RC

RIDUTTORI AD INGRANAGGI
HELICAL GEARBOXES
STIRNRADGETRIEBE

RC
Riduttori
ad ingranaggi

Una, due e tre coppie di riduzione

- 7 grandezze
- Potenze da 0.09 a 22 kW
- Rapporti da 1.5:1 a 3620:1
- Coppie da 20 a 2500 Nm

RC
Helical
speed reducers

One, two and three reduction stages

- 7 sizes
- Powers from 0.09 to 22 kW
- Ratios from 1.5:1 to 3620:1
- Torques from 20 to 2500 Nm

RC
Stirnradgetriebe

Eniz, Zwei und Drei Stufen

- 7 Größen
- Leistungen von 0.09 bis 22 kW
- Untersetzungen von 1.5:1 bis 3620:1
- Ausgangsdrehmoment von 20 bis 2500 Nm

C-MRC **it gb de** Ed**01 2007**

VARVEL - RC

RIDUTTORI SERIE RC
GEARBOXES SERIES RC
GETRIEBEBAUREIHE RC

La serie dei riduttori a ingranaggi tipo RC è costruita secondo le norme di progettazione ISO.

La struttura compatta della carcassa non subisce deformazioni significative sotto effetto della coppia di funzionamento e dei carichi esterni con positivi risultati sulle superfici di tenuta.

I riduttori serie RC sono costruiti con carcassa realizzata in forma B3 con piedi o in forma B5.

La lavorazione in unico piazzamento con linee di produzione CNC dell'ultima generazione e i più moderni processi di calcolo e controllo originano una superiore affidabilità di funzionamento, le massime coppie disponibili, elevati carichi radiali ed assiali e lunga vita operativa.

The Series RC helical gearboxes are manufactured to latest ISO engineering design specifications.

Significant strains caused by the effects of torque and external loads do not deflect the monolithic ribwork of the housing, which significantly improves the integrity of the sealed surfaces.

The Series RD helical gearboxes are manufactured in B3 base mounted configuration and in B5 flange mounting.

Single-setup machining on state-of-the-art CNC production lines, the most recent calculation techniques and process controls give superior operational reliability, maximum output torques, high overhung and thrust load capacity, and long working life-time.

Die Stirnradgetriebe die Baureihe RD besitzen ein einteiliges Gussgehäuse, welches die Aufnahme von 2 oder 3 Getriebestufen im gleichen Gehäuse ermöglicht. Die Entwicklung erfolgte nach den neuesten ISO-Vorschriften unter Berücksichtigung von Strukturanalysen zur Überprüfung der Verformungs-Beständigkeit.

Durch Drehmomente und einwirkende äußere Kräfte entstehen keine beachtenswerten Verspannungen des monolithischen Gehäuses mit Einfluss auf die Dichtflächen.

Die Gehäuse sind immer in Bauform B3 ausgeführt mit entsprechender Vorbereitung für Umrüstung in Bauform B5, wobei hier verschiedene Flansche zur Verfügung stehen.

Durch Zusammenfassung modernster Maschinen in CNC-Produktionslinen, durch fortschrittlichste Berechnungs-verfahren und durch permanente Kontrolle der Produktion werden höchste Zuverlässigkeit, große Drehmomente, hohe Achsbelastbarkeit und Stoss-festigkeit bei langer Lebensdauer erreicht.

	SPECIFICHE GENERALI	GENERAL SPECIFICATIONS	ALLGEMEINE EIGENSCHAFTEN
Gamma Range Bereich	7 grandezze 40 rapporti in 1, 2 e 3 coppie 2500 Nm coppia uscita max	7 sizes 40 ratios in 1, 2 and 3 stages 2500 Nm max. output torque	7 Baugrößen 40 Übersetzungen 1, 2 u. 3-stufig 2500 Nm max. Abtriebsmoment
Dimensionamento Sizing Auslegung	Secondo ISO6336 / DIN3990. Vita media 15.000 ore con fattore di servizio SF1	According to ISO6336/DIN3990. 15,000 hrs average lifetime with service factor SF1	Laut ISO6336/DIN3990. 15.000 Stunden Lebensdauer für Verzahnung und Lagerung bei einem Betriebsfaktor SF1
Carcassa, Coperchi Housing, Covers Gehäuse, Flansche	Ghisa grigia G25	Grey cast iron G25	Grauguss G25
Parti dentate Toothed parts Verzahnung	Acciaio 20MnCr5 cmt / tmp. Evolvente sbarbato.	Steel 20MnCr5 case hardened. Tooth profile shaved	Stahl 20MnCr5 einsatzgehärtet. Zahnprofil geschliffen.
Alberi & Linguette Shafts & Keys Wellen	Acciaio 39NiCrMo3 Alberi k6 - Fori E8 Linguette secondo DIN6885 B1	Steel 39NiCrMo3 Shafts k6 - Bores E8 Keys according to DIN6885 B1	Stahl 39NiCrMo3 Wellen k6 – Bohrungen E8 Keile nach DIN6885 B1
Cuscinetti Bearings Lagerung	Sfere o rulli secondo grandezza e specifiche tecniche	Ball- or roller-types according to sizes and technical requirements	Kugel- oder Rollenlager entsprechend den technischen Vorschriften
Paraolio Oilseals Dichtungen	Tipo NB - nitril-butadiene con secondo labbro parapolvere secondo DIN 3760	Type NB - nitril-butadiene with additional anti-dust lip according to DIN 3760	Typ NB – Nitril-Butadien mit zusätzlicher Staublippe entsprechend DIN 3760
Lubrificante Lubricant Schmierung	Olio sintetico a lunga durata Gradazione ISO VG 320	Synthetic long-life oil Grade ISO VG 320	Synthetisches Getriebeöl ISO VG 320 als Langzeit-Füllung
Verniciatura a forno Baking painting Gehäuselackierung	Vernice a polveri epossidiche Colore standard RAL 6003	Epoxy powder paint Standard colour RAL 6003	Epoxydpulverfarbe Standardfarbton RAL 6003

VARVEL - RC

DESIGNAZIONE - FATTORI DI SERVIZIO - RENDIMENTI
DESIGNATION - SERVICE FACTORS - EFFICIENCY
BEZEICHNUNGEN - BETRIEBSFAKTOREN - WIRKUNGSGRAD

DESIGNAZIONE DEL RIDUTTORE — GEARBOX DESIGNATION — GETRIEBEBEZEICHNUNG

F RC 2 10 /B3 20 IEC71 /B14

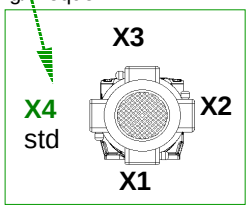
- /B14 — B5, B14 = Forma del motore - Motor format - Motorbauform
- IEC71 — Grandezza del motore elettrico - Electric motor frame - Motorbaugrösse
- 20 — Rapporto di riduzione - Reduction ratio - Getriebeübersetzung
- /B3 — B3, B5 = Forma costruttiva del riduttore – Gearbox format - Bauform des Getriebes
- 10 — Grandezza del riduttore - Gearbox size - Baugröße des Getriebes
- 2 — 1,2,3 = N.coppie - No of gear sets - Stufenummer
- RC — Tipo del riduttore - Gearbox type - Getriebetyp

M = Motoriduttore	- Geared motor	- Getriebemotor
F = Riduttore con flangia entrata IEC	- Gearbox with input flange IEC	- IEC-Eingangsflansch
… = Riduttore con albero entrata sporgente	- Gearbox with input free shaft	- Freie Eingangswelle

DESIGNAZIONE DEL MOTORE — MOTOR DESIGNATION — MOTORENBEZEICHNUNG

MT 0.37 kW 71B 4 B14 230/400/50 IP55 F X4

- X4 — Posizione della morsettiera - Terminal box position - Klemmkastenposition
- F — Class F (std) = Classe isolamento - Insulation class - Isolationsklasse
- IP55 — IP55 (std) = Grado di protezione - Protection class - Schutzart
- 230/400/50 — Tensione/Frequenza - Voltage/frequency - Spannung/Frequenz
- B14 — Forma costruttiva - Mounting format - Bauform
- 4 — Numero poli - Number of poles - Polzahl
- 71B — Grandezza IEC motore - IEC motor frame - IEC-Motorbaugröße
- 0.37 kW — Potenza motore - Motor power - Motorleistung
- MT — MT = Motore trifase - Three-phase motor - Dreiphasenmotor
- MM — MM = Motore monofase - Single-phase motor - Einphasenmotor
- MA — MA = Motore autofrenante - Brake motor - Bremsmotor



FATTORI DI SERVIZIO
SERVICE FACTORS
BETRIEBSFAKTOREN

F1 [h]	a	b	c	d	F2
3 - 4	0.8	1.0	1.5	6	1.0
8 - 10	1.0	1.2	1.8	60	1.2
10 - 24	1.4	1.6	2.0	120	1.4

FS = F1 x F2

	Carico	Load	Belastung
a	Uniforme	Uniform	gleichmäßige
b	Variabile	Variable	variable
c	A urti	Shock	Stoß
d	Avviam./ora	Start/Stops	Schaltungen/St.

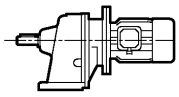
RENDIMENTI
EFFICIENCY
WIRKUNGSGRAD

	η
RC1	0.98
RC2	0.96
RC3	0.94

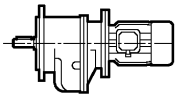
	Coppie	Gear set	Stufig
RC1 -	Una	One	Einz-
RC2 -	Due	Two	Zwei-
RC3 -	Tre	Three	Drei-

VARVEL - RC

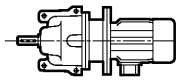
POSIZIONI DI MONTAGGIO - COPPIE MASSIME - CARICHI ESTERNI
STANDARD INSTALLATIONS - MAX. OUTPUT TORQUES - EXTERNAL LOADS
MAONTAGEPOSITION - AUSGANGSDREHMOMENT - AUSGANGSKRÄFTE



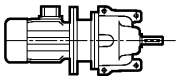
B3



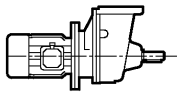
B5



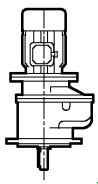
B6



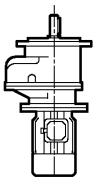
B7



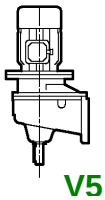
B8



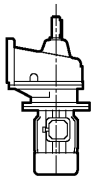
V1



V3



V5

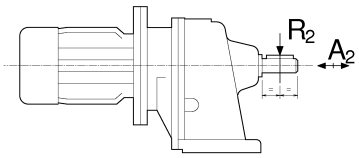


V6

COPPIE MAX. USCITA [Nm] MAX. OUTPUT TORQUES [Nm] MAX. AUSGANGSDREHMOMENT [Nm]	RC1	Nm	RC2	Nm	RC3	Nm
	105	10	205	37	305	37
	110	20	210	75	310	75
	120	42	220	150	320	150
	130	84	230	300	330	300
	140	230	240	600	340	600
	** 150*	*410*	250	1250	350	1250
	** 160*	*830*	260	2500	360	2500

