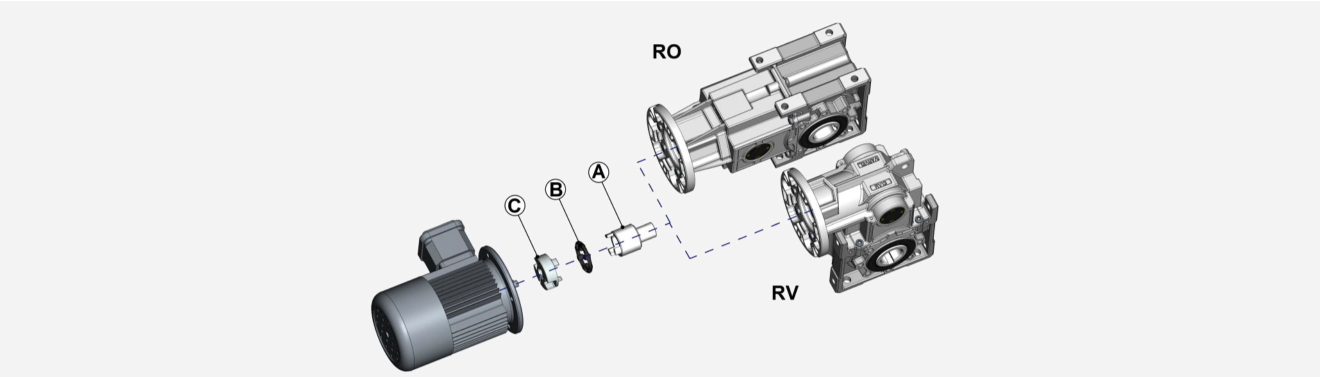
Modularsystem




Motors
DC
IEC
NEMA
Input flange
XA
BSM-G
Elastic coupling
RV
RN
RS
RT
Output flange
Foot

RO-RV Getriebe

Kupplung "G" Beschreibung



A)

Getriebekupplungshäfte

- Material: Stahl
- integrierte Eingangswelle
- Zwei-Lager-Anordnung
- unveränderte Eingang Abmessungen

B)

Kupplungsscheibe

- Äußerliche Zahnverbindung
- Material Thermoplastisch Elastomer: IXEF® - Polyarylamide
- Härte 90Shore D
- Temperatur -30/+135° C (-22/+275°F)

C)

Motorkupplungshäfte

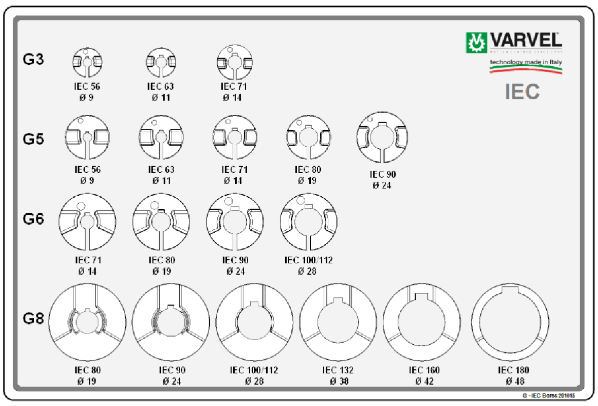
- Material:
  Aluminium Druckguss (G3, G5, G6)
  Stahl (GS3, GS5, GS6, GS8)
- dynamische Auswuchtung
- Verkeilung:
  Klammer (G3, G5, G6)
  Keil (GS3, GS5, GS6, GS8)
- Bohrungen, nach:
  IEC 72 / DIN42948
  NEMA C u. TC

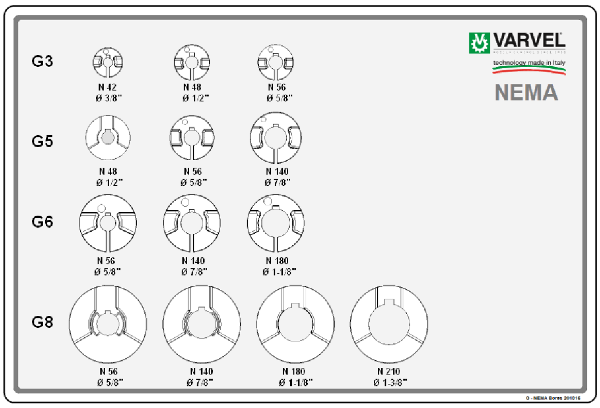
Vorzüge:

- nur eine Getriebekomponente je Übersetzung
- gesteigerte Flexibilität
- höher Lagerumschlag
- Vermeidung von Passungsost zwischen Keil u. Keil Einschnitt
- Getriebe / Motor Spielfrei Verkeilung
- erlaubt Winkelausgleich bis 1°
- hohe Verdrehsteifigkeit
- hohe Dämpfung von Schwingungen

Eingangsflansch

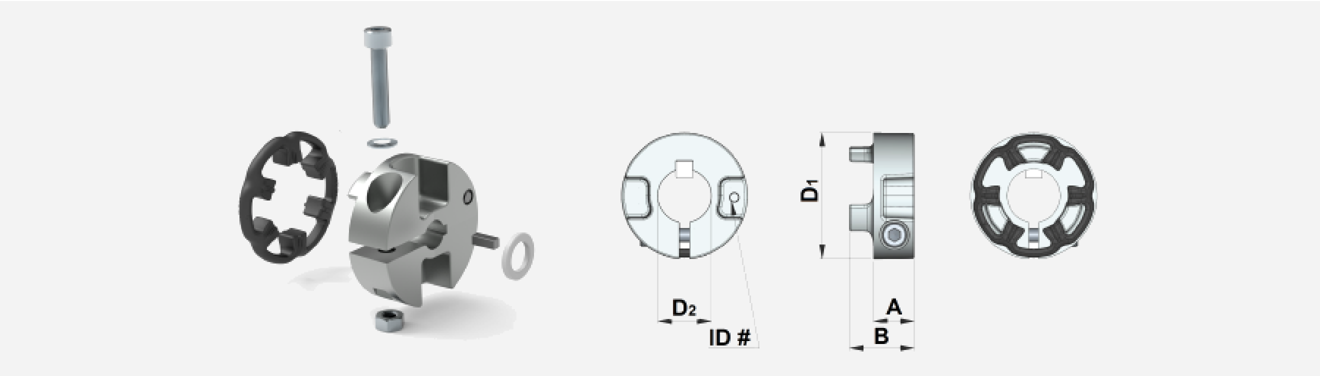
- Material:
  Aluminium bis IEC112 u. NEMA C180
  Grauguss ab IEC 132 u. NEMA C200





Getriebe RO-RV

Kupplungsauswahl



Typ	IEC NEMA	Kit Teil Nr.	RO - RV	Mt [Nm]	Mt_1 [Nm]	Mt_2 [Nm]	A [mm]	B [mm]	D_1 [mm/ inch]	D_2 [mm/ inch]	ID#
G5	IEC	KG5.009/X KG5.011/X KG5.014/X KG5.019/X KG5.024/X	RO13 - RV13	10	14 15 30 40 70	10 10 17 25 40	14.5	23	45 45 45 45 52	9 11 14 19 24	509 511 514 519 524
	NEMA	KG5.N56/X KG5.N140/X	RO13 - RV13		45 60	35 45			1.77 2.05	5/8" 7/8"	5N56 5N140
G6	IEC	KG6.014/X KG6.019/X KG6.024/X KG6.028/X KGs6.038X	RO23 - RV23 RO33 - RV33 RO43 - RV43	18	60 90 130 180 500	40 65 100 120 - - -	19.5	31.5	58	14 19 24 28 38	614 619 624 628 - - -
	NEMA	KG6.N56/X KG6.N140/X KG6.N180/X	RO-RV23-33-43 RO-RV23-33-43 RO-RV43		50 85 200	- - - - - - - - -			2.28	5/8" 7/8" 1-1/8"	6N56 6N140 6N180
GS8	IEC	KGS8.19/X KGS8.24/X KGS8.28/X KGS8.38/X KGS8.42/X KGS8.48/X	RO53 - RV53 RO63 - RV63	15	150 250 350 500 500 500	- - - - - - - - - - - - - - - - - -	35	51	79	19 24 28 38 42 48	* * * * * *
	NEMA	KGS8.N056/X KGS8.N140/X KGS8.N180/X KGS8.N210/X KGS8.N250/X	RO-RV53-63 RO-RV53-63 RO-RV53-63 RO-RV53-63 RO-RV63		140 200 300 500 500	- - - - - - - - - - - - - - -			3.11	5/8" 7/8" 1-1/8" 1-3/8" 1-5/8”	* * * * *

Mt - Schraubenklemmenngrehmoment
Mt_1 - übertragbar Drehmoment mit Keil
Mt_2 - übertragbar Drehmoment ohne Keil
* - Kupplung GS8: Stahl. Keilverkeilung u. gewindestift
../X - Kupplungscode mit schwarzen IXEF-Ring

Anmerkung - Kein ID# auf dem Kupplung GS8 markiert ist

RO-RV Getriebe

IEC-Flansche u. Kupplung

Getriebe	Flansch				Kupplung	
	Tipo	IEC	Kit Teil Nr. B5	Kit Teil Nr. B14	Typ	Kit Teil Nr.
RO13 RV13	FM 50	IEC56 IEC63 IEC71 IEC80 IEC90	K532.206.120 K532.206.140 K532.206.160 K532.206.200 K532.206.200	- - - K532.206.090 K532.206.105 K532.206.120 K532.206.140	G5 ø9 G5 ø11 G5 ø14 G5 ø19 G5 ø24	KG5.009/X KG5.011/X KG5.014/X KG5.019/X KG5.024/X
RO23 RV23	FM 70	IEC71 IEC80 IEC90 IEC 100/112	K533.206.160 K533.206.200 K533.206.200 K533.206.250	K533.206.105 K533.206.120 K533.206.140 K533.206.160	G6 ø14 G6 ø19 G6 ø24 G6 ø28	KG6.014/X KG6.019/X KG6.024/X KG6.028/X
RO33 RV33	FM 85	IEC71 IEC80 IEC90 IEC 100/112	K534.206.160 K534.206.200 K534.206.200 K534.206.250	- - - K534.206.120 K534.206.140 K534.206.160	G6 ø14 G6 ø19 G6 ø24 G6 ø28	KG6.014/X KG6.019/X KG6.024/X KG6.028/X
RO43 RV43	FM 110	IEC71 IEC80 IEC90 IEC 100/112 IEC132	K535.206.160 K535.206.200 K535.206.200 K535.206.250 K535.206.300	- - - - - - - - - K535.206.160 K535.206.200	G6 ø14 G6 ø19 G6 ø24 G6 ø28 Gs6 ø38	KG6.014/X KG6.019/X KG6.024/X KG6.028/X KGs6.038/X
RO53 RV53	FM 130 & FM 150	IEC 80 IEC 90 IEC 100/112 IEC 132 IEC 160 IEC 180	K536.206.200 K536.206.200 K536.206.250 K537.206.300 K565.206.350 K565.206.350	- - - - - - - - - K536.206.200 - - - - - -	** GS8 ø19 ** GS8 ø24 ** GS8 ø28 ** GS8 ø38 ** GS8 ø42 ** GS8 ø48	KGS8.019/X KGS8.024/X KGS8.028/X KGS8.038/X KGS8.042/X KGS8.048/X
RO63 RV63	FM 130 & FM 150	IEC 80 IEC 90 IEC 100/112 IEC 132 IEC 160 IEC 180	K536.206.200 K536.206.200 K536.206.250 K537.206.300 K565.206.350 K565.206.350	- - - - - - - - - K536.206.200 - - - - - -	** GS8 ø19 ** GS8 ø24 ** GS8 ø28 ** GS8 ø38 ** GS8 ø42 ** GS8 ø48	KGS8.019/X KGS8.024/X KGS8.028/X KGS8.038/X KGS8.042/X KGS8.048/X

** - Kupplung GS8: Keilmontage u. gewindestift
../X - Kupplungscode mit schwarzen IXEF-Ring

Getriebe RO-RV

NEMA-Flansche u. Kupplung

Getriebe	Flansch			Kupplung	
	Typ	NEMA	Kit Teil Nr.	Typ	Kit Teil Nr.
RO13 RV13	FM 50	56 C 140 TC	K532.227.N56 K532.227.N56	G5 ø 5/8” G5 ø 7/8”	KG5.N56/X KG5.N140/X
RO23 RV23	FM 70	56 C 140 C	K533.227.N56 K533.227.N56	G6 ø 5/8” G6 ø 7/8”	KG6.N56/X KG6.N140/X
RO33 RV33	FM 85	56 C 140 TC	K534.227.N56 K534.227.N56	G6 ø 5/8” G6 ø 7/8”	KG6.N56/X KG6.N140/X
RO43 RV43	FM 110	56 C 140 TC 180 TC	K535.227.N56 K535.227.N56 K535.227.N180	G6 ø 5/8” G6 ø 7/8” G6 ø 1-1/8”	KG6.N56/X KG6.N140/X KG6.N180/X
RO53 RV53	FM 150	56 C 140 TC 180 TC	K537.227.N56 K537.227.N56 K537.227.N180	* GS8 ø 5/8” * GS8 ø 7/8” * GS8 ø 1-1/8”	KGS8.N56/X KGS8.N140/X KGS8.N180/X
RO63 RV63	FM 150	56 C 140 TC 180 TC 210 TC	K537.227.N56 K537.227.N56 K537.227.N180 K537.227.N180	* GS8 ø 5/8” * GS8 ø 7/8” * GS8 ø 1-1/8” * GS8 ø 1-3/8”	KGS8.N56/X KGS8.N140/X KGS8.N180/X KGS8.N210/X

** - Kupplung GS8: Keilmontage u. gewindestift
../X - Kupplungscode mit schwarzen IXEF-Ring

RO-RV Getriebe

Getriebe- u. Motorbezeichnungen

GETRIEBEBEZEICHNUNG

F	RO	33	/B3	H	31.5	IEC80	-B5	AU30	DFU200

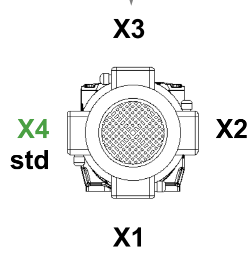
DFU200: Ausangsflansch
AU30: Ausgangswelle ø
-B5: B5. B14 = Motorbauform
IEC80: Motorbaugrösse
31.5: Getriebeübersetzung
H: H. V = Einbaulage des Getriebes
/B3: B3. B5. B3/B5 = Bauform des Getriebes
33: Baugröße u. Stufen des Getriebes
RO: RO. RV = Getriebetyp

M = Getriebemotor
F = Getriebe mit Eingangsflansch
S = Getriebe ohne Eingangsflansch
… = ((kein) Freie Eingangswelle

MOTORBEZEICHNUNG

MT	0.75 kW	80 B	4	B5	230/400/50	IP55	F	X4

X4: Klemmkastenposition
F: Classe F (std) = Isolationsklasse
IP55: IP55 (std) = Schutzart
230/400/50: Spannung/Frequenz
B5: B5, B14 = Bauform
4: Polzahl
80 B: IEC-Motorbaugröße
0.75 kW: Motorleistung



MT = Dreiphasenmotor
MM = Einphasenmotor
MA = Bremsmotor

Bausteinprinzip und Flexibilität
bestimmen die Gestaltung der VARVEL Produkte seit 2000.

Dieses Konzept ermöglicht jedermann in kurzer Zeit mit Standardwerkzeugen das gewünschte Getriebe zu montieren.

Damit wird allen Verkäufern von VARVEL antrieben ein Höchstmaß an Flexibilität gegeben, um mit wenigen Bauteilen ein gewünschtes Getriebe zu konfigurieren.

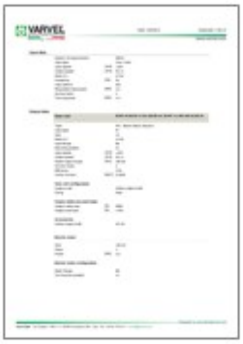
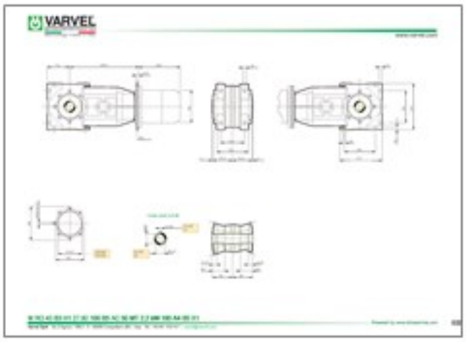
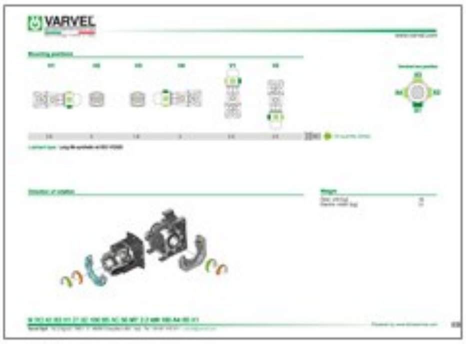
VARsize® als Auswahlprogramm auf unserer Internetseite www.varvel.com bietet eine angepasste Antriebs-auslegung.

2D/3D-Zeichnungen

Die unterstützte Auswahl bietet die Möglichkeit 2D/3D Modelle für die gängigen CAD Systeme zu laden .

Unterstützte Auswahl
Mit diesem Dienst wird eine Liste möglicher Produktvarianten erzeugt, bestimmt durch Parameter (Leistung, Moment, Drehzahl, Betriebsfaktor usw.); ein PDF Datenblatt mit Leistungsdaten und Maßbild ist für jede dieser Konfigurationen verfügbar, ebenso wie 3D Modelle und 2D Zeichnungen.

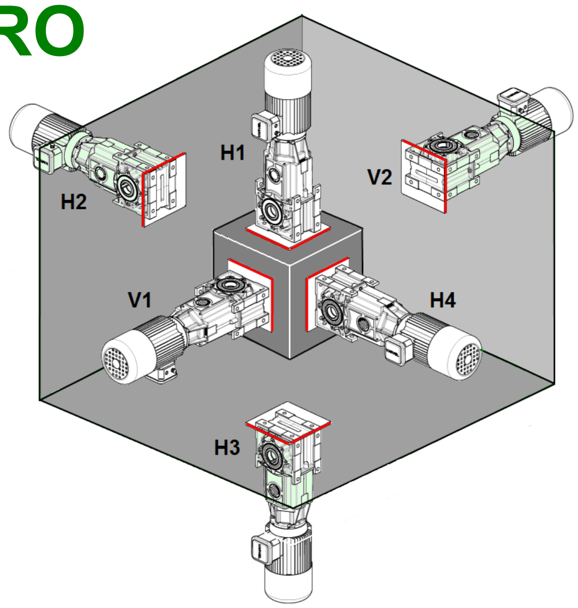


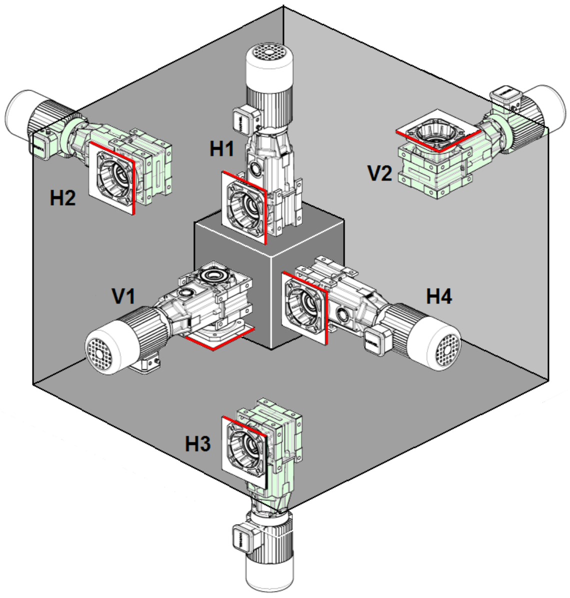
RO-RV Getriebe

Einbaulagen

RO

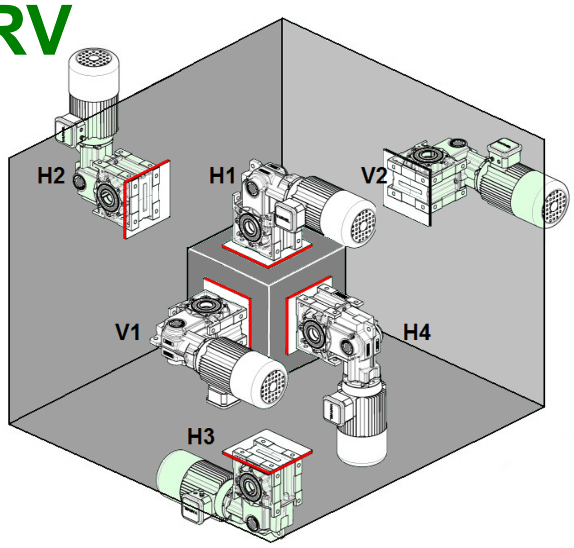


B3
Fußbauformen

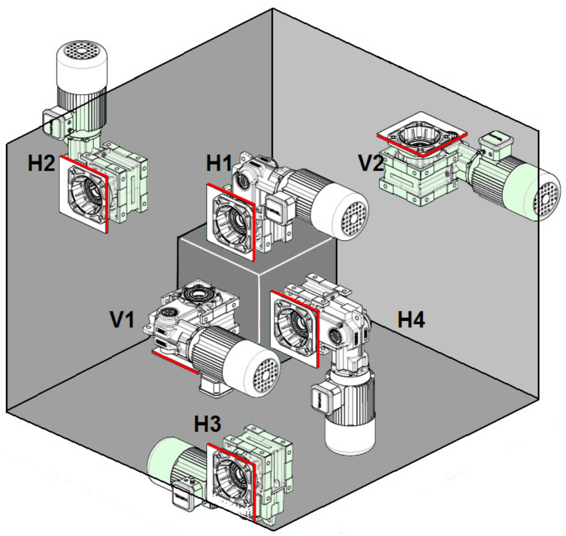


B5
Flanschbauformen

RV



B3
Fußbauformen



B5
Flanschbauformen

Die Montageposition bezieht sich auf die Ausgangswelle und nicht der Fußbefestigungen oder Flansches.

BETRIEBSFAKTOR des Getriebes

Für den Servicefaktor FS1.0 gilt ein 8- bis 10-stündiger Betrieb mit gleichförmiger Last und einem Massenbeschleunigungs Faktor $k_{(a)}$
$J_2 \leq 2$, bis zu 6 Start/Stopp je Stunde und Umgebungstemperaturen zwischen 15° und 35 °C.

Die in den Tabellen dargestellten Daten ermöglichen eine Bestimmung des genauen Betriebsfaktors aus dem max. Abtriebsmoment des Getriebes M_2 und dem erforderlichen Moment der Anwendung $M_{(app)}$.

Thermische Leistung (siehe Seite 19) können nicht berücksichtigt, wenn die max. Dauerbetrieb etwa 3 Stunden lang genug Ruhezeiten (ca. 2 bis 4 Stunden), um die Umgebungstemperatur in dem Getriebe wiederherzustellen.

Für max. Umgebungstemperatur über 40° C oder unter 0° C, fragen Sie bitte unseren Kundenservice.

Betriebsfaktor SF

Belastung SF_1				Schaltungen/Stunde		
Stunden	Gleichmäßige	Variabel	Stoß	Anzahl	SF_2	$SF = SF_1 \times SF_2$
8	0.8	1.1	1.4	6	1.0	
16	1.0	1.3	1.5	600	1.2	
24	1.2	1.4	1.6	1200	1.3	

Beschleunigungsfaktor der Massen

$$k_{(a)} = \frac{\frac{J_2}{ir^2} + J_1}{J_m}$$

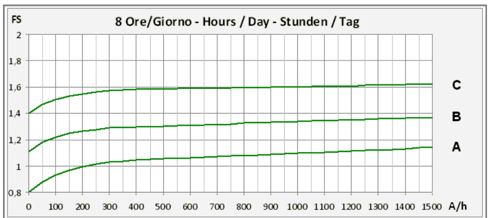
Belastungsklassen:

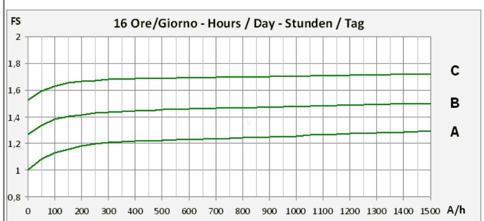
A - Gleichförmige Last
$k_{(a)} \leq 0,2$

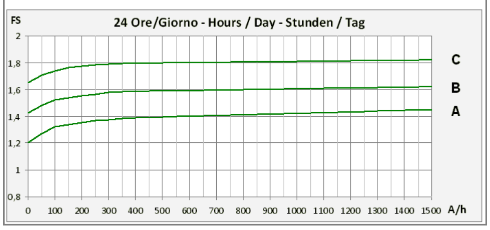
B - Ungleichförmige Last
$0,2 > k_{(a)} \leq 3$

C - Stark ungleichförmige Last
$3 < k_{(a)} \leq 10$

A/h - Anzahl der Schaltungen je Stunde







RO-RV Getriebe

Betriebsfaktoren

BETRIEBSARTEN
des Motors

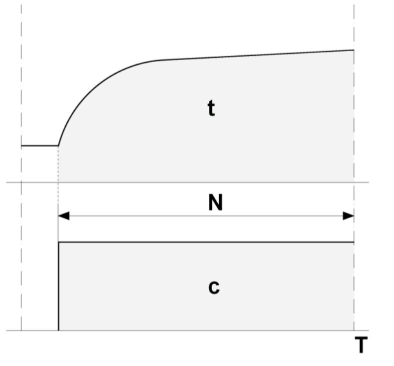
Die Betriebsarten sind definiert in den Normen CEI EN 60034-1 / IEC34-1.

S1 - Dauerbetrieb

Betrieb mit konstanter Belastung über eine unbestimmte Zeit (N), ohne dass der ther-mische Beharrungszustand der Maschine beeinträchtigt wird.

FS = 1.0

N = Betriebszeit
c = Belastung
t = Temperatur



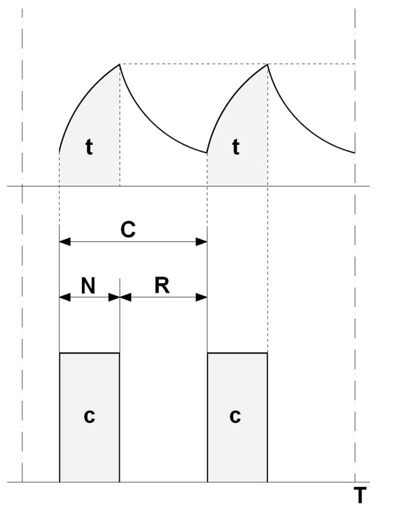
S3 - Aussetzbetriebe

Betrieb als Folge (C) gleichartiger Spiele mit konstanter Last während der Zeit (N) und einer folgenden Pause (R).
Starten/Anhalten beeinflussen nicht die Temperatur.
Für die Zyklusdauer (C) gilt eine Zeit von 10 Minuten.
Die Intermittenzübersetzung wird nach die folgende Formel bestimmt.

$$\frac{N}{(N+R)} * 100$$

=	60%	**FS 1.1**
	40%	**FS 1.2**
	25%	**FS 1.3**
	15%	**FS 1.4**

N = Betriebsdauer
R = Pause
C = Zyklusdauer



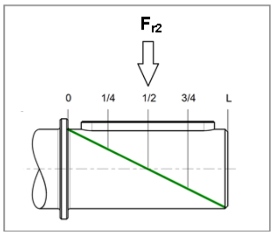
AUSGANGSRADIALKRÄFTE

Die Radialkräfte in den Tabellen müssen mit entsprechender Abtriebsdrehzahl, der Montageposition (A) und dem Übertragungselement (B) montiert auf der Getriebe-Ausgangswelle durch entsprechendem Faktoren k_L und k_T verglichen werden.

A - Anwendung Punkt der Radialbelastung

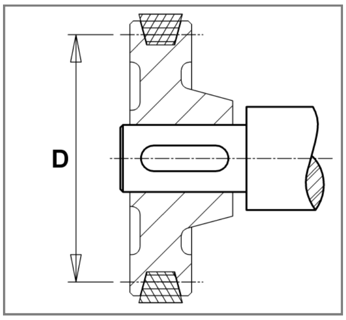
Die Radialbelastung wird auf der Mitte der Ausgangswelle angelegt.
Andere Positionen erzeugen Lasten, die mit dem entsprechendem Faktor k_L zu korrigieren sind.
Beispiele für den Abstand der Stufenwelle:

k_L	L
1.1	1/4 * L
1.0	1/2 * L
0.9	3/4 * L
0.8	L



B - Übertragungselement

k_T	Elementtyp
1,15	Zahnrad Zähnezahl < 17
	Kettenrad
1,40	Zähnezahl < 13
1,25	Zähnezahl < 20
1,00	Zähnezahl > 20
	Riemen für
2,50	Keilriemen "V"
1,25	Zahnriemen



F_{r2} - Radialkräfte

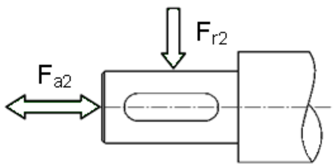
$$F_{r2} = \frac{2000 * M_2}{D} \times k_L \times k_T$$

AUSGANGSAXIALKRÄFTE

Der Wert der Axialkräfte

$F_{a2} = F_{r2} \times 0.2$

ist in dem Wert der Radialkräfte des Kataloges enthalten und gilt sowohl in Zug und Druck.

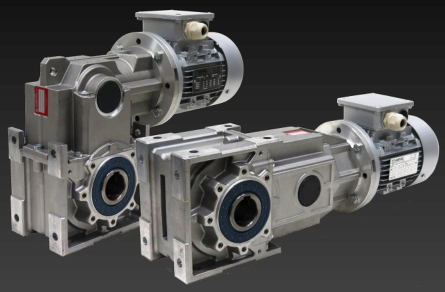


RO-RV Getriebe

Ausführungen

MRO - MRV

Dreistufig Getriebemotoren
Leistung: 0.09 kW bis 22 kW. 4-polen
Ausgangsgeschwindigkeit: 215 UpM bis 4.0 UpM

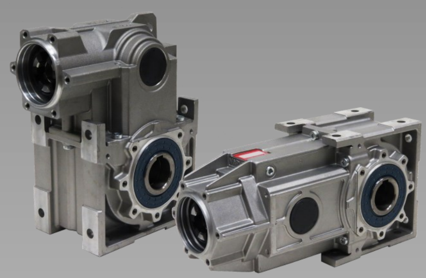


FRO - FRV

Dreistufig Getriebemotoren mit Motorflansch
Motorflansche: IEC 56 bis IEC 180 u. NEMA 56C bis NEMA 210TC
Ausgangsdrehmoment: 180 Nm [1060 in-lb] bis 3400 Nm [30100 in-lb]
Untersetzungsverhältnis: 6.3:1 bis 315:1

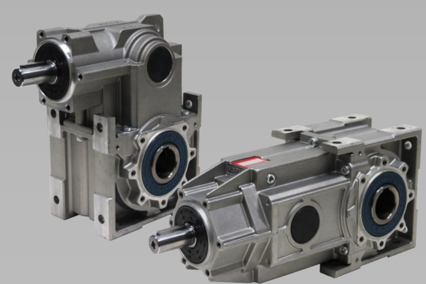
SRO - SRV

Dreistufig Getriebemotoren ohne Motorflansch aber. Hohleingangswelle mit Kupplung
Ausgangsdrehmoment: 180 Nm [1060 in-lb] bis 3400 Nm [30100 in-lb]
Untersetzungsverhältnis: 6.3:1 bis 315:1



RO - RV

Dreistufig Getriebemotoren mit Eingangsfreiewelle
Ausgangsdrehmoment: 120 Nm [1060 in-lb] bis 3400 Nm [30100 in-lb]
Untersetzungsverhältnis: 6.3:1 bis 710:1



Reihe RO - Inlineausführung
Reihe RV - Winkelausführung

Thermische Leistung

Die **Nennleistung P_1** ist die Leistung. die am Getriebe angewendet werden kann. Dauerbetriebstemperatur von 40 °C max.. max. Höhe 1000 m. Luftgeschwindigkeit von 1.25 m/s. ohne mehr als eine Temperatur von Öl von etwa 85 °C.

Die **thermische Leistung Pt_1** kann der Nennleistung P_1 als Funktion des Kühlsystems der Antriebsdrehzahl. Umgebungs-temperatur und der Koeffizient der Service begrenzen.

	FRO13 FRV13		FRO23 FRV23		FRO33 FRV33		FRO43 FRV43		FRO53 FRV53		FRO63 FRV63	
i_n	P_1 [kW]	Pt_1 [kW]	P_1 [kW]	Pt_1 [kW]	P_1 [kW]	Pt_1 [kW]	P_1 [kW]	Pt_1 [kW]	P_1 [kW]	Pt_1 [kW]	P_1 [kW]	Pt_1 [kW]
6,3	- - -	- - -	4,70	5,40	10,20	7,04	11,10	9,49	22,40	16,43	40,30	22,32
7,1	2,70	3,08	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
8	- - -	- - -	4,10	5,11	8,50	6,68	9,90	9,01	20,00	15,40	31,90	21,56
9,0	2,20	3,11	3,90	4,28	6,50	6,22	11,60	7,07	- - -	- - -	- - -	- - -
10,0	2,30	3,01	3,70	4,85	7,70	6,33	9,10	8,51	17,60	14,37	28,50	20,46
11,2	2,00	2,90	3,10	4,12	5,10	5,98	9,20	6,68	- - -	- - -	- - -	- - -
12,5	- - -	- - -	3,30	4,56	6,60	5,98	7,90	7,98	16,60	13,45	25,70	19,19
14,0	1,50	2,92	2,50	3,93	5,30	5,26	5,80	7,99	12,00	12,43	18,90	17,80
16,0	1,70	2,68	2,90	4,20	5,20	5,53	7,00	7,53	14,10	12,65	22,60	17,91
18,0	1,20	2,70	2,20	3,89	4,60	5,07	5,40	7,64	10,80	11,87	17,00	17,01
20,0	1,40	2,47	2,40	3,95	3,20	4,84	6,00	6,97	12,20	11,48	19,40	16,44
22,4	1,10	2,27	1,90	3,72	4,00	4,93	4,90	7,30	9,70	11,30	15,40	16,36
25,0	0,96	2,27	1,90	3,41	3,30	4,63	5,00	6,21	9,70	10,20	14,10	15,21
28,0	0,91	2,06	1,80	3,54	2,20	4,15	4,30	6,83	8,80	10,76	13,90	15,57
31,5	0,81	2,13	1,20	3,22	2,60	4,23	4,30	5,81	8,30	10,13	14,00	14,11
35,5	0,66	1,75	1,40	3,32	2,50	4,35	3,90	6,45	7,70	10,14	12,40	14,77
40	0,68	2,00	1,20	3,08	2,20	4,01	- - -	- - -	6,40	9,41	10,80	13,62
45	0,55	1,87	1,10	3,18	2,00	3,97	3,10	6,00	6,20	9,26	9,20	11,88
50	0,56	1,84	0,92	2,89	1,80	3,79	3,00	6,12	5,20	8,95	10,30	12,88
56	0,37	1,85	0,88	2,80	1,70	3,72	2,80	5,40	4,80	8,38	9,30	12,13
63	0,43	1,69	0,74	2,77	1,00	3,70	2,40	5,67	4,20	8,27	8,10	12,01
71	0,36	1,64	0,60	2,57	1,30	3,48	2,10	5,10	3,60	8,05	6,90	11,36
80	0,30	1,59	0,59	2,48	1,10	3,29	1,90	5,10	2,50	8,25	6,20	10,88
90	0,30	1,51	0,53	2,48	0,70	3,08	1,60	5,39	3,00	6,83	5,80	10,67
100	0,27	1,48	0,39	2,36	0,86	3,11	1,40	4,83	2,80	7,54	5,20	10,66
112	0,21	1,51	0,42	2,23	0,80	2,92	1,40	4,85	2,40	7,25	4,40	9,73
125	0,22	1,38	0,33	2,16	0,60	2,88	1,00	3,68	2,30	6,73	3,00	9,84
140	0,18	1,26	0,28	2,13	0,61	2,77	1,00	4,58	2,00	6,74	3,70	9,55
160	0,16	1,21	0,26	1,97	0,41	2,59	0,71	3,65	1,80	6,49	3,40	9,19
180	0,13	1,15	0,24	1,90	0,43	2,58	0,67	3,49	1,20	6,03	2,20	8,40
200	0,12	1,21	0,20	1,88	0,32	2,63	0,61	3,75	1,00	6,07	- - -	- - -
224	0,10	1,15	0,17	1,74	- - -	- - -	0,51	3,48	0,92	5,62	1,80	8,54
250	0,09	1,10	0,16	1,65	0,27	2,45	0,46	3,32	0,82	5,66	- - -	- - -
280	- - -	- - -	- - -	- - -	0,25	2,36	0,41	3,14	- - -	- - -	1,50	7,85
315	0,06	0,99	0,13	1,55	0,20	2,14	- - -	- - -	0,66	5,12	1,30	7,36

RO-RV Getriebe

RO1/RV1 - 180 Nm

Getriebeauswahl 1400 rpm

	i_n	i_r	n_2 [rpm	M_2 [Nm]	P_1 [kW]	F_{r1} [N]	F_{r2} [N]	J_1 (x 10^{-4}) [kgm^2]]	56 B5	63 B*	71 B*	80 B*	90 B*
FRO13 **FRV13** 3c	7.1	7.58	185	130	2.7	1550	3310	1.1700	⊙	⊙	⊙	⊙	⊙
	9.0	9.14	153	130	2.2	1580	3740	1.0754	⊙	⊙	⊙	⊙	⊙
	10.0	9.57	146	140	2.3	1580	3600	1.0469	⊙	⊙	⊙	⊙	⊙
	11.2	11.63	120	150	2.0	1590	3570	0.9761	⊙	⊙	⊙	⊙	⊙
	14.0	14.02	100	130	1.5	1600	4040	0.9358	⊙	⊙	⊙	⊙	⊙
	16.0	15.14	92.5	165	1.7	1600	3550	0.9105	⊙	⊙	⊙	⊙	⊙
	18.0	18.25	76.7	135	1.2	1610	4240	0.8868	⊙	⊙	⊙	⊙	⊙
	20.0	19.15	73.1	170	1.4	1610	3670	0.8712	⊙	⊙	⊙	⊙	⊙
	22.4	23.33	60.0	170	1.1	1610	3820	0.8476	⊙	⊙	⊙	⊙	⊙
	25.0	24.44	57.3	150	0.96	1600	4150	0.3567	⊙	⊙	⊙	⊙	
	28.0	29.18	48.0	170	0.91	1610	3960	0.8281	⊙	⊙	⊙	⊙	
	31.5	31.82	44.0	165	0.81	1600	4120	0.3418	⊙	⊙	⊙	⊙	
	35.5	37.95	36.9	160	0.66	1610	4430	0.8125	⊙	⊙	⊙	⊙	
	40	40.25	34.8	175	0.68	1610	4100	0.3329	⊙	⊙	⊙	⊙	
	45	47.88	29.2	170	0.55	1600	4300	0.2717	⊙	⊙	⊙	⊙	
	50	49.02	28.6	175	0.56	1610	4100	0.3276	⊙	⊙	⊙	⊙	
	56	59.10	23.7	140	0.37	1610	4820	0.3253	⊙	⊙	⊙		
	63	61.31	22.8	170	0.43	1610	4000	0.3231	⊙	⊙	⊙		
	71	73.77	19.0	170	0.36	1610	4000	0.2654	⊙	⊙	⊙		
	80	84.93	16.5	165	0.30	1610	4400	0.2441	⊙	⊙	⊙		
	90	92.26	15.2	180	0.30	1610	4000	0.2634	⊙	⊙	⊙		
	100	103.46	13.5	180	0.27	1610	4000	0.2429	⊙	⊙	⊙		
	112	111.22	12.6	150	0.21	1610	4800	0.2628	⊙	⊙			
	125	129.39	10.8	180	0.22	1610	4000	0.2419	⊙	⊙			
	140	132.61	10.6	150	0.18	1610	4700	0.2614	⊙	⊙			
	160	168.30	8.32	175	0.16	1610	4100	0.2411	⊙	⊙			
	180	185.98	7.53	150	0.13	1610	4700	0.2409	⊙	⊙			
	200	202.90	6.90	150	0.12	1610	4800	0.2408	⊙				
	224	224.22	6.24	150	0.10	1610	4800	0.2407	⊙				
	250	249.80	5.60	150	0.09	1610	4800	0.2405	⊙				
	315	320.513	4.37	130	0.06	1360	4800	0.2320	⊙				

B* = B5 & B14
3c - Anzahl der Getriebestufen

	Öl [Liter]						Gewicht
	H1	H2	H3	H4	V1	V2	[kg]
FRO13	0.5	0.45	0.4	0.45	0.35	0.45	6.4
FRV13	0.5	0.35	0.25	0.35	0.4	0.3	6.1

RO2/RV2 - 310 Nm

Getriebe RO-RV

1400 rpm | **Getriebeauswahl**

	i_n	i_r	n_2 [rpm]	M_2 [Nm]	P_1 [kW]	F_{r1} [N]	F_{r2} [N]	J_1 (x 10^{-4}) [kgm^2]]	71 B*	80 B*	90 B*	100 B*	112 B*
FRO23 **FRV23** 3c	6.3	6.62	211.4	200	4.7	2900	3350	3.7230	⊙	⊙	⊙	⊙	⊙
	8.0	8.47	165.3	220	4.1	2900	3620	3.4225	⊙	⊙	⊙	⊙	⊙
	9.0	8.97	156.0	225	3.9	2900	3710	3.4623	⊙	⊙	⊙	⊙	
	10.0	10.43	134.3	245	3.7	2900	3870	3.2499	⊙	⊙	⊙	⊙	
	11.2	11.48	122.0	230	3.1	3000	4040	3.2632	⊙	⊙	⊙	⊙	
	12.5	13.03	107.4	275	3.3	3000	3920	3.1175	⊙	⊙	⊙	⊙	
	14.0	14.13	99.1	230	2.5	3000	4340	3.1448	⊙	⊙	⊙	⊙	
	16.0	16.68	83.9	305	2.9	3000	3620	3.0140	⊙	⊙	⊙	⊙	
	18.0	17.80	78.6	250	2.2	3000	4480	1.3623	⊙	⊙	⊙	⊙	
	20.0	20.55	68.1	310	2.4	3000	3720	2.9511	⊙	⊙	⊙	⊙	
	22.4	21.91	63.9	270	1.9	3000	4420	1.3232	⊙	⊙	⊙		
	25.0	26.07	53.7	310	1.9	3000	3930	2.8990	⊙	⊙	⊙		
	28.0	27.39	51.1	310	1.8	3000	4180	1.2932	⊙	⊙	⊙		
	31.5	32.97	42.5	260	1.2	3000	4960	1.0795	⊙	⊙	⊙		
	35.5	35.06	39.9	310	1.4	3000	4220	1.2698	⊙	⊙	⊙		
	40	41.21	34.0	310	1.2	3000	4600	1.0662	⊙	⊙	⊙		
	45	43.18	32.4	310	1.1	3000	4450	1.2555	⊙	⊙	⊙		
	50	52.75	26.5	310	0.92	3000	4680	1.0559	⊙	⊙			
	56	54.78	25.6	310	0.88	3000	4720	1.2437	⊙	⊙			
	63	64.97	21.5	310	0.74	3000	4930	1.0496	⊙	⊙			
	71	73.98	18.9	285	0.60	3000	5510	0.9764	⊙	⊙			
	80	82.42	17.0	310	0.59	3000	5100	1.0444	⊙	⊙			
	90	91.12	15.4	310	0.53	3000	5100	0.9732	⊙				
	100	106.60	13.1	270	0.39	3000	6000	1.0405	⊙				
	112	115.60	12.1	310	0.42	3000	5100	0.9706	⊙				
	125	123.47	11.34	260	0.33	3000	6200	0.9721	⊙				
	140	149.51	9.36	270	0.28	3000	6000	0.9686	⊙				
	160	156.64	8.94	260	0.26	3000	6200	0.9699	⊙				
	180	170.11	8.23	260	0.24	3000	6200	1.0381	(⊙)				
	200	202.59	6.91	260	0.20	3000	6200	0.9682	(⊙)				
	224	238.58	5.87	260	0.17	3000	6200	0.9674	(⊙)				
	250	261.07	5.363	260	0.16	3000	6200	0.9670	(⊙)				
	315	319.55	4.381	260	0.13	3000	6200	0.9664	(⊙)				

B* = B5 & B14
3c - Anzahl der Getriebestufen
(⊙) - Max. Leistung $\leq P_1$

	Öl [Liter]						Gewicht
	H1	H2	H3	H4	V1	V2	[kg]
FRO23	0.8	0.7	0.75	0.7	0.85	0.85	10.6
FRV23	0.65	0.6	0.5	0.6	0.7	0.55	10.1

