



SERIE MRDV

Riduttori A Vite Senza Fine

MRDV Series Worm Gearboxes

Catalogo Tecnico
Technical Catalogue

SERIE MRDV

Riduttori a Vite Senza Fine

MRDV Series Worm Gearboxes



Dal 1987 **Drai Milano srl** nel settore della trasmissione di potenza offre una vasta gamma di: riduttori e motoriduttori a vite senza fine, coassiali, ad assi ortogonali, pendolari, epicicloidali, variatori di velocità, motori elettrici (C.A. e C.C.), brushless, inverter, guide lineari, martinetti e rinvii angolari

Motori e riduttori si identificano con il marchio di rappresentanza **Elle. Gi srl**.

Nata in un piccolo seminterrato di 120 mq, dopo 10 anni si trasferisce in un primo tempo a Nova Milanese in un struttura di 300 mq per poi trovare la sua sede attuale in Novate Milanese, una più moderna struttura di oltre 2000 mq.

Al momento è allo studio un ulteriore ampliamento in quanto il mercato ha sempre più necessita di strutture che possano dare un servizio e una pronta consegna su un ventaglio molto ampio di prodotti atti a soddisfare le esigenze di distributori e costruttori di macchine operatrici.

In Polonia e Spagna si è affiancata a distributori con i quali ha creato un'ottima rete di vendita europea incrementando maggiormente il suo potenziale.

Nel 2005 nasce la consociata **Pmm srl** per la progettazione e produzione di martinetti e rinvii angolari che entrano a far parte della gamma di prodotti commercializzanti da **Drai Milano**.

Grazie alla sua costante crescita oggi è in grado di personalizzare accessori atti e soddisfare eventuali peculiarità dei clienti.

*From 1987 **Drai Milano srl** offers a wide range of products in the sector of power transmissions, such as worm gear boxes, motoreducers, coaxial and helical gearboxes, shaft mounted helical and planetary gears, speed variators, electric motors (C.A. and C.C.), brushless, inverters, linear guidelines, screw jacks and right-angle helical gearboxes.*

*All the main products are identified by the trademark **Elle. Gi srl**.*

*10 years later the birth in a small basement of 120 mq, **Drai Milano** moves to a warehouse of 300 mq in Nova Milanese and than to the current new structure in Novate Milanese with more than 2000 mq.*



We're currently working on a new enlargement as the market needs more and more structures ready to offer faster services and shipments.

The increasing range of products is meant to satisfy the enquiries of distributors and operating machines developers.

*Thanks to the local distributors in Poland and in Spain, **Drai Milano** built a really strong commercial network in Europe enhancing her strength.*

*The subsidiary **Pmm srl** is in 2005 set up, to design and develop screw jacks and right angles helical gearboxes to make wider the offer of products sold by **Drai Milano**.*

*Thanks to her steady growth, **Pmm** is nowadays able to custom special accessories to satisfy the particular enquiries of the users.*



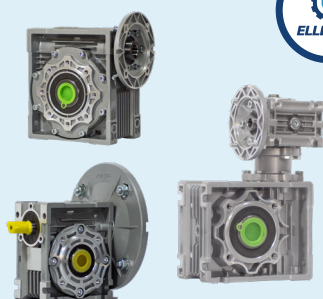
GUIDE LINEARI
LINEAR GUIDEWAY



MOTORI ELETTRICI CC
DC ELECTRIC MOTORS



**COSTRUZIONE E MANUTENZIONE DI
RIDUTTORI SPECIALI**
CONSTRUCTION AND MAINTENANCE OF
SPECIAL GEARBOXES



RIDUTTORI A VITE SENZA FINE (MRDV)
WORM GEARBOXES (MRDV)



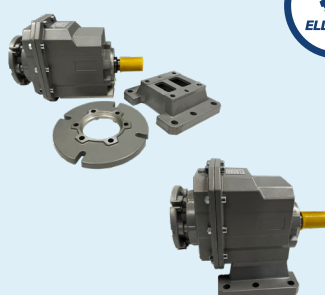
RIDUTTORI A VITE SENZA FINE (MRDB)
WORM GEARBOXES (MRDB)



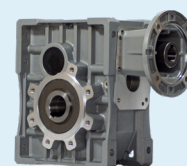
**ACCESSORI PER RIDUTTORI A VITE
SENZA FINE**
ACCESSORIES FOR WORM GEARBOXES



RIDUTTORI EPICICLOIDALI
PLANETARY GEARBOXES



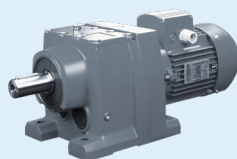
**RIDUTTORI AD INGRANAGGI CON
CASSA IN ALLUMINIO (DRC)**
GEARBOXES WITH ALUMINUM CASE (DRC)



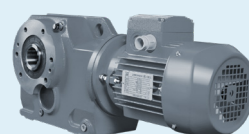
**RIDUTTORI AD INGRANAGGI CON
CASSA IN ALLUMINIO (DKM/DKB)**
GEARBOXES WITH ALUMINUM CASE
(DKM/DKB)



**RIDUTTORI AD INGRANAGGI CON
CASSA IN GHISA (FC)**
GEARBOXES WITH CAST IRON CASE (FC)



**RIDUTTORI AD INGRANAGGI CON
CASSA IN GHISA (RC)**
GEARBOXES WITH CAST IRON CASE (RC)



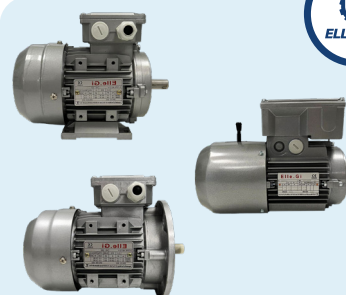
**RIDUTTORI AD INGRANAGGI CON
CASSA IN GHISA (KC)**
GEARBOXES WITH CAST IRON CASE (KC)



PRECOPPIE
PRIMARY REDUCTION UNIT



VARIATORI (UDL)
VARIATOR (UDL)



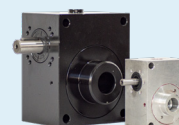
MOTORI ELETTRICI
ELECTRIC MOTORS



BRUSHLESS
BRUSHLESS



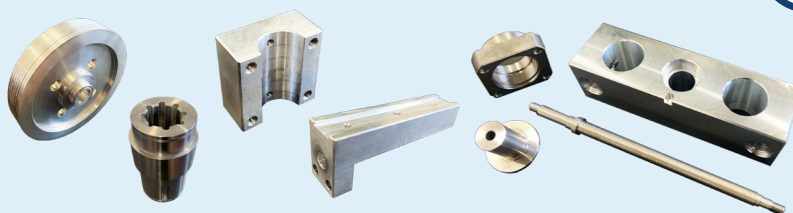
KIT SERVVENTILAZIONE
FORCED COOLING FAN



MARTINETTI
SCREW JACKS



RINVII ANGOLARI
RIGHT-ANGLE HELICAL GEARBOXES



LAVORAZIONI IN CONTO TERZI
THIRD PARTY WORK



DISTRIBUTORE AUTORIZZATO
(CON CENTRO MONTAGGIO)
OFFICIAL DISTRIBUTOR
(WITH ASSEMBLY CENTER)



STUDIO E REALIZZAZIONE DI
APPLICAZIONI CUSTOM
STUDY AND IMPLEMENTATION OF
CUSTOM APPLICATIONS

07

08

09

21

51

69

DESCRIZIONE DEL PRODOTTO - PRODUCT DESCRIPTION

GUIDA ALLA SELEZIONE - GUIDE OF TYPE SELECTION

DATI TECNICI - TECHNICAL DATA

Come selezionare la riduzione di un riduttore - <i>The way to select worm-gear speed reducer</i>	09
Fattore di servizio - <i>Service factor</i>	10
Carico radiale ammissibile sull'albero - <i>The admissible radial load on the shaft</i>	10
Albero in uscita e in entrata - <i>Output and input shafts</i>	11
Rendimento - <i>Efficiency</i>	11
Irreversibilità dinamica e statica - <i>Dynamic and static irreversibility</i>	11
Parametri - <i>Mesh parameter</i>	12
Rendimento dei variatori di velocità - <i>The efficiency of speed variator</i>	13
Lubrificazione - <i>Lubrication</i>	13
Specifiche dei lubrificanti - <i>Specification of lubricants</i>	14
Quantità olio in litri - <i>Quantity of oil in litres</i>	14
Installazione - <i>Installation</i>	14
Applicazioni critiche - <i>Critical applications</i>	15
Predisposizioni - <i>Predisposition</i>	16
PC + MRDV - <i>PC+MRDV Combined unit</i>	17
Caratteristiche della precoppia (PC) - <i>Features of pre-stage reduction unit (PC)</i>	18
Materiali - <i>Materials</i>	18
Accoppiamento ai motori elettrici - <i>Coupling to electric motors</i>	18
Posizioni di montaggio - <i>Mounting positions</i>	18
Flange in uscita - <i>Output flanges</i>	20
Posizione della morsettiera - <i>Position of terminal box</i>	20
Senso di rotazione - <i>Sense of rotation</i>	20

PRESTAZIONI - PERFORMANCE PARAMETER

DIMENSIONI MRDV - MRDV SERIES DIMENSIONS

Dimensioni MRDV/RDV - <i>MRDV/RDV dimensions</i>	51
Dimensioni PC+MRDV - <i>PC+MRDV dimensions</i>	59
Dimensioni MRDV+MRDV e RDV+MRDV - <i>MRDV+MRDV and RDV+MRDV dimensions</i>	62
Dimensioni UDL+MRDV - <i>UDL+MRDV dimensions</i>	65
Braccio di reazioni - <i>Torque arm</i>	66
Albero in uscita - <i>Output shafts</i>	66
Carcassa - <i>Case</i>	67
Flange in ingresso B5 - <i>Input flange B5</i>	67
Flange in ingresso B14 - <i>Input flange B14</i>	67
Riduttore albero maschio in ingresso - <i>Input shaft gearbox</i>	68
Combinati - <i>Combination unit</i>	68

ESPLOSO E PARTI DI RICAMBIO - EXPLODED VIEW AND NAME OF PARTS

Il riduttore a vite senza fine è apprezzato per il minimo ingombro in proporzione al rapporto riduzione/coppia e per un eccellente rapporto qualità prezzo.

Il movimento viene trasmesso dall'albero veloce (ossia la vite senza fine) all'albero lento (ossia la corona dentata del riduttore)

Trovano impiego in moltissime applicazioni. Hanno il vantaggio di essere silenziosi ed irreversibili, ma per il corretto dimensionamento, occorre tenere conto di alcuni importanti fattori tra cui il più importante è il rendimento.

Sono i più diffusi sul mercato.

Caratteristiche principali:

- Carcassa in alluminio di alta qualità, leggera e che non arrugginisce;
- Ottima coppia in uscita;
- Può lavorare in ogni condizione senza intoppi e con un basso livello di rumorosità;
- Ottima capacità radiale;
- Carcassa di ottimo aspetto estetico, di lunga durata e dimensioni ridotte;
- Adatto a lavorare in molteplici installazioni diverse
- Carcasce in alluminio pressofuso dalla (025-090) e carcasce in ghisa dalla (110-150);

Caratteristiche verniciatura:

- Carcassa d'alluminio
 - I. Breve getto di uno speciale trattamento antisettico sulla superficie della carcassa;
 - II. Fosfatazione e verniciatura di grigio RAL.
- Carcassa in ghisa
 - I. Verniciatura con antiruggine e successivamente di grigio RAL.

The worm gear reducer is appreciated for its minimal size in proportion to the reduction ratio/torque and for an excellent value to money.

The motion is transmitted from the input shaft (namely the worm screw) to the output shaft (namely the gear wheel of the reducer).

They are employed in numerous applications, offering the advantage of being quiet and irreversible. However, for proper sizing, it is necessary to consider some important factors, with the most crucial being the efficiency.

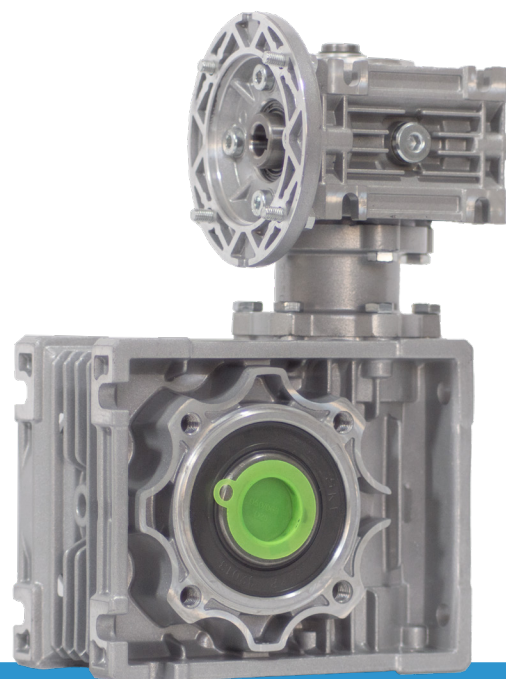
They are the most widely used in the market.

Main features:

- *Made of high-quality aluminum alloy, light in weight and non-rusting.*
- *Large in output torque.*
- *Smooth in running and low in noise, can work long time in dreadful conditions.*
- *High in radiating efficiency.*
- *Good-looking in appearance, durable in service life and small in volume.*
- *Suitable for omnibearing installation.*
- *Housing: die-cast aluminium alloy (frame size: 025 to 090) and cast iron (frame size: 110 to 150).*

Main paint features:

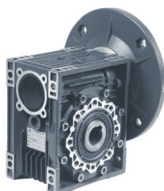
- *Aluminium alloy housing*
 - I. Shot blasting and special antiseptic treatment on the aluminum alloy surface.*
 - II. After phosphating, paint with Grey RAL.*
- *Cast iron housing*
 - I. First paint with red antirust paint, then paint with grey RAL.*



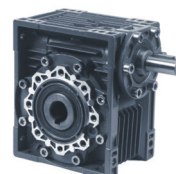
Riduttore (MRDV/RDV)/Gearbox (MRDV/RDV)

MRDV 063 - 40 FA 71B5 B3

MRDV	Codice del riduttore (MRDV/RDV) Code of gearbox (MRDV/RDV)
063	Grandezza del riduttore Centre to centre spacing of gearbox
40	Rapporto di riduzione Speed ratio of gearbox
FA	Flangia in uscita (se non indicato si intende senza flange in uscita) Flange output (no mark means flangeless output)
71B5	Flangia motore Motor mounting facility
B3	Posizione di montaggio Installation position code



MRDV 025 ~ 150

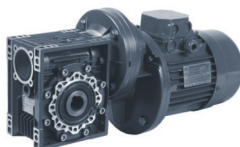


RDV 030 ~ 150

Riduttore a vite con precoppia (PC-MRDV)/Combined units gearbox and pre-stage reduction unit (PC-MRDV)

PC 071 MRDV 063 - 40 FA B3

PC	Precoppia Pre-stage reduction unit
071	Grandezza del riduttore Centre to centre spacing of gearbox
MRDV	Codice del riduttore (MRDV/RDV) Code of gearbox (MRDV/RDV)
063	Grandezza del riduttore Centre to centre spacing of gearbox
40	Rapporto di riduzione Speed ratio of gearbox
FA	Flangia in uscita (se non indicato si intende senza flange in uscita) Flange output (no mark means flangeless output)
B3	Posizione di montaggio Installation position code

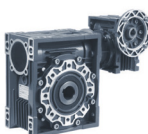


PC-MRDV

Doppio riduttore a vite (MRDV-MRDV/RDV-MRDV)/Combined units (MRDV-MRDV/RDV-MRDV)

MRDV 050/110 - 900 FA 71B5 BS2

MRDV	Codice del riduttore (MRDV/RDV) Code of gearbox (MRDV/RDV)
050/110	Grandezza del riduttore Centre to centre spacing of gearbox
900	Rapporto di riduzione Speed ratio of gearbox
FA	Flangia in uscita (se non indicato si intende senza flange in uscita) Flange output (no mark means flangeless output)
71B5	Flangia motore Motor mounting facility
BS2	Posizione di montaggio Installation position code



MRDV 025 ~ 150

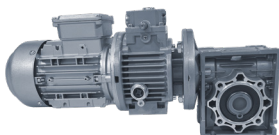


RDV 030 ~ 150

Variatori e riduttori (UDL-MRDV)/Combined units gearbox and speed variators (UDL-MRDV)

UD L 0.75 MRDV 063 - 40 FA B3

UD	Codice del variatore Code of speed variator
L	Carcassa in ghisa (se non indicato si intende carcassa in ghisa) Aluminium alloy housing (no mark means cast iron case)
0.75	Po Speed ratio of gearbox
MRDV	Codice del riduttore (MRDV/RDV) Code of gearbox (MRDV/RDV)
063	Grandezza del riduttore Centre to centre spacing of gearbox
40	Rapporto di riduzione Speed ratio of gearbox
FA	Flangia in uscita (se non indicato si intende senza flange in uscita) Flange output (no mark means flangeless output)
B3	Posizione di montaggio Installation position code



UDL-MRDV

In fase d'ordine specificare se il variatore è completo di motore

When ordering you should show whether the reducers are equipped with motors

Come selezionare la riduzione di un riduttore/The way to select worm-gear speed reducer

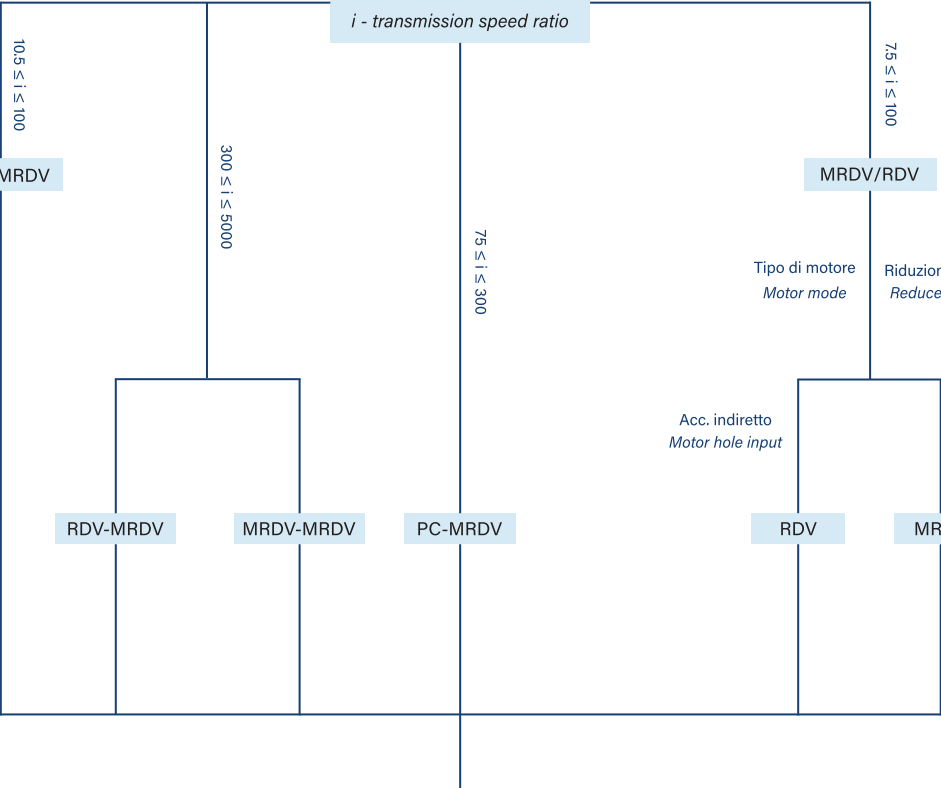
Calcolare la coppia in uscita
sull'albero lento M del
riduttore: $M_2 \geq M \times f_z$
Calculate torque on the
shaft M, the output torque of
the reducer: $M_2 \geq M \times f_z$

V - velocità di trasmissione
V- transmission speed

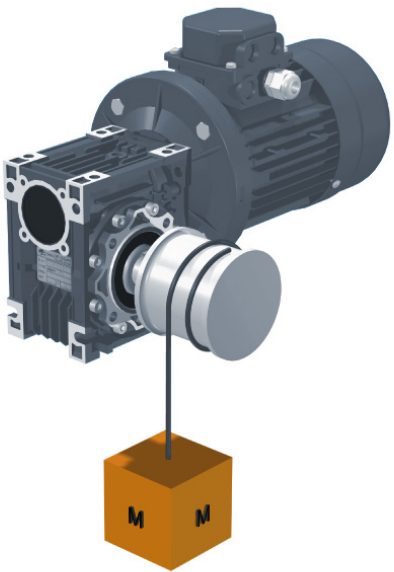
n_1 - velocità del motore
 n_1 - is motor rev

$n_2 = v/(\pi \times D)$
 $i = n_1/n_2$

i - rapporto di riduzione
i - transmission speed ratio



Considerare che la coppia in uscita del riduttore sia più alta di quella
necessaria al movimento.
Consider that the output torque of the gearbox has to be higher has to be
higher than the one necessary for moving



Fattore di servizio/Service factor

Il fattore di servizio (fs) dipende dalle condizioni in cui opera il riduttore. I parametri che influiscono sulla scelta del riduttore sono:

- Tipo di carico della macchina:
 - I. Uniforme ($fa \leq 0.3$)
 - II. Sovraccarico moderato ($fa \leq 3$)
 - III. Forti sovraccarichi ($fa \leq 10$)
- Durata giornaliera (ore)
- Frequenza degli avviamenti

$$fa = Je/Jm$$

- Je (kgm²) - momento di inerzia esterno sull'albero guida
- Jm (kgm²) - momento di inerzia del motore
- Se $fa > 10$ - contattare il nostro ufficio tecnico

The service factor (fs) depends on the operating conditions the reduction unit is subjected to. The parameters that need to be taken into consideration to select the most adequate service factor correctly comprise:

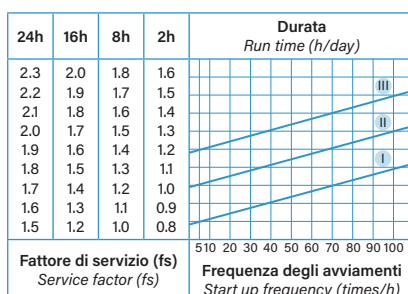
- Type of load of the operated machine:
 - I. Uniform, permitted mass acceleration factor ($fa \leq 0.3$)
 - II. Moderate shocks, permitted mass acceleration factor ($fa \leq 3$)
 - III. Heavy shocks, permitted mass acceleration factor ($fa \leq 10$)
- Length of daily operating time (hours)
- Start-up frequency

$$fa = Je/Jm$$

- Je (kgm²) - moment of reducer external inertia at the drive-shaft
- Jm (kgm²) - moment of inertia of motor
- If $fa > 10$ - please call our Technical Service

Tipo di carico della macchina:

- I Alimentatori e linee per carichi leggeri, ventole, linee di assemblaggio, nastri trasportatori per materiale leggero, miscelatori per liquidi e macchine da imballaggio.
- II Ascensori, trasportatori pesanti, macchine tessili, porte scorrevoli e gru trituratori
- III Macchine cartotecnica, macchine per il marmo e per la ceramica.



Type of load of the operated machine:

- I Screw feeders for lights materials, turbofans, assembly lines for light materials, conveyor belts for light materials, mixers (liquid) and packing machines.
- II Good lifts, conveyor belts for heavy materials, weave machines, sliding doors, concrete mixers, crane mechanisms.
- III Barkers, crush machines, grinding lathes, punches, produce paper machines, stone and porcelain clay machining machines.

Il fattore di servizio (fs) deve essere modificato in questo modo:

- Temperatura ambiente tra 30 ~ 40°C : fs x (1.1 ~ 1.2)
- Temperatura ambiente tra 40 ~ 50°C : fs x (1.3 ~ 1.4)
- Temperatura ambiente tra 50 ~ 60°C : fs x (1.5 ~ 1.6)
- Temperatura ambiente >60°C (contattare il nostro ufficio tecnico)

Service factor (fs) should be adjusted as following:

- Ambient temperature is 30 ~ 40°C : fs x (1.1 ~ 1.2)
- Ambient temperature is 40 ~ 50°C : fs x (1.3 ~ 1.4)
- Ambient temperature is 50 ~ 60°C : fs x (1.5 ~ 1.6)
- Ambient temperature is >60°C (please call our Technical Service)

Carico radiale ammissibile sull'albero/The admissible radial load on the shaft

Il carico radiale sull'albero è calcolato nel seguente modo:

$$Fre = \frac{2000 \cdot M \cdot fz \leq Fr1 \cdot Fr2}{D}$$

Quando il carico non è in centro all'albero è necessario ricalcolarlo con la seguente formula (i dati a, b e x sono nella tabella seguente):

$$Fre \leq \frac{Fr \cdot a \leq Fr1max \cdot Fr2max}{(b+x)}$$

Fre (N) - risultato del carico radiale
M (Nm) - coppia sull'albero
D (mm) - diametro dell'oggetto montato sull'albero
Fr (N) - carico radiale ammesso (vedi tabella)
fz = 1.15 - pignone
fz = 1.4 - ruota della catena
fz = 1.75 - tiro cinghia
fz = 2.5 - tiro piattello
a & b - costante della vite
x - distanza del punto di applicazione del carico (mm)

The allowed radial load force on the shaft is calculated with the following formula:

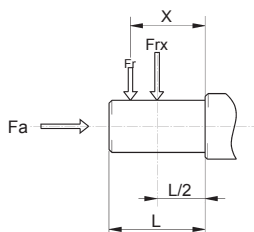
$$Fre = \frac{2000 \cdot M \cdot fz \leq Fr1 \cdot Fr2}{D}$$

When the resulting radial load is not applied on the centre line of the shaft, it is necessary to calculate the effective load with the following formula (the values of a, b and x are given in the following tables):

$$Fre \leq \frac{Fr \cdot a \leq Fr1max \cdot Fr2max}{(b+x)}$$

Fre (N) - resulting radial load
M (Nm) - torque on the shaft
D (mm) - diameter of the transmission member mounted on the shaft
Fr (N) - the admitted radial load force (see relative tables)
fz = 1.15 - gear pinion
fz = 1.4 - chain wheel
fz = 1.75 - v-pulley
fz = 2.5 - flat pulley
a & b - worm casing constant
x - distance of load from shaft shoulder (mm)

Albero in uscita/Output shafts

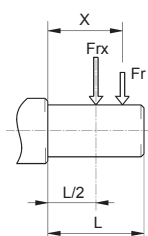


MRDV	025	030	040	050	063	075	090	110	130	150
a	50	65	84	101	120	131	162	176	188	215
b	38	50	64	76	95	101	122	136	148	174
Fr2 max	1350	1830	3490	4840	6270	7380	8180	12000	13500	18000

I valori dei carichi radiali ammissibili sono dati dalle pagine relative alle prestazioni (Fr1, Fr2)

The values of the admissible radial loads are given on the pages relating to performance (Fr1, Fr2)

Albero in entrata/Input shafts



RDV	030	040	050	063	075	090	110	130	150
a	86	106	129	159	192	227	266	314	350
b	76	94,5	114	139	167	202	236	274	310
Fr1 max	210	350	490	700	980	1270	1700	2100	2800

I valori dei carichi radiali ammissibili sono dati dalle pagine relative alle prestazioni (Fr1, Fr2)

The values of the admissible radial loads are given on the pages relating to performance (Fr1, Fr2)

Rendimento/Efficiency

Il rendimento è un parametro importante del riduttore. Lo determina l'attrito radente e volvente degli ingranaggi. La tabella di pagina 12 mostra i valori del rendimento.