* = In esaurimento - Discontinued model - Obsolete wird

CARICHI USCITA R2 [daN]
OUTPUT LOADS [daN]
AUSGANGSKRÄFTE [daN]



A2 = 0.2 x R2

* = In esaurimento - Discontinued model - Obsolete wird

Una coppia
One stage
Einstufug

rpm	RC105	RC110	RC120	RC130	RC140	** RC150*	** RC160*
1000	20	25	35	50	70	*110*	*230*
500	30	40	55	80	110	*170*	*350*
150	45	60	80	110	165	*250*	*480*

Due coppie
Two Stages
Zweistufige

rpm	RC205	RC210	RC220	RC230	RC240	RC250	RC260
500	45	75	110	180	275	420	800
300	60	90	125	210	320	475	950
150	75	110	165	270	415	620	1200
75	95	140	210	350	530	800	1600
30	110	150	250	420	620	930	1800

Tre coppie
Three stages
Dreistufige

rpm	RC305	RC310	RC320	RC330	RC340	RC350	RC360
25÷3	120	160	270	450	675	1000	1950

VARVEL - RC

SELEZIONE RIDUTTORE - MRC
SPEED REDUCER SELECTION - MRC
GETRIEBEAUSWAHL - MRC

1400 [min^{-1}]

0.09 kW (0.12 HP)

Tipo	rpm	1:	Nm	SF	kg
MRC330	3.0	432	270	1.1	26
MRC330	3.5	388	230	1.3	26
MRC320	4.5	320	180	0.8	17
MRC320	5.0	284	160	0.9	17
MRC320	5.5	254	150	1.0	17
MRC320	6.5	208	125	1.2	17
MRC320	8.0	174	100	1.5	17
MRC310	9.5	147	85	0.9	15
MRC310	10.5	133	75	1.0	15
MRC310	12.0	119	65	1.1	15
MRC310	13.5	103	60	1.2	15
MRC310	16	87	50	1.5	15
MRC305	19	73	42	0.9	12
MRC305	23	61	35	1.1	12
MRC205	27	52	30	1.2	10
MRC205	31	46	26	1.4	10
MRC205	37	38	22	1.6	10
MRC205	42	34	20	1.8	10
MRC205	47	30	17	2.0	10
MRC205	57	25	14	2.5	10
MRC205	69	20	12	3.0	10
MRC205	82	18	10	>3	10
MRC205	90	16	9.2	>3	10
MRC205	101	14	8.2	>3	10
MRC205	113	13	7.3	>3	10
MRC205	138	10	6.0	>3	10
MRC205	166	8.7	5.0	>3	10
MRC105	175	8.3	4.7	2.1	6
MRC205	196	7.3	4.2	>3	10
MRC205	210	6.8	3.9	>3	10
MRC205	230	6.3	3.6	>3	10
MRC205	240	6.0	3.4	>3	10
MRC205	268	5.4	3.1	>3	10
MRC205	324	4.5	2.5	>3	10
MRC205	388	3.7	2.1	>3	10
MRC105	415	3.5	2.0	>3	6
MRC205	460	3.1	1.8	>3	10
MRC205	540	2.7	1.5	>3	10
MRC205	630	2.3	1.3	>3	10
MRC105	965	1.5	0.9	>3	6

0.12 kW (0.17 HP)

Tipo	rpm	1:	Nm	SF	kg
MRC340	3.0	432	360	1.7	43
MRC330	3.5	388	310	1.0	26
MRC330	4.5	320	240	1.3	26
MRC330	5.0	284	215	1.4	26
MRC330	5.5	254	195	1.5	26
MRC320	6.5	208	165	0.9	17
MRC320	8.0	174	135	1.1	17
MRC320	9.5	147	115	1.3	17
MRC320	10.5	133	105	1.4	17
MRC310	12.0	119	90	0.8	15
MRC310	13.5	103	80	0.9	15
MRC310	16	87	65	1.1	15
MRC310	19	73	55	1.3	15
MRC310	23	61	45	1.6	15
MRC210	27	52	40	1.9	11
MRC210	31	46	35	2.1	11
MRC205	37	38	30	1.2	10
MRC205	42	34	26	1.4	10
MRC205	47	30	23	1.6	10
MRC205	57	25	19	1.9	10

0.12 kW (0.17 HP)

Tipo	rpm	1:	Nm	SF	kg
MRC205	69	20	16	2.3	10
MRC205	82	18	13	2.8	10
MRC205	90	16	12	3.0	10
MRC205	101	14	11	>3	10
MRC205	113	13	10	>3	10
MRC205	138	10	8.0	>3	10
MRC205	166	8.7	6.6	>3	10
MRC105	175	8.3	6.4	1.5	7
MRC205	196	7.3	5.6	>3	10
MRC205	210	6.8	5.2	>3	10
MRC205	230	6.3	4.8	>3	10
MRC205	240	6.0	4.6	>3	10
MRC205	268	5.4	4.1	>3	10
MRC205	324	4.5	3.4	>3	10
MRC205	388	3.7	2.8	>3	10
MRC105	415	3.5	2.7	>3	7
MRC205	460	3.1	2.4	>3	10
MRC205	540	2.7	2.0	>3	10
MRC205	630	2.3	1.7	>3	10
MRC105	965	1.5	1.2	>3	7

0.18 kW (0.25 HP)

Tipo	rpm	1:	Nm	SF	kg
MRC340	3.0	432	540	1.1	44
MRC340	3.5	388	460	1.3	44
MRC340	4.5	320	360	1.7	44
MRC340	5.0	284	320	1.8	44
MRC340	5.5	254	295	2.0	44
MRC330	6.5	208	250	1.2	27
MRC330	8.0	174	200	1.5	27
MRC330	9.5	147	170	1.7	27
MRC330	10.5	133	155	1.9	27
MRC320	12.0	119	135	1.1	18
MRC320	13.5	103	120	1.3	18
MRC320	16	87	100	1.5	18
MRC310	19	73	85	0.9	16
MRC310	23	61	70	1.1	16
MRC210	27	52	60	1.2	12
MRC210	31	46	55	1.4	12
MRC210	37	38	45	1.6	12
MRC210	42	34	39	1.9	12
MRC205	47	30	35	1.0	11
MRC205	57	25	29	1.2	11
MRC205	69	20	24	1.5	11
MRC205	82	18	20	1.8	11
MRC205	90	16	18	2.0	11
MRC205	101	14	16	2.3	11
MRC205	113	13	15	2.5	11
MRC205	138	10	12	3.0	11
MRC205	166	8.7	10	>3	11
MRC105	175	8.3	10	1.0	8
MRC205	196	7.3	8.4	2.0	11
MRC205	210	6.8	7.8	>3	11
MRC205	230	6.3	7.2	>3	11
MRC205	240	6.0	6.9	>3	11
MRC205	268	5.4	6.2	>3	11
MRC205	324	4.5	5.1	>3	11
MRC205	388	3.7	4.3	>3	11
MRC105	415	3.5	4.1	2.5	8
MRC205	460	3.1	3.6	>3	11
MRC205	540	2.7	3.1	>3	11
MRC205	630	2.3	2.6	>3	11
MRC105	965	1.5	1.7	>3	8

0.25 kW (0.33 HP)

Tipo	rpm	1:	Nm	SF	kg
MRC350	3.0	432	800	1.6	71
MRC350	3.5	388	640	2.0	71
MRC340	4.5	320	500	1.2	45
MRC340	5.0	284	450	1.3	45
MRC340	5.5	254	410	1.5	45
MRC330	6.5	208	340	0.9	28
MRC330	8.0	174	280	1.1	28
MRC330	9.5	147	235	1.3	28
MRC330	10.5	133	215	1.4	28
MRC330	12.0	119	190	1.6	28
MRC330	13.5	103	165	1.8	28
MRC330	16	87	140	2.0	28
MRC320	19	73	120	1.2	19
MRC320	23	61	100	1.5	19
MRC220	27	52	85	1.7	18
MRC220	31	46	75	2.0	18
MRC210	37	38	65	1.2	13
MRC210	42	34	55	1.4	13
MRC210	47	30	49	1.5	13
MRC210	57	25	40	1.8	13
MRC210	69	20	33	2.2	13
MRC210	82	18	28	2.6	13
MRC205	90	16	25	1.4	12
MRC205	101	14	23	1.6	12
MRC205	113	13	20	1.8	12
MRC205	138	10	17	2.2	12
MRC205	166	8.7	14	2.6	12
MRC110	175	8.3	13	1.5	11
MRC205	196	7.3	12	>3	12
MRC205	210	6.8	11	>3	12
MRC205	230	6.3	10	>3	12
MRC205	240	6.0	9.5	>3	12
MRC205	268	5.4	8.5	>3	12
MRC205	324	4.5	7.1	>3	12
MRC205	388	3.7	5.9	>3	12
MRC105	415	3.5	5.6	1.8	10
MRC205	460	3.1	5.0	>3	12
MRC205	540	2.7	4.2	>3	12
MRC205	630	2.3	3.6	>3	12
MRC105	965	1.5	2.4	>3	10

0.37 kW (0.5 HP)

Tipo	rpm	1:	Nm	SF	kg
MRC350	3.0	432	1110	1.1	71
MRC350	3.5	388	950	1.3	71
MRC350	4.5	320	740	1.7	71
MRC350	5.0	284	665	1.9	71
MRC350	5.5	254	505	2.0	71
MRC340	6.5	208	510	1.2	45
MRC340	8.0	174	415	1.4	45
MRC330	9.5	147	350	0.9	29
MRC330	10.5	133	315	1.0	29
MRC330	12.0	119	275	1.1	29
MRC330	13.5	103	245	1.2	29
MRC330	16	87	210	1.4	29
MRC330	19	73	175	1.7	29
MRC330	23	61	145	2.1	29
MRC220	27	52	125	1.2	18
MRC220	31	46	110	1.4	18
MRC220	37	38	90	1.6	18
MRC220	42	34	80	1.9	18
MRC210	47	30	75	1.0	13
MRC210	57	25	60	1.2	13

VARVEL - RC

SELEZIONE RIDUTTORE - MRC
SPEED REDUCER SELECTION - MRC
GETRIEBEAUSWAHL - MRC

1400 [min^{-1}]

0.37 kW (0.5 HP)

Tipo	rpm	1:	Nm	SF	kg
MRC210	69	20	50	1.5	13
MRC210	82	18	41	1.8	13
MRC210	90	16	38	2.0	13
MRC210	101	14	34	2.2	13
MRC210	113	13	30	2.5	13
MRC210	138	10	25	3.0	13
MRC205	166	8.7	20	1.8	12
MRC110	175	8.3	20	1.0	12
MRC205	196	7.3	17	2.1	12
MRC205	210	6.8	16	2.3	12
MRC205	230	6.3	15	2.5	12
MRC205	240	6.0	14	2.6	12
MRC205	268	5.4	13	2.9	12
MRC205	324	4.5	11	>3	12
MRC205	388	3.7	8.7	>3	12
MRC105	415	3.5	8.4	1.2	10
MRC205	460	3.1	7.4	>3	12
MRC205	540	2.7	6.3	>3	12
MRC205	630	2.3	5.4	>3	12
MRC105	965	1.5	3.6	2.8	10