RO-RV Getriebe

RO3/RV3 - 580 Nm

Getriebeauswahl

1400 rpm

	i_n	i_r	n_2 [rpm]	M_2 [Nm]	P_1 [kW]	F_{r1} [N]	F_{r2} [N]	J_1 (x 10^{-4}) [kgm^2]	71 B*	80 B*	90 B*	100 B*	112 B*
FRO33	6.3	6.43	217.6	420	10.2	4550	4990	7.8449	⊙	⊙	⊙	⊙	⊙
FRV33	8.0	8.25	169.7	450	8.5	5540	5430	7.0546	⊙	⊙	⊙	⊙	⊙
3c	9.0	9.09	154.0	380	6.5	5710	5680	7.1141	⊙	⊙	⊙	⊙	⊙
	10.0	10.17	137.7	500	7.7	5630	4980	6.5966	⊙	⊙	⊙	⊙	⊙
	11.2	11.65	120.2	380	5.1	5730	6180	6.6099	⊙	⊙	⊙	⊙	⊙
	12.5	12.72	110.0	540	6.6	5710	4640	6.2405	⊙	⊙	⊙	⊙	⊙
	14.0	13.52	103.5	460	5.3	5520	5970	2.2602	⊙	⊙	⊙	⊙	⊙
	16.0	16.30	85.9	540	5.2	5730	4800	5.9573	⊙	⊙	⊙	⊙	⊙
	18.0	17.33	80.8	510	4.6	5680	5460	2.0812	⊙	⊙	⊙	⊙	⊙
	20.0	19.10	73.3	390	3.2	5730	7310	2.0993	⊙	⊙	⊙	⊙	
	22.4	21.67	64.6	550	4.0	5740	4970	5.7302	⊙	⊙	⊙	⊙	
	25.0	26.73	52.4	560	3.3	5730	5130	1.8969	⊙	⊙	⊙	⊙	
	28.0	28.74	48.7	400	2.2	5740	7800	1.4638	⊙	⊙	⊙	⊙	
	31.5	33.27	42.1	550	2.6	5740	4800	5.5211	⊙	⊙	⊙	⊙	
	35.5	34.26	40.9	560	2.5	5740	5370	1.8327	⊙	⊙	⊙	⊙	
	40	40.23	34.8	570	2.2	5740	5500	1.3744	⊙	⊙	⊙	⊙	
	45	45.54	30.7	570	2.0	5740	5580	1.7813	⊙	⊙	⊙		
	50	51.55	27.2	580	1.8	5740	5600	1.3460	⊙	⊙	⊙		
	56	53.60	26.1	580	1.7	5740	5600	1.7597	⊙	⊙	⊙		
	63	64.33	21.8	410	1.0	5740	8950	1.7667	⊙	⊙	⊙		
	71	68.52	20.4	580	1.3	5740	5500	1.3233	⊙	⊙	⊙		
	80	80.65	17.4	580	1.1	5740	5500	1.3138	⊙	⊙	⊙		
	90	91.94	15.2	410	0.70	5740	9580	1.7158	⊙	⊙			
	100	105.20	13.3	580	0.86	5750	5500	1.3024	⊙	⊙			
	112	113.11	12.4	580	0.80	5740	5500	1.1546	⊙	⊙			
	125	125.46	11.16	480	0.60	5740	8500	1.2969	⊙	⊙			
	140	147.54	9.49	580	0.61	5740	5500	1.1488	⊙	⊙			
	160	162.17	8.63	430	0.41	5740	9400	1.7036	⊙				
	180	175.95	7.96	490	0.43	5740	8200	1.1460	⊙				
	200	208.42	6.72	430	0.32	5740	9400	1.1474	⊙				
	250	248.56	5.63	430	0.27	5740	9400	1.1450	⊙				
	280	274.11	5.107	430	0.25	5740	9400	1.1439	⊙				
	315	342.23	4.091	430	0.20	5740	9400	1.1420	(⊙)				

B* = B5 & B14
3c - Anzahl der Getriebestufen
(⊙) - Max. Leistung ≤ P_1

	Öl [Liter]						Gewicht
	H1	H2	H3	H4	V1	V2	[kg]
FRO33	1.5	1.2	1.4	1.2	1.5	1.7	12.5
FRV33	1.5	1.0	0.8	1.0	1.2	0.8	13.0

RO4/RV4 - 1000 Nm

Getriebe RO-RV

1400 rpm

Getriebeauswahl

	i_n	i_r	n_2 [rpm]	M_2 [Nm]	P_1 [kW]	F_{r1} [N]	F_{r2} [N]	J_1 (x 10^{-4}) [kgm^2]	71 B5	80 B5	90 B5	100 B*	112 B*
FRO43 **FRV43** 3c	6.3	6.60	212.1	470	11.1	5670	5570	18.0401	⊙	⊙	⊙	⊙	⊙
	8.0	8.35	167.6	530	9.9	5740	6000	16.3029	⊙	⊙	⊙	⊙	⊙
	9.0	8.72	160.6	650	11.6	5560	5980	16.5334	⊙	⊙	⊙	⊙	⊙
	10.0	10.43	134.2	610	9.1	5770	6430	15.1392	⊙	⊙	⊙	⊙	⊙
	11.2	11.04	126.8	650	9.2	5740	6520	15.3615	⊙	⊙	⊙	⊙	⊙
	12.5	13.29	105.4	670	7.9	5780	6950	14.2633	⊙	⊙	⊙	⊙	⊙
	14.0	13.87	100.9	515	5.8	5630	7190	6.3637	⊙	⊙	⊙	⊙	⊙
	16.0	16.21	86.4	730	7.0	5780	7420	13.7425	⊙	⊙	⊙	⊙	⊙
	18.0	17.55	79.8	610	5.4	5700	7740	5.9704	⊙	⊙	⊙	⊙	⊙
	20.0	20.22	69.2	780	6.0	5780	7980	13.3129	⊙	⊙	⊙	⊙	⊙
	22.4	21.94	63.8	690	4.9	5740	8310	5.7069	⊙	⊙	⊙	⊙	⊙
	25.0	26.10	53.6	840	5.0	5780	8690	12.9609	⊙	⊙	⊙	⊙	⊙
	28.0	27.92	50.1	770	4.3	5780	8990	5.5085	⊙	⊙	⊙	⊙	⊙
	31.5	32.52	43.1	890	4.3	5790	9390	12.7520	⊙	⊙	⊙	⊙	⊙
	35.5	34.06	41.1	840	3.9	5780	9580	5.3906	⊙	⊙	⊙	⊙	
	45	42.50	32.9	840	3.1	5780	10020	5.2933	⊙	⊙	⊙	⊙	
	50	51.25	27.3	980	3.0	5780	9720	4.3723	⊙	⊙	⊙	⊙	
	56	54.84	25.5	980	2.8	5790	9800	5.2136	⊙	⊙	⊙	⊙	
	63	63.95	21.9	990	2.4	5780	10090	4.3293	⊙	⊙	⊙	⊙	
	71	68.34	20.5	920	2.1	5790	10970	5.1663	⊙	⊙	⊙		
	80	82.52	17.0	1000	1.9	5790	10510	4.2941	⊙	⊙	⊙		
	90	89.69	15.6	890	1.6	5790	11880	3.9791	⊙	⊙	⊙		
	100	102.83	13.6	940	1.4	5790	11740	4.2732	⊙	⊙	⊙		
	112	115.73	12.1	1020	1.4	5790	11130	3.9612	⊙	⊙	⊙		
	125	121.80	11.5	780	1.0	5790	13730	5.1136	⊙	⊙			
	140	144.22	9.71	950	1.0	5790	12410	3.9506	⊙	⊙			
	160	164.63	8.50	750	0.71	5790	14400	4.2552	⊙	⊙			
	180	183.27	7.64	790	0.67	5790	14710	4.2500	⊙	⊙			
	200	190.66	7.34	750	0.61	5790	14830	3.9474	⊙	⊙			
	224	230.89	6.06	750	0.51	5790	15400	3.9414	⊙				
	250	257.04	5.45	750	0.46	5790	16500	3.9388	⊙				
	280	289.000	4.844	750	0.41	5790	16470	3.9363	⊙				

B* = B5 & B14
3c - Anzahl der Getriebestufen

	Öl [Liter]						Gewicht
	H1	H2	H3	H4	V1	V2	[kg]
FRO43	2.8	2.0	1.6	2.0	2.0	2.5	39.0
FRV43	2.9	1.9	1.2	1.8	2.6	1.7	36.5

RO-RV Getriebe

RO5/RV5 - 1800 Nm

Getriebeauswahl — **1400 rpm**

	i_n	i_r	n_2 [rpm]	M_2 [Nm]	P_1 [kW]	F_{r1} [N]	F_{r2} [N]	J_1 (x 10^{-4}) [kgm^2]]	80 90 B5	100 112 B5	132 B*	160 B5	180 B5
FRO53 **FRV53** 3c	6.3	6.48	215.9	930	22.4	8200	8020	57.2158	⊙	⊙	⊙	⊙	⊙
	8.0	8.57	163.3	1100	20.0	8290	8770	52.4172	⊙	⊙	⊙	⊙	⊙
	10.0	10.87	128.8	1230	17.6	8350	9470	49.6847	⊙	⊙	⊙	⊙	⊙
	12.5	13.17	106.3	1400	16.6	8350	10050	48.0516	⊙	⊙	⊙	⊙	⊙
	14.0	13.63	102.7	1050	12.0	8110	10340	20.5375	⊙	⊙	⊙	⊙	
	16.0	16.24	86.2	1470	14.1	8360	10150	46.6813	⊙	⊙	⊙	⊙	
	18.0	18.02	77.7	1250	10.8	8260	11300	19.4509	⊙	⊙	⊙		
	20.0	20.53	68.2	1600	12.2	8360	8650	45.5253	⊙	⊙	⊙	⊙	
	22.4	22.85	61.3	1420	9.7	8310	11180	18.8321	⊙	⊙	⊙		
	25.0	26.97	51.9	1670	9.7	8360	8140	44.5592	⊙	⊙	⊙		
	28.0	27.68	50.6	1560	8.8	8350	9800	18.4623	⊙	⊙	⊙		
	31.5	31.69	44.2	1680	8.3	8360	8230	44.1495	⊙	⊙	⊙		
	35.5	34.12	41.0	1690	7.7	8360	8340	18.1520	⊙	⊙	⊙		
	40	41.65	33.6	1700	6.4	8330	8510	14.8941	⊙	⊙	⊙		
	45	43.14	32.5	1700	6.2	8360	8540	17.8902	⊙	⊙	⊙		
	50	51.34	27.3	1720	5.2	8360	8720	14.7570	⊙	⊙			
	56	56.67	24.7	1730	4.8	8360	8820	17.6715	⊙	⊙			
	63	64.91	21.6	1740	4.2	8360	8950	14.6414	⊙	⊙			
	71	72.56	19.3	1660	3.6	8360	10800	17.5356	⊙	⊙			
	80	79.37	17.6	1280	2.5	8360	16160	13.5189	⊙	⊙			
	90	91.04	15.4	1770	3.0	8360	8400	13.4434	⊙	⊙			
	100	100.20	14.0	1780	2.8	8360	8000	14.5038	⊙	⊙			
	112	109.18	12.8	1700	2.4	8360	11200	14.4848	⊙	⊙			
	125	119.59	11.7	1790	2.3	8360	7200	13.3942	⊙	⊙			
	140	140.53	10.0	1790	2.0	8360	7200	13.3734	⊙				
	160	153.12	9.14	1720	1.8	8360	10100	13.3637	⊙				
	180	185.17	7.56	1420	1.2	8360	17640	13.3462	⊙				
	200	208.05	6.73	1330	1.0	8360	19060	13.3560	⊙				
	224	224.24	6.24	1330	0.92	8360	19100	14.4140	⊙				
	250	251.60	5.56	1330	0.82	8360	19100	13.3409	⊙				
	315	314.50	4.45	1330	0.66	8360	19100	13.3277	⊙				

B* = B5 & B14
3c - Anzahl der Getriebestufen

	Öl [Liter]						Gewicht
	H1	H2	H3	H4	V1	V2	[kg]
FRO53	5.1	3.6	2.9	3.6	5.0	5.0	73
FRV53	5.2	3.4	2.1	3.2	4.7	4.7	68

RO6/RV6 - 3400 Nm

Getriebe RO-RV

1400 rpm

Getriebeauswahl

	i_n	i_r	n_2 [rpm]	M_2 [Nm]	P_1 [kW]	F_{r1} [N]	F_{r2} [N]	J_1 (x 10^{-4}) [kgm^2]	80 90 B5	100 112 B5	132 B*	160 B5	180 B5
FRO63 FRV63 3c	6.3	6.43	217.7	1660	40.3	6670	10740	102.1187	⊙	⊙	⊙	⊙	⊙
	8.0	8.50	164.7	1740	31.9	7570	11850	89.9906	⊙	⊙	⊙	⊙	⊙
	10.0	10.78	129.9	1970	28.5	7820	12750	81.543	⊙	⊙	⊙	⊙	⊙
	12.5	13.06	107.2	2150	25.7	8010	13550	76.4873	⊙	⊙	⊙	⊙	⊙
	14.0	13.51	103.6	1640	18.9	7530	14110	40.9607	⊙	⊙	⊙	⊙	⊙
	16.0	16.10	87.0	2330	22.6	8190	14450	72.2401	⊙	⊙	⊙	⊙	⊙
	18.0	17.87	78.4	1950	17.0	7880	15380	38.2144	⊙	⊙	⊙	⊙	⊙
	20.0	20.36	68.8	2530	19.4	8310	14100	68.6529	⊙	⊙	⊙	⊙	⊙
	22.4	22.66	61.8	2230	15.4	8090	16460	36.3014	⊙	⊙	⊙	⊙	⊙
	25.0	25.48	55.0	2300	14.1	8230	16820	36.6126	⊙	⊙	⊙	⊙	
	28.0	27.45	51.0	2450	13.9	8240	15700	35.1566	⊙	⊙	⊙	⊙	
	31.5	31.85	44.0	2860	14.0	8360	11540	64.3060	⊙	⊙	⊙	⊙	
	35.5	33.83	41.4	2690	12.4	8310	13920	34.1949	⊙	⊙	⊙	⊙	
	40	42.78	32.7	2950	10.8	8360	11390	33.3825	⊙	⊙	⊙		
	45	42.95	32.6	2540	9.2	8360	16450	62.5533	⊙	⊙	⊙		
	50	50.91	27.5	3360	10.3	8120	9810	25.1536	⊙	⊙	⊙		
	56	56.19	24.9	3360	9.3	8360	9970	32.7029	⊙	⊙	⊙		
	63	64.36	21.8	3360	8.1	8330	10200	24.7949	⊙	⊙	⊙		
	71	73.41	19.1	3250	6.9	8360	11430	32.2564	⊙	⊙	⊙		
	80	84.55	16.6	3360	6.2	8360	11400	24.4947	⊙	⊙	⊙		
	90	90.27	15.5	3360	5.8	8340	11400	21.7196	⊙	⊙	⊙		
	100	100.70	13.9	3360	5.2	8360	9800	24.3601	⊙	⊙			
	112	118.58	11.8	3360	4.4	8360	9800	21.5670	⊙	⊙			
	125	128.72	10.9	2490	3.0	8360	22060	21.6569	⊙	⊙			
	140	141.23	9.9	3360	3.7	8360	9800	21.4986	⊙	⊙			
	160	154.91	9.04	3360	3.4	8360	9800	21.4668	⊙	⊙			
	180	190.49	7.35	2730	2.2	8360	19400	21.4095	⊙	⊙			
	224	220.89	6.34	2550	1.8	8360	22500	21.4455	⊙				
	280	271.62	5.15	2550	1.5	8360	22500	21.3954	⊙				
	315	305.43	4.58	2550	1.3	8360	22500	21.3730	⊙				

B* = B5 & B14
3c - Anzahl der Getriebestufen

	Öl [Liter]						Gewicht
	H1	H2	H3	H4	V1	V2	[kg]
FRO63	9.2	6.5	5.2	6.5	9.0	9.0	121
FRV63	9.4	6.1	3.8	5.8	8.5	8.5	117

RO-RV Getriebe

Getriebemotorauswahl 1400 rpm

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Tipo - Size - Größe	F_{r2} [N]	MRN [kg]	FRN [kg]	$J_m \times 10^{-4}$	$J_1 \times 10^{-4}$
0.06	7.1	7.58	185	2.9	> 3.5	MRO-MRV 13	3310	9.4	6.9	1.50	0.9150
	9.0	9.14	153	3.5	> 3.5	MRO-MRV 13	3740	9.4	6.9	1.50	0.8480
	10.0	9.57	146	3.7	> 3.5	MRO-MRV 13	3600	9.4	6.9	1.50	0.7740
	11.2	11.63	120	4.5	> 3.5	MRO-MRV 13	3570	9.4	6.9	1.50	0.6940
	14.0	14.02	100	5.2	> 3.5	MRO-MRV 13	4040	9.4	6.9	1.50	0.6660
	16.0	15.14	92.5	5.8	> 3.5	MRO-MRV 13	3550	9.4	6.9	1.50	0.6210
	18.0	18.25	76.7	6.8	> 3.5	MRO-MRV 13	4240	9.4	6.9	1.50	0.6040
	20.0	19.15	73.1	7.3	> 3.5	MRO-MRV 13	3670	9.4	6.9	1.50	0.5770
	22.4	23.33	60	9.3	> 3.5	MRO-MRV 13	3820	9.4	6.9	1.50	0.5510
	25.0	24.44	57.3	9.4	> 3.5	MRO-MRV 13	4150	9.4	6.9	1.50	0.4940
	28.0	29.18	48	11.2	> 3.5	MRO-MRV 13	3960	9.4	6.9	1.50	0.5290
	31.5	31.82	44	12.2	> 3.5	MRO-MRV 13	4120	9.4	6.9	1.50	0.4770
	35.5	37.95	36.9	14.5	> 3.5	MRO-MRV 13	4430	9.4	6.9	1.50	0.5120
	40.0	40.25	34.8	15.4	> 3.5	MRO-MRV 13	4100	9.4	6.9	1.50	0.4670
	45.0	47.88	29.2	18.5	> 3.5	MRO-MRV 13	4300	9.4	6.9	1.50	0.4540
	50.0	49.02	28.6	18.8	> 3.5	MRO-MRV 13	4100	9.4	6.9	1.50	0.4610
	56.0	59.10	23.7	22.7	> 3.5	MRO-MRV 13	4820	9.4	6.9	1.50	0.4600
	63.0	61.31	22.8	23.7	> 3.5	MRO-MRV 13	4000	9.4	6.9	1.50	0.4560
	71.0	73.77	19	28.3	> 3.5	MRO-MRV 13	4000	9.4	6.9	1.50	0.4470
	80.0	84.93	16.5	33.0	> 3.5	MRO-MRV 13	4400	9.4	6.9	1.50	0.4420
	90.0	92.26	15.2	36.0	> 3.5	MRO-MRV 13	4000	9.4	6.9	1.50	0.4450
	100.0	103.46	13.5	40.0	> 3.5	MRO-MRV 13	4000	9.4	6.9	1.50	0.4410
	112.0	111.22	12.6	42.9	3.5	MRO-MRV 13	4800	9.4	6.9	1.50	0.4440
	125.0	129.39	10.8	49.1	> 3.5	MRO-MRV 13	4000	9.4	6.9	1.50	0.4400
	140.0	132.61	10.6	50.0	3.0	MRO-MRV 13	4700	9.4	6.9	1.50	0.4420
	160.0	168.30	8.32	65.6	2.7	MRO-MRV 13	4100	9.4	6.9	1.50	0.4390
	180.0	185.98	7.53	69.2	2.2	MRO-MRV 13	4700	9.4	6.9	1.50	0.4390
	200.0	202.90	6.9	75.0	2.0	MRO-MRV 13	4800	9.4	6.9	1.50	0.4390
	224.0	224.22	6.24	90.0	1.7	MRO-MRV 13	4800	9.4	6.9	1.50	0.4390
	250.0	249.80	5.6	100.0	1.5	MRO-MRV 13	4800	9.4	6.9	1.50	0.4380
	315.0	320.51	4.37	130.0	1.0	MRO-MRV 13	4800	9.4	6.9	1.50	0.4380
0.09	7.1	7.58	185	4.3	> 3.5	MRO-MRV 13	3310	9.5	6.9	2.00	0.9150
	9.0	9.14	153	5.3	> 3.5	MRO-MRV 13	3740	9.5	6.9	2.00	0.8480
	10.0	9.57	146	5.5	> 3.5	MRO-MRV 13	3600	9.5	6.9	2.00	0.7740
	11.2	11.63	120	6.8	> 3.5	MRO-MRV 13	3570	9.5	6.9	2.00	0.6940
	14.0	14.02	100	7.8	> 3.5	MRO-MRV 13	4040	9.5	6.9	2.00	0.6660
	16.0	15.14	92.5	8.7	> 3.5	MRO-MRV 13	3550	9.5	6.9	2.00	0.6210
	18.0	18.25	76.7	10.1	> 3.5	MRO-MRV 13	4240	9.5	6.9	2.00	0.6040
	20.0	19.15	73.1	10.9	> 3.5	MRO-MRV 13	3670	9.5	6.9	2.00	0.5770
	22.4	23.33	60	13.9	> 3.5	MRO-MRV 13	3820	9.5	6.9	2.00	0.5510
	25.0	24.44	57.3	14.1	> 3.5	MRO-MRV 13	4150	9.5	6.9	2.00	0.4940
	28.0	29.18	48	16.8	> 3.5	MRO-MRV 13	3960	9.5	6.9	2.00	0.5290
	31.5	31.82	44	18.3	> 3.5	MRO-MRV 13	4120	9.5	6.9	2.00	0.4770
	35.5	37.95	36.9	21.8	> 3.5	MRO-MRV 13	4430	9.5	6.9	2.00	0.5120
	40.0	40.25	34.8	23.2	> 3.5	MRO-MRV 13	4100	9.5	6.9	2.00	0.4670
	45.0	47.88	29.2	27.8	> 3.5	MRO-MRV 13	4300	9.5	6.9	2.00	0.4540
	50.0	49.02	28.6	28.1	> 3.5	MRO-MRV 13	4100	9.5	6.9	2.00	0.4610
	56.0	59.10	23.7	34.1	> 3.5	MRO-MRV 13	4820	9.5	6.9	2.00	0.4600
	63.0	61.31	22.8	35.6	> 3.5	MRO-MRV 13	4000	9.5	6.9	2.00	0.4560
	71.0	73.77	19	42.5	> 3.5	MRO-MRV 13	4000	9.5	6.9	2.00	0.4470

Getriebe RO-RV

1400 rpm **Getriebemotorauswahl**

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Tipo - Size - Größe	F_{r2} [N]	MRN [kg]	FRN [kg]	J_m × 10^{-4}	J_1 × 10^{-4}
0.09	80.0	84.93	16.5	49.5	3.3	MRO-MRV 13	4400	9.5	6.9	2.00	0.4420
	90.0	92.26	15.2	54.0	3.3	MRO-MRV 13	4000	9.5	6.9	2.00	0.4450
	100.0	103.46	13.5	60.0	3.0	MRO-MRV 13	4000	9.5	6.9	2.00	0.4410
	112.0	111.22	12.6	64.3	2.3	MRO-MRV 13	4800	9.5	6.9	2.00	0.4440
	125.0	129.39	10.8	73.6	2.4	MRO-MRV 13	4000	9.5	6.9	2.00	0.4400
	140.0	132.61	10.6	75.0	2.0	MRO-MRV 13	4700	9.5	6.9	2.00	0.4420
	160.0	168.30	8.32	98.4	1.8	MRO-MRV 13	4100	9.5	6.9	2.00	0.4390
	180.0	185.98	7.53	103.8	1.4	MRO-MRV 13	4700	9.5	6.9	2.00	0.4390
	200.0	202.90	6.9	112.5	1.3	MRO-MRV 13	4800	9.5	6.9	2.00	0.4390
	224.0	224.22	6.24	135.0	1.1	MRO-MRV 13	4800	9.5	6.9	2.00	0.4390
	250.0	249.80	5.6	150.0	1.0	MRO-MRV 13	4800	9.5	6.9	2.00	0.4380
	315.0	320.51	4.37	195.0	0.7	MRO-MRV 13	4800	9.5	6.9	2.00	0.4380
0.13	7.1	7.58	185	6.3	> 3.5	MRO-MRV 13	3310	10.6	6.9	2.80	0.9150
	9.0	9.14	153	7.7	> 3.5	MRO-MRV 13	3740	10.6	6.9	2.80	0.8480
	10.0	9.57	146	7.9	> 3.5	MRO-MRV 13	3600	10.6	6.9	2.80	0.7740
	11.2	11.63	120	9.8	> 3.5	MRO-MRV 13	3570	10.6	6.9	2.80	0.6940
	14.0	14.02	100	11.3	> 3.5	MRO-MRV 13	4040	10.6	6.9	2.80	0.6660
	16.0	15.14	92.5	12.6	> 3.5	MRO-MRV 13	3550	10.6	6.9	2.80	0.6210
	18.0	18.25	76.7	14.6	> 3.5	MRO-MRV 13	4240	10.6	6.9	2.80	0.6040
	20.0	19.15	73.1	15.8	> 3.5	MRO-MRV 13	3670	10.6	6.9	2.80	0.5770
	22.4	23.33	60	20.1	> 3.5	MRO-MRV 13	3820	10.6	6.9	2.80	0.5510
	25.0	24.44	57.3	20.3	> 3.5	MRO-MRV 13	4150	10.6	6.9	2.80	0.4940
	28.0	29.18	48	24.3	> 3.5	MRO-MRV 13	3960	10.6	6.9	2.80	0.5290
	31.5	31.82	44	26.5	> 3.5	MRO-MRV 13	4120	10.6	6.9	2.80	0.4770
	35.5	37.95	36.9	31.5	> 3.5	MRO-MRV 13	4430	10.6	6.9	2.80	0.5120
	40.0	40.25	34.8	33.5	> 3.5	MRO-MRV 13	4100	10.6	6.9	2.80	0.4670
	45.0	47.88	29.2	40.2	> 3.5	MRO-MRV 13	4300	10.6	6.9	2.80	0.4540
	50.0	49.02	28.6	40.6	> 3.5	MRO-MRV 13	4100	10.6	6.9	2.80	0.4610
	56.0	59.10	23.7	49.2	2.8	MRO-MRV 13	4820	10.6	6.9	2.80	0.4600
	63.0	61.31	22.8	51.4	3.3	MRO-MRV 13	4000	10.6	6.9	2.80	0.4560
	71.0	73.77	19	61.4	2.8	MRO-MRV 13	4000	10.6	6.9	2.80	0.4470
	80.0	84.93	16.5	71.5	2.3	MRO-MRV 13	4400	10.6	6.9	2.80	0.4420
	90.0	92.26	15.2	78.0	2.3	MRO-MRV 13	4000	10.6	6.9	2.80	0.4450
	100.0	103.46	13.5	86.7	2.1	MRO-MRV 13	4000	10.6	6.9	2.80	0.4410
	112.0	111.22	12.6	92.9	1.6	MRO-MRV 13	4800	10.6	6.9	2.80	0.4440
	125.0	129.39	10.8	106.4	1.7	MRO-MRV 13	4000	10.6	6.9	2.80	0.4400
	140.0	132.61	10.6	108.3	1.4	MRO-MRV 13	4700	10.6	6.9	2.80	0.4420
	160.0	168.30	8.32	142.2	1.2	MRO-MRV 13	4100	10.6	6.9	2.80	0.4390
	180.0	185.98	7.53	150.0	1.0	MRO-MRV 13	4700	10.6	6.9	2.80	0.4390
0.18	7.1	7.58	185	8.7	> 3.5	MRO-MRV 13	3310	11.2	6.9	4.00	0.9150
	9.0	9.14	153	10.6	> 3.5	MRO-MRV 13	3740	11.2	6.9	4.00	0.8480
	10.0	9.57	146	11.0	> 3.5	MRO-MRV 13	3600	11.2	6.9	4.00	0.7740
	11.2	11.63	120	13.5	> 3.5	MRO-MRV 13	3570	11.2	6.9	4.00	0.6940
	14.0	14.02	100	15.6	> 3.5	MRO-MRV 13	4040	11.2	6.9	4.00	0.6660
	16.0	15.14	92.5	17.5	> 3.5	MRO-MRV 13	3550	11.2	6.9	4.00	0.6210
	18.0	18.25	76.7	20.3	> 3.5	MRO-MRV 13	4240	11.2	6.9	4.00	0.6040
	20.0	19.15	73.1	21.9	> 3.5	MRO-MRV 13	3670	11.2	6.9	4.00	0.5770
	22.4	23.33	60	27.8	> 3.5	MRO-MRV 13	3820	11.2	6.9	4.00	0.5510
	25.0	24.44	57.3	28.1	> 3.5	MRO-MRV 13	4150	11.2	6.9	4.00	0.4940
	28.0	29.18	48	33.6	> 3.5	MRO-MRV 13	3960	11.2	6.9	4.00	0.5290

VARVEL KNOW-HOW TO DO IT

RO-RV Getriebe

Getriebemotorauswahl **1400 rpm**

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Tipo - Size - Größe	F_{r2} [N]	MRN [kg]	FRN [kg]	J_m × 10^{-4}	J_1 × 10^{-4}
0.18	31.5	31.82	44	36.7	> 3.5	MRO-MRV 13	4120	11.2	6.9	4.00	0.4770
	35.5	37.95	36.9	43.6	> 3.5	MRO-MRV 13	4430	11.2	6.9	4.00	0.5120
	40.0	40.25	34.8	46.3	> 3.5	MRO-MRV 13	4100	11.2	6.9	4.00	0.4670
	45.0	47.88	29.2	55.6	3.1	MRO-MRV 13	4300	11.2	6.9	4.00	0.4540
	50.0	49.02	28.6	56.3	3.1	MRO-MRV 13	4100	11.2	6.9	4.00	0.4610
	56.0	59.10	23.7	68.1	2.1	MRO-MRV 13	4820	11.2	6.9	4.00	0.4600
	63.0	61.31	22.8	71.2	2.4	MRO-MRV 13	4000	11.2	6.9	4.00	0.4560
	71.0	73.77	19	85.0	2.0	MRO-MRV 13	4000	11.2	6.9	4.00	0.4470
	80.0	84.93	16.5	99.0	1.7	MRO-MRV 13	4400	11.2	6.9	4.00	0.4420
	90.0	92.26	15.2	108.0	1.7	MRO-MRV 13	4000	11.2	6.9	4.00	0.4450
	100.0	103.46	13.5	120.0	1.5	MRO-MRV 13	4000	11.2	6.9	4.00	0.4410
	112.0	111.22	12.6	128.6	1.2	MRO-MRV 13	4800	11.2	6.9	4.00	0.4440
	125.0	129.39	10.8	147.3	1.2	MRO-MRV 13	4000	11.2	6.9	4.00	0.4400
	140.0	132.61	10.6	150.0	1.0	MRO-MRV 13	4700	11.2	6.9	4.00	0.4420
	160.0	168.30	8.32	196.9	0.9	MRO-MRV 13	4100	11.2	6.9	4.00	0.4390
	180.0	185.98	7.53	207.7	0.7	MRO-MRV 13	4700	11.2	6.9	4.00	0.4390
0.25	6.3	6.62	211.4	10.6	> 3.5	MRO-MRV 23	3350	17.1	11.3	5.00	1.7940
		6.43	217.6	10.3	> 3.5	MRO-MRV 33	4550	22.0	16.2	5.00	5.3400
		6.60	212.1	10.6	> 3.5	MRO-MRV 43	5570	46.8	41.0	5.00	11.5009
	7.1	7.58	185	12.0	> 3.5	MRO-MRV 13	3310	12.7	6.9	5.00	0.9150
	8.0	8.47	165.3	13.4	> 3.5	MRO-MRV 23	3620	17.1	11.3	5.00	1.3930
		8.25	169.7	13.2	> 3.5	MRO-MRV 33	5540	22.0	16.2	5.00	4.2720
		8.35	167.6	13.4	> 3.5	MRO-MRV 43	6000	46.8	41.0	5.00	9.2271
	9.0	9.14	153	14.8	> 3.5	MRO-MRV 13	3740	12.7	6.9	5.00	0.8480
		8.97	156	14.4	> 3.5	MRO-MRV 23	3710	17.1	11.3	5.00	1.5320
		9.09	154	14.6	> 3.5	MRO-MRV 33	5710	22.0	16.2	5.00	4.6310
		8.72	160.6	14.0	> 3.5	MRO-MRV 43	5980	46.8	41.0	5.00	10.1119
	10.0	9.57	146	15.2	> 3.5	MRO-MRV 13	3600	12.7	6.9	5.00	0.7740
		10.43	134.3	16.6	> 3.5	MRO-MRV 23	3870	17.1	11.3	5.00	1.1640
		10.17	137.7	16.2	> 3.5	MRO-MRV 33	5630	22.0	16.2	5.00	3.6570
		10.43	134.2	16.8	> 3.5	MRO-MRV 43	6430	46.8	41.0	5.00	7.7706
	11.2	11.63	120	18.8	> 3.5	MRO-MRV 13	3570	12.7	6.9	5.00	0.6940
		11.48	122	18.5	> 3.5	MRO-MRV 23	4040	17.1	11.3	5.00	1.2320
		11.65	120.2	18.6	> 3.5	MRO-MRV 33	5730	22.0	16.2	5.00	3.8410
		11.04	126.8	17.7	> 3.5	MRO-MRV 43	6520	46.8	41.0	5.00	8.3593
	12.5	13.03	107.4	20.8	> 3.5	MRO-MRV 23	3920	17.1	11.3	5.00	0.9900
		12.72	110	20.5	> 3.5	MRO-MRV 33	5710	22.0	16.2	5.00	3.1860
		13.29	105.4	21.2	> 3.5	MRO-MRV 43	6950	46.8	41.0	5.00	6.6865
	14.0	14.02	100	21.7	> 3.5	MRO-MRV 13	4040	12.7	6.9	5.00	0.6660
		14.13	99.1	23.0	> 3.5	MRO-MRV 23	4340	17.1	11.3	5.00	1.0580
		13.52	103.5	21.7	> 3.5	MRO-MRV 33	5520	22.0	16.2	5.00	2.5250
		13.87	100.9	22.2	> 3.5	MRO-MRV 43	7190	46.8	41.0	5.00	5.5410
	16.0	15.14	92.5	24.3	> 3.5	MRO-MRV 13	3550	12.7	6.9	5.00	0.6210
		16.68	83.9	26.3	> 3.5	MRO-MRV 23	3620	17.1	11.3	5.00	0.8580
		16.30	85.9	26.0	> 3.5	MRO-MRV 33	5730	22.0	16.2	5.00	2.8190
		16.21	86.4	26.1	> 3.5	MRO-MRV 43	7420	46.8	41.0	5.00	6.0497
	18.0	18.25	76.7	28.1	> 3.5	MRO-MRV 13	4240	12.7	6.9	5.00	0.6040
		17.80	78.6	28.4	> 3.5	MRO-MRV 23	4480	17.1	11.3	5.00	0.6830
		17.33	80.8	27.7	> 3.5	MRO-MRV 33	5680	22.0	16.2	5.00	2.2830
		17.55	79.8	28.2	> 3.5	MRO-MRV 43	7740	46.8	41.0	5.00	5.0261

Getriebe RO-RV

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Tipo - Size - Größe	F_{r2} [N]	MRN [kg]	FRN [kg]	J_m × 10^{-4}	J_1 × 10^{-4}
0.25	20.0	19.15	73.1	30.4	> 3.5	MRO-MRV 13	3670	12.7	6.9	5.00	0.5770
		20.55	68.1	32.3	> 3.5	MRO-MRV 23	3720	17.1	11.3	5.00	0.7790
		19.10	73.3	30.5	> 3.5	MRO-MRV 33	5730	22.0	16.2	5.00	2.3640
		20.22	69.2	32.5	> 3.5	MRO-MRV 43	7980	46.8	41.0	5.00	5.5318
	22.4	23.33	60	38.6	> 3.5	MRO-MRV 13	3820	12.7	6.9	5.00	0.5510
		21.91	63.9	35.5	> 3.5	MRO-MRV 23	4420	17.1	11.3	5.00	0.6310
		21.67	64.6	34.4	> 3.5	MRO-MRV 33	5740	22.0	16.2	5.00	2.5320
		21.94	63.8	35.2	> 3.5	MRO-MRV 43	8310	46.8	41.0	5.00	4.6963
	25.0	24.44	57.3	39.1	> 3.5	MRO-MRV 13	4150	12.7	6.9	5.00	0.4940
		26.07	53.7	40.8	> 3.5	MRO-MRV 23	3930	17.1	11.3	5.00	0.7150
		26.73	52.4	42.4	> 3.5	MRO-MRV 33	5730	22.0	16.2	5.00	2.0370
		26.10	53.6	42.0	> 3.5	MRO-MRV 43	8690	46.8	41.0	5.00	5.1123
	28.0	29.18	48	46.7	> 3.5	MRO-MRV 13	3960	12.7	6.9	5.00	0.5290
		27.39	51.1	43.1	> 3.5	MRO-MRV 23	4180	17.1	11.3	5.00	0.5920
		28.74	48.7	45.5	> 3.5	MRO-MRV 33	5740	22.0	16.2	5.00	1.9940
		27.92	50.1	44.8	> 3.5	MRO-MRV 43	8990	46.8	41.0	5.00	4.4508
	31.5	31.82	44	50.9	3.2	MRO-MRV 13	4120	12.7	6.9	5.00	0.4770
		32.97	42.5	54.2	> 3.5	MRO-MRV 23	4960	17.1	11.3	5.00	0.5440
		33.27	42.1	52.9	> 3.5	MRO-MRV 33	5740	22.0	16.2	5.00	2.2750
		32.52	43.1	51.7	> 3.5	MRO-MRV 43	9390	46.8	41.0	5.00	4.8644
	35.5	37.95	36.9	60.6	2.6	MRO-MRV 13	4430	12.7	6.9	5.00	0.5120
		35.06	39.9	55.4	> 3.5	MRO-MRV 23	4220	17.1	11.3	5.00	0.5620
		34.26	40.9	56.0	> 3.5	MRO-MRV 33	5740	22.0	16.2	5.00	1.9540
		34.06	41.1	53.8	> 3.5	MRO-MRV 43	9580	46.8	41.0	5.00	4.3066
	40.0	40.25	34.8	64.3	2.7	MRO-MRV 13	4100	12.7	6.9	5.00	0.4670
		41.21	34	64.6	> 3.5	MRO-MRV 23	4600	17.1	11.3	5.00	0.5270
		40.23	34.8	64.8	> 3.5	MRO-MRV 33	5740	22.0	16.2	5.00	1.8490
	45.0	47.88	29.2	77.3	2.2	MRO-MRV 13	4300	12.7	6.9	5.00	0.4540
		43.18	32.4	70.5	> 3.5	MRO-MRV 23	4450	17.1	11.3	5.00	0.5440
		45.54	30.7	71.3	> 3.5	MRO-MRV 33	5740	22.0	16.2	5.00	1.8890
		42.50	32.9	67.7	> 3.5	MRO-MRV 43	10020	46.8	41.0	5.00	4.1893
	50.0	49.02	28.6	78.1	2.2	MRO-MRV 13	4100	12.7	6.9	5.00	0.4610
		52.75	26.5	84.2	> 3.5	MRO-MRV 23	4680	17.1	11.3	5.00	0.5130
		51.55	27.2	80.6	> 3.5	MRO-MRV 33	5740	22.0	16.2	5.00	1.8120
		51.25	27.3	81.7	> 3.5	MRO-MRV 43	9720	46.8	41.0	5.00	4.0217
	56.0	59.10	23.7	94.6	1.5	MRO-MRV 13	4820	12.7	6.9	5.00	0.4600
		54.78	25.6	88.1	> 3.5	MRO-MRV 23	4720	17.1	11.3	5.00	0.5290
		53.60	26.1	85.3	> 3.5	MRO-MRV 33	5740	22.0	16.2	5.00	1.8620
		54.84	25.5	87.5	> 3.5	MRO-MRV 43	9800	46.8	41.0	5.00	4.0943
	63.0	61.31	22.8	98.8	1.7	MRO-MRV 13	4000	12.7	6.9	5.00	0.4560
		64.97	21.5	104.7	3.0	MRO-MRV 23	4930	17.1	11.3	5.00	0.5050
		64.33	21.8	102.5	> 3.5	MRO-MRV 33	5740	22.0	16.2	5.00	1.8750
		63.95	21.9	103.1	> 3.5	MRO-MRV 43	10090	46.8	41.0	5.00	3.9699
	71.0	73.77	19	118.1	1.4	MRO-MRV 13	4000	12.7	6.9	5.00	0.4470
		73.98	18.9	118.8	2.4	MRO-MRV 23	5510	17.1	11.3	5.00	0.4950
		68.52	20.4	111.5	> 3.5	MRO-MRV 33	5740	22.0	16.2	5.00	1.7840
		68.34	20.5	109.5	> 3.5	MRO-MRV 43	10970	46.8	41.0	5.00	4.0382
	80.0	84.93	16.5	137.5	1.2	MRO-MRV 13	4400	12.7	6.9	5.00	0.4420
		82.42	17	131.4	2.4	MRO-MRV 23	5100	17.1	11.3	5.00	0.4990
		80.65	17.4	131.8	> 3.5	MRO-MRV 33	5740	22.0	16.2	5.00	1.7720

RO-RV Getriebe

Getriebemotorauswahl — 1400 rpm

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	J_m × 10^{-4}	J_1 × 10^{-4}
0.25	80.0	82.52	17	131.6	> 3.5	MRO-MRV 43	10510	46.8	41.0	5.00	3.9279
	90.0	92.26	15.2	150.0	1.2	MRO-MRV 13	4000	12.7	6.9	5.00	0.4450
		91.12	15.4	146.2	2.1	MRO-MRV 23	5100	17.1	11.3	5.00	0.4900
		91.94	15.2	146.4	2.8	MRO-MRV 33	5740	22.0	16.2	5.00	1.8090
		89.69	15.6	139.1	> 3.5	MRO-MRV 43	11880	46.8	41.0	5.00	3.8846
	100.0	103.46	13.5	166.7	1.1	MRO-MRV 13	4000	12.7	6.9	5.00	0.4410
		106.60	13.1	173.1	1.6	MRO-MRV 23	6000	17.1	11.3	5.00	0.4940
		105.20	13.3	168.6	3.4	MRO-MRV 33	5750	22.0	16.2	5.00	1.7580
		102.83	13.6	167.9	> 3.5	MRO-MRV 43	11740	46.8	41.0	5.00	3.9031
	112.0	115.60	12.1	184.5	1.7	MRO-MRV 23	5100	17.1	11.3	5.00	0.4870
		113.11	12.4	181.3	3.2	MRO-MRV 33	5740	22.0	16.2	5.00	1.7370
		115.73	12.1	182.1	> 3.5	MRO-MRV 43	11130	46.8	41.0	5.00	3.8632
	125.0	123.47	11.34	197.0	1.3	MRO-MRV 23	6200	17.1	11.3	5.00	0.4890
		125.46	11.16	200.0	2.4	MRO-MRV 33	5740	22.0	16.2	5.00	1.7510
		121.80	11.5	195.0	> 3.5	MRO-MRV 43	13730	46.8	41.0	5.00	3.9785
	140.0	149.51	9.36	241.1	1.1	MRO-MRV 23	6000	17.1	11.3	5.00	0.4850
		147.54	9.49	237.7	2.4	MRO-MRV 33	5740	22.0	16.2	5.00	1.7300
		144.22	9.71	237.5	> 3.5	MRO-MRV 43	12410	46.8	41.0	5.00	3.8506
	160.0	156.64	8.94	250.0	1.0	MRO-MRV 23	6200	17.1	11.3	5.00	0.4860
		162.17	8.63	262.2	1.6	MRO-MRV 33	5740	22.0	16.2	5.00	1.7940
		164.63	8.5	264.1	2.8	MRO-MRV 43	14400	46.8	41.0	5.00	3.8831
	180.0	170.11	8.23	270.8	1.0	MRO-MRV 23	6200	17.1	11.3	5.00	0.4910
		175.95	7.96	284.9	1.7	MRO-MRV 33	5740	22.0	16.2	5.00	1.7260
		183.27	7.64	294.8	2.7	MRO-MRV 43	14710	46.8	41.0	5.00	3.8768
	200.0	202.59	6.91	325.0	0.8	MRO-MRV 23	6200	17.1	11.3	5.00	0.4840
		208.42	6.72	335.9	1.3	MRO-MRV 33	5740	22.0	16.2	5.00	1.7280
		190.66	7.34	307.4	2.4	MRO-MRV 43	14830	46.8	41.0	5.00	3.8477
	224.0	238.58	5.87	382.4	0.7	MRO-MRV 23	6200	17.1	11.3	5.00	0.4830
		230.89	6.06	367.6	2.0	MRO-MRV 43	15400	46.8	41.0	5.00	3.8405
	250.0	248.56	5.63	398.1	1.1	MRO-MRV 33	5740	22.0	16.2	5.00	1.7250
		257.04	5.45	407.6	1.8	MRO-MRV 43	16500	46.8	41.0	5.00	3.8372
	280.0	274.11	5.107	430.0	1.0	MRO-MRV 33	5740	22.0	16.2	5.00	1.7240
		289.00	4.844	457.3	1.6	MRO-MRV 43	16470	46.8	41.0	5.00	3.8343
	315.0	342.23	4.091	537.5	0.8	MRO-MRV 33	5740	22.0	16.2	5.00	1.7210
0.37	6.3	6.62	211.4	15.7	> 3.5	MRO-MRV 23	3350	17.5	11.3	8.00	1.7940
		6.43	217.6	15.2	> 3.5	MRO-MRV 33	4550	22.4	16.2	8.00	5.3400
		6.60	212.1	15.7	> 3.5	MRO-MRV 43	5570	47.2	41.0	8.00	11.5009
	7.1	7.58	185	17.8	> 3.5	MRO-MRV 13	3310	13.1	6.9	8.00	0.9150
	8.0	8.47	165.3	19.9	> 3.5	MRO-MRV 23	3620	17.5	11.3	8.00	1.3930
		8.25	169.7	19.6	> 3.5	MRO-MRV 33	5540	22.4	16.2	8.00	4.2720
		8.35	167.6	19.8	> 3.5	MRO-MRV 43	6000	47.2	41.0	8.00	9.2271
	9.0	9.14	153	21.9	> 3.5	MRO-MRV 13	3740	13.1	6.9	8.00	0.8480
		8.97	156	21.3	> 3.5	MRO-MRV 23	3710	17.5	11.3	8.00	1.5320
		9.09	154	21.6	> 3.5	MRO-MRV 33	5710	22.4	16.2	8.00	4.6310
		8.72	160.6	20.7	> 3.5	MRO-MRV 43	5980	47.2	41.0	8.00	10.1119
	10.0	9.57	146	22.5	> 3.5	MRO-MRV 13	3600	13.1	6.9	8.00	0.7740
		10.43	134.3	24.5	> 3.5	MRO-MRV 23	3870	17.5	11.3	8.00	1.1640
		10.17	137.7	24.0	> 3.5	MRO-MRV 33	5630	22.4	16.2	8.00	3.6570
		10.43	134.2	24.8	> 3.5	MRO-MRV 43	6430	47.2	41.0	8.00	7.7706
	11.2	11.63	120	27.8	> 3.5	MRO-MRV 13	3570	13.1	6.9	8.00	0.6940