Efficiency is an important parameter of reducer, and lies on the design and friction of the worm and worm wheels drive units. The mesh data table on page 12 shows dynamic efficiency ($\eta_1=1400$) and static efficiency values.

Irreversibilità dinamica/Dynamic irreversibility

L'irreversibilità dinamica si verifica al momento dello stop del riduttore. La condizione teorica perché si verifichi questa situazione è $\eta_d < 0.4$ (vedi tabella a pag. 12). La tabella mostra la classe di irreversibilità. Urti e vibrazioni influiscono sull'irreversibilità del riduttore.

Dynamic irreversibility is achieved when the output shaft stops instantly when drive is no longer transmitted through the worm shaft. This condition requires a dynamic efficiency of $\eta_d < 0.4$ (see table on page 12). The table shows approximate irreversibility classes. Vibrations and shocks can affect a gear reducer's irreversibility.

η_d	Irreversibilità dinamica - Dynamic irreversibility
> 0.6	Reversibilità dinamica - Dynamic reversibility
0.5 ~ 0.6	Bassa reversibilità dinamica - Low dynamic reversibility
0.4 ~ 0.5	Buona irreversibilità dinamica - Good dynamic irreversibility
< 0.4	Irreversibilità dinamica - Dynamic irreversibility

Irreversibilità statica/Static irreversibility

L'irreversibilità statica si verifica quando non è possibile far ruotare il riduttore dal lato albero lento. La condizione teorica perché si verifichi questa situazione è $\eta_s < 0.5$ (vedi tabella a pag. 12). La tabella mostra la classe di irreversibilità. Urti e vibrazioni influiscono sull'irreversibilità del riduttore.

Static irreversibility is achieved when with the gear reducer at a standstill, the application of a load to the output shaft can't drive the worm shaft. This condition requires a static efficiency of $\eta_s < 0.5$ (see table on page 12). The table shows approximate irreversibility classes. Vibrations and shocks can affect a gear reducer's irreversibility.

η_s	Irreversibilità statica - Static irreversibility
> 0.55	Reversibilità statica - Static reversibility
0.5 ~ 0.55	Bassa reversibilità statica - Low static reversibility
< 0.5	Irreversibilità statica - Static irreversibility

Parametri/Mesh parameter

	i	7.5	10	15	20	25	30	40	50	60	80	100
MRDV025	Z ₁	4	3	2	2	2	1	1	1	1		
	M _n	1.3	1.3	1.3	0.995	0.8	1.3	0.995	0.8	0.67		
	γ	25°18'	19°31'	13°18'	11°02'	9°05'	6°44'	5°34'	4°34'	3°55'		
	η _d (1400)	0.85	0.83	0.79	0.75	0.71	0.67	0.62	0.58	0.55		
	η _s	0.71	0.68	0.61	0.56	0.5	0.46	0.41	0.36	0.34		
MRDV030	Z ₁	4	3	2	2	1	1	1	1	1	1	
	M _n	1.44	1.44	1.44	1.1	1.7	1.44	1.1	0.89	0.74	0.56	
	γ	18°55'	14°25'	9°44'	7°50'	5°33'	4°54'	3°55'	3°17'	2°43'	2°07'	
	η _d (1400)	0.85	0.82	0.77	0.73	0.68	0.65	0.59	0.55	0.51	0.44	
	η _s	0.67	0.63	0.55	0.5	0.43	0.39	0.35	0.31	0.27	0.23	
MRDV040	Z ₁	4	3	2	2	2	1	1	1	1	1	1
	M _n	2.05	2.05	2.05	1.56	1.27	2.05	1.56	1.27	1.06	0.8	0.65
	γ	23°54'	18°23'	12°30'	10°03'	8°45'	6°19'	5°04'	4°24'	3°42'	2°52'	2°29'
	η _d (1400)	0.87	0.85	0.82	0.78	0.75	0.7	0.65	0.62	0.58	0.52	0.47
	η _s	0.71	0.67	0.6	0.55	0.51	0.45	0.4	0.36	0.32	0.28	0.24
MRDV050	Z ₁	4	3	2	2	2	1	1	1	1	1	1
	M _n	2.56	2.56	2.56	1.95	1.58	2.56	1.95	1.58	1.32	1	0.8
	γ	23°49'	18°19'	12°27'	10°03'	8°33'	6°18'	5°04'	4°18'	3°38'	2°52'	2°17'
	η _d (1400)	0.88	0.86	0.82	0.79	0.76	0.72	0.67	0.63	0.59	0.53	0.49
	η _s	0.7	0.66	0.59	0.55	0.51	0.44	0.39	0.35	0.32	0.27	0.23
MRDV063	Z ₁	4	3	2	2	2	1	1	1	1	1	1
	M _n	3.25	3.25	3.25	2.48	2	3.25	2.48	2	1.68	1.27	1.02
	γ	24°31'	18°53'	12°51'	10°29'	8°45'	6°30'	5°17'	4°24'	3°49'	2°59'	2°26'
	η _d (1400)	0.88	0.87	0.83	0.81	0.78	0.74	0.7	0.66	0.62	0.57	0.51
	η _s	0.71	0.67	0.6	0.55	0.51	0.45	0.4	0.36	0.33	0.28	0.24
MRDV075	Z ₁	4	3	2	2	2	1	1	1	1	1	1
	M _n	3.95	3.95	3.95	3	2.42	3.95	3	2.42	2.03	1.54	1.24
	γ	26°38'	20°37'	14°05'	11°19'	9°29'	7°09'	5°43'	4°46'	4°01'	3°17'	2°44'
	η _d (1400)	0.89	0.88	0.85	0.82	0.8	0.76	0.72	0.69	0.65	0.6	0.55
	η _s	0.71	0.68	0.61	0.57	0.53	0.46	0.42	0.38	0.35	0.29	0.26
MRDV090	Z ₁	4	3	2	2	2	1	1	1	1	1	1
	M _n	4.84	4.84	4.84	3.69	2.98	4.84	3.69	2.98	2.5	1.89	1.52
	γ	29°05'	22°39'	15°33'	12°50'	10°53'	7°55'	6°30'	5°29'	4°46'	3°45'	3°06'
	η _d (1400)	0.9	0.89	0.86	0.84	0.82	0.78	0.75	0.72	0.69	0.63	0.59
	η _s	0.73	0.7	0.64	0.6	0.56	0.49	0.45	0.41	0.38	0.32	0.28
MRDV110	Z ₁	4	3	2	2	2	1	1	1	1	1	1
	M _n	5.875	5.875	5.875	4.62	3.73	5.875	4.62	3.37	3.13	2.37	1.91
	γ	28°15'	21°57'	15°02'	14°42'	12°33'	7°39'	7°29'	5°33'	4°46'	4°27'	3°46'
	η _d (1400)	0.9	0.89	0.86	0.85	0.84	0.79	0.78	0.75	0.72	0.67	0.63
	η _s	0.72	0.69	0.63	0.62	0.59	0.48	0.48	0.44	0.41	0.36	0.32
MRDV130	Z ₁	4	3	2	2	2	1	1	1	1	1	1
	M _n	6.97	6.97	6.97	5.4	4.37	6.97	5.4	4.37	3.67	2.77	2.23
	γ	28°43'	22°20'	15°19'	13°47'	11°54'	7°48'	7°00'	6°01'	5°16'	4°07'	3°27'
	η _d (1400)	0.91	0.89	0.87	0.86	0.84	0.8	0.78	0.75	0.72	0.68	0.64
	η _s	0.72	0.69	0.63	0.61	0.58	0.49	0.46	0.43	0.39	0.34	0.3
MRDV150	Z ₁	6	4	3	2	2	2	1	1	1	1	1
	M _n	5.5	6.155	5.5	6.155	5	4.193	6.155	5	4.193	3.17	2.5
	γ	32°09'	24°35'	17°27'	12°53'	11°19'	9°50'	6°32'	5°43'	4°57'	3°55'	3°14'
	η _d (1400)	0.91	0.9	0.88	0.86	0.84	0.83	0.78	0.76	0.73	0.68	0.64
	η _s	0.73	0.71	0.66	0.6	0.57	0.54	0.45	0.42	0.39	0.33	0.29

Lubrificazione/Lubrication

Nei casi di temperature ambiente non segnate in tabella, contattare il nostro ufficio tecnico. Nel caso di temperature sotto i -30°C e sopra i 60°C è necessario usare tenute speciali. Per operatività sotto gli 0°C sono necessarie le seguenti considerazioni:

- I motori devono essere adatti a lavorare alla temperatura dell'ambiente;
- La potenza dei motori elettrici deve essere adeguata alla coppia più alta richiesta;
- In caso di riduttori con carcassa in ghisa, fare attenzione alla temperatura d'esercizio sotto i 15°C;
- Al primo avvio del riduttore potrebbero presentarsi problemi di lubrificazione dovuti all'alta viscosità dell'olio, è consigliato per lavorare il riduttore alcuni minuti senza carica.

L'olio deve essere sostituito dopo circa 10.000 ore di funzionamento ma questo periodo dipende anche dal servizio e dall'ambiente in cui lavora il riduttore.

- I riduttori grandezza 25 - 30 - 40 - 50 - 63 - 75 - 90 sono già lubrificati con olio sintetico a vita e possono essere montati in tutte le posizioni tranne V5/V6. Per le posizioni V5/V6 occorre contattare il nostro ufficio tecnico.
- I riduttori grandezze 110 - 130 - 150 sono completi di lubrificante olio minerale Shell Tivela OIL 320.
- I variatori di velocità sono già lubrificati con olio minerale.
- Per le grandezze 110 - 130 - 150 è necessario specificare la posizione di montaggio. Normalmente sono riempiti con quantità d'olio della posizione in B3.
- I riduttori 110 - 130 - 150 hanno i tappi di carico livello e sfiato.
- Le precoppie PC sono già lubrificate con olio a vita Shell Tivela OIL 320 e possono essere montate in tutte le posizioni.

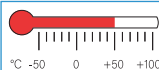
In cases of ambient temperatures not envisaged in the table, call our Technical Service. In the case of temperatures under -30°C or over 60°C it is necessary to use oil seals with special material. For operating ranges with temperatures under 0°C it is necessary to consider the following:

- The motors need to be suitable for operating at the envisaged ambient temperature;
- The power of the electric motor needs to be adequate for exceeding the higher starting torques required;
- In the case of reduction units with a cast-iron, pay attention to impact loads since cast-iron may have problems of fragility at temperatures under -15°C;
- During the early stages of service, problems of lubrication may arise due to the high level of viscosity taken on by the oil and so it is wise to have a few minutes of rotation under no load.

The oil needs to be changed after approximately 10.000 hours. This period depends on the type of service and the environment where the reduction unit works.

- The reduction units size 025 - 030 - 040 - 050 - 063 - 075 - 090 are supplied complete with lubricant for life, synthetic oil, SHELL TEVELA OIL 320 and can therefore be mounted in any position except V5/V6. For V5/V6 you should call our Technical Service to assess the conditions of use.
- The reduction units size 110 - 130 - 150 are supplied complete with lubricant, mineral oil, SHELL TEVELA OIL 320.
- The variator speed are supplied complete with lubricant, mineral oil.
- For sizes 110 - 130 - 150 it is necessary to specify the position, otherwise the reduction units are supplied with the quantity of oil relating to pos B3.
- Only reduction units 110 - 130 - 150 are fitted with breather, level and oil drainage plugs.
- PC is supplied complete with life-long lubricant, synthetic oil, SHELL TEVELA OIL 320, and can therefore be mounted in all the positions.

Specifiche dei lubrificanti/Specifications of lubricants

										
MRDV025 ~ 090 PC063 ~ 090	-25 +50	VG320	Tivela OIL S320	Tellium VSF320	S220	Glygoyle 30	Alphasyn PG320	Energol SG-XP320	WA460	Synthetic oil
MRDV110 ~ 150	-5 40	VG460	Omala OIL460	Blasia 460	Spartan EP460	Mobilgear 634	Alpha MAX 460	Energol GR-XP460	WA460	Mineral oil
	-1 +25	VG220	Omala OIL220	Blasia 220	Spartan EP220	Mobilgear 630	Alpha MAX 220	Energol GR-XP220	WA460	
PC	-1 +50	VG320	Tivela OIL S320	Tellium VSF320	S220	Glygoyle 30	Alphasyn PG320	Energol SG-XP320	CKC150	Synthetic oil
UDL	-25 40	VG32	A.T.F. DXRON	A.T.F. DXRON	A.T.F. DXRON	A.T.F. 220	TQ. DXRON II	Autran DX	Ub3	Mineral oil

Quantità olio in litri/Quantity of oil in litres

MRDV	025	030	040	050	063	075	090	110	130	150
B3	0.023	0.05	0.1	0.15	0.3	0.5	1	3	4.5	7
B8	0.023	0.05	0.1	0.15	0.3	0.5	1	2.2	3.3	5.1
B6 - B7	0.023	0.05	0.1	0.15	0.3	0.5	1	2.5	3.5	5.4
V5	0.023	0.05	0.1	0.15	0.3	0.5	1	3	4.5	7
V6	0.023	0.05	0.1	0.15	0.3	0.5	1	2.2	3.3	5.1

PC	63	71	80	90
B3	0.05	0.07	0.15	0.16
B8	0.05	0.07	0.15	0.16
B6 - B7	0.05	0.07	0.15	0.16
V5	0.05	0.07	0.15	0.16
V6	0.05	0.07	0.15	0.16

MRDV	UDL 0.18	UDL 0.37	UDL 0.55	UDL 0.75	UD 1.1	UD 1.5	UD 2.2	UD 3.0	UD 4.0
B3	0.13	0.15	0.33	0.33	0.8	0.8	1.2	1.2	1.2
B8	0.13	0.15	0.33	0.33	0.8	0.8	1.2	1.2	1.2
B6 - B7	0.13	0.15	0.33	0.33	0.8	0.8	1.2	1.2	1.2
V5	0.3	0.4	0.85	0.85	1.4	1.4	2.15	2.15	2.15
V6	0.2	0.25	0.45	0.45	1	1	1.2	1.2	1.2

Installazione/Installation

Per installare un riduttore consigliamo le seguenti note:

- 1 Il montaggio del riduttore deve essere stabile per evitare vibrazioni;
- 2 Controllare la corretta direzione di rotazione dell'albero lento del riduttore;
- 3 In caso di periodi di immagazzinaggio lunghi (3/4 mesi) se l'anello di tenuta non è immerso nell'olio, è raccomandabile sostituirlo;
- 4 Se possibile proteggere il riduttore dai raggi solari e da altri eventi atmosferici;
- 5 Assicurarsi che il motore sia raffreddato correttamente con un buon passaggio d'aria;
- 6 In caso di temperature ambiente minori di 5°C o superiori a 40°C chiamare il nostro ufficio tecnico;
- 7 La verniciatura non deve coprire parti in gomma;
- 8 Alla partenza al riduttore non dovrebbe essere applicato il carico massimo.

To install the reduction unit it is necessary to note the following recommendations:

- 1 The mounting on the machine must be stable to avoid any vibrations;
- 2 Check the direction of the rotation of the reduction unit output shaft before fitting the unit to the machine;
- 3 In the case of particularly lengthy periods of storage (3/4 months), if the oil seal is not immersed in the lubricant inside the unit, it is recommend the change it;
- 4 Whenever possible, protect the reduction unit against solar radiation and bad weather;
- 5 Ensure the motor cools correctly by assuring good passage of air from the fan side;
- 6 In the case of ambient temperatures <-5°C or >+40°C call the Technical Service;
- 7 Painting must definitely not go over rubber parts, if any;
- 8 Starting must take place gradually, without immediately applying the maximum load.

Applicazioni critiche/Critical application

Le prestazioni date nel catalogo corrispondono al montaggio B3. Per altre posizioni di montaggio o particolari velocità in ingresso, riferirsi alle tabelle per le applicazioni critiche. È necessario contattare il nostro ufficio tecnico nel caso delle seguenti applicazioni:

- Incremento di velocità;
- Uso in applicazioni pericolose per le persone nel caso il riduttore si guasti;
- Applicazione con particolare inerzia;
- Uso con forti sollevamenti;
- Applicazioni con alta dinamica;
- Applicazioni con temperature sotto i -5°C e sopra i 40°C;
- Uso in ambienti chimici aggressivi;

The performance given in the catalogue correspond to mounting position B3.

For other mounting positions and/or particular input speeds, refer to the tables that highlight different critical situations for each size of reduction unit. It is also necessary to take due consideration of and carefully assess the following applications by calling our Technical Service:

- As a speed increasing.
- Use in services that could be hazardous for people if the reduction unit fails.
- Applications with especially high inertia.
- Use as a lifting winch.
- Applications with high dynamic strain on the case of the reduction unit.
- In places with T° under -5°C or over 40°C.

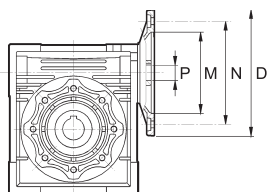
- Uso in ambienti salini;
- Montaggio in posizioni non descritte a catalogo;
- Uso in ambienti radioattivi;
- Uso in ambienti con particolari pressioni atmosferiche;
- Evitare applicazioni in cui il riduttore è parzialmente immerso in liquidi;
- La coppia massima che il riduttore può sopportare non deve superare il doppio della coppia normale ($f_s=1$) indicata nelle tabelle delle prestazioni.

- *Use in chemically aggressive environments.*
- *Use in a salty environment.*
- *Mounting positions not envisaged in the catalogue.*
- *Use in radioactive environments.*
- *Use in environments pressures other than atmospheric pressure.*
- *Avoid applications where even partial immersion of the reduction unit is required.*
- *The maximum torque that the gear reducer can support must not exceed two times the nominal torque ($f_s=1$) stated in the performance tables.*

Predisposizioni/Predisposition

(*) Per un ingresso con motore speciale contattare il nostro ufficio tecnico.

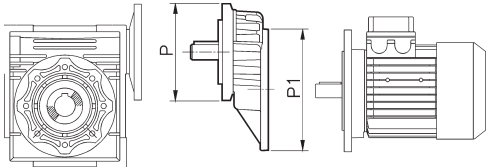
(*) If you want special key, please call our Technical Service.



MRDV	PAM	N	M	P	D										
	IEC				7.5	10	15	20	25	30	40	50	60	48	100
025	56 B14	50	65	80	9	9	9	9		9	9	9	9		
030	63 B5	95	115	140	11	11	11	11	11	11	11	11			
	63 B14	60	75	90											
	56 B5	80	100	120	9	9	9	9	9	9	9	9	9	9	
	56 B14	50	65	80											
040	71 B5	110	130	160	14	14	14	14	14	14	14				
	71 B14	70	85	105											
	63 B5	95	115	140	11	11	11	11	11	11	11	11	11	11	11
	63 B14	60	75	90											
	56 B5	80	100	120											
050	80 B5	130	165	200	19	19	19	19	19	19					
	80 B14	80	100	120											
	71 B5	110	130	160	14	14	14	14	14	14	14	14	14	14	
	71 B14	70	85	105											
	63 B5	95	115	140											
063	80 B5	130	165	200	19	19	19	19	19	19					
	80 B14	80	100	120											
	71 B5	110	130	160	14	14	14	14	14	14	14	14	14	14	
	71 B14	70	85	105											
	63 B5	95	115	140											
075	110/112 B5	180	215	250	28	28	28								
	110/112 B14	110	130	160											
	90 B5	130	165	200	24	24	24	24	24	24	24				
	90 B14	95	115	140											
	80 B5	130	165	200											
090	80 B14	80	100	120				19	19	19	19	19	19	19	19
	71 B5	110	130	160											
	110/112 B5	180	215	250	28	28	28	28	28	28					
	110/112 B14	110	130	160											
	90 B5	130	165	200											
110	90 B14	95	115	140	24	24	24	24	24	24	24	24	24	24	24
	80 B5	130	165	200											
	132 B5	230	265	300	38*	38*	38*	38*							
	110/112 B5	180	215	250	28	28	28	28	28	28	28	28	28	28	28
	90 B5	130	165	200											
130	80 B5	130	165	200				19	19	19	19	19	19	19	19
	132 B5	230	265	300											
	110/112 B5	180	215	250	28	28	28	28	28	28	28	28	28	28	28
	90 B5	130	165	200											
	160 B5	250	300	350											
150	132 B5	230	265	300				38	38	38	38	38	38	38	38
	110/112 B5	180	215	250											
	160 B5	250	300	350	42	42	42	42	42						
	132 B5	230	265	300											
	110/112 B5	180	215	250											

PC + MRDV/PC + MRDV Combined unit

MRDV	i	PC 063		PC 071		PC 080			PC 090		
		105/11 i=3	105/14 i=3	120/14 i=3	120/19 i=3	160/19 i=3	160/24 i=3	160/28 i=3	160/19 i=2.42	160/24 i=2.42	160/28 i=2.42
040	25										
	30										
	40										
	50										
	60										
	80										
	100										
050	25										
	30										
	40										
	50										
	60										
	80										
	100										
063	25										
	30										
	40										
	50										
	60										
	80										
	100										
075	25										
	30										
	40										
	50										
	60										
	80										
	100										
090	25										
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110	25										
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	80										
	100										
130	25										
	30										
	40										
	50										
	60										
	80										
	100										
150	25										
	30										
	40										
	50										
	60										
	80										
	100										



	P1	P	P*
PC 063	63 B5 - 140/11	105/11	105/14*
PC 071	71 B5 - 160/14	120/14	120/19*
PC 080	80 B5 - 200/19	160/19	160/24* 160/28*
PC 090	90 B5 - 200/24	160/24	160/19* 160/28*

(*) Modello non standard

(*) Non standard model

Caratteristiche della precoppia (PC)/Features of pre-stage reduction unit (PC)

La precoppia è modulare e può essere montata su qualsiasi riduttore PAM, le varie possibilità di accoppiamento si trovano a pagina 17. Le precoppie non possono essere utilizzate da sole, è necessario accoppiare ad un riduttore.

The PC construction is modular and therefore it can be as a separate unit mounted on any type of fitted geared motor (PAM). Whose the various possibilities of flange/output shafts can be found on page 17. The pre-stage unit cannot be used by itself, but only coupled with another reduction unit.

Materiali/Materials

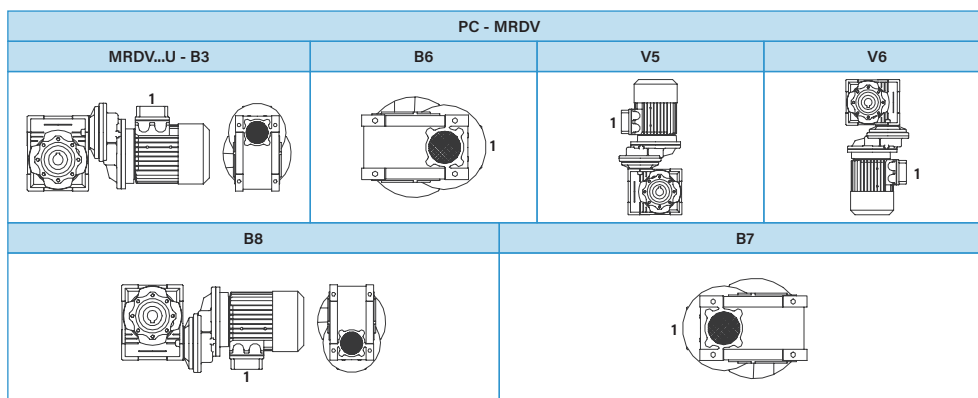
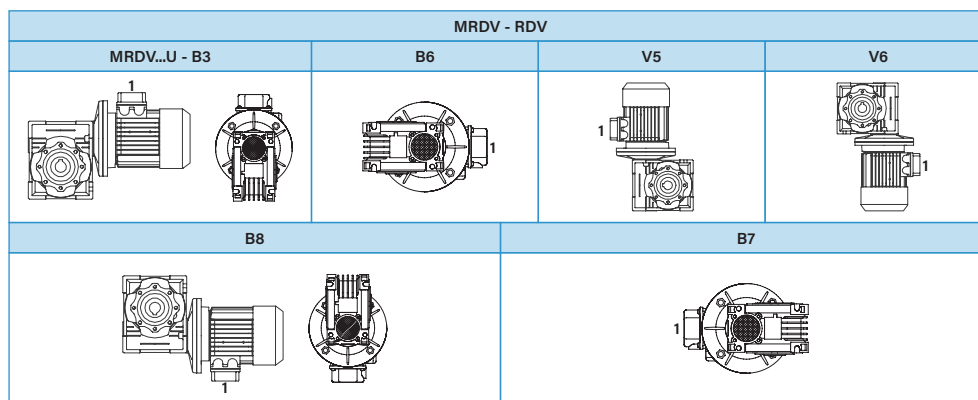
Carcassa in pressofusione d'alluminio.

Ingranaggi in 20CrMo

Case in aluminium alloy.

Gears: 20CrMo

Posizioni di montaggio/Mounting positions

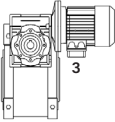
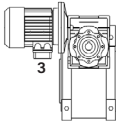
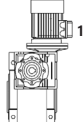
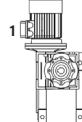
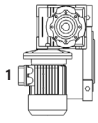
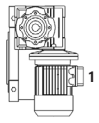
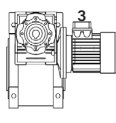
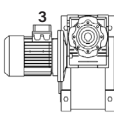


La versione "U" è relativa alla grandezza 25 sino alla 75. Per le altre grandezze non è necessario specificare la posizione di montaggio.

- ① Per le posizioni verticali vedere tabella a pagina 15;
- ② Se non è specificata la posizione di montaggio verrà considerata quella standard in B3;
- ③ Per altre posizioni consultare il nostro ufficio tecnico.

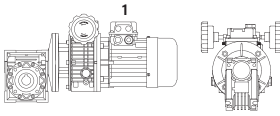
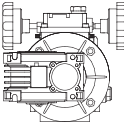
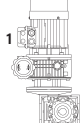
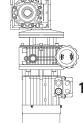
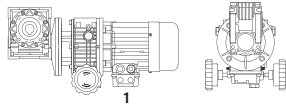
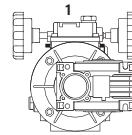
"U" version is related to sizes from 025 to 075. For these sizes is not necessary to specify mounting position.

- ① For vertical positions, please refer to the table on page 15.
- ② Unless specified otherwise, the standard positions are B3.
- ③ For positions not envisaged, it necessary to call our Technical Service.

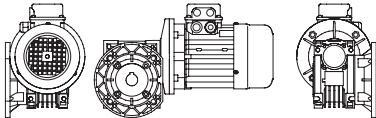
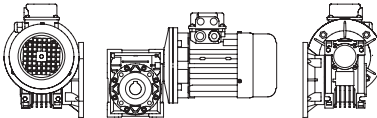
MRDV - MRDV/RDV - MRDV			
AS1	AS2	VS1	VS2
			
PS1	PS2	BS1	BS2
			

Nel caso non venga specificata la posizione di montaggio, viene considerata standard quella in BS2.

Unless specified at the time of order, combination groups will be supplied in version BS2.

