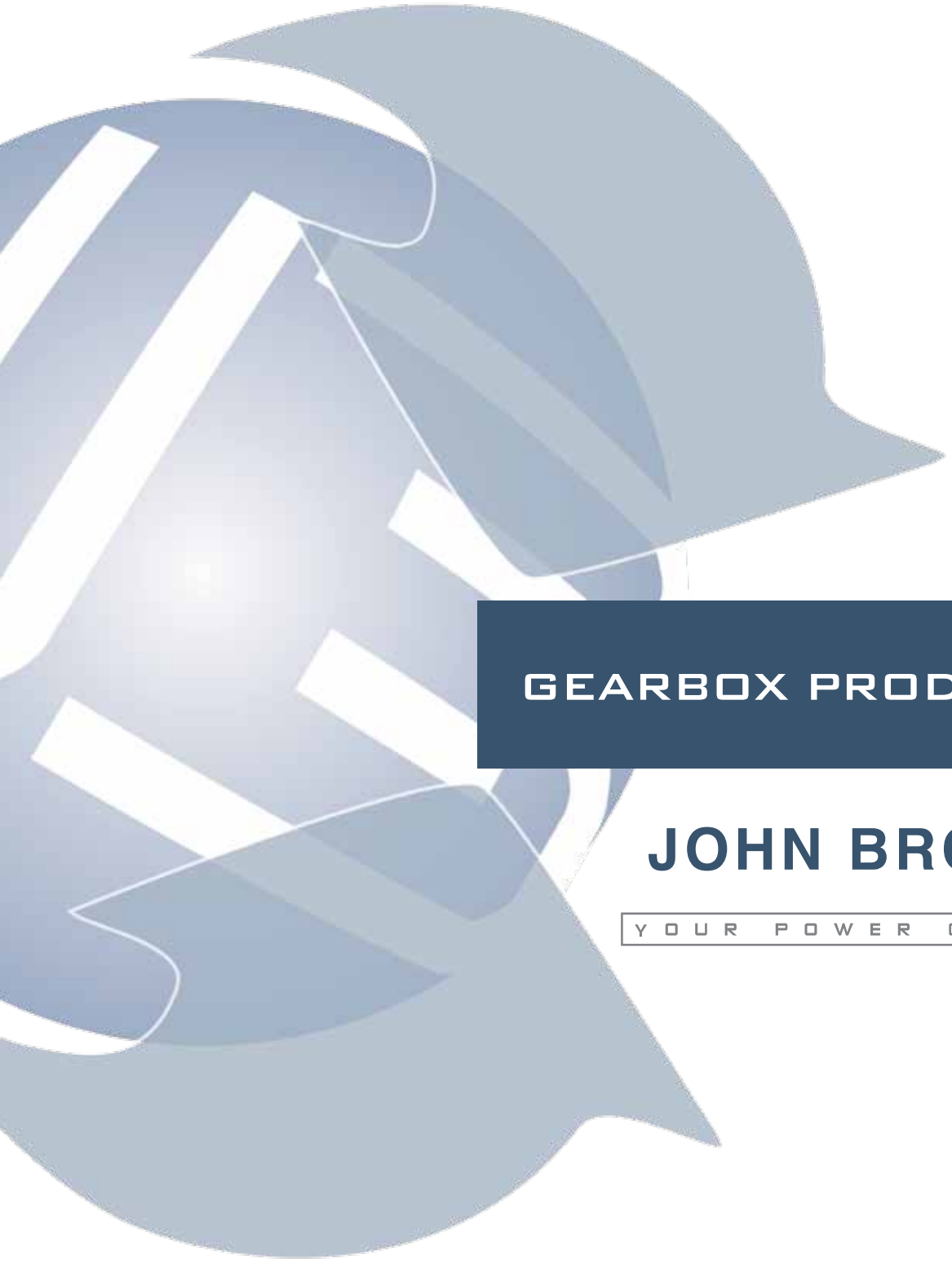

GEARBOX PRODUCT GUIDE

JOHN BROOKS LTD.

YOUR POWER CONNECTION

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CONTENTS

For more detailed information regarding any of the products listed in this guide, please contact your nearest John Brooks Ltd. branch who will put you in direct contact with your area Sales Engineer or visit the John Brooks website at:

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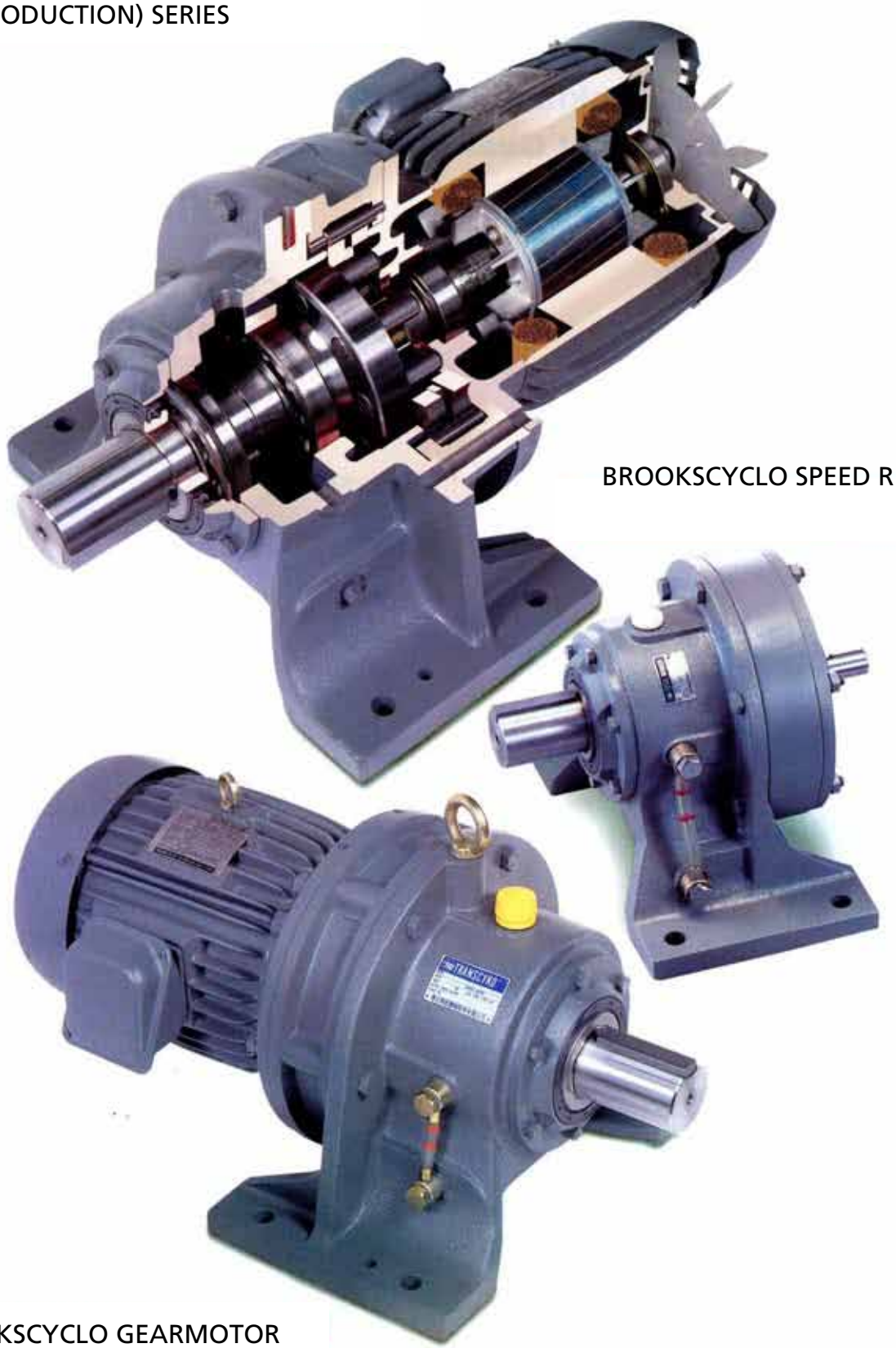
The website includes links to many of the product supplier home pages.

JOHN BROOKS LTD.

YOUR POWER CONNECTION

BROOKSCYCLO GEARBOXES

BROOKSCYCLO CYCLOIDAL SPEED REDUCERS
(PRODUCTION) SERIES

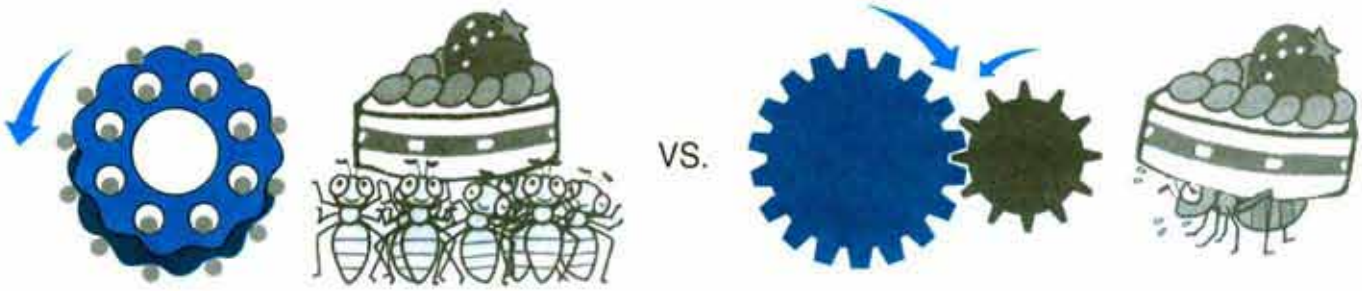


BROOKSCYCLO SPEED REDUCER

BROOKSCYCLO GEARMOTOR

ADVANTAGES AND FEATURES

By replacing more conventional helical , worm and spur gear units throughout the world, **BROOKSCYCLO** 600 series High-Efficiency Speed Reducers has proven itself in a wide variety of applications.



ADVANTAGES

High Efficiency

The superior cycloidal design over conventional gear tooth design, with all torque transmitting parts operate in compression, allows for many teeth to share the load. Cycloidal teeth transmit torque by rolling from one element to another. There is no sliding friction as in conventional gear reducers. This design eliminates sliding friction and creates a vibration-free operation. High efficiencies are reached in excess of 90% in single stage reduction units and 80% plus in double stage reduction units. **BROOKSCYCLO** Speed Reducers can make your individual applications more productive and efficient.

Overload Protection

The **BROOKSCYCLO** cycloidal tooth design maximizes 67% tooth contact. The loadsharing capabilities eliminates gear teeth being sheared off and provides an overload protection of 500%.

Warranty

Exceptionally versatile engineering and manufacturing capabilities enable us to offer **BROOKSCYCLO** Speed Reducers for vitually any industrial application. Every **BROOKSCYCLO** Speed Reducer receives our standard 24 month warranty. Proper selection and correct maintenance will provide the end - user with unequaled service life for many years.

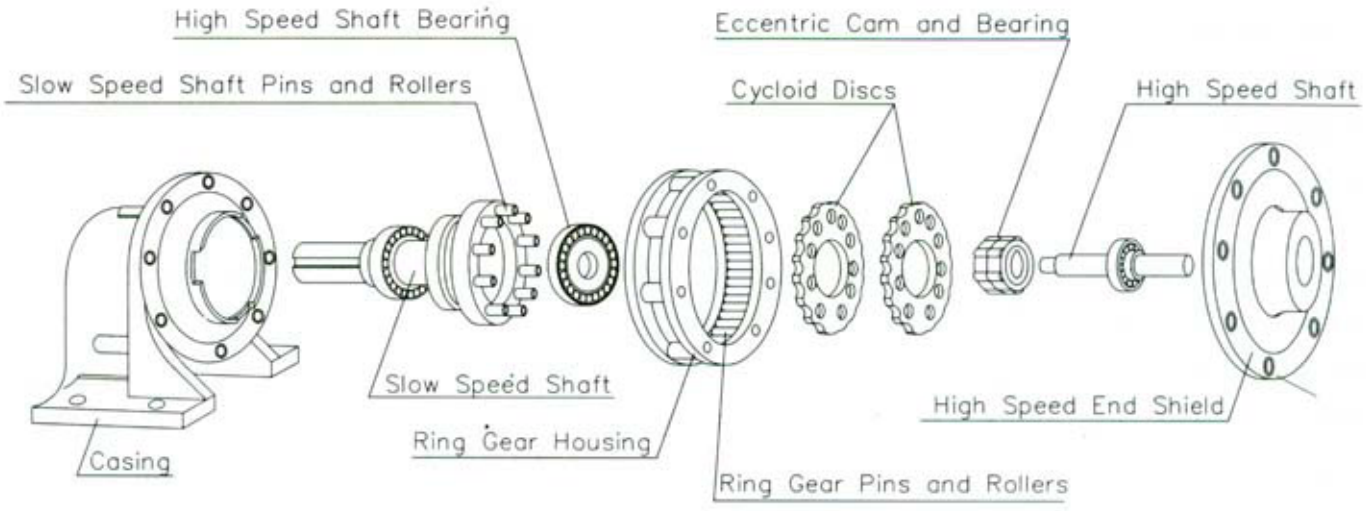
PRINCIPLE OF OPERATION

The cycloidal design basically has three major components.

(1) Input shaft assembly (high speed) with eccentric cam, roller bearing and seals.

(2) Cycloid discs.

(3) Output shaft assembly (slow speed) with support bearings and seals.



Torque transmitted to the high speed shaft rotates the eccentric cam and roller bearing assembly, and rolls the cycloid discs around the internal circumference of the stationary ring gear housing.

The teeth of the cycloid discs contact the pins of the stationary ring gear, producing a reverse rotation at a reduced speed. Each rotation of the high speed shaft advances the cycloid discs a distance of one tooth pitch in the opposite direction.

The reduced rotation of the cycloid discs is transmitted to the output shaft assembly by means of drive pins and rollers, that are projected through holes located around the bore of the cycloid discs.

DESIGN CRITERIA

BROOKSCYCLO Speed Reducers are designed and manufactured for trouble free operation, based upon uniform loading conditions. Ten(10) hour daily service is equivalent to AGMA service factor of 1.0. If the application requires longer daily service, the selection rating (service factor) must be applied to the loading conditions for proper drive selection.

Recommended **BROOKSCYCLO** Load Factors

Load conditions / Hours of daily operation	U Uniform Loading		M Moderate Shock Loading		H Heavy Shock Loading	
	BROOKSCYCLO	AGMA1	BROOKSCYCLO	AGMA2	BROOKSCYCLO	AGMA3
Continuous Running ~ 3 hours	0.80	0.80	1.00	1.00	1.35	1.50
Continuous Running ~ 10 hours	1.00	1.00	1.20	1.25	1.50	1.75
Continuous Running ~ 24 hours	1.20	1.25	1.35	1.50	1.60	2.00

Machine Load Classifications:

Agitators
- U Pure liquid
- M Liquids+solids
- M Variable-viscosity liquids

Brewing & distilling equip.
- U Capping machine
- U Can machine
- M Weighing machine
- M Pulling machine
- U Cooker

Pottery machines
- M Mixer
- H Brick press
- M Grinding machine

Conveyors (average)
- U Segmented
- M Accumulator-type
- U Belt
- U Bucket
- U *Oven-type
- U Screw-type

Conveyors (heavy duty)
- M Segmented
- M Belt
- M Suspension bucket
- M Screw-type
- M Hopper-type
- H *Reciprocating
- H Rocker-type

Winches
- M Suspension-bucket
- M Horizontal
- M Vertical
- H Main hoist (heavy duty)
- M Main hoist (medium duty)

Crushers
- H Diamond
- H Stone
- M Raw sugar

Dredges
- M Cable drum
- M Conveyor
- H Cutting head
- H Mold-board drive
- M Winch
- M Pump
- M *Stacker
- H Seine drive

Elevator
- U Suspension hopper (avg. load)
- M Suspension hopper (heavy duty)
- M Suspension hopper (continuous)
- U Escalator
- M Cargo
- M Utility

Feed supply systems
- M Segmented belts
- U *Round segment types
- H *Reciprocating
- M Screw-type

Food processing
- M Raw sugar & turnip cutters
- U *Ovens
- M Meat slicers
- M Noodle mixer

Axies
- M Drive train
- U Lightly loaded
- U Other axles

Timber equipment
- H *Reservoir pumps
- H Chain & *drogue saws
- H Chain transmission
- H Brake drum
- H Gear boxes
- H Segmented conveyors
- U Sawdust conveyor(belt)
- M Sawdust conveyor(chain)
- M *Sorting conveyor
- M Utility conveyor

Sheet metal equipment
- M Forming rolls
- H Punch press(drive gear)
- H Flat planer
- H Drill
- M Other main drives
- U Auxiliary drives

Machine shop equipment
- M *Table feeds
- H Shapers
  Non-reversible conveyors
- M *Collective drives
- H Individual drives
- H Screw machines

Solid-material mixers
- M Cement drums
- M Dryers, coolers
- M *Kilns
- M Gravel
- M *Barrel packers
- H *Pellet-abrasion machines

Liquid mixers
- M Concrete (continuous duty)
- M Concrete (*intermittent)
- U Fixed viscosity
- M Variable viscosity

Petroleum equipment
- M Stack coolers
  Well-head pumps
- M *Pressurized lubricant drives
- M *Reversing kiln

Sugar Industry
- H Mills
- M Crushers
- M Cane Knives

Rubber processing equip
- M Rubber strainer
- M Roll
- M *Thin plate
- M Mixer

Paper-making equipment
- M Agitator
- M *paper-maker
- M De-barker
- M Beater
- M Impact-type beater
- U Bleacher
- M Pressurized strainer
- H Large strainer
- U Conveyor
- M Dryer
- M *Felt extender
- H *Felt press
- M Finishing press

Textile (fiber) equipment
- M Carding machine
- M Strainer
- M Dryer
- M Dyer
- M Washing machine
- M Spinning machine
- M *Lapping machine

Water treatment equip.
- U Sludge recovery machine
- M Sludge compactor
- M Low & high speed mixers
- U Chemical-supply devices

Steel Industry
- H Forming machine
- C Reversing pinch, dryer & scrubber roll
- M Slitters
- M Draw bench carriage & main drive
- C Reversing table conveyor
- M Group drive of non-reversing table conveyor
- H Individual drive of non-reversing table conveyor
- M Wire winding ,wire drawing & flattening machines

C - Contact us
*** - Refer to factory**

LUBRICATION AND MAINTENANCE

Mounting

Horizontal and vertical oil lubricated drives should be mounted in a level and plumb plane to ensure proper lubrication.

Grease and oil lubrication systems are adopted subject to the size and ratio of **BROOKSCYCLO** Speed Reducer. Please refer to the tables shown below.