0.55 kW (0.75 HP)

MRC360	3.0	432	1650	1.5	152
MRC360	3.5	388	1410	1.8	152
MRC350	4.5	320	1100	1.1	74
MRC350	5.0	284	990	1.3	74
MRC350	5.5	254	900	1.4	74
MRC350	6.5	208	760	1.6	74
MRC350	8.0	174	620	2.0	74
MRC340	9.5	147	520	1.2	48
MRC340	10.5	133	470	1.3	48
MRC340	12.0	119	410	1.5	48
MRC340	13.5	103	365	1.6	48
MRC340	16	87	310	1.9	48
MRC330	19	73	260	1.2	31
MRC330	23	61	215	1.4	31
MRC230	27	52	190	1.6	30
MRC230	31	46	165	1.8	30
MRC220	37	38	135	1.1	21
MRC220	42	34	120	1.2	21
MRC220	47	30	110	1.4	21
MRC220	57	25	90	1.7	21
MRC220	69	20	75	2.0	21
MRC220	82	18	60	2.5	21
MRC210	90	16	55	1.3	16
MRC210	101	14	50	1.5	16
MRC210	113	13	45	1.7	16
MRC210	138	10	36	2.1	16
MRC210	166	8.7	30	2.5	16
MRC120	175	8.3	29	1.4	21
MRC210	196	7.3	26	2.9	16
MRC210	210	6.8	24	>3	16
MRC210	230	6.3	22	>3	16
MRC210	240	6.0	21	>3	16
MRC210	268	5.4	19	>3	16
MRC210	324	4.5	16	>3	16
MRC210	388	3.7	13	>3	16
MRC110	415	3.5	12	1.6	16
MRC210	460	3.1	11	>3	16
MRC210	540	2.7	9.3	>3	16
MRC210	630	2.3	8.0	>3	16
MRC110	965	1.5	5.3	>3	16

0.75 kW (1 HP)

Tipo	rpm	1:	Nm	SF	kg
MRC360	3.0	432	2245	1.0	153
MRC360	3.5	388	1925	1.2	153
MRC360	4.5	320	1500	1.7	153
MRC360	5.0	284	1350	1.9	153
MRC360	5.5	254	1225	2.0	153
MRC350	6.5	208	1035	1.2	75
MRC350	8.0	174	840	1.5	75
MRC350	9.5	147	710	1.8	75
MRC350	10.5	133	640	1.9	75
MRC340	12.0	119	560	1.1	49
MRC340	13.5	103	500	1.2	49
MRC340	16	87	420	1.4	49
MRC340	19	73	355	1.7	49
MRC340	23	61	295	2.1	49
MRC230	27	52	255	1.2	33
MRC230	31	46	220	1.4	33
MRC230	37	38	185	1.6	33
MRC230	42	34	165	1.8	33
MRC220	47	30	145	1.0	22
MRC220	57	25	120	1.2	22
MRC220	69	20	100	1.5	22
MRC220	82	18	85	1.8	22
MRC220	90	16	75	2.0	22
MRC220	101	14	70	2.2	22
MRC220	113	13	60	2.5	22
MRC220	138	10	50	3.0	22
MRC210	166	8.7	41	1.8	17
MRC120	175	8.3	40	1.0	22
MRC210	196	7.3	35	2.1	17
MRC210	210	7.3	33	2.3	17
MRC210	230	6.3	30	2.5	17
MRC210	240	6.0	26	2.9	17
MRC210	268	5.4	26	>3	17
MRC210	324	4.5	21	>3	17
MRC210	388	3.7	18	>3	17
MRC110	415	3.5	17	1.2	17
MRC210	460	3.1	15	>3	17
MRC210	540	2.7	13	>3	17
MRC210	630	2.3	11	>3	17
MRC110	965	1.5	7.3	2.7	17

1.1 kW (1.5 HP)

MRC360	4.5	320	2195	1.1	157
MRC360	5.0	284	1975	1.3	157
MRC360	5.5	254	1795	1.4	157
MRC360	6.5	208	1520	1.6	157
MRC360	8.0	174	1235	2.0	157
MRC350	9.5	147	1040	1.2	77
MRC350	10.5	133	940	1.3	77
MRC350	12.0	119	825	1.5	77
MRC350	13.5	103	730	1.7	77
MRC350	16	87	620	2.0	77
MRC340	19	73	520	1.2	51
MRC340	23	61	430	1.4	51
MRC240	27	52	375	1.6	44
MRC240	31	46	325	1.8	44
MRC230	37	38	275	1.1	34
MRC230	42	34	240	1.2	34
MRC230	47	30	215	1.4	34
MRC230	57	25	180	1.7	34
MRC230	69	20	145	2.0	34

1.1 kW (1.5 HP)

Tipo	rpm	1:	Nm	SF	kg
MRC230	82	18	125	2.4	34
MRC220	90	16	115	1.3	24
MRC220	101	14	100	1.5	24
MRC220	113	13	90	1.7	24
MRC220	138	10	75	2.0	24
MRC220	166	8.8	60	2.5	24
MRC130	175	8.3	60	1.4	34
MRC220	196	7.3	50	2.9	34
MRC220	210	6.8	48	>3	34
MRC220	230	6.3	44	>3	34
MRC220	240	6.0	42	>3	34
MRC220	268	5.4	38	>3	34
MRC220	324	4.5	31	>3	34
MRC220	388	3.7	26	>3	34
MRC120	415	3.5	25	1.7	26
MRC220	460	3.1	22	>3	34
MRC220	540	2.7	19	>3	34
MRC220	630	2.3	16	>3	34
MRC120	965	1.5	11	>3	26

1.5 kW (2 HP)

MRC360	6.5	208	2070	1.2	160
MRC360	8.0	174	1685	1.5	160
MRC360	9.5	147	1420	1.8	160
MRC360	10.5	133	1285	1.9	160
MRC350	12.0	119	1125	1.1	80
MRC350	13.5	103	1000	1.3	80
MRC350	16	87	840	1.5	80
MRC350	19	73	700	1.8	80
MRC350	23	61	585	2.1	80
MRC240	27	52	510	1.2	48
MRC240	31	46	445	1.4	48
MRC240	37	38	370	1.6	48
MRC240	42	34	330	1.8	48
MRC230	47	30	300	1.0	38
MRC230	57	25	240	1.2	38
MRC230	69	20	200	1.5	38
MRC230	82	18	170	1.8	38
MRC230	90	16	155	2.0	38
MRC230	101	14	135	2.2	38
MRC230	113	13	120	2.5	38
MRC230	138	10	100	3.0	38
MRC220	166	8.7	85	1.8	27
MRC130	175	8.3	80	1.0	37
MRC220	196	7.3	70	2.1	27
MRC220	210	6.8	65	2.3	27
MRC220	230	6.3	60	2.5	27
MRC220	240	6.0	55	2.6	27
MRC220	268	5.4	50	3.0	27
MRC220	324	4.5	42	>3	27
MRC220	388	3.7	35	>3	27
MRC120	415	3.5	34	1.2	22
MRC220	460	3.1	30	>3	27
MRC220	540	2.7	25	>3	27
MRC220	630	2.3	22	>3	27
MRC120	965	1.5	15	2.9	22

2.2 kW (3 HP)

MRC360	9.5	147	2080	1.2	164
MRC360	10.5	133	1880	1.3	164
MRC360	12.0	119	1650	1.5	164

VARVEL - RC

SELEZIONE RIDUTTORE - MRC
SPEED REDUCER SELECTION - MRC
GETRIEBEAUSWAHL - MRC

1400 [min^{-1}]

2.2 kW (3 HP)

Tipo	rpm	1:	Nm	SF	kg
MRC360	13.5	103	1465	1.7	164
MRC360	16	87	1235	2.0	164
MRC350	19	73	1040	1.2	86
MRC350	23	61	860	1.5	86
MRC250	27	52	750	1.7	82
MRC250	31	46	650	1.9	82
MRC240	37	38	545	1.1	54
MRC240	42	34	480	1.2	54
MRC240	47	30	430	1.4	54
MRC240	57	25	355	1.7	54
MRC240	69	20	295	2.0	54
MRC240	82	18	245	2.4	54
MRC230	90	16	225	1.3	44
MRC230	101	14	200	1.5	44
MRC230	113	13	180	1.7	44
MRC230	138	10	150	2.0	44
MRC230	166	8.7	125	2.5	44
MRC140	175	8.3	120	1.9	50
MRC230	196	7.3	105	2.9	44
MRC230	210	6.8	95	>3	44
MRC230	230	6.3	90	>3	44
MRC230	240	6.0	85	>3	44
MRC230	268	5.4	75	>3	44
MRC230	324	4.5	65	>3	44
MRC230	388	3.7	55	>3	44
MRC130	415	3.5	50	1.7	41
MRC230	460	3.1	45	>3	44
MRC230	540	2.7	40	>3	44
MRC230	630	2.3	35	>3	44
MRC130	965	1.5	25	>3	41

3 kW (4 HP)

MRC360	12.0	119	2250	1.1	167
MRC360	13.5	103	2000	1.3	167
MRC360	16	87	1685	1.5	167
MRC350	19	73	1415	0.9	101
MRC350	23	61	1170	1.1	101
MRC250	27	52	1020	1.2	88
MRC250	31	46	890	1.4	88
MRC250	37	38	745	1.7	88
MRC250	42	34	655	1.9	88
MRC240	47	30	590	1.0	56
MRC240	57	25	485	1.2	56
MRC240	69	20	400	1.5	56
MRC240	82	18	335	1.8	56
MRC240	90	16	305	2.0	56
MRC240	101	14	275	2.2	56
MRC240	113	13	245	2.5	56
MRC240	138	10	200	3.0	56
MRC230	166	8.7	165	1.8	46
MRC140	175	8.3	160	1.4	53
MRC230	196	7.3	140	2.1	46
MRC230	210	6.8	130	2.3	46
MRC230	230	6.3	120	2.5	46
MRC230	240	6.0	115	2.6	46
MRC230	268	5.4	105	2.9	46
MRC230	324	4.5	85	>3	46
MRC230	388	3.7	70	>3	46
MRC130	415	3.5	70	1.2	44
MRC230	460	3.1	60	>3	46
MRC230	540	2.7	50	>3	46

3 kW (4 HP)

Tipo	rpm	1:	Nm	SF	kg
MRC230	630	2.3	45	>3	46
MRC130	965	1.5	30	2.9	44

4 kW (5.5 HP)