UDL - MRDV			
MRDV...U - B3	B6	V5	V6
			
B8		B7	
			

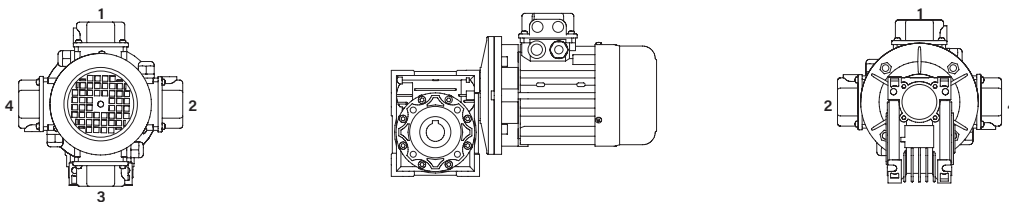
Flange in uscita/Output flanges

D	S
	

Se non viene specificata, la posizione della flangia sarà in esecuzione D, in riferimento alla posizione B3.

Unless specified otherwise, the reduction unit is supplied with the flange in pos. D referred to position B3.

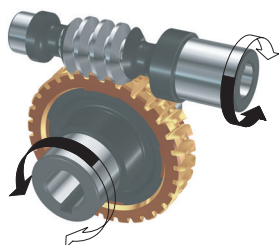
Posizione della morsettiera/Position of terminal box



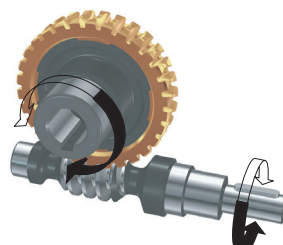
In fase d'ordine specificare la posizione della scatola morsettiera come indicato in figura.

In the case of order specify the position of the terminal box as shown in the diagram.

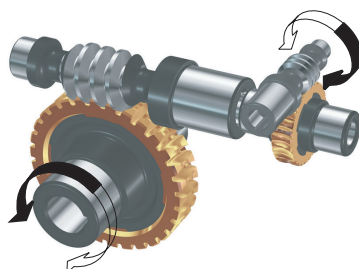
Senso di rotazione/Sense of rotation



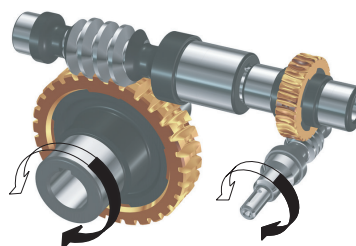
MRDV



RDV



MRDV + MRDV



RDV + MRDV

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	Fr ₂ (N)	fs	MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
0.06	186.7	2.6	7.5	503	4.2	MRDV025	5614	51
	140	3.4	10	553	3.5			
	93.3	4.9	15	633	2.5			
	70	6.1	20	697	2			
	46.7	8.2	30	798	1.6			
	35	10	40	878	1.3			
	28	12	50	946	0.9			
	23.3	14	60	1006	0.7			
0.06	186.7	2.6	7.5	683	6.9	MRDV030	5614	51
	140	3.4	10	752	5.4			
	93.3	4.7	15	861	3.8			
	70	6	20	948	3			
	56	7	25	1021	3			
	46.7	8	30	1085	2.5			
	35	9.7	40	1194	1.9			
	28	11	50	1286	1.5			
	23.3	13	60	1367	1.3			
0.06	17.5	14	80	1504	0.9	MRDV025+030	5614	62
	14	25	100	1620	1.3			
	9.3	32	150	1830	0.9			
	7	41	200	1830	0.7			
0.06	5.6	44	250	1830	0.8	MRDV025+040	5614	62
	4.7	59	300	3490	1.2			
	3.5	71	400	3490	0.9			
	2.8	82	500	3490	0.7			
	2.3	101	600	3490	0.6			
	1.9	116	750	3490	0.5			
	1.6	143	900	3490	0.5			
	1.2	171	1200	3490	0.4			
	0.9	197	1500	3490	0.3			
	0.8	217	1800	3490	0.3			
	0.6	268	2400	3490	0.2			
	0.5	324	3000	3490	0.2			
	0.4	294	4000	3490	0.1			
0.06	0.3	356	5000	3490	0.1	MRDV030+040	5614	62
	4.7	57	300	3490	1.3			
	3.5	70	400	3490	0.9			
	2.8	96	500	3490	0.6			
	2.3	104	600	3490	0.7			
	1.9	121	750	3490	0.6			
	1.6	139	900	3490	0.5			
	1.2	166	1200	3490	0.4			
	0.9	196	1500	3490	0.4			
	0.8	218	1800	3490	0.3			
	0.58	261	2400	3490	0.2			
	0.4	300	3200	3490	0.2			
	0.4	279	4000	3490	0.1			
0.06	0.28	338	5000	3490	0.1	MRDV030+050	5614	63
	1.6	141	900	4840	1			
	1.2	169	1200	4840	0.7			
	0.93	199	1500	4840	0.7			
	0.78	222	1800	4840	0.7			
	0.6	266	2400	4840	0.5			
	0.5	307	3000	4840	0.4			
	0.35	288	4000	4840	0.3			
	0.29	311	4800	4840	0.3			

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	Fr ₂ (N)	fs	MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
0.06	0.9	204	1500	6270	1.1	MRDV030+063	5614	63
	0.78	225	1800	6270	0.9			
	0.58	276	2400	6270	0.8			
	0.47	319	3000	6270	0.7			
	0.35	306	4000	6270	0.6			
	0.28	360	5000	6270	0.4			
0.06	0.6	330	2400	7380	1.1	MRDV040+075	5614	63
	0.47	377	3000	7380	0.8			
	0.35	355	4000	7380	0.7			
	0.28	419	5000	7380	0.5			
0.06	0.5	406	3000	8180	1.4	MRDV040+090	5614	63
	0.35	365	4000	8180	1.3			
	0.28	431	5000	8180	1			
0.09	373.3	2	7.5	399	3.9	MRDV025	5612	51
	280	2.6	10	439	3.4			
	186.7	3.8	15	503	2.4			
	140	4.9	20	553	1.9			
	93.3	6.7	30	633	1.3			
	70	8.3	40	697	1.1			
	56	10	50	751	0.9			
0.09	186.7	3.9	7.5	503	2.8	MRDV025	5624	51
	140	5.1	10	553	2.4			
	93.3	7.3	15	633	1.6			
	70	9.2	20	697	1.3			
	46.7	12	30	798	1.1			
	35	15	40	878	0.9			
0.09	373.3	2	7.5	542	6.5	MRDV030	5612	51
	280	2.6	10	597	5			
	186.7	3.7	15	683	3.5			
	140	4.8	20	752	2.5			
	112	5.7	25	810	2.8			
	93.3	6.5	30	861	2.3			
	70	8.1	40	948	1.7			
	56	10	50	1021	1.4			
	46.7	11	60	1085	1.1			
	35	13	80	1194	0.9			
0.09	186.7	3.9	7.5	683	4.6	MRDV030	5624	51
	140	5	10	752	3.6			
	93.3	7.1	15	861	2.5			
	70	9	20	948	2			
	56	10	25	1021	2			
	46.7	12	30	1085	1.7			
	35	14	40	1194	1.2			
	28	17	50	1286	1			
0.09	23.3	19	60	1367	0.9	MRDV025+030	5612	62
	28	20	100	1286	1.6			
	18.7	25	150	1472	1.1			
	14	33	200	1620	0.9			
0.09	14	38	100	1620	0.8	MRDV025+030	5624	62
	9.3	49	150	1830	0.6			
	7	62	200	1830	0.5			
	5.6	66	250	1830	0.5			
	4.7	75	300	1830	0.4			
	3.5	107	400	1830	0.3			
	2.8	115	500	1830	0.3			
	2.3	135	600	1830	0.2			

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	Fr ₂ (N)	fs	MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
0.09	1.9	151	750	1830	0.2	MRDV025+030	5624	62
	1.6	178	900	1830	0.2			
	1.2	212	1200	1830	0.1			
	0.9	247	1500	1830	0.1			
	0.78	304	1800	1830	0.1			
	0.58	340	2400	1830	0.1			
	0.47	405	3000	1830	0.1			
0.09	28	19	50	2475	2	MRDV040	5624	52
	23.3	21	60	2630	1.7			
	17.5	26	80	2895	1.3			
	14	29	100	3118	1			
0.09	9.3	45	300	3490	1.6	MRDV025+040	5612	62
	7	54	400	3490	1.2			
	5.6	77	500	3490	0.8			
0.09	4.7	88	300	3490	0.8	MRDV030+040	5624	62
0.09	3.5	107	400	4840	1.2	MRDV030+050	5624	63
	2.8	123	500	4840	1			
	2.3	159	600	4840	0.9			
	1.9	185	750	4840	0.8			
	1.6	212	900	4840	0.7			
0.09	1.6	200	900	6270	1	MRDV030+063	5624	63
	1.2	263	1200	6270	0.9			
	0.93	305	1500	6270	0.7			
0.09	0.9	360	1500	7380	1.1	MRDV040+075	5624	63
	0.78	404	1800	7380	1			
	0.58	496	2400	7380	0.7			
0.09	0.5	609	3000	8180	0.9	MRDV040+090	5624	63
	0.35	548	4000	8180	0.8			
0.12	373.3	2.7	7.5	399	3	MRDV025	5622	51
	280	3.5	10	439	2.6			
	186.7	5	15	503	1.8			
	140	6.5	20	553	1.4			
	93.3	9	30	633	1			
	70	11	40	697	0.8			
0.12	186.7	5.2	7.5	683	3.4	MRDV030	6314	51
	140	6.7	10	752	2.7			
	93.3	9.5	15	861	1.9			
	70	12	20	948	1.5			
	56	14	25	1021	1.5			
	46.7	16	30	1085	1.3			
	35	19	40	1194	0.9			
	28	23	50	1286	0.8			
0.12	46.7	17	30	2087	2.6	MRDV040	6314	52
	35	21	40	2298	1.9			
	28	25	50	2475	1.5			
	23.3	28	60	2630	1.3			
	17.5	34	80	2895	1			
	14	38	100	3118	0.8			
0.12	18.7	42	75	2833	1.2	PC063+MRDV040	6314	59
	15.6	46	90	3011	1.2			
	11.7	57	120	3314	0.9			
	9.3	66	150	3490	0.7			
	7.8	74	180	3490	0.6			
0.12	23.3	29	60	3610	2.3	MRDV050	6314	53
	17.5	35	80	3973	1.9			
	14	40	100	4280	1.4			

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	Fr ₂ (N)	fs	MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
0.12	9.3	68	150	4840	1.3	PC063+MRDV050	6314	59
	7.8	75	180	4840	1.1			
	5.8	88	240	4840	0.8			
	4.7	98	300	4840	0.7			
0.12	4.7	119	300	4840	1.2	MRDV030+050	6314	63
	3.5	142	400	4840	0.9			
	2.8	164	500	4840	0.7			
0.12	5.8	92	240	6270	1.5	PC063+MRDV063	6314	59
	4.7	103	300	6270	1.2			
0.12	2.8	171	500	6270	1.3	MRDV030+063	6314	63
	2.3	208	600	6270	1.1			
	1.9	241	750	6270	0.9			
0.12	1.6	325	900	7380	1.2	MRDV040+075	6314	63
	1.2	399	1200	7380	0.9			
0.12	0.8	547	1800	8180	0.9	MRDV040+090	6314	63
	0.58	695	2400	8180	0.9			
0.12	0.5	884	3000	10320	1.2	MRDV050+110	6314	64
	0.35	784	4000	10320	1			
	0.28	928	5000	10320	0.8			
0.18	373.3	4	7.5	542	3.2	MRDV030	6312	51
	280	5.2	10	597	2.5			
	186.7	7.5	15	683	1.7			
	140	10	20	752	1.3			
	112	11	25	810	1.4			
	93.3	13	30	861	1.1			
	70	16	40	948	0.9			
0.18	186.7	7.8	7.5	683	2.3	MRDV030	6324	51
	140	10	10	752	1.8			
	93.3	14	15	861	1.3			
	70	18	20	948	1			
	56	21	25	1021	1			
	46.7	24	30	1085	0.8			
0.18	93.3	14	30	1657	2.4	MRDV040	6312	52
	70	18	40	1824	1.8			
	56	21	50	1964	1.4			
0.18	70	19	20	1824	2	MRDV040	6324	52
	56	23	25	1964	1.7			
	46.7	26	30	2087	1.7			
	35	32	40	2298	1.3			
	28	38	50	2475	1			
	23.3	43	60	2630	0.8			
0.18	45	29	20	2113	1.5	MRDV040	7116	52
	36	34	25	2276	1.3			
	30	38	30	2419	1.3			
	22.5	47	40	2662	1			
0.18	18.7	64	75	2833	0.8	PC063+MRDV040	6324	59
	15.6	70	90	3011	0.8			
	11.7	85	120	3314	0.6			
0.18	46.7	24	60	2865	2.1	MRDV050	6312	53
	35	30	80	3153	1.5			
	28	34	100	3397	1.2			
0.18	35	33	40	3153	2.3	MRDV050	6324	53
	28	39	50	3397	1.9			
	23.3	43	60	3610	1.6			
	17.5	52	80	3973	1.2			
	14	60	100	4280	0.9			

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	Fr ₂ (N)	fs	MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
0.18	18	56	50	3936	1.4	MRDV050	7116	53
	15	63	60	4183	1.1			
	11.3	75	80	4604	0.9			
0.18	18.7	64	75	3889	1.4	PC063+MRDV050	6324	59
	15.6	71	90	4132	1.5			
	11.7	87	120	4548	1.1			
	9.3	101	150	4840	0.9			
	7.8	113	180	4840	0.7			
	5.8	133	240	4840	0.6			
0.18	12	95	75	4506	1.2	PC071+MRDV050	7116	60
	10	105	90	4788	1.4			
	7.5	126	120	4840	1			
0.18	15	66	60	5467	2.1	MRDV063	7116	54
	11.3	79	80	6018	1.6			
	9	90	100	6270	1.4			
0.18	9.3	103	150	6270	1.7	PC063+MRDV063	6324	59
	7.8	117	180	6270	1.4			
	5.8	139	240	6270	1			
	4.7	155	300	6270	0.8			
0.18	12	97	75	5889	2.2	PC071+MRDV063	7116	60
	10	107	90	6259	2.4			
	7.5	131	120	6270	1.8			
	6	152	150	6270	1.4			
	5	168	180	6270	1.2			
	3.8	197	240	6270	0.9			
	3	218	300	6270	0.7			
0.18	3.5	222	400	6270	1	MRDV030+063	6324	63
	2.8	257	500	6270	0.8			
0.18	5	179	180	7380	1.7	PC071+MRDV075	7116	60
	3.8	211	240	7380	1.2			
	3	235	300	7380	1			
0.18	2.3	362	600	7380	1.1	MRDV040+075	6324	63
	1.9	435	750	7380	0.9			
	1.6	487	900	7380	0.8			
0.18	1.2	629	1200	8180	1	MRDV040+090	6324	63
	0.93	735	1500	8180	0.8			
0.18	0.8	861	1800	10320	1.5	MRDV050+110	6324	64
	0.58	1113	2400	10320	1.1			
0.25	373.3	5.6	7.5	542	2.3	MRDV030	6322	51
	280	7.2	10	597	1.8			
	186.7	10	15	683	1.3			
	140	13	20	752	0.9			
	112	16	25	810	1			
	93.3	18	30	861	0.8			
0.25	186.7	11	7.5	1315	3.6	MRDV040	7114	52
	140	14	10	1447	2.8			
	93.3	21	15	1657	1.9			
	70	27	20	1824	1.5			
	56	32	25	1964	1.2			
	46.7	36	30	2087	1.3			
	35	44	40	2298	0.9			
0.25	120	17	7.5	1524	2.6	MRDV040	7126	52
	90	22	10	1677	2			
	60	31	15	1920	1.4			
	45	40	20	2113	1.1			
	36	48	25	2276	0.9			
	30	53	30	2419	0.9			

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	Fr ₂ (N)	fs	MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
0.25	35	42	80	3153	1.1	MRDV050	6322	53
	28	48	100	3397	0.8			
0.25	70	27	20	2503	2.7	MRDV050	7114	53
	56	32	25	2696	2.2			
	46.7	37	30	2865	2.3			
	35	46	40	3153	1.7			
	28	54	50	3397	1.4			
	23.3	60	60	3610	1.1			
	17.5	72	80	3973	0.9			
	15	88	60	4183	0.8			
0.25	45	40	20	2900	1.9	MRDV050	7126	53
	36	48	25	3124	1.5			
	30	54	30	3320	1.7			
	22.5	67	40	3654	1.2			
	18	78	50	3936	1			
	15	88	60	4183	0.8			
0.25	18.7	88	75	3889	1	PC071+MRDV050	7114	60
	15.6	98	90	4132	1.1			
	11.7	121	120	4548	0.8			
0.25	28	56	50	4440	2.4	MRDV063	7114	54
	23.3	63	60	4719	2			
	17.5	78	80	5193	1.6			
	14	87	100	5595	1.4			
0.25	18	81	50	5145	1.8	MRDV063	7126	54
	15	92	60	5467	1.5			
	11.3	110	80	6018	1.2			
	9	125	100	6270	1			
0.25	18.7	91	75	5083	1.8	PC071+MRDV063	7114	60
	15.6	100	90	5401	2			
	11.7	125	120	5945	1.5			
	9.3	143	150	6270	1.2			
	7.8	163	180	6270	1			
	5.8	192	240	6270	0.7			
	4.7	215	300	6270	0.6			
	12	135	75	5889	1.6			
0.25	10	148	90	6259	1.8	PC071+MRDV063	7126	60
	7.5	181	120	6270	1.3			
	6	211	150	6270	1			
	7	159	400	6270	1.4			
0.25	5.6	185	500	6270	1.2	MRDV030+063	6322	63
	17.5	82	80	6130	2.3			
0.25	14	94	100	6603	1.9	MRDV075	7114	55
	11.3	117	80	7103	1.7			
0.25	9	133	100	7380	1.4	MRDV075	7126	55
	9.3	151	150	7380	1.7			
0.25	7.8	172	180	7380	1.4	PC071+MRDV075	7114	60
	5.8	201	240	7380	1.1			
	4.7	230	300	7380	0.9			
	12	139	75	6952	2.4			
0.25	10	155	90	7380	2.5	PC071+MRDV075	7126	60
	7.5	191	120	7380	1.9			
	6	219	150	7380	1.5			
	5	248	180	7380	1.2			
	3.5	336	400	7380	1.1			
0.25	2.8	384	500	7380	0.8	MRDV040+075	7114	63
	5	263	180	8180	1.9			
0.25	3.8	318	240	8180	1.4	PC071+MRDV090	7126	60
	3	358	300	8180	1.1			

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	Fr ₂ (N)	fs	MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
0.25	2.3	512	600	8180	1.2	MRDV040+090	7114	64
	1.9	598	750	8180	0.9			
	1.6	667	900	8180	0.8			
0.25	1.2	943	1200	10320	1.3	MRDV050+110	7114	64
	0.93	1064	1500	10320	1.2			
	0.78	1195	1800	10320	1.1			
0.25	0.6	1624	2400	13500	1	MRDV063+130	7114	64
	0.47	1935	3000	13500	0.8			
	0.35	2046	4000	13500	0.6			
	0.28	2430	5000	13500	0.5			
0.37	373.3	8.4	7.5	1044	3.3	MRDV040	7112	52
	280	11	10	1149	2.6			
	186.7	16	15	1315	1.9			
	140	21	20	1447	1.4			
	112	25	25	1559	1.1			
0.37	186.7	16	7.5	1315	2.4	MRDV040	7124	52
	140	21	10	1447	1.9			
	93.3	31	15	1657	1.3			
	70	39	20	1824	1			
	56	47	25	1964	0.8			
	46.7	53	30	2087	0.8			
0.37	112	25	25	2140	2	MRDV050	7112	53
	93.3	29	30	2274	2.2			
	70	37	40	2503	1.6			
	56	44	50	2696	1.2			
	46.7	50	60	2865	1			
	35	62	80	3153	0.7			
0.37	140	22	10	1987	3.3	MRDV050	7124	53
	93.3	31	15	2274	2.4			
	70	40	20	2503	1.8			
	56	48	25	2696	1.5			
	46.7	55	30	2865	1.5			
	35	68	40	3153	1.1			
	28	80	50	3397	0.9			
	23.3	89	60	3610	0.8			
0.37	120	25	7.5	2091	3.3	MRDV050	8016	53
	90	33	10	2302	2.5			
	60	47	15	2635	1.8			
	45	60	20	2900	1.3			
	36	72	25	3124	1			
	30	80	30	3320	1.1			
0.37	35	71	40	4122	2.1	MRDV063	7124	54
	28	83	50	4440	1.6			
	23.3	94	60	4719	1.4			
	17.5	115	80	5193	1.1			
	14	129	100	5595	0.9			
0.37	45	60	20	3791	2.4	MRDV063	8016	54
	36	74	25	4084	1.9			
	30	82	30	4339	2.1			
	22.5	102	40	4776	1.6			
	18	120	50	5145	1.2			
	15	137	60	5467	1			
0.37	18.7	134	75	5083	1.2	PC071+MRDV063	7124	60
	15.6	148	90	5401	1.4			
	11.7	185	120	5945	1			
	9.3	212	150	6270	0.8			

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	Fr ₂ (N)	fs	MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
0.37	9.3	181	300	6270	1.3	MRDV030+063	7112	63
	7	236	400	6270	1			
0.37	23.3	98	60	5569	2	MRDV075	7124	55
	17.5	121	80	6130	1.6			
	14	139	100	6603	1.3			
0.37	18	126	50	6073	1.8	MRDV075	8016	55
	15	144	60	6453	1.5			
	11.3	173	80	7103	1.2			
	9	196	100	7380	1			
0.37	18.7	138	75	6000	1.8	PC071+MRDV075	7124	60
	15.6	154	90	6375	1.9			
	11.7	191	120	7017	1.5			
	9.3	223	150	7380	1.1			
0.37	7.8	254	180	7380	0.9	PC080+MRDV075	8016	61
	12	206	75	6952	1.6			
	10	230	90	7380	1.7			
	7.5	283	120	7380	1.3			
0.37	6	324	150	7380	1	MRDV040+075	7124	63
	4.7	405	300	7380	1			
0.37	3.5	498	400	7380	0.7	MRDV090	8016	56
	11.3	185	80	7859	1.7			
0.37	9	212	100	8180	1.3	PC071+MRDV090	7124	60
	7.8	268	180	8180	1.5			
0.37	5.8	321	240	8180	1.1	PC080+MRDV090	8016	61
	4.7	371	300	8180	0.9			
	6	347	150	8180	1.6			
0.37	5	389	180	8180	1.3	MRDV040+090	7124	63
	3.8	471	240	8180	1			
	4.7	402	300	8180	1.5			
0.37	3.5	523	400	8180	1.2	PC080+MRDV110	8016	61
	2.8	611	500	8180	0.9			
	2.3	757	600	8180	0.8			
0.37	3.8	509	240	10320	1.6	MRDV050+110	7124	64
	3	577	300	10320	1.3			
0.37	1.9	950	750	10320	1.3	MRDV063+130	7124	64
	1.6	1079	900	10320	1.2			
	1.2	1396	1200	10320	0.8			
0.37	0.9	1674	1500	13500	1.1	MRDV040	7122	52
	0.78	1887	1800	13500	0.9			
0.55	373.3	13	7.5	1044	2.2	MRDV050	7122	53
	280	17	10	1149	1.8			
	186.7	24	15	1315	1.3			
	140	31	20	1447	0.9			
	112	37	25	1559	0.8			
0.55	140	31	20	1987	1.7	MRDV050	8014	53
	112	38	25	2140	1.4			
	93.3	43	30	2274	1.5			
	70	55	40	2503	1.1			
	56	65	50	2696	0.8			
	46.7	74	60	2865	0.7			
0.55	186.7	25	7.5	1805	2.9	MRDV050	8014	53
	140	32	10	1987	2.2			
	93.3	46	15	2274	1.6			
	70	59	20	2503	1.2			
	56	71	25	2696	1			
	46.7	81	30	2865	1			

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	Fr ₂ (N)	fs	MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
0.55	120	38	7.5	2091	2.2	MRDV050	8026	53
	90	49	10	2302	1.7			
	60	69	15	2635	1.2			
	45	89	20	2900	0.9			
0.55	70	56	40	3272	1.9	MRDV063	7122	54
	56	67	50	3524	1.5			
	46.7	77	60	3745	1.2			
	35	95	80	4122	0.9			
	28	109	100	4440	0.7			
0.55	70	61	20	3272	2.2	MRDV063	8014	54
	56	73	25	3524	1.8			
	46.7	83	30	3745	1.9			
	35	105	40	4122	1.4			
	28	124	50	4440	1.1			
	23.3	140	60	4719	0.9			
0.55	60	71	15	3444	2.2	MRDV063	8026	54
	45	90	20	3791	1.6			
	36	109	25	4084	1.3			
	30	123	30	4339	1.4			
	22.5	152	40	4776	1.1			
0.55	35	99	80	4865	1.3	MRDV075	7122	55
	28	114	100	5241	1			
0.55	35	108	40	4865	2	MRDV075	8014	55
	28	129	50	5241	1.6			
	23.3	146	60	5569	1.4			
	17.5	180	80	6130	1.1			
	14	206	100	6603	0.9			
0.55	30	128	30	5122	2	MRDV075	8026	55
	22.5	159	40	5637	1.5			
	18	187	50	6073	1.2			
	15	214	60	6453	1			
0.55	18.7	205	75	6000	1.2	PC080+MRDV075	8014	61
	15.6	230	90	6375	1.3			
	11.7	284	120	7017	1			
	9.3	332	150	7380	0.8			
0.55	12	306	75	6952	1.1	PC080+MRDV075	8026	61
	10	341	90	7380	1.1			
0.55	17.5	189	80	6783	1.5	MRDV090	8014	56
	14	221	100	7306	1.2			
0.55	18	198	50	6719	2.3	MRDV090	8026	56
	15	224	60	7140	1.6			
	11.3	275	80	7859	1.1			
	9	315	100	8180	0.9			
0.55	15.6	240	90	7054	2.3	PC080+MRDV090	8014	61
	11.7	297	120	7764	1.6			
	9.3	355	150	8180	1.3			
	7.8	398	180	8180	1			
0.55	10	357	90	8174	2	PC080+MRDV090	8026	61
	7.5	441	120	8180	1.4			
	6	516	150	8180	1.1			
	5	578	180	8180	0.9			
0.55	9.3	306	300	8180	2	MRDV040+090	7122	63
	7	403	400	8180	1.5			
0.55	5.6	470	500	8180	1.2	MRDV110	8014	57
	17.5	201	80	8571	2.6			
	14	236	100	9232	2			