Standard Lubrication Type

<table>
<tr><td rowspan="4">One stage reduction</td><td>Frame Nr.</td><td>607</td><td>608</td><td>609</td><td>610</td><td>611</td><td>612</td><td>613</td><td>614</td><td>615</td><td>616</td><td>617</td><td>618</td><td>619</td><td>620</td><td>621</td><td>622</td><td>623</td><td>624</td><td>625</td><td>626</td><td>627</td></tr>
<tr><td>Horizontal Type</td><td colspan="6">Grease(Maintenance - Free)</td><td colspan="15">Oil - Bath</td></tr>
<tr><td>Vertical Type</td><td colspan="6">Grease(Maintenance - Free)</td><td colspan="3">Oil - Bath</td><td colspan="17">Forced - Oil Lubrication(P)</td><td>(TP)</td></tr>
<tr><td></td><td></td><td colspan="21"></td></tr>
<tr><td rowspan="6">Double-reduction</td><td>Frame Nr.</td><td>607/07
608/07
609/08</td><td>610/08
611/08
611/09</td><td>613/08
613/09
613/10</td><td>614/08
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617/10</td><td>618/10</td><td>616/11</td><td>617/11</td><td>618/13</td><td>619/11
619/13</td><td>620/11
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621/16</td><td>622/13
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623/18</td><td>624/16
624/18</td><td>625/17
625/19</td><td>626/19</td><td>627/19</td></tr>
<tr><td>Horizontal Type</td><td colspan="3">Grease (M.F.)</td><td colspan="6">Grease (Replenish)</td><td colspan="15">Oil - Bath</td></tr>
<tr><td>Ratio</td><td colspan="3" rowspan="3">Grease (M.F.)</td><td colspan="6" rowspan="3">Grease (Replenish)</td><td>-
473</td><td>-
841</td><td>-
1015</td><td>-
2065</td><td colspan="5">-
2537</td><td rowspan="3">Forced - Oil Lubriation (TP)</td></tr>
<tr><td>Vertical Type</td><td colspan="9">Forced - Oil Lubrication(p)</td></tr>
<tr><td>Ratio</td><td>559
-</td><td>1003
-</td><td>1247
-</td><td>2537
-</td><td colspan="5">3045
-</td></tr>
<tr><td></td><td colspan="9">Grease (Replenish)</td></tr>
</table>

Grease Lubricated Reducers

Are factory packed and ready for operation. Maintenance - Free grease lubricated units are filled with specially designated long-life grease assure maintenance free operation, replenishment is unnecessary, but replacement in every 20,000 hours of operation or every 4 - 5 years intervals is recommended for longer service life.

For those grease lubricated units other than Maintenance - Free types, please replenish or replace according to the service manual. The mixture of the two types of grease is permissible.

Recommended Grease Lubricants for **BROOKSCYCLO** Speed Reducers

Ambient Temperature °C (°F)	Maintenance - Free Grease	Replenish Grease	Electric Motor
-15°C (5°F) | 50°C (122°F)	Shell Alvania Grease RA or equivalent	Shell Alvania Grease No.2, Cosmo Grease Dynamax SH No. 2 or equivalent	Shell Alvania Grease No. 2 or equivalent

Oil Lubricated Reducers

Are factory filled to the correct level. Please be sure to double check the oil level of the red line of the oil gauge before operating. Mild EP Oil is recommended for the lubrication of **BROOKSCYCLO** Speed Reducers.

Recommended Oil Brand and Specifications (or equivalent)

Ambient Temperature ℃ (° F)	Shell Oil	Mobil Oil	BP Oil	Esso Oil	Gulf Oil	Caltex Oil	SAE Grade	AGMA Grade
-15~5 (5~41)	Omala Oil 86	Mobilgear 626 (ISO VG 68)	Energol GR-xp 46 GR-xp 68	Spartan EP 68	EP Lubricant HD 68	Meropa 68	80W	2EP
0~35 (32~95)	Omala Oil 100, 150	Mobil gear 627 629 (ISO VG 100~150)	Energol GR-xp 100 GR-xp 150	Spartan EP 100 EP 150	EP Lubricant HD 100 HD 150	Meropa 100, 150	80W 90	3EP 4EP
30~50 (86~122)	Omala Oil 220, 320, 460	Mobil gear 630 632, 633,634 (ISO VG 200~460)	Energol GR-xp 220 GR-xp 320 GR-xp 460	Spartan EP 220 EP 320 EP 460	EP Lubricant HD 220 HD 320 HD 460	Meropa 220, 320 460	90 140	5EP 7EP

*use lower viscosity oil for winter or relatively low ambient temperature.

There are two types of Forced - Oil Lubrication for vertical units:

1. Plunger Pump Lubrication (P) is drived by a cam fitted on the slow speed shaft automatically.
2. Trochoid Pump Lubrication(TP): The Oil circulation is conducted by an independent operation of pump and motor. This table shows the application of Trochoid Pump Lubrication.

BROOKSCYCLO Speed Reducers		Trochoid Pump	
Frame Size		Pump Type	Pump Motor
Single Stage	627	TOP - 216HA	0.75kw(1HP), 4p
Double Stage	627/19	TOP - 204HA	0.4kw(1/2HP), 4p

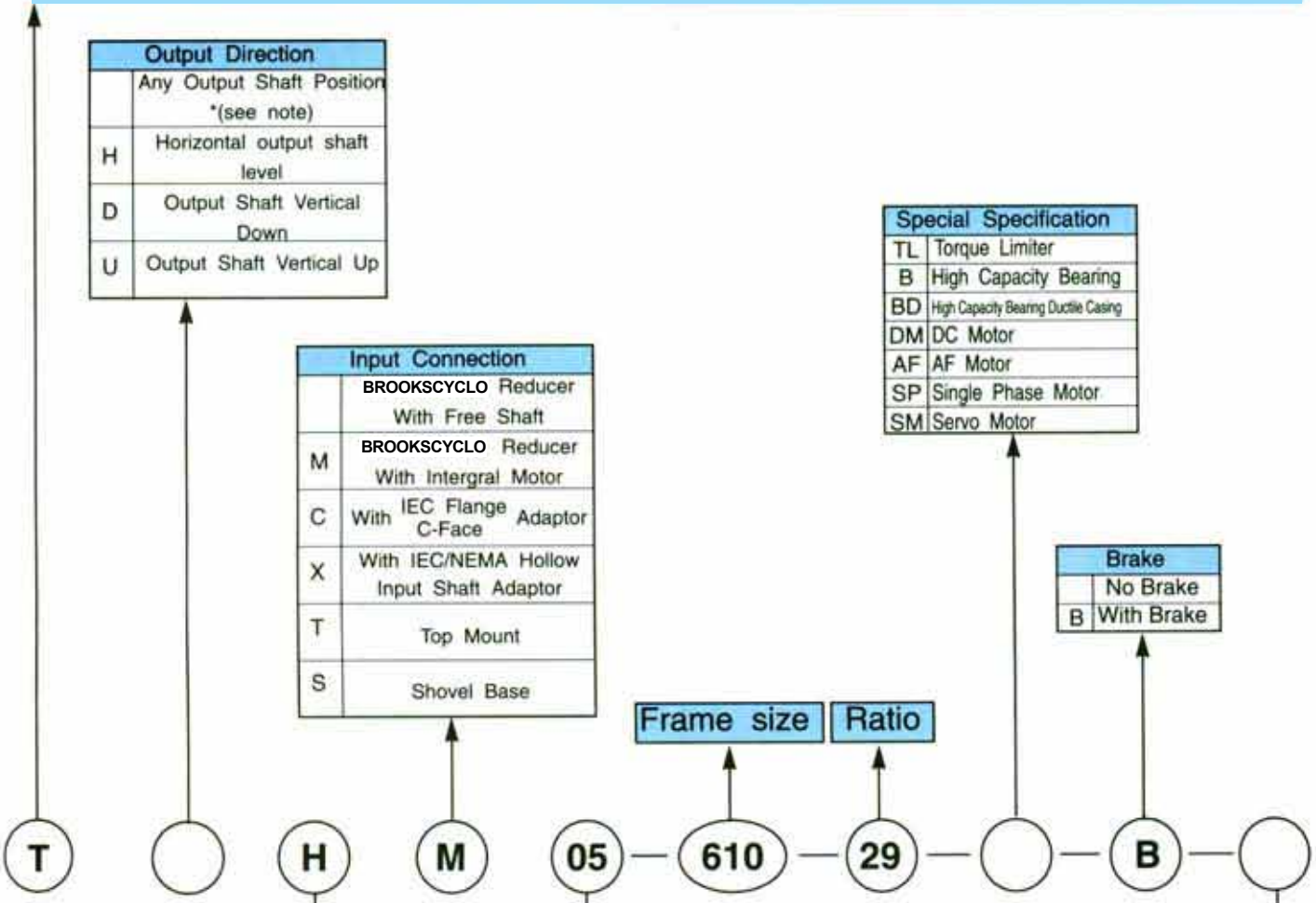
Oil Change Interval

Under all conditions, every **BROOKSCYCLO** unit needs an initial oil change after 500 hours of primary operation. The subsequent oil change interval will depend on the operational conditions.

every 6 months	less than 10 hours / day operation
every 2500 hours	10~24 hours / day operation
every 1~3 months	heavy operation condition such as high ambient temperature & high humidifies.

For specific details of lubrication and maintenance, please refer to the Operating and Maintenance Manual.

BROOKSCYCLO SPEED REDUCER MODEL DESIGNATION NO:600 SERIES



Output Direction	
	Any Output Shaft Position *(see note)
H	Horizontal output shaft level
D	Output Shaft Vertical Down
U	Output Shaft Vertical Up

Input Connection	
	BROOKSCYCLO Reducer With Free Shaft
M	BROOKSCYCLO Reducer With Intergral Motor
C	With IEC Flange C-Face Adaptor
X	With IEC/NEMA Hollow Input Shaft Adaptor
T	Top Mount
S	Shovel Base

Special Specification	
TL	Torque Limiter
B	High Capacity Bearing
BD	High Capacity Bearing Ductile Casing
DM	DC Motor
AF	AF Motor
SP	Single Phase Motor
SM	Servo Motor

Brake	
	No Brake
B	With Brake

Frame size

Ratio

Mounting	
H	Foot Mount Casing
V	V-Flange Base Mount Casing

Shaft Specification	
	Metric Size
I	Inch Size
A1	AGMA1
A2	AGMA2
A3	AGMA3

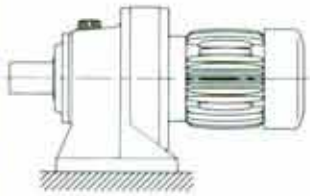
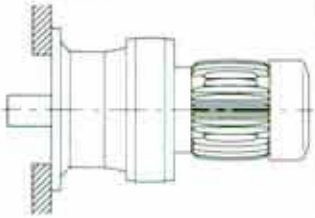
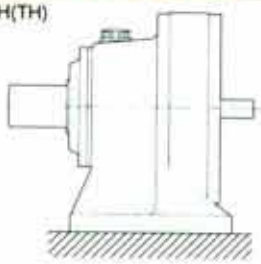
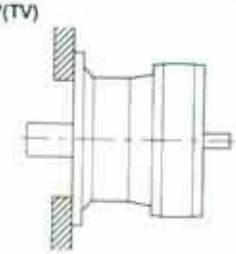
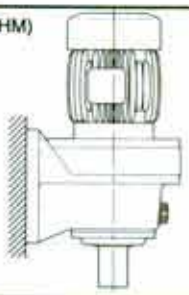
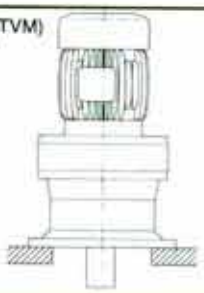
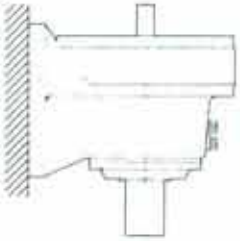
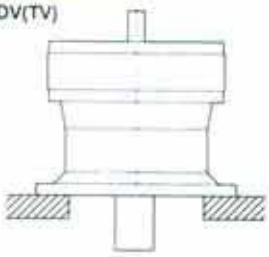
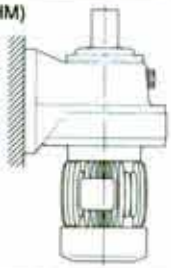
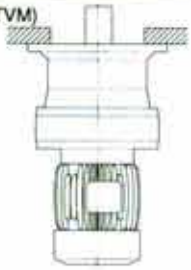
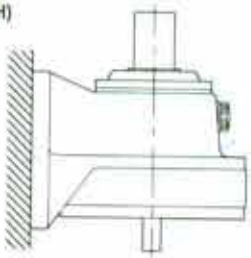
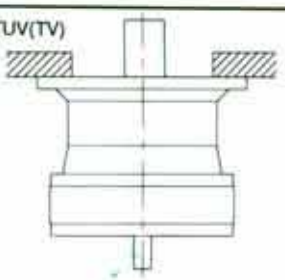
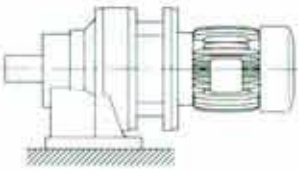
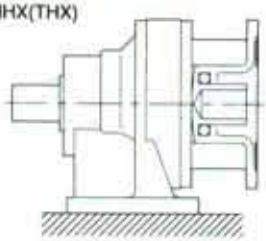
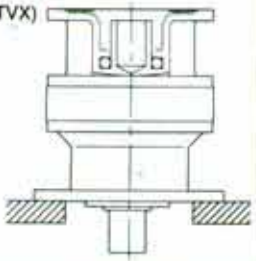
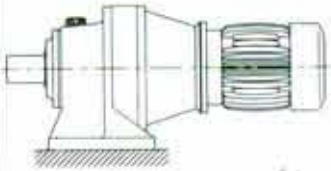
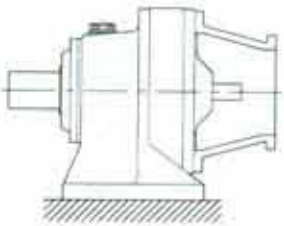
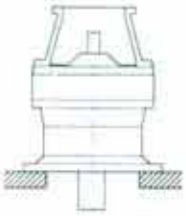
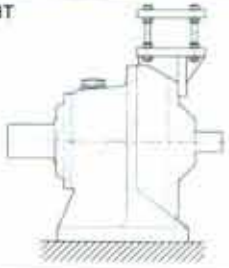
Input Power - Motor Capacity Symbol

4 Pole	Symbol	02	05	1	2	3	5	8	10	15	20	25	30	40	50	60	75	100
	KW	0.2	0.4	0.75	1.5	2.2	3.7	5.5	7.5	11	15	18.5	22	30	37	45	55	75
	HP	1/4	1/2	1	2	3	5	7.5	10	15	20	25	30	40	50	60	75	100

6 Pole	Symbol	20/6	25/6	30/6	40/6	50/6	60/6	75/6	100/6	125/6	150/6	175/6
	KW	15	18.5	22	30	37	45	55	75	90	110	132
	HP	20	25	30	40	50	60	75	100	125	150	175

*Note: Could be any mounting position. Only applies to grease lubricated maintenance-free **BROOKSCYCLO** Speed Reducers.

MOUNTING POSITIONS

BROOKSCYCLO Gearmotors		BROOKSCYCLO Speed Reducers	
THHM(THM) 	THVM(TVM) 	THH(TH) 	THV(TV) 
TDHM(THM) 	TDVM(TVM) 	TDH(TH) 	TDV(TV) 
TUHM(THM) 	TUVM(TVM) 	TUH(TH) 	TUV(TV) 
THHXM(THXM) 	TDVXM(TVXM) 	THHX(THX) 	TDVX(TVX) 
THHCM(THCM) 	TDVCM(TVCM) 	THHC(THC) 	TDVC(TVC) 
THHTM 		THHT 	

SELECTION TABLE WITH 4 POLE MOTOR

Ratio	Frequency	Motor Input Speed	Reducer Output Speed
6	50 Hz	1500 R.P.M.	250 R.P.M.
	60 Hz	1800 R.P.M.	300 R.P.M.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg · m / in · lb	Allowable Output Shaft Overhung load kg / lb	S.F.	Output Torgue kg · m / in · lb	Allowable Output Shaft Overhung load kg / lb	S.F.		H	V
0.2	1/4	02	0.72/62	140/308	2.00	0.60/52	130/286	1.80	02-608-6	49	106
0.4	1/2	05	1.44/125	140/308	1.00	1.20/104	130/286	1.05	05-608-6	49	106
				262/576	3.32		248/546	3.35	05-609-6	50	107
0.75	1	1	2.70/234	262/576	1.77	2.25/195	248/546	1.79	1-609-6	50	107
				415/913	2.95		390/858	3.01	1-610-6	51	108
1.5	2	2	5.40/469	415/913	1.47	4.50/391	390/858	1.51	2-610-6	51	108
				516/1135	3.31		487/1071	3.25	2-611-6	52	109
2.2	3	3	7.92/687	415/913	1.00	6.60/573	390/858	1.03	3-610-6	51	108
				516/1135	2.25		487/1071	2.22	3-611-6	52	109
3.7	5	5	13.3/1156	516/1135	1.34	11.1/963	487/1071	1.32	5-611-6	52	109
				519/1142	1.79		487/1071	1.83	5-612-6	53	110
				601/1233	2.69		568/1250	2.69	5-613-6	54	111
5.5	7.5	8	19.8/1719	519/1142	1.20	16.5/1432	487/1071	1.23	8-612-6	53	110
				601/1322	1.81		568/1250	1.81	8-613-6	54	111
7.5	10	10	27.0/2344	601/1322	1.33	22.5/1953	568/1250	1.33	10-613-6	54	111
				940/2068	1.73		890/1958	1.73	10-615-6	56	113
				975/2145	1.95		920/2024	1.95	10-616-6	57	113
11	15	15	39.6/3437	940/2068	1.18	33.0/2864	890/1958	1.18	15-615-6	56	113
				975/2145	1.33		920/2024	2.65	15-616-6	57	113
				1152/2534	1.94		1081/2378	3.21	15-617-6	58	114
15	20	20	54.0/4687	1152/2534	1.43	45.0/3906	1081/2378	2.60	20-617-6	58	114
18.5	25	25	66.6/5781	1152/2534	1.16	55.5/4817	1081/2378	1.85	25-617-6	58	114

Ratio	Frequency	Motor Input Speed	Reducer Output Speed
8	50 Hz	1500 R.P.M.	188 R.P.M.
	60 Hz	1800 R.P.M.	225 R.P.M.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg · m / in · lb	Allowable Output Shaft Overhung load kg / lb	S.F.	Output Torgue kg · m / in · lb	Allowable Output Shaft Overhung load kg / lb	S.F.		H	V
0.2	1/4	02	0.96/83	154/339	2.00	0.80/69	145/319	2.00	02-608-8	49	105
0.4	1/2	05	1.92/167	154/339	1.00	1.60/139	145/319	1.00	05-608-8	49	105
				289/636	3.38		272/598	3.35	05-609-8	50	106
0.75	1	1	3.60/312	289/636	1.80	3.00/260	272/598	1.79	1-609-8	50	106
				455/1001	3.63		429/944	3.68	1-610-8	51	107
1.5	2	2	7.20/625	455/1001	1.81	6.00/521	429/944	1.84	2-610-8	51	107
				570/1254	3.34		537/1181	3.34	2-611-8	52	108
2.2	3	3	10.6/917	455/1001	1.24	8.80/764	429/944	1.25	3-610-8	51	107
				570/1254	2.28		537/1181	2.28	3-611-8	52	108
3.7	5	5	17.8/1542	570/1254	1.36	14.8/1285	537/1181	1.35	5-611-8	52	108
				571/1256	1.84		540/1188	1.83	5-612-8	53	109
				659/1455	2.70		624/1373	2.70	5-613-8	54	110
5.5	7.5	8	26.4/2292	570/1258	1.24	22.0/1910	540/1188	1.23	8-612-8	53	109
				659/1450	1.82		624/1373	1.82	8-613-8	54	110
7.5	10	10	36.0/3125	659/1450	1.33	30.0/2604	624/1373	1.33	10-613-8	54	110
				1030/2266	1.73		975/2145	1.72	10-615-8	56	112
				1072/2358	2.37		1010/2230	2.39	10-616-8	57	113
11	15	15	52.8/4583	1030/2266	1.18	44.0/3819	975/2145	1.17	15-615-8	56	112
				1072/2358	1.62		1012/2226	1.63	15-616-8	57	113
15	20	20	72.0/6250	1072/2358	1.19	60.0/5208	1012/2226	1.19	20-616-8	57	113

*Please select models in the shaded ▭ column when a load factor of 1.0 is required as shown on page 8.