MRC360	19	73	1890	1.3	185
MRC360	23	61	1560	1.6	185
MRC250	27	52	1350	0.9	114
MRC250	31	46	1185	1.1	114
MRC250	37	38	990	1.3	114
MRC250	42	34	875	1.4	114
MRC250	47	30	780	1.6	114
MRC250	57	25	645	1.9	114
MRC240	69	20	530	1.1	69
MRC240	82	18	450	1.4	69
MRC240	90	16	410	1.5	69
MRC240	101	14	365	1.7	69
MRC240	113	13	325	1.8	69
MRC240	138	10	265	2.3	69
MRC240	166	8.7	220	2.7	69
MRC140	175	8.3	215	1.1	72
MRC240	196	7.3	190	>3	69
MRC240	210	6.8	175	>3	69
MRC240	230	6.3	160	>3	69
MRC240	240	6.0	155	>3	69
MRC230	268	5.4	135	>3	59
MRC230	324	4.5	115	>3	59
MRC230	388	3.7	95	>3	59
MRC140	415	3.1	90	2.5	72
MRC230	460	3.1	80	>3	59
MRC230	540	2.7	70	>3	59
MRC230	630	2.3	60	>3	59
MRC140	965	1.5	40	>3	72

5.5 kW (7.5 HP)

MRC360	19	73	2500	1.0	205
MRC360	23	61	2145	1.2	205
MRC260	27	52	1870	1.3	199
MRC260	31	46	1630	1.5	199
MRC260	37	38	1365	1.8	199
MRC260	42	34	1200	2.1	199
MRC250	47	30	1075	1.2	123
MRC250	57	25	885	1.4	123
MRC250	69	20	730	1.7	123
MRC250	82	18	615	2.0	123
MRC250	90	16	560	2.2	123
MRC250	101	14	500	2.5	123
MRC250	113	13	450	2.8	123
MRC250	138	10	365	>3	123
MRC240	166	8.7	305	1.9	78
MRC150	175	8.3	295	1.4	110
MRC240	196	7.3	260	2.3	78
MRC240	230	6.3	220	2.7	78
MRC240	240	6.0	210	2.8	78
MRC240	268	5.4	190	>3	78
MRC240	324	4.5	155	>3	78
MRC240	388	3.7	130	>3	78
MRC150	415	3.5	125	>3	110
MRC240	460	3.1	110	>3	78
MRC240	540	2.7	95	>3	78

5.5 kW (7.5 HP)

Tipo	rpm	1:	Nm	SF	kg
MRC240	630	2.3	80	>3	78
MRC140	965	1.5	55	>3	92

7.5 kW (10 HP)

MRC260	27	52	2500	1.0	209
MRC260	31	46	2220	1.1	209
MRC260	37	38	1860	1.3	209
MRC260	42	34	1640	1.5	209
MRC260	47	30	1465	1.7	209
MRC260	57	25	1210	2.1	209
MRC250	69	20	1000	1.3	133
MRC250	82	18	840	1.5	133
MRC250	90	16	765	1.6	133
MRC250	101	14	680	1.8	133
MRC250	113	13	610	2.1	133
MRC250	138	10	500	2.5	133
MRC250	166	8.7	415	3.0	133
MRC150	175	8.3	400	1.0	111
MRC250	196	7.3	350	>3	133
MRC250	210	6.8	330	>3	133
MRC250	230	6.3	300	>3	133
MRC250	240	6.0	290	>3	133
MRC240	268	5.4	260	2.3	88
MRC240	324	4.5	215	2.8	88
MRC240	388	3.7	180	>3	88
MRC150	415	3.5	170	2.4	111
MRC240	460	3.1	150	>3	88
MRC240	540	2.7	130	>3	88
MRC240	630	2.3	110	>3	88
MRC140	965	1.5	75	>3	103

11 kW (15 HP)

MRC260	47	30	2150	1.2	219
MRC260	57	25	1770	1.4	219
MRC260	69	20	1460	1.7	219
MRC260	82	18	1230	2.0	219
MRC260	90	16	1120	2.2	219
MRC260	101	14	1000	2.3	219
MRC260	113	13	895	2.8	219
MRC260	138	10	730	3.0	219
MRC250	166	8.7	610	2.0	148
MRC160	175	8.3	580	1.4	185
MRC250	196	7.3	515	2.4	148
MRC250	210	6.8	480	2.6	148
MRC250	230	6.3	440	2.8	148
MRC250	240	6.0	420	3.0	148
MRC250	268	5.4	380	>2	148
MRC250	324	4.5	310	>2	148
MRC250	388	3.7	260	>2	148
MRC150	415	3.5	250	1.6	141
MRC250	460	3.1	220	>2	148
MRC250	540	2.7	190	>2	148
MRC250	630	2.3	160	>2	148
MRC150	965	1.5	110	>2	141

15 kW (20 HP)

MRC260	69	20	2000	1.3	240
MRC260	82	18	1680	1.5	240
MRC260	90	16	1530	1.6	240
MRC260	101	14	1360	1.8	240
MRC260	113	13	1220	2.1	240

VARVEL - RC

1400 [min^{-1}]

SELEZIONE RIDUTTORE - MRC
SPEED REDUCER SELECTION - MRC
GETRIEBEAUSWAHL - MRC

15 kW (20 HP)					
Tipo	rpm	1:	Nm	SF	kg
MRC260	138	10	1000	2.5	240
MRC260	166	8.7	830	3.0	240
MRC160	175	8.3	800	1.0	215
MRC260	196	7.3	700	>3	240
MRC260	210	6.8	660	>3	240
MRC260	230	6.3	600	>3	240
MRC260	240	6.0	575	>3	240
MRC250	268	5.4	515	>3	178
MRC250	324	4.5	425	>3	178
MRC250	388	3.7	355	>3	178
MRC160	415	3.5	340	2.5	215
MRC250	460	3.1	300	>3	178
MRC250	540	2.7	255	>3	178

15 kW (20 HP)					
Tipo	rpm	1:	Nm	SF	kg
MRC250	630	2.3	220	>3	178
MRC150	965	1.5	145	>3	171
18.5 kW (25 HP)					
MRC260	166	8.8	1000	2.5	260
MRC260	196	7.3	850	2.9	260
MRC260	210	6.8	790	>3	260
MRC260	230	6.3	725	>3	260
MRC260	240	6.0	695	>3	260
MRC260	268	5.4	620	>3	260
MRC260	324	4.5	515	>3	260
MRC260	388	3.7	430	>3	260
MRC160	415	3.5	420	2.0	225

18.5 kW (25 HP)					
Tipo	rpm	1:	Nm	SF	kg
MRC260	460	3.1	360	>3	260
MRC260	540	2.7	310	>3	260
MRC260	630	2.3	265	>3	260
MRC160	965	1.5	180	>3	225
22 kW (30 HP)					
MRC260	268	5.4	755	>3	300
MRC260	324	4.5	625	>3	300
MRC260	388	3.7	520	>3	300
MRC260	460	3.1	440	>3	300
MRC260	540	2.7	375	>3	300
MRC260	630	2.3	320	>3	300
MRC160	965	1.5	215	>3	275

GRANDEZZA MOTORI IEC - MOTOR FRAMES IEC - MOTORGRÖßE IEC

Tipo, Type, Typ	IEC (kW) 4p i=	56 0.09	63 0.13-0.18	71 0.25-0.37	80 0.55-0.75	90 1.1-1.5	100 2.2-3.0	112 4.0	132 5.5-7.5	160 11.15	180 18.5-22
FRC105	1.5–3.5	✪	★	★							
	8.3	✪	★								
FRC205	2.3-16	✪	★	★							
	18-52	✪	★								
FRC305	61-133	✪	★	★							
	147-432	✪	★								
FRC110	1.5–3.5		★	★	✪★						
	8.3		★	★							
FRC210	2.3-16		★	★	✪★						
	18-52		★	★							
FRC310	61-133	✪	★	★							
	147-432	✪	★	★							
FRC120	1.5–3.5		★	★	★	★					
	8.3		★	★	★						
FRC220	2.3-16		★	★	★	★					
	18-52		★	★	★						
FRC320	61-133		★	★	✪★						
	147-432		★	★							
FRC130	1.5–3.5			★	★	★	★	★			
	8.3			★	★	★					
FRC230	2.3-16			★	★	★	★	★			
	18-52			★	★	★					
FRC330	61-133		★	★	★	★					
	147-432		★	★	★						
FRC140	1.5–3.5			★	★	★	★	★	★		
	8.3			★	★	★	★	★			
FRC240	2.3-16			★	★	★	★	★	★		
	18-52			★	★	★	★	★			
FRC340	61-133			★	★	★	★	★			
	147-432			★	★	★					
** FRC150*	*1.5–3.5*						★	★	★	★	
	8.3				★	★	★	★	★		
FRC250	2.3-16						★	★	★	★	
	18-52				★	★	★	★	★		
FRC350	61-133			★	★	★	★	★	★		
	147-432			★	★	★	★	★			
** FRC160*	*1.5–3.5*									★	★
	8.3								★	★	
FRC260	2.3-16									★	★
	18-52								★	★	
FRC360	61-133						★	★	★	★	
	147-432				★	★	★	★	★		

* = In esaurimento - Discontinued model - Obsolete wird / ★B5 - ✪ B14

VARVEL - RC

SELEZIONE RIDUTTORE - FRC & RC
SPEED REDUCER SELECTION - FRC & RC
GETRIEBEAUSWAHL - FRC & RC

1400 [min^{-1}]

i = 8.3, 3.5, 1.5 (175, 415, 965 rpm)

i =	8.33	3.5	1.5	FRC	Oil liters		
rpm	175	415	965	kg	l_1	l_2	l_3
	kW / 1440 rpm						
105	0.18	0.37	0.37	3.0	0.05	0.06	0.05
110	0.37	0.75	0.75	5.5	0.10	0.13	0.10
120	0.75	1.5	1.5	9.5	0.17	0.25	0.17
130	1.5	3.0	4.0	18	0.30	0.50	0.30
140	4.0	5.5	7.5	27	0.60	1.15	0.60
* *150*	7.5	11	15	50	1.50	2.25	1.50
* *160*	15	18.5	22	98	3.00	4.40	3.00

* = In esaurimento - Discontinued model - Obsolete wird

i = 52 ÷ 2.3 (27 ÷ 630 rpm)

i =	52	46	38	34	30	25	20	18	16	14	13	10	8.7	7.3	6.8	6.3	6.0	5.4	4.5	3.7	3.1	2.7	2.3	FRC	Oil liters		
rpm	27	31	37	42	47	57	69	82	90	101	113	138	166	196	210	230	240	268	324	388	460	540	630	kg	l_1	l_2	l_3
	kW / 1440 rpm																										
205	0.09		0.12		0.18		0.18		0.25				0.37					0.37						4.5	0.13	0.15	0.15
210	0.18		0.25		0.37		0.37		0.55				0.75					0.75						5.5	0.17	0.25	0.17
220	0.37		0.55		0.75		0.75		1.1				1.5					1.5						10.5	0.50	0.60	0.50
230	0.75		1.1		1.5		1.5		2.2				3.0					4.0						19	0.70	1.15	0.80
240	1.5		2.2		3.0		4.0		4.0				5.5					7.5						30	1.15	2.25	2.00
250	4.0		4.0		5.5		7.5		7.5				11					15						67	2.25	4.40	4.00
260	7.5		7.5		11		15		15				18.5					22						132	6.00	8.80	8.00

i = 432 ÷ 61 (3 ÷ 23 rpm)