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	Fr ₂ (N)	fs	MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
0.55	11.3	294	80	9931	1.9	MRDV110	8026	57
	9	338	100	10320	1.5			
0.55	7.8	425	180	10320	1.8	PC080+MRDV110	8014	61
	5.8	513	240	10320	1.3			
	4.7	597	300	10320	1			
0.55	7.5	462	120	10320	2.6	PC080+MRDV110	8026	61
	6	552	150	10320	2			
	5	620	180	10320	1.6			
	3.8	756	240	10320	1.1			
0.55	4.7	639	300	10320	2	MRDV050+110	8014	64
	3.5	826	400	10320	1.4			
	2.8	984	500	10320	1.1			
	2.3	1181	600	10320	1			
0.55	1.9	1411	750	10320	0.9	PC080+MRDV130	8026	61
	3.8	756	240	13500	1.6			
0.55	3	858	300	13500	1.3	MRDV063+130	8014	64
	2.8	996	500	13500	1.6			
	1.9	1471	750	13500	1.2			
	1.2	2132	1200	13500	0.8			
0.75	373.3	17	7.5	1433	3	MRDV050	8012	53
	280	23	10	1577	2.4			
	186.7	33	15	1805	1.7			
	140	42	20	1987	1.3			
	112	51	25	2140	1			
	93.3	58	30	2274	1.1			
0.75	186.7	34	7.5	1805	2.1	MRDV050	8024	53
	140	44	10	1987	1.6			
	93.3	63	15	2274	1.2			
	70	81	20	2503	0.9			
0.75	140	43	20	2597	2.3	MRDV063	8012	54
	112	52	25	2797	1.8			
	93.3	60	30	2973	2			
	70	77	40	3272	1.4			
	56	91	50	3524	1.1			
	46.7	104	60	3745	0.9			
0.75	93.3	64	15	2973	2.2	MRDV063	8024	54
	70	83	20	3272	1.6			
	56	100	25	3524	1.3			
	46.7	114	30	3745	1.4			
	35	143	40	4122	1			
0.75	120	52	7.5	2734	2.9	MRDV063	90S6	54
	90	68	10	3009	2.3			
	60	97	15	3444	1.6			
	45	123	20	3791	1.2			
	36	149	25	4084	0.9			
	30	167	30	4339	1			
0.75	46.7	109	60	4421	1.3	MRDV075	8012	55
	28	156	100	5241	0.8			
0.75	56	102	25	4160	2	MRDV075	8024	55
	46.7	117	30	4421	2			
	35	147	40	4865	1.5			
	28	177	50	5241	1.2			
	23.3	200	60	5569	1			
0.75	60	98	15	4065	2.4	MRDV075	90S6	55
	45	126	20	4474	1.9			
	36	153	25	4820	1.4			

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	Fr ₂ (N)	fs	MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
0.75	30	174	30	5122	1.5	MRDV075	90S6	55
	22.5	216	40	5637	1.1			
0.75	18.7	280	75	6000	0.9	PC080+MRDV075	8024	61
	15.6	313	90	6375	1			
0.75	35	141	80	5383	1.6	MRDV090	8012	56
	28	166	100	5799	1.2			
0.75	28	184	50	5799	1.8	MRDV090	8024	56
	23.3	212	60	6163	1.5			
	17.5	258	80	6783	1.1			
	14	302	100	7306	0.9			
0.75	30	179	30	5667	2.6	MRDV090	90S6	56
	22.5	226	40	6238	1.8			
	18	271	50	6719	1.4			
	15	306	60	7140	1.1			
0.75	15.6	327	90	7054	1.7	PC080+MRDV090	8024	61
	11.7	405	120	7764	1.2			
	9.3	483	150	8180	0.9			
	7.8	543	180	8180	0.7			
0.75	7	549	400	8180	1.1	MRDV040+090	8012	63
	5.6	642	500	8180	0.9			
0.75	17.5	274	80	8571	1.9	MRDV110	8024	57
	14	322	100	9232	1.5			
0.75	15	325	60	9023	2.1	MRDV110	90S6	57
	11.3	401	80	9931	1.4			
	9	462	100	10320	1.1			
0.75	11.7	430	120	9811	2.2	PC080+MRDV110	8024	61
	9.3	506	150	10320	1.7			
	7.8	580	180	10320	1.3			
	5.8	700	240	10320	0.9			
0.75	12.4	393	73	9614	3.2	PC090+MRDV110	90S6	61
	9.3	508	96.8	10320	2.3			
	7.4	607	121	10320	1.8			
	6.2	682	145.2	10320	1.5			
	4.6	832	193.6	10320	1			
0.75	9.3	446	300	10320	2.8	MRDV050+110	8012	64
	7	563	400	10320	2.1			
	5.6	687	500	10320	1.6			
0.75	4.7	871	300	10320	1.5	MRDV050+110	8024	64
	3.5	1126	400	10320	1.1			
0.75	11.3	407	80	12989	2.1	MRDV130	90S6	58
	9	470	100	13500	1.7			
0.75	5.8	712	240	13500	1.4	PC080+MRDV130	8024	61
	4.7	813	300	13500	1.1			
0.75	12.4	399	73	12575	4.4	PC090+MRDV130	90S6	61
	9.3	508	96.8	13500	3.2			
	7.4	607	121	13500	2.6			
	6.2	682	145.2	13500	2.1			
	4.6	832	193.6	13500	1.5			
	3.7	944	242	13500	1.2			
0.75	2.8	1358	500	13500	1.1	MRDV063+130	8024	64
	2.3	1631	600	13500	1			
	1.9	2005	750	13500	0.9			
	1.6	2283	900	13500	0.8			
1.1	373.3	35	7.5	1433	2.1	MRDV050	8022	53
	280	33	10	1577	1.6			
	186.7	48	15	1805	1.2			
	140	62	20	1987	0.9			

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	Fr ₂ (N)	fs	MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
1.1	186.7	48	15	2359	2.1	MRDV063	8022	54
	140	63	20	2597	1.6			
	112	77	25	2797	1.2			
	93.3	88	30	2973	1.4			
	70	113	40	3272	1			
1.1	120	76	7.5	2734	2	MRDV063	90L6	54
	90	99	10	3009	1.5			
	60	142	15	3444	1.1			
	45	180	20	3791	0.8			
1.1	186.7	50	7.5	2359	2.6	MRDV063	90S4	54
	140	65	10	2597	2			
	93.3	93	15	2973	1.5			
	70	122	20	3272	1.1			
	56	146	25	3524	0.9			
	46.7	167	30	3745	1			
1.1	112	78	25	3302	1.9	MRDV075	8022	55
	93.3	90	30	3509	1.9			
	70	116	40	3862	1.4			
	56	139	50	4160	1.1			
	46.7	160	60	4421	0.9			
1.1	90	100	10	3551	2.3	MRDV075	90L6	55
	60	144	15	4065	1.6			
	45	184	20	4474	1.3			
	36	225	25	4820	1			
	30	256	30	5122	1			
1.1	93.3	96	15	3509	2.1	MRDV075	90S4	55
	70	123	20	3862	1.7			
	56	150	25	4160	1.3			
	46.7	171	30	4421	1.3			
	35	216	40	4865	1			
1.1	35	207	80	5383	1.1	MRDV090	8022	56
	28	244	100	5799	0.8			
1.1	36	231	25	5333	1.6	MRDV090	90L6	56
	30	263	30	5667	1.8			
	22.5	331	40	6238	1.2			
	18	397	50	6719	1			
	15	448	60	7140	0.8			
1.1	35	225	40	5383	1.6	MRDV090	90S4	56
	28	270	50	5799	1.3			
	23.3	311	60	6163	1			
1.1	22.5	345	40	7882	2.3	MRDV110	90L6	57
	18	414	50	8491	1.8			
	15	476	60	9023	1.4			
	11.3	588	80	9931	1			
1.1	28	281	50	7328	2.3	MRDV110	90S4	57
	23.3	324	60	7787	1.9			
	17.5	402	80	8571	1.3			
	14	473	100	9232	1			
1.1	12.4	576	73	9614	2.2	PC090+MRDV110	90L6	61
	9.3	746	96.8	10320	1.6			
	7.4	890	121	10320	1.2			
	6.2	1000	145.2	10320	1			
1.1	19.3	392	73	8298	2.5	PC090+MRDV110	90S4	61
	14.5	508	96.8	9133	1.8			
	11.6	599	121	9838	1.5			
	9.6	686	145.2	10320	1.1			
	7.2	828	193.6	10320	0.8			

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	Fr ₂ (N)	fs	MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
1.1	9.3	654	300	10320	1.9	MRDV050+110	8022	64
	7	845	400	10320	1.4			
	5.6	1007	500	10320	1.1			
1.1	11.3	598	80	12989	1.4	MRDV130	90L6	58
	9	689	100	13500	1.1			
1.1	17.5	408	80	11210	2.1	MRDV130	90S4	58
	14	480	100	12076	1.5			
1.1	12.4	585	73	12575	3	PC090+MRDV130	90L6	61
	9.3	746	96.8	13500	2.2			
	7.4	890	121	13500	1.7			
	6.2	1000	145.2	13500	1.4			
	4.6	1220	193.6	13500	1			
1.1	19.3	398	73	10853	3.5	PC090+MRDV130	90S4	61
	14.5	508	96.8	11945	2.6			
	11.6	608	121	12868	2			
	9.6	686	145.2	13500	1.6			
	7.2	843	193.6	13500	1.2			
	5.8	962	242	13500	0.9			
1.1	4.7	1312	300	13500	1.3	MRDV063+130	90S4	64
	3.5	1671	400	13500	1			
	2.8	1991	500	13500	0.8			
1.5	373.3	35	7.5	1433	1.5	MRDV050	80C2	53
	280	45	10	1577	1.2			
	186.7	65	15	1805	0.9			
1.5	186.7	68	7.5	2359	1.9	MRDV063	90L4	54
	140	89	10	2597	1.5			
	93.3	127	15	2973	1.1			
	70	166	20	3272	0.8			
1.5	373.3	35	7.5	1873	2.7	MRDV063	90S2	54
	280	46	10	2061	2.1			
	186.7	66	15	2359	1.6			
	140	86	20	2597	1.2			
	112	105	25	2797	0.9			
	93.3	120	30	2973	1			
1.5	120	105	7.5	3227	2	MRDV075	100L6	55
	90	137	10	3551	1.7			
	60	196	15	4065	1.2			
1.5	56	189	50	4160	0.8	MRDV075	90S2	55
	46.7	218	60	4421	0.7			
	280	46	10	2433	3.1			
	186.7	67	15	2785	2.2			
	140	87	20	3065	1.8			
	112	106	25	3302	1.4			
	93.3	123	30	3509	1.4			
	70	158	40	3862	1			
1.5	140	90	10	3065	2.2	MRDV075	90L4	55
	93.3	130	15	3509	1.5			
	70	168	20	3862	1.3			
	56	205	25	4160	1			
	46.7	233	30	4421	1			
1.5	90	138	10	3929	2.7	MRDV090	100L6	56
	60	201	15	4498	2.1			
	45	258	20	4951	1.5			
	36	314	25	5333	1.2			
	30	358	30	5667	1.3			

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	Fr ₂ (N)	fs	MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
1.5	70	172	20	4273	2.1	MRDV090	90L4	56
	56	210	25	4603	1.6			
	46.7	239	30	4891	1.7			
	35	307	40	5383	1.2			
	28	368	50	5799	0.9			
	23.3	424	60	6163	0.8			
1.5	56	194	50	4603	1.4	MRDV090	90S2	56
	46.7	227	60	4891	1.1			
1.5	45	264	20	6256	2.7	MRDV110	100L6	57
	36	322	25	6739	2.4			
	30	363	30	7161	2.3			
	22.5	471	40	7882	1.7			
	18	565	50	8491	1.3			
	15	649	60	9023	1.1			
1.5	35	319	40	6803	2.2	MRDV110	90L4	57
	28	384	50	7328	1.7			
	23.3	442	60	7787	1.4			
	17.5	548	80	8571	0.9			
1.5	46.7	236	60	6181	2	MRDV110	90S2	57
	35	299	80	6803	1.3			
	28	353	100	7328	1			
1.5	19.3	535	73	8298	1.9	PC090+MRDV110	90L4	61
	14.5	693	96.8	9133	1.3			
	11.6	817	121	9838	1.1			
	9.6	936	145.2	10320	0.8			
1.5	9.3	891	300	10320	1.4	MRDV050+110	90S2	64
	7	1153	400	10320	1			
	5.6	1373	500	10320	0.8			
1.5	22.5	478	40	10309	2.3	MRDV130	100L6	58
	18	573	50	11105	1.8			
	15	659	60	11801	1.4			
	11.3	815	80	12989	1.1			
1.5	17.5	557	80	11210	1.5	MRDV130	90L4	58
	14	655	100	12076	1.1			
1.5	19.3	542	73	10853	2.6	PC090+MRDV130	90L4	61
	14.5	693	96.8	11945	1.9			
	11.6	830	121	12868	1.5			
	9.6	936	145.2	13500	1.1			
	7.2	1149	194	13500	0.8			
1.5	9.3	915	300	13500	1.9	MRDV063+130	90S2	64
	7	1166	400	13500	1.4			
	5.6	1389	500	13500	1.1			
1.5	4.7	1789	300	13500	1	MRDV063+130	90L4	64
	3.5	2279	400	13500	0.7			
2.2	373.3	51	7.5	1873	1.8	MRDV063	90L2	54
	280	67	10	2061	1.5			
	186.7	97	15	2359	1.1			
2.2	186.7	100	7.5	2785	1.8	MRDV075	100L4	55
	140	132	10	3065	1.5			
	93.3	191	15	3509	1			
2.2	373.3	51	7.5	2210	2.5	MRDV075	90L2	55
	280	68	10	2433	2.1			
	186.7	98	15	2785	1.5			
	140	128	20	3065	1.3			
	112	156	25	3302	1			
	93.3	180	30	3509	0.9			

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	Fr ₂ (N)	fs	MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
2.2	186.7	101	7.5	3081	2.9	MRDV090	100LA4	56
	140	134	10	3391	2.3			
	93.3	194	15	3882	1.9			
	70	252	20	4273	1.4			
	56	308	25	4603	1.1			
	46.7	351	30	4891	1.2			
2.2	120	156	7.5	3570	2.2	MRDV090	112M6	56
	90	203	10	3929	1.8			
	60	294	15	4498	1.4			
	45	378	20	4951	1			
2.2	140	131	20	3391	2	MRDV090	90L2	56
	112	159	25	3653	1.6			
	93.3	185	30	3882	1.7			
	70	237	40	4273	1.2			
	56	285	50	4603	0.9			
2.2	70	255	20	5399	2.5	MRDV110	100LA4	57
	56	315	25	5816	2.2			
	46.7	356	30	6181	2			
	35	468	40	6803	1.5			
	28	563	50	7328	1.2			
	23.3	648	60	7787	1			
2.2	90	205	10	4965	3.5	MRDV110	112M6	57
	60	298	15	5684	2.6			
	45	388	20	6256	1.9			
	36	473	25	6739	1.6			
	30	532	30	7161	1.6			
2.2	112	163	25	4616	3.1	MRDV110	90L2	57
	93.3	187	30	4905	3			
	70	246	40	5399	2.1			
	56	296	50	5816	1.7			
	46.7	347	60	6181	1.4			
2.2	38.6	398	73	6586	2.1	PC090+MRDV110	90L2	61
	28.9	516	96.8	7249	1.5			
	23.1	617	121	7809	1.2			
2.2	35	468	40	8897	2.2	MRDV130	100LA4	58
	28	563	50	9584	1.7			
	23.3	648	60	10185	1.4			
	17.5	816	80	11210	1			
	36	479	25	8814	2.2			
2.2	30	546	30	9366	2.1	MRDV130	112M6	58
	22.5	700	40	10309	1.6			
	18	840	50	11105	1.2			
	15	966	60	11801	1			
	35	438	80	8897	1.3			
2.2	28	525	100	9584	1	MRDV130	90L2	58
	38.6	409	73	8614	2.9	PC090+MRDV130	90L2	61
2.2	28.9	545	96.8	9481	2			
	23.1	654	121	10213	1.6			
	19.3	752	145.2	10853	1.3			
3	373.3	70	7.5	2210	1.9	MRDV075	100L2	55
	280	92	10	2433	1.6			
3	186.7	137	7.5	2785	1.4	MRDV075	100LB4	55
	140	180	10	3065	1.1			
	93.3	261	15	3509	0.8			
3	373.3	71	7.5	2446	3	MRDV090	100L2	56
	280	92	10	2692	2.6			

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	Fr ₂ (N)	fs	MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
3	186.7	138	7.5	3081	2.1	MRDV090	100BL4	56
	140	182	10	3391	1.7			
	93.3	264	15	3882	1.4			
	70	344	20	4273	1			
	56	420	25	4603	0.8			
	46.7	479	30	4891	0.9			
3	93.3	264	15	4905	2.5	MRDV110	100LB4	57
	70	348	20	5399	1.9			
	56	430	25	5816	1.6			
	46.7	485	30	6181	1.5			
	35	638	40	6803	1.1			
	28	767	50	7328	0.9			
3	120	212	7.5	4511	3.1	MRDV110	132S6	57
	90	280	10	4965	2.5			
	60	406	15	5684	1.9			
	45	528	20	6256	1.4			
3	56	430	25	7607	2.2	MRDV130	100LB4	58
	46.7	491	30	8084	2.1			
	35	638	40	8897	1.6			
	28	767	50	9584	1.3			
	23.3	884	60	10185	1			
	17.5	1113	80	11210	0.8			
3	90	280	10	6494	3.4	MRDV130	132S6	58
	60	406	15	7434	2.6			
	45	535	20	8182	1.9			
	36	653	25	8814	1.6			
	30	745	30	9366	1.6			
	22.5	955	40	10309	1.2			
4	373.3	93	7.5	2210	1.4	MRDV075	112M2	55
	280	123	10	2433	1.2			
4	186.7	182	7.5	2785	1	MRDV075	112M4	55
	140	240	10	3065	0.8			
4	373.3	94	7.5	2446	2.2	MRDV090	112M2	56
	280	123	10	2692	1.9			
4	186.7	184	7.5	3081	1.6	MRDV090	112M4	56
	140	243	10	3391	1.3			
	93.3	352	15	3882	1			
	70	458	20	4273	0.8			
4	140	243	10	4285	2.5	MRDV110	112M4	57
	93.3	352	15	4905	1.9			
	70	464	20	5399	1.4			
	56	573	25	5816	1.2			
	46.7	647	30	6181	1.1			
4	120	283	7.5	4511	2.3	MRDV110	132MA6	57
	90	374	10	4965	1.9			
	60	541	15	5684	1.4			
4	56	573	25	7607	1.6	MRDV130	112M4	58
	46.7	655	30	8084	1.6			
	35	851	40	8897	1.2			
	28	1023	50	9584	1			
	23.3	1179	60	10185	0.8			
4	120	287	7.5	5901	3.1	MRDV130	132MA6	58
	90	374	10	6494	2.6			
	60	541	15	7434	2			
	45	713	20	8182	1.5			
	36	870	25	8814	1.2			

P_1 (Kw)	n_2 (min ⁻¹)	M_2 (Nm)	i	F_{r2} (N)	f_s	MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
5.5	186.7	253	7.5	3893	2.2	MRDV110	132S4	57
	140	334	10	4285	1.8			
	93.3	484	15	4905	1.4			
	70	638	20	5399	1			
5.5	140	334	10	5605	2.5	MRDV130	132S4	58
	93.3	490	15	6416	1.9			
	70	645	20	7062	1.4			
	56	788	25	7607	1.2			
	46.7	900	30	8084	1.2			
	35	1171	40	8897	0.9			
7.5	186.7	345	7.5	3893	1.6	MRDV110	132M4	57
	140	455	10	4285	1.3			
	93.3	660	15	4905	1			
7.5	186.7	349	7.5	5092	2.1	MRDV130	132M4	58
	140	455	10	5605	1.8			
	93.3	668	15	6416	1.4			
	70	880	20	7062	1			
	56	1074	25	7607	0.9			
	46.7	1228	30	8084	0.8			
	35	1596	40	8897	0.7			

M ₂ (Nm)	i	P ₁ (Kw)	n ₂ (min ⁻¹)	Fr ₂ (N)	Fr ₁ (N)	RDV (n ₁ = 2800)	N. PAGINA DISEGNI
13	7.5	0.58	373.3	542	125	RDV030	51
13	10	0.45	280	597	140		
13	15	0.31	186.7	683	140		
12	20	0.23	140	752	146		
16	25	0.25	112	810	210		
15	30	0.21	93.3	861	210		
14	40	0.16	70	948	127		
13	50	0.12	56	1021	128		
12	60	0.1	46.7	1085	126		
11	80	0.08	35	1194	130		
28	7.5	1.2	373.3	1044	233	RDV040	52
29	10	1	280	1149	272		
31	15	0.72	186.7	1315	291		
29	20	0.52	140	1447	204		
28	25	0.42	112	1559	236		
34	30	0.44	93.3	1657	350		
31	40	0.32	70	1824	350		
30	50	0.26	56	1964	350		
28	60	0.21	46.7	2087	350		
25	80	0.16	35	2298	350		
23	100	0.12	28	2475	350	RDV050	53
52	7.5	2.3	373.3	1433	324		
54	10	1.8	280	1577	378		
57	15	1.3	186.7	1805	399		
53	20	0.95	140	1987	417		
51	25	0.75	112	2140	482		
64	30	0.82	93.3	2274	490		
59	40	0.59	70	2503	490		
53	50	0.45	56	2696	490		
50	60	0.37	46.7	2865	490		
45	80	0.27	35	3153	490	RDV063	54
40	100	0.21	28	3397	490		
93	7.5	4	373.3	1873	395		
97	10	3.2	280	2061	463		
103	15	2.3	186.7	2359	492		
100	20	1.7	140	2597	538		
92	25	1.3	112	2797	593		
120	30	1.5	93.3	2973	700		
108	40	1.1	70	3272	700		
100	50	0.83	56	3524	700		
95	60	0.68	46.7	3745	700	RDV075	55
85	80	0.49	35	4122	700		
74	100	0.37	28	4440	700		
130	7.5	5.6	373.3	2210	560		
145	10	4.7	280	2433	703		
150	15	3.4	186.7	2785	727		
160	20	2.8	140	3065	872		
150	25	2.1	112	3302	980		
170	30	2.1	93.3	3509	980		
165	40	1.6	70	3862	980		
150	50	1.2	56	4160	980	RDV075	55
145	60	1	46.7	4421	980		
130	80	0.72	35	4865	980		
120	100	0.58	28	5241	980		

M ₂ (Nm)	i	P ₁ (Kw)	n ₂ (min ⁻¹)	Fr ₂ (N)	Fr ₁ (N)	RDV (n ₁ = 2800)	N. PAGINA DISEGNI
210	7.5	8.9	373.3	2446	715	RDV090	56
235	10	7.7	280	2692	900		
270	15	6	186.7	3081	1034		
260	20	4.4	140	3391	1120		
250	25	3.4	112	3653	1270		
310	30	3.7	93.3	3882	1270		
275	40	2.6	70	4273	1270		
265	50	2	56	4603	1270		
245	60	1.6	46.7	4891	1270		
225	80	1.2	35	5383	1270		
200	100	0.9	28	5799	1270		
391	7.5	16.6	373.3	3090	950	RDV110	57
437	10	14.1	280	3401	1194		
489	15	10.7	186.7	3893	1337		
483	20	8	140	4285	1485		
506	25	6.8	112	4616	1700		
552	30	6.5	93.3	4905	1700		
529	40	4.7	70	5399	1700		
495	50	3.7	56	5816	1700		
473	60	3	46.7	6181	1700		
399	80	2	35	6803	1700		
368	100	1.6	28	7328	1700		
520	7.5	22.1	373.3	4042	1190	RDV130	58
580	10	18.7	280	4449	1493		
670	15	14.7	186.7	5092	1725		
660	20	11	140	5605	1912		
670	25	9	112	6038	2100		
770	30	9	93.3	6416	2100		
730	40	6.5	70	7062	2100		
700	50	5.1	56	7607	2100		
640	60	4	46.7	8084	2100		
590	80	3	35	8897	2100		
520	100	2.2	28	9584	2100		
840	7.5	35.7	373.3	5526	1550	RDV150	58
890	10	28.4	280	6082	1848		
910	15	19.8	186.7	6962	1889		
980	20	16.1	140	7663	2289		
890	25	12	112	8254	2494		
920	30	10.5	93.3	8771	2800		
1200	40	10.6	70	9654	2800		
1100	50	8.1	56	10400	2800		
990	60	6.2	46.7	11051	2800		
920	80	4.6	35	12163	2800		
810	100	3.3	28	13103	2800		

M ₂ (Nm)	i	P ₁ (Kw)	n ₂ (min ⁻¹)	Fr ₂ (N)	Fr ₁ (N)	RDV (n ₁ = 1400)	N. PAGINA DISEGNI
18	7.5	0.41	186.7	683	150	RDV030	51
18	10	0.32	140	752	169		
18	15	0.23	93.3	861	169		
18	20	0.18	70	948	190		
21	25	0.18	56	1021	210		
20	30	0.15	46.7	1085	210		
18	40	0.11	35	1194	210		
17	50	0.09	28	1286	210		
16	60	0.08	23.3	1367	210		
13	80	0.05	17.5	1504	210		
40	7.5	0.9	186.7	1315	294	RDV040	52
40	10	0.69	140	1447	331		
40	15	0.48	93.3	1657	331		
39	20	0.37	70	1824	350		
38	25	0.3	56	1964	350		
45	30	0.31	46.7	2087	350		
41	40	0.23	35	2298	350		
39	50	0.18	28	2475	350		
36	60	0.15	23.3	2630	350		
33	80	0.12	17.5	2895	350		
29	100	0.09	14	3118	350	RDV050	53
71	7.5	1.6	186.7	1805	401		
72	10	1.2	140	1987	490		
74	15	0.88	93.3	2274	490		
73	20	0.68	70	2503	490		
70	25	0.54	56	2696	490		
84	30	0.57	46.7	2865	490		
76	40	0.42	35	3153	490		
73	50	0.34	28	3397	490		
68	60	0.28	23.3	3610	490		
65	80	0.22	17.5	3973	490	RDV063	54
55	100	0.16	14	4280	490		
128	7.5	2.8	186.7	2359	500		
130	10	2.2	140	2597	571		
140	15	1.6	93.3	2973	615		
135	20	1.2	70	3272	667		
130	25	1	56	3524	700		
160	30	1.1	46.7	3745	700		
145	40	0.76	35	4122	700		
135	50	0.6	28	4440	700		
130	60	0.51	23.3	4719	700	RDV075	55
122	80	0.39	17.5	5193	700		
118	100	0.34	14	5595	700		
185	7.5	4.1	186.7	2785	700		
195	10	3.2	140	3065	830		
200	15	2.3	93.3	3509	851		
210	20	1.9	70	3862	980		
200	25	1.5	56	4160	980		
230	30	1.5	46.7	4421	980		
220	40	1.1	35	4865	980		
210	50	0.89	28	5241	980		
200	60	0.75	23.3	5569	980		
190	80	0.58	17.5	6130	980		
180	100	0.48	14	6603	980		