Ratio	Frequency	Motor Input Speed	Reducer Output Speed
11	50 Hz	1500 R.P.M.	136 R.P.M.
	60 Hz	1800 R.P.M.	164 R.P.M.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg · m / in · lb	Allowable Output Shaft Overhung load kg / lb	S.F.	Output Torgue kg · m / in · lb	Allowable Output Shaft Overhung load kg / lb	S.F.		H	V
0.2	1/4	02	1.32/114	101/222	1.20	1.10/95	92/202	1.20	02-607-11	48	104
				170/374	2.00		161/354	2.00	02-608-11	49	105
0.4	1/2	05	2.64/229	170/374	1.00	2.20/191	161/354	1.00	05-608-11	49	105
				325/715	3.05		309/680	3.02	05-609-11	50	106
0.75	1	1	4.95/430	325/715	1.63	4.12/358	309/680	1.61	1-609-11	50	106
				506/1113	3.62		476/1047	3.60	1-610-11	51	107
1.5	2	2	9.90/859	506/1113	1.81	8.25/716	476/1047	1.80	2-610-11	51	107
				634/1395	3.35		597/1313	3.32	2-611-11	52	108
2.2	3	3	14.5/1259	506/1113	1.24	12.1/1050	476/1047	1.23	3-610-11	51	107
				634/1395	2.29		597/1313	2.26	3-611-11	52	108
3.7	5	5	24.4/2118	634/1395	1.36	20.4/1771	597/1313	1.34	5-611-11	52	108
				735/1617	2.62		692/1522	2.64	5-613-11	54	110
5.5	7.5	8	36.3/3151	735/1617	1.76	30.2/2626	692/1522	1.78	8-613-11	54	110
7.5	10	10	49.5/4297	735/1617	1.29	41.2/3576	692/1522	1.30	10-613-11	54	110
				968/2130	1.31		916/2015	1.32	10-614-11	55	111
				1131/2488	1.73		1070/2354	1.72	10-615-11	56	112
				1198/2636	2.41		1122/2468	2.37	10-616-11	57	113
11	15	15	72.6/6302	1131/2488	1.18	60.5/5251	1070/2354	1.17	15-615-11	56	112
				1198/2636	1.64		1122/2468	1.62	15-616-11	57	113
15	20	20	99.0/8593	1198/2636	1.21	82.5/7161	1122/2468	1.19	20-616-11	57	113
				1407/3095	1.80		1322/2908	1.79	20-617-11	58	114
				1888/4154	2.15		1780/3916	2.16	20-618-11	59	115
18.5	25	25	122/10590	1407/3095	1.46	102/8854	1322/2908	1.45	25-617-11	58	114
				1888/4154	1.74		1780/3916	1.75	25-618-11	59	115
22	30	30	145/12586	1407/3095	1.23	121/10503	1322/2908	1.22	30-617-11	58	114
				1888/4154	1.47		1780/3916	1.47	30-618-11	59	115
				2647/5823	1.97		2481/5458	1.97	30-619-11	60	116
30	40	40	198/17186	1888/4154	1.08	165/14322	1780/3916	1.08	40-618-11	59	115
				2647/5823	1.44		2481/5458	1.44	40-619-11	60	116
				3420/7524	1.92		3242/7132	1.93	40-620-11	61	117
37	50	50	244/21179	2647/5823	1.17	204/17707	2481/5485	1.17	50-619-11	60	116
				3420/7524	1.56		3242/7132	1.56	50-620-11	61	117
				4360/9625	1.89		4132/9090	1.88	50-621-11	62	118
45	60	60	297/25780	3420/7524	1.28	248/21526	3242/7132	1.28	60-620-11	61	117
				4367/9607	1.55		4132/9090	1.55	60-621-11	62	118
				4592/10102	2.14		4350/9570	2.13	60-622-11	63	119
55	75	75	363/31508	4367/9607	1.27	302/26214	4132/9090	1.26	75-621-11	62	118
				4592/10102	1.75		4350/9570	1.74	75-622-11	63	119
75	100	100	495/42966	4592/10102	1.29	412/35762	4350/9570	1.28	100-622-11	62	119

Ratio	Frequency	Motor Input Speed	Reducer Output Speed
13	50 Hz	1500 R.P.M.	115 R.P.M.
	60 Hz	1800 R.P.M.	138 R.P.M.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg · m / in · lb	Allowable Output Shaft Overhung load kg / lb	S.F.	Output Torgue kg · m / in · lb	Allowable Output Shaft Overhung load kg / lb	S.F.		H	V
0.2	1/4	02	1.56/135	107/235	1.20	1.30/113	100/220	1.20	02-607-13	48	104
				177/389	2.00		170/374	2.00	02-608-13	49	105
0.4	1/2	05	3.12/271	177/389	1.00	2.60/226	170/374	1.00	05-608-13	49	105
				334/735	3.00		325/715	3.00	05-609-13	50	106
0.75	1	1	5.85/508	334/735	1.60	4.88/424	325/715	1.60	1-609-13	50	106
				534/1175	3.54		505/1111	3.52	1-610-13	51	107
1.5	2	2	11.7/1016	534/1175	1.77	9.75/846	505/1111	1.76	2-610-13	51	107
				670/1474	3.25		634/1395	3.24	2-611-13	52	108

*Please select models in the shaded column when a load factor of 1.0 is required as shown on page 8.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.		H	V
2.2	3	3	17.2/1493	534/1175	1.21	14.3/1241	505/1111	1.20	3-610-13	51	107
				670/1474	2.22		634/1395	2.21	3-611-13	52	108
3.7	5	5	28.9/2508	670/1474	1.32	24.0/2083	634/1395	1.31	5-611-13	52	108
				670/1474	1.35		634/1395	1.35	5-612-13	53	109
				775/1705	2.49		736/1619	2.50	5-613-13	54	110
5.5	7.5	8	42.9/3724	775/1705	1.67	35.8/3107	736/1619	1.68	8-613-13	54	110
7.5	10	10	58.5/5078	775/1705	1.23	48.8/4236	736/1619	1.23	10-613-13	54	110
				1190/2618	1.37		1131/2488	1.36	10-615-13	56	112
				1260/2772	2.27		1197/2633	2.27	10-616-13	57	113
11	15	15	85.8/7447	1260/2772	1.54	71.5/6206	1197/2633	1.54	15-616-13	57	113
				1478/3252	2.43		1407/3095	2.44	15-617-13	58	114
15	20	20	117/10156	1260/2772	1.13	97.5/8463	1197/2633	1.13	20-616-13	57	113
				1478/3252	1.78		1407/3095	1.79	20-617-13	58	114
				1995/4389	2.21		1884/4145	2.20	20-618-13	59	115
18.5	25	25	144/12499	1478/3252	1.44	120/10416	1407/3095	1.45	25-617-13	58	114
				1995/4389	1.79		1884/4145	1.78	25-618-13	59	115
22	30	30	172/14930	1478/3252	1.21	143/12412	1407/3095	1.22	30-617-13	58	114
				1995/4389	1.50		1884/4145	1.50	30-618-13	59	115
				2793/6145	1.81		2632/5790	1.92	30-619-13	60	116
30	40	40	234/20311	1995/4389	1.10	195/16926	1884/4145	1.10	40-618-13	59	115
				2793/6145	1.33		2632/5790	1.41	40-619-13	60	116
37	50	50	289/25085	2793/6145	1.08	241/20919	2632/5790	1.14	50-619-13	60	116

Ratio	Frequency	Motor Input Speed	Reducer Output Speed
15	50 Hz	1500 R.P.M.	100 R.P.M.
	60 Hz	1800 R.P.M.	120 R.P.M.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.		H	V
0.2	1/4	02	1.80/156	110/242	1.20	1.50/130	106/233	1.20	02-607-15	48	104
				180/396	2.00		179/394	2.00	02-608-15	49	105
0.4	1/2	05	3.60/312	180/396	1.00	3.00/260	179/394	1.00	05-608-15	49	105
				340/748	2.62		335/737	2.00	05-609-15	50	106
0.75	1	1	6.75/586	340/748	1.40	5.62/488	335/737	1.39	1-609-15	50	106
				550/1210	3.65		528/1162	3.63	1-610-15	51	107
1.5	2	2	13.5/1161	550/1210	1.83	11.3/981	528/1162	1.81	2-610-15	51	107
				705/1551	3.23		662/1456	3.21	2-611-15	52	108
2.2	3	3	19.8/1719	550/1210	1.24	16.5/1432	528/1162	1.24	3-610-15	51	107
				705/1551	2.20		662/1456	2.19	3-611-15	52	108
3.7	5	5	33.3/2890	705/1551	1.31	27.8/2413	662/1456	1.30	5-611-15	52	108
				705/1551	1.34		662/1456	1.34	5-612-15	53	109
				818/1799	2.06		765/1683	2.05	5-613-15	54	110
5.5	7.5	8	49.5/4297	818/1799	1.39	41.2/3576	765/1683	1.38	8-613-15	54	110
				1060/2332	1.66		1010/2222	1.66	8-614-15	55	111
7.5	10	10	67.5/5859	818/1799	1.02	56.2/4878	765/1683	1.01	10-613-15	54	110
				1060/2332	1.22		1010/2222	1.22	10-614-15	55	111
				1241/2730	1.32		1170/2574	1.32	10-615-15	56	112
				1333/2933	1.97		1240/2728	1.99	10-616-15	57	113
11	15	15	99.0/8593	1333/2933	1.36	82.5/7161	1240/2728	1.26	15-616-15	57	113
				1565/3443	2.08		1470/3234	2.07	20-617-15	58	114
15	20	20	135/11718	1333/2932	1.00	113/9808	1240/2728	1.00	20-616-15	57	113
				1565/3443	1.53		1470/3234	1.52	20-617-15	58	114
				2100/4620	2.02		1970/4334	2.00	20-618-15	59	115
18.5	25	25	167/14496	1565/3443	1.24	139/12065	1470/3234	1.23	25-617-15	58	114
				2100/4620	1.64		1970/4334	1.62	25-618-15	59	115
22	30	30	198/17186	1565/3443	1.04	165/14322	1470/3234	1.04	30-617-15	58	114
				2100/4620	1.38		1970/4334	1.36	30-618-15	59	115
				2940/6468	1.94		2750/6050	1.93	30-619-15	60	116

*Please select models in the shaded column when a load factor of 1.0 is required as shown on page 8.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.		H	V
30	40	40	270/23436	2090/4614	1.01	225/19530	1970/4334	1.00	40-618-15	59	115
				2930/6468	1.42		2750/6050	1.42	40-618-15	59	115
				3760/8300	1.94		3560/7832	1.94	40-620-15	61	117
37	50	50	333/28904	2930/6468	1.15	278/24130	2750/6050	1.15	50-619-15	60	116
				3760/8300	1.57		3560/7832	1.57	50-620-15	61	117
				4790/10574	1.93		4530/10000	1.92	50-621-15	62	118
45	60	60	405/35154	3760/8300	1.29	338/29338	3560/7832	1.29	60-620-15	61	117
				4790/10574	1.58		4530/9966	1.58	60-621-15	62	118
				5040/11126	2.00		4770/10494	2.00	60-622-15	63	119
55	75	75	495/42966	4790/10574	1.30	412/35762	4530/9966	1.29	75-621-15	62	118
				5040/11126	1.64		4770/10494	1.64	75-622-15	63	119
75	100	100	675/58590	5040/11126	1.20	562/48782	4770/10494	1.20	100-622-15	63	119

Ratio	Frequency	Motor Input Speed	Reducer Output Speed
17	50 Hz	1500 R.P.M.	88 R.P.M.
	60 Hz	1800 R.P.M.	106 R.P.M.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.		H	V
0.2	1/4	02	2.04/177	110/242	1.20	1.72/149	109/240	1.20	02-607-17	48	104
				180/396	2.00		179/394	2.00	02-608-17	49	105
0.4	1/2	05	4.08/354	180/396	1.00	3.40/295	179/394	1.00	05-608-17	49	105
				340/748	2.68		339/746	2.72	05-609-17	50	106
0.75	1	1	7.65/664	340/748	1.43	6.38/554	339/746	1.45	1-609-17	50	106
				550/1210	2.79		550/1210	2.73	1-610-17	51	107
1.5	2	2	15.3/1328	550/1210	1.39	12.8/1111	550/1210	1.37	2-610-17	51	107
				733/1613	3.12		690/1518	3.07	2-611-17	52	108
2.2	3	3	22.4/1944	733/1613	2.13	18.7/1623	690/1518	2.09	3-611-17	52	108
3.7	5	5	37.7/3272	733/1613	1.26	31.4/2726	690/1518	1.24	5-611-17	52	108
				734/1615	1.34		690/1518	1.34	5-612-17	53	109
				850/1870	1.90		795/1749	1.91	5-613-17	54	110
5.5	7.5	8	56.1/4869	850/1870	1.28	46.8/4062	795/1749	1.28	8-613-17	54	110
				1100/2420	1.65		1040/2288	1.64	8-614-17	55	111
7.5	10	10	76.5/6640	1100/2420	1.21	63.8/5538	1040/2288	1.20	10-614-17	55	111
				1380/3036	2.00		1310/2882	1.99	10-616-17	57	113
11	15	15	112/9722	1380/3036	1.36	93.5/8116	1310/2882	1.35	15-616-17	57	113
				1620/3564	1.75		1532/3370	1.75	15-617-17	58	114
15	20	20	153/13280	1380/3036	1.00	128/11110	1310/2882	1.00	20-616-17	57	113
				1620/3564	1.29		1532/3370	1.29	20-617-17	58	114
				2180/4796	2.00		2050/4510	1.99	20-618-17	59	115
18.5	25	25	189/16405	1620/3564	1.04	157/13628	1532/3370	1.04	25-617-17	58	114
				2180/4796	1.62		2050/4510	1.61	25-618-17	59	115
22	30	30	224/19443	2180/4796	1.36	188/16339	2050/4510	1.35	30-618-17	59	115
				3050/6710	1.95		2870/6314	1.94	30-619-17	60	116
30	40	40	306/26561	2180/4796	1.00	255/22134	2050/4510	1.00	40-618-17	59	115
				3050/6710	1.43		2870/6314	1.42	40-619-17	60	116
37	50	50	377/32724	3050/6710	1.16	314/27255	2870/6314	1.15	50-619-17	60	116

Ratio	Frequency	Motor Input Speed	Reducer Output Speed
21	50 Hz	1500 R.P.M.	71 R.P.M.
	60 Hz	1800 R.P.M.	89 R.P.M.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.		H	V
0.2	1/4	02	2.52/219	110/242	1.00	2.10/182	110/242	1.00	02-607-21	48	104

*Please select models in the shaded column when a load factor of 1.0 is required as shown on page 8.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg・m / in・lb	Allowable Output Shaft Overhung load kg / lb	S.F.	Output Torgue kg・m / in・lb	Allowable Output Shaft Overhung load kg / lb	S.F.		H	V
0.2	1/4	02	2.52/219	180/396	2.00	2.10/182	180/396	2.00	02-608-21	49	105
0.4	1/2	05	5.04/437	180/396	1.00	4.20/364	180/396	1.00	05-608-21	49	105
				340/748	2.48		340/748	2.50	05-609-21	50	106
0.75	1	1	9.45/820	340/748	1.32	7.88/684	340/748	1.33	1-609-21	50	106
				550/1210	2.69		550/1210	2.68	1-610-21	51	107
1.5	2	2	18.9/1640	550/1210	1.35	15.8/1371	550/1210	1.34	2-610-21	51	107
				787/1731	2.69		740/1628	2.67	2-611-21	52	108
2.2	3	3	27.7/2413	787/1731	1.83	23.1/2005	740/1628	1.82	3-611-21	52	108
3.7	5	5	46.6/4046	787/1731	1.09	38.8/3368	740/1628	1.08	5-611-21	52	108
				909/2000	1.64		855/1881	1.63	5-613-21	54	110
5.5	7.5	8	69.3/6015	909/2000	1.10	57.8/5017	855/1881	1.09	8-613-21	54	110
				1180/2596	1.22		1110/2442	1.21	8-614-21	55	111
				1480/3256	2.40		1390/3058	2.42	8-616-21	57	113
7.5	10	10	94.5/8203	1480/3256	1.76	78.8/6840	1390/3058	1.77	10-616-21	57	113
11	15	15	139/12065	1480/3256	1.20	116/10069	1390/3058	1.21	15-616-21	57	113
				1740/3828	1.68		1640/3608	1.67	15-617-21	58	114
15	20	20	189/16405	1740/3828	1.23	158/13714	1640/3608	1.23	20-617-21	58	114
				2340/5148	1.79		2200/4840	1.79	20-618-21	59	115
18.5	25	25	233/20224	1740/3828	1.00	194/16839	1640/3608	1.00	25-617-21	58	114
				2340/5148	1.45		2200/4840	1.45	25-618-21	59	115
				3270/7194	1.95		3080/6776	1.96	25-619-21	60	116
22	30	30	277/24044	2340/5148	1.22	231/20051	2200/4840	1.22	30-618-21	59	115
				3270/7194	1.64		3080/6776	1.64	30-619-21	60	116
30	40	40	378/32810	3270/7194	1.20	315/27342	3080/6776	1.21	40-619-21	60	116
				4160/9152	1.54		3940/8668	1.53	40-620-21	61	117
				5300/11660	1.98		5010/11022	1.98	40-621-21	62	118
37	50	50	466/40449	3270/7194	1.00	388/33687	3080/6776	1.00	50-619-21	60	116
				4160/9152	1.25		3940/8668	1.24	50-620-21	61	117
				5300/11660	1.93		5010/11022	1.92	50-621-21	62	118
				5580/12276	2.44		5280/11616	2.43	50-622-21	63	119
45	60	60	567/49216	4160/9152	1.03	472/40970	3940/8668	1.02	60-620-21	61	117
				5300/11660	1.58		5010/11022	1.58	60-621-21	62	118
				5580/12276	2.00		5280/11616	2.00	60-622-21	63	119
55	75	75	693/60152	5300/11660	1.30	578/50170	5010/11022	1.29	75-621-21	62	118
				5580/12276	1.64		5280/11616	1.64	75-622-21	63	119