Getriebe RO-RV

1400 rpm **Getriebemotorauswahl**

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	$J_m \times 10^{-4}$	$J_1 \times 10^{-4}$
0.37	11.2	11.48	122	27.5	> 3.5	MRO-MRV 23	4040	17.5	11.3	8.00	1.2320
		11.65	120.2	27.6	> 3.5	MRO-MRV 33	5730	22.4	16.2	8.00	3.8410
		11.04	126.8	26.1	> 3.5	MRO-MRV 43	6520	47.2	41.0	8.00	8.3593
	12.5	13.03	107.4	30.8	> 3.5	MRO-MRV 23	3920	17.5	11.3	8.00	0.9900
		12.72	110	30.3	> 3.5	MRO-MRV 33	5710	22.4	16.2	8.00	3.1860
		13.29	105.4	31.4	> 3.5	MRO-MRV 43	6950	47.2	41.0	8.00	6.6865
	14.0	14.02	100	32.1	> 3.5	MRO-MRV 13	4040	13.1	6.9	8.00	0.6660
		14.13	99.1	34.0	> 3.5	MRO-MRV 23	4340	17.5	11.3	8.00	1.0580
		13.52	103.5	32.1	> 3.5	MRO-MRV 33	5520	22.4	16.2	8.00	2.5250
		13.87	100.9	32.9	> 3.5	MRO-MRV 43	7190	47.2	41.0	8.00	5.5410
	16.0	15.14	92.5	35.9	> 3.5	MRO-MRV 13	3550	13.1	6.9	8.00	0.6210
		16.68	83.9	38.9	> 3.5	MRO-MRV 23	3620	17.5	11.3	8.00	0.8580
		16.30	85.9	38.4	> 3.5	MRO-MRV 33	5730	22.4	16.2	8.00	2.8190
		16.21	86.4	38.6	> 3.5	MRO-MRV 43	7420	47.2	41.0	8.00	6.0497
	18.0	18.25	76.7	41.6	3.2	MRO-MRV 13	4240	13.1	6.9	8.00	0.6040
		17.80	78.6	42.0	> 3.5	MRO-MRV 23	4480	17.5	11.3	8.00	0.6830
		17.33	80.8	41.0	> 3.5	MRO-MRV 33	5680	22.4	16.2	8.00	2.2830
		17.55	79.8	41.8	> 3.5	MRO-MRV 43	7740	47.2	41.0	8.00	5.0261
	20.0	19.15	73.1	44.9	> 3.5	MRO-MRV 13	3670	13.1	6.9	8.00	0.5770
		20.55	68.1	47.8	> 3.5	MRO-MRV 23	3720	17.5	11.3	8.00	0.7790
		19.10	73.3	45.1	> 3.5	MRO-MRV 33	5730	22.4	16.2	8.00	2.3640
		20.22	69.2	48.1	> 3.5	MRO-MRV 43	7980	47.2	41.0	8.00	5.5318
	22.4	23.33	60	57.2	3.0	MRO-MRV 13	3820	13.1	6.9	8.00	0.5510
		21.91	63.9	52.6	> 3.5	MRO-MRV 23	4420	17.5	11.3	8.00	0.6310
		21.67	64.6	50.9	> 3.5	MRO-MRV 33	5740	22.4	16.2	8.00	2.5320
		21.94	63.8	52.1	> 3.5	MRO-MRV 43	8310	47.2	41.0	8.00	4.6963
	25.0	24.44	57.3	57.8	2.6	MRO-MRV 13	4150	13.1	6.9	8.00	0.4940
		26.07	53.7	60.4	> 3.5	MRO-MRV 23	3930	17.5	11.3	8.00	0.7150
		26.73	52.4	62.8	> 3.5	MRO-MRV 33	5730	22.4	16.2	8.00	2.0370
		26.10	53.6	62.2	> 3.5	MRO-MRV 43	8690	47.2	41.0	8.00	5.1123
	28.0	29.18	48	69.1	2.5	MRO-MRV 13	3960	13.1	6.9	8.00	0.5290
		27.39	51.1	63.7	> 3.5	MRO-MRV 23	4180	17.5	11.3	8.00	0.5920
		28.74	48.7	67.3	> 3.5	MRO-MRV 33	5740	22.4	16.2	8.00	1.9940
		27.92	50.1	66.3	> 3.5	MRO-MRV 43	8990	47.2	41.0	8.00	4.4508
	31.5	31.82	44	75.4	2.2	MRO-MRV 13	4120	13.1	6.9	8.00	0.4770
		32.97	42.5	80.2	3.2	MRO-MRV 23	4960	17.5	11.3	8.00	0.5440
		33.27	42.1	78.3	> 3.5	MRO-MRV 33	5740	22.4	16.2	8.00	2.2750
		32.52	43.1	76.6	> 3.5	MRO-MRV 43	9390	47.2	41.0	8.00	4.8644
	35.5	37.95	36.9	89.7	1.8	MRO-MRV 13	4430	13.1	6.9	8.00	0.5120
		35.06	39.9	81.9	> 3.5	MRO-MRV 23	4220	17.5	11.3	8.00	0.5620
		34.26	40.9	82.9	> 3.5	MRO-MRV 33	5740	22.4	16.2	8.00	1.9540
		34.06	41.1	79.7	> 3.5	MRO-MRV 43	9580	47.2	41.0	8.00	4.3066
	40.0	40.25	34.8	95.2	1.8	MRO-MRV 13	4100	13.1	6.9	8.00	0.4670
		41.21	34	95.6	3.2	MRO-MRV 23	4600	17.5	11.3	8.00	0.5270
		40.23	34.8	95.9	> 3.5	MRO-MRV 33	5740	22.4	16.2	8.00	1.8490
	45.0	47.88	29.2	114.4	1.5	MRO-MRV 13	4300	13.1	6.9	8.00	0.4540
		43.18	32.4	104.3	3.0	MRO-MRV 23	4450	17.5	11.3	8.00	0.5440
		45.54	30.7	105.5	> 3.5	MRO-MRV 33	5740	22.4	16.2	8.00	1.8890
		42.50	32.9	100.3	> 3.5	MRO-MRV 43	10020	47.2	41.0	8.00	4.1893
	50.0	49.02	28.6	115.6	1.5	MRO-MRV 13	4100	13.1	6.9	8.00	0.4610

RO-RV Getriebe

Getriebemotorauswahl 1400 rpm

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	J_m × 10^{-4}	J_1 × 10^{-4}
0.37	50.0	52.75	26.5	124.7	2.5	MRO-MRV 23	4680	17.5	11.3	8.00	0.5130
		51.55	27.2	119.2	> 3.5	MRO-MRV 33	5740	22.4	16.2	8.00	1.8120
		51.25	27.3	120.9	> 3.5	MRO-MRV 43	9720	47.2	41.0	8.00	4.0217
	56.0	59.10	23.7	140.0	1.0	MRO-MRV 13	4820	13.1	6.9	8.00	0.4600
		54.78	25.6	130.3	2.4	MRO-MRV 23	4720	17.5	11.3	8.00	0.5290
		53.60	26.1	126.2	> 3.5	MRO-MRV 33	5740	22.4	16.2	8.00	1.8620
		54.84	25.5	129.5	> 3.5	MRO-MRV 43	9800	47.2	41.0	8.00	4.0943
	63.0	61.31	22.8	146.3	1.2	MRO-MRV 13	4000	13.1	6.9	8.00	0.4560
		64.97	21.5	155.0	2.0	MRO-MRV 23	4930	17.5	11.3	8.00	0.5050
		64.33	21.8	151.7	2.7	MRO-MRV 33	5740	22.4	16.2	8.00	1.8750
		63.95	21.9	152.6	> 3.5	MRO-MRV 43	10090	47.2	41.0	8.00	3.9699
	71.0	73.77	19	174.7	1.0	MRO-MRV 13	4000	13.1	6.9	8.00	0.4470
		73.98	18.9	175.8	1.6	MRO-MRV 23	5510	17.5	11.3	8.00	0.4950
		68.52	20.4	165.1	> 3.5	MRO-MRV 33	5740	22.4	16.2	8.00	1.7840
		68.34	20.5	162.1	> 3.5	MRO-MRV 43	10970	47.2	41.0	8.00	4.0382
	80.0	84.93	16.5	203.5	0.8	MRO-MRV 13	4400	13.1	6.9	8.00	0.4420
		82.42	17	194.4	1.6	MRO-MRV 23	5100	17.5	11.3	8.00	0.4990
		80.65	17.4	195.1	3.0	MRO-MRV 33	5740	22.4	16.2	8.00	1.7720
		82.52	17	194.7	> 3.5	MRO-MRV 43	10510	47.2	41.0	8.00	3.9279
	90.0	92.26	15.2	222.0	0.8	MRO-MRV 13	4000	13.1	6.9	8.00	0.4450
		91.12	15.4	216.4	1.4	MRO-MRV 23	5100	17.5	11.3	8.00	0.4900
		91.94	15.2	216.7	1.9	MRO-MRV 33	5740	22.4	16.2	8.00	1.8090
		89.69	15.6	205.8	> 3.5	MRO-MRV 43	11880	47.2	41.0	8.00	3.8846
	100.0	103.46	13.5	246.7	0.7	MRO-MRV 13	4000	13.1	6.9	8.00	0.4410
		106.60	13.1	256.2	1.1	MRO-MRV 23	6000	17.5	11.3	8.00	0.4940
		105.20	13.3	249.5	2.3	MRO-MRV 33	5750	22.4	16.2	8.00	1.7580
		102.83	13.6	248.4	> 3.5	MRO-MRV 43	11740	47.2	41.0	8.00	3.9031
	112.0	115.60	12.1	273.1	1.1	MRO-MRV 23	5100	17.5	11.3	8.00	0.4870
		113.11	12.4	268.3	2.2	MRO-MRV 33	5740	22.4	16.2	8.00	1.7370
		115.73	12.1	269.6	> 3.5	MRO-MRV 43	11130	47.2	41.0	8.00	3.8632
	125.0	123.47	11.34	291.5	0.9	MRO-MRV 23	6200	17.5	11.3	8.00	0.4890
		125.46	11.16	296.0	1.6	MRO-MRV 33	5740	22.4	16.2	8.00	1.7510
		121.80	11.5	288.6	2.7	MRO-MRV 43	13730	47.2	41.0	8.00	3.9785
	140.0	149.51	9.36	356.8	0.8	MRO-MRV 23	6000	17.5	11.3	8.00	0.4850
		147.54	9.49	351.8	1.6	MRO-MRV 33	5740	22.4	16.2	8.00	1.7300
		144.22	9.71	351.5	2.7	MRO-MRV 43	12410	47.2	41.0	8.00	3.8506
	160.0	156.64	8.94	370.0	0.7	MRO-MRV 23	6200	17.5	11.3	8.00	0.4860
		162.17	8.63	388.0	1.1	MRO-MRV 33	5740	22.4	16.2	8.00	1.7940
		164.63	8.5	390.8	1.9	MRO-MRV 43	14400	47.2	41.0	8.00	3.8831
	180.0	175.95	7.96	421.6	1.2	MRO-MRV 33	5740	22.4	16.2	8.00	1.7260
		183.27	7.64	436.3	1.8	MRO-MRV 43	14710	47.2	41.0	8.00	3.8768
	200.0	208.42	6.72	497.2	0.9	MRO-MRV 33	5740	22.4	16.2	8.00	1.7280
		190.66	7.34	454.9	1.6	MRO-MRV 43	14830	47.2	41.0	8.00	3.8477
	224.0	230.89	6.06	544.1	1.4	MRO-MRV 43	15400	47.2	41.0	8.00	3.8405
	250.0	248.56	5.63	589.3	0.7	MRO-MRV 33	5740	22.4	16.2	8.00	1.7250
		257.04	5.45	603.3	1.2	MRO-MRV 43	16500	47.2	41.0	8.00	3.8372
	280.0	289.00	4.844	676.8	1.1	MRO-MRV 43	16470	47.2	41.0	8.00	3.8343
0.55	6.3	6.62	211.4	23.4	> 3.5	MRO-MRV 23	3350	19.8	11.3	14.00	1.7940
		6.43	217.6	22.6	> 3.5	MRO-MRV 33	4550	24.7	16.2	14.00	5.3400
		6.60	212.1	23.3	> 3.5	MRO-MRV 43	5570	49.5	41.0	14.00	11.5009

Getriebe RO-RV

1400 rpm **Getriebemotorauswahl**

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	J_m × 10^{-4}	J_1 × 10^{-4}
0.55	6.3	6.48	215.9	22.8	> 3.5	MRO-MRV 53	8020	85.1	76.6	14.00	46.0154
		6.43	217.7	22.7	> 3.5	MRO-MRV 63	10740	136.0	127.5	14.00	78.1860
	7.1	7.58	185	26.5	> 3.5	MRO-MRV 13	3310	15.4	6.9	14.00	0.9150
	8.0	8.47	165.3	29.5	> 3.5	MRO-MRV 23	3620	19.8	11.3	14.00	1.3930
		8.25	169.7	29.1	> 3.5	MRO-MRV 33	5540	24.7	16.2	14.00	4.2720
		8.35	167.6	29.4	> 3.5	MRO-MRV 43	6000	49.5	41.0	14.00	9.2271
		8.57	163.3	30.3	> 3.5	MRO-MRV 53	8770	85.1	76.6	14.00	38.9230
		8.50	164.7	30.0	> 3.5	MRO-MRV 63	11850	136.0	127.5	14.00	60.6320
	9.0	9.14	153	32.5	> 3.5	MRO-MRV 13	3740	15.4	6.9	14.00	0.8480
		8.97	156	31.7	> 3.5	MRO-MRV 23	3710	19.8	11.3	14.00	1.5320
		9.09	154	32.2	> 3.5	MRO-MRV 33	5710	24.7	16.2	14.00	4.6310
		8.72	160.6	30.8	> 3.5	MRO-MRV 43	5980	49.5	41.0	14.00	10.1119
	10.0	9.57	146	33.5	> 3.5	MRO-MRV 13	3600	15.4	6.9	14.00	0.7740
		10.43	134.3	36.4	> 3.5	MRO-MRV 23	3870	19.8	11.3	14.00	1.1640
		10.17	137.7	35.7	> 3.5	MRO-MRV 33	5630	24.7	16.2	14.00	3.6570
		10.43	134.2	36.9	> 3.5	MRO-MRV 43	6430	49.5	41.0	14.00	7.7706
		10.87	128.8	38.4	> 3.5	MRO-MRV 53	9470	85.1	76.6	14.00	34.9392
		10.78	129.9	38.0	> 3.5	MRO-MRV 63	12750	136.0	127.5	14.00	48.5070
	11.2	11.63	120	41.3	> 3.5	MRO-MRV 13	3570	15.4	6.9	14.00	0.6940
		11.48	122	40.8	> 3.5	MRO-MRV 23	4040	19.8	11.3	14.00	1.2320
		11.65	120.2	41.0	> 3.5	MRO-MRV 33	5730	24.7	16.2	14.00	3.8410
		11.04	126.8	38.9	> 3.5	MRO-MRV 43	6520	49.5	41.0	14.00	8.3593
	12.5	13.03	107.4	45.8	> 3.5	MRO-MRV 23	3920	19.8	11.3	14.00	0.9900
		12.72	110	45.0	> 3.5	MRO-MRV 33	5710	24.7	16.2	14.00	3.1860
		13.29	105.4	46.6	> 3.5	MRO-MRV 43	6950	49.5	41.0	14.00	6.6865
		13.17	106.3	46.4	> 3.5	MRO-MRV 53	10050	85.1	76.6	14.00	32.6124
		13.06	107.2	46.0	> 3.5	MRO-MRV 63	13550	136.0	127.5	14.00	41.5040
	14.0	14.02	100	47.7	2.7	MRO-MRV 13	4040	15.4	6.9	14.00	0.6660
		14.13	99.1	50.6	> 3.5	MRO-MRV 23	4340	19.8	11.3	14.00	1.0580
		13.52	103.5	47.7	> 3.5	MRO-MRV 33	5520	24.7	16.2	14.00	2.5250
		13.87	100.9	48.8	> 3.5	MRO-MRV 43	7190	49.5	41.0	14.00	5.5410
		13.63	102.7	48.1	> 3.5	MRO-MRV 53	10340	85.1	76.6	14.00	29.4533
		13.51	103.6	47.7	> 3.5	MRO-MRV 63	14110	136.0	127.5	14.00	30.9420
	16.0	15.14	92.5	53.4	3.1	MRO-MRV 13	3550	15.4	6.9	14.00	0.6210
		16.68	83.9	57.8	> 3.5	MRO-MRV 23	3620	19.8	11.3	14.00	0.8580
		16.30	85.9	57.1	> 3.5	MRO-MRV 33	5730	24.7	16.2	14.00	2.8190
		16.21	86.4	57.4	> 3.5	MRO-MRV 43	7420	49.5	41.0	14.00	6.0497
		16.24	86.2	57.3	> 3.5	MRO-MRV 53	10150	85.1	76.6	14.00	30.7169
		16.10	87	56.7	> 3.5	MRO-MRV 63	14450	136.0	127.5	14.00	35.7680
	18.0	18.25	76.7	61.9	2.2	MRO-MRV 13	4240	15.4	6.9	14.00	0.6040
		17.80	78.6	62.5	> 3.5	MRO-MRV 23	4480	19.8	11.3	14.00	0.6830
		17.33	80.8	61.0	> 3.5	MRO-MRV 33	5680	24.7	16.2	14.00	2.2830
		17.55	79.8	62.1	> 3.5	MRO-MRV 43	7740	49.5	41.0	14.00	5.0261
		18.02	77.7	63.7	> 3.5	MRO-MRV 53	11300	85.1	76.6	14.00	27.8473
		17.87	78.4	63.1	> 3.5	MRO-MRV 63	15380	136.0	127.5	14.00	26.9670
	20.0	19.15	73.1	66.8	2.5	MRO-MRV 13	3670	15.4	6.9	14.00	0.5770
		20.55	68.1	71.0	> 3.5	MRO-MRV 23	3720	19.8	11.3	14.00	0.7790
		19.10	73.3	67.0	> 3.5	MRO-MRV 33	5730	24.7	16.2	14.00	2.3640
		20.22	69.2	71.5	> 3.5	MRO-MRV 43	7980	49.5	41.0	14.00	5.5318
		20.53	68.2	72.1	> 3.5	MRO-MRV 53	8650	85.1	76.6	14.00	29.1621

RO-RV Getriebe

Getriebemotorauswahl 1400 rpm

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	J_m $\times 10^{-4}$	J_1 $\times 10^{-4}$
0.55	20.0	20.36	68.8	71.7	> 3.5	MRO-MRV 63	14100	136.0	127.5	14.00	31.0610
	22.4	23.33	60	85.0	2.0	MRO-MRV 13	3820	15.4	6.9	14.00	0.5510
		21.91	63.9	78.2	3.5	MRO-MRV 23	4420	19.8	11.3	14.00	0.6310
		21.67	64.6	75.6	> 3.5	MRO-MRV 33	5740	24.7	16.2	14.00	2.5320
		21.94	63.8	77.4	> 3.5	MRO-MRV 43	8310	49.5	41.0	14.00	4.6963
		22.85	61.3	80.5	> 3.5	MRO-MRV 53	11180	85.1	76.6	14.00	26.9452
		22.66	61.8	79.6	> 3.5	MRO-MRV 63	16460	136.0	127.5	14.00	24.2220
	25.0	24.44	57.3	85.9	1.7	MRO-MRV 13	4150	15.4	6.9	14.00	0.4940
		26.07	53.7	89.7	3.5	MRO-MRV 23	3930	19.8	11.3	14.00	0.7150
		26.73	52.4	93.3	> 3.5	MRO-MRV 33	5730	24.7	16.2	14.00	2.0370
		26.10	53.6	92.4	> 3.5	MRO-MRV 43	8690	49.5	41.0	14.00	5.1123
		26.97	51.9	94.7	> 3.5	MRO-MRV 53	8140	85.1	76.6	14.00	27.9078
		25.48	55	89.7	> 3.5	MRO-MRV 63	16820	136.0	127.5	14.00	25.3770
	28.0	29.18	48	102.7	1.7	MRO-MRV 13	3960	15.4	6.9	14.00	0.5290
		27.39	51.1	94.7	3.3	MRO-MRV 23	4180	19.8	11.3	14.00	0.5920
		28.74	48.7	100.0	> 3.5	MRO-MRV 33	5740	24.7	16.2	14.00	1.9940
		27.92	50.1	98.5	> 3.5	MRO-MRV 43	8990	49.5	41.0	14.00	4.4508
		27.68	50.6	97.5	> 3.5	MRO-MRV 53	9800	85.1	76.6	14.00	26.4183
		27.45	51	96.9	> 3.5	MRO-MRV 63	15700	136.0	127.5	14.00	22.6360
	31.5	31.82	44	112.0	1.5	MRO-MRV 13	4120	15.4	6.9	14.00	0.4770
		32.97	42.5	119.2	2.2	MRO-MRV 23	4960	19.8	11.3	14.00	0.5440
		33.27	42.1	116.3	> 3.5	MRO-MRV 33	5740	24.7	16.2	14.00	2.2750
		32.52	43.1	113.8	> 3.5	MRO-MRV 43	9390	49.5	41.0	14.00	4.8644
		31.69	44.2	111.3	> 3.5	MRO-MRV 53	8230	85.1	76.6	14.00	27.3913
		31.85	44	112.4	> 3.5	MRO-MRV 63	11540	136.0	127.5	14.00	25.5240
	35.5	37.95	36.9	133.3	1.2	MRO-MRV 13	4430	15.4	6.9	14.00	0.5120
		35.06	39.9	121.8	2.5	MRO-MRV 23	4220	19.8	11.3	14.00	0.5620
		34.26	40.9	123.2	> 3.5	MRO-MRV 33	5740	24.7	16.2	14.00	1.9540
		34.06	41.1	118.5	> 3.5	MRO-MRV 43	9580	49.5	41.0	14.00	4.3066
		34.12	41	120.7	> 3.5	MRO-MRV 53	8340	85.1	76.6	14.00	25.9891
		33.83	41.4	119.3	> 3.5	MRO-MRV 63	13920	136.0	127.5	14.00	21.3370
	40.0	40.25	34.8	141.5	1.2	MRO-MRV 13	4100	15.4	6.9	14.00	0.4670
		41.21	34	142.1	2.2	MRO-MRV 23	4600	19.8	11.3	14.00	0.5270
		40.23	34.8	142.5	> 3.5	MRO-MRV 33	5740	24.7	16.2	14.00	1.8490
		41.65	33.6	146.1	> 3.5	MRO-MRV 53	8510	85.1	76.6	14.00	25.4059
		42.78	32.7	150.2	> 3.5	MRO-MRV 63	11390	136.0	127.5	14.00	20.2710
	45.0	47.88	29.2	170.0	1.0	MRO-MRV 13	4300	15.4	6.9	14.00	0.4540
		43.18	32.4	155.0	2.0	MRO-MRV 23	4450	19.8	11.3	14.00	0.5440
		45.54	30.7	156.8	> 3.5	MRO-MRV 33	5740	24.7	16.2	14.00	1.8890
		42.50	32.9	149.0	> 3.5	MRO-MRV 43	10020	49.5	41.0	14.00	4.1893
		43.14	32.5	150.8	> 3.5	MRO-MRV 53	8540	85.1	76.6	14.00	25.6370
		42.95	32.6	151.8	> 3.5	MRO-MRV 63	16450	136.0	127.5	14.00	23.3660
	50.0	49.02	28.6	171.9	1.0	MRO-MRV 13	4100	15.4	6.9	14.00	0.4610
		52.75	26.5	185.3	1.7	MRO-MRV 23	4680	19.8	11.3	14.00	0.5130
		51.55	27.2	177.2	3.3	MRO-MRV 33	5740	24.7	16.2	14.00	1.8120
		51.25	27.3	179.7	> 3.5	MRO-MRV 43	9720	49.5	41.0	14.00	4.0217
		51.34	27.3	181.9	> 3.5	MRO-MRV 53	8720	85.1	76.6	14.00	25.2163
		50.91	27.5	179.4	> 3.5	MRO-MRV 63	9810	136.0	127.5	14.00	18.9780
	56.0	54.78	25.6	193.8	1.6	MRO-MRV 23	4720	19.8	11.3	14.00	0.5290
		53.60	26.1	187.6	3.1	MRO-MRV 33	5740	24.7	16.2	14.00	1.8620

Getriebe RO-RV

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	$J_m \times 10^{-4}$	$J_1 \times 10^{-4}$
0.55	56.0	54.84	25.5	192.5	> 3.5	MRO-MRV 43	9800	49.5	41.0	14.00	4.0943
		56.67	24.7	198.2	> 3.5	MRO-MRV 53	8820	85.1	76.6	14.00	25.3529
		56.19	24.9	198.7	> 3.5	MRO-MRV 63	9970	136.0	127.5	14.00	19.4030
	63.0	64.97	21.5	230.4	1.3	MRO-MRV 23	4930	19.8	11.3	14.00	0.5050
		64.33	21.8	225.5	1.8	MRO-MRV 33	5740	24.7	16.2	14.00	1.8750
		63.95	21.9	226.9	> 3.5	MRO-MRV 43	10090	49.5	41.0	14.00	3.9699
		64.91	21.6	227.9	> 3.5	MRO-MRV 53	8950	85.1	76.6	14.00	25.0608
		64.36	21.8	228.1	> 3.5	MRO-MRV 63	10200	136.0	127.5	14.00	18.5080
	71.0	73.98	18.9	261.3	1.1	MRO-MRV 23	5510	19.8	11.3	14.00	0.4950
		68.52	20.4	245.4	2.4	MRO-MRV 33	5740	24.7	16.2	14.00	1.7840
		68.34	20.5	241.0	> 3.5	MRO-MRV 43	10970	49.5	41.0	14.00	4.0382
		72.56	19.3	253.6	> 3.5	MRO-MRV 53	10800	85.1	76.6	14.00	25.1812
		73.41	19.1	259.1	> 3.5	MRO-MRV 63	11430	136.0	127.5	14.00	18.8420
	80.0	82.42	17	289.0	1.1	MRO-MRV 23	5100	19.8	11.3	14.00	0.4990
		80.65	17.4	290.0	2.0	MRO-MRV 33	5740	24.7	16.2	14.00	1.7720
		82.52	17	289.5	3.5	MRO-MRV 43	10510	49.5	41.0	14.00	3.9279
		79.37	17.6	281.6	> 3.5	MRO-MRV 53	16160	85.1	76.6	14.00	25.0122
		84.55	16.6	298.1	> 3.5	MRO-MRV 63	11400	136.0	127.5	14.00	18.1240
	90.0	91.94	15.2	322.1	1.3	MRO-MRV 33	5740	24.7	16.2	14.00	1.8090
		89.69	15.6	305.9	2.9	MRO-MRV 43	11880	49.5	41.0	14.00	3.8846
		91.04	15.4	324.5	> 3.5	MRO-MRV 53	8400	85.1	76.6	14.00	24.8176
		90.27	15.5	318.6	> 3.5	MRO-MRV 63	11400	136.0	127.5	14.00	17.8220
	100.0	105.20	13.3	370.9	1.6	MRO-MRV 33	5750	24.7	16.2	14.00	1.7580
		102.83	13.6	369.3	2.5	MRO-MRV 43	11740	49.5	41.0	14.00	3.9031
		100.20	14	349.6	> 3.5	MRO-MRV 53	8000	85.1	76.6	14.00	24.8837
		100.70	13.9	355.4	> 3.5	MRO-MRV 63	9800	136.0	127.5	14.00	17.9540
	112.0	113.11	12.4	398.8	1.5	MRO-MRV 33	5740	24.7	16.2	14.00	1.7370
		115.73	12.1	400.7	2.5	MRO-MRV 43	11130	49.5	41.0	14.00	3.8632
		109.18	12.8	389.6	> 3.5	MRO-MRV 53	11200	85.1	76.6	14.00	24.8595
		118.58	11.8	420.0	> 3.5	MRO-MRV 63	9800	136.0	127.5	14.00	17.6270
	125.0	125.46	11.16	440.0	1.1	MRO-MRV 33	5740	24.7	16.2	14.00	1.7510
		121.80	11.5	429.0	1.8	MRO-MRV 43	13730	49.5	41.0	14.00	3.9785
		119.59	11.7	428.0	> 3.5	MRO-MRV 53	7200	85.1	76.6	14.00	24.7730
		128.72	10.9	456.5	> 3.5	MRO-MRV 63	22060	136.0	127.5	14.00	17.7600
	140.0	147.54	9.49	523.0	1.1	MRO-MRV 33	5740	24.7	16.2	14.00	1.7300
		144.22	9.71	522.5	1.8	MRO-MRV 43	12410	49.5	41.0	14.00	3.8506
		140.53	10	492.3	> 3.5	MRO-MRV 53	7200	85.1	76.6	14.00	24.7467
		141.23	9.9	499.5	> 3.5	MRO-MRV 63	9800	136.0	127.5	14.00	17.5400
	160.0	164.63	8.5	581.0	1.3	MRO-MRV 43	14400	49.5	41.0	14.00	3.8831
		153.12	9.14	525.6	3.3	MRO-MRV 53	10100	85.1	76.6	14.00	24.7344
		154.91	9.04	543.5	> 3.5	MRO-MRV 63	9800	136.0	127.5	14.00	17.5010
	180.0	183.27	7.64	648.5	1.2	MRO-MRV 43	14710	49.5	41.0	14.00	3.8768
		185.17	7.56	650.8	2.2	MRO-MRV 53	17640	85.1	76.6	14.00	24.7124
		190.49	7.35	682.5	> 3.5	MRO-MRV 63	19400	136.0	127.5	14.00	17.4310
	200.0	190.66	7.34	676.2	1.1	MRO-MRV 43	14830	49.5	41.0	14.00	3.8477
		208.05	6.73	731.5	1.8	MRO-MRV 53	19060	85.1	76.6	14.00	24.7277
	224.0	224.24	6.24	795.1	1.7	MRO-MRV 53	19100	85.1	76.6	14.00	24.7733
		220.89	6.34	779.2	3.3	MRO-MRV 63	22500	136.0	127.5	14.00	17.4800
	250.0	251.60	5.56	892.1	1.5	MRO-MRV 53	19100	85.1	76.6	14.00	24.7078
	280.0	271.62	5.15	935.0	2.7	MRO-MRV 63	22500	136.0	127.5	14.00	17.4170

RO-RV Getriebe

Getriebemotorauswahl 1400 rpm

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	J_m × 10^{-4}	J_1 × 10^{-4}
0.55	315.0	314.50	4.45	1108.3	1.2	MRO-MRV 53	19100	85.1	76.6	14.00	24.6906
		305.43	4.58	1078.8	2.4	MRO-MRV 63	22500	136.0	127.5	14.00	17.3880
0.75	6.3	6.62	211.4	31.9	> 3.5	MRO-MRV 23	3350	21.1	11.3	17.00	1.7940
		6.43	217.6	30.9	> 3.5	MRO-MRV 33	4550	26.0	16.2	17.00	5.3400
		6.60	212.1	31.8	> 3.5	MRO-MRV 43	5570	50.8	41.0	17.00	11.5009
		6.48	215.9	31.1	> 3.5	MRO-MRV 53	8020	86.4	76.6	17.00	46.0154
		6.43	217.7	30.9	> 3.5	MRO-MRV 63	10740	137.3	127.5	17.00	78.1860
	7.1	7.58	185	36.1	> 3.5	MRO-MRV 13	3310	16.7	6.9	17.00	0.9150
	8.0	8.47	165.3	40.2	> 3.5	MRO-MRV 23	3620	21.1	11.3	17.00	1.3930
		8.25	169.7	39.7	> 3.5	MRO-MRV 33	5540	26.0	16.2	17.00	4.2720
		8.35	167.6	40.2	> 3.5	MRO-MRV 43	6000	50.8	41.0	17.00	9.2271
		8.57	163.3	41.3	> 3.5	MRO-MRV 53	8770	86.4	76.6	17.00	38.9230
		8.50	164.7	40.9	> 3.5	MRO-MRV 63	11850	137.3	127.5	17.00	60.6320
	9.0	9.14	153	44.3	2.9	MRO-MRV 13	3740	16.7	6.9	17.00	0.8480
		8.97	156	43.3	> 3.5	MRO-MRV 23	3710	21.1	11.3	17.00	1.5320
		9.09	154	43.8	> 3.5	MRO-MRV 33	5710	26.0	16.2	17.00	4.6310
		8.72	160.6	42.0	> 3.5	MRO-MRV 43	5980	50.8	41.0	17.00	10.1119
	10.0	9.57	146	45.7	3.1	MRO-MRV 13	3600	16.7	6.9	17.00	0.7740
		10.43	134.3	49.7	> 3.5	MRO-MRV 23	3870	21.1	11.3	17.00	1.1640
		10.17	137.7	48.7	> 3.5	MRO-MRV 33	5630	26.0	16.2	17.00	3.6570
		10.43	134.2	50.3	> 3.5	MRO-MRV 43	6430	50.8	41.0	17.00	7.7706
		10.87	128.8	52.4	> 3.5	MRO-MRV 53	9470	86.4	76.6	17.00	34.9392
		10.78	129.9	51.8	> 3.5	MRO-MRV 63	12750	137.3	127.5	17.00	48.5070
	11.2	11.63	120	56.3	2.7	MRO-MRV 13	3570	16.7	6.9	17.00	0.6940
		11.48	122	55.6	> 3.5	MRO-MRV 23	4040	21.1	11.3	17.00	1.2320
		11.65	120.2	55.9	> 3.5	MRO-MRV 33	5730	26.0	16.2	17.00	3.8410
		11.04	126.8	53.0	> 3.5	MRO-MRV 43	6520	50.8	41.0	17.00	8.3593
	12.5	13.03	107.4	62.5	> 3.5	MRO-MRV 23	3920	21.1	11.3	17.00	0.9900
		12.72	110	61.4	> 3.5	MRO-MRV 33	5710	26.0	16.2	17.00	3.1860
		13.29	105.4	63.6	> 3.5	MRO-MRV 43	6950	50.8	41.0	17.00	6.6865
		13.17	106.3	63.3	> 3.5	MRO-MRV 53	10050	86.4	76.6	17.00	32.6124
		13.06	107.2	62.7	> 3.5	MRO-MRV 63	13550	137.3	127.5	17.00	41.5040
	14.0	14.02	100	65.0	2.0	MRO-MRV 13	4040	16.7	6.9	17.00	0.6660
		14.13	99.1	69.0	3.3	MRO-MRV 23	4340	21.1	11.3	17.00	1.0580
		13.52	103.5	65.1	> 3.5	MRO-MRV 33	5520	26.0	16.2	17.00	2.5250
		13.87	100.9	66.6	> 3.5	MRO-MRV 43	7190	50.8	41.0	17.00	5.5410
		13.63	102.7	65.6	> 3.5	MRO-MRV 53	10340	86.4	76.6	17.00	29.4533
		13.51	103.6	65.1	> 3.5	MRO-MRV 63	14110	137.3	127.5	17.00	30.9420
	16.0	15.14	92.5	72.8	2.3	MRO-MRV 13	3550	16.7	6.9	17.00	0.6210
		16.68	83.9	78.9	> 3.5	MRO-MRV 23	3620	21.1	11.3	17.00	0.8580
		16.30	85.9	77.9	> 3.5	MRO-MRV 33	5730	26.0	16.2	17.00	2.8190
		16.21	86.4	78.2	> 3.5	MRO-MRV 43	7420	50.8	41.0	17.00	6.0497
		16.24	86.2	78.2	> 3.5	MRO-MRV 53	10150	86.4	76.6	17.00	30.7169
		16.10	87	77.3	> 3.5	MRO-MRV 63	14450	137.3	127.5	17.00	35.7680
	18.0	18.25	76.7	84.4	1.6	MRO-MRV 13	4240	16.7	6.9	17.00	0.6040
		17.80	78.6	85.2	2.9	MRO-MRV 23	4480	21.1	11.3	17.00	0.6830
		17.33	80.8	83.2	> 3.5	MRO-MRV 33	5680	26.0	16.2	17.00	2.2830
		17.55	79.8	84.7	> 3.5	MRO-MRV 43	7740	50.8	41.0	17.00	5.0261
		18.02	77.7	86.8	> 3.5	MRO-MRV 53	11300	86.4	76.6	17.00	27.8473
		17.87	78.4	86.0	> 3.5	MRO-MRV 63	15380	137.3	127.5	17.00	26.9670

Getriebe RO-RV

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	$J_m \times 10^{-4}$	$J_1 \times 10^{-4}$
0.75	20.0	19.15	73.1	91.1	1.9	MRO-MRV 13	3670	16.7	6.9	17.00	0.5770
		20.55	68.1	96.9	3.2	MRO-MRV 23	3720	21.1	11.3	17.00	0.7790
		19.10	73.3	91.4	> 3.5	MRO-MRV 33	5730	26.0	16.2	17.00	2.3640
		20.22	69.2	97.5	> 3.5	MRO-MRV 43	7980	50.8	41.0	17.00	5.5318
		20.53	68.2	98.4	> 3.5	MRO-MRV 53	8650	86.4	76.6	17.00	29.1621
		20.36	68.8	97.8	> 3.5	MRO-MRV 63	14100	137.3	127.5	17.00	31.0610
	22.4	23.33	60	115.9	1.5	MRO-MRV 13	3820	16.7	6.9	17.00	0.5510
		21.91	63.9	106.6	2.5	MRO-MRV 23	4420	21.1	11.3	17.00	0.6310
		21.67	64.6	103.1	> 3.5	MRO-MRV 33	5740	26.0	16.2	17.00	2.5320
		21.94	63.8	105.6	> 3.5	MRO-MRV 43	8310	50.8	41.0	17.00	4.6963
		22.85	61.3	109.8	> 3.5	MRO-MRV 53	11180	86.4	76.6	17.00	26.9452
		22.66	61.8	108.6	> 3.5	MRO-MRV 63	16460	137.3	127.5	17.00	24.2220
	25.0	24.44	57.3	117.2	1.3	MRO-MRV 13	4150	16.7	6.9	17.00	0.4940
		26.07	53.7	122.4	2.5	MRO-MRV 23	3930	21.1	11.3	17.00	0.7150
		26.73	52.4	127.3	> 3.5	MRO-MRV 33	5730	26.0	16.2	17.00	2.0370
		26.10	53.6	126.0	> 3.5	MRO-MRV 43	8690	50.8	41.0	17.00	5.1123
		26.97	51.9	129.1	> 3.5	MRO-MRV 53	8140	86.4	76.6	17.00	27.9078
		25.48	55	122.3	> 3.5	MRO-MRV 63	16820	137.3	127.5	17.00	25.3770
	28.0	29.18	48	140.1	1.2	MRO-MRV 13	3960	16.7	6.9	17.00	0.5290
		27.39	51.1	129.2	2.4	MRO-MRV 23	4180	21.1	11.3	17.00	0.5920
		28.74	48.7	136.4	2.9	MRO-MRV 33	5740	26.0	16.2	17.00	1.9940
		27.92	50.1	134.3	> 3.5	MRO-MRV 43	8990	50.8	41.0	17.00	4.4508
		27.68	50.6	133.0	> 3.5	MRO-MRV 53	9800	86.4	76.6	17.00	26.4183
		27.45	51	132.2	> 3.5	MRO-MRV 63	15700	137.3	127.5	17.00	22.6360
	31.5	31.82	44	152.8	1.1	MRO-MRV 13	4120	16.7	6.9	17.00	0.4770
		32.97	42.5	162.5	1.6	MRO-MRV 23	4960	21.1	11.3	17.00	0.5440
		33.27	42.1	158.7	3.5	MRO-MRV 33	5740	26.0	16.2	17.00	2.2750
		32.52	43.1	155.2	> 3.5	MRO-MRV 43	9390	50.8	41.0	17.00	4.8644
		31.69	44.2	151.8	> 3.5	MRO-MRV 53	8230	86.4	76.6	17.00	27.3913
		31.85	44	153.2	> 3.5	MRO-MRV 63	11540	137.3	127.5	17.00	25.5240
	35.5	37.95	36.9	181.8	0.9	MRO-MRV 13	4430	16.7	6.9	17.00	0.5120
		35.06	39.9	166.1	1.9	MRO-MRV 23	4220	21.1	11.3	17.00	0.5620
		34.26	40.9	168.0	3.3	MRO-MRV 33	5740	26.0	16.2	17.00	1.9540
		34.06	41.1	161.5	> 3.5	MRO-MRV 43	9580	50.8	41.0	17.00	4.3066
		34.12	41	164.6	> 3.5	MRO-MRV 53	8340	86.4	76.6	17.00	25.9891
		33.83	41.4	162.7	> 3.5	MRO-MRV 63	13920	137.3	127.5	17.00	21.3370
	40.0	40.25	34.8	193.0	0.9	MRO-MRV 13	4100	16.7	6.9	17.00	0.4670
		41.21	34	193.8	1.6	MRO-MRV 23	4600	21.1	11.3	17.00	0.5270
		40.23	34.8	194.3	2.9	MRO-MRV 33	5740	26.0	16.2	17.00	1.8490
		41.65	33.6	199.2	> 3.5	MRO-MRV 53	8510	86.4	76.6	17.00	25.4059
		42.78	32.7	204.9	> 3.5	MRO-MRV 63	11390	137.3	127.5	17.00	20.2710
	45.0	47.88	29.2	231.8	0.7	MRO-MRV 13	4300	16.7	6.9	17.00	0.4540
		43.18	32.4	211.4	1.5	MRO-MRV 23	4450	21.1	11.3	17.00	0.5440
		45.54	30.7	213.8	2.7	MRO-MRV 33	5740	26.0	16.2	17.00	1.8890
		42.50	32.9	203.2	> 3.5	MRO-MRV 43	10020	50.8	41.0	17.00	4.1893
		43.14	32.5	205.6	> 3.5	MRO-MRV 53	8540	86.4	76.6	17.00	25.6370
		42.95	32.6	207.1	> 3.5	MRO-MRV 63	16450	137.3	127.5	17.00	23.3660
	50.0	49.02	28.6	234.4	0.7	MRO-MRV 13	4100	16.7	6.9	17.00	0.4610
		52.75	26.5	252.7	1.2	MRO-MRV 23	4680	21.1	11.3	17.00	0.5130
		51.55	27.2	241.7	2.4	MRO-MRV 33	5740	26.0	16.2	17.00	1.8120