M ₂ (Nm)	i	P ₁ (Kw)	n ₂ (min ⁻¹)	Fr ₂ (N)	Fr ₁ (N)	RDV (n ₁ = 1400)	N. PAGINA DISEGNI
290	7.5	6.3	186.7	3081	900	RDV090	56
310	10	5.1	140	3391	1082		
360	15	4.1	93.3	3882	1257		
355	20	3.1	70	4273	1270		
340	25	2.4	56	4603	1270		
410	30	2.6	46.7	4891	1270		
360	40	1.8	35	5383	1270		
340	50	1.4	28	5799	1270		
320	60	1.1	23.3	6163	1270		
285	80	0.83	17.5	6783	1270		
270	100	0.67	14	7306	1270		
552	7.5	12	186.7	3893	1200	RDV110	57
598	10	9.8	140	4285	1463		
656	15	7.5	93.3	4905	1604		
644	20	5.6	70	5399	1700		
679	25	4.7	56	5816	1700		
725	30	4.5	46.7	6181	1700		
702	40	3.3	35	6803	1700		
660	50	2.6	28	7328	1700		
616	60	2.1	23.3	7787	1700		
515	80	1.4	17.5	8571	1700		
483	100	1.1	14	9232	1700		
750	7.5	16.1	186.7	5092	1500	RDV130	58
820	10	13.5	140	5605	1845		
920	15	10.3	93.3	6416	2070		
910	20	7.8	70	7062	2100		
930	25	6.5	56	7607	2100		
1040	30	6.4	46.7	8084	2100		
1050	40	4.9	35	8897	2100		
980	50	3.8	28	9584	2100		
900	60	3.1	23.3	10185	2100		
840	80	2.3	17.5	11210	2100		
740	100	1.7	14	12076	2100		
1200	7.5	25.8	186.7	6962	1950	RDV150	58
1240	10	20.2	140	7663	2267		
1250	15	13.9	93.3	8771	2285		
1300	20	11.1	70	9654	2674		
1200	25	8.4	56	10400	2800		
1200	30	7.1	46.7	11051	2800		
1550	40	7.3	35	12163	2800		
1400	50	5.4	28	13103	2800		
1260	60	4.2	23.3	13924	2800		
1150	80	3.1	17.5	15326	2800		
1000	100	2.3	14	16508	2800		

M ₂ (Nm)	i	P ₁ (Kw)	n ₂ (min ⁻¹)	Fr ₂ (N)	Fr ₁ (N)	RDV (n ₁ = 900)	N. PAGINA DISEGNI
20	7.5	0.3	120	792	175	RDV030	51
20	10	0.24	90	871	197		
20	15	0.17	60	997	197		
20	20	0.13	45	1098	210		
23	25	0.14	36	1183	210		
21	30	0.11	30	1257	210		
20	40	0.09	22.5	1383	210		
18	50	0.07	18	1490	210		
17	60	0.06	15	1583	210		
15	80	0.04	11.3	1743	210		
44	7.5	0.65	120	1524	319	RDV040	52
44	10	0.5	90	1677	350		
45	15	0.36	60	1920	350		
44	20	0.28	45	2113	350		
43	25	0.23	36	2276	350		
49	30	0.23	30	2419	350		
45	40	0.17	22.5	2662	350		
42	50	0.14	18	2868	350		
39	60	0.11	15	3047	350		
35	80	0.09	11.3	3354	350		
32	100	0.07	9	3490	350	RDV050	53
84	7.5	1.2	120	2091	448		
84	10	0.94	90	2302	490		
84	15	0.67	60	2635	490		
77	20	0.48	45	2900	490		
75	25	0.39	36	3124	490		
90	30	0.42	30	3320	490		
82	40	0.31	22.5	3654	490		
77	50	0.25	18	3936	490		
72	60	0.21	15	4183	490		
68	80	0.16	11.3	4604	490		
56	100	0.12	9	4840	490	RDV063	54
151	7.5	2.2	120	2734	580		
153	10	1.7	90	3009	661		
155	15	1.2	60	3444	670		
148	20	0.91	45	3791	700		
137	25	0.69	36	4084	700		
175	30	0.79	30	4339	700		
160	40	0.58	22.5	4776	700		
145	50	0.45	18	5145	700		
138	60	0.37	15	5467	700		
128	80	0.29	11.3	6018	700		
124	100	0.25	9	6270	700	RDV075	55
215	7.5	3.1	120	3227	810		
230	10	2.5	90	3551	975		
235	15	1.8	60	4065	980		
235	20	1.4	45	4474	980		
215	25	1.1	36	4820	980		
260	30	1.1	30	5122	980		
240	40	0.83	22.5	5637	980		
220	50	0.65	18	6073	980		
210	60	0.54	15	6453	980		
200	80	0.43	11.3	7103	980		
190	100	0.36	9	7380	980		

M ₂ (Nm)	i	P ₁ (Kw)	n ₂ (min ⁻¹)	Fr ₂ (N)	Fr ₁ (N)	RDV (n ₁ = 900)	N. PAGINA DISEGNI
340	7.5	4.8	120	3570	1040	RDV090	56
370	10	4	90	3929	1270		
420	15	3.1	60	4498	1270		
390	20	2.3	45	4951	1270		
370	25	1.8	36	5333	1270		
460	30	1.9	30	5667	1270		
410	40	1.4	22.5	6238	1270		
390	50	1.1	18	6719	1270		
350	60	0.86	15	7140	1270		
315	80	0.63	11.3	7859	1270		
280	100	0.49	9	8180	1270		
650	7.5	9.2	120	4511	1390	RDV110	57
713	10	7.6	90	4965	1700		
759	15	5.6	60	5684	1700		
725	20	4.1	45	6256	1700		
759	25	3.5	36	6739	1700		
840	30	3.5	30	7161	1700		
794	40	2.5	22.5	7882	1700		
748	50	2	18	8491	1700		
682	60	1.6	15	9023	1700		
567	80	1.1	11.3	9931	1700		
515	100	0.84	9	10320	1700		
880	7.5	12.3	120	5901	1740	RDV130	58
960	10	10.3	90	6494	2100		
1060	15	7.8	60	7434	2100		
1040	20	5.8	45	8182	2100		
1050	25	4.8	36	8814	2100		
1170	30	4.7	30	9366	2100		
1100	40	3.5	22.5	10309	2100		
1050	50	2.7	18	11105	2100		
940	60	2.1	15	11801	2100		
860	80	1.6	11.3	12989	2100		
780	100	1.2	9	13500	2100		
1400	7.5	19.5	120	8067	2270	RDV150	58
1480	10	15.7	90	8878	2700		
1450	15	10.5	60	10163	2645		
1500	20	8.4	45	11186	2800		
1380	25	6.3	36	12050	2800		
1400	30	5.4	30	12805	2800		
1800	40	5.7	22.5	14094	2800		
1600	50	4.1	18	15182	2800		
1440	60	3.2	15	16133	2800		
1300	80	2.4	11.3	17757	2800		
1150	100	1.8	9	18000	2800		

M ₂ (Nm)	i	P ₁ (Kw)	n ₂ (min ⁻¹)	Fr ₂ (N)	Fr ₁ (N)	RDV (n ₁ = 500)	N. PAGINA DISEGNI
24	7.5	0.21	66.7	963	210	RDV030	51
24	10	0.16	50	1060	210		
24	15	0.12	33.3	1213	210		
23	20	0.09	25	1336	210		
29	25	0.1	20	1439	210		
26	30	0.08	16.7	1529	210		
23	40	0.06	12.5	1683	210		
21	50	0.05	10	1813	210		
19	60	0.04	8.3	1830	210		
17	80	0.03	6.3	1830	210		
54	7.5	0.45	66.7	1853	350	RDV040	52
54	10	0.35	50	2040	350		
55	15	0.26	33.3	2335	350		
52	20	0.19	25	2570	350		
49	25	0.15	20	2769	350		
58	30	0.16	16.7	2942	350		
53	40	0.12	12.5	3238	350		
49	50	0.1	10	3488	350		
46	60	0.08	8.3	3490	350		
40	80	0.06	6.3	3490	350		
36	100	0.05	5	3490	350	RDV050	53
103	7.5	0.86	66.7	2544	490		
103	10	0.67	50	2800	490		
103	15	0.47	33.3	3205	490		
93	20	0.33	25	3528	490		
91	25	0.28	20	3800	490		
108	30	0.29	16.7	4038	490		
98	40	0.22	12.5	4445	490		
91	50	0.17	10	4788	490		
83	60	0.14	8.3	4840	490		
75	80	0.11	6.3	4840	490	RDV063	54
65	100	0.09	5	4840	490		
184	7.5	1.5	66.7	3325	700		
185	10	1.2	50	3660	700		
187	15	0.85	33.3	4190	700		
178	20	0.63	25	4611	700		
164	25	0.48	20	4967	700		
200	30	0.54	16.7	5279	700		
185	40	0.4	12.5	5810	700		
173	50	0.32	10	6259	700		
160	60	0.26	8.3	6270	700	RDV075	55
137	80	0.19	6.3	6270	700		
128	100	0.16	5	6270	700		
260	7.5	2.1	66.7	3925	980		
270	10	1.7	50	4320	980		
280	15	1.2	33.3	4945	980		
285	20	0.98	25	5443	980		
255	25	0.73	20	5863	980		
300	30	0.77	16.7	6231	980		
280	40	0.58	12.5	6858	980		
250	50	0.44	10	7380	980	RDV075	55
240	60	0.37	8.3	7380	980		
215	80	0.29	6.3	7380	980		
210	100	0.24	5	7380	980		

M ₂ (Nm)	i	P ₁ (Kw)	n ₂ (min ⁻¹)	Fr ₂ (N)	Fr ₁ (N)	RDV (n ₁ = 500)	N. PAGINA DISEGNI
410	7.5	3.3	66.7	4343	1270	RDV090	56
435	10	2.7	50	4780	1270		
490	15	2.1	33.3	5472	1270		
470	20	1.6	25	6022	1270		
440	25	1.2	20	6487	1270		
550	30	1.4	16.7	6894	1270		
480	40	0.95	12.5	7588	1270		
450	50	0.75	10	8174	1270		
400	60	0.59	8.3	8180	1270		
365	80	0.45	6.3	8180	1270		
330	100	0.35	5	8180	1270		
794	7.5	6.4	66.7	5488	1700	RDV110	57
851	10	5.2	50	6040	1700		
909	15	3.9	33.3	6914	1700		
863	20	2.8	25	7610	1700		
909	25	2.4	20	8198	1700		
1000	30	2.4	16.7	8711	1700		
932	40	1.7	12.5	9588	1700		
880	50	1.4	10	10320	1700		
781	60	1.1	8.3	10320	1700		
662	80	0.76	6.3	10320	1700		
599	100	0.59	5	10320	1700		
1080	7.5	8.6	66.7	7178	2100	RDV130	58
1160	10	7.1	50	7900	2100		
1300	15	5.5	33.3	9043	2100		
1230	20	4	25	9953	2100		
1200	25	3.2	20	10722	2100		
1400	30	3.3	16.7	11394	2100		
1300	40	2.4	12.5	12540	2100		
1220	50	1.9	10	13500	2100		
1070	60	1.5	8.3	13500	2100		
970	80	1.1	6.3	13500	2100		
860	100	0.85	5	13500	2100		
1700	7.5	13.5	66.7	9812	2800	RDV150	58
1780	10	10.7	50	10800	2800		
1730	15	7.2	33.3	12363	2800		
1820	20	5.9	25	13607	2800		
1630	25	4.3	20	14658	2800		
1670	30	3.8	16.7	15576	2800		
2120	40	3.9	12.5	17144	2800		
1870	50	2.9	10	18000	2800		
1680	60	2.3	8.3	18000	2800		
1530	80	1.7	6.3	18000	2800		
1350	100	1.3	5	18000	2800		

M ₂ (Nm)	i	P ₁ (Kw)	n ₂ (min ⁻¹)	Fr ₂ (N)	Fr ₁ (N)	RDV + MRDV (n ₁ = 1400)	N. PAGINA DISEGNI
73	300	0.08	4.7	3490	210	RDV030+040	62
65	400	0.06	3.5	3490	210		
61	500	0.04	2.8	3490	210		
73	600	0.04	2.3	3490	210		
73	750	0.04	1.9	3490	210		
73	900	0.03	1.6	3490	210		
65	1200	0.02	1.2	3490	210		
73	1500	0.02	0.9	3490	210		
73	1800	0.02	0.8	3490	210		
65	2400	0.01	0.58	3490	210		
65	3200	0.01	0.4	3490	210		
33	4000	0.01	0.4	3490	210		
29	5000	0.01	0.28	3490	210		
145	300	0.15	4.7	4840	210	RDV030+050	63
124	400	0.1	3.5	4840	210		
120	500	0.09	2.8	4840	210		
145	600	0.08	2.3	4840	210		
145	750	0.07	1.9	4840	210		
145	900	0.06	1.6	4840	210		
124	1200	0.04	1.2	4840	210		
145	1500	0.04	0.93	4840	210		
145	1800	0.04	0.78	4840	210		
124	2400	0.03	0.6	4840	210		
120	3000	0.02	0.5	4840	210		
82	4000	0.02	0.35	4840	210		
82	4800	0.02	0.29	4840	210		
230	300	0.24	4.7	6270	210	RDV030+063	63
230	400	0.19	3.5	6270	210		
216	500	0.15	2.8	6270	210		
230	600	0.13	2.3	6270	210		
216	750	0.11	1.9	6270	210		
198	900	0.09	1.6	6270	210		
230	1200	0.08	1.2	6270	210		
216	1500	0.06	0.93	6270	210		
198	1800	0.05	0.78	6270	210		
230	2400	0.05	0.58	6270	210		
216	3000	0.04	0.47	6270	210		
172	4000	0.03	0.35	6270	210		
150	5000	0.02	0.28	6270	210		
390	300	0.36	4.7	7380	350	RDV040+075	63
360	400	0.27	3.5	7380	350		
320	500	0.21	2.8	7380	350		
390	600	0.19	2.3	7380	350		
390	750	0.16	1.9	7380	350		
390	900	0.14	1.6	7380	350		
360	1200	0.11	1.2	7380	350		
390	1500	0.1	0.93	7380	350		
390	1800	0.09	0.78	7380	350		
360	2400	0.07	0.58	7380	350		
320	3000	0.05	0.47	7380	350		
250	4000	0.04	0.35	7380	350		
230	5000	0.03	0.28	7380	350		

M ₂ (Nm)	i	P ₁ (Kw)	n ₂ (min ⁻¹)	Fr ₂ (N)	Fr ₁ (N)	RDV + MRDV (n ₁ = 1400)	N. PAGINA DISEGNI
610	300	0.56	4.7	8180	350	RDV040+090	63
610	400	0.43	3.5	8180	350		
560	500	0.34	2.8	8180	350		
610	600	0.3	2.3	8180	350		
560	750	0.23	1.9	8180	350		
505	900	0.19	1.6	8180	350		
610	1200	0.17	1.2	8180	350		
560	1500	0.14	0.93	8180	350		
505	1800	0.11	0.78	8180	350		
610	2400	0.11	0.58	8180	350		
560	3000	0.08	0.47	8180	350		
460	4000	0.08	0.35	8180	350		
410	5000	0.06	0.28	8180	350		
1265	300	1.1	4.7	10320	490	RDV050+110	64
1185	400	0.79	3.5	10320	490		
1100	500	0.61	2.8	10320	490		
1185	600	0.55	2.3	10320	490		
1265	750	0.49	1.9	10320	490		
1265	900	0.43	1.6	10320	490		
1185	1200	0.31	1.2	10320	490		
1265	1500	0.3	0.93	10320	490		
1265	1800	0.26	0.78	10320	490		
1185	2400	0.19	0.58	10320	490		
1100	3000	0.15	0.47	10320	490		
819	4000	0.13	0.35	10320	490		
746	4800	0.1	0.28	10320	490		
1760	300	1.5	4.7	13500	700	RDV063+130	64
1650	400	1.1	3.5	13500	700		
1550	500	0.86	2.8	13500	700		
1650	600	0.76	2.3	13500	700		
1760	750	0.66	1.9	13500	700		
1760	900	0.58	1.6	13500	700		
1650	1200	0.43	1.2	13500	700		
1760	1500	0.39	0.93	13500	700		
1760	1800	0.35	0.78	13500	700		
1650	2400	0.25	0.58	13500	700		
1550	3000	0.2	0.47	13500	700		
1220	4000	0.15	0.35	13500	700		
1100	5000	0.11	0.28	13500	700		
2340	150	3.4	9.3	18000	700	RDV063+150	64
2340	200	2.7	7	18000	700		
2050	250	1.9	5.6	18000	700		
2340	300	1.9	4.7	18000	700		
2670	400	1.8	3.5	18000	700		
2330	500	1.4	2.8	18000	700		
2670	600	1.3	2.3	18000	700		
2330	750	1	1.9	18000	700		
2100	900	0.7	1.6	18000	700		
2670	1200	0.7	1.2	18000	700		
2100	1800	0.4	0.8	18000	700		
2670	2400	0.5	0.6	18000	700		
2330	3000	0.3	0.5	18000	700		
1880	4000	0.2	0.4	18000	700		
1650	5000	0.2	0.3	18000	700		

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	UDL + MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
0.18	117 ~ 22.5	9 ~ 18	7.5	UDL0.18-MRDV040	6324	UDL pag. 65 MRDV pag. 52
	88 ~ 17	12 ~ 23	10			
	58.7 ~ 11.3	17 ~ 32	15			
	44 ~ 8.5	22 ~ 40	20			
	35.2 ~ 6.8	27 ~ 47	25			
	29.3 ~ 5.7	30 ~ 51	30			
	22 ~ 4.3	37 ~ 62	40			
	17.6 ~ 3.4	43 ~ 60	50			
0.18	22 ~ 4.3	38 ~ 63	40	UDL0.18-MRDV050	6324	UDL pag. 65 MRDV pag. 53
	17.6 ~ 3.4	44 ~ 73	50			
	14.7 ~ 2.8	50 ~ 80	60			
	11 ~ 2.1	59 ~ 82	80			
	8.8 ~ 1.7	66 ~ 79	100			
0.37	133 ~ 26.7	19 ~ 36	7.5	UDL0.37-MRDV050	7124	UDL pag. 65 MRDV pag. 53
	100 ~ 20	25 ~ 47	10			
	66.7 ~ 13.3	36 ~ 65	15			
	50 ~ 10	46 ~ 82	20			
	40 ~ 8	55 ~ 97	25			
	33.3 ~ 6.7	61 ~ 107	30			
	25 ~ 5	76 ~ 124	40			
	20 ~ 4	89 ~ 120	50			
0.37	25 ~ 5	79 ~ 134	40	UDL0.37-MRDV063	7124	UDL pag. 65 MRDV pag. 54
	20 ~ 4	92 ~ 155	50			
	16.7 ~ 3.3	104 ~ 173	60			
	12.5 ~ 2.5	125 ~ 173	80			
	10 ~ 2	139 ~ 150	100			
0.55	133 ~ 26.7	26 ~ 49	7.5	UDL0.55-MRDV063	8014	UDL pag. 65 MRDV pag. 54
	100 ~ 20	34 ~ 63	10			
	66.7 ~ 13.3	48 ~ 88	15			
	50 ~ 10	62 ~ 112	20			
	40 ~ 8	75 ~ 133	25			
	33.3 ~ 6.7	81 ~ 146	30			
	25 ~ 5	105 ~ 179	40			
	20 ~ 4	123 ~ 207	50			
0.55	20 ~ 4	129 ~ 216	50	UDL0.55-MRDV075	8014	UDL pag. 65 MRDV pag. 55
	16.7 ~ 3.3	146 ~ 242	60			
	12.5 ~ 2.5	176 ~ 250	80			
0.55	12.5 ~ 2.5	189 ~ 309	80	UDL0.55-MRDV090	8014	UDL pag. 65 MRDV pag. 56
	10 ~ 2	218 ~ 350	100			
0.75	133 ~ 26.7	39 ~ 73	7.5	UDL0.75-MRDV063	8024	UDL pag. 65 MRDV pag. 54
	100 ~ 20	51 ~ 94	10			
	66.7 ~ 13.3	72 ~ 132	15			
	50 ~ 10	92 ~ 168	20			
	40 ~ 8	112 ~ 199	25			
	33.3 ~ 6.7	126 ~ 219	30			
	25 ~ 5	156 ~ 232	40			
	20 ~ 4	185 ~ 310	50			
0.75	20 ~ 4	192 ~ 320	50	UDL0.75-MRDV075	8024	UDL pag. 65 MRDV pag. 55
	16.7 ~ 3.3	219 ~ 300	60			
0.75	16.7 ~ 3.3	230 ~ 389	60	UDL0.75-MRDV090	8024	UDL pag. 65 MRDV pag. 56
	12.5 ~ 2.5	265 ~ 428	80			
	10 ~ 2	303 ~ 410	100			
0.75	12.5 ~ 2.5	302 ~ 503	80	UDL0.75-MRDV110	8024	UDL pag. 65 MRDV pag. 57
	10 ~ 2	348 ~ 575	100			

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	UDL + MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
1.1	133 ~ 26.7	59 ~ 111	7.5	UD1.1-MRDV075	90S4	UDL pag. 65 MRDV pag. 55
	100 ~ 20	77 ~ 144	10			
	66.7 ~ 13.3	110 ~ 203	15			
	50 ~ 10	142 ~ 258	20			
	40 ~ 8	172 ~ 308	25			
	33.3 ~ 6.7	195 ~ 340	30			
	25 ~ 5	245 ~ 360	40			
1.1	100 ~ 20	78 ~ 146	10	UD1.1-MRDV090	90S4	UDL pag. 65 MRDV pag. 56
	66.7 ~ 13.3	113 ~ 208	15			
	50 ~ 10	146 ~ 266	20			
	40 ~ 8	177 ~ 320	25			
	33.3 ~ 6.7	202 ~ 356	30			
	25 ~ 5	256 ~ 442	40			
	20 ~ 4	304 ~ 517	50			
1.1	20 ~ 4	320 ~ 550	50	UD1.1-MRDV110	90S4	UDL pag. 65 MRDV pag. 57
	16.7 ~ 3.3	368 ~ 625	60			
	12.5 ~ 2.5	455 ~ 754	80			
	10 ~ 2	522 ~ 710	100			
1.1	16.7 ~ 3.3	373 ~ 623	60	UD1.1-MRDV130	90S4	UDL pag. 65 MRDV pag. 58
	12.5 ~ 2.5	460 ~ 749	80			
	10 ~ 2	531 ~ 868	100			
1.5	133 ~ 26.7	78 ~ 148	7.5	UD1.5-MRDV075	90L4	UDL pag. 65 MRDV pag. 55
	100 ~ 20	102 ~ 192	10			
	66.7 ~ 13.3	147 ~ 270	15			
	50 ~ 10	190 ~ 344	20			
	40 ~ 8	229 ~ 330	25			
	33.3 ~ 6.7	260 ~ 390	30			
	25 ~ 5	327 ~ 360	40			
1.5	133 ~ 26.7	77 ~ 150	7.5	UD1.5-MRDV090	90L4	UDL pag. 65 MRDV pag. 56
	100 ~ 20	104 ~ 195	10			
	66.7 ~ 13.3	150 ~ 277	15			
	50 ~ 10	194 ~ 355	20			
	40 ~ 8	236 ~ 427	25			
	33.3 ~ 6.7	270 ~ 474	30			
	25 ~ 5	341 ~ 589	40			
	20 ~ 4	406 ~ 560	50			
1.5	20 ~ 4	426 ~ 733	50	UD1.5-MRDV110	90L4	UDL pag. 65 MRDV pag. 57
	16.7 ~ 3.3	490 ~ 833	60			
1.5	16.7 ~ 3.3	498 ~ 831	60	UD1.5-MRDV130	90L4	UDL pag. 65 MRDV pag. 58
	12.5 ~ 2.5	614 ~ 999	860			
	10 ~ 2	696 ~ 1100	100			
2.2	133 ~ 26.7	120 ~ 226	7.5	UD2.2-MRDV110	100LA4	UDL pag. 65 MRDV pag. 57
	100 ~ 20	157 ~ 294	10			
	66.7 ~ 13.3	228 ~ 418	15			
	50 ~ 10	298 ~ 549	20			
	40 ~ 8	364 ~ 664	25			
	33.3 ~ 6.7	413 ~ 717	30			
	25 ~ 5	533 ~ 931	40			
2.2	25 ~ 5	542 ~ 932	40	UD2.2-MRDV130	100LA4	UDL pag. 65 MRDV pag. 58
	20 ~ 4	648 ~ 1097	50			
	16.7 ~ 3.3	746 ~ 1246	60			
	12.5 ~ 2.5	921 ~ 1499	80			
	10 ~ 2	1040 ~ 1690	100			

P ₁ (Kw)	n ₂ (min ⁻¹)	M ₂ (Nm)	i	UDL + MRDV	MOTORE ELETTRICO	N. PAGINA DISEGNI
3	133 ~ 26.7	160 ~ 302	7.5	UD3.0-MRDV110	100LB4	UDL pag. 65 MRDV pag. 57
	100 ~ 20	210 ~ 392	10			
	66.7 ~ 13.3	304 ~ 558	15			
	50 ~ 10	398 ~ 732	20			
	40 ~ 8	485 ~ 885	25			
	33.3 ~ 6.7	547 ~ 956	30			
	25 ~ 5	711 ~ 1030	40			
3	133 ~ 26.7	160 ~ 301	7.5	UD3.0-MRDV130	100LB4	UDL pag. 65 MRDV pag. 58
	100 ~ 20	211 ~ 395	10			
	66.7 ~ 13.3	307 ~ 563	15			
	50 ~ 10	402 ~ 733	20			
	40 ~ 8	490 ~ 885	25			
	33.3 ~ 6.7	562 ~ 973	30			
	25 ~ 5	720 ~ 1242	40			
4	133 ~ 26.7	213 ~ 402	7.5	UD4.0-MRDV110	112M4	UDL pag. 65 MRDV pag. 57
	100 ~ 20	279 ~ 523	10			
	66.7 ~ 13.3	405 ~ 744	15			
	50 ~ 10	530 ~ 975	20			
	40 ~ 8	647 ~ 1020	25			
4	133 ~ 26.7	214 ~ 401	7.5	UD4.0-MRDV130	112M4	UDL pag. 65 MRDV pag. 58
	100 ~ 20	281 ~ 527	10			
	66.7 ~ 13.3	410 ~ 751	15			
	50 ~ 10	536 ~ 978	20			
	40 ~ 8	653 ~ 1180	25			
	33.3 ~ 6.7	749 ~ 1298	30			
	25 ~ 5	960 ~ 1650	40			
4	20 ~ 4	965 ~ 1650	50	UD4.0-MRDV150	112M4	UDL pag. 65 MRDV pag. 58
	16.7 ~ 3.3	1345 ~ 2180	60			
	12.5 ~ 2.5	1670 ~ 2601	80			

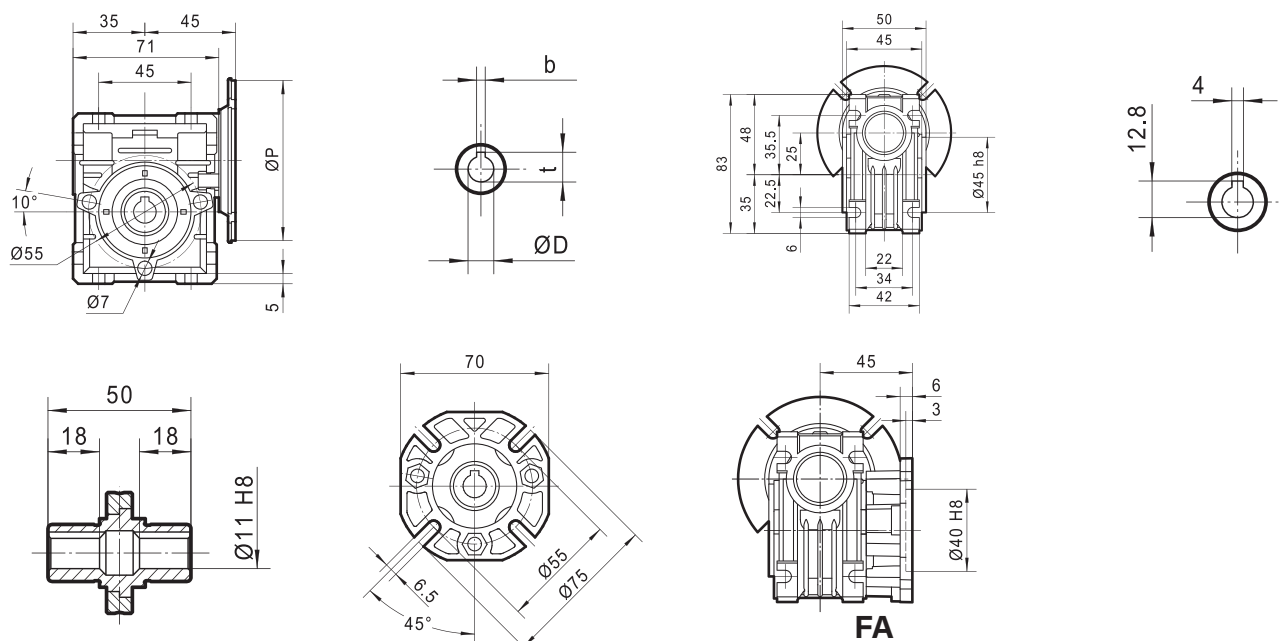
MRDV025

Peso senza motore ≈ 0.7 kg

Per i dati di attacco ai motori (P, D, b, t) consultare la tabella a pagina 67.