Ratio	Frequency	Motor Input Speed	Reducer Output Speed
25	50 Hz	1500 R.P.M.	60 R.P.M.
	60 Hz	1800 R.P.M.	72 R.P.M.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg・m / in・lb	Allowable Output Shaft Overhung load kg / lb	S.F.	Output Torgue kg・m / in・lb	Allowable Output Shaft Overhung load kg / lb	S.F.		H	V
0.2	1/4	02	3.00/260	180/396	1.25	2.50/217	180/396	1.25	02-608-25	49	105
				340/748	3.75		340/748	3.75	02-609-25	50	106
0.4	1/2	05	6.00/521	340/748	1.88	5.00/434	340/748	1.88	05-609-25	50	106
0.75	1	1	11.3/981	340/748	1.00	9.38/814	340/748	1.00	1-609-25	50	106
				550/1210	1.92		550/1210	1.96	1-610-25	51	107
1.5	2	2	22.5/1953	835/1837	2.13	18.8/1632	785/1727	2.13	2-611-25	52	108
2.2	3	3	33.0/2864	835/1837	1.45	27.5/2387	785/1727	1.45	3-611-25	52	108
				835/1837	1.52		785/1727	1.52	3-612-25	53	109
				965/2123	2.31		909/2000	2.31	3-613-25	54	110
3.7	5	5	55.5/4817	965/2123	1.37	46.2/4010	909/2000	1.37	5-613-25	54	110
				1242/2732	1.58		1170/2574	1.57	5-614-25	55	111
5.5	7.5	8	82.5/7161	1242/2732	1.06	68.8/5972	1170/2574	1.06	8-614-25	55	111
				1453/3197	1.22		1370/3014	1.26	8-615-25	56	112
				1580/3476	2.11		1470/3234	2.11	8-616-25	57	113
7.5	10	10	113/9808	1580/3476	1.55	93.8/8142	1470/3234	1.55	10-616-25	57	113
				1855/4081	2.07		1740/3828	2.08	10-617-25	58	114

*Please select models in the shaded column when a load factor of 1.0 is required as shown on page 8.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.		H	V
11	15	15	165/14322	1580/3476	1.05	138/11978	1470/3234	1.05	15-616-25	57	113
				1855/4081	1.41		1740/3828	1.42	15-617-25	58	114
				2490/5478	2.07		2330/5126	2.07	15-618-25	59	115
15	20	20	225/19530	1855/4081	1.03	188/16318	1740/3828	1.04	20-617-25	58	114
				2490/5478	1.52		2330/5126	1.52	20-618-25	59	115
				3490/7678	2.29		3260/7172	2.28	20-619-25	60	116
18.5	25	25	278/24130	2490/5478	1.23	231/20051	2330/5126	1.23	25-618-25	59	115
				3490/7678	1.86		3260/7172	1.85	25-619-25	60	116
22	30	30	330/28644	2490/5478	1.04	275/23870	2330/5126	1.04	30-618-25	59	115
				3490/7678	1.56		3260/7172	1.55	30-619-25	60	116
30	40	40	450/39060	3490/7678	1.15	375/32550	3260/7172	1.14	40-619-25	60	116

Ratio	Frequency	Motor Input Speed	Reducer Output Speed
29	50 Hz	1500 R.P.M.	52 R.P.M.
	60 Hz	1800 R.P.M.	62 R.P.M.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.		H	V
0.2	1/4	02	3.48/302	180/396	1.20	2.90/252	180/396	1.20	02-608-29	49	105
				340/748	3.35		340/748	3.40	02-609-29	50	106
0.4	1/2	05	6.96/604	340/748	1.68	5.80/503	340/748	1.70	05-609-29	50	106
0.75	1	1	13.0/1128	550/1210	1.84	10.9/944	550/1210	1.84	1-610-29	51	107
1.5	2	2	26.1/2265	876/1927	1.90	21.8/1892	824/1813	1.89	2-611-29	52	108
2.2	3	3	38.3/3324	876/1927	1.30	31.9/2769	824/1813	1.29	3-611-29	52	108
				1010/2222	2.00		954/2100	2.00	3-613-29	54	110
3.7	5	5	64.4/5590	1010/2222	1.19	53.6/4652	954/2100	1.19	5-613-29	54	110
				1300/2860	1.31		1230/2706	1.31	5-614-29	55	111
				1510/3322	1.58		1430/3146	1.59	5-615-29	56	112
				1650/3630	2.62		1550/3410	2.62	5-616-29	57	113
5.5	7.5	8	95.7/8307	1510/3322	1.06	79.8/6927	1430/3146	1.07	8-615-29	56	112
				1650/3630	1.76		1550/3410	1.76	8-616-29	57	113
7.5	10	10	131/11371	1650/3630	1.29	109/9461	1550/3410	1.29	10-616-29	57	113
				1940/4268	1.91		1830/4026	1.91	10-617-29	58	114
11	15	15	191/16579	1940/4268	1.30	160/13888	1830/4026	1.30	15-617-29	58	114
				2610/5742	1.67		2458/5408	1.66	15-618-29	59	115
15	20	20	261/22655	2610/5742	1.23	218/18922	2458/5408	1.22	20-618-29	59	115
				3650/8030	2.01		3430/7546	2.00	20-619-29	60	116
18.5	25	25	322/27950	2610/5742	1.00	268/23262	2458/5408	1.00	25-618-29	59	115
				3650/8030	1.63		3430/7546	1.62	25-619-29	60	116
				4580/10076	2.11		4340/9548	2.11	25-620-29	61	117
22	30	30	383/33244	3650/8030	1.37	319/27689	3430/7546	1.36	30-619-29	60	116
				4580/10076	1.78		4340/9548	1.77	30-620-29	61	117
30	40	40	522/45310	3650/8030	1.00	435/3758	3430/7546	1.00	40-619-29	60	116
				4580/10076	1.34		4340/9548	1.30	40-620-29	61	117
				5860/12892	1.59		5539/12185	1.59	40-621-29	62	118
				6161/13554	1.78		5820/12804	1.78	40-622-29	63	119
37	50	50	644/55899	4580/10076	1.06	536/46525	4340/9548	1.05	50-620-29	61	117
				5860/12892	1.29		5539/12185	1.29	50-621-29	62	118
				6161/13554	1.44		5820/12804	1.44	50-622-29	63	119
45	60	60	783/67964	5860/12892	1.06	652/56594	5539/12185	1.06	60-621-29	62	118
				6161/13554	1.19		5820/12804	1.18	60-622-29	63	119
55	75	75	957/83068	6161/13554	1.00	798/69266	5820/12804	1.00	75-622-29	63	119

*Please select models in the shaded column when a load factor of 1.0 is required as shown on page 8.

Ratio	Frequency	Motor Input Speed	Reducer Output Speed
35	50 Hz	1500 R.P.M.	43 R.P.M.
	60 Hz	1800 R.P.M.	51 R.P.M.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg・m / in・lb	Allowable Output Shaft Overhung load kg / lb	S.F.	Output Torgue kg・m / in・lb	Allowable Output Shaft Overhung load kg / lb	S.F.		H	V
0.2	1/4	02	4.20/364	180/396	1.20	3.50/304	180/396	1.20	02-608-35	49	105
				340/748	2.90		340/748	2.90	02-609-35	50	106
0.4	1/2	05	8.40/729	340/748	1.45	7.00/608	340/748	1.45	05-609-35	50	106
				550/1210	2.55		550/1210	2.58	05-610-35	51	107
0.75	1	1	15.8/1371	550/1210	1.36	13.1/1137	550/1210	1.37	1-610-35	51	107
				880/1936	3.23		878/1932	3.20	1-611-35	52	108
1.5	2	2	31.5/2734	880/1936	1.61	26.2/2274	878/1932	1.60	2-611-35	52	108
				1080/2376	2.43		1010/2222	2.41	2-613-35	54	110
2.2	3	3	46.2/4010	880/1936	1.10	38.5/3342	878/1932	1.09	3-611-35	52	108
				1080/2376	1.65		1010/2222	1.64	3-613-35	54	110
3.7	5	5	77.7/6744	1080/2376	1.00	64.8/5625	1010/2222	1.00	5-613-35	54	110
				1370/3014	1.25		1300/2860	1.24	5-614-35	55	111
				1590/3498	1.31		1510/3322	1.31	5-615-35	56	112
				1750/3850	2.34		1650/3630	2.32	5-616-35	57	113
5.5	7.5	8	116/10069	1750/3850	1.57	96.2/8350	1650/3630	1.56	8-616-35	57	113
				2077/4570	2.27		1946/4282	2.25	8-617-35	58	114
7.5	10	10	158/13714	1750/3850	1.15	131/11371	1650/3630	1.15	10-616-35	57	113
				2077/4570	1.67		1946/4282	1.65	10-617-35	58	114
11	15	15	231/20051	2077/4570	1.14	193/16752	1946/4282	1.13	15-617-35	58	114
				2773/6101	1.68		2619/5762	1.67	15-618-35	59	115
15	20	20	315/27342	2773/6101	1.23	262/22742	2619/5762	1.23	20-618-35	59	115
				3880/8536	1.58		3662/8057	1.57	20-619-35	60	116
18.5	25	25	389/33765	2773/6101	1.00	324/28123	2619/5762	1.00	25-618-35	59	115
				3880/8536	1.28		3662/8057	1.27	25-619-35	60	116
22	30	30	462/40102	3880/8536	1.08	385/33418	3662/8057	1.07	30-619-35	60	116

Ratio	Frequency	Motor Input Speed	Reducer Output Speed
43	50 Hz	1500 R.P.M.	35 R.P.M.
	60 Hz	1800 R.P.M.	42 R.P.M.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg・m / in・lb	Allowable Output Shaft Overhung load kg / lb	S.F.	Output Torgue kg・m / in・lb	Allowable Output Shaft Overhung load kg / lb	S.F.		H	V
0.2	1/4	02	5.16/448	180/396	1.00	4.30/373	180/396	1.00	02-608-43	49	105
				340/748	2.50		340/748	2.45	02-609-43	50	106
0.4	1/2	05	10.3/894	340/748	1.25	8.60/746	340/748	1.22	05-609-43	50	106
				550/1210	2.32		550/1210	2.32	05-610-43	51	107
0.75	1	1	19.4/1684	550/1210	1.24	16.1/1397	550/1210	1.24	1-610-43	51	107
				880/1936	2.56		880/1936	2.56	1-611-43	52	108
1.5	2	2	38.7/3359	880/1936	1.28	32.2/2795	880/1936	1.28	2-611-43	52	108
				1150/2530	1.97		1094/2406	1.97	2-613-43	54	110
2.2	3	3	56.8/4930	1150/2530	1.34	47.3/4106	1094/2406	1.34	3-613-43	54	110
				1460/3212	1.44		1380/3036	1.43	3-614-43	55	111
				1600/3520	1.75		1590/3498	1.75	3-615-43	56	112
3.7	5	5	95.5/8289	1600/3520	1.04	79.6/6909	1590/3498	1.04	5-615-43	56	112
				1880/4136	1.83		1776/3907	1.82	5-616-43	57	113
5.5	7.5	8	142/12326	1880/4136	1.23	118/10242	1776/3907	1.22	8-616-43	57	113
				2220/4884	1.69		2087/4592	1.68	8-617-43	58	114
7.5	10	10	194/16839	2220/4884	1.24	161/13975	2087/4592	1.24	10-617-43	58	114
				2983/6567	2.00		2800/6160	1.97	10-618-43	59	115
11	15	15	284/24651	2983/6567	1.36	237/20572	2800/6160	1.34	15-618-43	59	115
				4150/9130	1.86		3910/8602	1.89	15-619-43	60	116
15	20	20	387/33592	2985/6567	1.00	323/28036	2800/6160	1.00	20-618-43	59	115
				4150/9130	1.37		3910/8602	1.39	20-619-43	60	116

*Please select models in the shaded ▭ column when a load factor of 1.0 is required as shown on page 8.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg · m / in · lb	Allowable Output Shaft Overhung load kg / lb	S.F.	Output Torgue kg · m / in · lb	Allowable Output Shaft Overhung load kg / lb	S.F.		H	V
15	20	20	387/33592	5150/11330	1.82	323/28036	4897/10773	1.80	20-620-43	61	117
18.5	25	25	477/41404	4150/9130	1.11	398/34546	3910/8602	1.12	25-619-43	60	116
				5150/11330	1.48		4897/10773	1.46	25-620-43	61	117
				6565/14443	2.02		6220/13684	2.00	25-621-43	62	118
22	30	30	568/49302	5150/11330	1.24	473/41056	4897/10733	1.23	30-620-43	61	117
				6565/14443	1.70		6220/13684	1.69	30-621-43	62	118
				6910/15202	2.08		6562/14437	2.08	30-622-43	63	119
30	40	40	774/67183	6565/14443	1.24	645/55986	6220/13684	1.24	40-621-43	62	118
				6910/15202	1.52		6562/14437	1.52	40-622-43	63	119
37	50	50	955/82894	6565/14443	1.01	796/69093	6220/13684	1.00	50-621-43	62	118
				6910/15202	1.24		6562/14437	1.24	50-622-43	63	119
45	60	60	1161/100775	6910/15202	1.02	968/84022	6562/14437	1.02	60-622-43	63	119

Ratio	Frequency	Motor Input Speed	Reducer Output Speed
51	50 Hz	1500 R.P.M.	29 R.P.M.
	60 Hz	1800 R.P.M.	35 R.P.M.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg · m / in · lb	Allowable Output Shaft Overhung load kg / lb	S.F.	Output Torgue kg · m / in · lb	Allowable Output Shaft Overhung load kg / lb	S.F.		H	V
0.2	1/4	02	6.12/531	340/748	1.80	5.10/443	340/748	1.80	02-609-51	50	106
0.4	1/2	05	12.2/1059	550/1210	1.68	10.2/885	550/1210	1.65	05-610-51	51	107
0.75	1	1	23.0/1996	880/1936	2.21	19.1/1658	880/1936	2.49	1-611-51	52	108
1.5	2	2	45.9/3984	880/1936	1.11	38.2/3316	880/1936	1.25	2-611-51	52	108
				1220/2684	1.67		1150/2530	1.68	2-613-51	54	110
2.2	3	3	67.3/5842	1220/2684	1.14	56.1/4869	1150/2530	1.14	3-613-51	54	110
				1500/3300	1.35		1460/3212	1.34	3-614-51	55	111
				1600/3520	1.51		1600/3520	1.55	3-615-51	56	112
				1990/4378	2.59		1880/4136	2.58	3-616-51	57	113
3.7	5	5	113/9808	1990/4378	1.54	94.4/8194	1880/4136	1.53	5-616-51	57	113
				2340/5148	2.25		2200/4840	2.86	5-617-51	58	114
5.5	7.5	8	168/14582	1990/4378	1.04	140/12152	1880/4136	1.03	8-616-51	57	113
				2340/5148	1.52		2200/4840	1.51	8-617-51	58	114
				3150/6930	2.07		2985/6567	2.07	8-618-51	59	115
7.5	10	10	230/19964	2340/5148	1.11	191/16579	2200/4840	1.11	10-617-51	58	114
				3150/6930	1.52		2985/6567	1.52	10-618-51	59	115
				4400/9680	2.39		4150/9130	2.40	10-619-51	60	116
11	15	15	337/29252	3150/6930	1.04	280/24304	2985/6567	1.04	15-618-51	59	115
				4400/9680	1.63		4150/9130	1.64	15-619-51	60	116
15	20	20	459/39841	4400/9680	1.19	383/33244	4150/9130	1.20	20-619-51	60	116

Ratio	Frequency	Motor Input Speed	Reducer Output Speed
59	50 Hz	1500 R.P.M.	25 R.P.M.
	60 Hz	1800 R.P.M.	31 R.P.M.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg · m / in · lb	Allowable Output Shaft Overhung load kg / lb	S.F.	Output Torgue kg · m / in · lb	Allowable Output Shaft Overhung load kg / lb	S.F.		H	V
0.2	1/4	02	7.08/614	340/748	1.65	5.90/512	340/748	1.65	02-609-59	50	106
0.4	1/2	05	14.2/1232	550/1210	1.50	11.8/1024	550/1210	1.52	05-610-59	51	107
				880/1936	3.42		880/1936	3.45	05-611-59	52	108
0.75	1	1	26.6/2309	880/1936	1.83	22.1/1918	880/1936	1.84	1-611-59	52	108
1.5	2	2	53.1/4609	1295/2849	1.43	44.3/3845	1220/2684	1.44	2-613-59	54	110
				1500/3300	1.87		1500/3300	1.89	2-614-59	55	111
2.2	3	3	77.9/6762	1500/3300	1.27	64.9/5633	1500/3300	1.29	3-614-59	55	111
				1600/3520	1.28		1600/3520	1.32	3-615-59	56	112