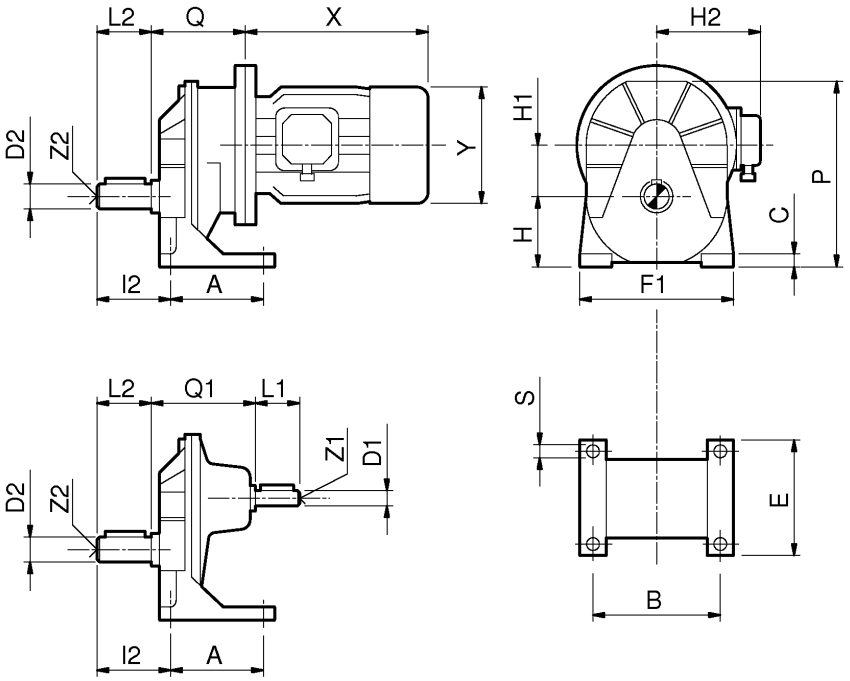
i =	432	388	320	284	254	208	174	147	133	119	103	87	73	81	FRC	Oil liters		
rpm	3.0	3.5	4.5	5.0	5.5	6.5	8.0	9.5	10.5	12.0	13.5	16	19	23	kg	l_1	l_2	l_3
	kW / 1440 rpm																	
305	0.0014		0.02			0.03		0.04		0.06			0.09		6.0	0.17	0.30	0.30
310	0.003		0.04			0.06		0.09		0.12			0.17		8.0	0.25	0.50	0.35
320	0.06		0.09			0.12		0.12		0.18			0.25		12.5	0.60	0.80	0.60
330	0.09		0.12			0.25		0.37		0.37			0.55		21	1.15	1.50	1.15
340	0.18		0.25			0.37		0.55		0.75			1.1		36	1.50	3.00	2.25
350	0.37		0.55			0.75		1.1		1.5			3.0		59	3.75	6.00	5.00
360	0.75		1.1			1.5		2.2		3.0			5.5		146	8.00	10	8.80

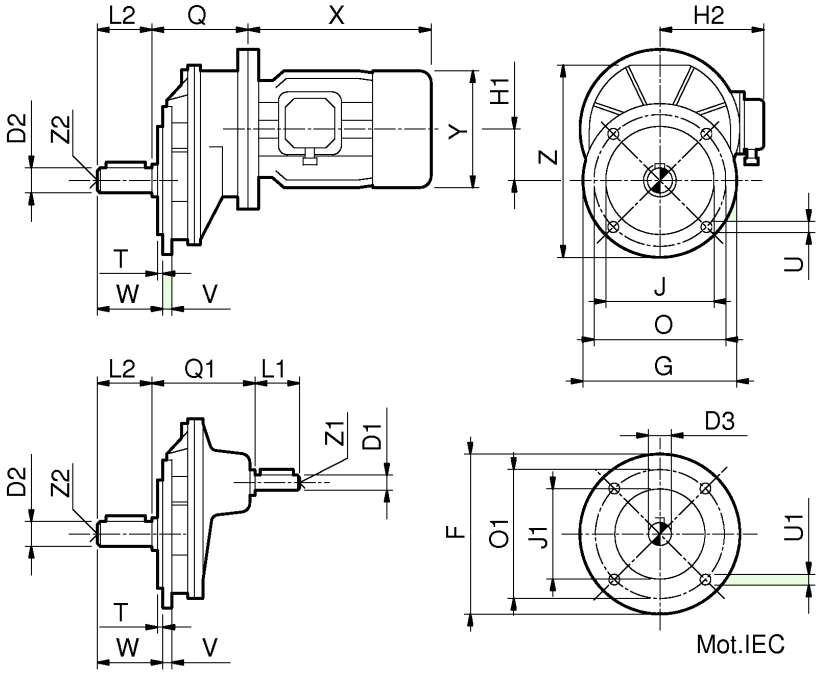
Qtà olio / Oil qty)/ Ölmenge: l_1 - B3, B5, B6, B7, B8
l_2 - V1, V5
l_3 - V3, V6

VARVEL - RC

1 COPPIA
1 STAGE
1 STUFIG

DIMENSIONI DI INGOMBRO
OVERALL DIMENSIONS
ABMESSUNGEN





VARVEL - RC

DIMENSIONI DI INGOMBRO
OVERALL DIMENSIONS
ABMESSUNGEN

MRC	105	110	120	130	140	*150	*160
A	65	80	95	115	140	170	210
B	90	110	150	170	205	250	310
C	10	11	12	14	20	30	35
$D_{1\ K6}$	11	11	14	19	24	28	38
$D_{2\ K6}$	14	19	24	28	32	42	50
E	85	100	115	140	170	205	260
F_1	110	130	180	200	250	310	400
G	140	160	200	250	300	350	450
H	50	60	75	95	115	155	200
H_1	37.4	45	60	75	90	120	150
I_2	40	53	62	76	100	122	140
J_{j6}	95	110	130	180	230	250	350
L_1	30	30	30	40	50	80	80
L_2	30	40	50	60	80	100	110
O	115	130	165	215	265	300	400
P	130.4	155	199	248	299	398	503
Q	68 (IEC56)	73 (IEC63)	99 (IEC80)	118[1](IEC90)	140 (IEC100)	180 (IEC132)	223 (IEC160)
	70 (IEC63)	83 (IEC71)	99 (IEC90)	119[2](IEC100)	141 (IEC112)	220 (IEC160)	223 (IEC180)
	80 (IEC71)	83 (IEC80)	- - -	- - -	153 (IEC132)	- - -	- - -
Q_1	74	84	100	118[3]	138	169	207
S	8.5	8.5	8.5	10.5	12.5	16.5	18.5
T	2	2.5	2.5	2.5	2.5	3	3
U	M6	M8	M8	M10	M12	M16	M18
V	8	9	10	11	14	18	24
W	34	45.5	54.5	66.5	87.5	108	118
Z	130.4	175	224	278	334	418	529
Z_1	M4 x 10	M4 x 10	M5 x 12	M6 x 15	M8 x 20	M8 x 20	M10 x 25
Z_2	M5 x 12	M6 x 15	M8 x 20	M8 x 20	M10 x 25	M12 x 30	M14 x 35

[1] = 131.5 (FRC130/B5)

[2] = 132.5 (FRC130/B5)

[3] = 132.5 (RC130/B5)

** = In esaurimento - Discontinued model - Obsolete wird*

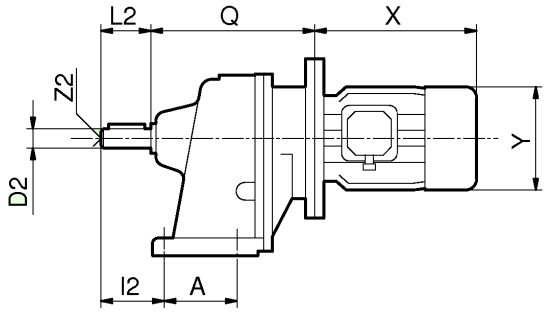
IEC	56 (B14)	63	71	80 (B14)	90 S/L	100	112	132 S/M	160	180 M/L
D_3	9	11	14	19	24	28	28	38	42	48
F	120 (80)	140	150	200 (120)	200	250	250	300	350	350
H_2	85	95	107	122	128	140	140	180	230	230/257
$J_{1\ j6}$	80 (50)	95	110	130 (80)	130	180	180	230	250	250
O_1	100 (65)	115	130	165 (100)	165	215	215	265	300	300
U_1	7 (M5)	9	9	11 (M6)	11	14	14	14	18	18
X	156	185	215	28	255/280	309	328	368/405	538	538/613
Y	110	123	140	159	176	195	219	258	314	368

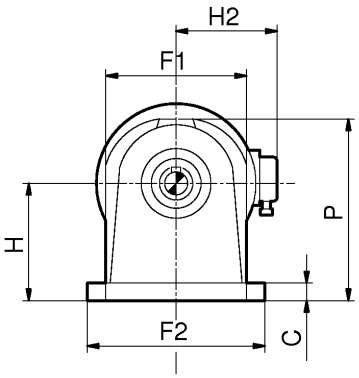
Dimensioni non impegnative - Not binding dimensions - unverbindliche Abmessungen