Weight without motor ≈ 0.7 kg

For the dimensions concerning the motor connection area (P, D, b, t) please refer to the table shown at page 67.



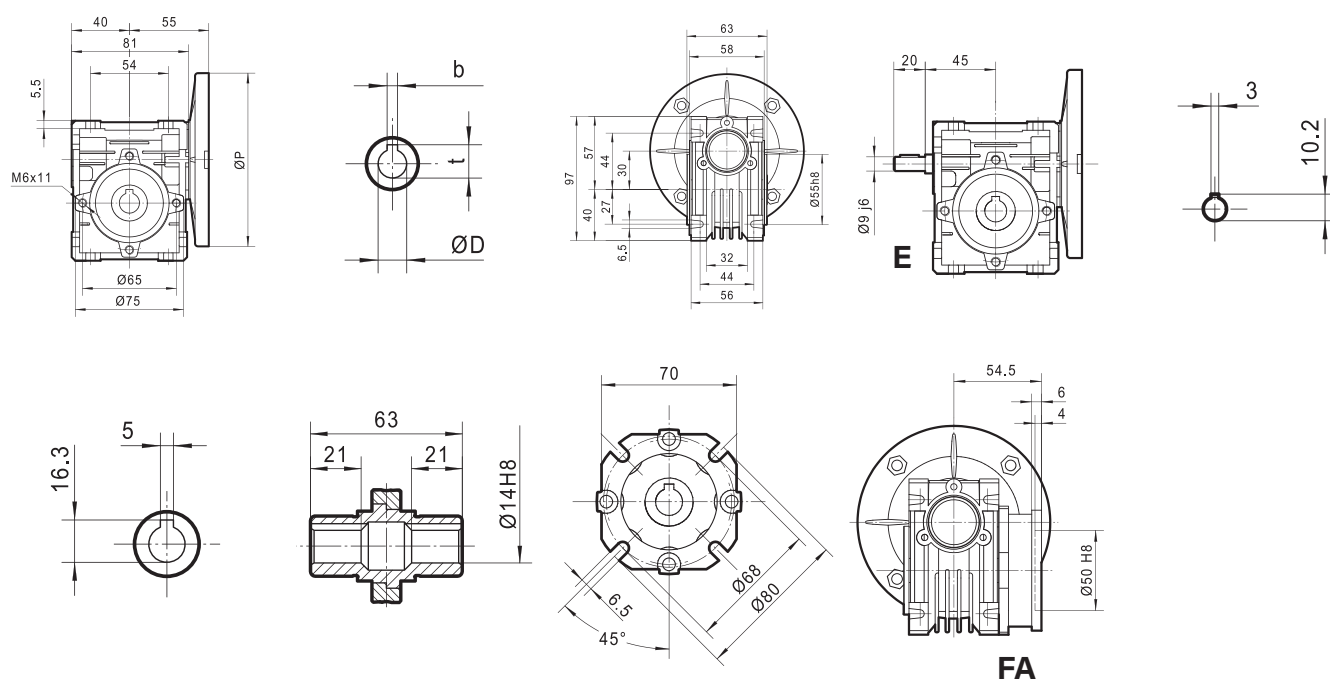
MRDV030

Peso senza motore ≈ 1.2 kg

Per i dati di attacco ai motori (P, D, b, t) consultare la tabella a pagina 67.

Weight without motor ≈ 1.2 kg

For the dimensions concerning the motor connection area (P, D, b, t) please refer to the table shown at page 67.



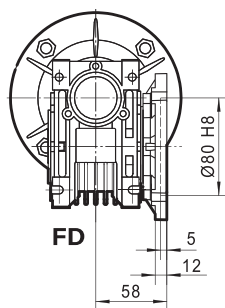
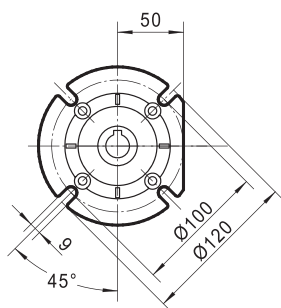
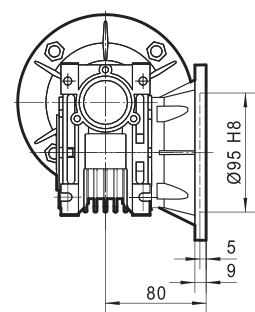
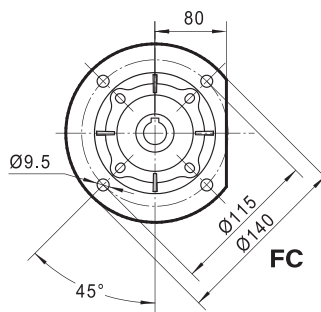
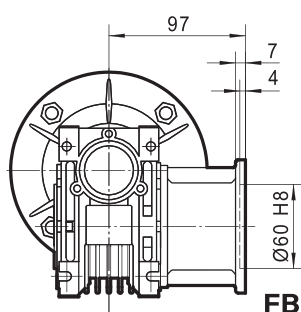
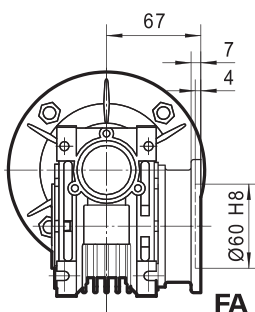
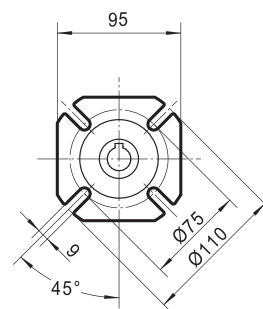
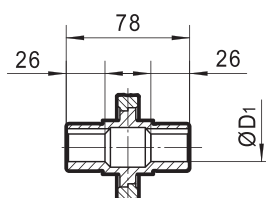
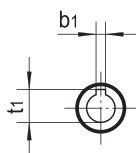
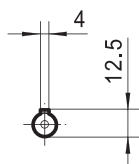
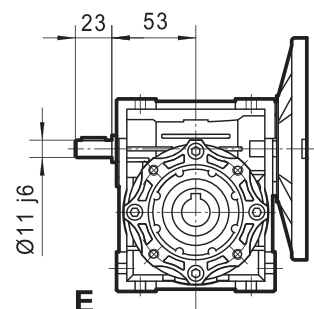
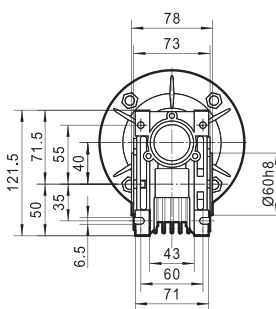
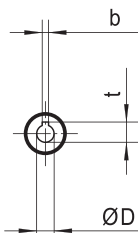
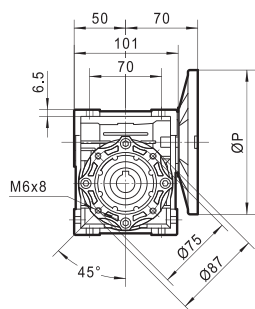
MRDV040

Peso senza motore ≈ 2.3 kg

Per i dati di attacco ai motori (P, D, b, t) consultare la tabella a pagina 67.

Weight without motor ≈ 2.3 kg

For the dimensions concerning the motor connection area (P, D, b, t) please refer to the table shown at page 67.



Albero in uscita/Output size		
ØD ₁ H8	b ₁	t ₁
Ø18	6	20.8
Ø19*	6*	21.8*

(*) Modello non standard

(*) Non standard model

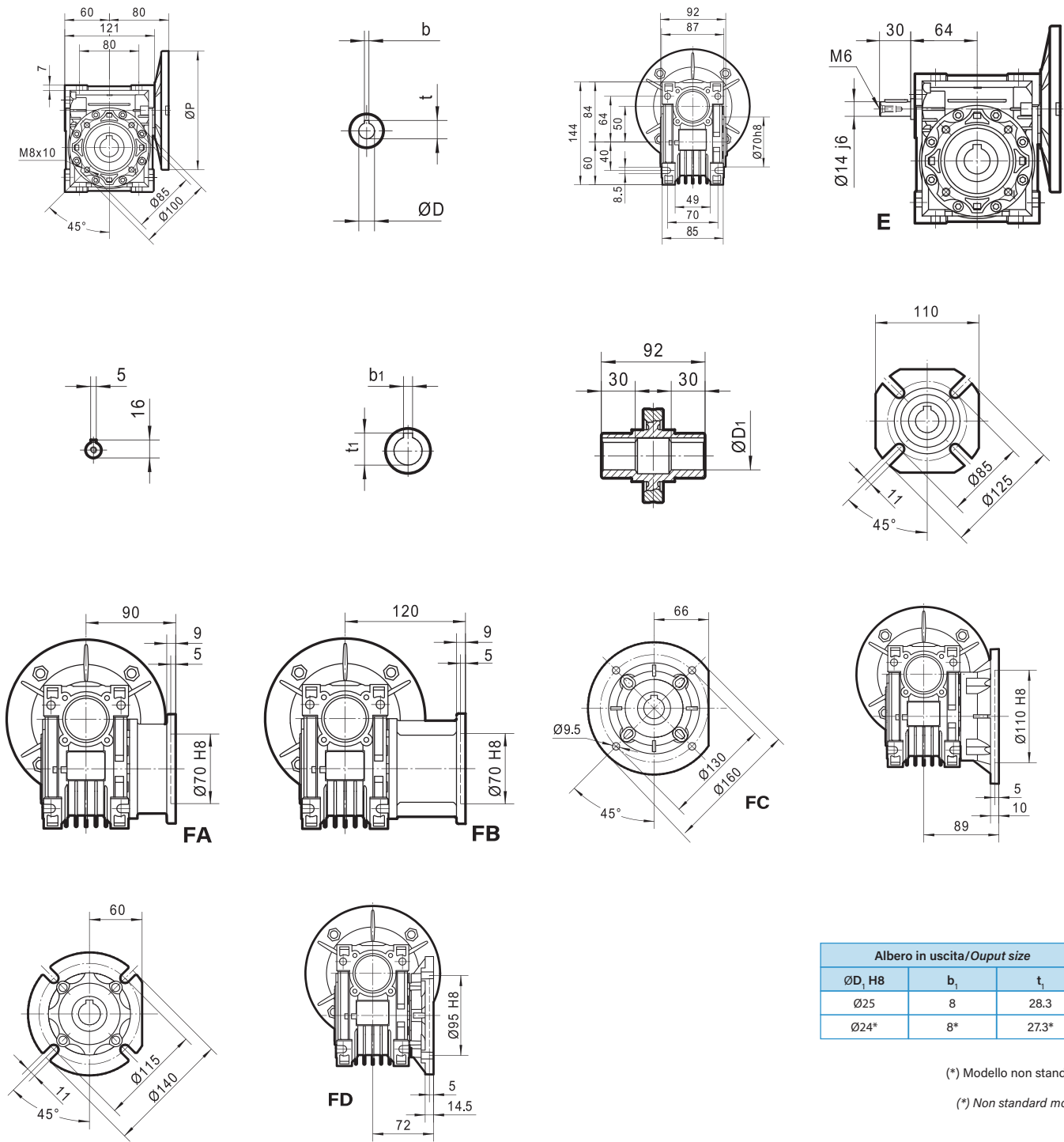
MRDV050

Peso senza motore ≈ 3.5 kg

Per i dati di attacco ai motori (P, D, b, t) consultare la tabella a pagina 67.

Weight without motor ≈ 3.5 kg

For the dimensions concerning the motor connection area (P, D, b, t) please refer to the table shown at page 67.



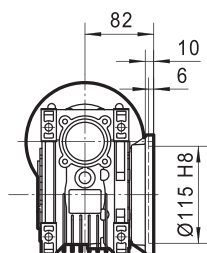
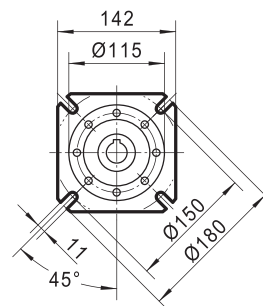
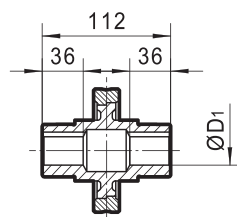
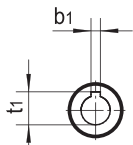
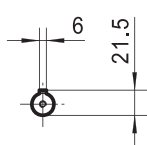
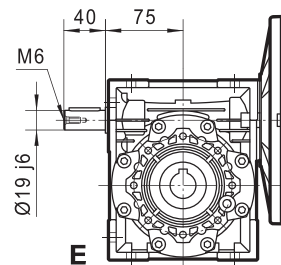
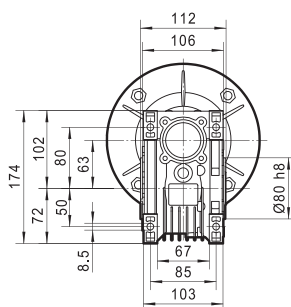
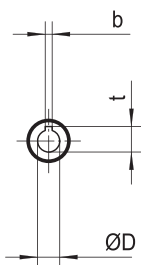
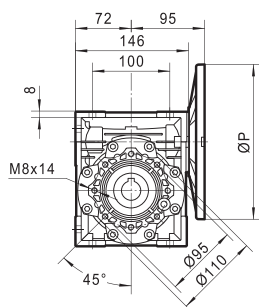
MRDV063

Peso senza motore ≈ 6.2 kg

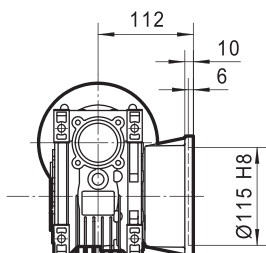
Per i dati di attacco ai motori (P, D, b, t) consultare la tabella a pagina 67.

Weight without motor ≈ 6.2 kg

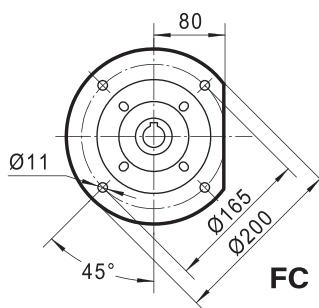
For the dimensions concerning the motor connection area (P, D, b, t) please refer to the table shown at page 67.



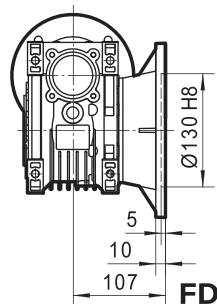
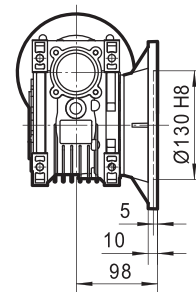
FA



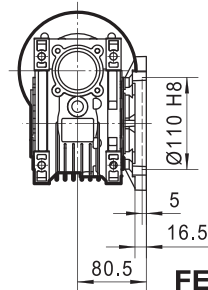
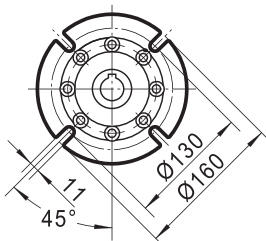
FB



FC



FD



FE

Albero in uscita/Output size		
ØD1 H8	b1	t1
Ø25	8	28.3
Ø28*	8*	31.3*

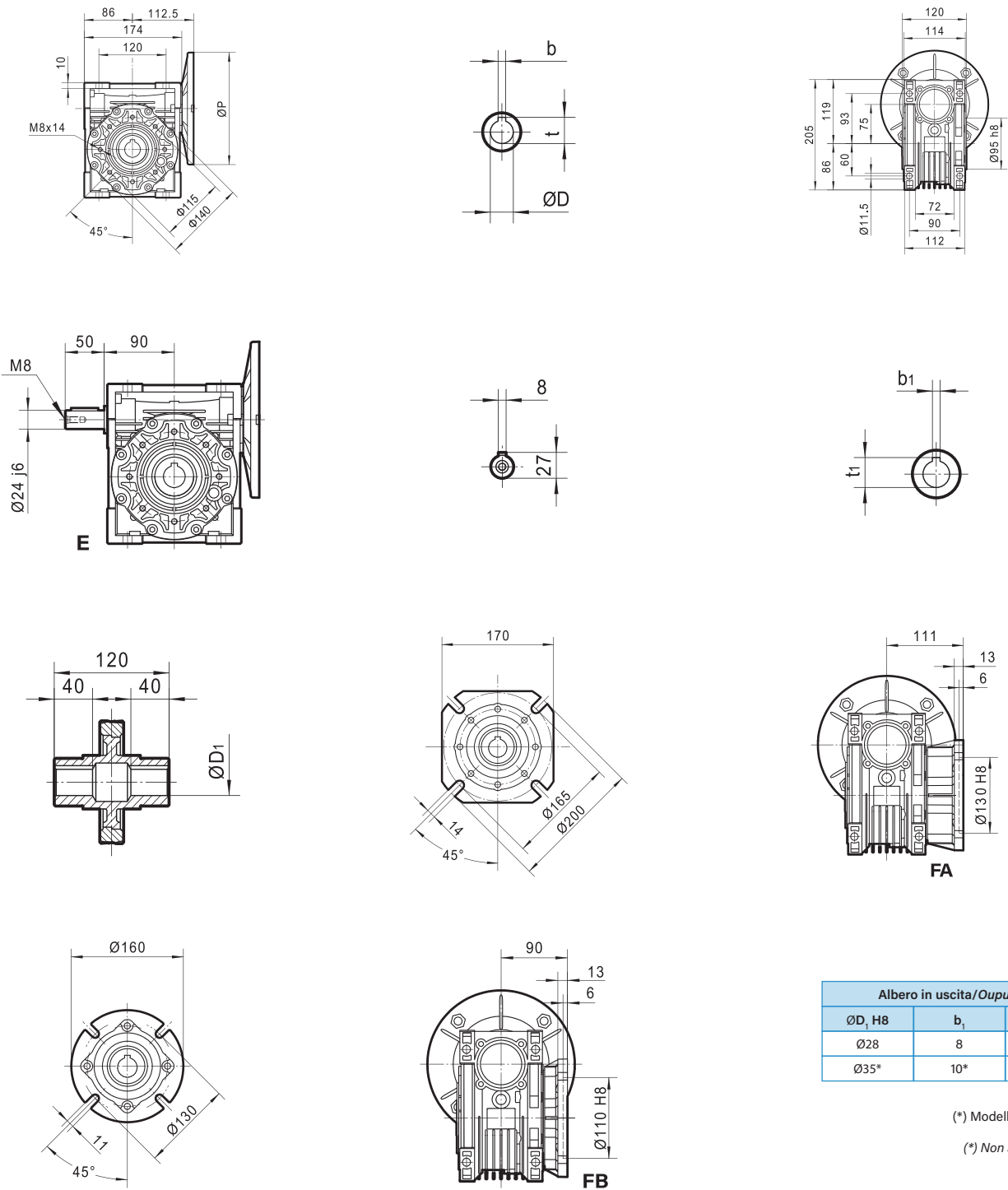
(*) Modello non standard

(*) Non standard model

MRDV075

Peso senza motore ≈ 9 kg
Per i dati di attacco ai motori (P, D, b, t) consultare la tabella a pagina 67.

Weight without motor ≈ 9 kg
For the dimensions concerning the motor connection area (P, D, b, t) please refer to the table shown at page 67.



Albero in uscita/Output size		
$\varnothing D_1$ H8	b_1	t_1
$\varnothing 28$	8	31.3
$\varnothing 35^*$	10*	38.3*

(*) Modello non standard
(*) Non standard model

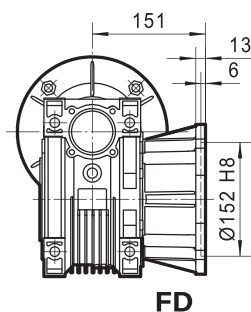
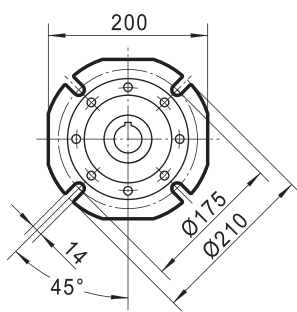
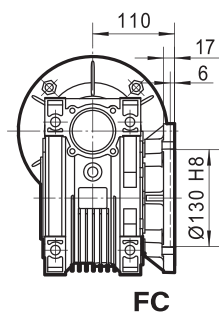
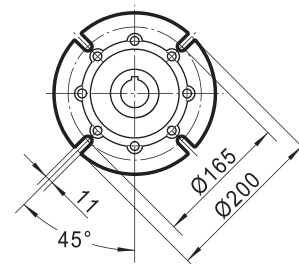
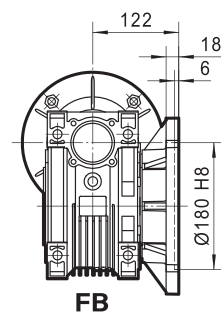
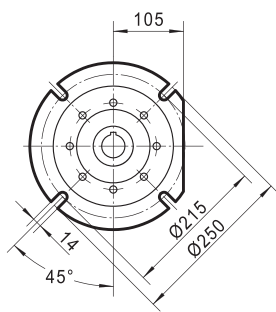
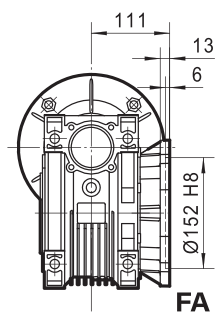
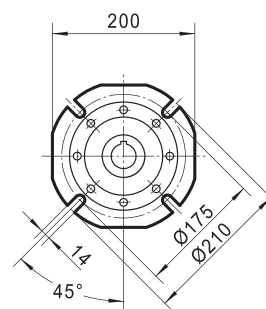
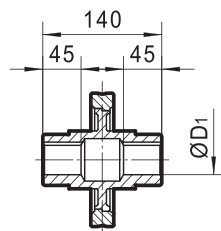
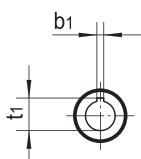
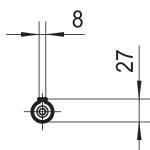
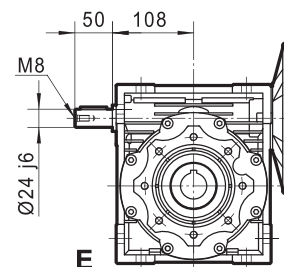
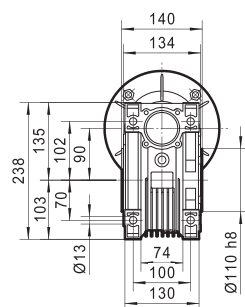
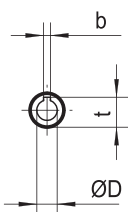
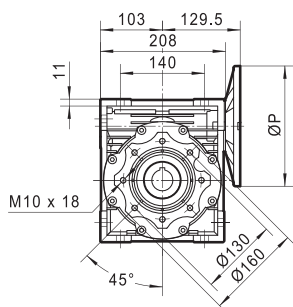
MRDV090

Peso senza motore $\approx$ 13 kg

Per i dati di attacco ai motori (P, D, b, t) consultare la tabella a pagina 67.

Weight without motor $\approx$ 13 kg

For the dimensions concerning the motor connection area (P, D, b, t) please refer to the table shown at page 67.



Albero in uscita/Output size		
ØD1 H8	b1	t1
Ø35	10	38.3
Ø38*	10*	41.3*

(*) Modello non standard

(*) Non standard model

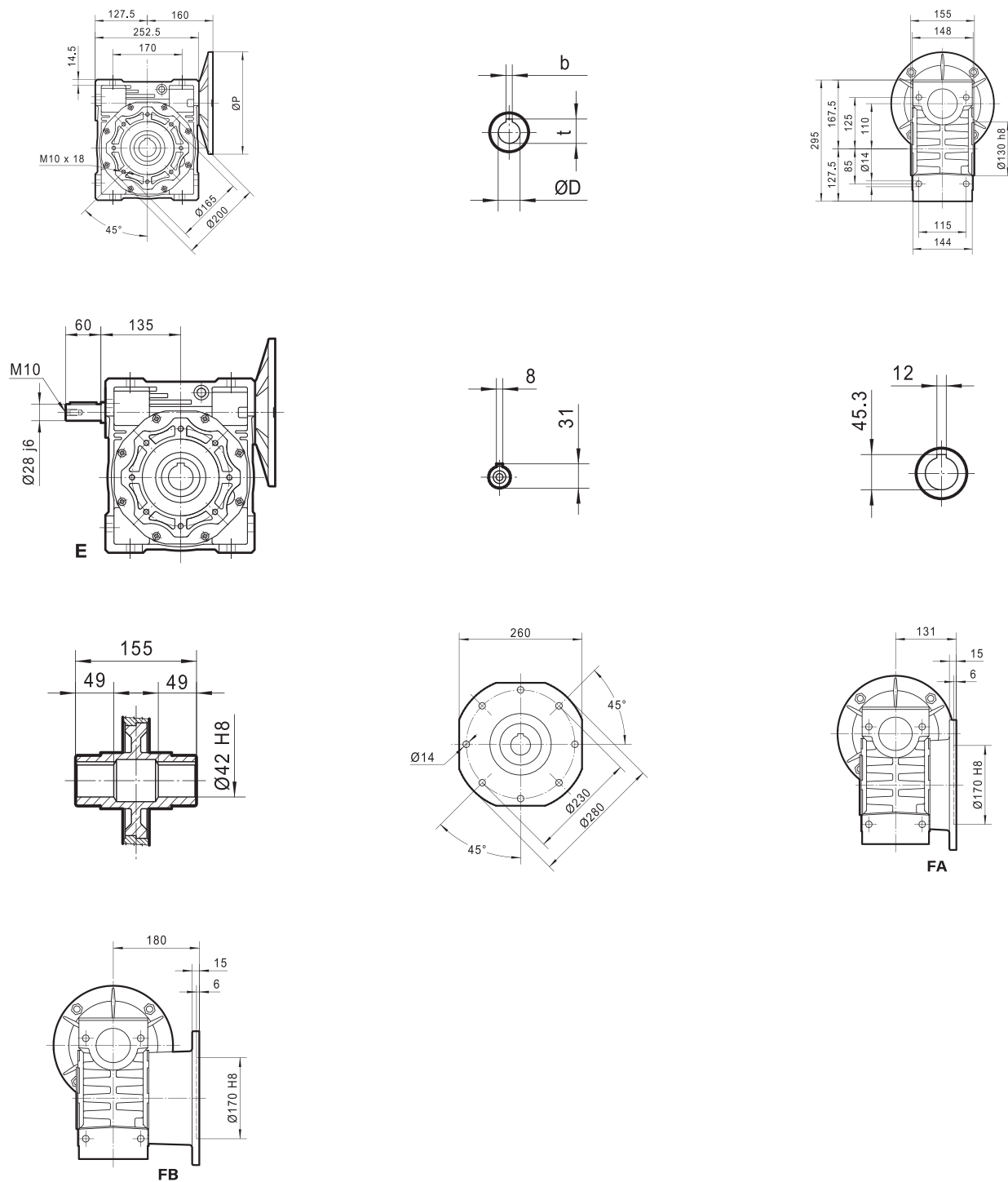
MRDV110

Peso senza motore ≈ 35 kg

Per i dati di attacco ai motori (P, D, b, t) consultare la tabella a pagina 67.