VARVEL KNOW-HOW TO DO IT

RO-RV Getriebe

Getriebemotorauswahl 1400 rpm

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	J_m × 10^{-4}	J_1 × 10^{-4}
0.75	50.0	51.25	27.3	245.0	> 3.5	MRO-MRV 43	9720	50.8	41.0	17.00	4.0217
		51.34	27.3	248.1	> 3.5	MRO-MRV 53	8720	86.4	76.6	17.00	25.2163
		50.91	27.5	244.7	> 3.5	MRO-MRV 63	9810	137.3	127.5	17.00	18.9780
	56.0	54.78	25.6	264.2	1.2	MRO-MRV 23	4720	21.1	11.3	17.00	0.5290
		53.60	26.1	255.9	2.3	MRO-MRV 33	5740	26.0	16.2	17.00	1.8620
		54.84	25.5	262.5	> 3.5	MRO-MRV 43	9800	50.8	41.0	17.00	4.0943
		56.67	24.7	270.3	> 3.5	MRO-MRV 53	8820	86.4	76.6	17.00	25.3529
		56.19	24.9	271.0	> 3.5	MRO-MRV 63	9970	137.3	127.5	17.00	19.4030
	63.0	64.97	21.5	314.2	1.0	MRO-MRV 23	4930	21.1	11.3	17.00	0.5050
		64.33	21.8	307.5	1.3	MRO-MRV 33	5740	26.0	16.2	17.00	1.8750
		63.95	21.9	309.4	3.2	MRO-MRV 43	10090	50.8	41.0	17.00	3.9699
		64.91	21.6	310.7	> 3.5	MRO-MRV 53	8950	86.4	76.6	17.00	25.0608
		64.36	21.8	311.1	> 3.5	MRO-MRV 63	10200	137.3	127.5	17.00	18.5080
	71.0	73.98	18.9	356.3	0.8	MRO-MRV 23	5510	21.1	11.3	17.00	0.4950
		68.52	20.4	334.6	1.7	MRO-MRV 33	5740	26.0	16.2	17.00	1.7840
		68.34	20.5	328.6	2.8	MRO-MRV 43	10970	50.8	41.0	17.00	4.0382
		72.56	19.3	345.8	> 3.5	MRO-MRV 53	10800	86.4	76.6	17.00	25.1812
		73.41	19.1	353.3	> 3.5	MRO-MRV 63	11430	137.3	127.5	17.00	18.8420
	80.0	82.42	17	394.1	0.8	MRO-MRV 23	5100	21.1	11.3	17.00	0.4990
		80.65	17.4	395.5	1.5	MRO-MRV 33	5740	26.0	16.2	17.00	1.7720
		82.52	17	394.7	2.5	MRO-MRV 43	10510	50.8	41.0	17.00	3.9279
		79.37	17.6	384.0	3.3	MRO-MRV 53	16160	86.4	76.6	17.00	25.0122
		84.55	16.6	406.5	> 3.5	MRO-MRV 63	11400	137.3	127.5	17.00	18.1240
	90.0	91.94	15.2	439.3	0.9	MRO-MRV 33	5740	26.0	16.2	17.00	1.8090
		89.69	15.6	417.2	2.1	MRO-MRV 43	11880	50.8	41.0	17.00	3.8846
		91.04	15.4	442.5	> 3.5	MRO-MRV 53	8400	86.4	76.6	17.00	24.8176
		90.27	15.5	434.5	> 3.5	MRO-MRV 63	11400	137.3	127.5	17.00	17.8220
	100.0	105.20	13.3	505.8	1.1	MRO-MRV 33	5750	26.0	16.2	17.00	1.7580
		102.83	13.6	503.6	1.9	MRO-MRV 43	11740	50.8	41.0	17.00	3.9031
		100.20	14	476.8	> 3.5	MRO-MRV 53	8000	86.4	76.6	17.00	24.8837
		100.70	13.9	484.6	> 3.5	MRO-MRV 63	9800	137.3	127.5	17.00	17.9540
	112.0	113.11	12.4	543.8	1.1	MRO-MRV 33	5740	26.0	16.2	17.00	1.7370
		115.73	12.1	546.4	1.9	MRO-MRV 43	11130	50.8	41.0	17.00	3.8632
		109.18	12.8	531.3	3.2	MRO-MRV 53	11200	86.4	76.6	17.00	24.8595
		118.58	11.8	572.7	> 3.5	MRO-MRV 63	9800	137.3	127.5	17.00	17.6270
	125.0	125.46	11.16	600.0	0.8	MRO-MRV 33	5740	26.0	16.2	17.00	1.7510
		121.80	11.5	585.0	1.3	MRO-MRV 43	13730	50.8	41.0	17.00	3.9785
		119.59	11.7	583.7	3.1	MRO-MRV 53	7200	86.4	76.6	17.00	24.7730
		128.72	10.9	622.5	> 3.5	MRO-MRV 63	22060	137.3	127.5	17.00	17.7600
	140.0	147.54	9.49	713.1	0.8	MRO-MRV 33	5740	26.0	16.2	17.00	1.7300
		144.22	9.71	712.5	1.3	MRO-MRV 43	12410	50.8	41.0	17.00	3.8506
		140.53	10	671.3	2.7	MRO-MRV 53	7200	86.4	76.6	17.00	24.7467
		141.23	9.9	681.1	> 3.5	MRO-MRV 63	9800	137.3	127.5	17.00	17.5400
	160.0	164.63	8.5	792.3	0.9	MRO-MRV 43	14400	50.8	41.0	17.00	3.8831
		153.12	9.14	716.7	2.4	MRO-MRV 53	10100	86.4	76.6	17.00	24.7344
		154.91	9.04	741.2	> 3.5	MRO-MRV 63	9800	137.3	127.5	17.00	17.5010
	180.0	183.27	7.64	884.3	0.9	MRO-MRV 43	14710	50.8	41.0	17.00	3.8768
		185.17	7.56	887.5	1.6	MRO-MRV 53	17640	86.4	76.6	17.00	24.7124
		190.49	7.35	930.7	2.9	MRO-MRV 63	19400	137.3	127.5	17.00	17.4310
	200.0	190.66	7.34	922.1	0.8	MRO-MRV 43	14830	50.8	41.0	17.00	3.8477

Getriebe RO-RV

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	J_m × 10^{-4}	J_1 × 10^{-4}
0.75	200.0	208.05	6.73	997.5	1.3	MRO-MRV 53	19060	86.4	76.6	17.00	24.7277
	224.0	224.24	6.24	1084.2	1.2	MRO-MRV 53	19100	86.4	76.6	17.00	24.7733
		220.89	6.34	1062.5	2.4	MRO-MRV 63	22500	137.3	127.5	17.00	17.4800
	250.0	251.60	5.56	1216.5	1.1	MRO-MRV 53	19100	86.4	76.6	17.00	24.7078
	280.0	271.62	5.15	1275.0	2.0	MRO-MRV 63	22500	137.3	127.5	17.00	17.4170
	315.0	314.50	4.45	1511.4	0.9	MRO-MRV 53	19100	86.4	76.6	17.00	24.6906
	315.0	305.43	4.58	1471.2	1.7	MRO-MRV 63	22500	137.3	127.5	17.00	17.3880
1.1	6.3	6.62	211.4	46.8	> 3.5	MRO-MRV 23	3350	23.3	11.3	33.00	1.7940
		6.43	217.6	45.3	> 3.5	MRO-MRV 33	4550	28.2	16.2	33.00	5.3400
		6.60	212.1	46.6	> 3.5	MRO-MRV 43	5570	53.0	41.0	33.00	11.5009
		6.48	215.9	45.7	> 3.5	MRO-MRV 53	8020	88.6	76.6	33.00	46.0154
		6.43	217.7	45.3	> 3.5	MRO-MRV 63	10740	139.5	127.5	33.00	78.1860
	7.1	7.58	185	53.0	2.5	MRO-MRV 13	3310	18.9	6.9	33.00	0.9150
	8.0	8.47	165.3	59.0	> 3.5	MRO-MRV 23	3620	23.3	11.3	33.00	1.3930
		8.25	169.7	58.2	> 3.5	MRO-MRV 33	5540	28.2	16.2	33.00	4.2720
		8.35	167.6	58.9	> 3.5	MRO-MRV 43	6000	53.0	41.0	33.00	9.2271
		8.57	163.3	60.5	> 3.5	MRO-MRV 53	8770	88.6	76.6	33.00	38.9230
		8.50	164.7	60.0	> 3.5	MRO-MRV 63	11850	139.5	127.5	33.00	60.6320
	9.0	9.14	153	65.0	2.0	MRO-MRV 13	3740	18.9	6.9	33.00	0.8480
		8.97	156	63.5	> 3.5	MRO-MRV 23	3710	23.3	11.3	33.00	1.5320
		9.09	154	64.3	> 3.5	MRO-MRV 33	5710	28.2	16.2	33.00	4.6310
		8.72	160.6	61.6	> 3.5	MRO-MRV 43	5980	53.0	41.0	33.00	10.1119
	10.0	9.57	146	67.0	2.1	MRO-MRV 13	3600	18.9	6.9	33.00	0.7740
		10.43	134.3	72.8	3.4	MRO-MRV 23	3870	23.3	11.3	33.00	1.1640
		10.17	137.7	71.4	> 3.5	MRO-MRV 33	5630	28.2	16.2	33.00	3.6570
		10.43	134.2	73.7	> 3.5	MRO-MRV 43	6430	53.0	41.0	33.00	7.7706
		10.87	128.8	76.9	> 3.5	MRO-MRV 53	9470	88.6	76.6	33.00	34.9392
		10.78	129.9	76.0	> 3.5	MRO-MRV 63	12750	139.5	127.5	33.00	48.5070
	11.2	11.63	120	82.5	1.8	MRO-MRV 13	3570	18.9	6.9	33.00	0.6940
		11.48	122	81.6	2.8	MRO-MRV 23	4040	23.3	11.3	33.00	1.2320
		11.65	120.2	82.0	> 3.5	MRO-MRV 33	5730	28.2	16.2	33.00	3.8410
		11.04	126.8	77.7	> 3.5	MRO-MRV 43	6520	53.0	41.0	33.00	8.3593
	12.5	13.03	107.4	91.7	3.0	MRO-MRV 23	3920	23.3	11.3	33.00	0.9900
		12.72	110	90.0	> 3.5	MRO-MRV 33	5710	28.2	16.2	33.00	3.1860
		13.29	105.4	93.3	> 3.5	MRO-MRV 43	6950	53.0	41.0	33.00	6.6865
		13.17	106.3	92.8	> 3.5	MRO-MRV 53	10050	88.6	76.6	33.00	32.6124
		13.06	107.2	92.0	> 3.5	MRO-MRV 63	13550	139.5	127.5	33.00	41.5040
	14.0	14.02	100	95.3	1.4	MRO-MRV 13	4040	18.9	6.9	33.00	0.6660
		14.13	99.1	101.2	2.3	MRO-MRV 23	4340	23.3	11.3	33.00	1.0580
		13.52	103.5	95.5	> 3.5	MRO-MRV 33	5520	28.2	16.2	33.00	2.5250
		13.87	100.9	97.7	> 3.5	MRO-MRV 43	7190	53.0	41.0	33.00	5.5410
		13.63	102.7	96.3	> 3.5	MRO-MRV 53	10340	88.6	76.6	33.00	29.4533
		13.51	103.6	95.4	> 3.5	MRO-MRV 63	14110	139.5	127.5	33.00	30.9420
	16.0	15.14	92.5	106.8	1.5	MRO-MRV 13	3550	18.9	6.9	33.00	0.6210
		16.68	83.9	115.7	2.6	MRO-MRV 23	3620	23.3	11.3	33.00	0.8580
		16.30	85.9	114.2	> 3.5	MRO-MRV 33	5730	28.2	16.2	33.00	2.8190
		16.21	86.4	114.7	> 3.5	MRO-MRV 43	7420	53.0	41.0	33.00	6.0497
		16.24	86.2	114.7	> 3.5	MRO-MRV 53	10150	88.6	76.6	33.00	30.7169
		16.10	87	113.4	> 3.5	MRO-MRV 63	14450	139.5	127.5	33.00	35.7680
	18.0	18.25	76.7	123.8	1.1	MRO-MRV 13	4240	18.9	6.9	33.00	0.6040

RO-RV Getriebe

Getriebemotorauswahl 1400 rpm

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	J_m × 10^{-4}	J_1 × 10^{-4}
1.1	18.0	17.80	78.6	125.0	2.0	MRO-MRV 23	4480	23.3	11.3	33.00	0.6830
		17.33	80.8	122.0	> 3.5	MRO-MRV 33	5680	28.2	16.2	33.00	2.2830
		17.55	79.8	124.3	> 3.5	MRO-MRV 43	7740	53.0	41.0	33.00	5.0261
		18.02	77.7	127.3	> 3.5	MRO-MRV 53	11300	88.6	76.6	33.00	27.8473
		17.87	78.4	126.2	> 3.5	MRO-MRV 63	15380	139.5	127.5	33.00	26.9670
	20.0	19.15	73.1	133.6	1.3	MRO-MRV 13	3670	18.9	6.9	33.00	0.5770
		20.55	68.1	142.1	2.2	MRO-MRV 23	3720	23.3	11.3	33.00	0.7790
		19.10	73.3	134.1	2.9	MRO-MRV 33	5730	28.2	16.2	33.00	2.3640
		20.22	69.2	143.0	> 3.5	MRO-MRV 43	7980	53.0	41.0	33.00	5.5318
		20.53	68.2	144.3	> 3.5	MRO-MRV 53	8650	88.6	76.6	33.00	29.1621
		20.36	68.8	143.5	> 3.5	MRO-MRV 63	14100	139.5	127.5	33.00	31.0610
	22.4	23.33	60	170.0	1.0	MRO-MRV 13	3820	18.9	6.9	33.00	0.5510
		21.91	63.9	156.3	1.7	MRO-MRV 23	4420	23.3	11.3	33.00	0.6310
		21.67	64.6	151.3	> 3.5	MRO-MRV 33	5740	28.2	16.2	33.00	2.5320
		21.94	63.8	154.9	> 3.5	MRO-MRV 43	8310	53.0	41.0	33.00	4.6963
		22.85	61.3	161.0	> 3.5	MRO-MRV 53	11180	88.6	76.6	33.00	26.9452
		22.66	61.8	159.3	> 3.5	MRO-MRV 63	16460	139.5	127.5	33.00	24.2220
	25.0	26.07	53.7	179.5	1.7	MRO-MRV 23	3930	23.3	11.3	33.00	0.7150
		26.73	52.4	186.7	3.0	MRO-MRV 33	5730	28.2	16.2	33.00	2.0370
		26.10	53.6	184.8	> 3.5	MRO-MRV 43	8690	53.0	41.0	33.00	5.1123
		26.97	51.9	189.4	> 3.5	MRO-MRV 53	8140	88.6	76.6	33.00	27.9078
		25.48	55	179.4	> 3.5	MRO-MRV 63	16820	139.5	127.5	33.00	25.3770
	28.0	27.39	51.1	189.4	1.6	MRO-MRV 23	4180	23.3	11.3	33.00	0.5920
		28.74	48.7	200.0	2.0	MRO-MRV 33	5740	28.2	16.2	33.00	1.9940
		27.92	50.1	197.0	> 3.5	MRO-MRV 43	8990	53.0	41.0	33.00	4.4508
		27.68	50.6	195.0	> 3.5	MRO-MRV 53	9800	88.6	76.6	33.00	26.4183
		27.45	51	193.9	> 3.5	MRO-MRV 63	15700	139.5	127.5	33.00	22.6360
	31.5	32.97	42.5	238.3	1.1	MRO-MRV 23	4960	23.3	11.3	33.00	0.5440
		33.27	42.1	232.7	2.4	MRO-MRV 33	5740	28.2	16.2	33.00	2.2750
		32.52	43.1	227.7	> 3.5	MRO-MRV 43	9390	53.0	41.0	33.00	4.8644
		31.69	44.2	222.7	> 3.5	MRO-MRV 53	8230	88.6	76.6	33.00	27.3913
		31.85	44	224.7	> 3.5	MRO-MRV 63	11540	139.5	127.5	33.00	25.5240
	35.5	35.06	39.9	243.6	1.3	MRO-MRV 23	4220	23.3	11.3	33.00	0.5620
		34.26	40.9	246.4	2.3	MRO-MRV 33	5740	28.2	16.2	33.00	1.9540
		34.06	41.1	236.9	> 3.5	MRO-MRV 43	9580	53.0	41.0	33.00	4.3066
		34.12	41	241.4	> 3.5	MRO-MRV 53	8340	88.6	76.6	33.00	25.9891
		33.83	41.4	238.6	> 3.5	MRO-MRV 63	13920	139.5	127.5	33.00	21.3370
	40.0	41.21	34	284.2	1.1	MRO-MRV 23	4600	23.3	11.3	33.00	0.5270
		40.23	34.8	285.0	2.0	MRO-MRV 33	5740	28.2	16.2	33.00	1.8490
		41.65	33.6	292.2	> 3.5	MRO-MRV 53	8510	88.6	76.6	33.00	25.4059
		42.78	32.7	300.5	> 3.5	MRO-MRV 63	11390	139.5	127.5	33.00	20.2710
	45.0	43.18	32.4	310.0	1.0	MRO-MRV 23	4450	23.3	11.3	33.00	0.5440
		45.54	30.7	313.5	1.8	MRO-MRV 33	5740	28.2	16.2	33.00	1.8890
		42.50	32.9	298.1	2.8	MRO-MRV 43	10020	53.0	41.0	33.00	4.1893
		43.14	32.5	301.6	> 3.5	MRO-MRV 53	8540	88.6	76.6	33.00	25.6370
		42.95	32.6	303.7	> 3.5	MRO-MRV 63	16450	139.5	127.5	33.00	23.3660
	50.0	51.55	27.2	354.4	1.6	MRO-MRV 33	5740	28.2	16.2	33.00	1.8120
		51.25	27.3	359.3	2.7	MRO-MRV 43	9720	53.0	41.0	33.00	4.0217
		51.34	27.3	363.8	> 3.5	MRO-MRV 53	8720	88.6	76.6	33.00	25.2163
		50.91	27.5	358.8	> 3.5	MRO-MRV 63	9810	139.5	127.5	33.00	18.9780

Getriebe RO-RV

1400 rpm **Getriebemotorauswahl**

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	J_m $\times 10^{-4}$	J_1 $\times 10^{-4}$
1.1	56.0	53.60	26.1	375.3	1.5	MRO-MRV 33	5740	28.2	16.2	33.00	1.8620
		54.84	25.5	385.0	2.5	MRO-MRV 43	9800	53.0	41.0	33.00	4.0943
		56.67	24.7	396.5	> 3.5	MRO-MRV 53	8820	88.6	76.6	33.00	25.3529
		56.19	24.9	397.4	> 3.5	MRO-MRV 63	9970	139.5	127.5	33.00	19.4030
	63.0	64.33	21.8	451.0	0.9	MRO-MRV 33	5740	28.2	16.2	33.00	1.8750
		63.95	21.9	453.8	2.2	MRO-MRV 43	10090	53.0	41.0	33.00	3.9699
		64.91	21.6	455.7	> 3.5	MRO-MRV 53	8950	88.6	76.6	33.00	25.0608
		64.36	21.8	456.3	> 3.5	MRO-MRV 63	10200	139.5	127.5	33.00	18.5080
	71.0	68.52	20.4	490.8	1.2	MRO-MRV 33	5740	28.2	16.2	33.00	1.7840
		68.34	20.5	481.9	1.9	MRO-MRV 43	10970	53.0	41.0	33.00	4.0382
		72.56	19.3	507.2	3.3	MRO-MRV 53	10800	88.6	76.6	33.00	25.1812
		73.41	19.1	518.1	> 3.5	MRO-MRV 63	11430	139.5	127.5	33.00	18.8420
	80.0	80.65	17.4	580.0	1.0	MRO-MRV 33	5740	28.2	16.2	33.00	1.7720
		82.52	17	578.9	1.7	MRO-MRV 43	10510	53.0	41.0	33.00	3.9279
		79.37	17.6	563.2	2.3	MRO-MRV 53	16160	88.6	76.6	33.00	25.0122
		84.55	16.6	596.1	> 3.5	MRO-MRV 63	11400	139.5	127.5	33.00	18.1240
	90.0	89.69	15.6	611.9	1.5	MRO-MRV 43	11880	53.0	41.0	33.00	3.8846
		91.04	15.4	649.0	2.7	MRO-MRV 53	8400	88.6	76.6	33.00	24.8176
		90.27	15.5	637.2	> 3.5	MRO-MRV 63	11400	139.5	127.5	33.00	17.8220
	100.0	102.83	13.6	738.6	1.3	MRO-MRV 43	11740	53.0	41.0	33.00	3.9031
		100.20	14	699.3	2.5	MRO-MRV 53	8000	88.6	76.6	33.00	24.8837
		100.70	13.9	710.8	> 3.5	MRO-MRV 63	9800	139.5	127.5	33.00	17.9540
	112.0	115.73	12.1	801.4	1.3	MRO-MRV 43	11130	53.0	41.0	33.00	3.8632
		109.18	12.8	779.2	2.2	MRO-MRV 53	11200	88.6	76.6	33.00	24.8595
	125.0	118.58	11.8	840.0	> 3.5	MRO-MRV 63	9800	139.5	127.5	33.00	17.6270
		119.59	11.7	856.1	2.1	MRO-MRV 53	7200	88.6	76.6	33.00	24.7730
		128.72	10.9	913.0	2.7	MRO-MRV 63	22060	139.5	127.5	33.00	17.7600
	140.0	140.53	10	984.5	1.8	MRO-MRV 53	7200	88.6	76.6	33.00	24.7467
		141.23	9.9	998.9	3.4	MRO-MRV 63	9800	139.5	127.5	33.00	17.5400
	160.0	153.12	9.14	1051.1	1.6	MRO-MRV 53	10100	88.6	76.6	33.00	24.7344
		154.91	9.04	1087.1	3.1	MRO-MRV 63	9800	139.5	127.5	33.00	17.5010
	180.0	185.17	7.56	1301.7	1.1	MRO-MRV 53	17640	88.6	76.6	33.00	24.7124
		190.49	7.35	1365.0	2.0	MRO-MRV 63	19400	139.5	127.5	33.00	17.4310
	200.0	208.05	6.73	1463.0	0.9	MRO-MRV 53	19060	88.6	76.6	33.00	24.7277
	224.0	224.24	6.24	1590.2	0.8	MRO-MRV 53	19100	88.6	76.6	33.00	24.7733
		220.89	6.34	1558.3	1.6	MRO-MRV 63	22500	139.5	127.5	33.00	17.4800
	250.0	251.60	5.56	1784.1	0.7	MRO-MRV 53	19100	88.6	76.6	33.00	24.7078
	280.0	271.62	5.15	1870.0	1.4	MRO-MRV 63	22500	139.5	127.5	33.00	17.4170
	315.0	305.43	4.58	2157.7	1.2	MRO-MRV 63	22500	139.5	127.5	33.00	17.3880
1.5	6.3	6.62	211.4	63.8	3.1	MRO-MRV 23	3350	24.8	11.3	40.00	1.7940
		6.43	217.6	61.8	> 3.5	MRO-MRV 33	4550	29.7	16.2	40.00	5.3400
		6.60	212.1	63.5	> 3.5	MRO-MRV 43	5570	54.5	41.0	40.00	11.5009
		6.48	215.9	62.3	> 3.5	MRO-MRV 53	8020	90.1	76.6	40.00	46.0154
		6.43	217.7	61.8	> 3.5	MRO-MRV 63	10740	141.0	127.5	40.00	78.1860
	7.1	7.58	185	72.2	1.8	MRO-MRV 13	3310	20.4	6.9	40.00	0.9150
	8.0	8.47	165.3	80.5	2.7	MRO-MRV 23	3620	24.8	11.3	40.00	1.3930
		8.25	169.7	79.4	> 3.5	MRO-MRV 33	5540	29.7	16.2	40.00	4.2720
		8.35	167.6	80.3	> 3.5	MRO-MRV 43	6000	54.5	41.0	40.00	9.2271
		8.57	163.3	82.5	> 3.5	MRO-MRV 53	8770	90.1	76.6	40.00	38.9230
		8.50	164.7	81.8	> 3.5	MRO-MRV 63	11850	141.0	127.5	40.00	60.6320

VARVEL KNOW-HOW TO DO IT

RO-RV Getriebe

Getriebemotorauswahl 1400 rpm

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	$J_m \times 10^{-4}$	$J_1 \times 10^{-4}$
1.5	9.0	9.14	153	88.6	1.5	MRO-MRV 13	3740	20.4	6.9	40.00	0.8480
		8.97	156	86.5	2.6	MRO-MRV 23	3710	24.8	11.3	40.00	1.5320
		9.09	154	87.7	> 3.5	MRO-MRV 33	5710	29.7	16.2	40.00	4.6310
		8.72	160.6	84.1	> 3.5	MRO-MRV 43	5980	54.5	41.0	40.00	10.1119
	10.0	9.57	146	91.3	1.5	MRO-MRV 13	3600	20.4	6.9	40.00	0.7740
		10.43	134.3	99.3	2.5	MRO-MRV 23	3870	24.8	11.3	40.00	1.1640
		10.17	137.7	97.4	> 3.5	MRO-MRV 33	5630	29.7	16.2	40.00	3.6570
		10.43	134.2	100.5	> 3.5	MRO-MRV 43	6430	54.5	41.0	40.00	7.7706
		10.87	128.8	104.8	> 3.5	MRO-MRV 53	9470	90.1	76.6	40.00	34.9392
		10.78	129.9	103.7	> 3.5	MRO-MRV 63	12750	141.0	127.5	40.00	48.5070
	11.2	11.63	120	112.5	1.3	MRO-MRV 13	3570	20.4	6.9	40.00	0.6940
		11.48	122	111.3	2.1	MRO-MRV 23	4040	24.8	11.3	40.00	1.2320
		11.65	120.2	111.8	3.4	MRO-MRV 33	5730	29.7	16.2	40.00	3.8410
		11.04	126.8	106.0	> 3.5	MRO-MRV 43	6520	54.5	41.0	40.00	8.3593
	12.5	13.03	107.4	125.0	2.2	MRO-MRV 23	3920	24.8	11.3	40.00	0.9900
		12.72	110	122.7	> 3.5	MRO-MRV 33	5710	29.7	16.2	40.00	3.1860
		13.29	105.4	127.2	> 3.5	MRO-MRV 43	6950	54.5	41.0	40.00	6.6865
		13.17	106.3	126.5	> 3.5	MRO-MRV 53	10050	90.1	76.6	40.00	32.6124
		13.06	107.2	125.5	> 3.5	MRO-MRV 63	13550	141.0	127.5	40.00	41.5040
	14.0	14.02	100	130.0	1.0	MRO-MRV 13	4040	20.4	6.9	40.00	0.6660
		14.13	99.1	138.0	1.7	MRO-MRV 23	4340	24.8	11.3	40.00	1.0580
		13.52	103.5	130.2	> 3.5	MRO-MRV 33	5520	29.7	16.2	40.00	2.5250
		13.87	100.9	133.2	> 3.5	MRO-MRV 43	7190	54.5	41.0	40.00	5.5410
		13.63	102.7	131.3	> 3.5	MRO-MRV 53	10340	90.1	76.6	40.00	29.4533
		13.51	103.6	130.2	> 3.5	MRO-MRV 63	14110	141.0	127.5	40.00	30.9420
	16.0	15.14	92.5	145.6	1.1	MRO-MRV 13	3550	20.4	6.9	40.00	0.6210
		16.68	83.9	157.8	1.9	MRO-MRV 23	3620	24.8	11.3	40.00	0.8580
		16.30	85.9	155.8	3.5	MRO-MRV 33	5730	29.7	16.2	40.00	2.8190
		16.21	86.4	156.4	> 3.5	MRO-MRV 43	7420	54.5	41.0	40.00	6.0497
		16.24	86.2	156.4	> 3.5	MRO-MRV 53	10150	90.1	76.6	40.00	30.7169
		16.10	87	154.6	> 3.5	MRO-MRV 63	14450	141.0	127.5	40.00	35.7680
	18.0	18.25	76.7	168.8	0.8	MRO-MRV 13	4240	20.4	6.9	40.00	0.6040
		17.80	78.6	170.5	1.5	MRO-MRV 23	4480	24.8	11.3	40.00	0.6830
		17.33	80.8	166.3	3.1	MRO-MRV 33	5680	29.7	16.2	40.00	2.2830
		17.55	79.8	169.4	> 3.5	MRO-MRV 43	7740	54.5	41.0	40.00	5.0261
		18.02	77.7	173.6	> 3.5	MRO-MRV 53	11300	90.1	76.6	40.00	27.8473
		17.87	78.4	172.1	> 3.5	MRO-MRV 63	15380	141.0	127.5	40.00	26.9670
	20.0	19.15	73.1	182.1	0.9	MRO-MRV 13	3670	20.4	6.9	40.00	0.5770
		20.55	68.1	193.8	1.6	MRO-MRV 23	3720	24.8	11.3	40.00	0.7790
		19.10	73.3	182.8	2.1	MRO-MRV 33	5730	29.7	16.2	40.00	2.3640
		20.22	69.2	195.0	> 3.5	MRO-MRV 43	7980	54.5	41.0	40.00	5.5318
		20.53	68.2	196.7	> 3.5	MRO-MRV 53	8650	90.1	76.6	40.00	29.1621
		20.36	68.8	195.6	> 3.5	MRO-MRV 63	14100	141.0	127.5	40.00	31.0610
	22.4	23.33	60	231.8	0.7	MRO-MRV 13	3820	20.4	6.9	40.00	0.5510
		21.91	63.9	213.2	1.3	MRO-MRV 23	4420	24.8	11.3	40.00	0.6310
		21.67	64.6	206.3	2.7	MRO-MRV 33	5740	29.7	16.2	40.00	2.5320
		21.94	63.8	211.2	3.3	MRO-MRV 43	8310	54.5	41.0	40.00	4.6963
		22.85	61.3	219.6	> 3.5	MRO-MRV 53	11180	90.1	76.6	40.00	26.9452
		22.66	61.8	217.2	> 3.5	MRO-MRV 63	16460	141.0	127.5	40.00	24.2220
	25.0	26.07	53.7	244.7	1.3	MRO-MRV 23	3930	24.8	11.3	40.00	0.7150

Getriebe RO-RV

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	$J_m \times 10^{-4}$	$J_1 \times 10^{-4}$
1.5	25.0	26.73	52.4	254.5	2.2	MRO-MRV 33	5730	29.7	16.2	40.00	2.0370
		26.10	53.6	252.0	3.3	MRO-MRV 43	8690	54.5	41.0	40.00	5.1123
		26.97	51.9	258.2	> 3.5	MRO-MRV 53	8140	90.1	76.6	40.00	27.9078
		25.48	55	244.7	> 3.5	MRO-MRV 63	16820	141.0	127.5	40.00	25.3770
	28.0	27.39	51.1	258.3	1.2	MRO-MRV 23	4180	24.8	11.3	40.00	0.5920
		28.74	48.7	272.7	1.5	MRO-MRV 33	5740	29.7	16.2	40.00	1.9940
		27.92	50.1	268.6	2.9	MRO-MRV 43	8990	54.5	41.0	40.00	4.4508
		27.68	50.6	265.9	> 3.5	MRO-MRV 53	9800	90.1	76.6	40.00	26.4183
		27.45	51	264.4	> 3.5	MRO-MRV 63	15700	141.0	127.5	40.00	22.6360
	31.5	32.97	42.5	325.0	0.8	MRO-MRV 23	4960	24.8	11.3	40.00	0.5440
		33.27	42.1	317.3	1.7	MRO-MRV 33	5740	29.7	16.2	40.00	2.2750
		32.52	43.1	310.5	2.9	MRO-MRV 43	9390	54.5	41.0	40.00	4.8644
		31.69	44.2	303.6	> 3.5	MRO-MRV 53	8230	90.1	76.6	40.00	27.3913
		31.85	44	306.4	> 3.5	MRO-MRV 63	11540	141.0	127.5	40.00	25.5240
	35.5	35.06	39.9	332.1	0.9	MRO-MRV 23	4220	24.8	11.3	40.00	0.5620
		34.26	40.9	336.0	1.7	MRO-MRV 33	5740	29.7	16.2	40.00	1.9540
		34.06	41.1	323.1	2.6	MRO-MRV 43	9580	54.5	41.0	40.00	4.3066
		34.12	41	329.2	> 3.5	MRO-MRV 53	8340	90.1	76.6	40.00	25.9891
		33.83	41.4	325.4	> 3.5	MRO-MRV 63	13920	141.0	127.5	40.00	21.3370
	40.0	41.21	34	387.5	0.8	MRO-MRV 23	4600	24.8	11.3	40.00	0.5270
		40.23	34.8	388.6	1.5	MRO-MRV 33	5740	29.7	16.2	40.00	1.8490
		41.65	33.6	398.4	> 3.5	MRO-MRV 53	8510	90.1	76.6	40.00	25.4059
		42.78	32.7	409.7	> 3.5	MRO-MRV 63	11390	141.0	127.5	40.00	20.2710
	45.0	43.18	32.4	422.7	0.7	MRO-MRV 23	4450	24.8	11.3	40.00	0.5440
		45.54	30.7	427.5	1.3	MRO-MRV 33	5740	29.7	16.2	40.00	1.8890
		42.50	32.9	406.5	2.1	MRO-MRV 43	10020	54.5	41.0	40.00	4.1893
		43.14	32.5	411.3	> 3.5	MRO-MRV 53	8540	90.1	76.6	40.00	25.6370
		42.95	32.6	414.1	> 3.5	MRO-MRV 63	16450	141.0	127.5	40.00	23.3660
	50.0	51.55	27.2	483.3	1.2	MRO-MRV 33	5740	29.7	16.2	40.00	1.8120
		51.25	27.3	490.0	2.0	MRO-MRV 43	9720	54.5	41.0	40.00	4.0217
		51.34	27.3	496.2	3.5	MRO-MRV 53	8720	90.1	76.6	40.00	25.2163
		50.91	27.5	489.3	> 3.5	MRO-MRV 63	9810	141.0	127.5	40.00	18.9780
	56.0	53.60	26.1	511.8	1.1	MRO-MRV 33	5740	29.7	16.2	40.00	1.8620
		54.84	25.5	525.0	1.9	MRO-MRV 43	9800	54.5	41.0	40.00	4.0943
		56.67	24.7	540.6	3.2	MRO-MRV 53	8820	90.1	76.6	40.00	25.3529
		56.19	24.9	541.9	> 3.5	MRO-MRV 63	9970	141.0	127.5	40.00	19.4030
	63.0	64.33	21.8	615.0	0.7	MRO-MRV 33	5740	29.7	16.2	40.00	1.8750
		63.95	21.9	618.8	1.6	MRO-MRV 43	10090	54.5	41.0	40.00	3.9699
		64.91	21.6	621.4	2.8	MRO-MRV 53	8950	90.1	76.6	40.00	25.0608
		64.36	21.8	622.2	> 3.5	MRO-MRV 63	10200	141.0	127.5	40.00	18.5080
	71.0	68.52	20.4	669.2	0.9	MRO-MRV 33	5740	29.7	16.2	40.00	1.7840
		68.34	20.5	657.1	1.4	MRO-MRV 43	10970	54.5	41.0	40.00	4.0382
		72.56	19.3	691.7	2.4	MRO-MRV 53	10800	90.1	76.6	40.00	25.1812
		73.41	19.1	706.5	> 3.5	MRO-MRV 63	11430	141.0	127.5	40.00	18.8420
	80.0	80.65	17.4	790.9	0.7	MRO-MRV 33	5740	29.7	16.2	40.00	1.7720
		82.52	17	789.5	1.3	MRO-MRV 43	10510	54.5	41.0	40.00	3.9279
		79.37	17.6	768.0	1.7	MRO-MRV 53	16160	90.1	76.6	40.00	25.0122
		84.55	16.6	812.9	> 3.5	MRO-MRV 63	11400	141.0	127.5	40.00	18.1240
	90.0	89.69	15.6	834.4	1.1	MRO-MRV 43	11880	54.5	41.0	40.00	3.8846
		91.04	15.4	885.0	2.0	MRO-MRV 53	8400	90.1	76.6	40.00	24.8176

RO-RV Getriebe

Getriebemotorauswahl — 1400 rpm

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	J_m × 10^{-4}	J_1 × 10^{-4}
1.5	90.0	90.27	15.5	869.0	> 3.5	MRO-MRV 63	11400	141.0	127.5	40.00	17.8220
	100.0	102.83	13.6	1007.1	0.9	MRO-MRV 43	11740	54.5	41.0	40.00	3.9031
		100.20	14	953.6	1.9	MRO-MRV 53	8000	90.1	76.6	40.00	24.8837
		100.70	13.9	969.2	3.5	MRO-MRV 63	9800	141.0	127.5	40.00	17.9540
	112.0	115.73	12.1	1092.9	0.9	MRO-MRV 43	11130	54.5	41.0	40.00	3.8632
		109.18	12.8	1062.5	1.6	MRO-MRV 53	11200	90.1	76.6	40.00	24.8595
		118.58	11.8	1145.5	2.9	MRO-MRV 63	9800	141.0	127.5	40.00	17.6270
	125.0	119.59	11.7	1167.4	1.5	MRO-MRV 53	7200	90.1	76.6	40.00	24.7730
		128.72	10.9	1245.0	2.0	MRO-MRV 63	22060	141.0	127.5	40.00	17.7600
	140.0	140.53	10	1342.5	1.3	MRO-MRV 53	7200	90.1	76.6	40.00	24.7467
		141.23	9.9	1362.2	2.5	MRO-MRV 63	9800	141.0	127.5	40.00	17.5400
	160.0	153.12	9.14	1433.3	1.2	MRO-MRV 53	10100	90.1	76.6	40.00	24.7344
		154.91	9.04	1482.4	2.3	MRO-MRV 63	9800	141.0	127.5	40.00	17.5010
	180.0	185.17	7.56	1775.0	0.8	MRO-MRV 53	17640	90.1	76.6	40.00	24.7124
		190.49	7.35	1861.4	1.5	MRO-MRV 63	19400	141.0	127.5	40.00	17.4310
	200.0	208.05	6.73	1995.0	0.7	MRO-MRV 53	19060	90.1	76.6	40.00	24.7277
	224.0	220.89	6.34	2125.0	1.2	MRO-MRV 63	22500	141.0	127.5	40.00	17.4800
	280.0	271.62	5.15	2550.0	1.0	MRO-MRV 63	22500	141.0	127.5	40.00	17.4170
	315.0	305.43	4.58	2942.3	0.9	MRO-MRV 63	22500	141.0	127.5	40.00	17.3880
2.2	6.3	6.62	211.4	93.6	2.1	MRO-MRV 23	3350	30.3	11.3	75.00	1.7940
		6.43	217.6	90.6	> 3.5	MRO-MRV 33	4550	35.2	16.2	75.00	5.3400
		6.60	212.1	93.2	> 3.5	MRO-MRV 43	5570	60.0	41.0	75.00	11.5009
		6.48	215.9	91.3	> 3.5	MRO-MRV 53	8020	95.6	76.6	75.00	46.0154
		6.43	217.7	90.6	> 3.5	MRO-MRV 63	10740	146.5	127.5	75.00	78.1860
	8.0	8.47	165.3	118.0	1.9	MRO-MRV 23	3620	30.3	11.3	75.00	1.3930
		8.25	169.7	116.5	> 3.5	MRO-MRV 33	5540	35.2	16.2	75.00	4.2720
		8.35	167.6	117.8	> 3.5	MRO-MRV 43	6000	60.0	41.0	75.00	9.2271
		8.57	163.3	121.0	> 3.5	MRO-MRV 53	8770	95.6	76.6	75.00	38.9230
		8.50	164.7	120.0	> 3.5	MRO-MRV 63	11850	146.5	127.5	75.00	60.6320
	9.0	8.97	156	126.9	1.8	MRO-MRV 23	3710	30.3	11.3	75.00	1.5320
		9.09	154	128.6	3.0	MRO-MRV 33	5710	35.2	16.2	75.00	4.6310
		8.72	160.6	123.3	> 3.5	MRO-MRV 43	5980	60.0	41.0	75.00	10.1119
	10.0	10.43	134.3	145.7	1.7	MRO-MRV 23	3870	30.3	11.3	75.00	1.1640
		10.17	137.7	142.9	3.5	MRO-MRV 33	5630	35.2	16.2	75.00	3.6570
		10.43	134.2	147.5	> 3.5	MRO-MRV 43	6430	60.0	41.0	75.00	7.7706
		10.87	128.8	153.8	> 3.5	MRO-MRV 53	9470	95.6	76.6	75.00	34.9392
		10.78	129.9	152.1	> 3.5	MRO-MRV 63	12750	146.5	127.5	75.00	48.5070
	11.2	11.48	122	163.2	1.4	MRO-MRV 23	4040	30.3	11.3	75.00	1.2320
		11.65	120.2	163.9	2.3	MRO-MRV 33	5730	35.2	16.2	75.00	3.8410
		11.04	126.8	155.4	> 3.5	MRO-MRV 43	6520	60.0	41.0	75.00	8.3593
	12.5	13.03	107.4	183.3	1.5	MRO-MRV 23	3920	30.3	11.3	75.00	0.9900
		12.72	110	180.0	3.0	MRO-MRV 33	5710	35.2	16.2	75.00	3.1860
		13.29	105.4	186.6	> 3.5	MRO-MRV 43	6950	60.0	41.0	75.00	6.6865
		13.17	106.3	185.5	> 3.5	MRO-MRV 53	10050	95.6	76.6	75.00	32.6124
		13.06	107.2	184.0	> 3.5	MRO-MRV 63	13550	146.5	127.5	75.00	41.5040
	14.0	14.13	99.1	202.4	1.1	MRO-MRV 23	4340	30.3	11.3	75.00	1.0580
		13.52	103.5	190.9	2.4	MRO-MRV 33	5520	35.2	16.2	75.00	2.5250
		13.87	100.9	195.3	2.6	MRO-MRV 43	7190	60.0	41.0	75.00	5.5410
		13.63	102.7	192.5	> 3.5	MRO-MRV 53	10340	95.6	76.6	75.00	29.4533
		13.51	103.6	190.9	> 3.5	MRO-MRV 63	14110	146.5	127.5	75.00	30.9420

Getriebe RO-RV

1400 rpm **Getriebemotorauswahl**

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	J_m × 10^{-4}	J_1 × 10^{-4}
2.2	16.0	16.68	83.9	231.4	1.3	MRO-MRV 23	3620	30.3	11.3	75.00	0.8580
		16.30	85.9	228.5	2.4	MRO-MRV 33	5730	35.2	16.2	75.00	2.8190
		16.21	86.4	229.4	3.2	MRO-MRV 43	7420	60.0	41.0	75.00	6.0497
		16.24	86.2	229.4	> 3.5	MRO-MRV 53	10150	95.6	76.6	75.00	30.7169
		16.10	87	226.8	> 3.5	MRO-MRV 63	14450	146.5	127.5	75.00	35.7680
	18.0	17.80	78.6	250.0	1.0	MRO-MRV 23	4480	30.3	11.3	75.00	0.6830
		17.33	80.8	243.9	2.1	MRO-MRV 33	5680	35.2	16.2	75.00	2.2830
		17.55	79.8	248.5	2.5	MRO-MRV 43	7740	60.0	41.0	75.00	5.0261
		18.02	77.7	254.6	> 3.5	MRO-MRV 53	11300	95.6	76.6	75.00	27.8473
		17.87	78.4	252.4	> 3.5	MRO-MRV 63	15380	146.5	127.5	75.00	26.9670
	20.0	20.55	68.1	284.2	1.1	MRO-MRV 23	3720	30.3	11.3	75.00	0.7790
		19.10	73.3	268.1	1.5	MRO-MRV 33	5730	35.2	16.2	75.00	2.3640
		20.22	69.2	286.0	2.7	MRO-MRV 43	7980	60.0	41.0	75.00	5.5318
		20.53	68.2	288.5	> 3.5	MRO-MRV 53	8650	95.6	76.6	75.00	29.1621
		20.36	68.8	286.9	> 3.5	MRO-MRV 63	14100	146.5	127.5	75.00	31.0610
	22.4	21.67	64.6	302.5	1.8	MRO-MRV 33	5740	35.2	16.2	75.00	2.5320
		21.94	63.8	309.8	2.2	MRO-MRV 43	8310	60.0	41.0	75.00	4.6963
		22.85	61.3	322.1	> 3.5	MRO-MRV 53	11180	95.6	76.6	75.00	26.9452
		22.66	61.8	318.6	> 3.5	MRO-MRV 63	16460	146.5	127.5	75.00	24.2220
	25.0	26.73	52.4	373.3	1.5	MRO-MRV 33	5730	35.2	16.2	75.00	2.0370
		26.10	53.6	369.6	2.3	MRO-MRV 43	8690	60.0	41.0	75.00	5.1123
		26.97	51.9	378.8	> 3.5	MRO-MRV 53	8140	95.6	76.6	75.00	27.9078
		25.48	55	358.9	> 3.5	MRO-MRV 63	16820	146.5	127.5	75.00	25.3770
	28.0	28.74	48.7	400.0	1.0	MRO-MRV 33	5740	35.2	16.2	75.00	1.9940
		27.92	50.1	394.0	2.0	MRO-MRV 43	8990	60.0	41.0	75.00	4.4508
		27.68	50.6	390.0	> 3.5	MRO-MRV 53	9800	95.6	76.6	75.00	26.4183
		27.45	51	387.8	> 3.5	MRO-MRV 63	15700	146.5	127.5	75.00	22.6360
	31.5	33.27	42.1	465.4	1.2	MRO-MRV 33	5740	35.2	16.2	75.00	2.2750
		32.52	43.1	455.3	2.0	MRO-MRV 43	9390	60.0	41.0	75.00	4.8644
		31.69	44.2	445.3	> 3.5	MRO-MRV 53	8230	95.6	76.6	75.00	27.3913
		31.85	44	449.4	> 3.5	MRO-MRV 63	11540	146.5	127.5	75.00	25.5240
	35.5	34.26	40.9	492.8	1.1	MRO-MRV 33	5740	35.2	16.2	75.00	1.9540
		34.06	41.1	473.8	1.8	MRO-MRV 43	9580	60.0	41.0	75.00	4.3066
		34.12	41	482.9	3.5	MRO-MRV 53	8340	95.6	76.6	75.00	25.9891
		33.83	41.4	477.3	> 3.5	MRO-MRV 63	13920	146.5	127.5	75.00	21.3370
	40.0	40.23	34.8	570.0	1.0	MRO-MRV 33	5740	35.2	16.2	75.00	1.8490
		41.65	33.6	584.4	2.9	MRO-MRV 53	8510	95.6	76.6	75.00	25.4059
		42.78	32.7	600.9	> 3.5	MRO-MRV 63	11390	146.5	127.5	75.00	20.2710
	45.0	42.50	32.9	596.1	1.4	MRO-MRV 43	10020	60.0	41.0	75.00	4.1893
		43.14	32.5	603.2	2.8	MRO-MRV 53	8540	95.6	76.6	75.00	25.6370
		42.95	32.6	607.4	> 3.5	MRO-MRV 63	16450	146.5	127.5	75.00	23.3660
	50.0	51.25	27.3	718.7	1.4	MRO-MRV 43	9720	60.0	41.0	75.00	4.0217
		51.34	27.3	727.7	2.4	MRO-MRV 53	8720	95.6	76.6	75.00	25.2163
		50.91	27.5	717.7	> 3.5	MRO-MRV 63	9810	146.5	127.5	75.00	18.9780
	56.0	54.84	25.5	770.0	1.3	MRO-MRV 43	9800	60.0	41.0	75.00	4.0943
		56.67	24.7	792.9	2.2	MRO-MRV 53	8820	95.6	76.6	75.00	25.3529
		56.19	24.9	794.8	> 3.5	MRO-MRV 63	9970	146.5	127.5	75.00	19.4030
	63.0	63.95	21.9	907.5	1.1	MRO-MRV 43	10090	60.0	41.0	75.00	3.9699
		64.91	21.6	911.4	1.9	MRO-MRV 53	8950	95.6	76.6	75.00	25.0608
		64.36	21.8	912.6	> 3.5	MRO-MRV 63	10200	146.5	127.5	75.00	18.5080