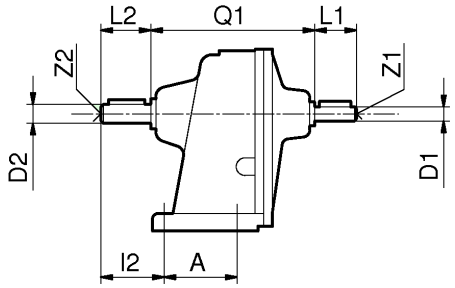
VARVEL - RC

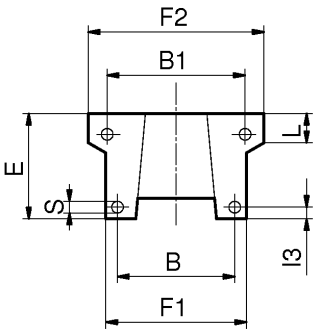
2 COPPIE
2 STAGES
2 STUFIGE

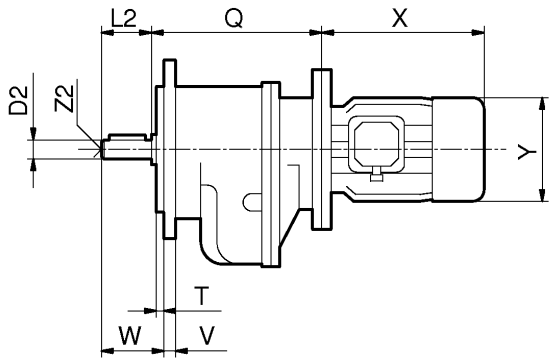
DIMENSIONI DI INGOMBRO
OVERALL DIMENSIONS
ABMESSUNGEN

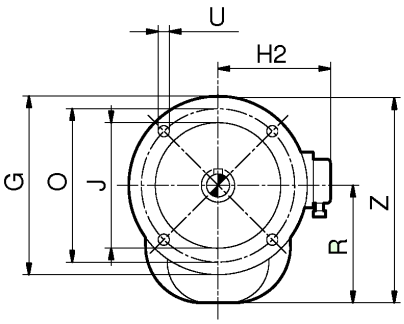


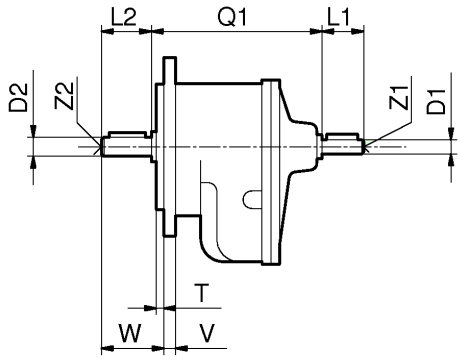


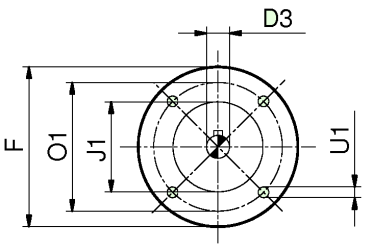












Mot.IEC

VARVEL - RC

DIMENSIONI DI INGOMBRO
OVERALL DIMENSIONS
ABMESSUNGEN

MRC	205	210	220	230	240	250	260
A	57	58	65	85	105	140	185
B	90	110	140	160	190	250	310
B_1	113	125	157	187	223	283	352
C	8	9	14	17	20	28	29
$D_{1\ k6}$	11	11	14	19	24	28	38
$D_{2\ k6}$	17	20	25	32	40	50	65
E	85	90	105	128	154	196	260
F_1	110	130	170	190	220	290	360
F_2	135	146	185	215	260	330	400
G	140 (120/160)	160 (120/140)	200 (160)	250 (200)	300 (250)	350 (300)	450
H	81	96	126	155	185	245	305
I_2	45	54	67	99	111	136	164
I3	7.5	10	13	14	15	20	23
J_{j6}	95 (80/110)	110 (80/95)	130 (110)	180 (130)	230 (180)	250 (230)	350
L	32	32	37	47	52	62	87
L_1	30	30	30	40	50	80	80
L_2	35	40	50	80	90	110	14
O	115 (100/130)	130 (100/115)	165 (130)	215 (165)	265 (215)	300 (265)	400
P	130	150	195	240	285	375	468
Q	125 (IEC56)	134 (IEC63)	160 (IEC71)	207 (IEC80-90)	238 (IEC90)	287 (100-112)	376 (IEC132)
	127 (IEC63)	144 (IEC71)	175 (IEC80)	208 (IEC100)	248 (100-112)	317 (IEC132)	414 (IEC160)
	137 (IEC71)	154 (IEC80)	175 (IEC90)	208 (IEC112)	260 (IEC132)	3517 (IEC160)	414 (IEC180)
Q_1	131	145	176	208	245	310	398
R	80	95	124	153	184	243	304
S	9	9	11	13	15	17	19
T	2	2.5	2.5	2.5	2.5	2.5	3
U	10.5	10.5	11.5	14.5	14.5	18.5	22
V	8	10	10	12	16	20	25
W	39.5	46.5	53	87.5	98.5	118.5	147
Z	151 (140/160)	175 (155/165)	224 (204)	278 (253)	334 (309)	418 (393)	529
Z_1	M4x10	M4x10	M5x12	M6x15	M8x20	M8x20	M10x25
Z_2	M6x15	M6x15	M8x20	M10x25	M12x30	M14x35	M14x35

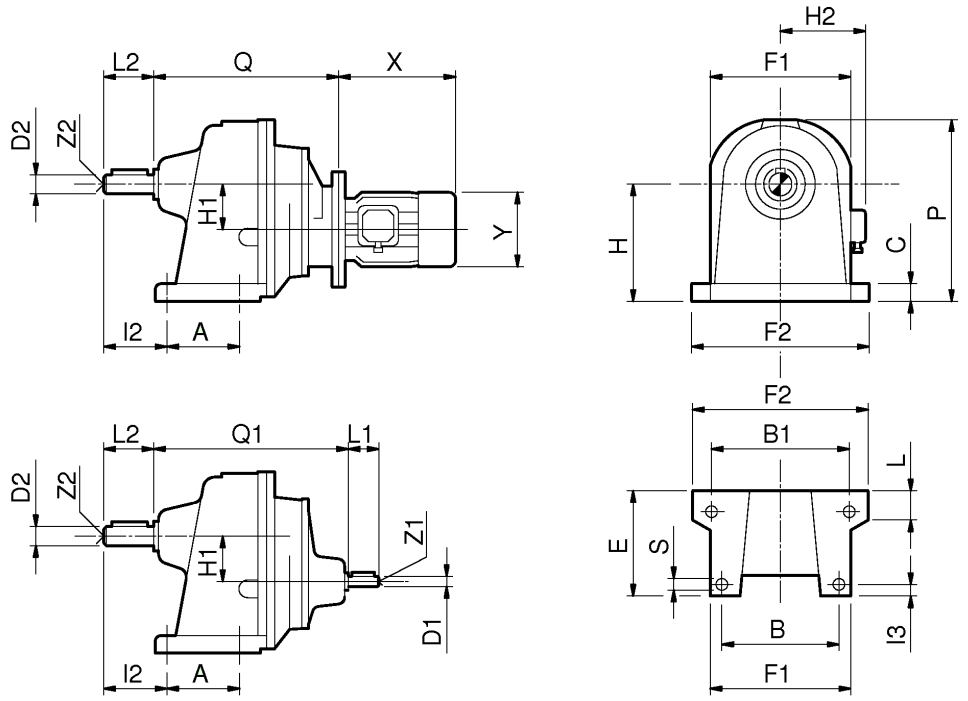
IEC	56 (B14)	63	71	80 (B14)	90 S/L	100	112	132 S/M	160	180 M/L
D_3	9	11	14	19	24	28	28	38	42	48
F	120 (80)	140	150	200 (120)	200	250	250	300	350	350
H_2	85	95	107	122	128	140	140	180	230	230/257
$J_{1\ j6}$	80 (50)	95	110	130 (80)	130	180	180	230	250	250
O_1	100 (65)	115	130	165 (100)	165	215	215	265	300	300
U_1	7 (M5)	9	9	11 (M6)	11	14	14	14	18	18
X	156	185	215	28	255/280	309	328	368/405	538	538/613
Y	110	123	140	159	176	195	219	258	314	368

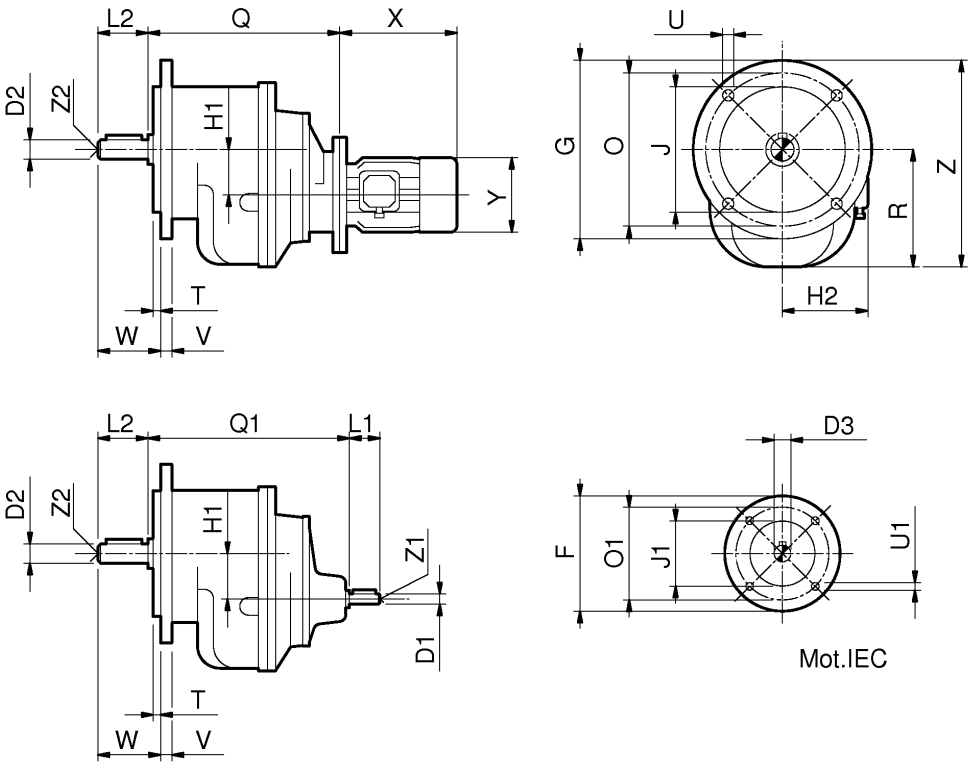
Dimensioni non impegnative - Not binding dimensions - unverbindliche Abmessungen

VARVEL - RC

3 COPPIE
3 STAGES
3 STUFIGE

DIMENSIONI DI INGOMBRO
OVERALL DIMENSIONS
ABMESSUNGEN





VARVEL - RC

DIMENSIONI DI INGOMBRO
OVERALL DIMENSIONS
ABMESSUNGEN

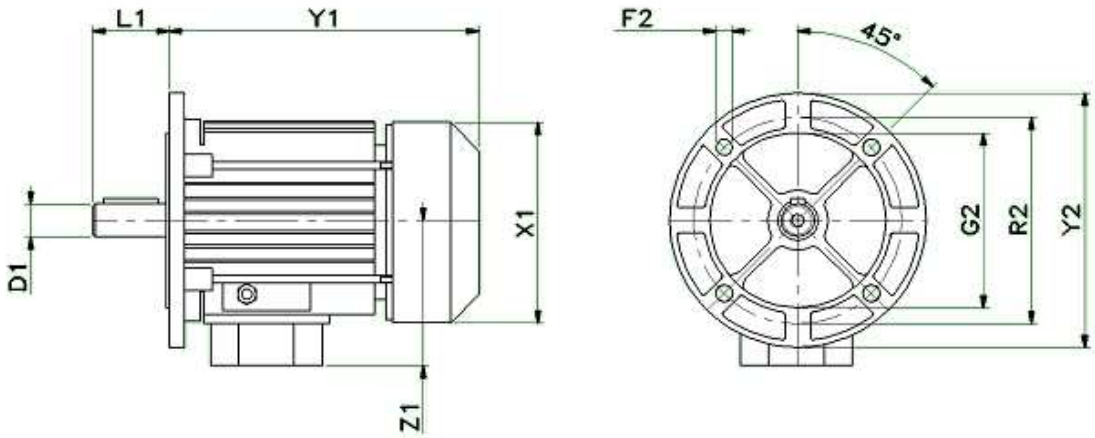
MRC	305	310	320	330	340	350	360
A	57	58	65	85	105	140	185
B	90	110	140	160	190	250	310
B1	113	125	157	187	223	283	352
C	8	9	14	17	20	28	29
$D_{1\ k6}$	11	11	11	14	19	24	28
$D_{2\ k6}$	17	20	25	32	40	50	65
E	85	90	105	128	154	196	260
F_1	110	130	170	190	220	290	360
F_2	135	146	185	215	260	330	400
G	140 (120/160)	160 (120/140)	200 (160)	250 (200)	300 (250)	350 (300)	450
H	81	96	126	155	185	245	305
H_1	38	45	45	60	75	90	121
I_2	45	54	67	99	111	136	164
I_3	7.5	10	13	14	15	20	23
J_{j6}	95 (80/110)	110 (80/95	130 (110)	180 (130)	230 (180)	250 (230)	350
L	32	32	37	47	52	62	87
L_1	30	30	30	30	40	50	80
L_2	35	40	50	80	90	110	140
O	115 (100/130)	130 (100/115)	165 (130)	215 (165)	265 (215)	300 (265)	400
P	130	150	195	240	285	375	468
Q	150 (IEC56)	156 (IEC56)	176 (IEC63)	214 (IEC63)	242 (IEC71)	311 (IEC71)	394 (IEC80-90)
	- - -	159 (IEC63)	186 (IEC71)	216 (IEC71)	271 (IEC80)	324 (IEC80-90)	404 (IEC100-112)
	- - -	- - -	- - -	231 (IEC80)	271 (IEC90)	324 (IEC100)	434 (IEC132)
Q_1	156	170	186	222	272	331	427
R	80	95	124	153	184	243	304
S	9	9	11	13	15	17	19
T	2	2.5	2.5	2.5	2.5	2.5	3
U	10.5	10.5	11.5	14.5	14.5	18.5	22
V	8	10	10	12	16	20	25
W	39.5	46.5	53	87.5	98.5	118.5	147
Z	151 (140/160)	175 (155/165)	224 (204)	278 (253)	334 (309)	418 (393)	529
Z_1	M6x15	M6x15	M8x20	M10x25	M12x30	M14x35	M14x35
Z_2	M4x10	M4x10	M5x12	M6x15	M8x20	M8x20	M10x25