Weight without motor ≈ 35 kg

For the dimensions concerning the motor connection area (P, D, b, t) please refer to the table shown at page 67.



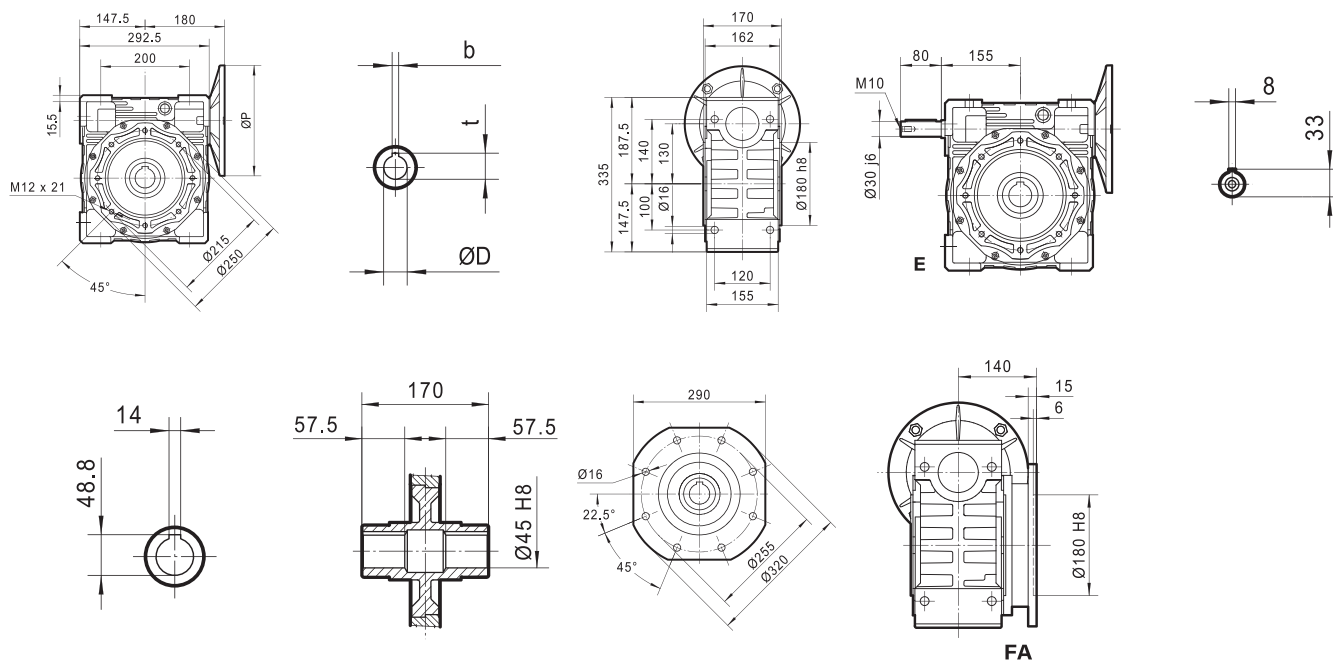
MRDV130

Peso senza motore ≈ 48 kg

Per i dati di attacco ai motori (P, D, b, t) consultare la tabella a pagina 67.

Weight without motor ≈ 48 kg

For the dimensions concerning the motor connection area (P, D, b, t) please refer to the table shown at page 67.



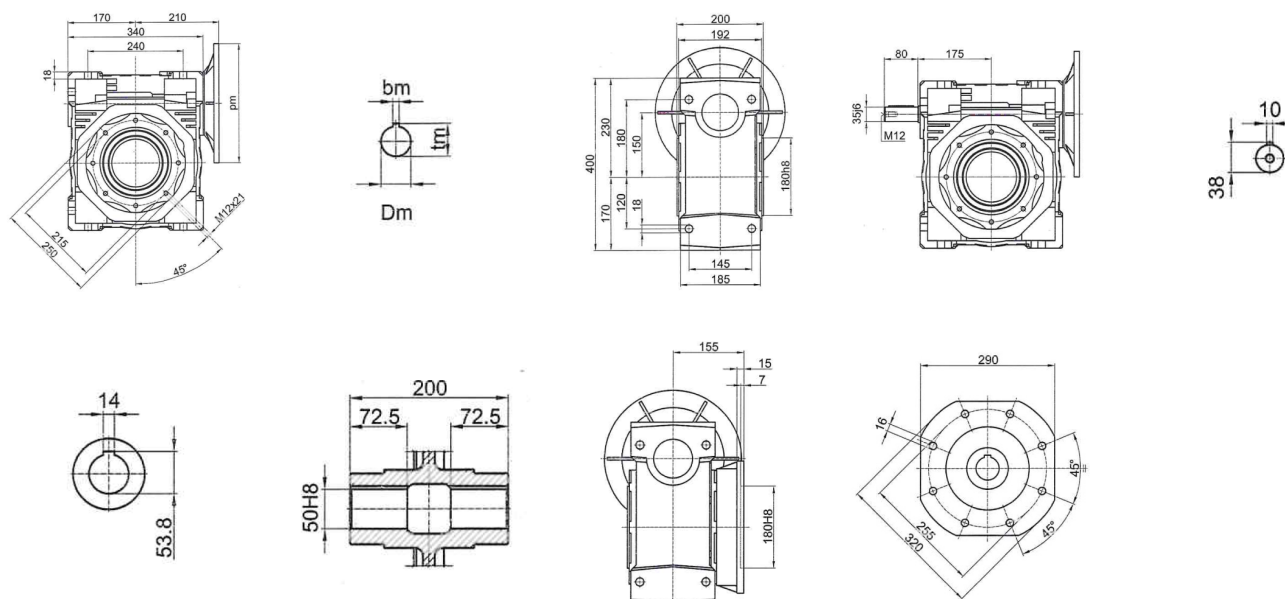
MRDV150

Peso senza motore ≈ 84 kg

Per i dati di attacco ai motori (P, D, b, t) consultare la tabella a pagina 67.

Weight without motor ≈ 84 kg

For the dimensions concerning the motor connection area (P, D, b, t) please refer to the table shown at page 67.



Per le dimensioni delle flange in uscita riferirsi ai disegni da pag. 51 a 58

Per le dimensioni degli alberi riferirsi ai disegni da pag. 51 a 58

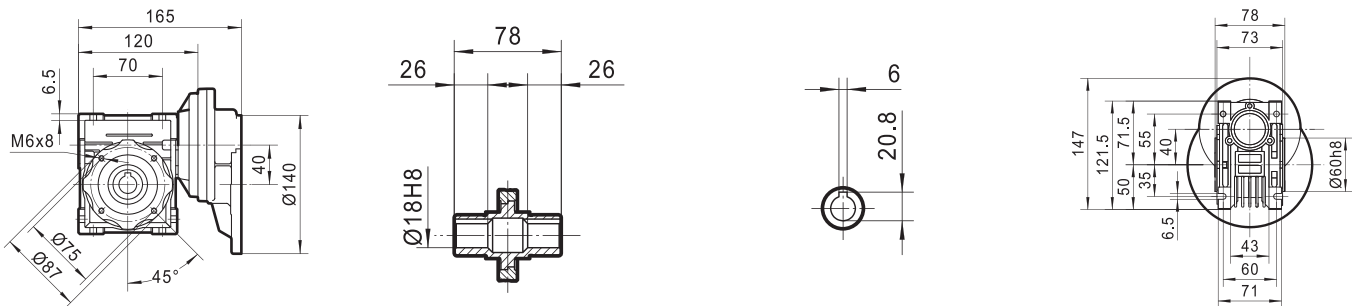
Per le dimensioni degli alberi doppi consultare la tabella a pag. 66

For the dimensions of the output flanges, please refer to pages 51 - 58

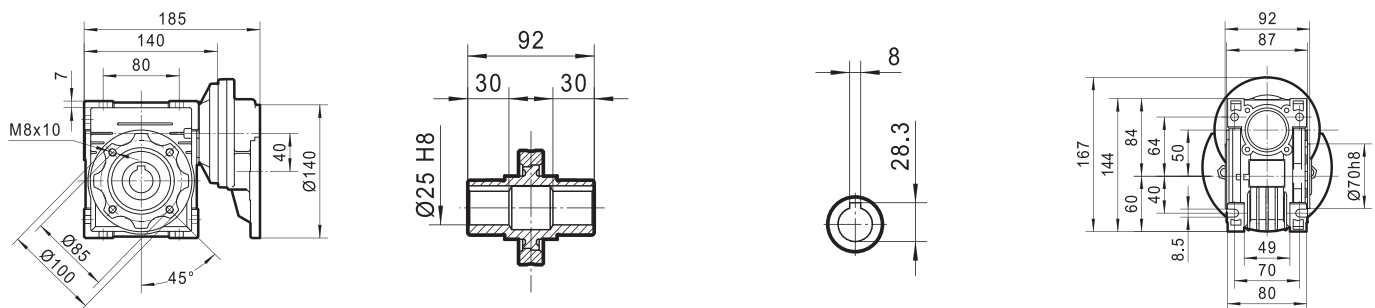
For the dimensions of hollow shafts, please refer to pages 51 - 58

For the dimensions of the double extention warm shafts, please refer to pages 66

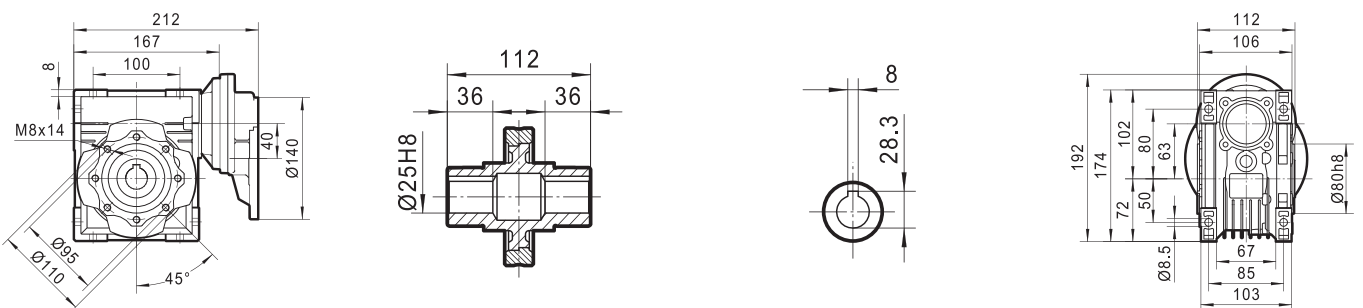
PC063+MRDV040



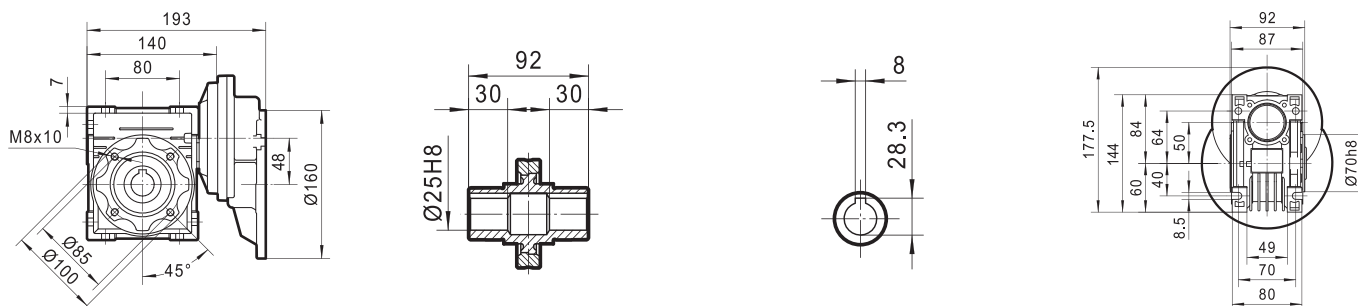
PC063+MRDV050



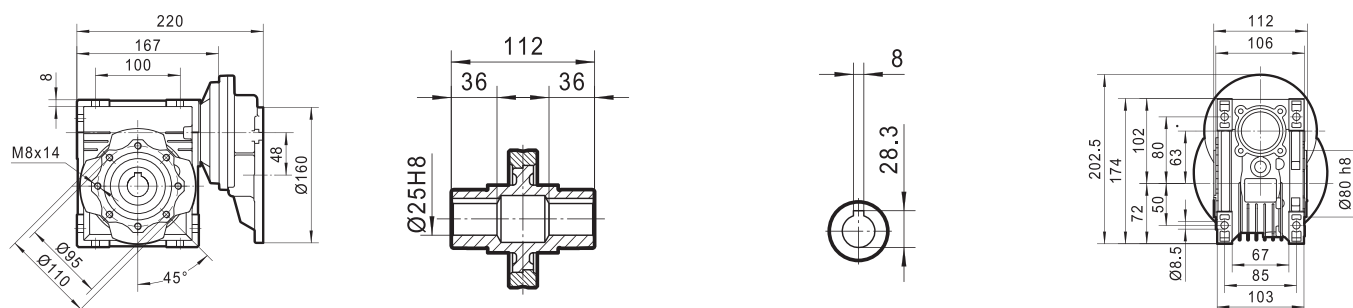
PC063+MRDV063



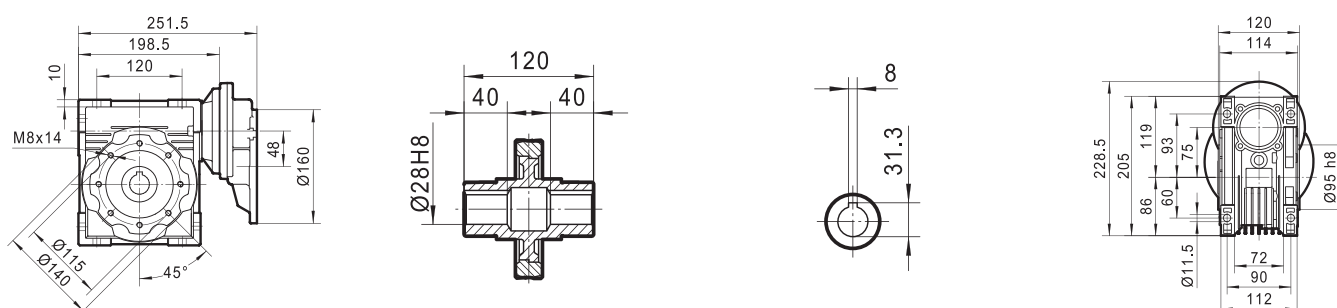
PC071+MRDV050



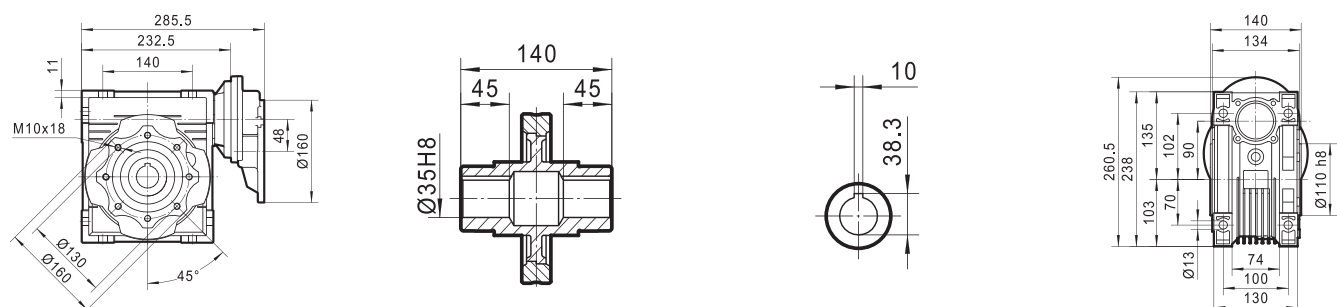
PC071+MRDV063



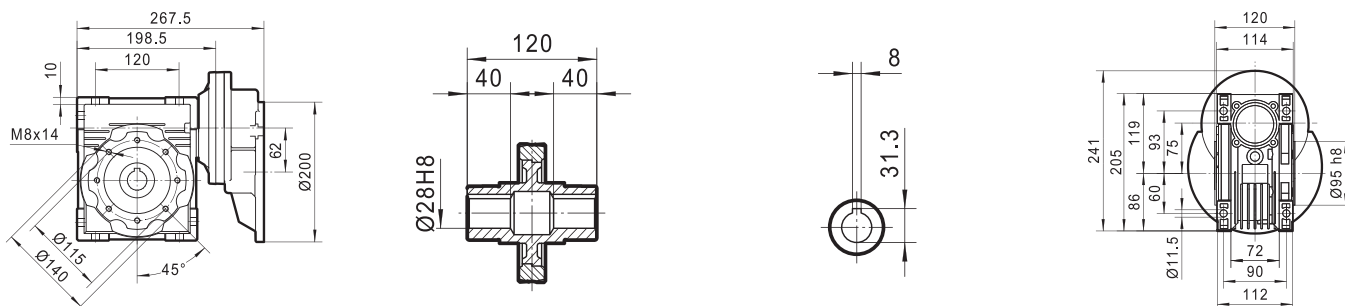
PC071+MRDV075



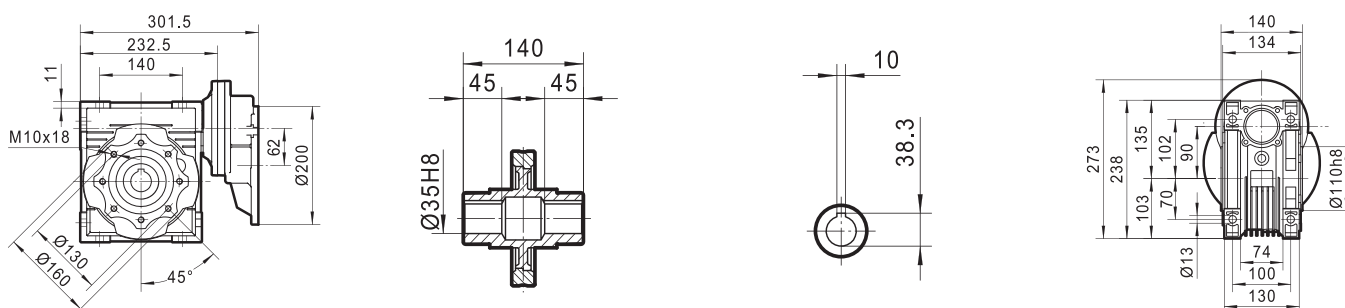
PC071+MRDV090



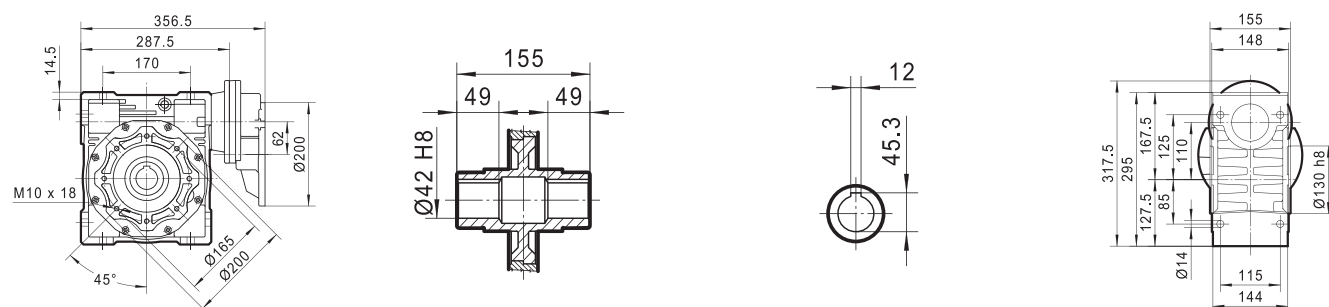
PC080+MRDV075



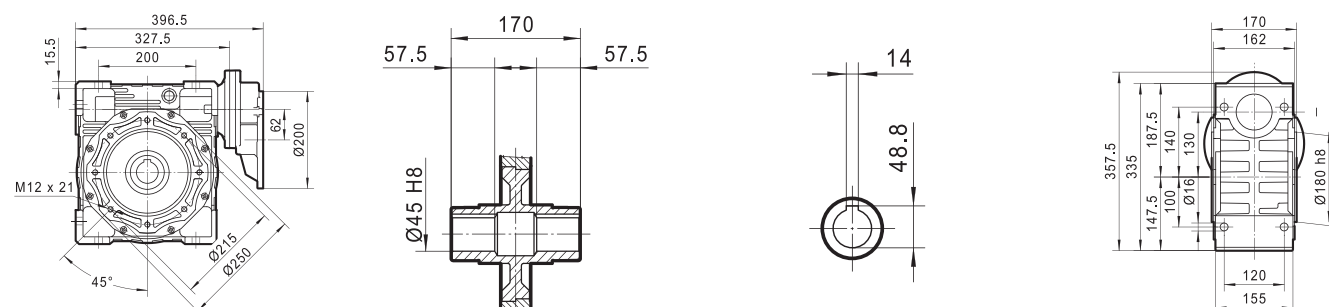
PC080+MRDV090



PC080+MRDV110 e PC090+MRDV110



PC080+MRDV130 e PC090+MRDV130



Per le dimensioni delle flange in uscita riferirsi ai disegni da pag. 51 a 58

Per le dimensioni degli alberi riferirsi ai disegni da pag. 51 a 58

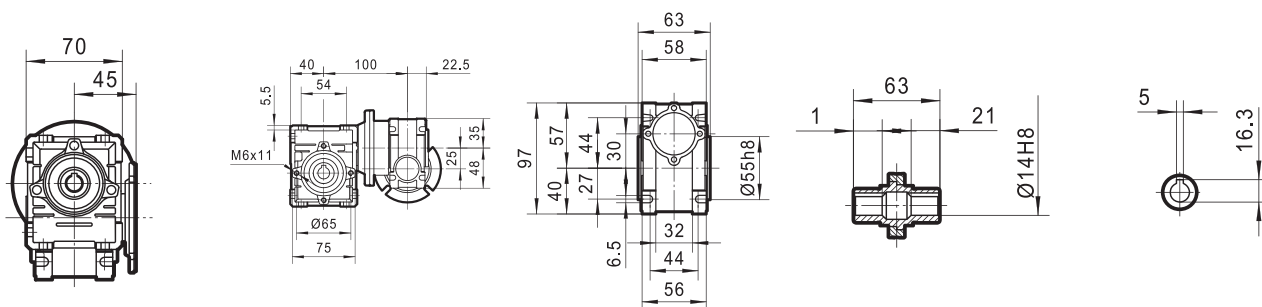
Per le dimensioni degli alberi doppi consultare la tabella a pag. 66

For the dimensions of the output flanges, please refer to pages 51 - 58

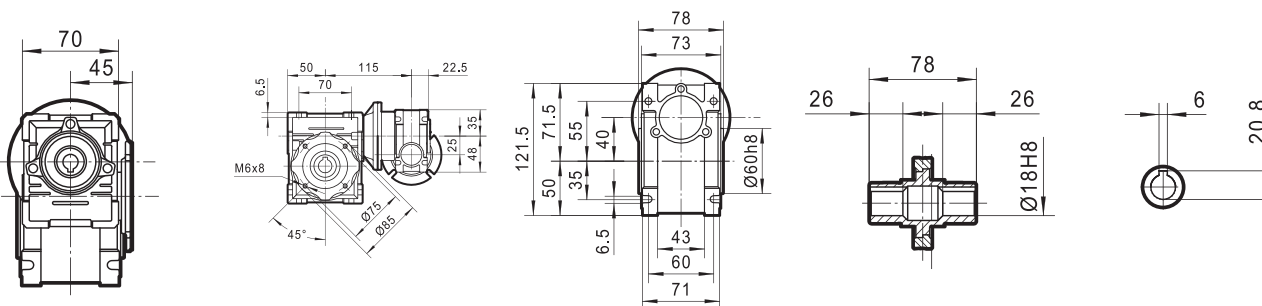
For the dimensions of hollow shafts, please refer to pages 51 - 58