VARVEL KNOW-HOW TO DO IT

RO-RV Getriebe

Getriebemotorauswahl 1400 rpm

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	J_m $\times 10^{-4}$	J_1 $\times 10^{-4}$
2.2	71.0	72.56	19.3	1014.4	1.6	MRO-MRV 53	10800	95.6	76.6	75.00	25.1812
		73.41	19.1	1036.2	3.1	MRO-MRV 63	11430	146.5	127.5	75.00	18.8420
	80.0	79.37	17.6	1126.4	1.1	MRO-MRV 53	16160	95.6	76.6	75.00	25.0122
		84.55	16.6	1192.3	2.8	MRO-MRV 63	11400	146.5	127.5	75.00	18.1240
	90.0	91.04	15.4	1298.0	1.4	MRO-MRV 53	8400	95.6	76.6	75.00	24.8176
		90.27	15.5	1274.5	2.6	MRO-MRV 63	11400	146.5	127.5	75.00	17.8220
	100.0	100.20	14	1398.6	1.3	MRO-MRV 53	8000	95.6	76.6	75.00	24.8837
		100.70	13.9	1421.5	2.4	MRO-MRV 63	9800	146.5	127.5	75.00	17.9540
	112.0	109.18	12.8	1558.3	1.1	MRO-MRV 53	11200	95.6	76.6	75.00	24.8595
		118.58	11.8	1680.0	2.0	MRO-MRV 63	9800	146.5	127.5	75.00	17.6270
	125.0	119.59	11.7	1712.2	1.0	MRO-MRV 53	7200	95.6	76.6	75.00	24.7730
		128.72	10.9	1826.0	1.4	MRO-MRV 63	22060	146.5	127.5	75.00	17.7600
	140.0	141.23	9.9	1997.8	1.7	MRO-MRV 63	9800	146.5	127.5	75.00	17.5400
	160.0	154.91	9.04	2174.1	1.5	MRO-MRV 63	9800	146.5	127.5	75.00	17.5010
	180.0	190.49	7.35	2730.0	1.0	MRO-MRV 63	19400	146.5	127.5	75.00	17.4310
3	6.3	6.62	211.4	127.7	1.6	MRO-MRV 23	3350	32.3	11.3	85.00	1.7940
		6.43	217.6	123.5	3.4	MRO-MRV 33	4550	37.2	16.2	85.00	5.3400
		6.60	212.1	127.0	> 3.5	MRO-MRV 43	5570	62.0	41.0	85.00	11.5009
		6.48	215.9	124.6	> 3.5	MRO-MRV 53	8020	97.6	76.6	85.00	46.0154
		6.43	217.7	123.6	> 3.5	MRO-MRV 63	10740	148.5	127.5	85.00	78.1860
	8.0	8.47	165.3	161.0	1.4	MRO-MRV 23	3620	32.3	11.3	85.00	1.3930
		8.25	169.7	158.8	2.8	MRO-MRV 33	5540	37.2	16.2	85.00	4.2720
		8.35	167.6	160.6	3.3	MRO-MRV 43	6000	62.0	41.0	85.00	9.2271
		8.57	163.3	165.0	> 3.5	MRO-MRV 53	8770	97.6	76.6	85.00	38.9230
		8.50	164.7	163.6	> 3.5	MRO-MRV 63	11850	148.5	127.5	85.00	60.6320
	9.0	8.97	156	173.1	1.3	MRO-MRV 23	3710	32.3	11.3	85.00	1.5320
		9.09	154	175.4	2.2	MRO-MRV 33	5710	37.2	16.2	85.00	4.6310
		8.72	160.6	168.1	> 3.5	MRO-MRV 43	5980	62.0	41.0	85.00	10.1119
	10.0	10.43	134.3	198.6	1.2	MRO-MRV 23	3870	32.3	11.3	85.00	1.1640
		10.17	137.7	194.8	2.6	MRO-MRV 33	5630	37.2	16.2	85.00	3.6570
		10.43	134.2	201.1	3.0	MRO-MRV 43	6430	62.0	41.0	85.00	7.7706
		10.87	128.8	209.7	> 3.5	MRO-MRV 53	9470	97.6	76.6	85.00	34.9392
		10.78	129.9	207.4	> 3.5	MRO-MRV 63	12750	148.5	127.5	85.00	48.5070
	11.2	11.48	122	222.6	1.0	MRO-MRV 23	4040	32.3	11.3	85.00	1.2320
		11.65	120.2	223.5	1.7	MRO-MRV 33	5730	37.2	16.2	85.00	3.8410
		11.04	126.8	212.0	3.1	MRO-MRV 43	6520	62.0	41.0	85.00	8.3593
	12.5	13.03	107.4	250.0	1.1	MRO-MRV 23	3920	32.3	11.3	85.00	0.9900
		12.72	110	245.5	2.2	MRO-MRV 33	5710	37.2	16.2	85.00	3.1860
		13.29	105.4	254.4	2.6	MRO-MRV 43	6950	62.0	41.0	85.00	6.6865
		13.17	106.3	253.0	> 3.5	MRO-MRV 53	10050	97.6	76.6	85.00	32.6124
		13.06	107.2	251.0	> 3.5	MRO-MRV 63	13550	148.5	127.5	85.00	41.5040
	14.0	14.13	99.1	276.0	0.8	MRO-MRV 23	4340	32.3	11.3	85.00	1.0580
		13.52	103.5	260.4	1.8	MRO-MRV 33	5520	37.2	16.2	85.00	2.5250
		13.87	100.9	266.4	1.9	MRO-MRV 43	7190	62.0	41.0	85.00	5.5410
		13.63	102.7	262.5	> 3.5	MRO-MRV 53	10340	97.6	76.6	85.00	29.4533
		13.51	103.6	260.3	> 3.5	MRO-MRV 63	14110	148.5	127.5	85.00	30.9420
	16.0	16.68	83.9	315.5	1.0	MRO-MRV 23	3620	32.3	11.3	85.00	0.8580
		16.30	85.9	311.5	1.7	MRO-MRV 33	5730	37.2	16.2	85.00	2.8190
		16.21	86.4	312.9	2.3	MRO-MRV 43	7420	62.0	41.0	85.00	6.0497
		16.24	86.2	312.8	> 3.5	MRO-MRV 53	10150	97.6	76.6	85.00	30.7169

Getriebe RO-RV

1400 rpm **Getriebemotorauswahl**

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	$J_m \times 10^{-4}$	$J_1 \times 10^{-4}$
3	16.0	16.10	87	309.3	> 3.5	MRO-MRV 63	14450	148.5	127.5	85.00	35.7680
		17.80	78.6	340.9	0.7	MRO-MRV 23	4480	32.3	11.3	85.00	0.6830
	18.0	17.33	80.8	332.6	1.5	MRO-MRV 33	5680	37.2	16.2	85.00	2.2830
		17.55	79.8	338.9	1.8	MRO-MRV 43	7740	62.0	41.0	85.00	5.0261
		18.02	77.7	347.2	> 3.5	MRO-MRV 53	11300	97.6	76.6	85.00	27.8473
		17.87	78.4	344.1	> 3.5	MRO-MRV 63	15380	148.5	127.5	85.00	26.9670
	20.0	20.55	68.1	387.5	0.8	MRO-MRV 23	3720	32.3	11.3	85.00	0.7790
		19.10	73.3	365.6	1.1	MRO-MRV 33	5730	37.2	16.2	85.00	2.3640
		20.22	69.2	390.0	2.0	MRO-MRV 43	7980	62.0	41.0	85.00	5.5318
		20.53	68.2	393.4	> 3.5	MRO-MRV 53	8650	97.6	76.6	85.00	29.1621
		20.36	68.8	391.2	> 3.5	MRO-MRV 63	14100	148.5	127.5	85.00	31.0610
	22.4	21.67	64.6	412.5	1.3	MRO-MRV 33	5740	37.2	16.2	85.00	2.5320
		21.94	63.8	422.4	1.6	MRO-MRV 43	8310	62.0	41.0	85.00	4.6963
		22.85	61.3	439.2	3.2	MRO-MRV 53	11180	97.6	76.6	85.00	26.9452
		22.66	61.8	434.4	> 3.5	MRO-MRV 63	16460	148.5	127.5	85.00	24.2220
	25.0	26.73	52.4	509.1	1.1	MRO-MRV 33	5730	37.2	16.2	85.00	2.0370
		26.10	53.6	504.0	1.7	MRO-MRV 43	8690	62.0	41.0	85.00	5.1123
		26.97	51.9	516.5	3.2	MRO-MRV 53	8140	97.6	76.6	85.00	27.9078
		25.48	55	489.4	> 3.5	MRO-MRV 63	16820	148.5	127.5	85.00	25.3770
	28.0	28.74	48.7	545.5	0.7	MRO-MRV 33	5740	37.2	16.2	85.00	1.9940
		27.92	50.1	537.2	1.4	MRO-MRV 43	8990	62.0	41.0	85.00	4.4508
		27.68	50.6	531.8	2.9	MRO-MRV 53	9800	97.6	76.6	85.00	26.4183
		27.45	51	528.8	> 3.5	MRO-MRV 63	15700	148.5	127.5	85.00	22.6360
	31.5	33.27	42.1	634.6	0.9	MRO-MRV 33	5740	37.2	16.2	85.00	2.2750
		32.52	43.1	620.9	1.4	MRO-MRV 43	9390	62.0	41.0	85.00	4.8644
		31.69	44.2	607.2	2.8	MRO-MRV 53	8230	97.6	76.6	85.00	27.3913
		31.85	44	612.9	> 3.5	MRO-MRV 63	11540	148.5	127.5	85.00	25.5240
	35.5	34.26	40.9	672.0	0.8	MRO-MRV 33	5740	37.2	16.2	85.00	1.9540
		34.06	41.1	646.2	1.3	MRO-MRV 43	9580	62.0	41.0	85.00	4.3066
		34.12	41	658.4	2.6	MRO-MRV 53	8340	97.6	76.6	85.00	25.9891
		33.83	41.4	650.8	> 3.5	MRO-MRV 63	13920	148.5	127.5	85.00	21.3370
	40.0	40.23	34.8	777.3	0.7	MRO-MRV 33	5740	37.2	16.2	85.00	1.8490
		41.65	33.6	796.9	2.1	MRO-MRV 53	8510	97.6	76.6	85.00	25.4059
		42.78	32.7	819.4	> 3.5	MRO-MRV 63	11390	148.5	127.5	85.00	20.2710
	45.0	42.50	32.9	812.9	1.0	MRO-MRV 43	10020	62.0	41.0	85.00	4.1893
		43.14	32.5	822.6	2.1	MRO-MRV 53	8540	97.6	76.6	85.00	25.6370
		42.95	32.6	828.3	3.1	MRO-MRV 63	16450	148.5	127.5	85.00	23.3660
	50.0	51.25	27.3	980.0	1.0	MRO-MRV 43	9720	62.0	41.0	85.00	4.0217
		51.34	27.3	992.3	1.7	MRO-MRV 53	8720	97.6	76.6	85.00	25.2163
		50.91	27.5	978.6	3.4	MRO-MRV 63	9810	148.5	127.5	85.00	18.9780
	56.0	54.84	25.5	1050.0	0.9	MRO-MRV 43	9800	62.0	41.0	85.00	4.0943
		56.67	24.7	1081.3	1.6	MRO-MRV 53	8820	97.6	76.6	85.00	25.3529
		56.19	24.9	1083.9	3.1	MRO-MRV 63	9970	148.5	127.5	85.00	19.4030
	63.0	63.95	21.9	1237.5	0.8	MRO-MRV 43	10090	62.0	41.0	85.00	3.9699
		64.91	21.6	1242.9	1.4	MRO-MRV 53	8950	97.6	76.6	85.00	25.0608
		64.36	21.8	1244.4	2.7	MRO-MRV 63	10200	148.5	127.5	85.00	18.5080
	71.0	72.56	19.3	1383.3	1.2	MRO-MRV 53	10800	97.6	76.6	85.00	25.1812
		73.41	19.1	1413.0	2.3	MRO-MRV 63	11430	148.5	127.5	85.00	18.8420
	80.0	79.37	17.6	1536.0	0.8	MRO-MRV 53	16160	97.6	76.6	85.00	25.0122
		84.55	16.6	1625.8	2.1	MRO-MRV 63	11400	148.5	127.5	85.00	18.1240

RO-RV Getriebe

Getriebemotorauswahl 1400 rpm

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	$J_m \times 10^{-4}$	$J_1 \times 10^{-4}$
3	90.0	91.04	15.4	1770.0	1.0	MRO-MRV 53	8400	97.6	76.6	85.00	24.8176
		90.27	15.5	1737.9	1.9	MRO-MRV 63	11400	148.5	127.5	85.00	17.8220
	100.0	100.20	14	1907.1	0.9	MRO-MRV 53	8000	97.6	76.6	85.00	24.8837
		100.70	13.9	1938.5	1.7	MRO-MRV 63	9800	148.5	127.5	85.00	17.9540
	112.0	109.18	12.8	2125.0	0.8	MRO-MRV 53	11200	97.6	76.6	85.00	24.8595
		118.58	11.8	2290.9	1.5	MRO-MRV 63	9800	148.5	127.5	85.00	17.6270
	125.0	119.59	11.7	2334.8	0.8	MRO-MRV 53	7200	97.6	76.6	85.00	24.7730
		128.72	10.9	2490.0	1.0	MRO-MRV 63	22060	148.5	127.5	85.00	17.7600
	140.0	141.23	9.9	2724.3	1.2	MRO-MRV 63	9800	148.5	127.5	85.00	17.5400
	160.0	154.91	9.04	2964.7	1.1	MRO-MRV 63	9800	148.5	127.5	85.00	17.5010
	180.0	190.49	7.35	3722.7	0.7	MRO-MRV 63	19400	148.5	127.5	85.00	17.4310
4	6.3	6.62	211.4	170.2	1.2	MRO-MRV 23	3350	40.3	11.3	130.00	1.7940
		6.43	217.6	164.7	2.6	MRO-MRV 33	4550	45.2	16.2	130.00	5.3400
		6.60	212.1	169.4	2.8	MRO-MRV 43	5570	70.0	41.0	130.00	11.5009
		6.48	215.9	166.1	> 3.5	MRO-MRV 53	8020	105.6	76.6	130.00	46.0154
		6.43	217.7	164.8	> 3.5	MRO-MRV 63	10740	156.5	127.5	130.00	78.1860
	8.0	8.47	165.3	214.6	1.0	MRO-MRV 23	3620	40.3	11.3	130.00	1.3930
		8.25	169.7	211.8	2.1	MRO-MRV 33	5540	45.2	16.2	130.00	4.2720
		8.35	167.6	214.1	2.5	MRO-MRV 43	6000	70.0	41.0	130.00	9.2271
		8.57	163.3	220.0	> 3.5	MRO-MRV 53	8770	105.6	76.6	130.00	38.9230
		8.50	164.7	218.2	> 3.5	MRO-MRV 63	11850	156.5	127.5	130.00	60.6320
	9.0	9.09	154	233.8	1.6	MRO-MRV 33	5710	45.2	16.2	130.00	4.6310
		8.72	160.6	224.1	2.9	MRO-MRV 43	5980	70.0	41.0	130.00	10.1119
	10.0	10.17	137.7	259.7	1.9	MRO-MRV 33	5630	45.2	16.2	130.00	3.6570
		10.43	134.2	268.1	2.3	MRO-MRV 43	6430	70.0	41.0	130.00	7.7706
		10.87	128.8	279.5	> 3.5	MRO-MRV 53	9470	105.6	76.6	130.00	34.9392
		10.78	129.9	276.5	> 3.5	MRO-MRV 63	12750	156.5	127.5	130.00	48.5070
	11.2	11.65	120.2	298.0	1.3	MRO-MRV 33	5730	45.2	16.2	130.00	3.8410
		11.04	126.8	282.6	2.3	MRO-MRV 43	6520	70.0	41.0	130.00	8.3593
	12.5	12.72	110	327.3	1.7	MRO-MRV 33	5710	45.2	16.2	130.00	3.1860
		13.29	105.4	339.2	2.0	MRO-MRV 43	6950	70.0	41.0	130.00	6.6865
		13.17	106.3	337.3	> 3.5	MRO-MRV 53	10050	105.6	76.6	130.00	32.6124
		13.06	107.2	334.6	> 3.5	MRO-MRV 63	13550	156.5	127.5	130.00	41.5040
	14.0	13.52	103.5	347.2	1.3	MRO-MRV 33	5520	45.2	16.2	130.00	2.5250
		13.87	100.9	355.2	1.5	MRO-MRV 43	7190	70.0	41.0	130.00	5.5410
		13.63	102.7	350.0	3.0	MRO-MRV 53	10340	105.6	76.6	130.00	29.4533
		13.51	103.6	347.1	> 3.5	MRO-MRV 63	14110	156.5	127.5	130.00	30.9420
	16.0	16.30	85.9	415.4	1.3	MRO-MRV 33	5730	45.2	16.2	130.00	2.8190
		16.21	86.4	417.1	1.8	MRO-MRV 43	7420	70.0	41.0	130.00	6.0497
		16.24	86.2	417.0	> 3.5	MRO-MRV 53	10150	105.6	76.6	130.00	30.7169
		16.10	87	412.4	> 3.5	MRO-MRV 63	14450	156.5	127.5	130.00	35.7680
	18.0	17.33	80.8	443.5	1.2	MRO-MRV 33	5680	45.2	16.2	130.00	2.2830
		17.55	79.8	451.9	1.4	MRO-MRV 43	7740	70.0	41.0	130.00	5.0261
		18.02	77.7	463.0	2.7	MRO-MRV 53	11300	105.6	76.6	130.00	27.8473
		17.87	78.4	458.8	> 3.5	MRO-MRV 63	15380	156.5	127.5	130.00	26.9670
	20.0	20.22	69.2	520.0	1.5	MRO-MRV 43	7980	70.0	41.0	130.00	5.5318
		20.53	68.2	524.6	3.1	MRO-MRV 53	8650	105.6	76.6	130.00	29.1621
		20.36	68.8	521.6	> 3.5	MRO-MRV 63	14100	156.5	127.5	130.00	31.0610
	22.4	21.94	63.8	563.3	1.2	MRO-MRV 43	8310	70.0	41.0	130.00	4.6963
		22.85	61.3	585.6	2.4	MRO-MRV 53	11180	105.6	76.6	130.00	26.9452

Getriebe RO-RV

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	J_m × 10^{-4}	J_1 × 10^{-4}
4	22.4	22.66	61.8	579.2	> 3.5	MRO-MRV 63	16460	156.5	127.5	130.00	24.2220
	25.0	26.10	53.6	672.0	1.3	MRO-MRV 43	8690	70.0	41.0	130.00	5.1123
		26.97	51.9	688.7	2.4	MRO-MRV 53	8140	105.6	76.6	130.00	27.9078
		25.48	55	652.5	> 3.5	MRO-MRV 63	16820	156.5	127.5	130.00	25.3770
	28.0	27.92	50.1	716.3	1.1	MRO-MRV 43	8990	70.0	41.0	130.00	4.4508
		27.68	50.6	709.1	2.2	MRO-MRV 53	9800	105.6	76.6	130.00	26.4183
		27.45	51	705.0	3.5	MRO-MRV 63	15700	156.5	127.5	130.00	22.6360
	31.5	32.52	43.1	827.9	1.1	MRO-MRV 43	9390	70.0	41.0	130.00	4.8644
		31.69	44.2	809.6	2.1	MRO-MRV 53	8230	105.6	76.6	130.00	27.3913
		31.85	44	817.1	3.5	MRO-MRV 63	11540	156.5	127.5	130.00	25.5240
	35.5	34.12	41	877.9	1.9	MRO-MRV 53	8340	105.6	76.6	130.00	25.9891
		33.83	41.4	867.7	3.1	MRO-MRV 63	13920	156.5	127.5	130.00	21.3370
	40.0	41.65	33.6	1062.5	1.6	MRO-MRV 53	8510	105.6	76.6	130.00	25.4059
		42.78	32.7	1092.6	2.7	MRO-MRV 63	11390	156.5	127.5	130.00	20.2710
	45.0	43.14	32.5	1096.8	1.6	MRO-MRV 53	8540	105.6	76.6	130.00	25.6370
		42.95	32.6	1104.3	2.3	MRO-MRV 63	16450	156.5	127.5	130.00	23.3660
	50.0	51.34	27.3	1323.1	1.3	MRO-MRV 53	8720	105.6	76.6	130.00	25.2163
		50.91	27.5	1304.9	2.6	MRO-MRV 63	9810	156.5	127.5	130.00	18.9780
	56.0	56.67	24.7	1441.7	1.2	MRO-MRV 53	8820	105.6	76.6	130.00	25.3529
		56.19	24.9	1445.2	2.3	MRO-MRV 63	9970	156.5	127.5	130.00	19.4030
	63.0	64.91	21.6	1657.1	1.1	MRO-MRV 53	8950	105.6	76.6	130.00	25.0608
		64.36	21.8	1659.3	2.0	MRO-MRV 63	10200	156.5	127.5	130.00	18.5080
	71.0	72.56	19.3	1844.4	0.9	MRO-MRV 53	10800	105.6	76.6	130.00	25.1812
		73.41	19.1	1884.1	1.7	MRO-MRV 63	11430	156.5	127.5	130.00	18.8420
	80.0	84.55	16.6	2167.7	1.6	MRO-MRV 63	11400	156.5	127.5	130.00	18.1240
	90.0	91.04	15.4	2360.0	0.8	MRO-MRV 53	8400	105.6	76.6	130.00	24.8176
		90.27	15.5	2317.2	1.5	MRO-MRV 63	11400	156.5	127.5	130.00	17.8220
	100.0	100.20	14	2542.9	0.7	MRO-MRV 53	8000	105.6	76.6	130.00	24.8837
		100.70	13.9	2584.6	1.3	MRO-MRV 63	9800	156.5	127.5	130.00	17.9540
	112.0	118.58	11.8	3054.5	1.1	MRO-MRV 63	9800	156.5	127.5	130.00	17.6270
	125.0	128.72	10.9	3320.0	0.8	MRO-MRV 63	22060	156.5	127.5	130.00	17.7600
	140.0	141.23	9.9	3632.4	0.9	MRO-MRV 63	9800	156.5	127.5	130.00	17.5400
	160.0	154.91	9.04	3952.9	0.9	MRO-MRV 63	9800	156.5	127.5	130.00	17.5010
5.5	6.3	6.48	215.9	228.3	> 3.5	MRO-MRV 53	8020	119.6	76.6	240.00	46.0154
		6.43	217.7	226.6	> 3.5	MRO-MRV 63	10740	170.5	127.5	240.00	78.1860
	8.0	8.57	163.3	302.5	> 3.5	MRO-MRV 53	8770	119.6	76.6	240.00	38.9230
		8.50	164.7	300.0	> 3.5	MRO-MRV 63	11850	170.5	127.5	240.00	60.6320
	10.0	10.87	128.8	384.4	3.2	MRO-MRV 53	9470	119.6	76.6	240.00	34.9392
		10.78	129.9	380.2	> 3.5	MRO-MRV 63	12750	170.5	127.5	240.00	48.5070
	12.5	13.17	106.3	463.9	3.0	MRO-MRV 53	10050	119.6	76.6	240.00	32.6124
		13.06	107.2	460.1	> 3.5	MRO-MRV 63	13550	170.5	127.5	240.00	41.5040
	14.0	13.63	102.7	481.3	2.2	MRO-MRV 53	10340	119.6	76.6	240.00	29.4533
		13.51	103.6	477.2	3.4	MRO-MRV 63	14110	170.5	127.5	240.00	30.9420
	16.0	16.24	86.2	573.4	2.6	MRO-MRV 53	10150	119.6	76.6	240.00	30.7169
		16.10	87	567.0	> 3.5	MRO-MRV 63	14450	170.5	127.5	240.00	35.7680
	18.0	18.02	77.7	636.6	2.0	MRO-MRV 53	11300	119.6	76.6	240.00	27.8473
		17.87	78.4	630.9	3.1	MRO-MRV 63	15380	170.5	127.5	240.00	26.9670
	20.0	20.53	68.2	721.3	2.2	MRO-MRV 53	8650	119.6	76.6	240.00	29.1621
		20.36	68.8	717.3	> 3.5	MRO-MRV 63	14100	170.5	127.5	240.00	31.0610
	22.4	22.85	61.3	805.2	1.8	MRO-MRV 53	11180	119.6	76.6	240.00	26.9452

VARVEL KNOW-HOW TO DO IT

RO-RV Getriebe

Getriebemotorauswahl 1400 rpm

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	J_m × 10^{-4}	J_1 × 10^{-4}
5.5	22.4	22.66	61.8	796.4	2.8	MRO-MRV 63	16460	170.5	127.5	240.00	24.2220
	25.0	26.97	51.9	946.9	1.8	MRO-MRV 53	8140	119.6	76.6	240.00	27.9078
		25.48	55	897.2	2.6	MRO-MRV 63	16820	170.5	127.5	240.00	25.3770
	28.0	27.68	50.6	975.0	1.6	MRO-MRV 53	9800	119.6	76.6	240.00	26.4183
		27.45	51	969.4	2.5	MRO-MRV 63	15700	170.5	127.5	240.00	22.6360
	31.5	31.69	44.2	1113.3	1.5	MRO-MRV 53	8230	119.6	76.6	240.00	27.3913
		31.85	44	1123.6	2.5	MRO-MRV 63	11540	170.5	127.5	240.00	25.5240
	35.5	34.12	41	1207.1	1.4	MRO-MRV 53	8340	119.6	76.6	240.00	25.9891
		33.83	41.4	1193.1	2.3	MRO-MRV 63	13920	170.5	127.5	240.00	21.3370
	40.0	41.65	33.6	1460.9	1.2	MRO-MRV 53	8510	119.6	76.6	240.00	25.4059
		42.78	32.7	1502.3	2.0	MRO-MRV 63	11390	170.5	127.5	240.00	20.2710
	45.0	43.14	32.5	1508.1	1.1	MRO-MRV 53	8540	119.6	76.6	240.00	25.6370
		42.95	32.6	1518.5	1.7	MRO-MRV 63	16450	170.5	127.5	240.00	23.3660
	50.0	50.91	27.5	1794.2	1.9	MRO-MRV 63	9810	170.5	127.5	240.00	18.9780
	56.0	56.19	24.9	1987.1	1.7	MRO-MRV 63	9970	170.5	127.5	240.00	19.4030
	63.0	64.36	21.8	2281.5	1.5	MRO-MRV 63	10200	170.5	127.5	240.00	18.5080
	71.0	73.41	19.1	2590.6	1.3	MRO-MRV 63	11430	170.5	127.5	240.00	18.8420
	80.0	84.55	16.6	2980.6	1.1	MRO-MRV 63	11400	170.5	127.5	240.00	18.1240
	90.0	90.27	15.5	3186.2	1.1	MRO-MRV 63	11400	170.5	127.5	240.00	17.8220
7.5	6.3	6.48	215.9	311.4	3.0	MRO-MRV 53	8020	128.6	76.6	330.00	46.0154
		6.43	217.7	308.9	> 3.5	MRO-MRV 63	10740	179.5	127.5	330.00	78.1860
	8.0	8.57	163.3	412.5	2.7	MRO-MRV 53	8770	128.6	76.6	330.00	38.9230
		8.50	164.7	409.1	> 3.5	MRO-MRV 63	11850	179.5	127.5	330.00	60.6320
	10.0	10.87	128.8	524.1	2.3	MRO-MRV 53	9470	128.6	76.6	330.00	34.9392
		10.78	129.9	518.4	> 3.5	MRO-MRV 63	12750	179.5	127.5	330.00	48.5070
	12.5	13.17	106.3	632.5	2.2	MRO-MRV 53	10050	128.6	76.6	330.00	32.6124
		13.06	107.2	627.4	3.4	MRO-MRV 63	13550	179.5	127.5	330.00	41.5040
	14.0	13.63	102.7	656.3	1.6	MRO-MRV 53	10340	128.6	76.6	330.00	29.4533
		13.51	103.6	650.8	2.5	MRO-MRV 63	14110	179.5	127.5	330.00	30.9420
	16.0	16.24	86.2	781.9	1.9	MRO-MRV 53	10150	128.6	76.6	330.00	30.7169
		16.10	87	773.2	3.0	MRO-MRV 63	14450	179.5	127.5	330.00	35.7680
	18.0	18.02	77.7	868.1	1.4	MRO-MRV 53	11300	128.6	76.6	330.00	27.8473
		17.87	78.4	860.3	2.3	MRO-MRV 63	15380	179.5	127.5	330.00	26.9670
	20.0	20.53	68.2	983.6	1.6	MRO-MRV 53	8650	128.6	76.6	330.00	29.1621
		20.36	68.8	978.1	2.6	MRO-MRV 63	14100	179.5	127.5	330.00	31.0610
	22.4	22.85	61.3	1097.9	1.3	MRO-MRV 53	11180	128.6	76.6	330.00	26.9452
		22.66	61.8	1086.0	2.1	MRO-MRV 63	16460	179.5	127.5	330.00	24.2220
	25.0	26.97	51.9	1291.2	1.3	MRO-MRV 53	8140	128.6	76.6	330.00	27.9078
		25.48	55	1223.4	1.9	MRO-MRV 63	16820	179.5	127.5	330.00	25.3770
	28.0	27.68	50.6	1329.5	1.2	MRO-MRV 53	9800	128.6	76.6	330.00	26.4183
		27.45	51	1321.9	1.9	MRO-MRV 63	15700	179.5	127.5	330.00	22.6360
	31.5	31.69	44.2	1518.1	1.1	MRO-MRV 53	8230	128.6	76.6	330.00	27.3913
		31.85	44	1532.1	1.9	MRO-MRV 63	11540	179.5	127.5	330.00	25.5240
	35.5	34.12	41	1646.1	1.0	MRO-MRV 53	8340	128.6	76.6	330.00	25.9891
		33.83	41.4	1627.0	1.7	MRO-MRV 63	13920	179.5	127.5	330.00	21.3370
	40.0	41.65	33.6	1992.2	0.9	MRO-MRV 53	8510	128.6	76.6	330.00	25.4059
		42.78	32.7	2048.6	1.4	MRO-MRV 63	11390	179.5	127.5	330.00	20.2710
	45.0	43.14	32.5	2056.5	0.8	MRO-MRV 53	8540	128.6	76.6	330.00	25.6370
		42.95	32.6	2070.7	1.2	MRO-MRV 63	16450	179.5	127.5	330.00	23.3660
	50.0	50.91	27.5	2446.6	1.4	MRO-MRV 63	9810	179.5	127.5	330.00	18.9780

Getriebe RO-RV

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	J_m × 10^{-4}	J_1 × 10^{-4}
7.5	56.0	56.19	24.9	2709.7	1.2	MRO-MRV 63	9970	179.5	127.5	330.00	19.4030
	63.0	64.36	21.8	3111.1	1.1	MRO-MRV 63	10200	179.5	127.5	330.00	18.5080
	71.0	73.41	19.1	3532.6	0.9	MRO-MRV 63	11430	179.5	127.5	330.00	18.8420
	80.0	84.55	16.6	4064.5	0.8	MRO-MRV 63	11400	179.5	127.5	330.00	18.1240
	90.0	90.27	15.5	4344.8	0.8	MRO-MRV 63	11400	179.5	127.5	330.00	17.8220
11	6.3	6.48	215.9	456.7	2.0	MRO-MRV 53	8020	166.6	76.6	620.00	46.0154
		6.43	217.7	453.1	> 3.5	MRO-MRV 63	10740	217.5	127.5	620.00	78.1860
	8.0	8.57	163.3	605.0	1.8	MRO-MRV 53	8770	166.6	76.6	620.00	38.9230
		8.50	164.7	600.0	2.9	MRO-MRV 63	11850	217.5	127.5	620.00	60.6320
	10.0	10.87	128.8	768.8	1.6	MRO-MRV 53	9470	166.6	76.6	620.00	34.9392
		10.78	129.9	760.4	2.6	MRO-MRV 63	12750	217.5	127.5	620.00	48.5070
	12.5	13.17	106.3	927.7	1.5	MRO-MRV 53	10050	166.6	76.6	620.00	32.6124
		13.06	107.2	920.2	2.3	MRO-MRV 63	13550	217.5	127.5	620.00	41.5040
	14.0	13.63	102.7	962.5	1.1	MRO-MRV 53	10340	166.6	76.6	620.00	29.4533
		13.51	103.6	954.5	1.7	MRO-MRV 63	14110	217.5	127.5	620.00	30.9420
	16.0	16.24	86.2	1146.8	1.3	MRO-MRV 53	10150	166.6	76.6	620.00	30.7169
		16.10	87	1134.1	2.1	MRO-MRV 63	14450	217.5	127.5	620.00	35.7680
	18.0	18.02	77.7	1273.1	1.0	MRO-MRV 53	11300	166.6	76.6	620.00	27.8473
		17.87	78.4	1261.8	1.5	MRO-MRV 63	15380	217.5	127.5	620.00	26.9670
	20.0	20.53	68.2	1442.6	1.1	MRO-MRV 53	8650	166.6	76.6	620.00	29.1621
		20.36	68.8	1434.5	1.8	MRO-MRV 63	14100	217.5	127.5	620.00	31.0610
	22.4	22.66	61.8	1592.9	1.4	MRO-MRV 63	16460	217.5	127.5	620.00	24.2220
	25.0	25.48	55	1794.3	1.3	MRO-MRV 63	16820	217.5	127.5	620.00	25.3770
	28.0	27.45	51	1938.8	1.3	MRO-MRV 63	15700	217.5	127.5	620.00	22.6360
	31.5	31.85	44	2247.1	1.3	MRO-MRV 63	11540	217.5	127.5	620.00	25.5240
	35.5	33.83	41.4	2386.3	1.1	MRO-MRV 63	13920	217.5	127.5	620.00	21.3370
15	6.3	6.48	215.9	622.8	1.5	MRO-MRV 53	8020	176.6	76.6	740.00	46.0154
		6.43	217.7	617.9	2.7	MRO-MRV 63	10740	227.5	127.5	740.00	78.1860
	8.0	8.57	163.3	825.0	1.3	MRO-MRV 53	8770	176.6	76.6	740.00	38.9230
		8.50	164.7	818.2	2.1	MRO-MRV 63	11850	227.5	127.5	740.00	60.6320
	10.0	10.87	128.8	1048.3	1.2	MRO-MRV 53	9470	176.6	76.6	740.00	34.9392
		10.78	129.9	1036.8	1.9	MRO-MRV 63	12750	227.5	127.5	740.00	48.5070
	12.5	13.17	106.3	1265.1	1.1	MRO-MRV 53	10050	176.6	76.6	740.00	32.6124
		13.06	107.2	1254.9	1.7	MRO-MRV 63	13550	227.5	127.5	740.00	41.5040
	14.0	13.63	102.7	1312.5	0.8	MRO-MRV 53	10340	176.6	76.6	740.00	29.4533
		13.51	103.6	1301.6	1.3	MRO-MRV 63	14110	227.5	127.5	740.00	30.9420
	16.0	16.24	86.2	1563.8	0.9	MRO-MRV 53	10150	176.6	76.6	740.00	30.7169
		16.10	87	1546.5	1.5	MRO-MRV 63	14450	227.5	127.5	740.00	35.7680
	18.0	18.02	77.7	1736.1	0.7	MRO-MRV 53	11300	176.6	76.6	740.00	27.8473
		17.87	78.4	1720.6	1.1	MRO-MRV 63	15380	227.5	127.5	740.00	26.9670
	20.0	20.53	68.2	1967.2	0.8	MRO-MRV 53	8650	176.6	76.6	740.00	29.1621
		20.36	68.8	1956.2	1.3	MRO-MRV 63	14100	227.5	127.5	740.00	31.0610
	22.4	22.66	61.8	2172.1	1.0	MRO-MRV 63	16460	227.5	127.5	740.00	24.2220
	25.0	25.48	55	2446.8	0.9	MRO-MRV 63	16820	227.5	127.5	740.00	25.3770
	28.0	27.45	51	2643.9	0.9	MRO-MRV 63	15700	227.5	127.5	740.00	22.6360
	31.5	31.85	44	3064.3	0.9	MRO-MRV 63	11540	227.5	127.5	740.00	25.5240
	35.5	33.83	41.4	3254.0	0.8	MRO-MRV 63	13920	227.5	127.5	740.00	21.3370
18.5	6.3	6.48	215.9	768.1	1.2	MRO-MRV 53	8020	196.6	76.6	1300.00	46.0154
		6.43	217.7	762.0	2.2	MRO-MRV 63	10740	247.5	127.5	1300.00	78.1860
	8.0	8.57	163.3	1017.5	1.1	MRO-MRV 53	8770	196.6	76.6	1300.00	38.9230

RO-RV Getriebe

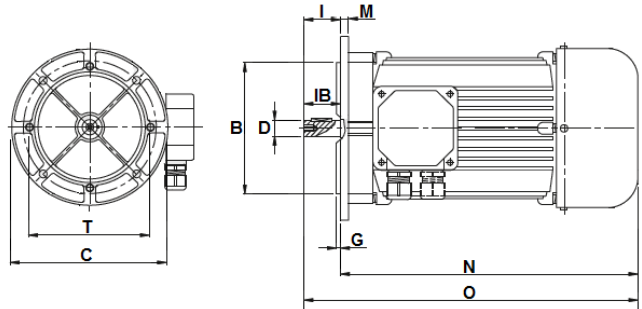
Getriebemotorauswahl 1400 rpm

P_1 [kW]	i_n	i_r	n_2 [rpm]	M_2 [Nm]	FS	Größe	F_{r2} [N]	MRO/V [kg]	FRO/V [kg]	J_m $\times 10^{-4}$	J_1 $\times 10^{-4}$
18.5	8.0	8.50	164.7	1009.1	1.7	MRO-MRV 63	11850	247.5	127.5	1300.00	60.6320
	10.0	10.87	128.8	1292.9	1.0	MRO-MRV 53	9470	196.6	76.6	1300.00	34.9392
		10.78	129.9	1278.8	1.5	MRO-MRV 63	12750	247.5	127.5	1300.00	48.5070
	12.5	13.17	106.3	1560.2	0.9	MRO-MRV 53	10050	196.6	76.6	1300.00	32.6124
		13.06	107.2	1547.7	1.4	MRO-MRV 63	13550	247.5	127.5	1300.00	41.5040
	14.0	13.51	103.6	1605.3	1.0	MRO-MRV 63	14110	247.5	127.5	1300.00	30.9420
	16.0	16.10	87	1907.3	1.2	MRO-MRV 63	14450	247.5	127.5	1300.00	35.7680
	18.0	17.87	78.4	2122.1	0.9	MRO-MRV 63	15380	247.5	127.5	1300.00	26.9670
	20.0	20.36	68.8	2412.6	1.0	MRO-MRV 63	14100	247.5	127.5	1300.00	31.0610
	22.4	22.66	61.8	2678.9	0.8	MRO-MRV 63	16460	247.5	127.5	1300.00	24.2220
22	6.3	6.48	215.9	913.4	1.0	MRO-MRV 53	8020	211.6	76.6	1500.00	46.0154
		6.43	217.7	906.2	1.8	MRO-MRV 63	10740	262.5	127.5	1500.00	78.1860
	8.0	8.57	163.3	1210.0	0.9	MRO-MRV 53	8770	211.6	76.6	1500.00	38.9230
		8.50	164.7	1200.0	1.5	MRO-MRV 63	11850	262.5	127.5	1500.00	60.6320
	10.0	10.87	128.8	1537.5	0.8	MRO-MRV 53	9470	211.6	76.6	1500.00	34.9392
		10.78	129.9	1520.7	1.3	MRO-MRV 63	12750	262.5	127.5	1500.00	48.5070
	12.5	13.17	106.3	1855.4	0.8	MRO-MRV 53	10050	211.6	76.6	1500.00	32.6124
		13.06	107.2	1840.5	1.2	MRO-MRV 63	13550	262.5	127.5	1500.00	41.5040
	14.0	13.51	103.6	1909.0	0.9	MRO-MRV 63	14110	262.5	127.5	1500.00	30.9420
	16.0	16.10	87	2268.1	1.0	MRO-MRV 63	14450	262.5	127.5	1500.00	35.7680
	18.0	17.87	78.4	2523.5	0.8	MRO-MRV 63	15380	262.5	127.5	1500.00	26.9670
	20.0	20.36	68.8	2869.1	0.9	MRO-MRV 63	14100	262.5	127.5	1500.00	31.0610
	22.4	22.66	61.8	3185.7	0.7	MRO-MRV 63	16460	262.5	127.5	1500.00	24.2220

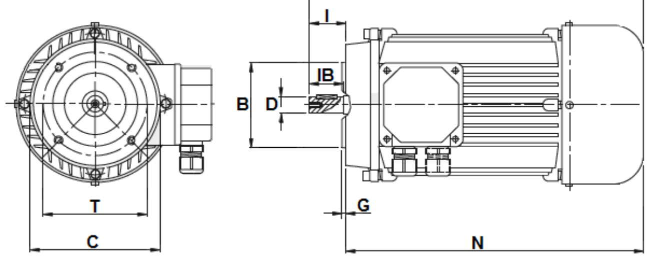
Getriebe RO-RV

Motorkurzreferenz Tabelle

IEC - B5



IEC - B14



Große	4 Pole kW	4 Pole rpm	4 Pole kg (B3)	2 Pole kW	2 Pole rpm	2 Pole kg (B3)	Flansch C / T / B	Welle D x I	G	IB	M	N	O
T56A T56B	0.06 0.09	1410 1340	2.5 2.6	0.09 0.14	2730 2750	2.6 3.2	B5 - 120 / 100 / 80 B14 - 80 / 65 / 50	9 x 20	2.5	20	8.5	168 125	188 145
T63A T63B	0.13 0.18	1340 1360	3.7 4.3	0.18 0.25	2770 2820	3.7 4.3	B5 - 140 / 115 / 95 B14 - 90 / 75 / 60	11 x 23	2.5	23	10	190.5 140	213.5 161
T71A T71B	0.25 0.37	1410 1370	5.8 6.2	0.37 0.55	2860 2860	5.8 6.2	B5 - 160 / 130 / 110 B14 - 105 / 85/ 70	14 x 30	3.0	30	10	218 168	248 188
T80A T80B	0.55 0.75	1430 1430	8.5 9.8	0.75 1.1	2860 2850	8.5 9.8	B5 - 200 / 165 / 130 B14 - 120 / 100 / 80	19 x 40	3.0	40	11	248	282
T90S T90L	1.1 1.5	1430 1430	12.0 13.5	1.5 2.2	2880 2850	12.0 13.5	B5 - 200 / 165 / 130 B14 - 140 / 115 / 95	24 x 50	3.5	50	10	255 280	305 330
T100A T100B	2.2 3	1430 1430	19.0 21.0	3 4	2910 2920	18.5 21.0	B5 - 250 / 215 / 180 B14 - 160 / 130 / 110	28 x 60	4.0	60	14	312	372
T112A	4	1440	29.0	5.5	2920	32.0	B5 - 250 / 215 / 180 B14 - 160 / 130 / 110	28 x 60	4.0	60	14	330	390
T132S T132M T132ML	5.5 7.5 9.2	1460 1460 1460	43 52 54	7.5 11 15	2920 2940 2940	48 54 58	B5 - 300 / 265 / 230 B14 - 200 / 165 / 130	38 x 80	4.0	80	20	380.5 418.5	460.5 498.5
T160M T160L	11 15	1470 1480	90 100	- - - 18.5	- - - 2960	- - - 99	B5 - 350 / 300 / 250 B14 - 250 / 215 / 180	42 x 110	5.0	110	20	491 535	601 645
T180M T180L	18.5 22	1470 1480	120 135	22 ---	2940 ---	110 ---	B% - 350 / 300 / 250	48 x 110	5.0	110	20	610	720

unverbindliche Abmessungen u. Gewichte

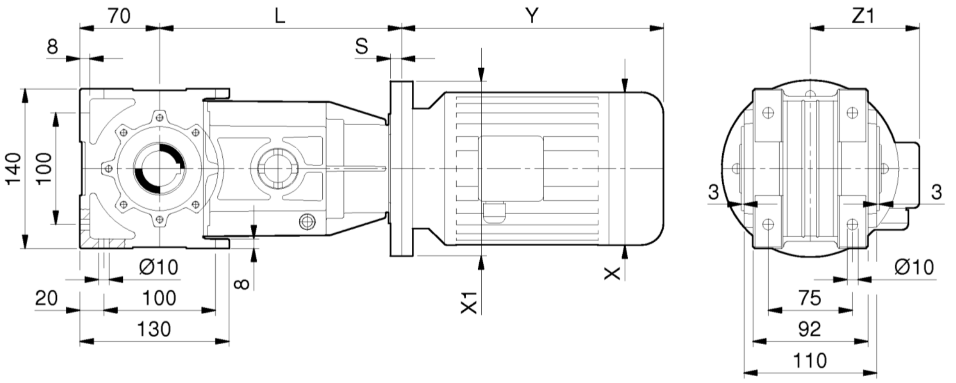
![VARVEL logo]