Mot. IEC	56 (B14)	63	71	80 (B14)	90S/L	100	112	132S/M
D_3	9	11	14	19	24	28	28	38
F	120 (80)	140	160	200 (120)	200	250	250	300
(*) H_2	85	95	107	122	128	140	140	180
$J_{1\ j6}$	80 (50)	95	110	130 (80)	130	180	180	230
O_1	100 (65)	115	130	165 (100)	165	215	215	265
U_1	7 (M5)	9	9	11 (M6)	11	14	14	14
X	156	185	215	238	255/280	309	328	368/405
Y	110	123	140	150	176	195	219	258

Dimensioni non impegnative - Not binding dimensions - unverbindliche Abmessungen

VARVEL - RC

DIMENSIONI DI INGOMBRO
OVERALL DIMENSIONS
ABMESSUNGEN



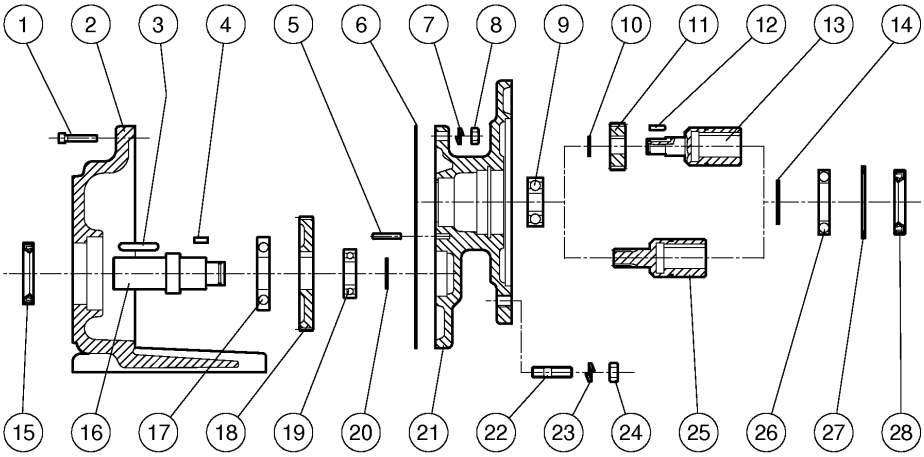
IEC	56 B14	63	71	80	90 S / L	100	112	132 S / M	160 M / L	180 M / L
D1 x L1	9 x 20	11 x 23	14 x 30	19 x 40	24 x 50	28 x 60	28 x 60	38 x 80	42 x 100	48 x 110
F2	7	9	9	11	11	14	14	14	18	18
G2	80	95	110	130	130	180	180	230	250	250
R2	100	115	130	165	165	215	215	265	300	300
X2	110	123	140	159	176	195	219	258	315	368
Y1	168	185	215	238	255/280	309	328	368/405	478/522	538/613
Y2	120	140	160	200	200	250	250	300	350	350
Z1	108	110	121	138	149	160	172	192	220	230/357
kg	2.5	4.5	6	10	13.5	21	29	43/52	68/78	160/180

Dimensioni non impegnative - *Not binding dimensions* - Durchmesser auf Anfrage

VARVEL - RC

1 COPPIA
1 STAGE
1 STUFIG

ELENCO PARTI
PART LIST
TEILE-LISTE

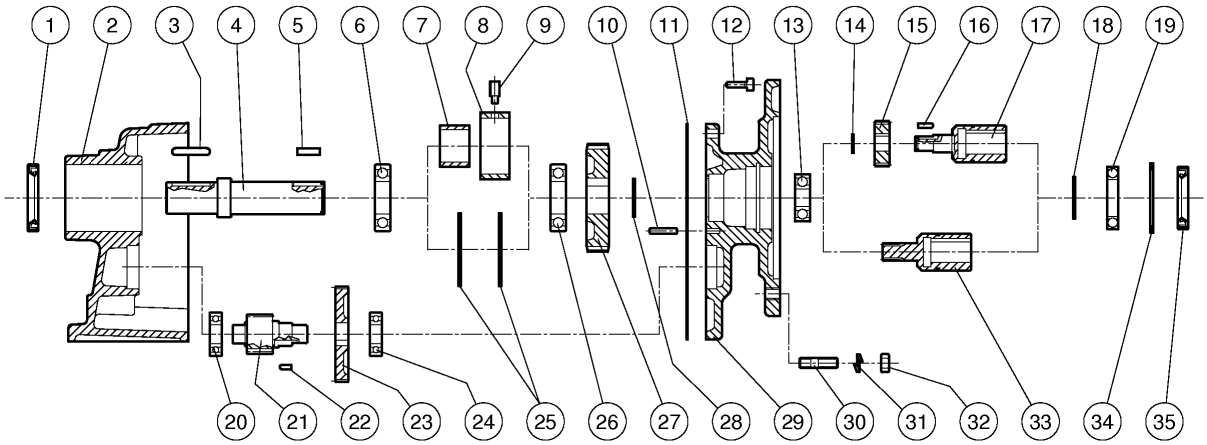


1	Vite	Screw	Schraube
2	Carcassa B3 o B5	Housing B3 or B5	Gehäuse
3	Linguetta	Key	Keil
4	Linguetta	Key	Keil
5	Spina cilindrica	Parallel pin	zylindrisch Stift
6	Guarnizione	Gasket	Dichtung
7	Rondella	Washer	Scheibe
8	Dado	Nut	Mutter
9	Cuscinetto (2Z = V1, V5)	Bearing (2Z = V1, V5)	Lager (2Z = V1, V5)
10	Anello di arresto	Seeger ring	Seegerring
11	Pignone	Pinion	Ritzel
12	Linguetta	Key	Keil
13	Manicotto	Hollow input	Einganghohlwelle
14	Anello di arresto	Seeger ring	Seegerring
15	Anello di tenuta	Oilseal	Öldichtung
16	Albero uscita	Output shaft	Ausgangwelle
17	Cuscinetto (2Z = V3, V6)	Bearing (2Z = V3, V6)	Lager (2Z = V1, V5)
18	Ruota	Gear	Rad
19	Cuscinetto (2Z = V1, V5)	Bearing (2Z = V1, V5)	Lager (2Z = V1, V5)
20	Anello di arresto	Seeger ring	Seegerring
21	Coperchio entrata	Input cover	Eingangsdeckel
22	Vite	Screw	Schraube
23	Rondella	Washer	Scheibe
24	Dado	Nut	Mutter
25	Manicotto dentato 1:8.3	Hollow pinion 1:8.3	Hohlritzel 1:8.3
26	Cuscinetto (2Z = V1, V5)	Bearing (2Z = V1, V5)	Lager (2Z = V1, V5)
27	Anello di arresto	Seeger ring	Seegerring
28	Anello di tenuta	Oilseal	Öldichtung