For the dimensions of the double extention warm shafts, please refer to pages 66

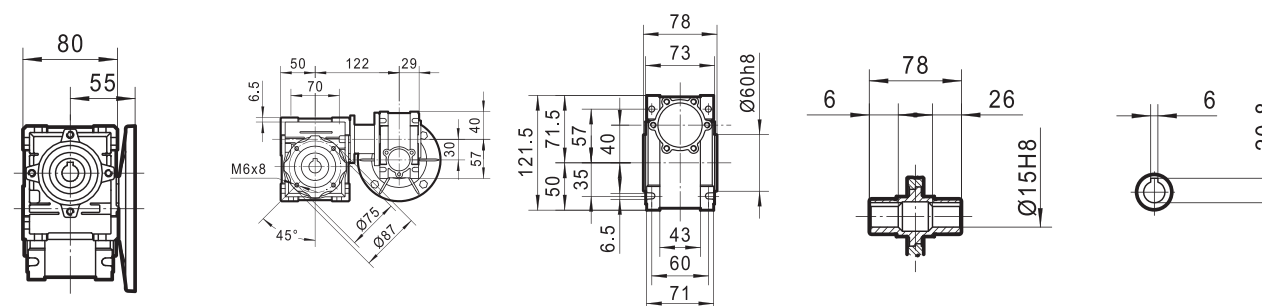
MRDV025+030



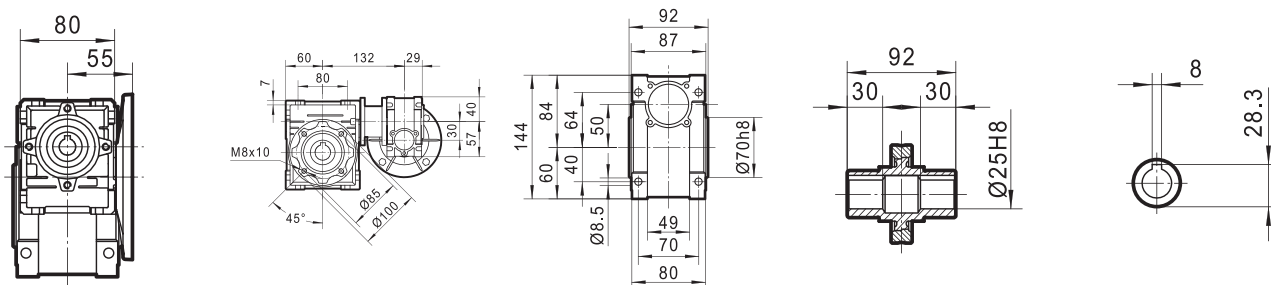
MRDV025+040



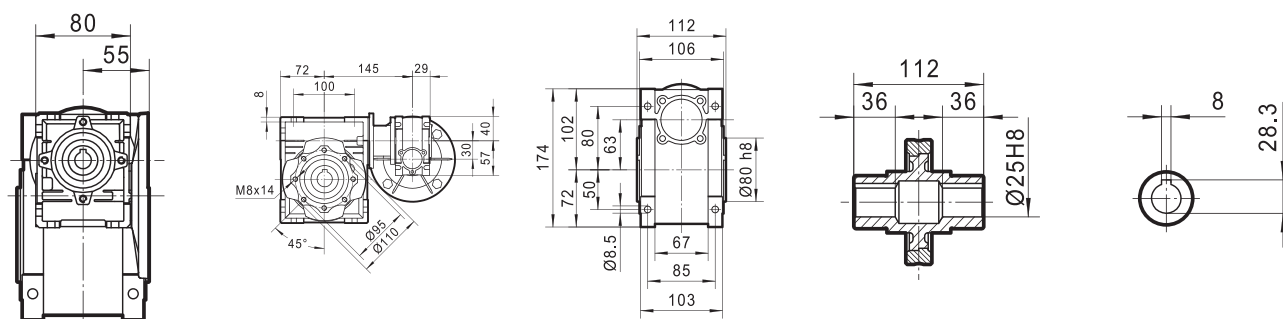
MRDV030+040



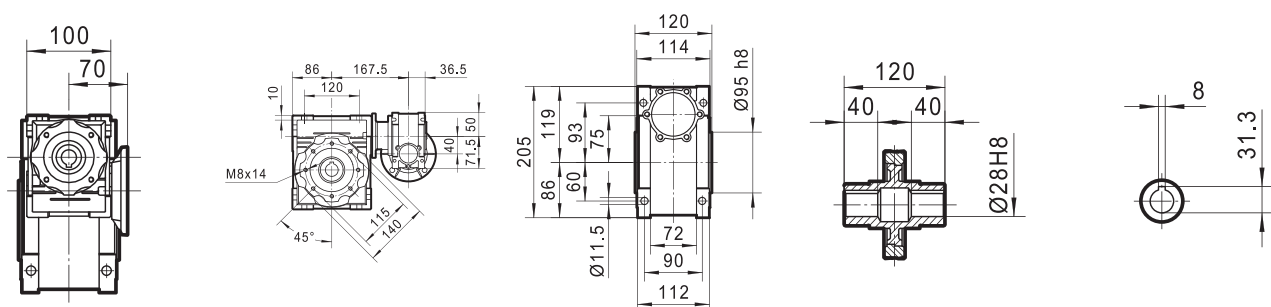
MRDV030+050



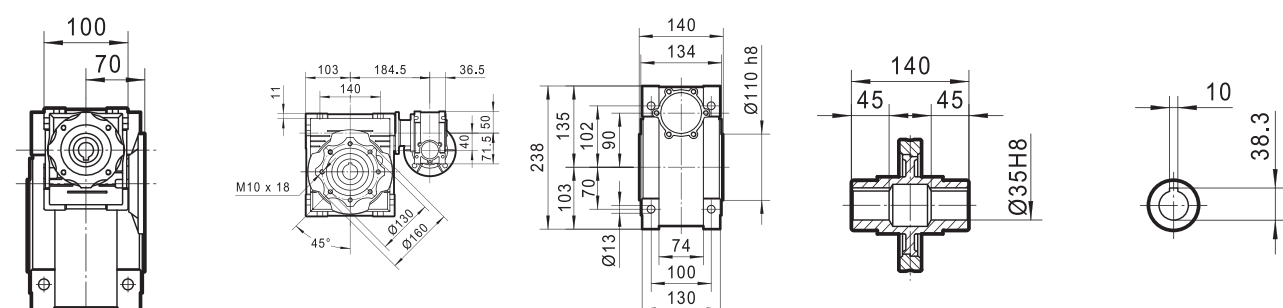
MRDV030+063



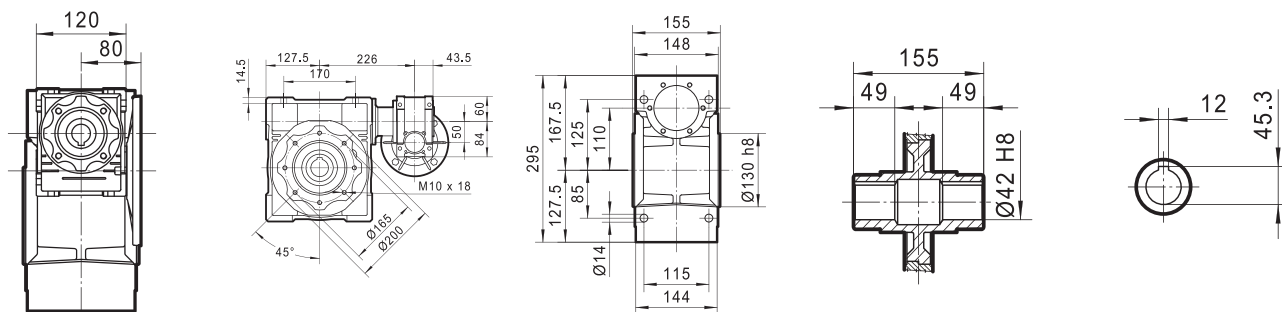
MRDV040+075



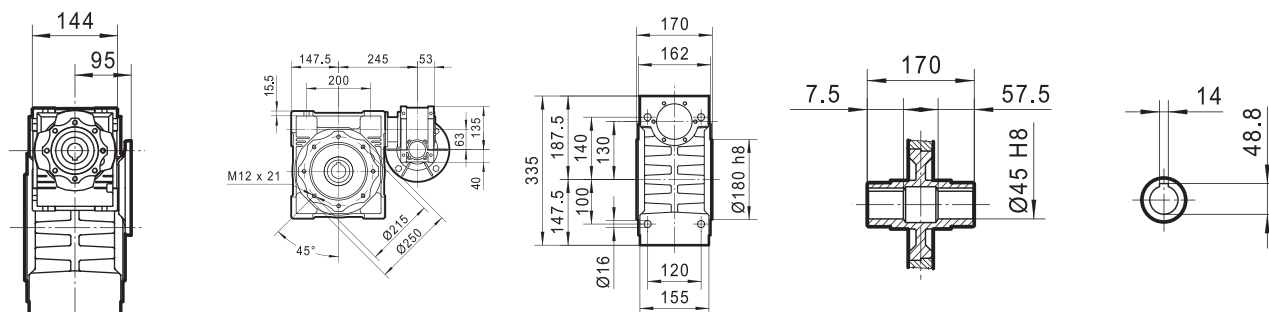
MRDV040+090



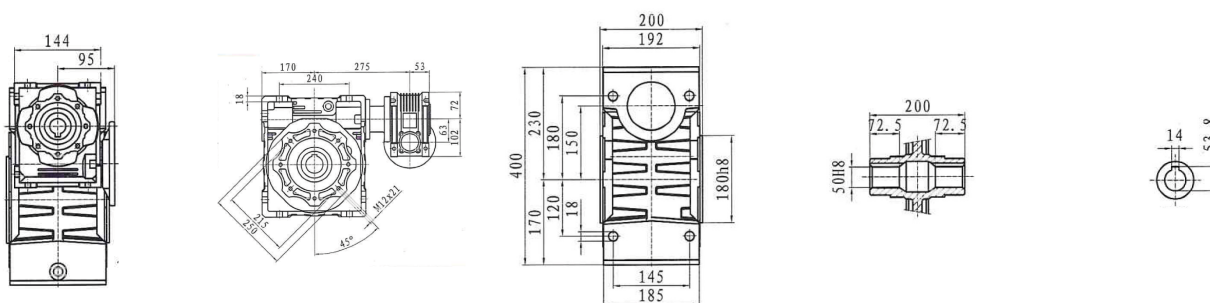
MRDV050+110

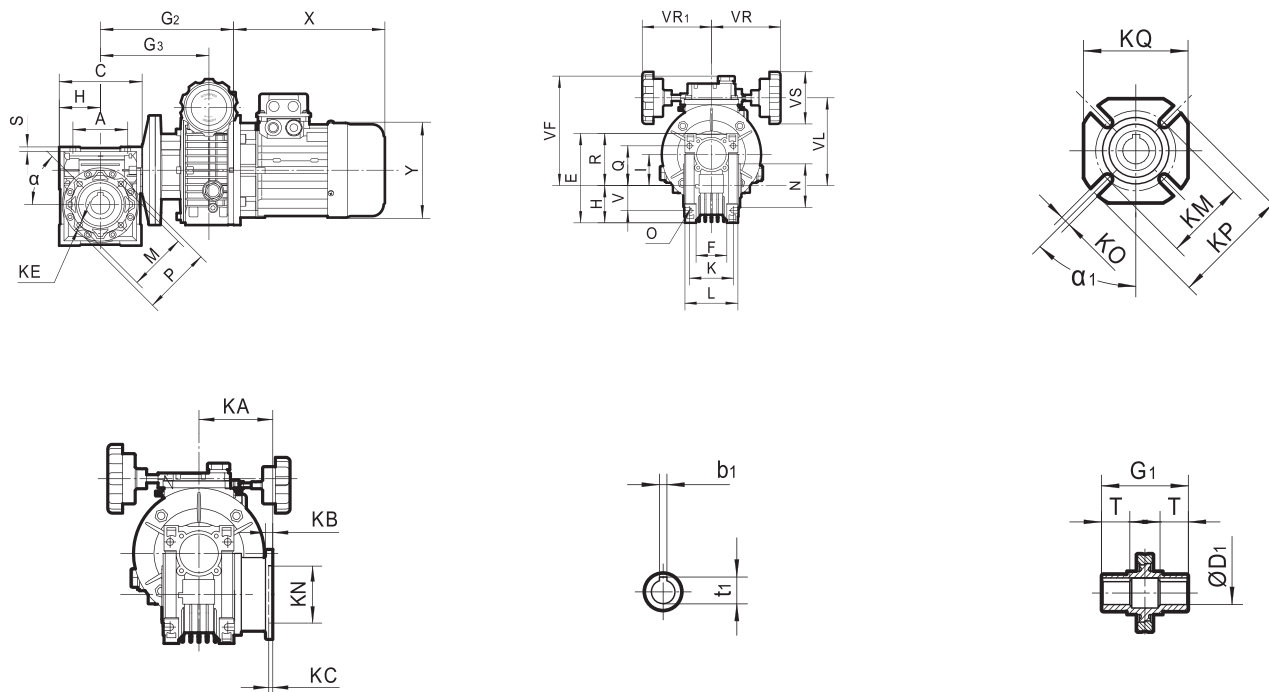


MRDV063+130



MRDV063+150





$n_1 = 1400 \text{ r/min}$

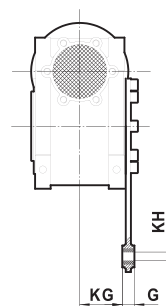
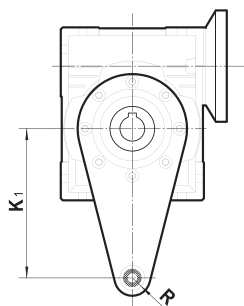
MODELLO Model	G ₂	G ₃	VF	VL	VS	VR	VR ₁	BASE NO.	X	Y
UDL0.18 - MRDV040	181.5	134	145.5	117.5	70	107	107	63	200	130
UDL0.18 - MRDV050	191.5	144	155.5	127.5	70	107	107			
UDL0.37 - MRDV050	189	152.5	168.5	140.5	70	107	107	71	215	140
UDL0.37 - MRDV063	204	167.5	181.5	153.5	70	107	107			
UDL0.75 - MRDV063	237.5	182.5	205	169.5	84	112.5	118.5	80	268	160
UDL0.37 - MRDV075	221.5	185	193.5	165.5	70	107	107	71	215	140
UDL0.75 - MRDV075	225	200	217	181.5	84	112.5	118.5	80	255	160
UDL1.5 - MRDV075	286.5	219	241	202	84	154	129	90L	290	180
UDL0.7 - MRDV090	272	217	232	196.5	84	112.5	118.5	80	255	160
UDL1.5 - MRDV090	303.5	236	256	217	84	154	129	90L	290	180
UDL1.5 - MRDV110	334	266.5	276	237	84	154	129	90L	290	180
UDL2.2 - MRDV110	382	291	311	268	123	147	149	100L	325	200
UDL4 - MRDV110	382	291	311	268	123	147	149	112M	340	225
UDL1.5 - MRDV130	353	285.5	296	257	84	154	129	90L	290	180
UDL2.2 - MRDV130	401	310	331	288	123	147	149	100L	325	200
UDL4 - MRDV130	401	310	331	288	123	147	149	112M	340	225
UDL2.2 - MRDV150	432	341	350	308	123	147	149	100L	325	200
UDL4 - MRDV150	432	341	350	308	123	147	149	112M	340	225

Colonna X e Y può cambiare in funzione della tipologia di motore montato/scelto

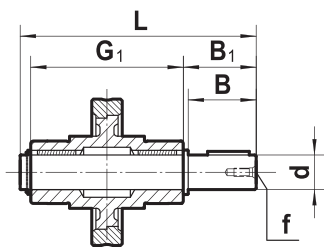
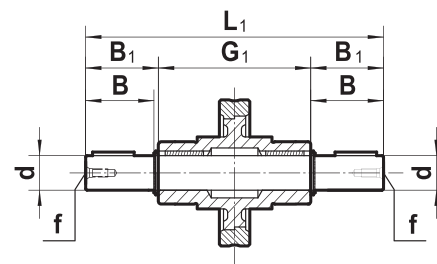
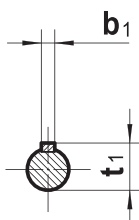
Column X and Y can change depending on the type of engine mounted/chosen

Per le altre dimensioni degli MRDV consultare i disegni da pag. 51 a 58

For other dimensions refer to MRDV series dimension (pages 51 - 58)

Braccio di reazione/Torque arm


MRDV	K ₁	G	KG	KH	R
025	70	14	17.5	8	15
030	85	14	24	8	15
040	100	14	31.5	10	18
050	100	14	38.5	10	18
063	150	14	49	10	18
075	200	25	47.5	20	30
090	200	25	57.5	20	30
110	250	30	62	25	35
130	250	30	69	25	35
150	250	30	84	25	35

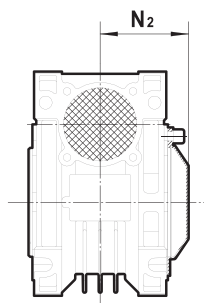
Albero in uscita/Output shafts

AS

AB

MRDV	d	B	B ₁	G ₁	L	L ₁	f	b ₁	t ₁
025	11 g6 9*	23 25*	25.5 30*	50	81 85.5*	101	-	4 3*	12.5 10.2*
030	14 h6	30	32.5	63	102	128	M6	5	16
040	18 h6	40	43	78	128	164	M6	6	20.5
050	25 h6	50	53.5	92	153	199	M10	8	28
063	25 h6	50	53.5	112	173	219	M10	8	28
075	28 h6	60	63.5	120	192	247	M10	8	31
090	35 h6	80	84.5	140	234	309	M12	10	38
110	42 h6	80	84.5	155	249	324	M16	12	45
130	45 h6	80	85	170	265	340	M16	14	48.5
150	50 h6	82	87	200	297	374	M16	14	53.5

(*) Modello non standard

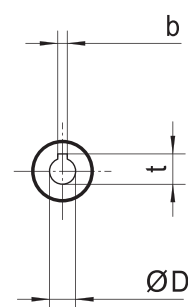
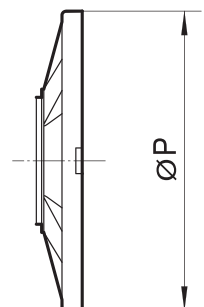
(*) Non standard model

Dimensioni protezione albero lento/Cover in output dimension



MRDV	N ₂
030	47
040	55
050	62.5
063	73.5
075	78.5
090	90.5
110	99
130	107
150	113

Flange in ingresso B5/Input flange B5

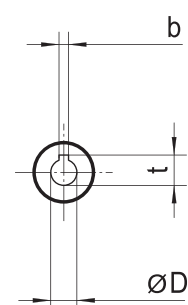
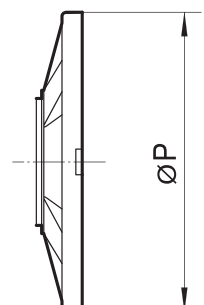


B5	IEC							
	056	063	071	080	090	110	112	132
ØP	Ø120	Ø140	Ø160	Ø200	Ø200	Ø250	Ø250	Ø300
ØD	Ø9 E8	Ø11 E8	Ø14 E8	Ø19 E8	Ø24 E8	Ø28 E8	Ø28 E8	Ø38 E8
b	3	4	5	6	8	8	8	10
t	10.4	12.8	16.3	21.8	27.3	31.3	31.3	41.3

MRDV (110, 130)

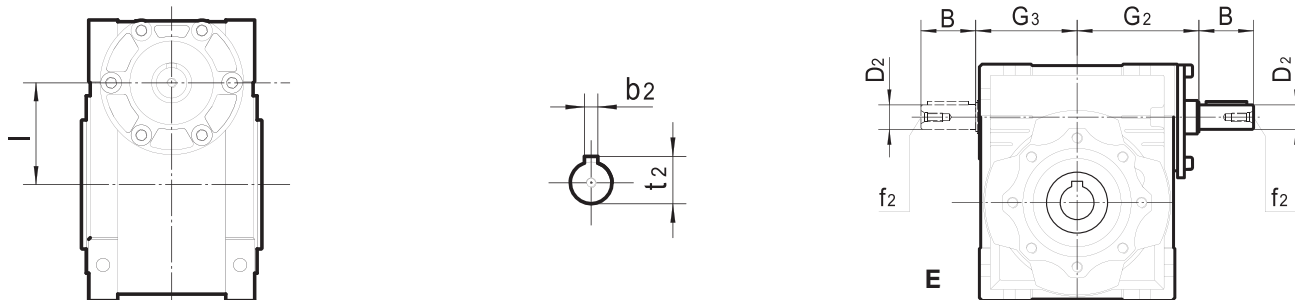
t = 40.3 (IEC 132)

Flange in ingresso B14/Input flange B14



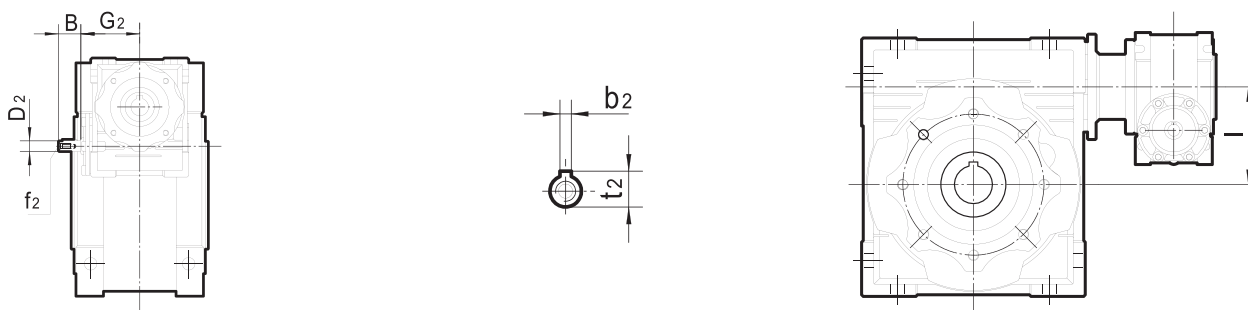
B14	IEC						
	056	063	071	080	090	110	112
ØP	Ø80	Ø90	Ø105	Ø120	Ø140	Ø160	Ø160
ØD	Ø9 E8	Ø11 E8	Ø14 E8	Ø19 E8	Ø24 E8	Ø28 E8	Ø28 E8
b	3	4	5	6	8	8	8
t	10.4	12.8	16.3	21.8	27.3	31.3	31.3

Riduttore albero maschio in ingresso/Input shaft gearbox



RDV	B	D ₂	G ₂	G ₃	l	b ₂	f ₂	t ₂
30	20	Ø9 j6	51	45	30	3	-	10.2
40	23	Ø11 j6	60	53	40	4	-	12.5
50	30	Ø14 j6	74	64	50	5	M6	16
63	40	Ø19 j6	90	75	63	6	M6	21.5
75	50	Ø24 j6	105	90	75	8	M8	27
90	50	Ø24 j6	125	108	90	8	M8	27
110	60	Ø28 j6	142	135	110	8	M10	31
130	80	Ø30 j6	162	155	130	8	M10	33
150	80	Ø35 j6	195	175	150	10	M12	38

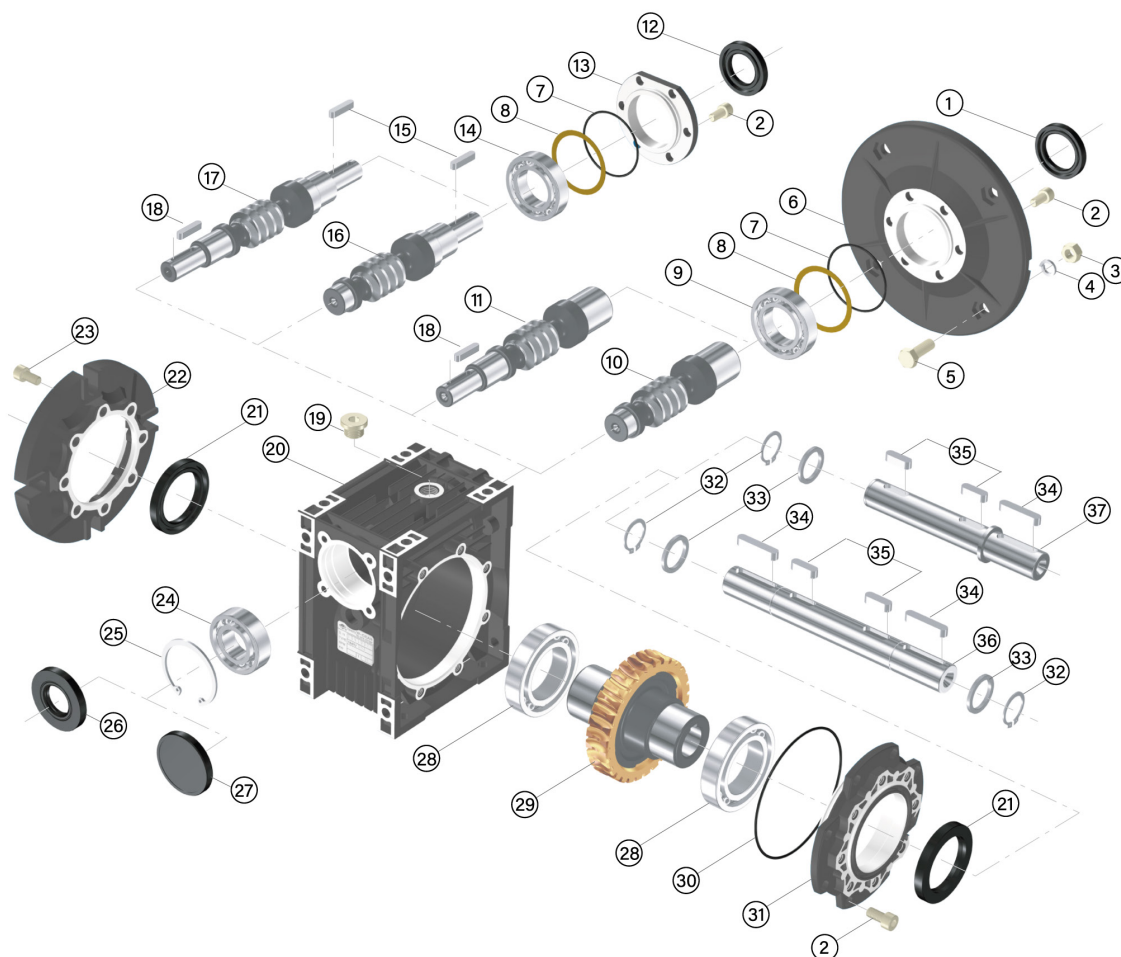
Combinati/Combination unit



RDV-MRDV	B	D ₂	G ₂	l	b ₂	f ₂	t ₂
030-040	20	Ø9 j6	51	10	3	-	10.2
030-050	20	Ø9 j6	51	20	3	-	10.2
030-063	20	Ø9 j6	51	33	3	-	10.2
040-075	23	Ø11 j6	60	35	4	-	12.5
040-090	23	Ø11 j6	60	50	4	-	12.5
050-110	30	Ø14 j6	74	60	5	M6	16
063-130	40	Ø19 j6	90	67	6	M6	21.5
063-150	40	Ø19 j6	90	87	6	M6	21.5

Per le dimensioni mancanti consultare le pagine da 51 a 58

For the missing dimensions, please refer to page 51 - 58

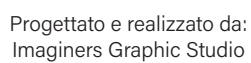


- 1 Anello di tenuta/Oil seal
- 2 Vite/Inner hex screw
- 3 Dado/Nut
- 4 Rondella/Spring washer
- 5 Bullone/Hex screw
- 6 Flangia in ingresso/Input flange
- 7 O-ring/O-ring
- 8 Distanziale/Adjust spacer
- 9 Cuscinetto/Bearing
- 10 Vite forata in ingresso/Hole input worm
- 11 Vite cilindrica in ingresso e albero maschio/Hole input and shaft & output worm
- 12 Anello di tenuta/Oil seal
- 13 Coperchio in ingresso/Input cover
- 14 Cuscinetto/Bearing
- 15 Chiavetta/Key
- 16 Albero in ingresso/Shaft input worm
- 17 Albero in ingresso e vite in uscita/Shaft input and shaft output worm
- 18 Chiavetta/Key
- 19 Tappo per olio/Oil plug
- 20 Carcassa/Case

- 21 Anello di tenuta/Oil seal
- 22 Flangia in uscita/Output flange
- 23 Bullone/Hex screw
- 24 Cuscinetto/Bearing
- 25 Seeger/Hole-circlip
- 26 Anello di tenuta/Oil seal
- 27 Coperchio/Cover
- 28 Cuscinetto/Bearing
- 29 Corona/Worm wheel
- 30 O-ring/O-ring
- 31 Coperchio in uscita/Output cover
- 32 Seeger albero/Shaft-circlip
- 33 Distanziale/Spacer
- 34 Chiavetta/Key
- 35 Chiavetta/Key
- 36 Coperchio in ingresso/Input cover
- 37 Albero bisporgente in uscita/Double output shaft
- 38 Albero sporgente in uscita/Single output shaft

This image shows a full page of blank, lined paper. It features approximately 28 horizontal blue lines spaced evenly across the page, typical of standard notebook paper. The lines are thin and light blue, set against a plain white background. There are no margins, text, or other markings on the page.

Lined area for notes, consisting of multiple horizontal blue lines.

[illegible]

2024



Catalogo Tecnico

Riduttori A Vite Senza Fine Elle. Gi serie MRDV
Elle. Gi Worm Gearboxes MRDV series



Elle. Gi Srl
Rappresentante



Draï Milano Srl
Organi di Trasmissione



Pmm Srl
Martinetti e Rinvii Angolari

Draï Milano Srl

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