*Please select models in the shaded column when a load factor of 1.0 is required as shown on page 8.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.		H	V
2.2	3	3	77.9/6762	2000/4400	2.25	64.9/5633	1985/4367	2.23	3-616-59	57	113
3.7	5	5	131/11371	2090/4400	1.34	109/9461	1985/4367	1.32	5-616-59	57	113
				2490/5478	1.97		2340/5148	1.95	5-617-59	58	114
5.5	7.5	8	195/16926	2490/5478	1.32	162/14062	2340/5148	1.31	8-617-59	58	114
				3330/7326	1.79		3140/6908	1.77	8-618-59	59	115
7.5	10	10	266/23089	3300/7326	1.31	221/190183	3140/6908	1.30	10-618-59	59	115
				4660/10252	2.07		4400/9680	2.07	10-619-59	60	116
11	15	15	389/33765	4660/10252	1.41	325/28210	4400/9680	1.41	15-619-59	60	116
				5700/12540	1.74		5410/11902	1.74	15-620-59	61	117
15	20	20	531/46091	4660/10252	1.03	443/38452	4400/9680	1.03	20-619-59	60	116
				5700/12540	1.27		5410/11902	1.28	20-620-59	61	117
				7265/15983	1.85		4400/9680	1.85	20-621-59	62	118
18.5	25	25	655/56854	5700/12540	1.03	546/47393	5410/11902	1.04	25-620-59	61	117
				7265/15983	1.50		6890/15158	1.50	25-621-59	62	118
				7640/16808	1.80		7250/15950	1.80	25-622-59	63	119
22	30	30	779/67617	7265/15983	1.26	649/56333	6890/15158	1.26	30-621-59	62	118
				7640/16808	1.52		7250/15950	1.51	30-622-59	63	119
30	40	40	1062/92182	7640/16808	1.11	885/76818	7250/15950	1.11	40-622-59	63	119

Ratio	Frequency	Motor Input Speed	Reducer Output Speed
71	50 Hz	1500 R.P.M.	21 R.P.M.
	60 Hz	1800 R.P.M.	25 R.P.M.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.		H	V
0.2	1/4	02	8.52/740	340/748	1.30	7.10/616	340/748	1.30	02-609-71	50	106
				550/1210	2.45		550/1210	2.45	02-610-71	51	107
0.4	1/2	05	17.0/1476	550/1210	1.22	14.2/1232	550/1210	1.22	05-610-71	51	107
				880/1936	2.45		880/1936	2.45	05-611-71	52	108
0.75	1	1	32.0/2778	880/1936	1.31	26.6/2309	880/1936	1.31	1-611-71	52	108
				1000/2200	1.36		1000/2200	1.35	1-612-71	53	109
				1350/2970	2.40		1295/2849	2.43	1-613-71	54	110
1.5	2	2	63.9/5546	1350/2970	1.20	53.2/4618	1295/2849	1.21	2-613-71	54	110
				1500/3300	1.41		1500/3300	1.40	2-614-71	55	111
				1600/3520	1.45		1600/3520	1.45	2-615-71	56	112
				2000/4400	2.73		2000/4400	2.73	2-616-71	57	113
2.2	3	3	93.7/8133	1600/3520	1.00	78.1/6779	1600/3520	1.00	3-615-71	56	112
				2000/4000	1.86		2000/4400	1.86	3-616-71	57	113
3.7	5	5	158/13714	2000/4000	1.10	131/11371	2000/4400	1.11	5-616-71	57	113
				2680/5896	1.62		2490/5478	1.62	5-617-71	58	114
5.5	7.5	8	234/20422	2680/5896	1.09	195/16926	2460/5478	1.09	8-617-71	58	114
				3590/7898	1.34		3330/7326	1.33	8-618-71	59	115
				5020/11044	2.44		4660/10252	2.44	8-619-71	60	116
7.5	10	10	320/27776	3590/7898	1.00	266/23089	3330/7326	1.00	10-618-71	59	115
				5020/11044	1.79		4660/10252	1.79	10-619-71	60	116
11	15	15	469/40709	5020/11044	1.22	391/33939	4660/10252	1.22	15-619-71	60	116

Ratio	Frequency	Motor Input Speed	Reducer Output Speed
87	50 Hz	1500 R.P.M.	17 R.P.M.
	60 Hz	1800 R.P.M.	21 R.P.M.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/l	S.F.		H	V
0.2	1/4	02	10.4/903	340/748	1.25	8.70/755	340/748	1.20	02-609-87	50	106
				550/1210	2.45		550/1210	2.45	02-610-87	51	107

*Please select models in the shaded column when a load factor of 1.0 is required as shown on page 8.

Ratio	Frequency	Motor Input Speed	Reducer Output Speed
87	50 Hz	1500 R.P.M.	17 R.P.M.
	60 Hz	1800 R.P.M.	21 R.P.M.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.		H	V
0.4	1/2	05	20.9/1814	550/1210	1.22	17.4/1510	550/1210	1.22	05-610-87	51	107
				880/1936	2.33		880/1936	2.33	05-611-87	52	108
0.75	1	1	39.2/3402	880/1936	1.24	32.6/2830	880/1936	1.24	1-611-87	52	108
				1364/3001	1.95		1360/2992	1.96	1-613-87	54	110
1.5	2	2	78.3/6796	1500/3300	1.30	65.2/5659	1500/3300	1.31	2-614-87	55	111
				1600/3520	1.31		1600/3520	1.33	2-615-87	56	112
				2050/4510	2.23		2000/4400	2.23	2-616-87	57	113
2.2	3	3	115/9982	2050/4510	1.52	95.7/8342	2000/4400	1.52	3-616-87	57	113
				2900/6380	2.20		2660/5852	2.20	3-617-87	58	114
3.7	5	5	193/16752	2900/6380	1.31	161/13975	2660/5852	1.31	5-617-87	58	114
				3760/8272	2.03		3540/7788	2.03	5-618-87	59	115
5.5	7.5	8	287/24912	3760/8272	1.34	239/20745	3540/7788	1.34	8-618-87	59	115
				5260/11572	2.13		4950/10890	2.13	8-619-87	60	116
7.5	10	10	392/34026	5260/11572	1.56	326/28297	4950/10890	1.56	10-619-87	60	116
				6600/14520	1.83		6030/13266	1.81	10-620-87	61	117
11	15	15	574/49823	5260/11572	1.06	478/41490	4950/10890	1.06	15-619-87	60	116
				6600/14520	1.24		6030/13266	1.24	15-620-87	61	117
				8410/18502	1.65		7680/16896	1.66	15-621-87	62	118
				8840/19448	1.99		8090/17798	1.99	15-622-87	63	119
15	15	20	783/67964	8410/18502	1.22	652/56594	7680/16896	1.21	20-621-87	62	118
				8840/19448	1.46		8090/17798	1.46	20-622-87	63	119
18.5	20	25	966/83849	8840/19448	1.18	805/69874	8090/17798	1.18	25-622-87	63	119

Ratio	Frequency	Motor Input Speed	Reducer Output Speed
104 (13 x 8)	50 Hz	1500 R.P.M.	14 R.P.M.
	60 Hz	1800 R.P.M.	17 R.P.M.

MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.		H	V
0.2	1/4	02	10.1/877	340/748	1.0	9.48/823	340/748	1.05	02-609/08-104	70	126
			11.4/990	550/1210	1.80	9.48/823	550/1210	1.91	02-610/08-104	71	127
0.4	1/2	05	20.5/1779	550/1210	1.0	18.7/1625	550/1210	1.06	05-610/08-104	71	127
			22.7/1970	880/1936	1.00	19.0/1649	880/1936	1.02	05-611/08-104	72	128
			22.7/1970	880/1936	2.10	19.0/1649	880/1936	2.42	05-611/09-104	73	129
0.75	1	1	42.6/3724	880/1936	1.12	35.5/3081	880/1936	1.29	1-611/09-104	73	129
			42.6/3724	1365/3003	1.80	35.5/3081	1365/3003	2.16	1-613/10-104	76	132
1.5	2	2	77.0/6684	1365/3003	1.0	71.1/6171	1365/3003	1.08	2-613/10-104	76	132
			85.3/7404	2050/4510	1.61	71.1/6171	2050/4510	2.25	2-616/10-104	81	137
2.2	3	3	77.0/6684	1365/3003	1.0	77.0/6684	1365/3003	1.0	3-613/10-104	76	132
			103/8940	1500/3300	1.0	102/8854	1500/3300	1.0	3-614/10-104	79	135
			125/10850	2050/4510	1.46	104/9027	2050/4510	1.74	3-616/11-104	82	138
3.7	5	5	183/15884	2050/4510	1.0	175/15190	2050/4510	1.04	5-616/11-104	82	138
			210/18228	2900/6380	1.32	175/15190	2900/6380	1.38	5-617/11-104	85	141
5.5	7.5	8	278/24130	2900/6380	1.0	241/20919	2900/6380	1.0	8-617/11-104	85	141
			313/27168	3800/8360	1.28	260/22568	3800/8360	1.54	8-618/13-104	87	143
7.5	10	10	400/34720	3800/8360	1.0	355/30814	3800/8360	1.13	10-618/13-104	87	143
			426/36977	5300/11660	1.33	355/30814	5300/11660	1.41	10-619/13-104	89	145

*Please select models in the shaded column when a load factor of 1.0 is required as shown on page 8.

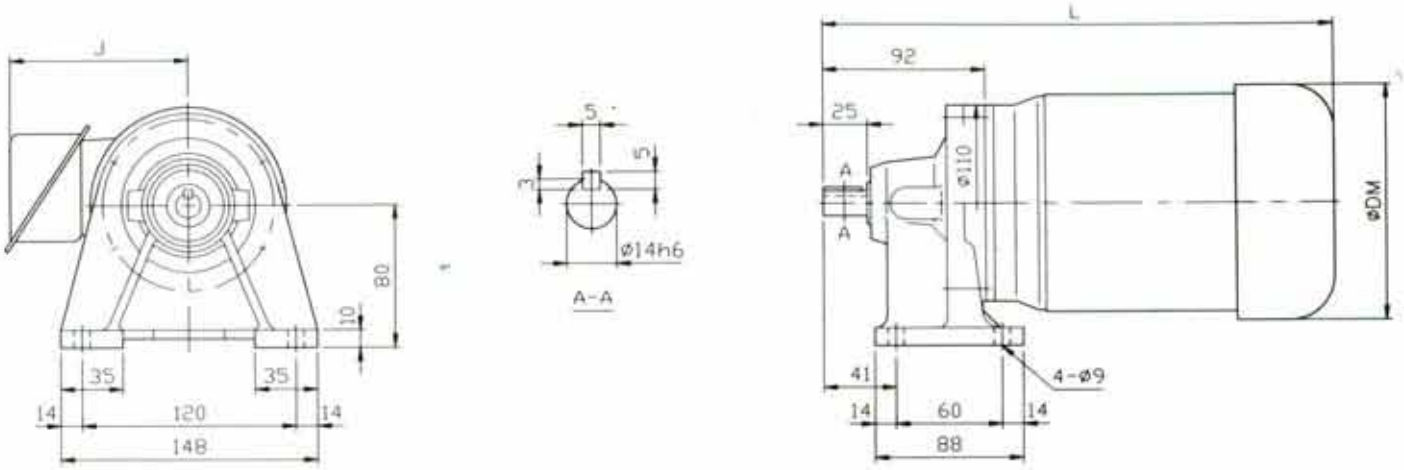
*When S.F. marked as < 1, overload may occur if the motor is loaded to its full KW (HP) capacity, in which case it must be used within the values stipulated in the output torque column.

Ratio	Frequency	Motor Input Speed	Reducer Output Speed
119	50 Hz	1500 R.P.M.	13 R.P.M.
	60 Hz	1800 R.P.M.	15 R.P.M.

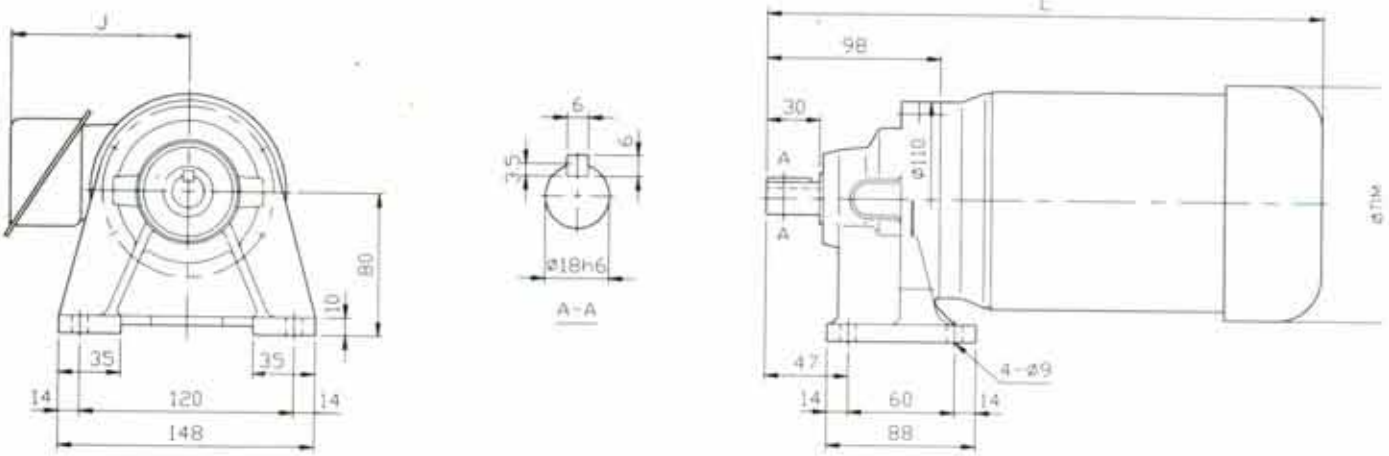
MOTOR			50Hz			60Hz			BROOKSCYCLO MODEL	Dimension page	
KW	HP	SYMBOL	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.	Output Torgue kg·m/in·lb	Allowable Output Shaft Overhung load kg/lb	S.F.		H	V
0.2	1/4	02	14.6/1267	550/1210	1.25	12.2/1059	550/1210	1.20	02-610-119	51	107