VARVEL - RC

2 COPPIE
2 STAGES
2 STUFIGE

ELENCO PARTI
PART LIST
TEILE-LISTE

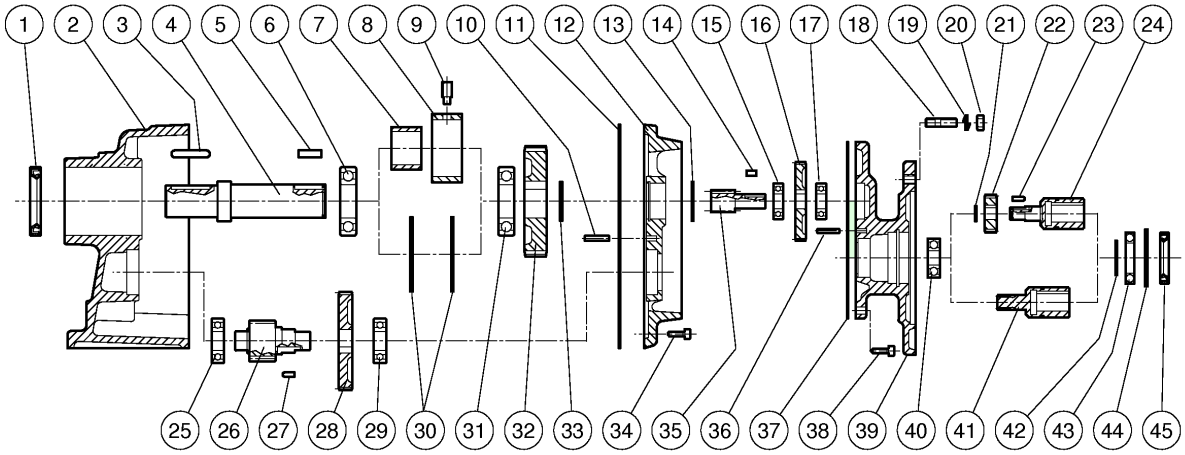


1	Anello di tenuta	Oilseal	Öldichtung
2	Carcassa B3 o B5	Housing B3 or B5	Gehäuse B3 oder B5
3	Linguetta	Key	Keile
4	Albero uscita	Output shaft	Ausgangswelle
5	Linguetta	Key	Keil
6	Cuscinetto (2Z = V3, V6)	Bearing (2Z = V3, V6)	Lager (2Z = V3, V6)
7	Distanziale - RC 40, 50, 60	Spacer - RC 40, 50, 60	Distanzring - RC 40, 50, 60
8	Distanziale - RC 40, 50, 60	Spacer - RC 40, 50, 60	Distanzring - RC 40, 50, 60
9	Vite - RC 40, 50, 60	Screw - RC 40, 50, 60	Schraube - RC 40, 50, 60
10	Spina cilindrica	Parallel pin	zylindrisch Stift
11	Guarnizione	Gasket	Dichtung
12	Vite	Screw	Schraube
13	Cuscinetto (2Z = V1, V5)	Bearing (2Z = V1, V5)	Lager (2Z = V3, V6)
14	Anello di arresto	Seeger ring	Seegerring
15	Pignone	Pinion	Ritzel
16	Linguetta	Key	Keil
17	Manicotto	Hollow input	Einganghohlwelle
18	Anello di arresto	Seeger ring	Seegerring
19	Cuscinetto (2Z = V1, V5)	Bearing (2Z = V1, V5)	Lager (2Z = V3, V6)
20	Cuscinetto (2Z = V3, V6)	Bearing (2Z = V3, V6)	Lager (2Z = V3, V6)
21	Pignone	Pinion	Ritzel
22	Linguetta	Key	Keil
23	Ruota	Gear	Rad
24	Cuscinetto (2Z = V1, V5)	Bearing (2Z = V1, V5)	Lager (2Z = V3, V6)
25	Anello di arresto - RC 05-30	Seeger ring - RC 05-30	Seegerring
26	Cuscinetto (2Z = V3, V6)	Bearing (2Z = V3, V6)	Lager (2Z = V3, V6)
27	Ruota	Gear	Rad
28	Anello di arresto	Seeger ring	Seegerring
29	Coperchio entrata	Input cover	Eingangsdeckel
30	Vite	Screw	Schraube
31	Rondella	Washer	Scheibe
32	Dado	Nut	Mutter
33	Manicotto dentato 1:8.3	Hollow pinion 1:8.3	Hohlritzel 1:8.3
34	Anello di arresto	Seeger ring	Seegerring
35	Anello di tenuta	Oilseal	Öldichtung

VARVEL - RC

3 COPPIE
3 STAGES
3 STUFIGE

ELENCO PARTI
PART LIST
TEILE-LISTE



1	Anello di tenuta	Oilseal	Öldichtung
2	Carcassa B3 o B5	Housing B3 or B5	Gehäuse B3 oder B5
3	Linguetta	Key	Keil
4	Albero uscita	Output shaft	Ausgangswelle
5	Linguetta	Key	Keil
6	Cuscinetto (* = V3, V6)	Bearing (2Z = V3, V6)	Lager (2Z = V3, V6)
7	Distanziale - RC 40, 50, 60	Spacer - RC 40, 50, 60	Distanzring - RC 40, 50, 60
8	Distanziale - RC 40, 50, 60	Spacer - RC 40, 50, 60	Distanzring - RC 40, 50, 60
9	Vite - RC 40, 50, 60	Screw - RC 40, 50, 60	Schraube - RC 40, 50, 60
10	Spina cilindrica	Parallel pin	zylindrisch Stift
11	Guarnizione	Gasket	Dichtung
12	Coperchio 3a coppia	Adapter 3rd stage	Deckel 3-stufige
13	Anello di arresto	Seeger ring	Seegerring
14	Linguetta	Key	Keil
15	Cuscinetto (* = V1, V5)	Bearing (2Z* = V1, V5)	Lager (2Z = V3, V6)
16	Ruota	Gear	Rad
17	Cuscinetto (* = V1, V5)	Bearing (2Z* = V1, V5)	Lager (2Z = V3, V6)
18	Vite	Screw	Schraube
19	Rondella	Washer	Scheibe
20	Dado	Nut	Mutter
21	Anello di arresto	Seeger ring	Seegerring
22	Pignone	Pinion	Ritzel
23	Linguetta	Key	Keile
24	Manicotto	Hollow input	Antriebshohlwlle
25	Cuscinetto (* = V3, V6)	Bearing (2Z = V3, V6)	Lager (2Z = V3, V6)
26	Pignone	Pinion	Ritzel
27	Linguetta	Key	Keil
28	Ruota	Gear	Rad
29	Cuscinetto (2Z = V3, V6)	Bearing (2Z = V3, V6)	Lager (2Z = V3, V6)
30	Anello di arresto - RC 05-30	Circlip - RC 05-30	Seegerring - RC 05-30
31	Cuscinetto (* = V3, V6)	Bearing (2Z = V3, V6)	Lager (2Z = V3, V6)
32	Ruota	Gear	Rad
33	Anello di arresto	Seeger ring	Seegerring
34	Vite	Screw	Schraube
35	Pignone	Pinion	Ritzel
36	Spina cilindrica	Parallel pin	zylindrisch Stift
37	Guarnizione	Gasket	Dichtung
38	Vite	Screw	Schraube
39	Coperchio entrata	Input cover	Eingangsdeckel
40	Cuscinetto (* = V1, V5)	Bearing (2Z = V1, V5)	Lager (2Z = V3, V6)
41	Manicotto dentato 1:8.3	Hollow pinion 1:8.3	Hohlrad 1:8.3
42	Anello di arresto	Seeger ring	Seegerring
43	Cuscinetto (* = V1, V5)	Bearing (2Z = V1, V5)	Lager (2Z = V3, V6)
44	Anello di arresto	Seeger ring	Seegerring
45	Anello di tenuta	Oilseal	Öldichtung

VARVEL - RC

Estratto delle ISTRUZIONI DI USO E MANUTENZIONE
Abstract of OPERATION AND MAINTENANCE INSTRUCTIONS
Auszug der BETRIEBS- UND WARTUNGSANWEISUNGEN

I riduttori e i variatori di velocità non ricadono nel campo d'applicazione della Direttiva Macchine, art.1(2) e non possono essere messi in servizio finché la macchina nella quale devono essere incorporati, sia stata dichiarata conforme all'art. 4(2), all. II(B) delle Direttive Macchine 98/37/CEE/22.6.98 e, solo per l'Italia, al DL 459/24.7.96.

Installazione
Accertarsi che il gruppo da installare abbia le caratteristiche atte a svolgere la funzione richiesta e che la posizione di montaggio sia coerente con quanto ordinato. Tali caratteristiche sono deducibili dalla targhetta di identificazione apposta sul riduttore. Effettuare la verifica della stabilità del montaggio affinché non si verifichino vibrazioni o sovraccarichi durante il funzionamento.

Funzionamento
Il riduttore può essere collegato per rotazione oraria o antioraria. Arrestare immediatamente il riduttore in caso di funzionamento difettoso o di rumorosità anomala, rimuovere il difetto o ritornare l'apparecchio alla fabbrica per una adeguata revisione. Se la parte difettosa non viene sostituita, anche altre parti possono venire danneggiate con conseguenti ulteriori danneggiamenti e più scarsa possibilità di risalire alle cause.

Manutenzione
Sebbene i gruppi siano provati con funzionamento senza carico prima della spedizione, è consigliabile non usarli a carico massimo durante le prime 20-30 ore di funzionamento affinché le parti interne possano adattarsi reciprocamente. I riduttori sono spediti già riempiti con olio sintetico a lunga durata e, se occorre sostituire o rabboccare il lubrificante, non mescolare oli a base sintetica con oli a base minerale.

Movimentazione
In caso di sollevamenti con paranco, utilizzare posizioni di aggancio sulla struttura della carcassa, golfari ove esistenti, fori dei piedi o sulle flange, evitando tutte le parti mobili.

Verniciatura
Qualora il gruppo subisca una verniciatura successiva, è necessario proteggere accuratamente gli anelli di tenuta, i piani di accoppiamento e gli alberi sporgenti.

Conservazione prolungata a magazzino
Per permanenze maggiori di 3 mesi, è consigliata la applicazione di antiossidanti su alberi esterni e piani lavorati, e di grasso protettivo sui labbri dei paraolio.

Gestione Ambientale del prodotto
In conformità alla Certificazione Ambientale ISO14001, vengono suggerite le seguenti indicazioni per lo smaltimento del nostro prodotto:
- i componenti del gruppo che vengono rottamati debbono essere consegnati a centri di raccolta autorizzati per i materiali metallici;
- gli oli ed i lubrificanti raccolti dal gruppo devono essere smaltiti consegnandoli ai Consorzi Oli esausti;
- gli imballi a corredo dei gruppi (paletta, cartone, carta, plastica, ecc.) vanno avviati per quanto più possibile al recupero/riciclo, consegnandoli a ditte autorizzate per le singole classi di rifiuto.

Variable speed and gear boxes are not part of the field of application of the Machinery Directive, art.1(2), and they must not be put into service until the machinery into which they are to be incorporated, has been declared in conformity with the provision of art.4(2), annex II(B) of Machinery Directives 98/37/CEE/22.6.98 and for Italy only, of DL 459/24.7.96.

Installation
Check if the unit to be installed, is properly selected to perform the required function and that its mounting position complies with the order.
The nameplate reports such information.
Check mounting stability is adequate to run the unit without vibrations or overloads.

Running
The unit may be connected for clockwise or counter-clockwise rotation.
The unit must be stopped as soon as defective running or unexpected noise occurs, remove the faulty part or return the unit to the factory for checking.
If the faulty part is not replaced, other parts can also be affected, causing more severe damage and making the identification of initial cause more difficult.

Maintenance
Although the units are no-load run tested in the factory before despatch, it is recommended not to run them at maximum load for the first 20-30 running hours to allow the proper running in.
The gearboxes are delivered already filled with long-life synthetic oil and, in case of replacement or topping, do not mix with mineral lubricants.

Handling
When hoisting, use relevant housing locations or eyebolts if provided, or foot or flange holes
Never hoist on any moving part.

Painting
Carefully protect oilseals, coupling faces and shafts when units are re-painted.

Long-term storage
For storage periods longer than 3 months, apply antioxidants onto shafts and machined surfaces, and protective grease on oilseal lips.

Product Environmental Management
In conformity with Environmental Certification ISO 14001, we recommend the following to dispose of our products:
- scrapped components of the units to deliver to authorized centres for metal object collection;
- oils and lubricants drained from the units to deliver to Exhausted Oil Centres;
- packages (pallets, carton boxes, paper, plastic, etc.) to deliver into regeneration/recycling circuits as far as possible, by delivering separate waste classes to authorized companies.

Varvel-Getriebe und Variatoren fallen nicht unter den Geltungsbereich der Maschinenrichtlinien Art. 1(2). Sie dürfen jedoch nicht in Betrieb gesetzt werden, bevor sich nicht Maschinen, in die sie eingebaut werden, mit Art. 4(2), Anhang II(B) der Maschinenrichtlinien 98/37/CEE/ 22.6.98 und (nur für Italien) DL 459/24.7.96 in Übereinstimmung befinden.

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 Drehmomentbegrenzen zu verwenden.

Inbetriebnahme
Die Antriebseinheit kann in beiden Drehrichtungen eingesetzt werden. Die Einheit muss 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 Vorlast zu betreiben, um ein einwandfreies Einlaufen der Einheiten 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 Hochheben der Einheiten sind dabei geeignete Bereiche am Gehäuse oder, falls vorgesehen, Aufhängeösen oder Fuß- bzw. Flanschbohrungen zu benutzen. 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 (außer Aluminium) und Wellen mit Rostschutzmitteln zu besprühen, Dichtlippen sind mit Fett zu schützen.

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