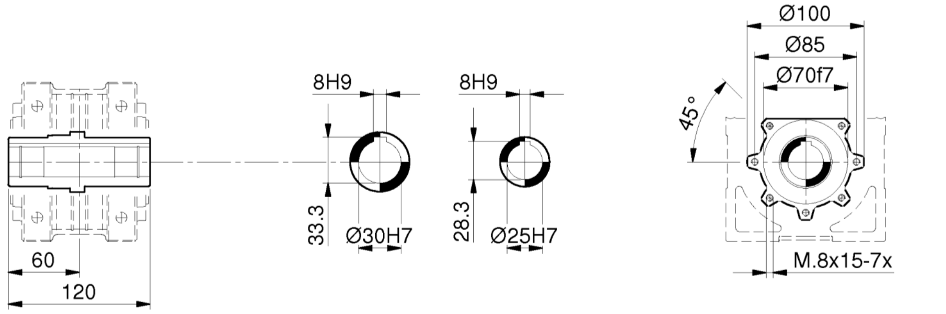
RO-RV Getriebe

RO13

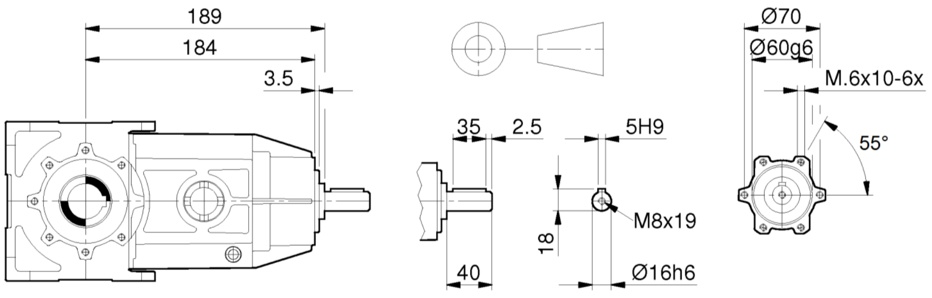
Abmessungen

MRO
FRO





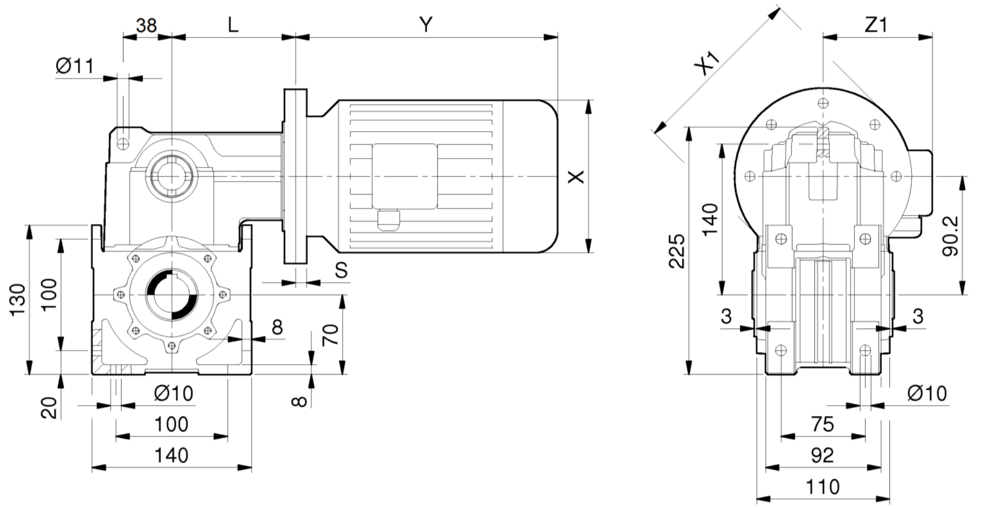
RO

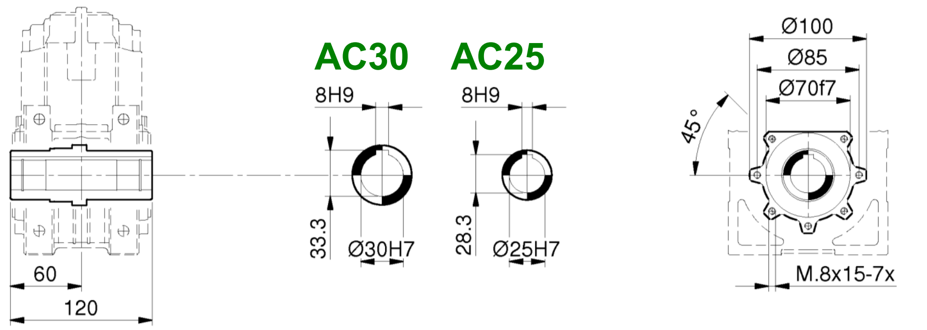


IEC	56	63	71	80	90 S	90 L	
X / Y / Z1	110/168/108	123/185/110	140/220/121	159/238/138	176/255/149	176/280/149	
X1 (B5) / S	120/13	140/13	160/13.5	200/13.5	- - -	- - -	
X1 (B14) / S	- - -	90/13	105/18.5	120/13.5	140/13.5	140/13.5	
L (RO13)	197	197	197.5 (202.5)	197.5	197.5	197.5	

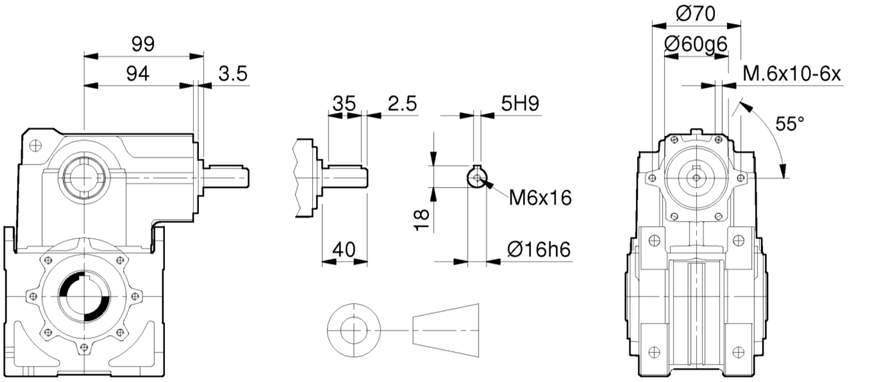
unverbindliche Abmessungen u. Gewichte

MRV
FRV





RV



IEC	56	63	71	80	90 S	90 L	
X / Y / Z1	110/168/108	123/185/110	140/220/121	159/238/138	176/255/149	176/280/149	
X1 (B5) / S	120/13	140/13	160/13.5	200/13.5	- - -	- - -	
X1 (B14) / S	- - -	90/13	105/18.5	120/13.5	140/13.5	140/13.5	
L (RV13)	107	107	107.5 (112.5)	107.5	107.5	107.5	

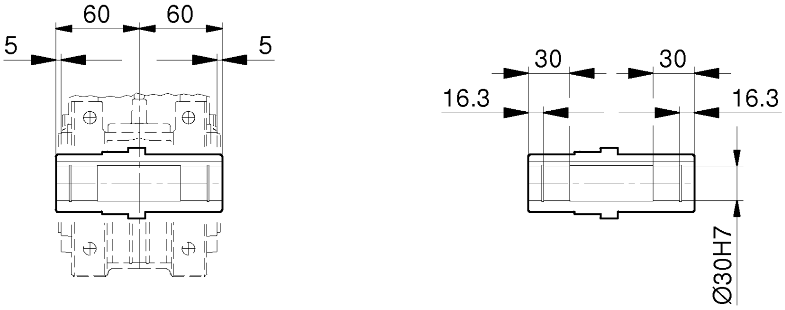
unverbindliche Abmessungen u. Gewichte

RO-RV Getriebe

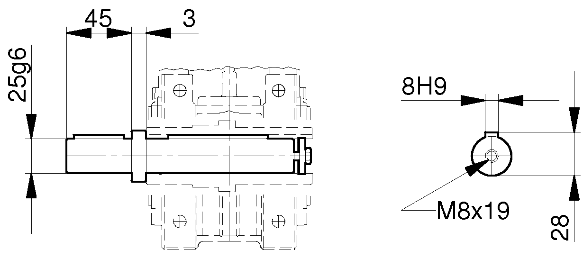
RO13-RV13

Abmessungen

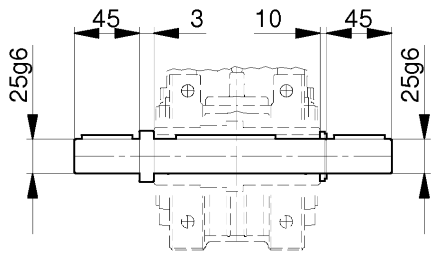
AC



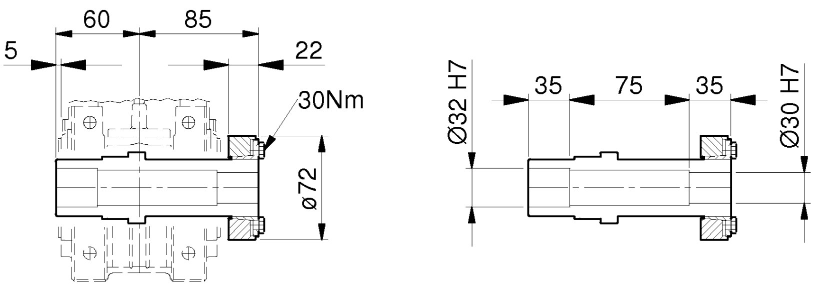
AS



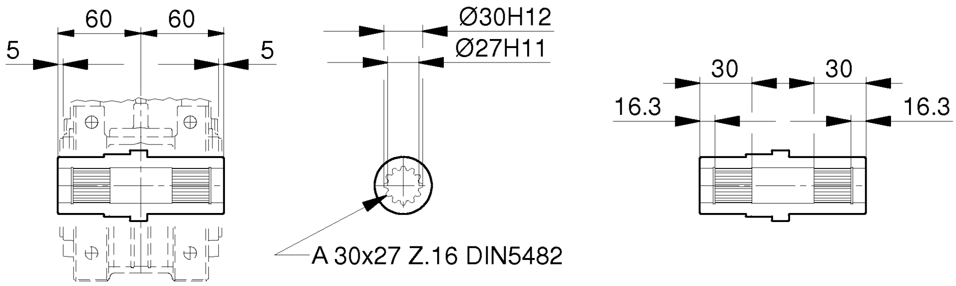
AD



ACC

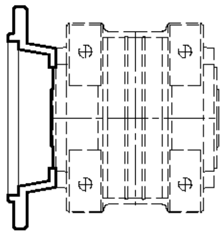


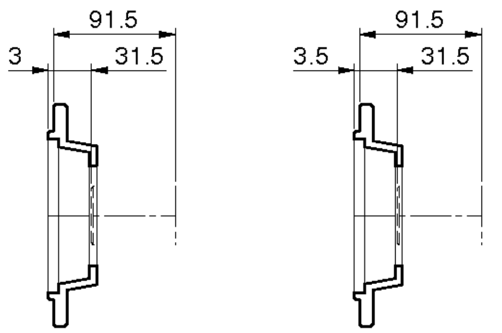
ACS

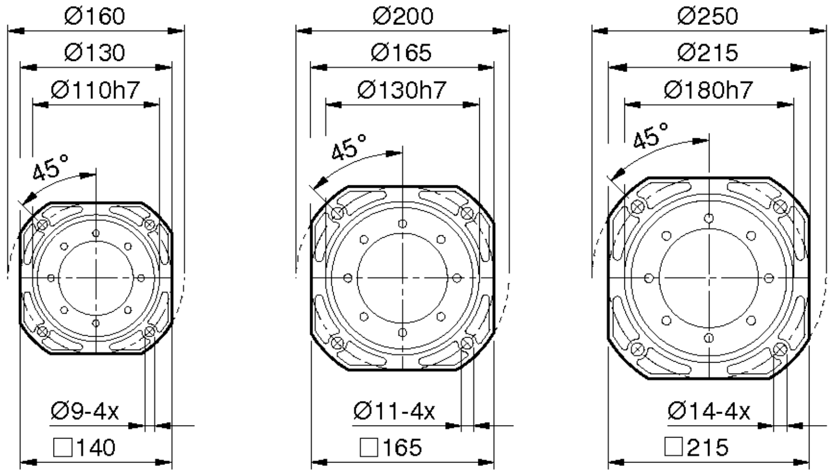


Maschinenwelle Abmessungen: Seiten 84-86

unverbindliche Abmessungen u. Gewichte





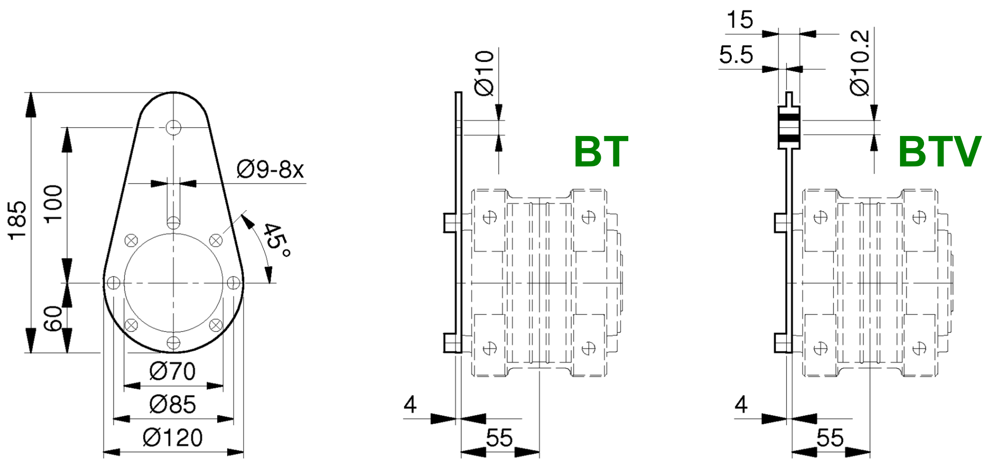


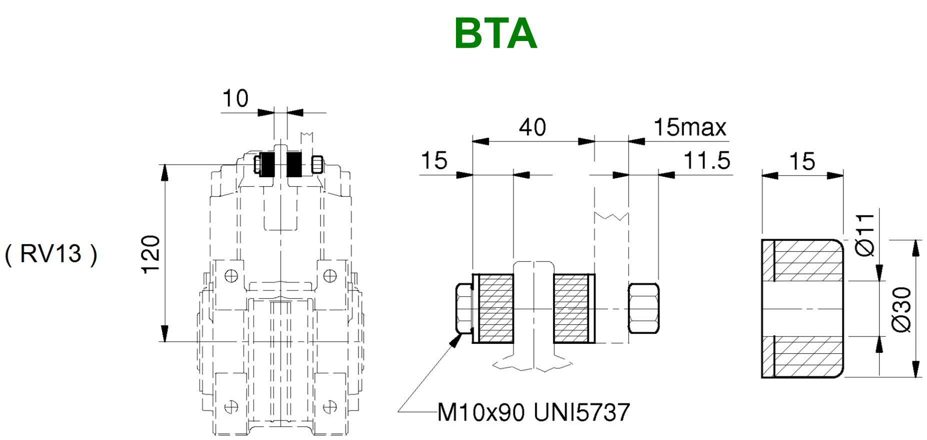
unverbindliche Abmessungen u. Gewichte

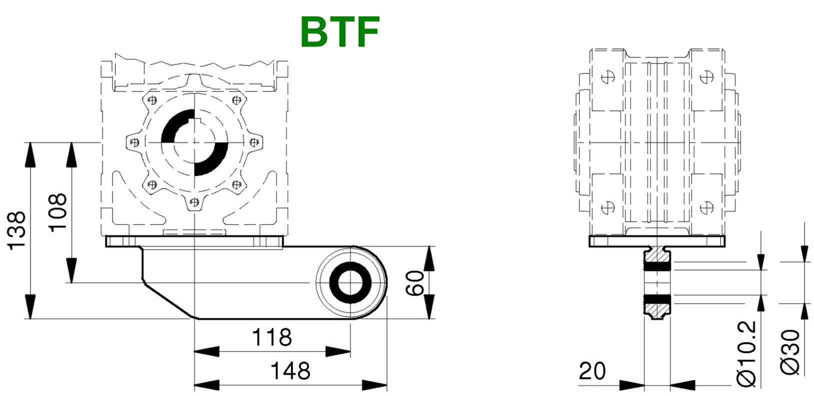
RO-RV Getriebe

RO13-RV13

Abmessungen







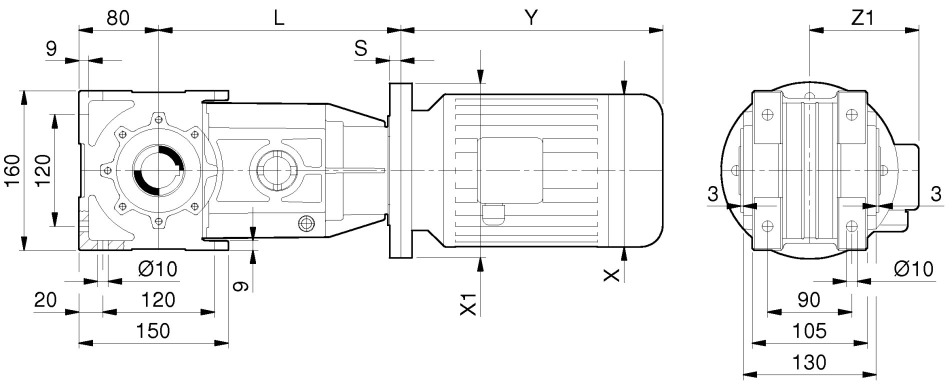
unverbindliche Abmessungen u. Gewichte

RO23

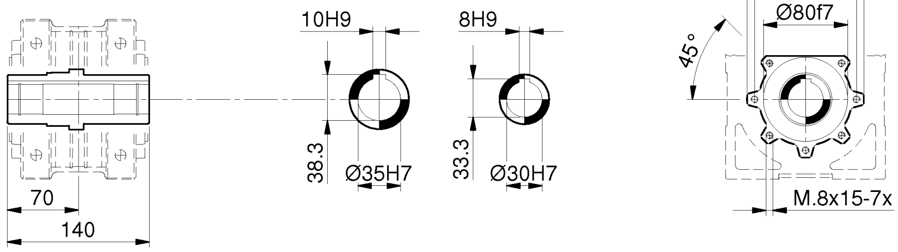
Getriebe RO-RV

Abmessungen

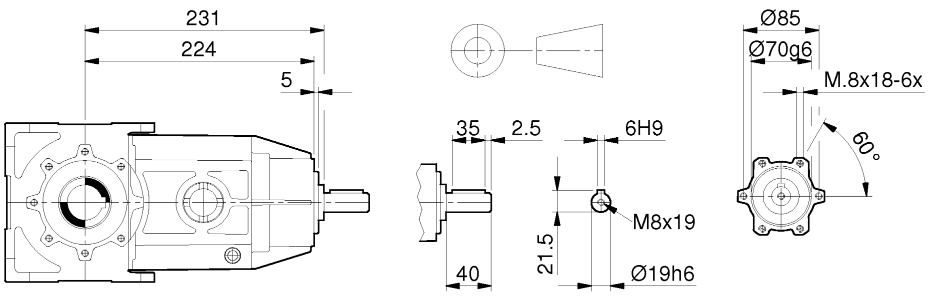
MRO
FRO



AC35 AC30



RO



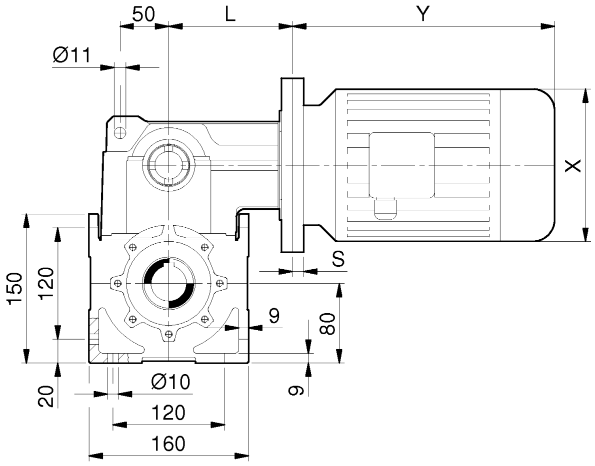
IEC	71	80	90 S	90 L	100	112	
X / Y / Z1 X1 (B5) / S X1 (B14) / S	140/220/121 160/15.5 105/15.5	159/238/138 200/15.5 120/17.5	176/255/149 200/15.5 140/17.5	176/280/149 200/15.5 140/17.5	195/314/160 250/16.5 160/15.5	219/328/172 250/16.5 160/15.5	
L (RO23)	239.5	239.5 (241.5)	239.5 (241.5)	239.5 (241.5)	240.5 (239.5)	240.5 (239.5)	

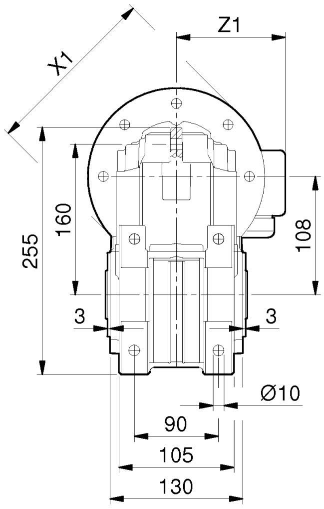
unverbindliche Abmessungen u. Gewichte

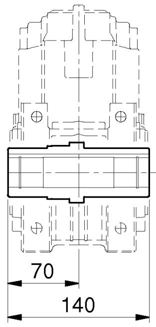
RO-RV Getriebe RV23

Abmessungen

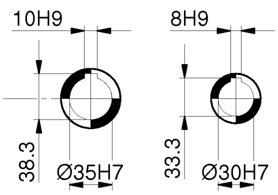
MRV
FRV

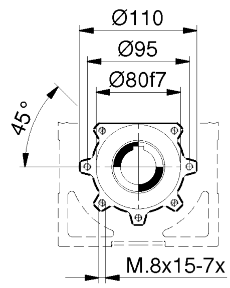




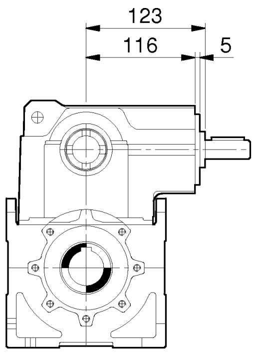


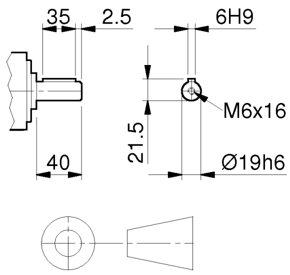
AC35 AC30

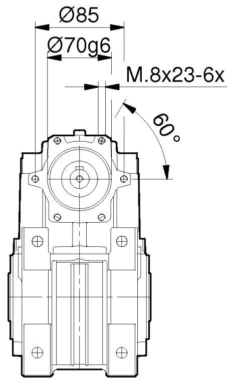




RV

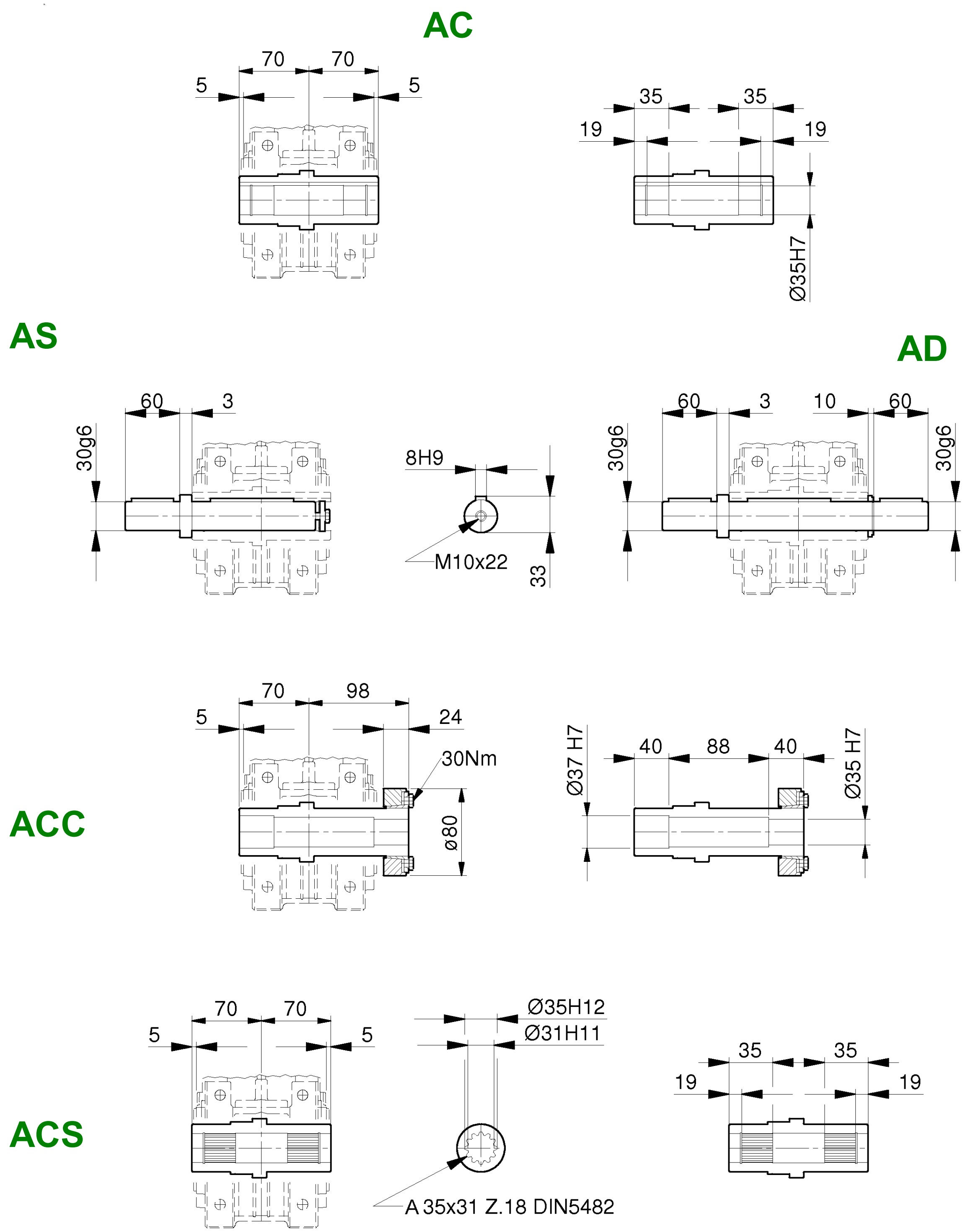






IEC	71	80	90 S	90 L	100	112	
X / Y / Z1	140/220/121	159/238/138	176/255/149	176/280/149	195/314/160	219/328/172	
X1 (B5) / S	160/15.5	200/15.5	200/15.5	200/15.5	250/16.5	250/16.5	
X1 (B14) / S	105/15.5	120/17.5	140/17.5	140/17.5	160/15.5	160/15.5	
L (RV23)	131.5	131.5 (133.5)	131.5 (133.5)	131.5 (133.5)	132.5 (131.5)	132.5 (131.5)	

unverbindliche Abmessungen u. Gewichte



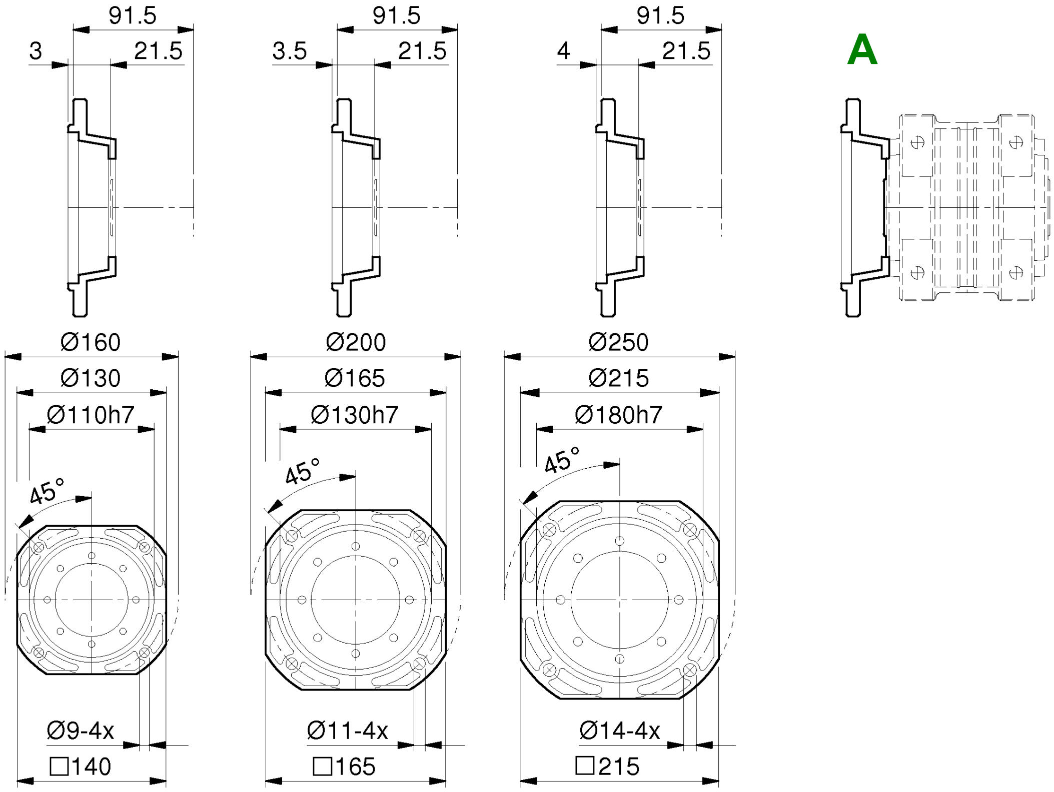
Maschinenwelle Abmessungen: Seiten 84-86

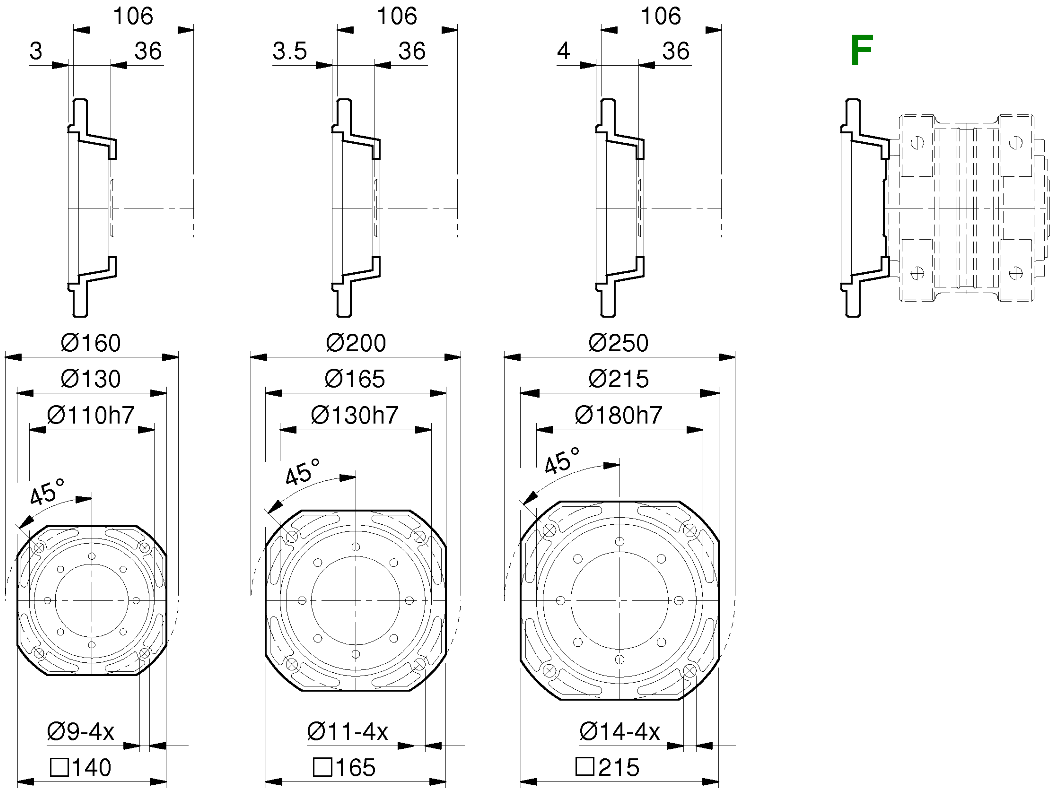
unverbindliche Abmessungen u. Gewichte

RO-RV Getriebe

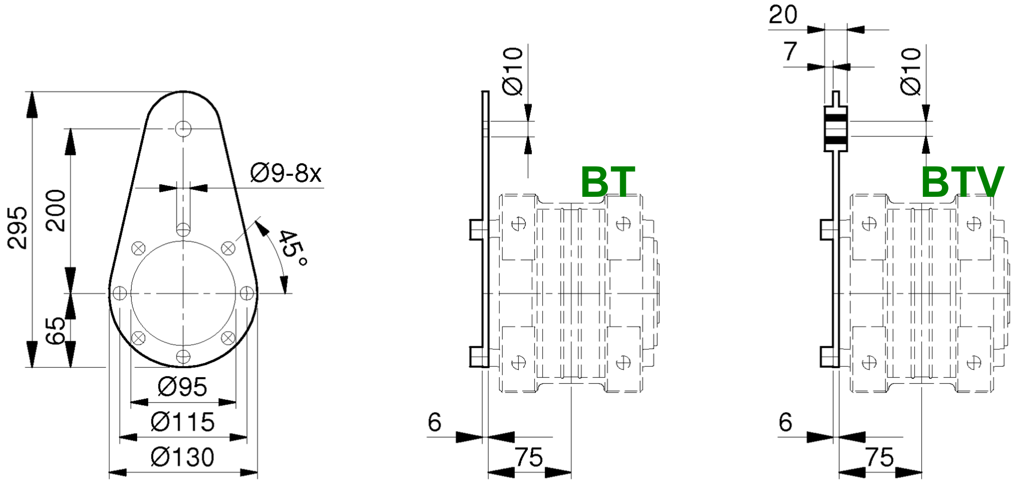
RO23-RV23

Abmessungen

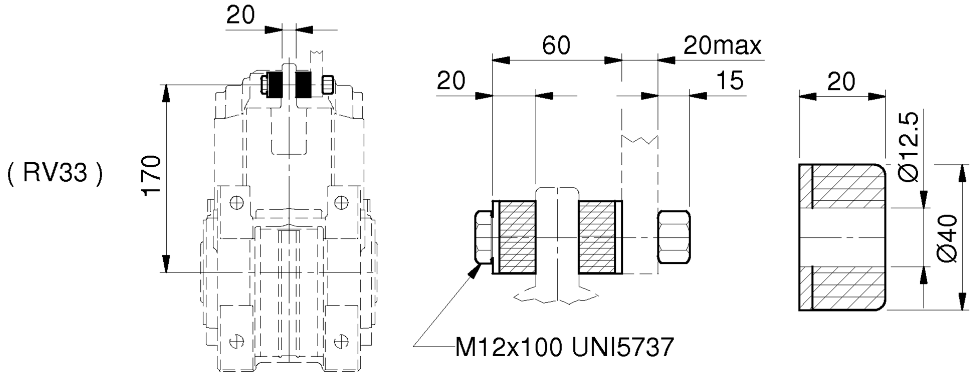




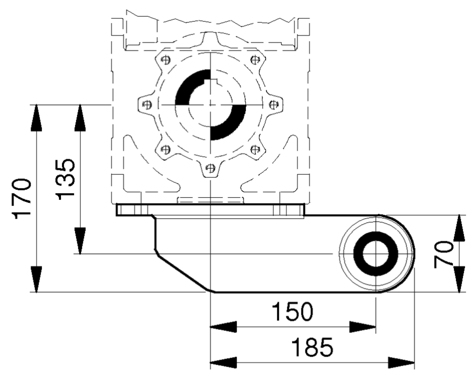
unverbindliche Abmessungen u. Gewichte

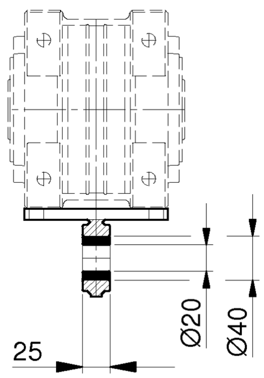


BTA



BTF

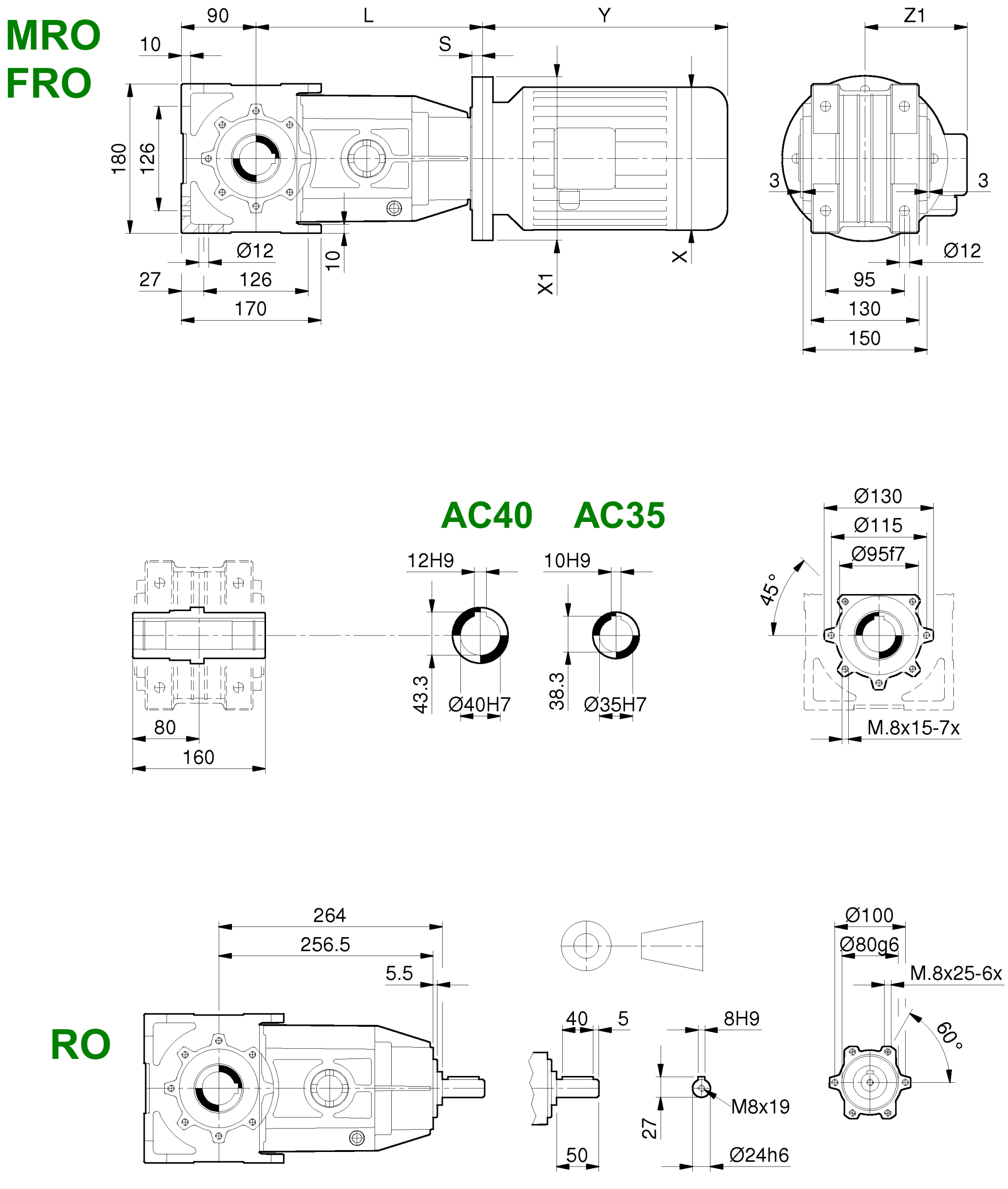




unverbindliche Abmessungen u. Gewichte

RO-RV Getriebe RO33

Abmessungen



IEC	71	80	90 S	90 L	100	112	
X / Y / Z1	140/220/121	159/238/138	176/255/149	176/280/149	195/314/160	219/328/172	
X1 (B5) / S	160/15,5	200/15,5	200/18,5	200/18,5	250/16,5	250/16,5	
X1 (B14) / S	- - -	120/15,5	140/15,5	140/15,5	160/15,5	160/15,5	
L (RO33)	272	272	275 (272)	275 (272)	273 (272)	273 (272)	

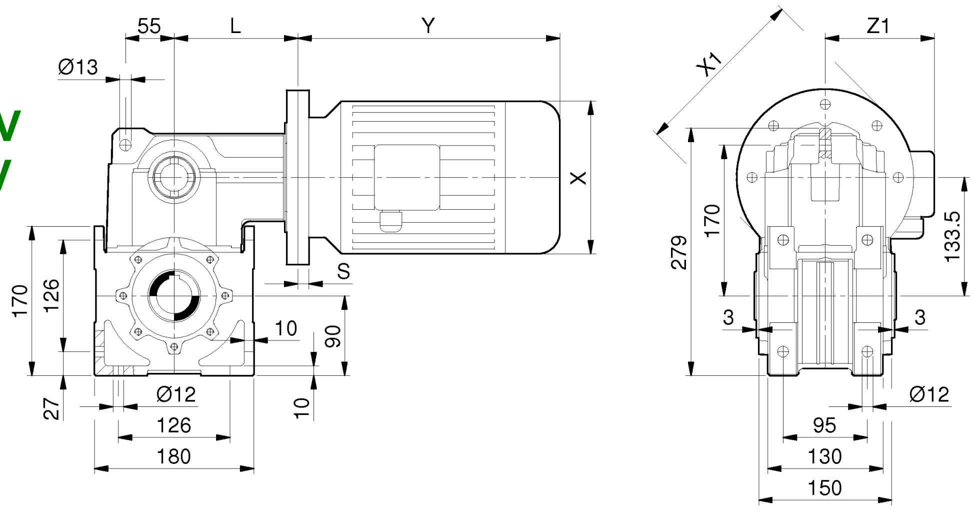
unverbindliche Abmessungen u. Gewichte

RV33

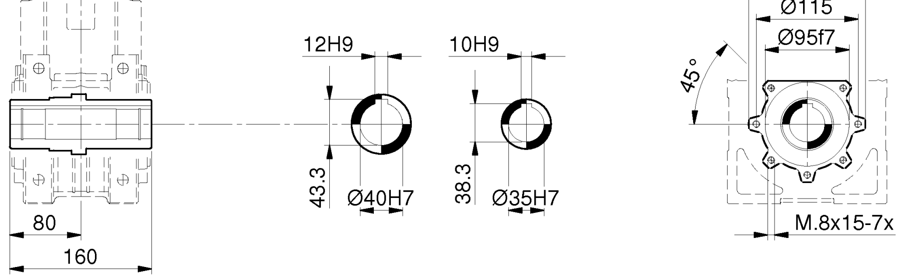
Getriebe RO-RV

Abmessungen

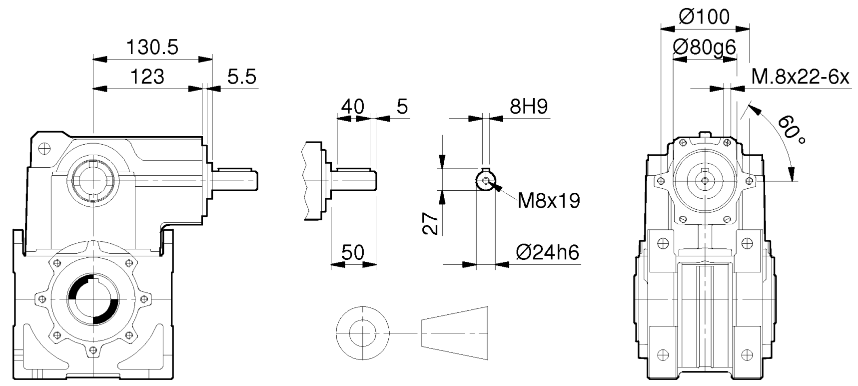
MRV
FRV



AC40 **AC35**



RV



IEC	71	80	90 S	90 L	100	112	
X / Y / Z1 X1 (B5) / S X1 (B14) / S	140/220/121 160/15.5 - - -	159/238/138 200/15.5 120/15.5	176/255/149 200/15.5 140/17.5	176/280/149 200/15.5 140/17.5	195/314/160 250/16.5 160/15.5	219/328/172 250/16.5 160/15.5	
L (RV33)	138.5	144.5	138.5 (141.5)	138.5 (141.5)	139.5 (138.5)	139.5 (138.5)	