DIMENSION DRAWINGS For Single Stage Reduction, Horizontal BROOKSCYCLO Gearmotor

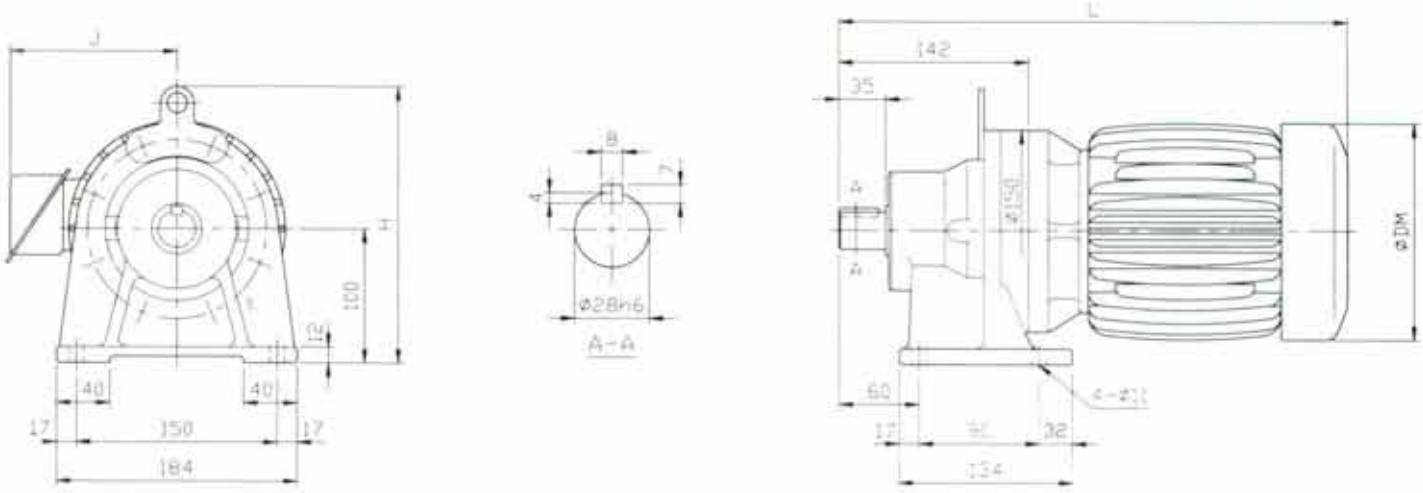
THM-607



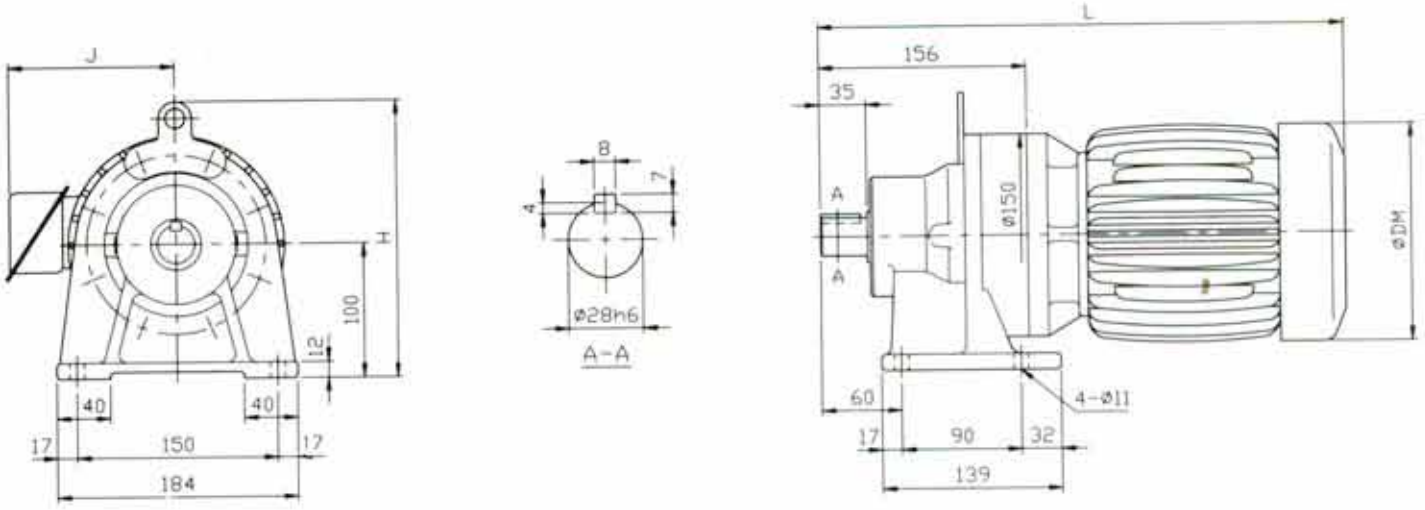
THM-608



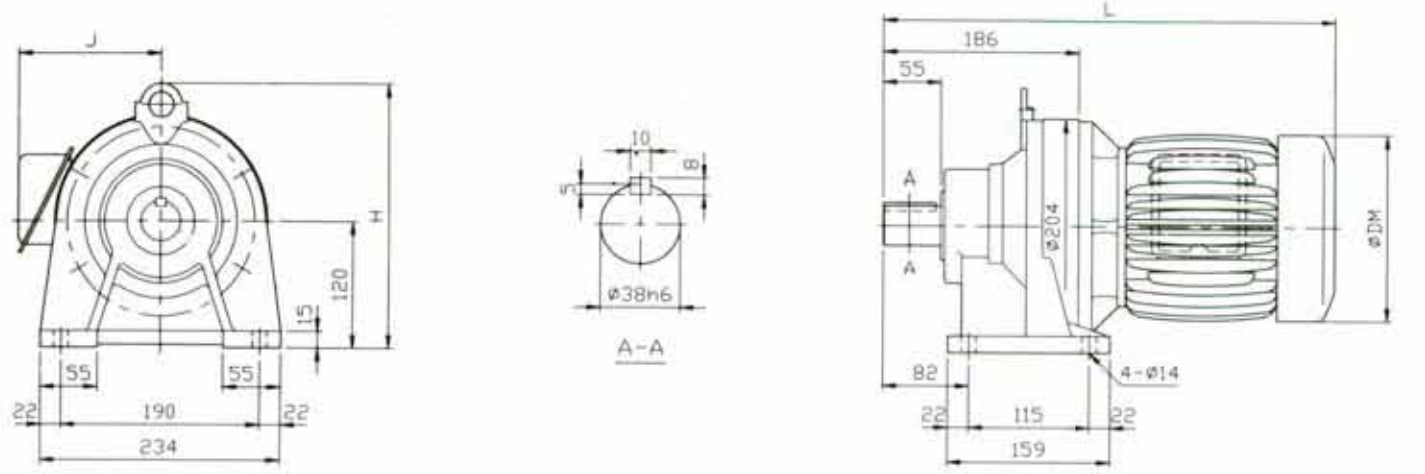
THM-609



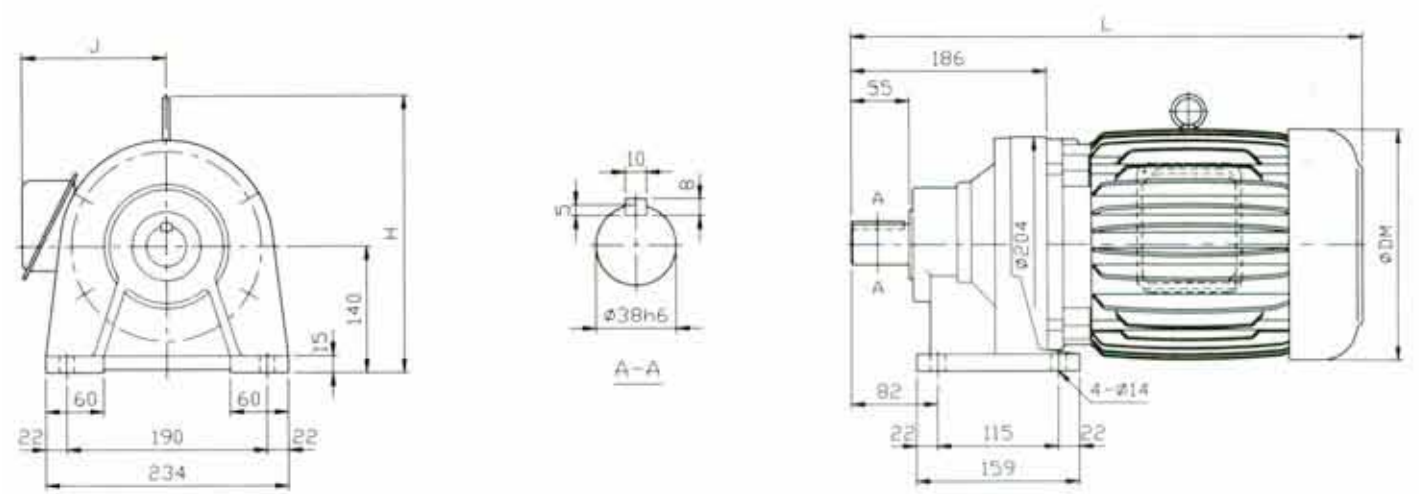
THM-610



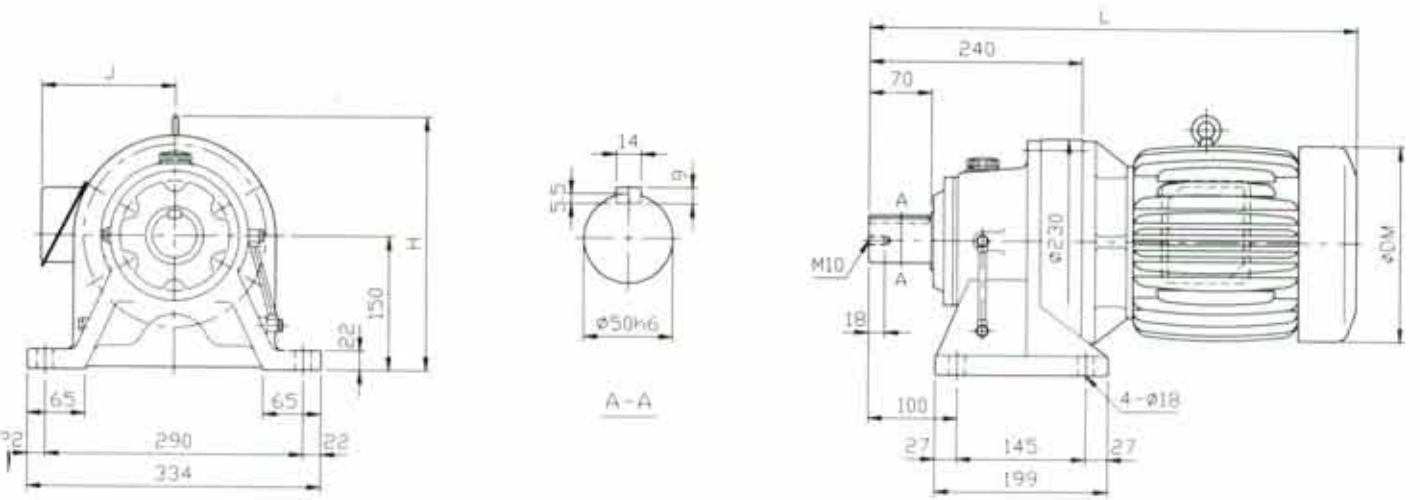
THM-611



THM-612



THHM-613



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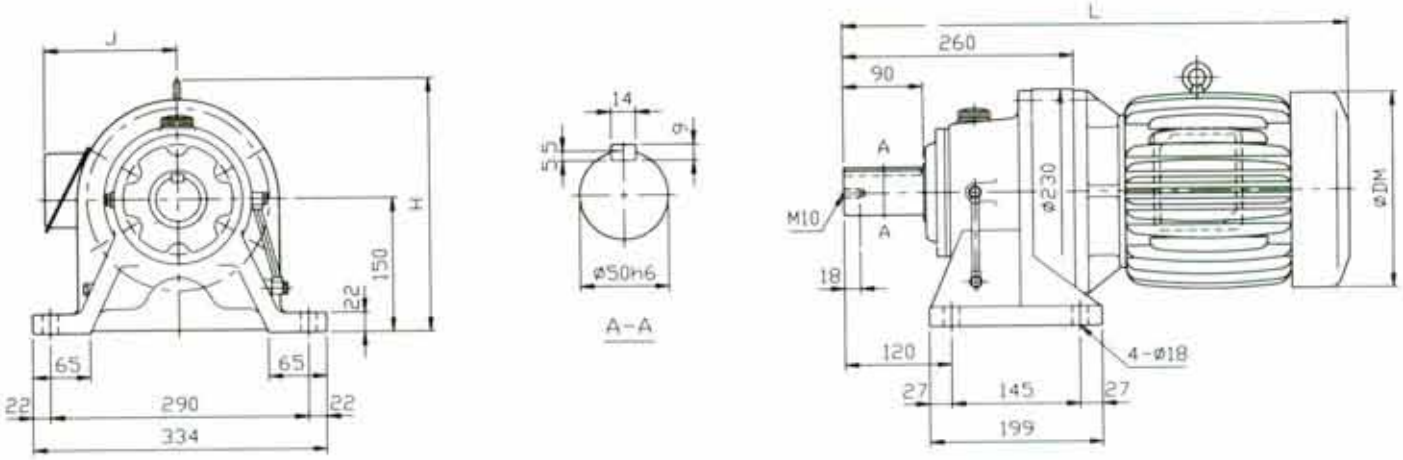

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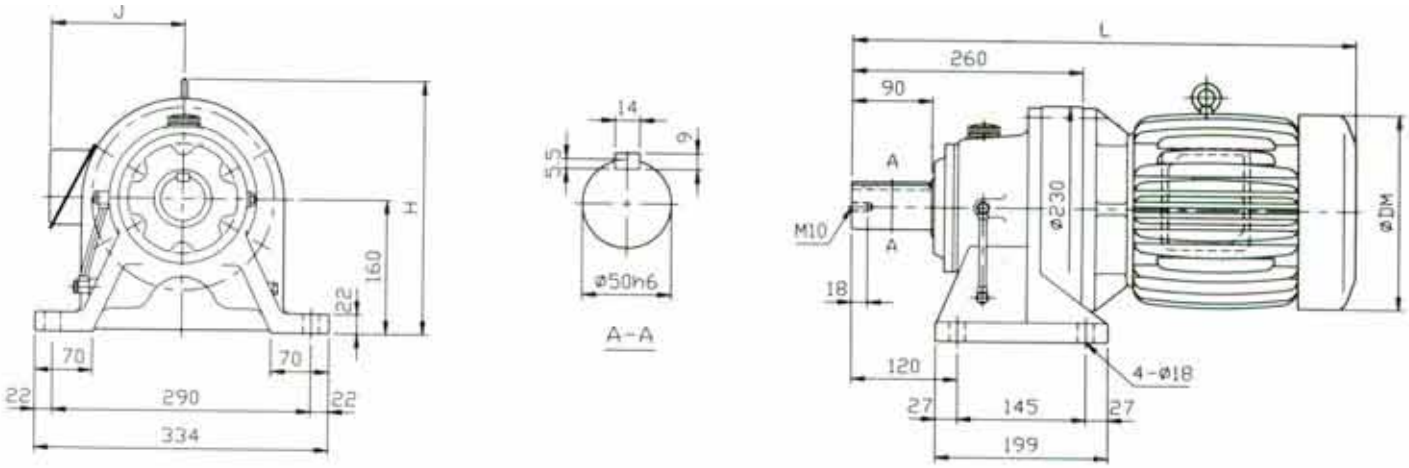

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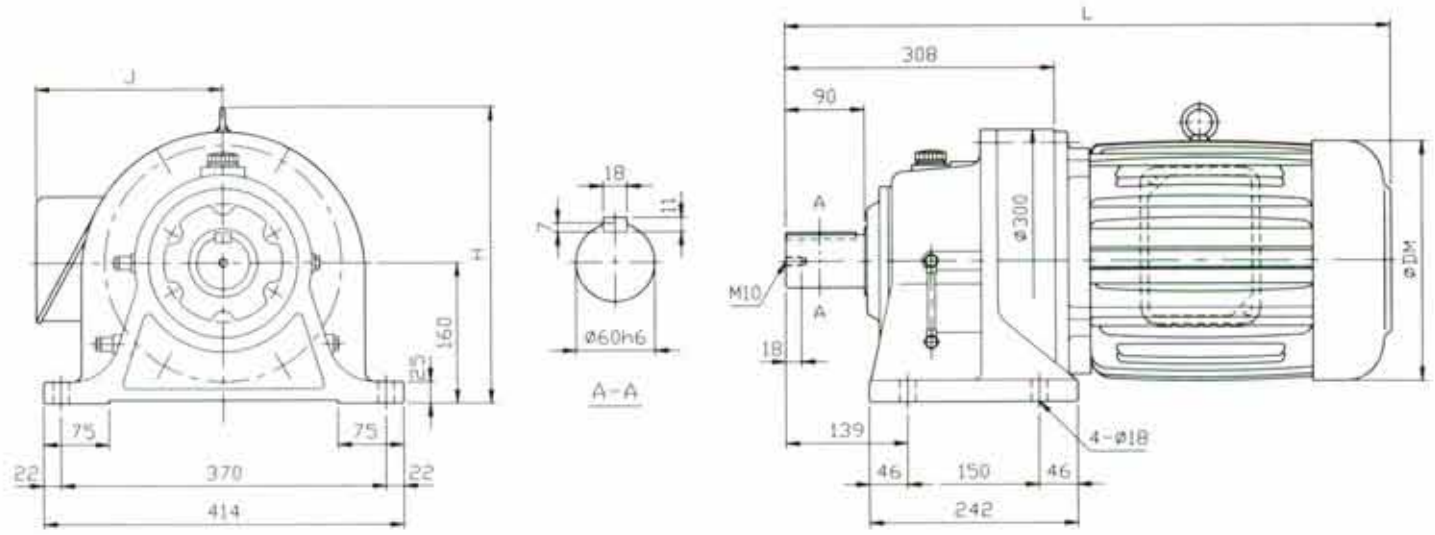

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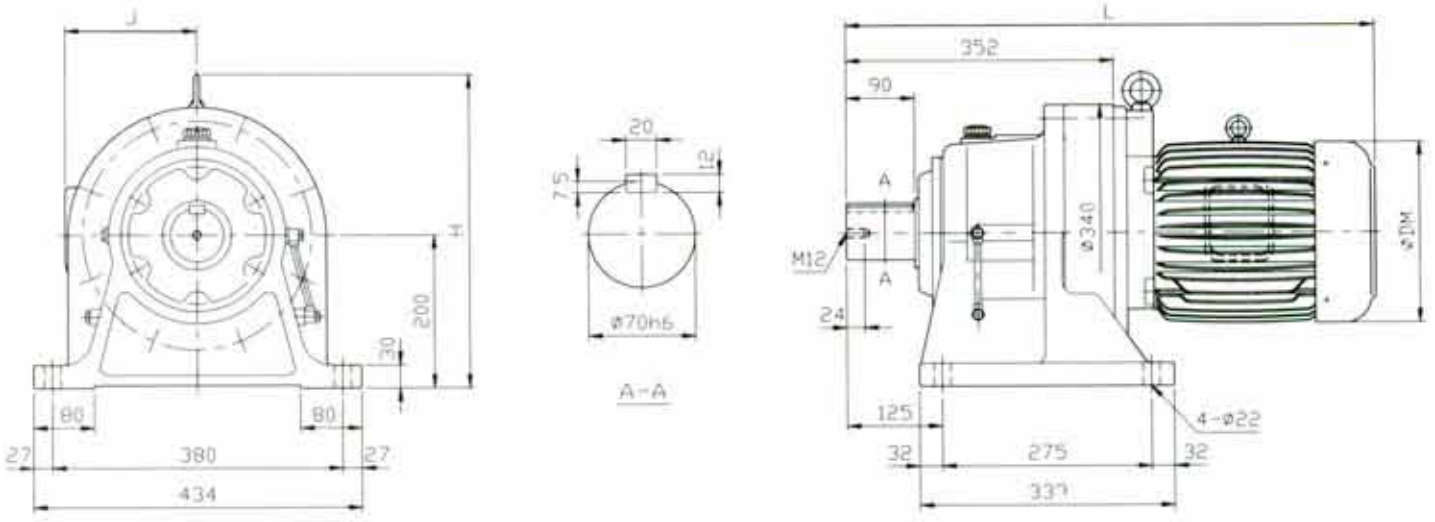
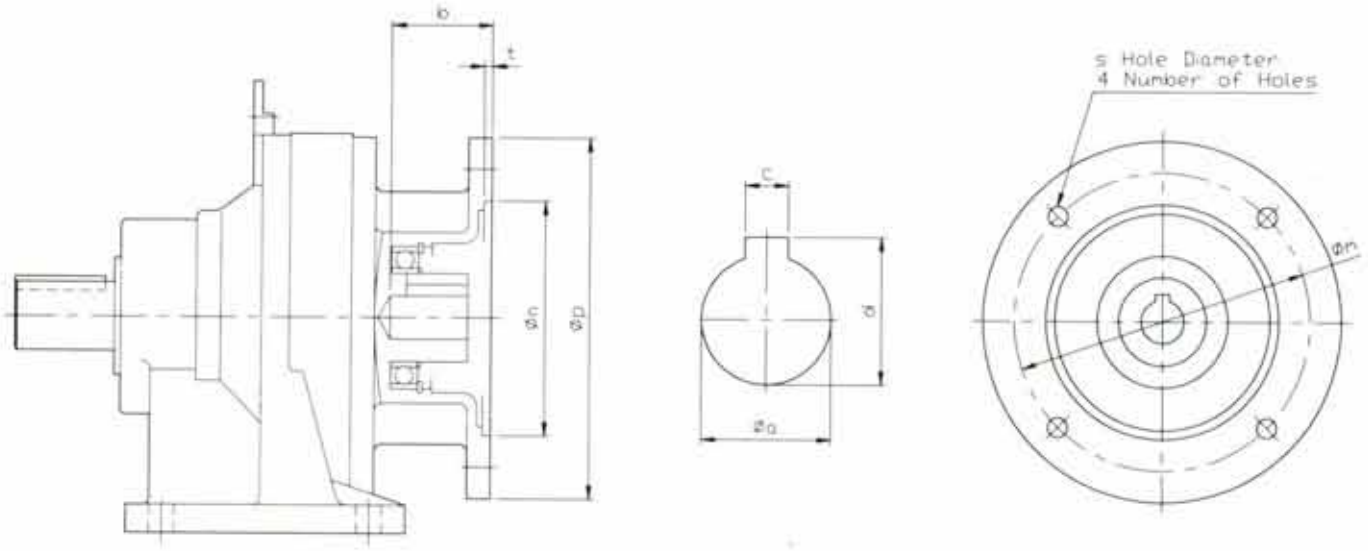


DIMENSION OF T□□X-6□□(IEC/NEMA INPUT HOLLOW SHAFT ADAPTERS)



For IEC Motor(m/m)

Frame No.	m	n	p	t	s	a	b	c	d
63	130	110	160	4.5	9	11	23	4	12.8
71	130	110	160	4.5	9	14	30	5	16.3
80	165	130	200	4.5	11	19	40	6	21.8
90L	165	130	200	4.5	11	24	50	8	27.3
110L,112M	215	180	250	5	14	28	60	8	31.3
132S,132M	265	230	250	5	14	38	80	10	41.3
160M,160L	300	250	350	6	18	42	110	12	45.3

For NEM Motor(in)

Frame No.	m	n	p	t	s	a	KEYWAY
56C	5.88	4.50	6.69	0.20	0.43	$0.625 \pm \frac{0.0007}{0.0000}$	3/16x3/32
143-145TC	5.88	4.50	6.69	0.20	0.43	$0.875 \pm \frac{0.0008}{0.0000}$	3/16x3/32

JOHN BROOKS LTD.

YOUR POWER CONNECTION

BROOKS DRIVE WORM GEARBOX

FCNK□-□E

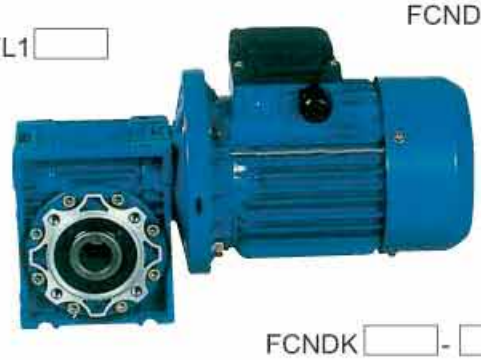
FCNK□-□

FCNDK□-□□

FCNDK□-□E□

FCNDKO□-□FL1□

FCNDKO□-□F1□



FCNDK□-□□

FCNK 系列蝸輪減速機
FCNK Series Worm Gear Speed Reducer

一、概述

FCNK 系列蝸輪減速機是我廠在引進國外技術的基礎上開發的新一代產品。FCNK 主要特點如下：

1.優質鋁合金鑄造，重量輕，不生銹；

2.輸出扭矩大；

3.傳動平穩，噪音小；

4.散熱性能好；

5.美觀耐用，體積小；

6.可適用全方位安裝。

一、Summary

FCNK series worm gear speed reducer is a new-generation of products developed by our factory on the basis of introducing foreign advanced technology, its main features are as follows:

1.Made of high-quality aluminium alloy, light weight and non-rusting.

2.Large output torque.

3.Smooth running and low noise.

4.High radiating efficiency.

5.Good-looking appearance, durable service life and small volume.

6.Suitable for omnibearing installation.

型號說明：
Explanation

FCNDK 063 - 40 E F1 SZ 71B5

- 71B5 — 電機機座號和安裝結構型式 Motor mounting facility
- SZ — 帶雙向輸出軸，標注“DZ”爲帶單向輸出軸，不標注時爲孔輸出 Two-way shaft output, “DZ” mark means one-way shaft output,and no mark means hole output
- F1 — 帶輸出法蘭，不標注時爲不帶輸出法蘭 With output flange, no mark means without output flange
- E — 帶蝸杆同向輸入軸，不標注時不帶蝸杆同向輸入軸 Double extension worm shaft, no make means single extension worm shaft
- 40 — 速比 Ratio
- 063 — 中心距 Centre distance
- FCNDK — 代號 Code
  FCNDK 爲帶輸入法蘭，FCNK 爲不帶輸入法蘭
  FCNDK mark means with input flange, FCNK mark means without input flange

二、使用與保障
Operation and maintenance

1.蝸輪減速機開始運行 400 小時，應重新更換潤滑油。以后的換油周期約爲 4000 小時。出廠時已加 N460 蝸輪、蝸杆潤滑油。

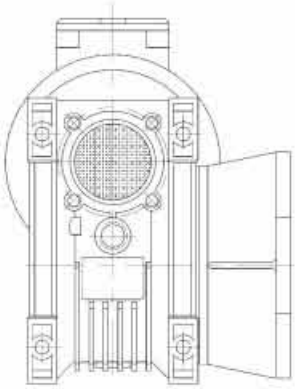
2.箱體内應保留足够的潤滑油，并定時檢查。

1. When Worm-gear speed reducer starts to work up to 400 hours, its lubrication oil should be replaced, After that, the cycle of oil replacement is about 4,000 hours. It is full filled with N460 worm gear lubrication oil when the products leave the factory.

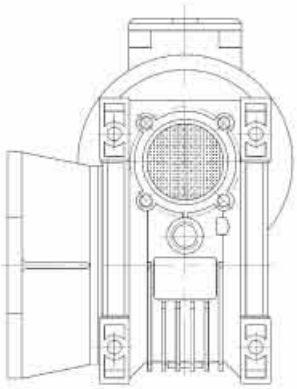
2.Lubricating oil should be kept enough in the casing and checked at a fixed time.

輸出法蘭位置 Position diagram for output flange

F1,FL1,FB1

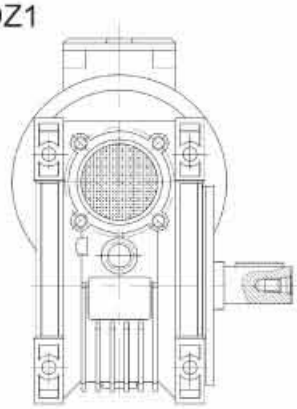


F2,FL2,FB2

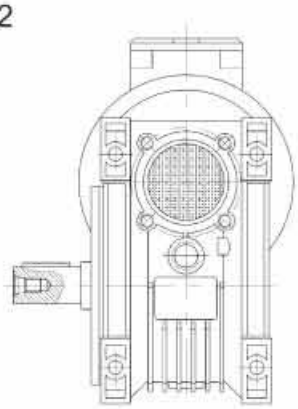


單向輸出軸位置圖 Position diagram for one-way output shaft

DZ1



DZ2



型號 Size	025	030	040	050	063	075	090	110	130
潤滑用油（公升） Q.ty of oil in litres	0.02	0.04	0.08	0.15	0.3	0.55	1	3	4.5

三、蝸輪減速機性能參數
Performance parameter for worm gear speed reducer

入功率 (kw)	型號 Size	i	n_2 (r/min)	M_2 (N·m)
0.06kw 4P n_1=1400r/min	025	7.5	186	2.6
	030	7.5	186	2.6
	025	10	140	3.4
	030	10	140	3.4
	025	15	94	4.9
	030	15	94	4.7
	025	20	70	6.1
	030	20	70	6
	030	25	56	7
	025	30	47	8.2
	030	30	47	8
	025	40	35	10.2
	030	40	35	9.7
	025	50	28	11
	030	50	28	11.3
	040	50	28	12.7
	025	60	24	11
	030	60	24	12.5
	040	60	24	14.2
	030	80	18	12.5
	040	80	18	17
	040	100	14	19.2
0.09kw 4P n_1=1400r/min	025	7.5	186	3.9
	030	7.5	186	3.9
	025	10	140	5.1
	030	10	140	5
	025	15	94	7.3
	030	15	94	7.1
	025	20	70	9.2
	030	20	70	9
	030	25	56	10.4
	025	30	47	12.3
	030	30	47	12
	025	40	35	13
	030	40	35	14.5
	030	50	28	16.9
	040	50	28	19
	030	60	24	16.9
	040	60	24	21.4
	040	80	18	25.5
	040	100	14	28.9
0.12kw 4P n_1=1400r/min	030	7.5	186	5.2
	040	7.5	186	5.3
	030	10	140	6.7
	040	10	140	7
	030	15	94	9.5
	040	15	94	10.1
	030	20	70	12
	040	20	70	12.8
	030	25	56	13.9
	040	25	56	15.3
	030	30	47	16
	040	30	47	17.2
	030	40	35	17
	040	40	35	21.3
	050	40	35	21.9
	040	50	28	25.4
	050	50	28	25.8
	040	60	24	28.5

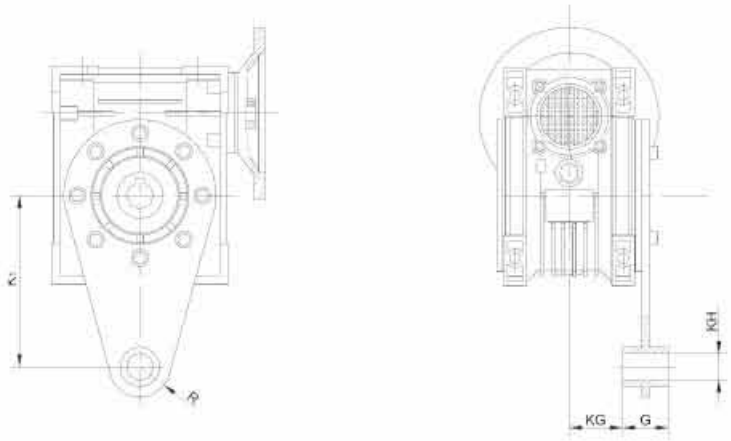
入功率 (kw)	型號 Size	i	n_2 (r/min)	M_2 (N·m)
0.12kw 4P n_1=1400r/min	050	60	24	29
	040	80	18	34.1
	050	80	18	34.7
	050	100	14	40.1
0.18kw 4P n_1=1400r/min	030	7.5	186	8
	040	7.5	186	8
	030	10	140	10
	040	10	140	10
	030	15	94	14
	040	15	94	15
	030	20	70	18
	040	20	70	19
	030	25	56	20
	040	25	56	23
	040	30	47	26
	050	40	35	32
	040	40	35	32
	050	50	28	38
	050	50	28	38
	050	60	24	34
	050	80	18	53
	050	100	14	55
0.25kw 4P n_1=1400r/min	040	7.5	186	11
	050	7.5	186	11
	040	10	140	14
	050	10	140	14
	040	15	94	20
	050	15	94	21
	040	20	70	26
	050	20	70	26
	040	25	56	31
	050	25	56	32
	040	30	47	36
	050	30	47	36
	040	40	35	44
	050	40	35	45
	050	50	28	53
	050	60	24	60
	050	80	18	65
	063	80	18	77
	050	100	14	55
	063	100	14	85
0.37kw 4P n_1=1400r/min	040	7.5	186	16
	050	7.5	186	16
	040	10	140	21
	050	10	140	21
	040	15	94	30
	050	15	94	31
	040	20	70	39
	050	20	70	39
	050	25	56	47
	050	30	47	54
	050	40	35	66
	063	40	35	70
	050	50	28	73
	063	50	28	83
	063	60	24	95
	063	80	18	114
	063	100	14	118

三、蝸輪減速機性能參數
Performance parameter for worm gear speed reducer

入功率 (kw)	型號 Size	i	n_2 (r/min)	M_2 (N·m)
0.55kw 4P n_1=1400r/min	040	7.5	186	24.5
	050	7.5	186	25
	040	10	140	32
	050	10	140	32
	050	15	94	46
	063	15	94	46
	050	20	70	59
	063	20	70	60
	063	25	56	72
	063	30	47	80
	063	40	35	104
	075	40	35	108
	063	50	28	123
	075	50	28	129
	075	60	24	146
	075	80	18	180
	075	100	14	180
0.75kw 4P n_1=1400r/min	050	7.5	186	34
	063	7.5	186	33
	050	10	140	44
	063	10	140	44
	050	15	94	63
	063	15	94	63
	063	20	70	82
	063	25	56	99
	063	30	47	109
	075	30	47	116
	063	40	35	143
	075	40	35	147
	075	50	28	176
	090	50	28	184
	075	60	24	200
	090	60	24	212
	090	80	18	257
	090	100	14	270
1.1kw 4P n_1=1400r/min	063	7.5	186	49
	075	7.5	186	49
	063	10	140	65
	075	10	140	66
	063	15	94	93
	075	15	94	95
	063	20	70	121
	075	20	70	122
	075	25	56	149
	075	30	47	170
	075	40	35	216
	090	40	35	225
	090	50	28	271
	090	60	24	311
	110	60	24	324
	110	80	18	410
	110	100	14	460
1.5kw 4P n_1=1400r/min	075	7.5	186	67
	075	10	140	90
	063	15	94	130
	075	20	70	167
	075	25	56	200
	090	25	56	209
	075	30	47	230
	090	30	47	236
	090	40	35	306

入功率 (kw)	型號 Size	i	n_2 (r/min)	M_2 (N·m)
1.5kw 4P n_1=1400r/min	090	50	28	369
	110	50	28	375
	110	60	24	442
	110	80	18	490
	130	80	18	547
	130	100	14	652
2.2kw 4P n_1=1400r/min	090	7.5	186	101
	110	7.5	186	101
	090	10	140	133
	110	10	140	133
	090	15	94	193
	110	15	94	192
	090	20	70	251
	110	20	70	256
	090	25	56	307
	110	25	56	316
	090	30	47	346
	110	30	47	355
	110	40	35	462
	110	50	28	550
	130	50	28	567
	130	60	24	660
	130	80	18	803
3.0kw 4P n_1=1400r/min	110	7.5	186	138
	110	10	140	182
	110	15	94	253
	110	20	70	350
	110	25	56	431
	110	30	47	484
	110	40	35	631
	130	40	35	642
	130	50	28	773
	130	60	24	900
4.0kw 4P n_1=1400r/min	110	7.5	186	184
	130	7.5	186	186
	110	10	140	243
	130	10	140	242
	110	15	94	352
	130	15	94	357
	110	20	70	464
	130	20	70	466
	110	25	56	573
	130	25	56	572
	110	30	47	646
	130	30	47	655
	130	40	35	857
	130	50	28	980
5.5kw 4P n_1=1400r/min	110	7.5	186	253
	130	7.5	186	256
	110	10	140	334
	130	10	140	334
	110	15	94	484
	130	15	94	490
	130	20	70	645
	130	25	56	788
	130	30	47	900
7.5kw 4P n_1=1400r/min	110	7.5	186	345
	130	7.5	186	349
	110	10	140	455
	130	10	140	455
	130	15	94	667
	130	20	70	880
	130	25	56	1074

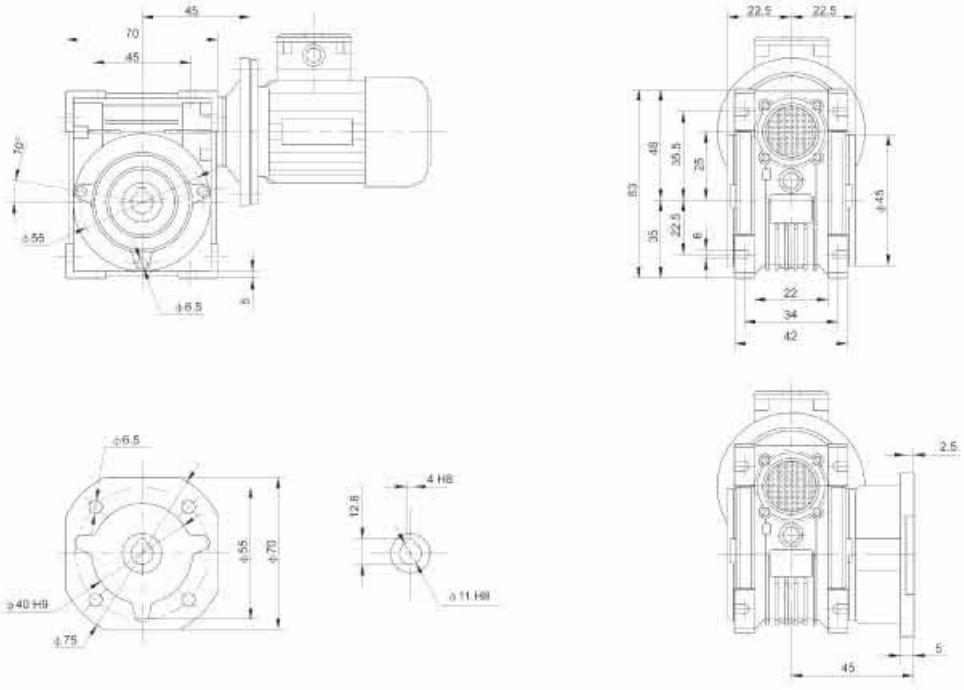
扭力臂
Torque Arm



型號 Size	K	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

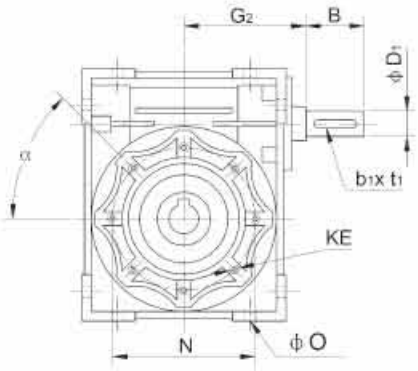
025 和 030 無防震套
The anti-vibration bushing is not fitted on sizes 025 and 030.