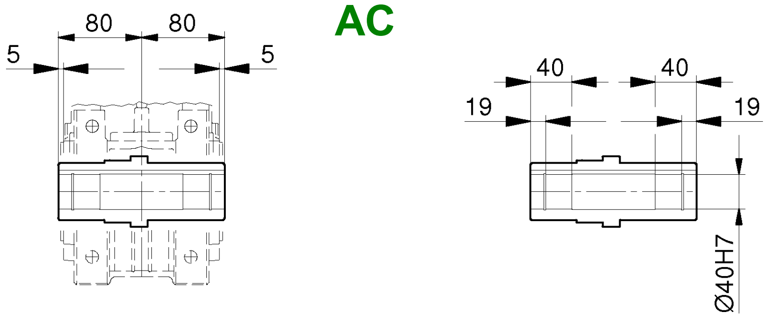
unverbindliche Abmessungen u. Gewichte

RO-RV Getriebe

RO33-RV33

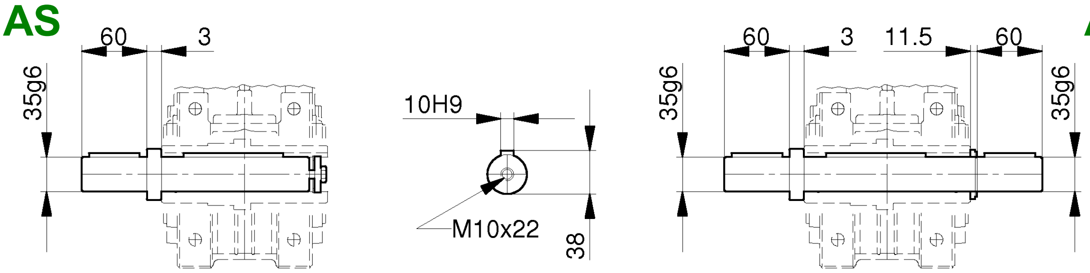
Abmessungen

AC

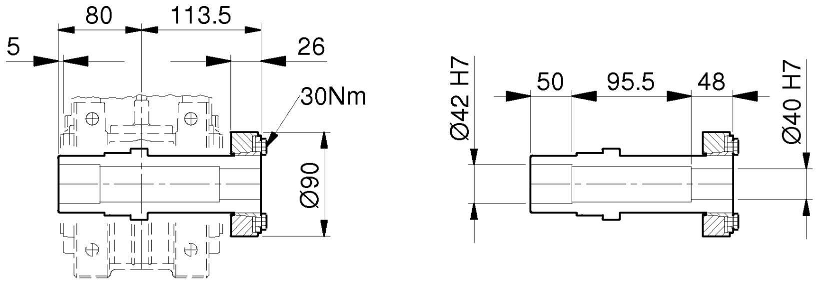


AS

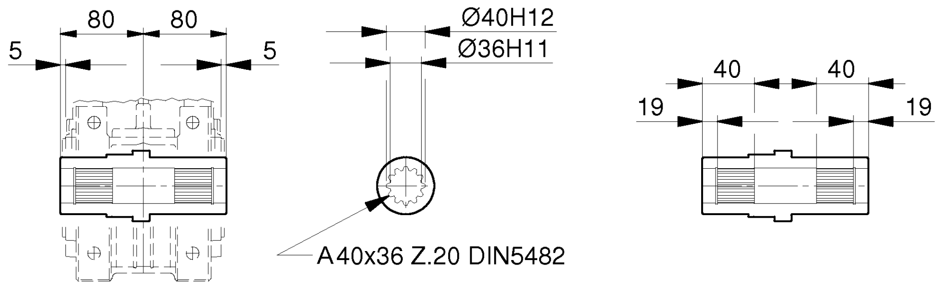
AD



ACC



ACS

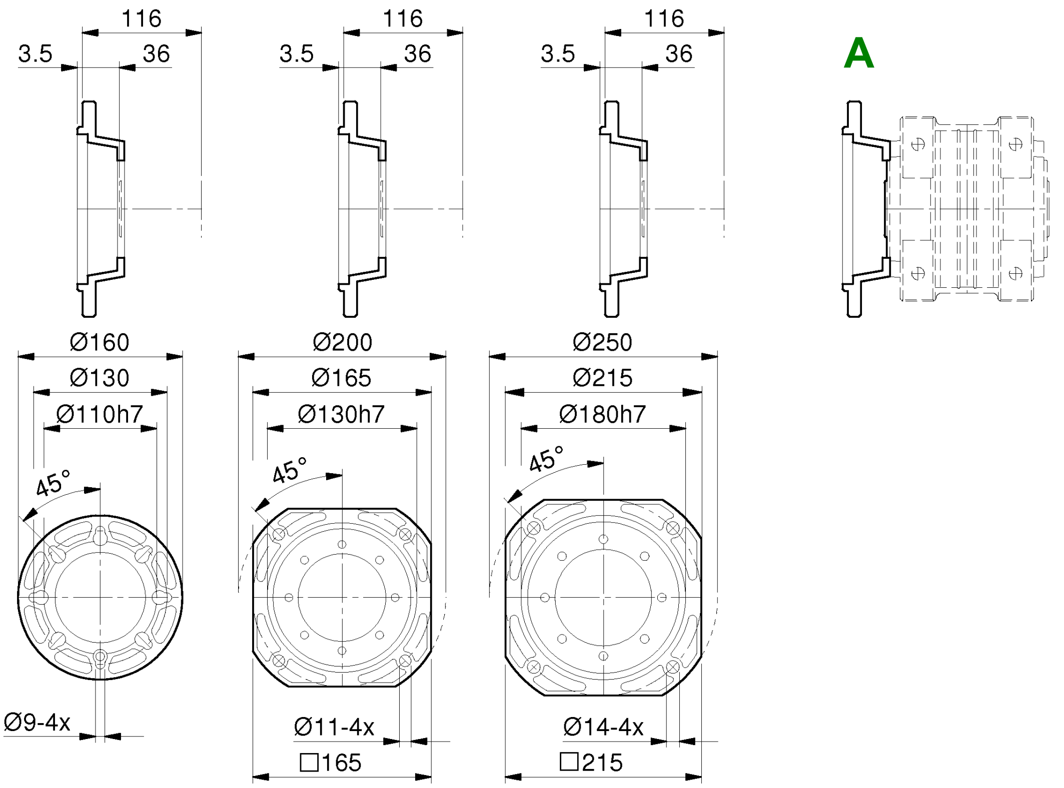


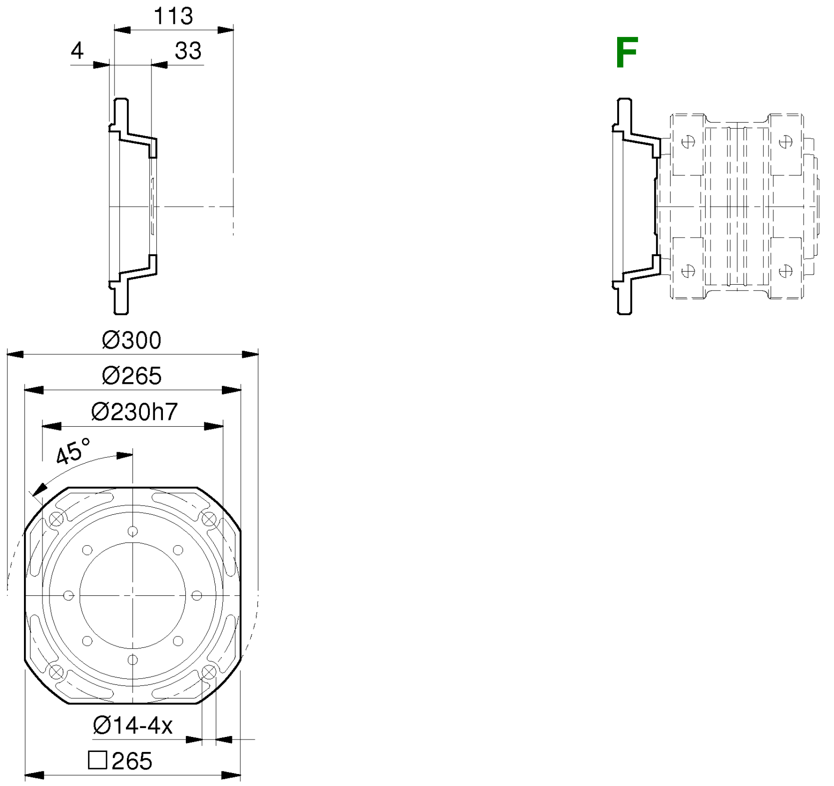
Maschinenwelle Abmessungen: Seiten 84-86

unverbindliche Abmessungen u. Gewichte

RO33-RV33

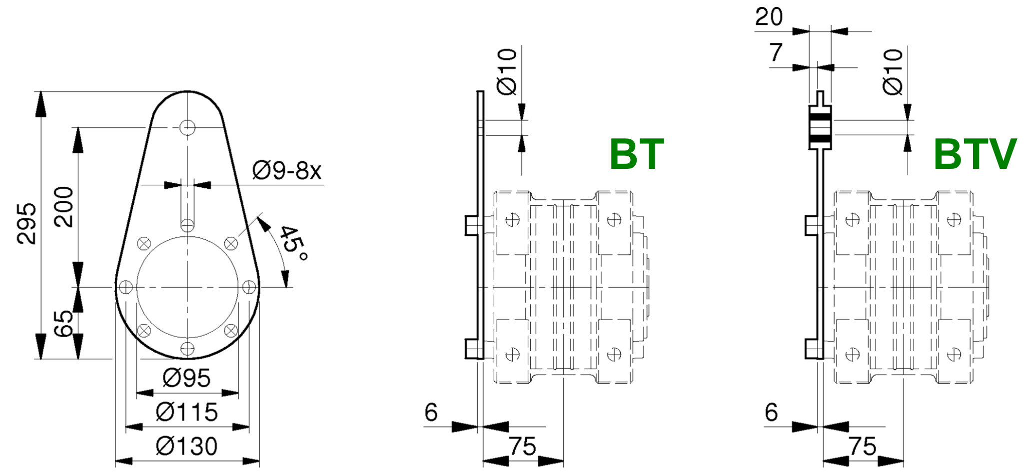
Getriebe RO-RV

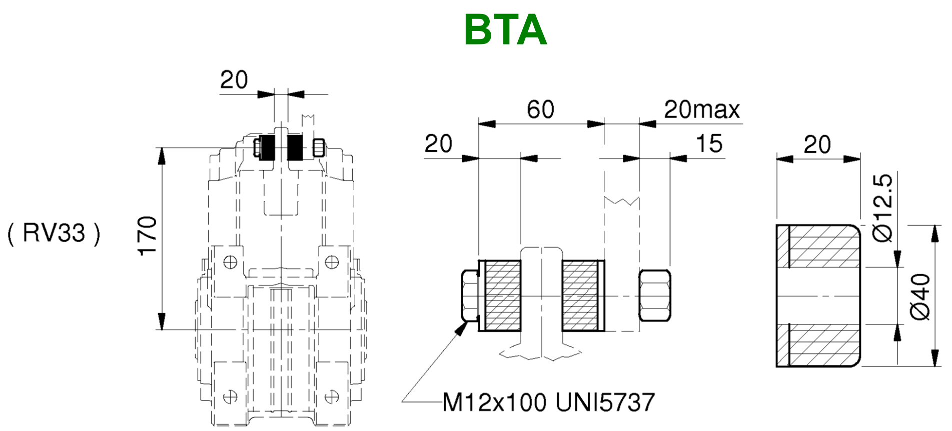


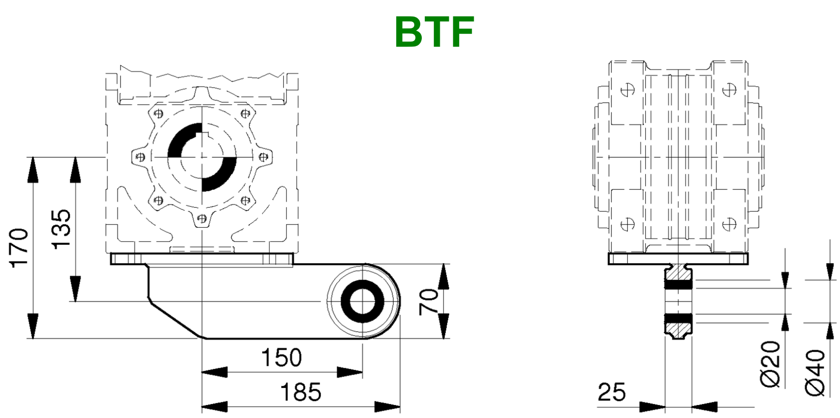


unverbindliche Abmessungen u. Gewichte

Abmessungen

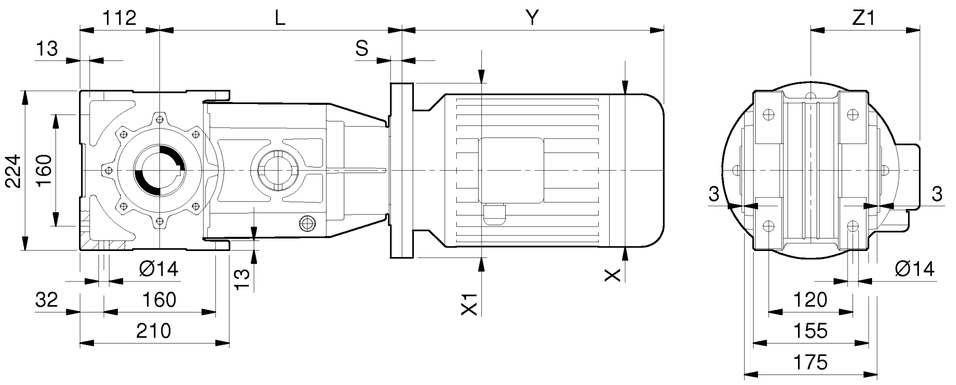


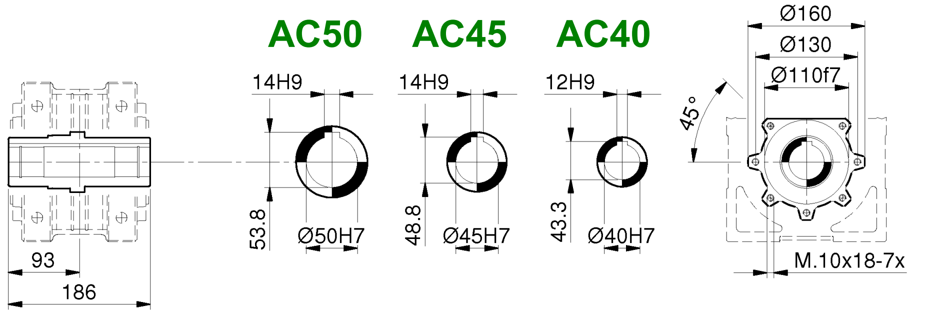




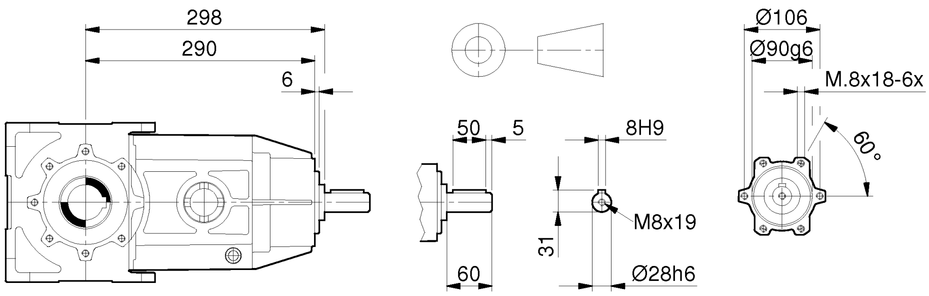
unverbindliche Abmessungen u. Gewichte

MRO
FRO





RO



IEC	71	80	90 S	90 L	100	112	
X / Y / Z1	140/220/121	159/238/138	176/255/149	176/280/149	195/314/160	219/328/172	
X1 (B5) / S	160/18	200/18	200/18	200/18	250/18.5	250/18.5	
X1 (B14) / S	- - -	- - -	- - -	- - -	160/18	160/18	
L (RO43)	308	308	308 (310)	308 (310)	308.5 (308)	308.5 (308)	

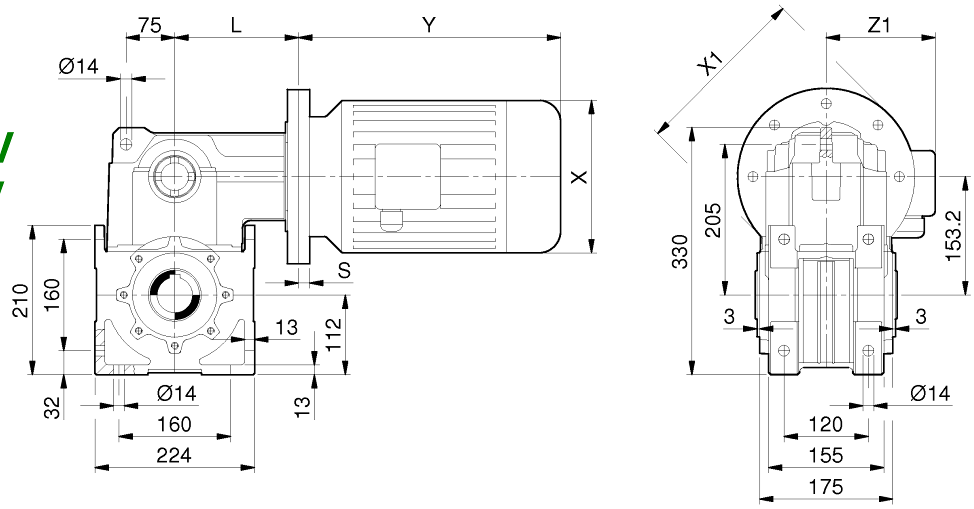
unverbindliche Abmessungen u. Gewichte

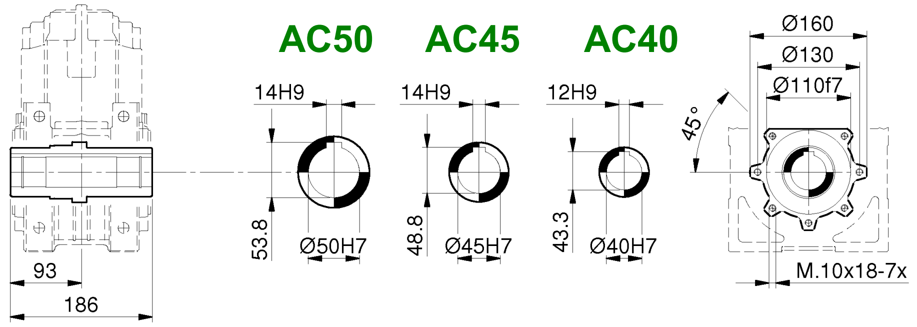
RO-RV Getriebe

RV43

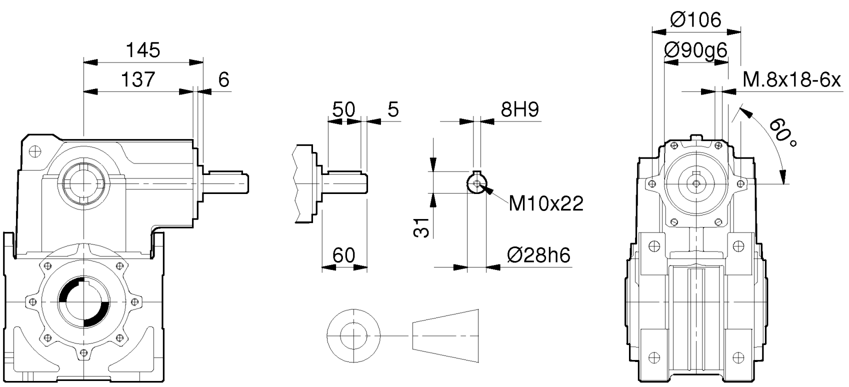
Abmessungen

MRV
FRV





RV



IEC	71	80	90 S	90 L	100	112	
X / Y / Z1 X1 (B5) / S X1 (B14) / S	140/220/121 160/18 - - -	159/238/138 200/18 - - -	176/255/149 200/18 - - -	176/280/149 200/18 - - -	195/314/160 250/18.5 160/18	219/328/172 250/18.5 160/18	
L (RV43)	155	155	155 (157)	155 (157)	155.5 (155)	155.5 (155)	

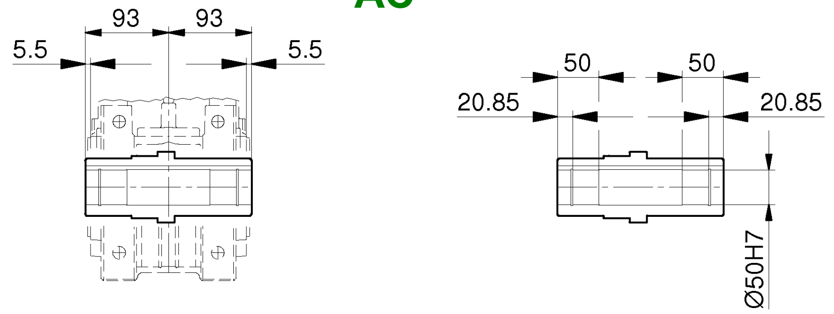
unverbindliche Abmessungen u. Gewichte

RO43-RV43

Getriebe RO-RV

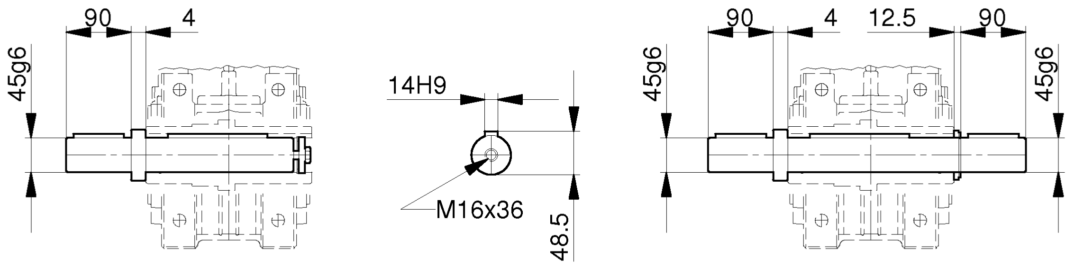
Abmessungen

AC

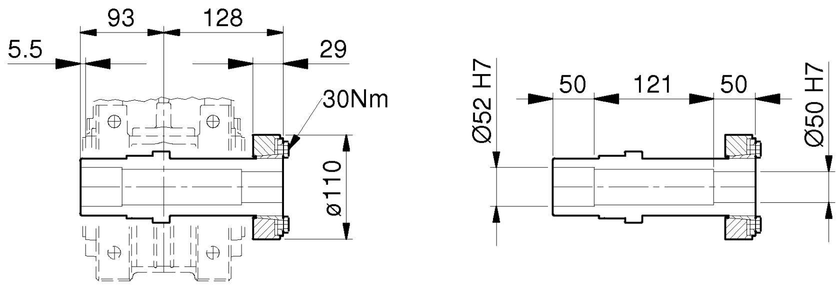


AS

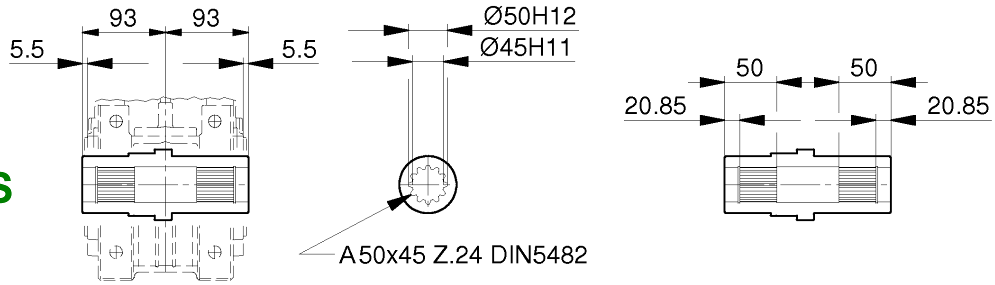
AD



ACC



ACS



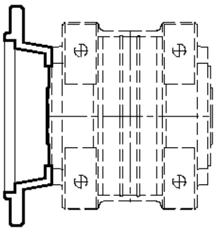
Maschinenwelle Abmessungen: Seiten 84-86

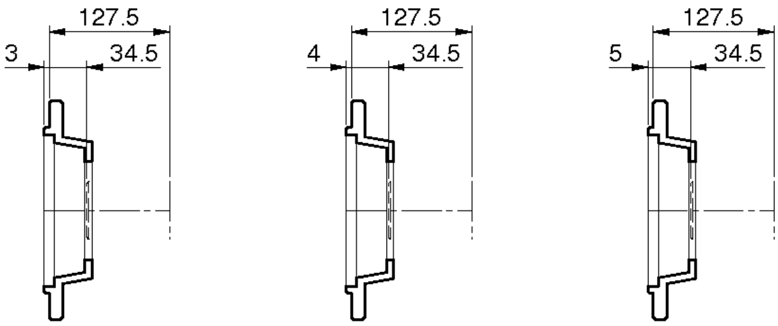
unverbindliche Abmessungen u. Gewichte

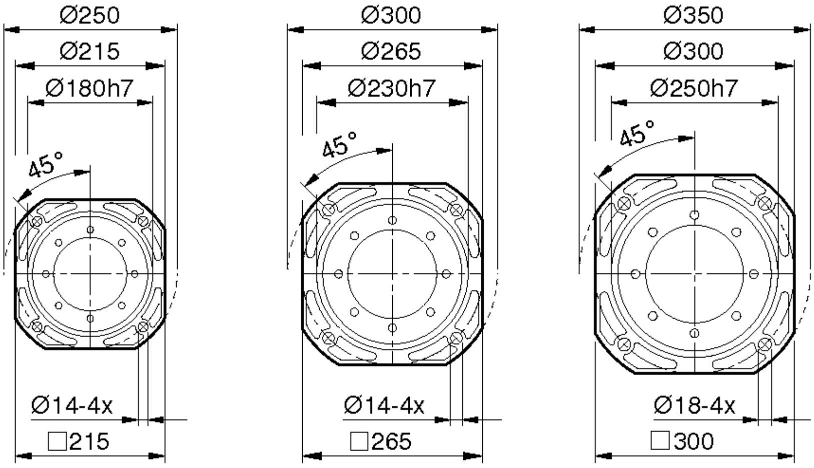
RO-RV Getriebe

RO43-RV43

Abmessungen





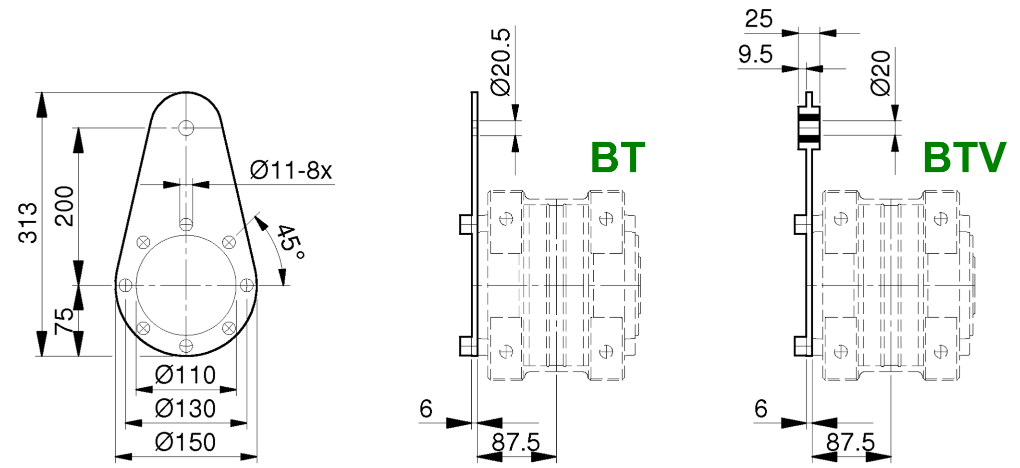


unverbindliche Abmessungen u. Gewichte

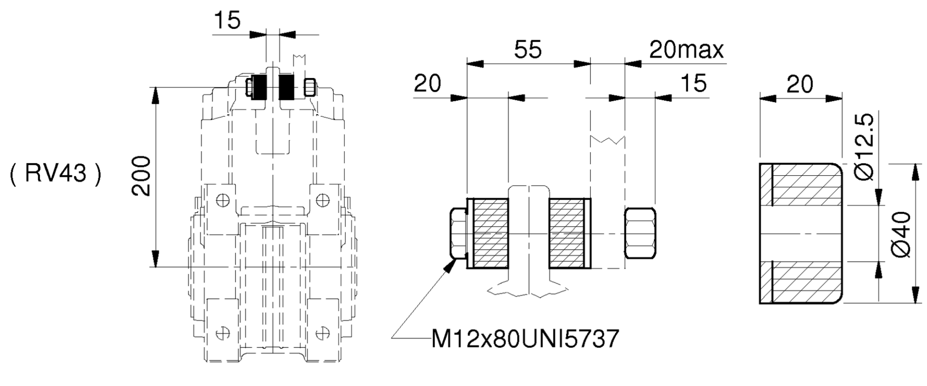
RO43-RV43

Getriebe RO-RV

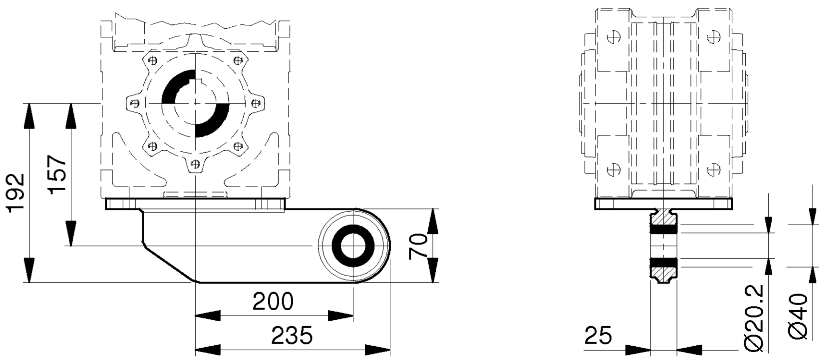
Abmessungen



BTA



BTF

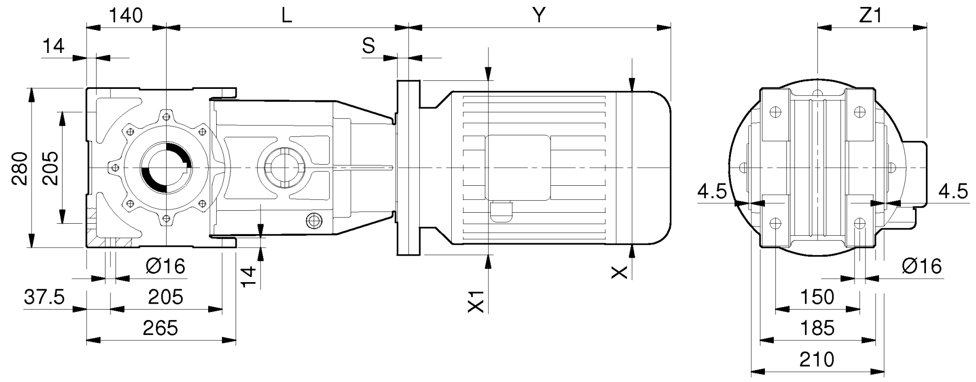


unverbindliche Abmessungen u. Gewichte

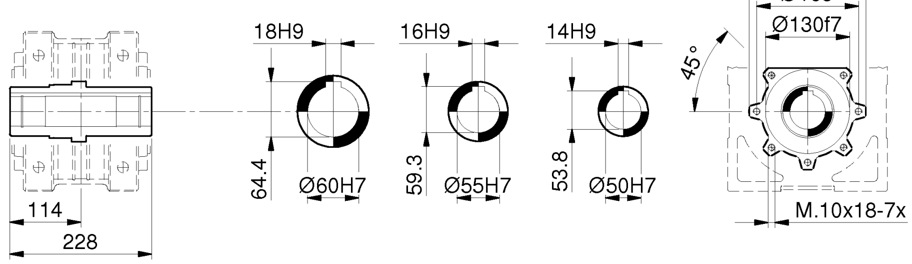
RO-RV Getriebe RO53

Abmessungen

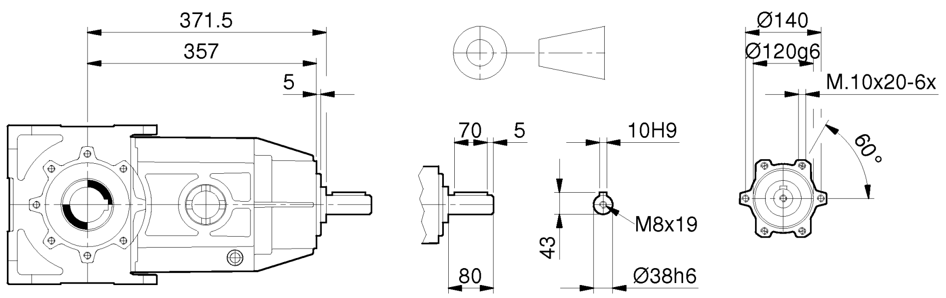
MRO
FRO



AC60 AC55 AC50



RO



IEC	80	90 S / L	100	112	132 S / M	160	180
X / Y / Z1	159/238/138	176/255-280/149	195/314/160	219/328/172	258/368-410/192	310/486/235	320/580/245
X1 (B5) / S	200/22	200/22	250/22	250/22	300/22	350/35	350/35
X1 (B14) / S	- - -	- - -	- - -	- - -	200/22	250/22	300/22
L (RO53)	379	379	379	379	379	392 (379)	392 (379)

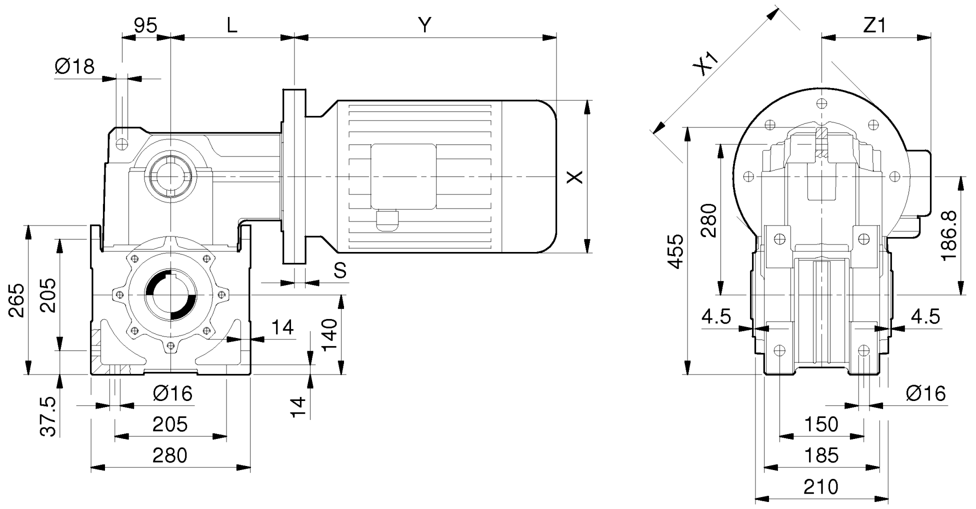
unverbindliche Abmessungen u. Gewichte

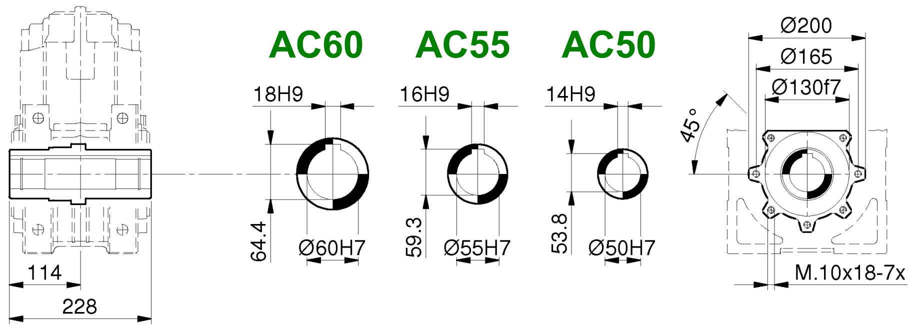
RV53

Getriebe RO-RV

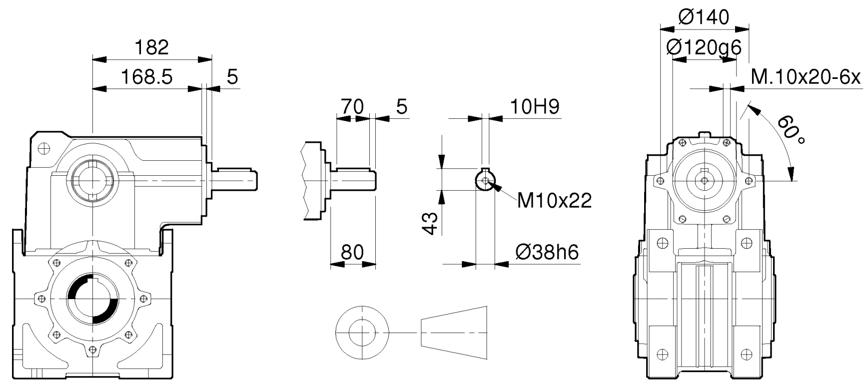
Abmessungen

MRV
FRV





RV

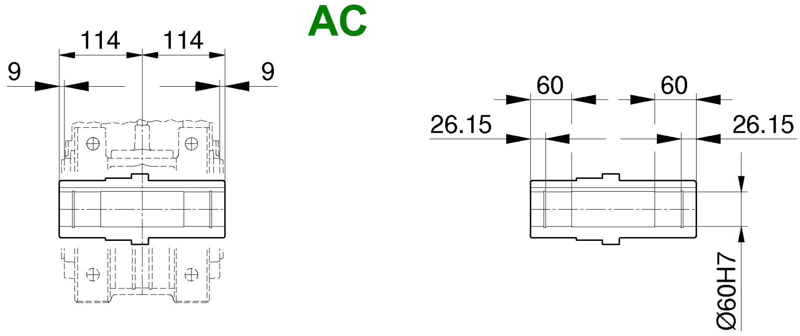


IEC	80	90 S / L	100	112	132 S / M	160	180
X / Y / Z1	159/238/138	176/255-280/149	195/314/160	219/328/172	258/368-410/192	310/486/235	320/580/245
X1 (B5) / S	200/22	200/22	250/22	250/22	300/22	350/35	350/35
X1 (B14) / S	- - -	- - -	- - -	- - -	200/22	250/22	300/22
L (RV53)	190.5	190.5	190.5	190.5	190.5	203.5 (190.5)	203.5 (190.5)

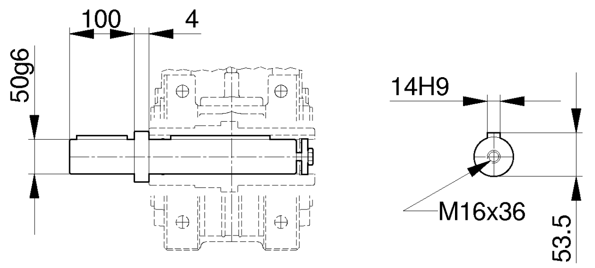
unverbindliche Abmessungen u. Gewichte

Abmessungen

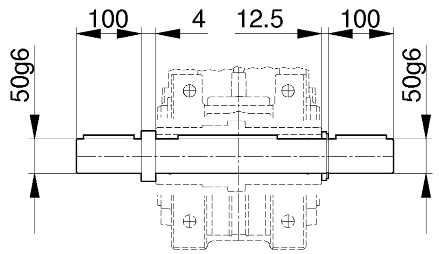
AC



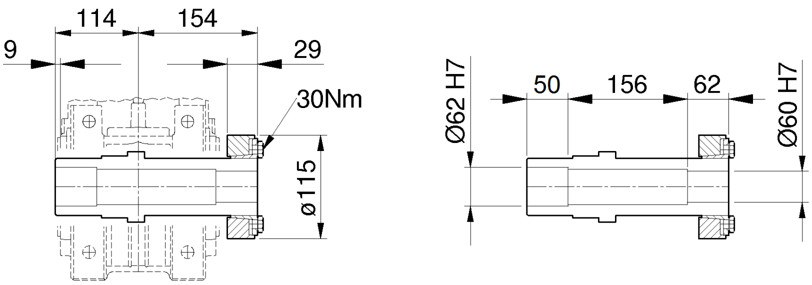
AS



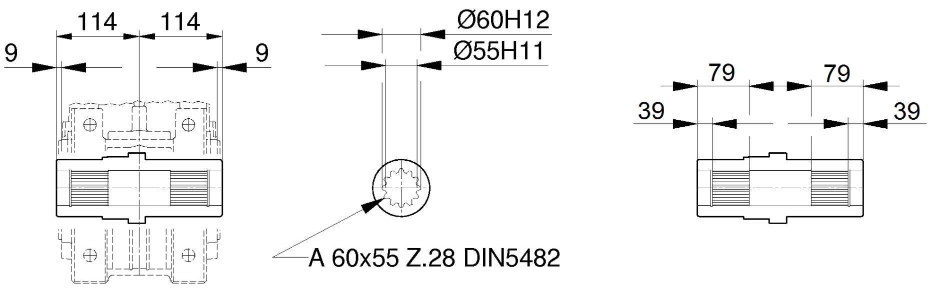
AD



ACC

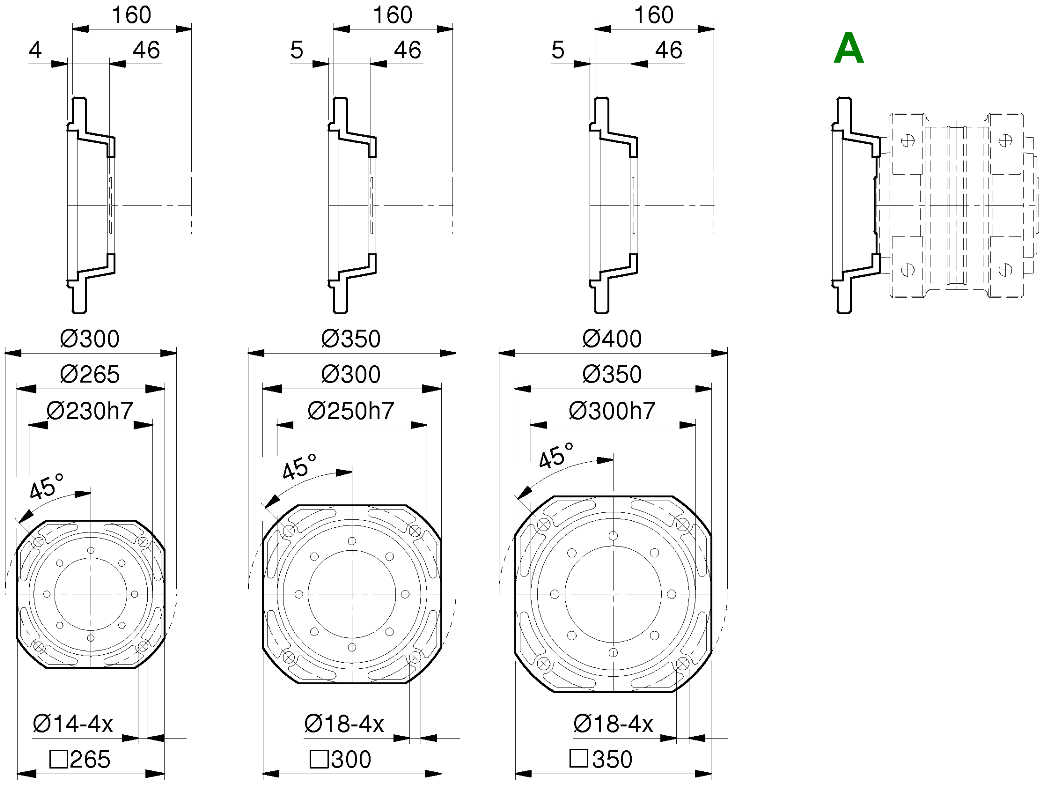


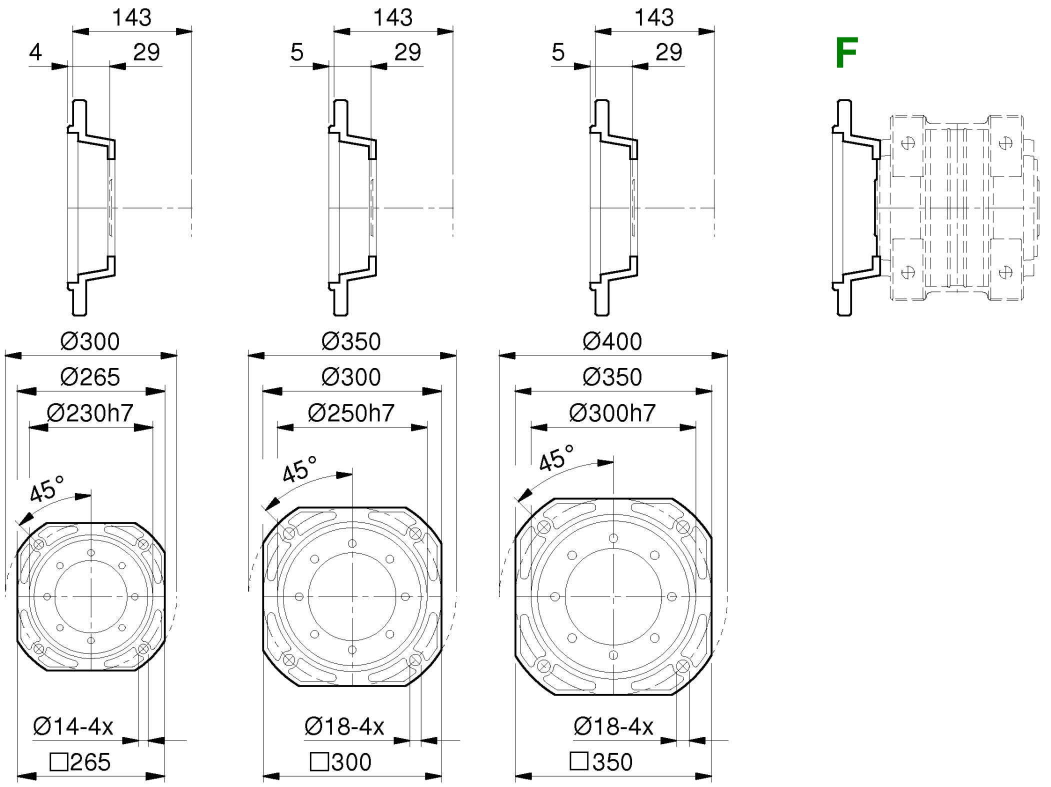
ACS



Maschinenwelle Abmessungen: Seiten 84-86

unverbindliche Abmessungen u. Gewichte



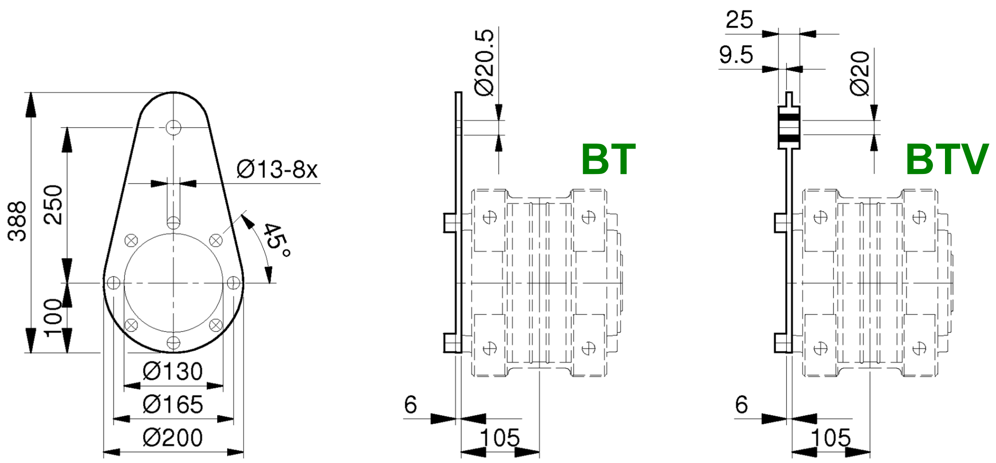


unverbindliche Abmessungen u. Gewichte

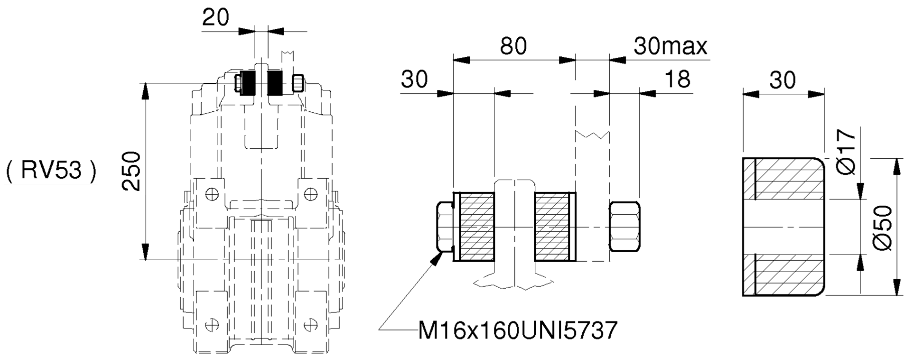
RO-RV Getriebe

RO53-RV53

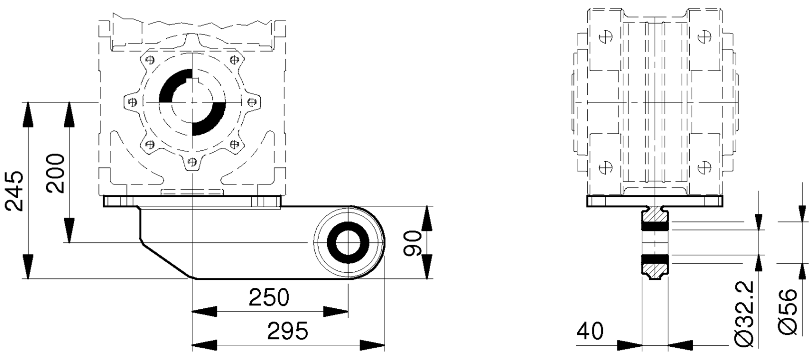
Abmessungen



BTA



BTF



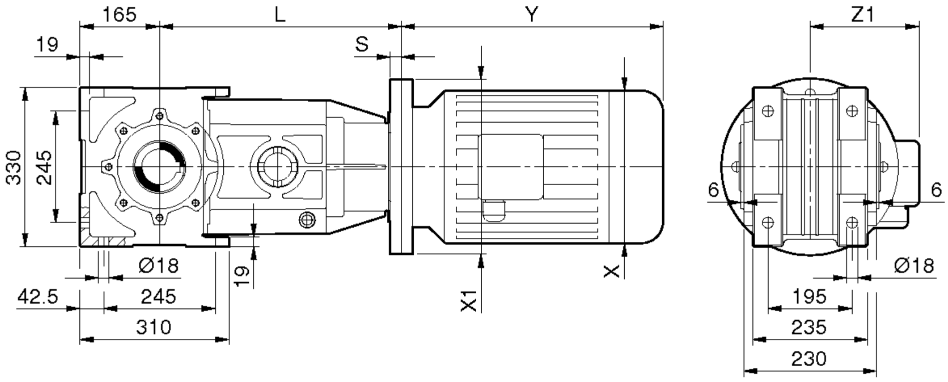
unverbindliche Abmessungen u. Gewichte

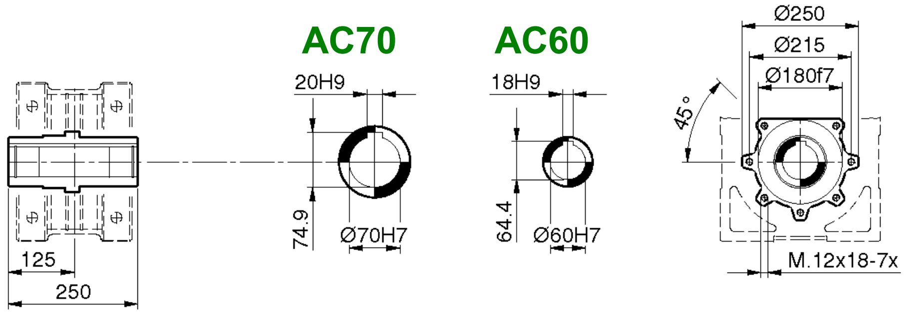
RO63

Getriebe RO-RV

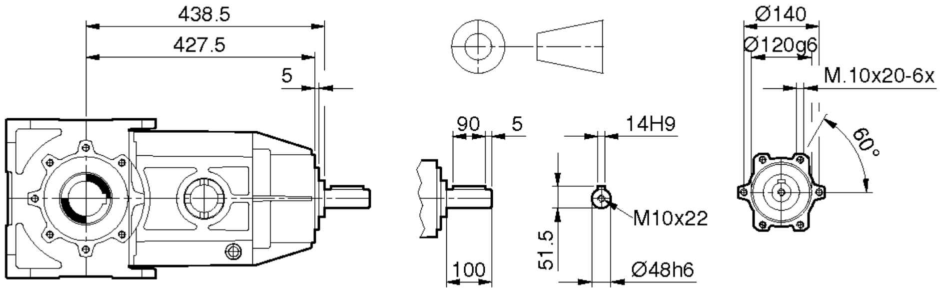
Abmessungen

MRO
FRO





RO



IEC	80	90 S / L	100	112	132 S / M	160	180
X / Y / Z1	159/238/138	176/255-280/149	195/314/160	219/328/172	258/368-410/192	310/486/235	320/580/245
X1 (B5) / S	200/22	200/22	250/22	250/22	300/22	350/35	350/35
X1 (B14) / S	- - -	- - -	- - -	- - -	200/22	250/22	300/22
L (RO63)	449.5	449.5	449.5	449.5	449.5	462.5	462.5

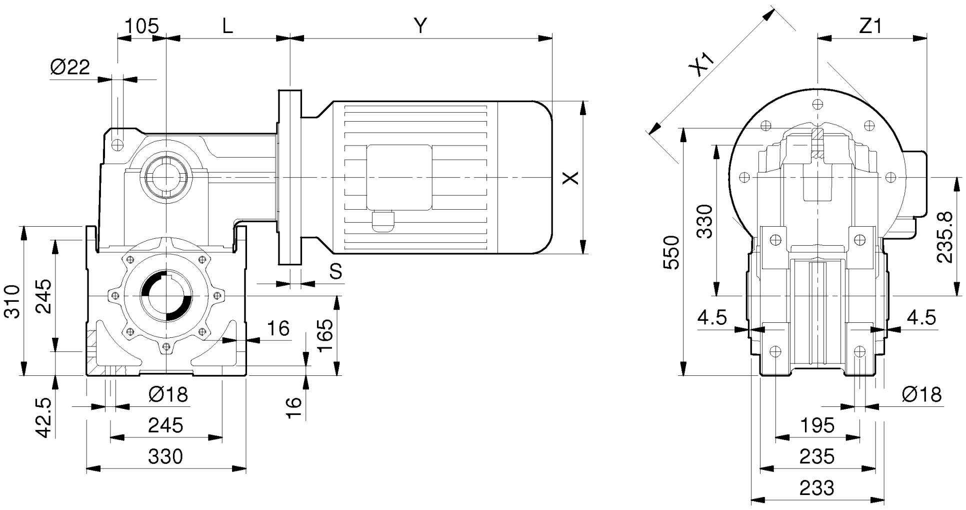
unverbindliche Abmessungen u. Gewichte

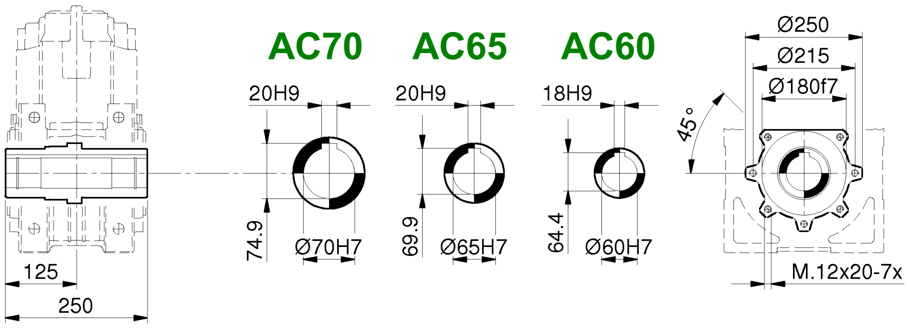
RO-RV Getriebe

RV63

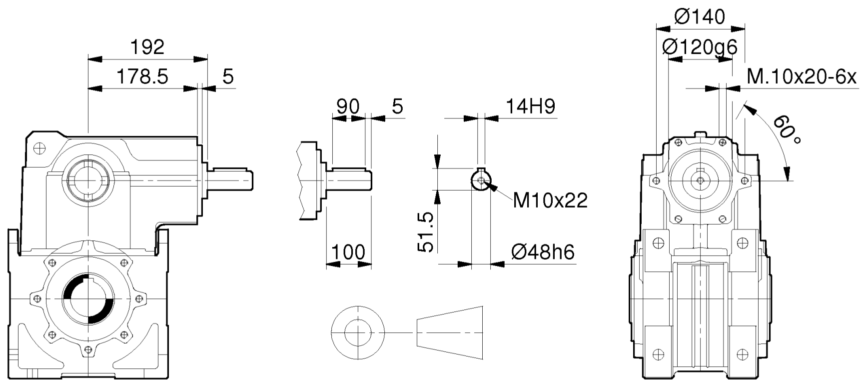
Abmessungen

MRV
FRV





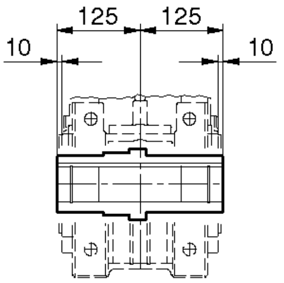
RV

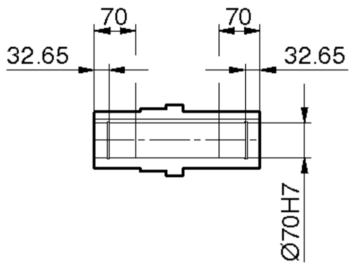


RV	63	63	63	63	63	63	63
IEC	80	90 S / L	100	112	132 S / M	160	180
X / Y / Z1	159/238/138	176/255-280/149	195/314/160	219/328/172	258/368-410/192	310/486/235	320/580/245
X1 (B5) / S	200/22	200/22	250/22	250/22	300/22	350/35	350/35
X1 (B14) / S	- - -	- - -	- - -	- - -	200/22	250/22	300/22
L (RV63)	205.5	205.5	205.5	205.5	205.5	218.5 (205.5)	218.5 (205.5)

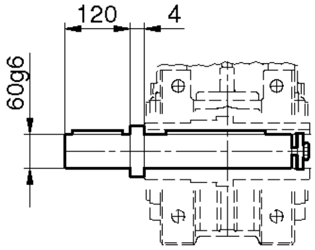
unverbindliche Abmessungen u. Gewichte

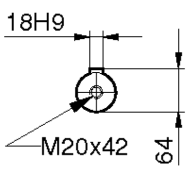
AC



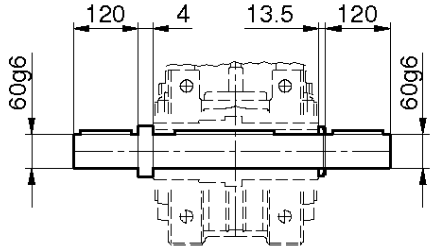


AS

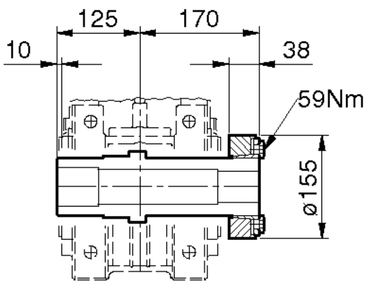


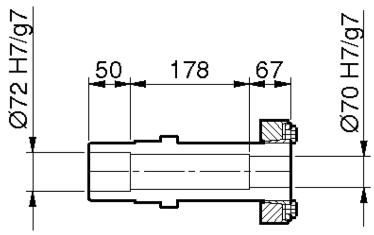


AD

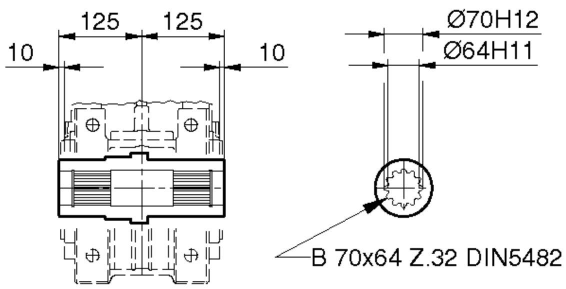


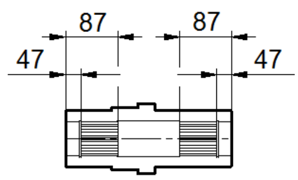
ACC





ACS





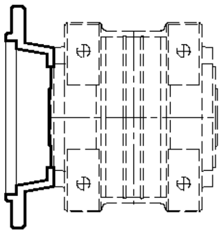
Maschinenwelle Abmessungen: Seiten 84-86

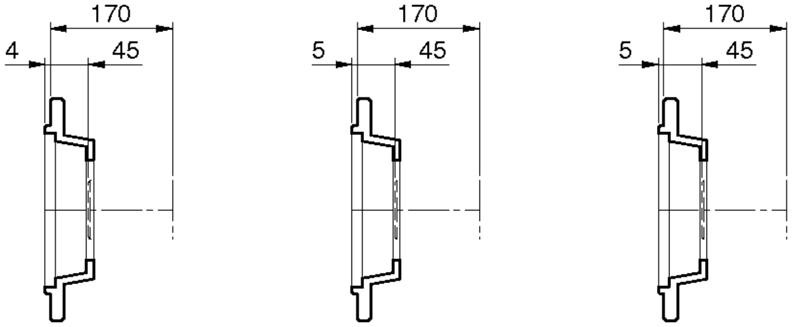
unverbindliche Abmessungen u. Gewichte

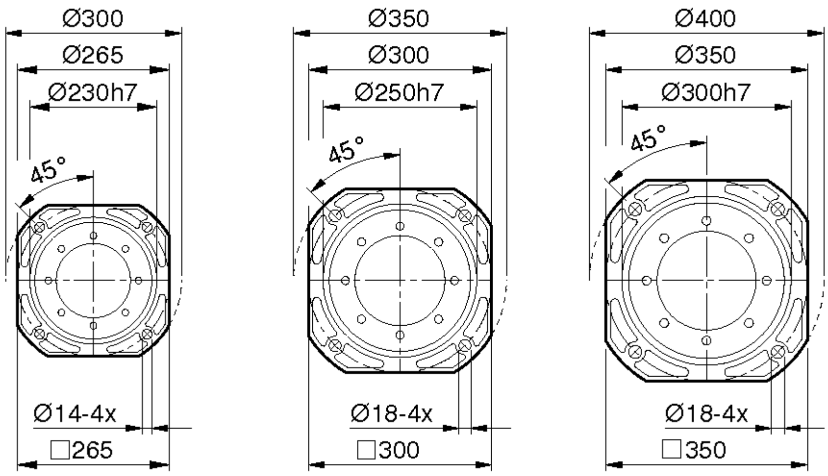
RO-RV Getriebe

RO63-RV63

Abmessungen

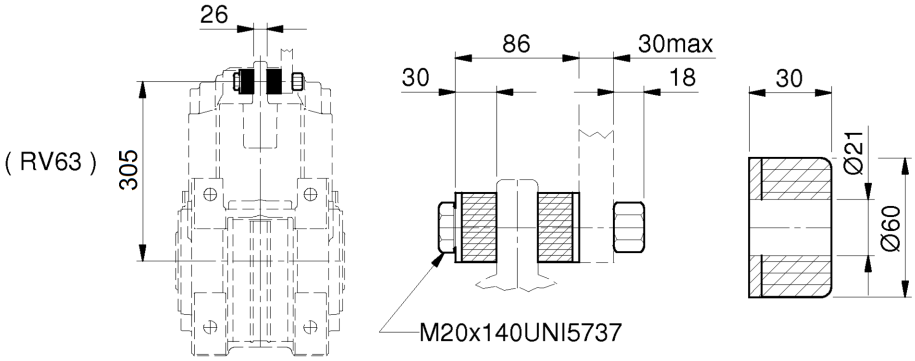




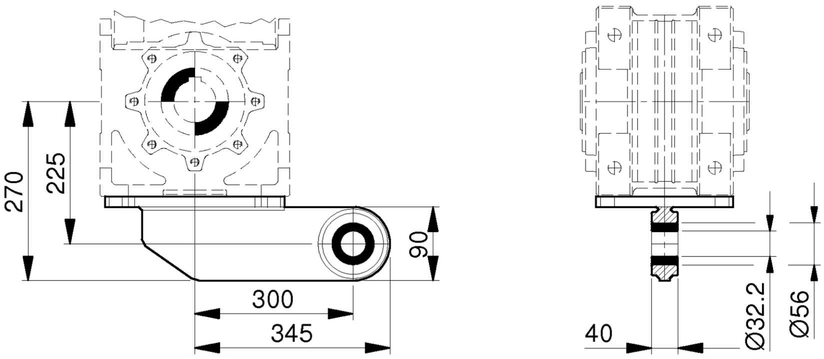


unverbindliche Abmessungen u. Gewichte

BTA



BTF



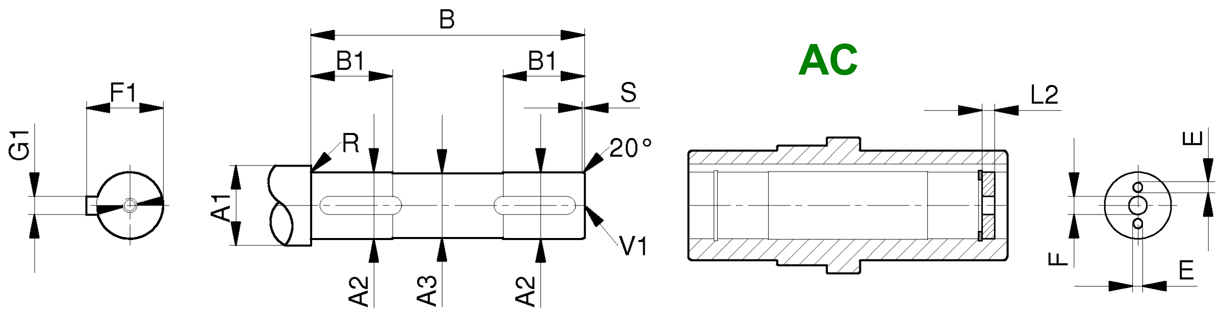
unverbindliche Abmessungen u. Gewichte

VARVEL KNOW-HOW TO DO IT

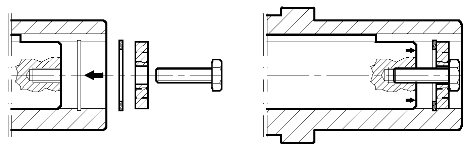
RO-RV Getriebe

Maschinenwelle Abmessungen

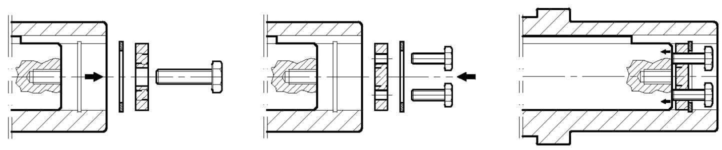
Die Tabelle gibt die Abmessungen der Maschinenwelle an, geeignet zur Einsetzung der Ausgangskeilhohlwelle AC mit externer Schrumpfscheibe.



- Montage



- Demontage



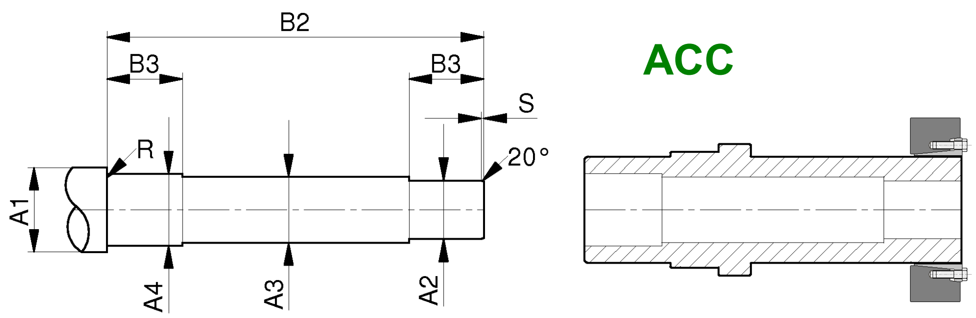
Große	A1	A2	A3	B	B1	E	F	F1	G1	L2	R	S	V1
RO13 - RV13	40	**30**	29	98	35	M6	11	33	8	5.5	1	2	M10x22
	35	**25**	24	98	35	M6	9	28	8	4.5	1	2	M8x19
RO22 - RV23	45	**35**	34	113.5	40	M8	11	38	10	7	1	2	M10x22
	40	**30**	29	113.5	40	M6	11	33	8	7	1	2	M10x22
RO32 - RV33	50	**40**	39	133.5	45	M8	13	43	12	7	1	2	M12x28
	45	**35**	34	133.5	45	M8	11	38	10	7	1	2	M10x22
RO42 - RV43	60	**50**	49	155.5	55	M10	17	53.5	14	8	1.5	3	M16x36
	55	**45**	44	155.5	55	M10	17	48.5	14	8	1.5	3	M16x36
	50	**40**	39	155.5	55	M8	13	43	12	8	1.5	3	M12x28
RO52 - RV53	75	**60**	59	185	65	M12	17	64	18	12.5	2	4	M16x36
	70	**55**	54	185	65	M12	17	59	16	12.5	2	4	M16x36
	65	**50**	49	185	65	M10	17	53.5	14	12.5	2	4	M16x36
RO62 - RV3	85	**70**	69	205	70	M12	21	74.5	20	12.5	2	4	M20x42
	80	**65**	64	205	70	M12	21	69	18	12.5	2	4	M20x42
	75	**60**	59	205	70	M12	21	64	18	12.5	2	4	M16x36

unverbindliche Abmessungen u. Gewichte

Getriebe RO-RV

Maschinenwelle Abmessungen

Die Tabelle gibt die Abmessungen der Maschinenwelle an, geeignet zur Einsetzung der Ausgangskeilhohlwelle ACC mit externer Schrumpfscheibe.



Große	A1	A2	A3	A4	B2	B3	R	S
RO13 - RV13	40	**30**	29	32	144	34	1	2
RO23 - RV23	45	**35**	34	37	167	39	1	2
RO33 - RV33	50	**40**	39	42	189	49	1	2
RO43 - RV43	60	**50**	49	52	220	49	1.5	3
RO53 - RV53	75	**60**	59	62	267	49	2	4
RO63 - RV63	85	**70**	69	72	294	49	2	4

Die Schrumpfscheibe liegt dem versuchten Prinzip des Keiles zugrunde. um eine mechanische Kupplung zur Interferenz ohne Keilnut zu kreieren.
Das axiale Anziehen der Schrauben wurde in radialem Anpressdruck zwischen Welle und Nabe umgesetzt. verursacht Stabilität der Schrumpfscheibe.

Montage
Sorgfältig die Kontaktflächen der Welle und der Nabe reinigen und ein wenig Öl aufbringen.
Die Schrauben gradual und einheitlich anziehen bis zur Erzielung des Anzugsdrehmoment.
Verwenden Sie keine Öle mit Molybdänsulfid. wegen erheblicher Reduzierung des Reibungskoeffizienten.
Während des Anziehens der Schrauben erfolgt keine axiale Verschiebung der Nabe gegenüber der Welle.

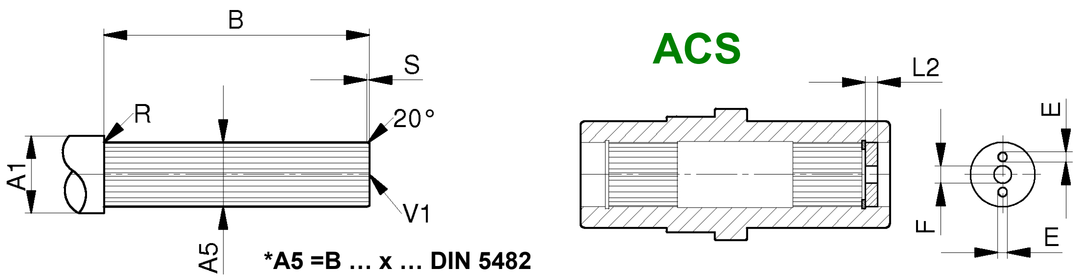
Demontage
Lösen Sie die Schrauben kontinuierlich und schrittweise. ohne die Schrauben aus dem Gewinde zu entfernen.
Im Falle der Wiederverwendung. tragen Sie auf den Schrauben und Kegelflächen eine Schmierpaste. um ein Reibungskoeffizient von 0.04 zu garantieren. Drehmomente.
Toleranzen und Rauigkeit nach Angaben des Herstellers.

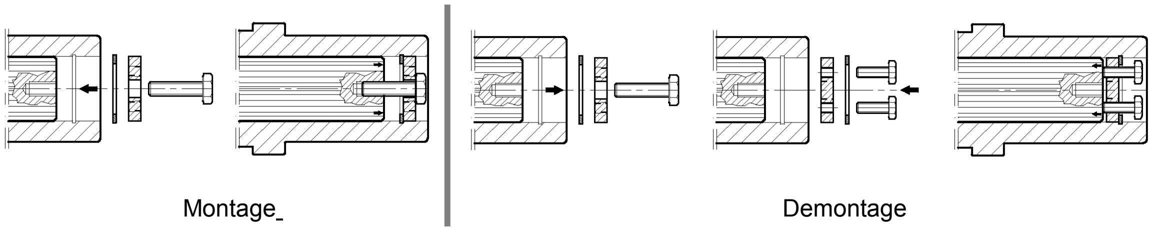
unverbindliche Abmessungen u. Gewichte

RO-RV Getriebe

Maschinenwelle Abmessungen

Die Tabelle gibt die Abmessungen der Maschinenwelle an, geeignet zur Einsetzung der Ausgangskeilhohlwelle ACS mit externer Schrumpfscheibe.





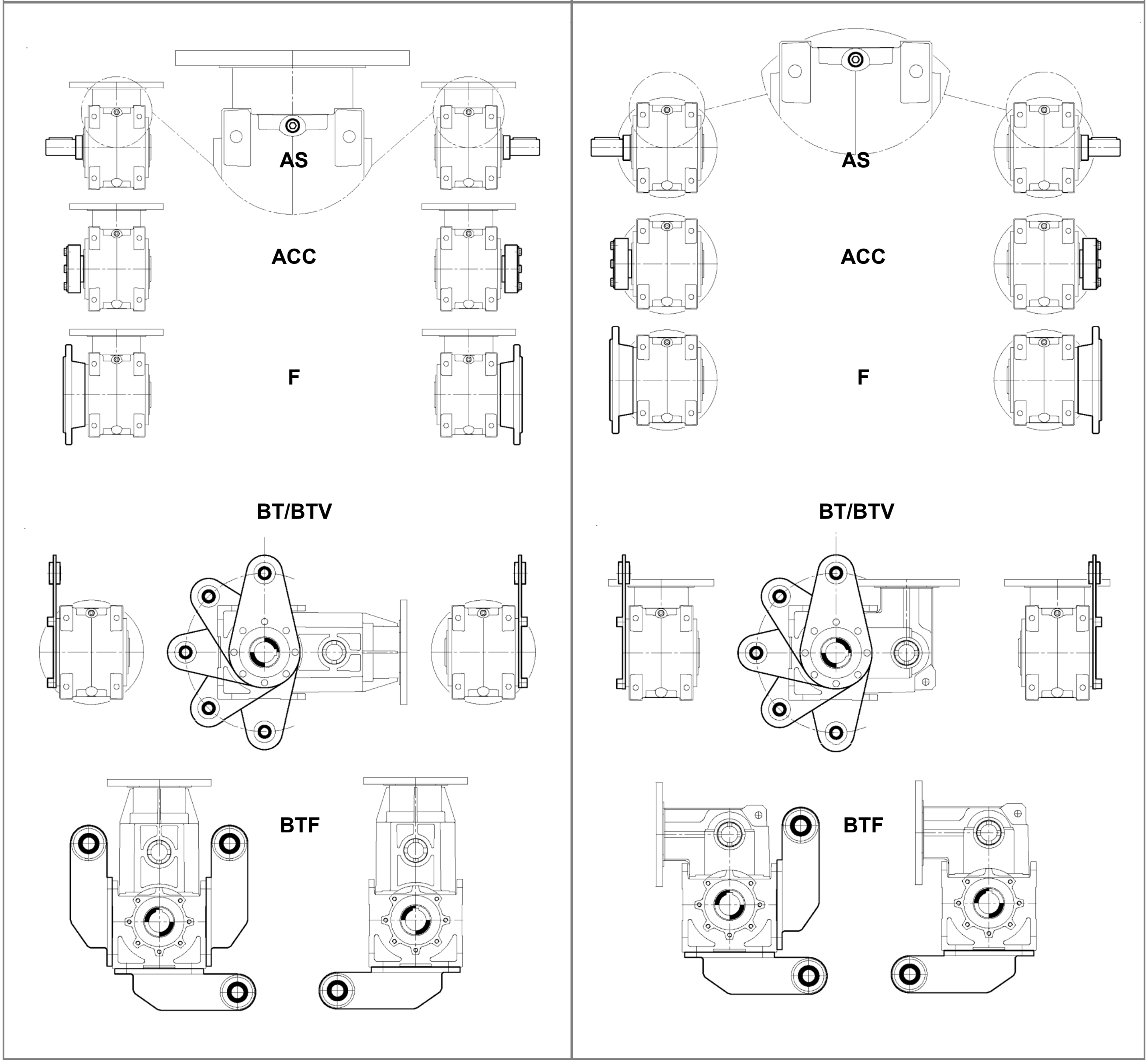
Große	A1	A5	B	E	F	L2	R	S	V1
RO13- RV13	40	30x27	98	M6	11	5.5	1	2	M8x19
RO23 - RV23	45	35x31	113.5	M8	11	7	1	2	M10x22
RO33 - RV33	50	40x36	133.5	M8	13	7	1	2	M10x22
RO43 - RV43	60	50x45	155.5	M10	17	8	1.5	3	M16x36
RO53 - RV53	75	60x55	185	M12	17	12.5	2	4	M16x36
RO63 - RV63	85	70x64	205	M12	21	12.5	2	4	M20x42

Die Keilwellen haben Zähne mit entsprechenden Nuten eines Kupplungsstückes und übertragen das Drehmoment mit Einhaltung des Winkels zwischen Ihnen.
Alternativ zur Verbindung von Schlüssel/Keilnut. die Keilwellen bieten mehr Drehmoment und höhere Lebensdauer an.

unverbindliche Abmessungen u. Gewichte

Die Zubehörbaulagen. hier als RH und LH definiert. beziehen sich auf H1 Einbaulage auf Seite 14 und werden von der Unterseite des Getriebes RO oder RV entsprechend gesehen.
Die Seite des Gehäuses mit der Schraube. wie gezeigt ist die genaue Identifizierung der Referenzseite.
Wenn das Zubehör am haus angeforderte gebaut wird die Reihenfolge gehalten. bis Seite RH oder LH definiert ist.
Für andere Einbaulagen entnehmen Sie bitte dem Kundendienst beziehen.

LH	RO	RH	LH	RV	RH



RO-RV Getriebe

Drehrichtung u. Bauelemente

RO

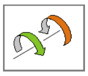
Inlineausführung

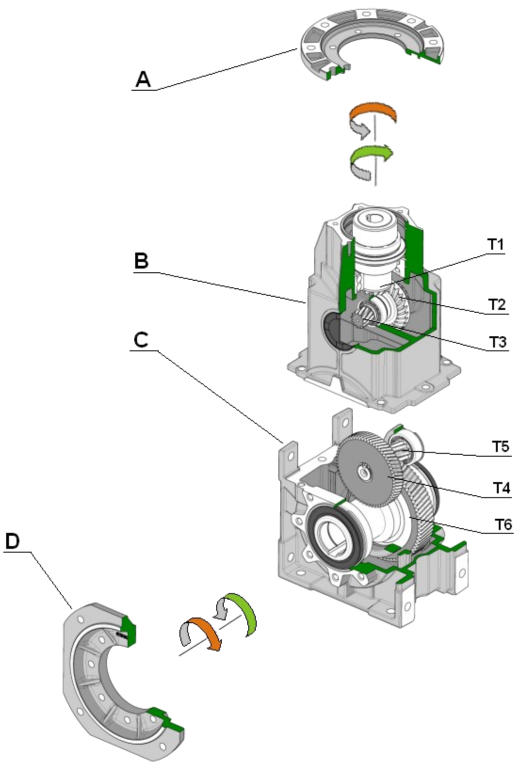
A - Motorflansch

B - Dreistufige Eingangsdeckel u. Räder T1. T2. T3

C - Gehäuse u. Räder T4. T5. T6

D - Abtriebsflansch

 - Drehrichtung



RV

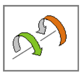
Winkelausführung

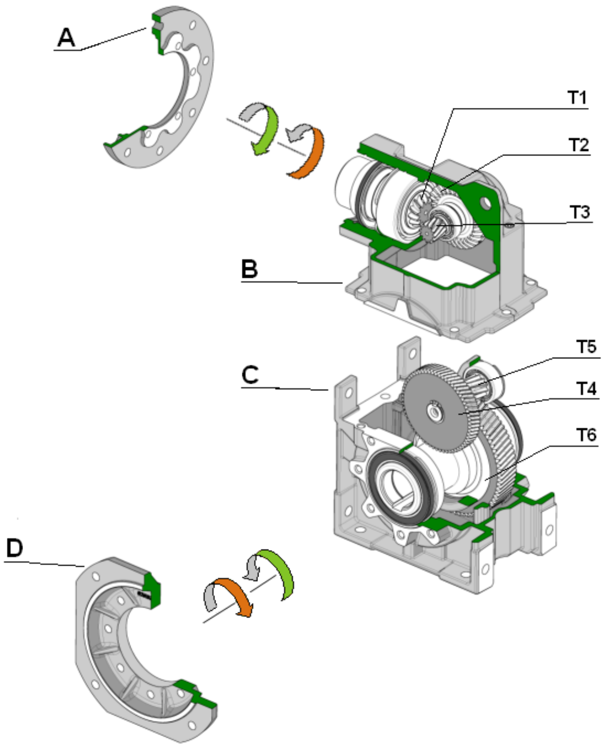
A - Motorflansch

B - Dreistufige Eingangsdeckel u. Räder T1. T2. T3

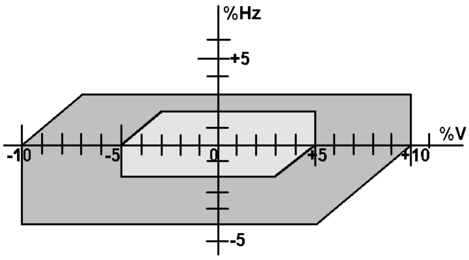
C - Gehäuse u. Räder T4. T5. T6

D - Abtriebsflansch

 - Drehrichtung



Spannung u. Frequenz

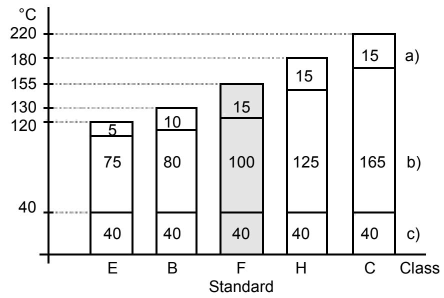


Nennwerte	Benutzbarwerte
230/400V 50Hz	240/415V 50Hz 220/380V 50Hz
277/480V 60 Hz	265/460V 60Hz 260/440V 60Hz

- Normaldienst

- Schwerdienst aber begrenzt

Isolationsklasse

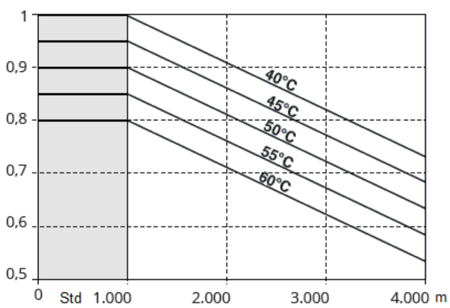


a) Sicherheitspanne

b) Annehmbar Übertemperatur

c) Konventionelle Zimmertemperatur

Höhe u. Temperatur
Faktoren (k AT)



$$P_{AT} = P_1 * k_{AT} \text{ [Kw]}$$

Konventionalbedingungen

1000 m [3285 ft]	- über dem Meeresspiegel
40 °C [104 °F]	- Zimmertemperatur
-15 °C [5 °F]	- Minimum Zimmerlufttemperatur
≤ 60%	- Relative Feuchtigkeit

RO-RV Getriebe

ATEX - Europäische Richtlinie 94/9/EU

Die Europäische Richtlinie 94/9/EG-ATEX gilt nicht nur für elektrische Ausrüstungen, sondern auch für alle Arten von Maschinen und Steuerungsteile, allein oder kombiniert, für den Gebrauch in potentiell explosiver Atmosphäre in den Gebieten der Europäischen Gemeinschaft.

Die VARVEL-ATEX Getriebe sind hergestellt mit

- Gehäuse und Deckel in Metall, beinhaltet Getriebe montiert auf Kugel- oder Rollenlager;
- FKM-Fluorelaste (Viton) Dichtungen auf Eingangs- und Ausgangswellen;
- ausreichende Ölmenge, um das Funktionieren des Projekts zu gewährleisten;
- Schrauben sind mit Schraubensicherungs-paste abgedichtet.

VARVEL-ATEX Getriebe sind in der Richtlinie als "Komponenten" identifiziert, von daher ihre autonome Funktion, aber wesentlich für den Betrieb von Geräten und Schutzsystemen für die Produktion, Transport, Lagerung, Messung, Regelung und Umwandlung von Energie und Verarbeitung von Materialien, die wegen ihrer eigenen potenzialer Entflammbarkeit, die Auslösung einer Explosion riskieren.

Richtlinie ATEX Kode Erläuterung

- **Gruppe**
  Verwendung in
  I - Minen
  II- Oberflächen Branchen
- **Kategorien**
  1- kontinuierliche Exposition in möglicher explosiver Umgebung bei Dauer >1000 Stunden/Jahr oder mit häufigen Störungen
  2- gelegentliche Exposition in möglicher explosiver Umgebung mit Dauer zwischen 10 und 1000 Stunden/Jahr oder mit gelegentlichen Fehlfunktionen
  3- unwahrscheinliche Exposition, in möglicher explosiver Umgebung und wenn dies eintrifft, bei einem kurzen Zeitraum mit Dauer von weniger als 10 Stunden/Jahr
- **Buchstaben “G” und “D”**
  G - Vorhandensein von Gas
  D - Vorhandensein von Staub
- **Buchstaben “c” und “k”**
  c - Indiz der Bausicherheit
  k - Indiz der Eintauchen in Flüssigkeit
- **IP66 (IP4X Nema)**
  IP- Internationaler Schutz Kode
  6 - 1. Ziffer - Staubdicht
  6 - 2. Ziffer - Schutz gegen starkem Wasser-Strahl
- **T_{max} u. T_{amb}**
  T_{max} - Maximale Oberflächentemperatur
  T_{amb} - Umgebungstemperatur

Getriebe RO-RV

Europäische Richtlinie 94/9/EU - ATEX

Die Serie VARVEL RD, RS, RT, RN, RO, RV, RP90 u. XA100 sind Übereinstimmung mit die Konstruktionsanforderungen gebeten von Gruppe II, Kategorie 2 oder 3 und für Betrieb in Zonen mit Explosionsgefahr in der Gegenwart von Gas (Zone 1 und Zone 2) und Staub (Zone 21 und Zone 22).

Die Produkte VARVEL-ATEX sind markiert

II 2 GD ck IP66
T_{max}=135°C

Gruppe	Kategorie	GasGas, Dämpfe, Nebel	Zone ⇦ ⇨	Stäube
I (a)	M1 (c) M2 (d)			
II (b)	1 (c)	G (0)		D (20)
	2 (d)	G (1)		D (21)
	3 (e)	G (2)		D (22)

Vorsicht !
Die Getriebe VARVEL-ATEX sind für den Anbau in die **Graufarbezone nicht zertifiziert.**

(a)- Bergwerke
(b)- Oberfläche-Industrien
(c)- Schutzklasse: sehr hoch
(d)- Schutzklasse: hoch
(e)- Schutzklasse: normal

(0) -ständige Gegenwart von gas
(1) -nicht ständige Gegenwart von gas
(2) -gelegentliche Gegenwart von gas

(20) -ständige Gegenwart von Stäube
(21) -nicht ständige Gegenwart von Stäube
(22) -gelegentliche Gegenwart von Stäube

RO-RV Getriebe

Zusammenfassung der BETRIEBS- u. WAR-TUNGSANWEISUNGEN
(vollständiges Handbuch auf **www.varvel.com**)

Gemäß der Maschinenrichtlinie 2006/42/EC und der zugehörigen Richtlinie gelten Getriebe und Verstellgetriebe als "separate Elemente von Maschinen, die keine spezifische Anwendung haben und die in der Maschine eingebaut werden sollen.
Die gesamte Maschine, die mit diesen Komponenten ausgerüstet ist, muss den einschlägigen grundlegenden Sicherheit- und Gesundheitsanforderungen der vorgenannten Richtlinie entsprechen.

Aufstellung
Vor der Aufstellung ist zu prüfen, dass die Antriebseinheit in Bezug auf die Betriebsbedingungen richtig ausgewählt wurde und die Einbaulage mit der Bestellung übereinstimmt.
Angaben hierüber sind auf dem Typenschild zu finden.
Die Stützkonstruktion für die Getriebe ist so stabil auszuführen, dass keine Schwingungen oder Überlastungen auftreten, eventuell sind elastische Kupplungen oder Drehmomentbegrenzer zu verwenden.

Inbetriebnahme
Die Antriebseinheit kann in beiden Drehrichtungen eingesetzt werden.
Die Einheit müsst sofort angehalten werden, wenn ein unzulässiger Lauf oder unerwartete Geräusche auftreten.
Das fehlerhafte Teil ist zu ersetzen oder die Einheit ist zur Überprüfung einzuschicken,
Falls das fehlerhafte Teil nicht ersetzt wird, kann dies zu weiteren Schäden an anderen Bauteilen führen, was eine Feststellung der Ursachen sehr schwierig machen kann.

Wartung
Obwohl die Einheiten vor der Auslieferung im Leerlauf getestet wurden, ist es ratsam sie in den ersten 20-30 Stunden nicht mit Volllast zu betreiben, um ein einwandfreies Einlaufen zu gewährleisten.
Die Einheiten werden entsprechend den Angaben auf dem Typenschild mit synthetischem Schmierstoff Lebensdauer geschmiert ausgeliefert.
Bei einem eventuellen Ölwechsel oder Nachfüllen darf der Schmierstoff nicht mit Mineralöl vermischt werden.

Handhabung und Transport
Beim Heben und Transport ist auf standsichere Lage und sorgfältige Befestigung geeigneter Hebe Vorrichtungen zu achten,
Bewegliche Teile dürfen nicht zum Anheben benutzt werden.

Anstrich
Beim Erneuern oder dem zusätzlichen Aufbringen eines Anstriches sind die Dichtungen, Kupplungssitze und Wellen sorgfältig zu schützen.

Langzeitlagerung
Die Einlagerung der Einheiten muss trocken und staubfrei erfolgen, Bei einer Einlagerungszeit über 3 Monate sind bearbeitete Flächen und Wellen mit Rostschutzmitteln zu besprühen, Dichtlippen sind mit Fett zu schützen.

Entsorgung
In Übereinstimmung mit ISO 14001 weisen wir darauf hin, im Falle des Verschrottens die einzelnen Metallteile getrennt zu behandeln und Schmiermittel bei den befugten Stellen zu entsorgen.
Verpackungen sollten soweit wie möglich wieder verwendet werden.