025 型蝸輪減速機外形及安裝尺寸
Outline & Installation Size for Type 025 Worm Gear Speed Reducer

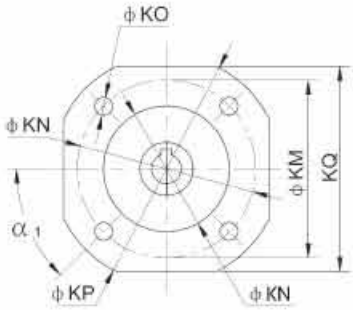


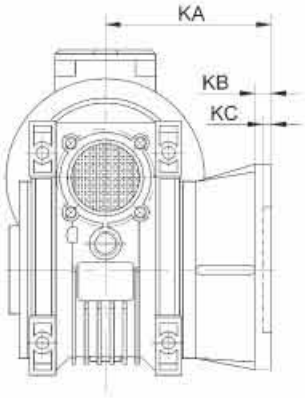
030~130 型蝸輪減速機外形及安裝尺寸
Outline & Installation Size for Type 030~130 Worm Gear Speed Reducer

FCNK

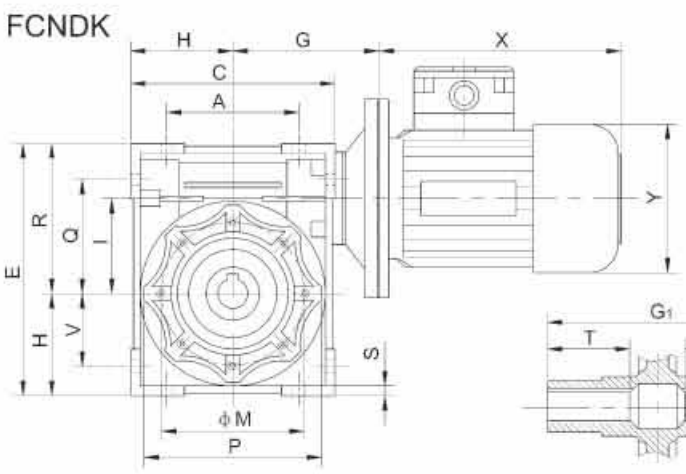


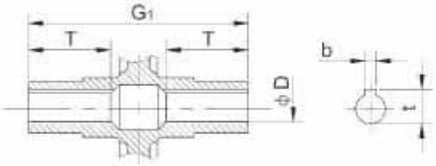
FCNDKO

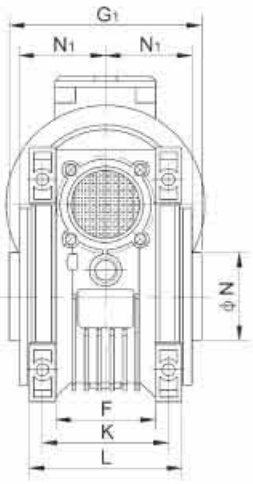




FCNDK





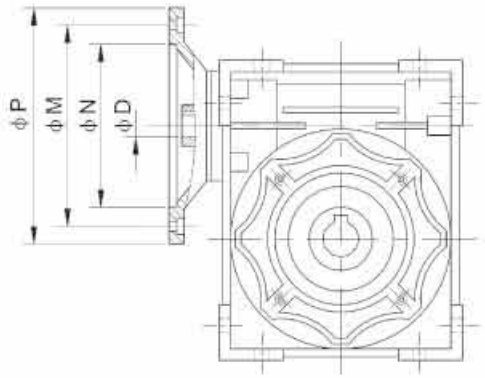


Size	A	B	C	D (H7)	D_1(J6)	E	F	G	G_1	G_2	H	I	L	M	N (h8)	N_1	O	P	Q	R
030	54	20	80	14	9	97	32	55	63	51	40	30	56	65	55	29	6.5	75	44	57
040	70	23	100	18(19)	11	121.5	43	70	78	60	50	40	71	75	60	36.5	6.5	87	55	71.5
050	80	30	120	25(24)	14	144	49	80	92	74	60	50	85	85	70	43.5	8.5	100	64	84
063	100	40	144	25(28)	19	174	67	95	112	90	72	63	103	95	80	53	8.5	110	80	102
075	120	50	172	28(35)	24	205	72	112.5	120	105	86	75	112	115	95	57	11	140	93	119
090	140	50	208	35(38)	24	238	74	129.5	140	125	103	90	130	130	110	67	13	160	102	135
110	170	60	252.5	42	28	295	-	160	155	142	127.5	110	144	165	130	74	14	200	125	167.5
130	200	80	292.5	45	30	335	-	180	170	162	147.5	130	155	215	180	81	16	250	140	187.5

Size	S	T	V	K	KA			KB			KC			KE	Ω	α_1	KM			KN (H8)			KO			KP			KQ			b	b_1	f	l	l_1	kg
					F	FB	FL	F	FB	FL	F	FB	FL				F	FB	FL	F	FB	FL	F	FB	FL	F	FB	FL	F	FB	FL						
030	5.5	21	27	44	54.5	-	-	6	-	-	4	-	-	M6X11(n:4)	0°	45°	68	-	-	50	-	-	6.5(n,4)	-	-	80	-	-	70	-	-	5	3	-	16.3	10.2	1.2
040	6.5	26	35	60	67	76.5	97	7	9	7	4	5	4	M6X8(n:4)	45°	45°	87	115	87	60	95	60	9(n,4)	9.5(n,4)	9(n,4)	110	140	110	95	-	95	6(6)	4	-	20.8(21.8)	12.5	2.3
050	7	30	40	70	90	87.5	120	9	10	9	5	5	5	M8X10(n:4)	45°	45°	90	130	90	70	110	70	11(n,4)	9.5(n,4)	11(n,4)	125	160	125	110	-	110	8(8)	5	M6	28.3(27.3)	16.0	3.5
063	8	36	50	85	82	99	112	10	11	10	6	5	6	M8X14(n:6)	45°	45°	150	165	150	115	130	115	11(n,4)	11(n,4)	11(n,4)	180	200	180	142	-	142	8(8)	6	M6	28.3(31.3)	21.5	6.2
075	10	40	60	90	111	-	-	13	-	-	6	-	-	M8X14(n:4)	45°	45°	165	-	-	130	-	-	14(n,4)	-	-	200	-	-	170	-	-	8(10)	8	M8	31.3(36.3)	27.0	9
090	11	45	70	100	111	-	-	13	-	-	6	-	-	M10X18(n:4)	45°	45°	175	-	-	152	-	-	14(n,4)	-	-	210	-	-	200	-	-	10(10)	8	M8	38.3(41.3)	27.0	13
110	14	50	85	115	131	-	-	15	-	-	6	-	-	M10X18(n:4)	45°	45°	230	-	-	170	-	-	14(n,8)	-	-	280	-	-	260	-	-	12	8	M10	45.3	31.0	35
130	15	60	100	120	140	-	-	15	-	-	6	-	-	M12X21(n:4)	45°	22.5°	255	-	-	180	-	-	16(n,8)	-	-	320	-	-	290	-	-	14	8	M10	48.8	33.0	48

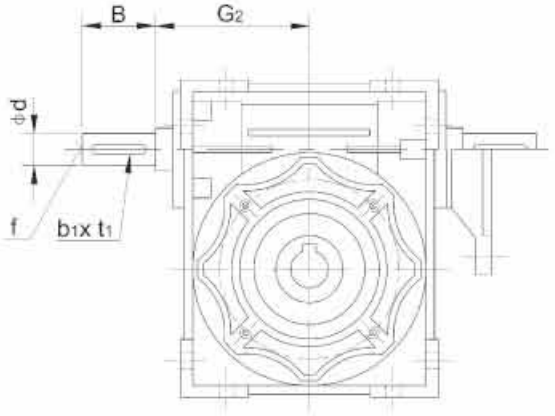
電機直聯尺寸(D)
Motor Mounting Facility

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



蝸杆同向輸入軸尺寸(E)
Double Worm Shaft

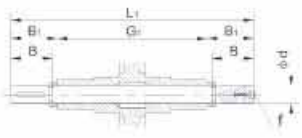
Size	G_2	d (j6)	B	f	b_1	t_1
030	45	9	20	-	3	10.2
040	53	11	23	-	4	12.5
050	64	14	30	M6	5	16
063	75	19	40	M6	6	21.5
075	90	24	50	M8	8	27
090	108	24	50	M8	8	27
110	135	28	60	M10	8	31
130	156	30	80	M10	8	33



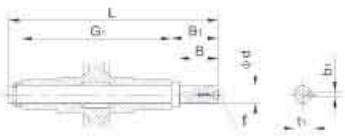
單向(DZ)、雙向(SZ)輸出軸尺寸
Sizes of Single(DZ) & Double(SZ) Output shaft

Size	d (h6)	B	B_1	G_1	L	L_1	f	b_1	t_1
025	11	23	25.5	50	81	101	-	4	12.5
030	14	30	32.5	63	102	128	M6	5	16
040	18	40	43	78	128	164	M6	6	20.5
050	25	50	53.5	92	153	199	M10	8	28
063	25	50	53.5	112	173	219	M10	8	28
075	28	60	63.5	120	192	247	M10	8	31
090	35	80	84.5	140	234	309	M12	10	38
110	42	80	84.5	155	249	324	M16	12	45
130	45	80	85	170	265	340	M16	14	48.5

SZ



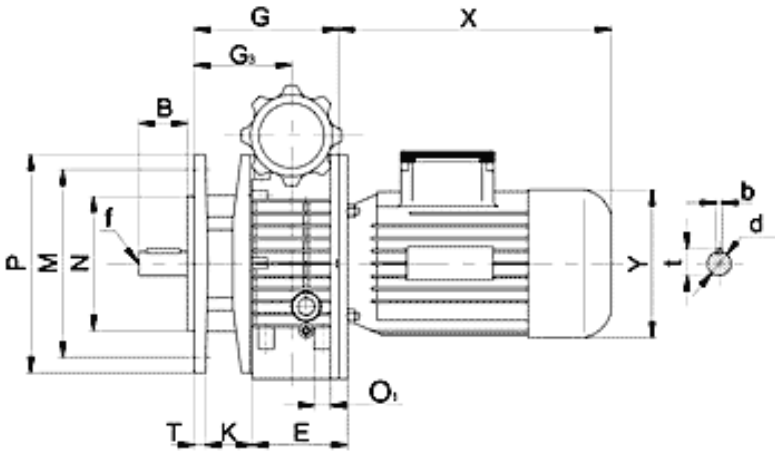
DZ



JOHN BROOKS LTD.

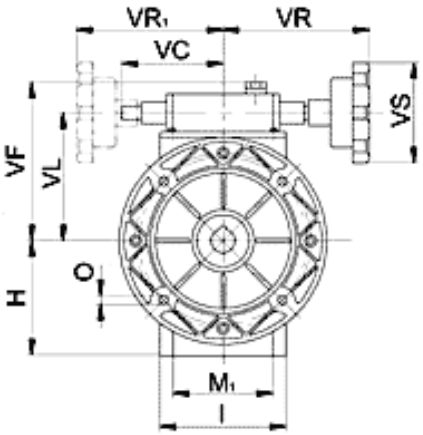
YOUR POWER CONNECTION

MECHANICAL VARIATOR UDL



UDL B5

INPUT SPEED 1400 RPM
OUTPUT SPEED RANGE 1000 - 190 RPM
OUTPUT TORQUE 1 - 2



Type & Kw Rating	B	d(j6)	E	G	G_3	H	I	M	M_1	N	D	D_1	P
UDL0.18B5	23	11	50	112.5	64.5	70	72	115	60	95	9	M6	140
UDL0.37B5	30	14	40	110	74	80	90	130	77	110	9	M8	160
UDL0.75B5	40	19	58	139	85.5	100	98	165	84	130	11	M8	200
UD1.1B5	40	24	-	147	95	98	207	165	-	130	11	-	200
UD1.5B5	50	24	-	188	115	126	241	165	-	130	11	-	200
UD2.2B5	60	30	-	208	131	150	270	265	-	230	15	-	300
UD3.0B5	60	30	-	208	131	150	270	265	-	230	15	-	300
UD4.0B5	60	30	-	208	131	150	270	265	-	230	15	-	300
UD5.5B5	70	35	-	244	131	200	-	300	-	250	19	-	350
UD7.5B5	70	35	-	244	131	200	-	300	-	250	19	-	350

Type & Kw Rating	T	K	VC	VF	VL	VR	VR_1	VS	b	f	t	x	y
UDL0.18B5	3.5	46	71	111	78	110	110	85	4	-	12.5	200	120
UDL0.37B5	3.5	53	71	123	90	110	110	85	5	M6	16	227	141
UDL0.75B5	3.5	60	79	140	107	120	120	110	6	M6	21.5	268	160
UD1.1B5	3.5	-	-	124	102	150	-	110	8	M8	27	265	195
UD1.5B5	3.5	-	-	144	122	150	-	110	8	M8	27	290	195
UD2.2B5	4	-	-	188	150	160	-	110	8	M8	33	320	215
UD3.0B5	4	-	-	188	150	160	-	110	8	M8	33	320	215
UD4.0B5	4	-	-	188	150	160	-	110	8	M8	33	340	240
UD5.5B5	5	-	-	-	192	194	-	110	10	M10	38	395	275
UD7.5B5	5	-	-	-	192	194	-	110	10	M10	38	435	275

JOHN BROOKS LTD.

YOUR POWER CONNECTION

SFK WORM GEARBOX

SFK
BFK

RIDUTTORI A VITE SENZA FINE
WORM GEARBOXES
SCHNECKENGETRIEBE

TBIED09KSF

Caratteristiche

I nuovi riduttori della serie a vite senza fine SFK - SRK si presentano estremamente leggeri grazie alla forma compatta. La serie presenta una svariata possibilità di versioni, con e senza piedi e con numerosi accessori che la rendono più versatile nell'impiego delle più svariate tipologie di applicazioni.
La vite senza fine è in acciaio legato cementato-temprato ed è rettificata. La corona ha mozzo in ghisa con riporto di fusione in bronzo.

Characteristics

The new SFK - SRK worm gearboxes are extremely light thanks to the compact shape of the housing. This series features a wide range of versions, with and without feet, with numerous accessories which make it extremely versatile for utilization in various applications.
The worm shaft is ground and is made of hardened-casehardened compound steel.
The worm wheel features a cast iron hub with bronze casting.

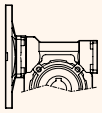
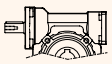
Merkmale

Die neuen Schneckengetriebe der SFK - SRK Serie sind äußerst leicht dank der kompakten Form des Gehäuses. Die Serie bietet verschiedene Versionen mit und ohne Füße sowie zahlreiche Zubehörteile an, was zur vielseitigen Anwendbarkeit der Getriebe in vielerlei Applikationen dient.
Die Schneckenwelle ist aus legierten gehärteten Einsatzstahl und ist geschliffen.
Die Zahnkranz verfügt über eine Nabe aus Gusseisen mit Schmelzeneinsatz aus Bronze.

Designazione

Designation

Bezeichnung

Macchina *Machine* Maschine	Grandezza *Size* Größe	Versione *Version* *Version*	Rapporto rid. *Ratio* Untersetzung	Predispos.att. mot. *Motor mounting facility* Motoranbau	Posizione di mont. *Mounting position* Anbauposition	Limitatore di coppia *Torque limiter* Drehmomentbegrenzer	Seconda entrata *Additional input* Zusatzantrieb
SFK	**50**	**F 1 S**	**10**	**80 B14**	**B3**	**LD**	**S.e.A.**
SFK 	30 40 50 63 75	A B V P FD FS F2 F1D F1S F12 F2D F2S F22 F3D F3S F22	7.5 10 40 15 50 20 65 25 80 30 100	56 ÷ 112 B5 56 ÷ 112 B14	B3 B6 B7 B8 V5 V6	LD LS	S.e.A.
SRK 							

Lubrificazione

Lubrication

Schmierung

Riduttori a vite senza fine SFK - SRK sono forniti tutti e sempre completi di lubrificante sintetico a base PAG con classe di viscosità ISO 320.

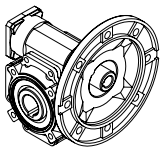
SFK - SRK worm gearboxes are supplied with PAG synthetic lubricant featuring an ISO 320 viscosity class.

SFK - SRK Schneckengetriebe werden mit PAG synthetischen Schmierstoff Viskositätsklasse ISO 320 geliefert.

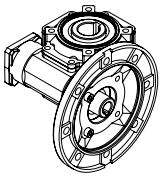
Posizioni di montaggio

Mounting positions

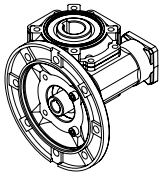
Einbaulagen



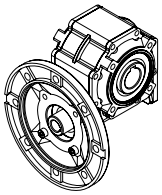
B3



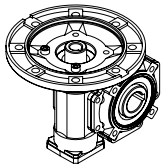
B6



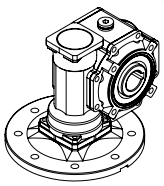
B7



B8



V5

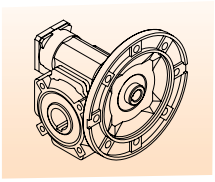


V6

Quantità di lubrificante (litri)

Lubricant quantity (liters)

Schmiermittelmenge (Liter)



SFK SRK	B3	B6-B7	B8	V5-V6
30	0.015			
40	0.040			
50	0.080			
63	0.160			
75	0.260			

Dati tecnici — *Technical data* — Technische Daten

SFK SRK 30 — Kg 1.2

n_1=1400 min^{-1} in	n_2 [min^{-1}]	T_2 [Nm]	P1 [kW]	FS	Fr_2 [N]	IEC	T_{2M} [Nm]	P [kW]	Rd
7.5	187	9	0.22	2.2	750	63 56	21	0.49	0.84
10	140	12	0.22	1.8	800		22	0.40	0.82
15	93	17	0.22	1.3	850		22	0.28	0.77
20	70	18	0.18	1.1	900		19	0.19	0.72
25	56	15	0.13	1.1	950		21	0.18	0.69
30	47	18	0.13	1.4	1000		20	0.15	0.66
40	35	14	0.09	1.4	1050		21	0.13	0.59
50	28	17	0.09	1.1	1100		19	0.10	0.55
65	22	14	0.06	1.3	1250	56	20	0.09	0.51
80	18	16	0.06	1.1	1350		17	0.06	0.48
100	14	18	0.06	0.8	1500		14	0.05	0.45

SFK SRK 40 — Kg 2.0

n_1=1400 min^{-1} in	n_2 [min^{-1}]	T_2 [Nm]	P1 [kW]	FS	Fr_2 [N]	IEC	T_{2M} [Nm]	P [kW]	Rd
7.5	187	24	0.55	1.7	1500	71 63	40	0.92	0.85
10	140	31	0.55	1.3	1600		41	0.73	0.83
15	93	30	0.37	1.4	1700		42	0.52	0.79
20	70	38	0.37	1.0	1800		40	0.39	0.76
25	56	31	0.25	1.1	1900		35	0.29	0.72
30	47	35	0.25	1.3	2000		41	0.29	0.68
40	35	38	0.22	1.1	2100		38	0.22	0.64
50	28	36	0.18	1.0	2200	63 56	38	0.19	0.59
65	22	31	0.13	1.1	2500		35	0.15	0.54
80	18	31	0.11	1.1	2700		33	0.12	0.52
100	14	30	0.09	0.9	3000		28	0.08	0.49

SFK SRK 50 — Kg 3.4

n_1=1400 min^{-1} in	n_2 [min^{-1}]	T_2 [Nm]	P1 [kW]	FS	Fr_2 [N]	IEC	T_{2M} [Nm]	P [kW]	Rd
7.5	187	40	0.9	1.8	1650	80 71	70	1.6	0.86
10	140	52	0.9	1.4	1800		73	1.3	0.84
15	93	61	0.75	1.2	1950		74	0.90	0.80
20	70	59	0.55	1.3	2200		75	0.71	0.78
25	56	47	0.37	1.4	2400		65	0.51	0.74
30	47	54	0.37	1.5	2600		66	0.46	0.71
40	35	68	0.37	1.2	2850		69	0.38	0.67
50	28	53	0.25	1.3	3100	71 63	70	0.33	0.62
65	22	64	0.25	1.0	3400		64	0.25	0.58
80	18	53	0.18	1.1	3800		60	0.20	0.54
100	14	45	0.13	1.2	4000		55	0.16	0.51

SFK SRK 63 — Kg 6.3

n_1=1400 min^{-1} in	n_2 [min^{-1}]	T_2 [Nm]	P1 [kW]	FS	Fr_2 [N]	IEC	T_{2M} [Nm]	P [kW]	Rd
7.5	187	80	1.8	1.5	2100	80 90	120	2.7	0.87
10	140	105	1.8	1.2	2300		127	2.2	0.85
15	93	125	1.5	1.1	2600		130	1.6	0.81
20	70	120	1.1	1.2	2800		144	1.3	0.80
25	56	118	0.9	1.0	3100		118	0.90	0.77
30	47	134	0.9	1.1	3400		142	0.95	0.73
40	35	142	0.75	1.1	3700	71 80	150	0.79	0.69
50	28	122	0.55	1.0	4000		122	0.55	0.65
65	22	100	0.37	1.2	4450		122	0.45	0.61
80	18	79	0.25	1.4	4900		113	0.36	0.58
100	14	91	0.25	1.1	5400		102	0.28	0.53

SFK SRK 75 — Kg 7.5

n_1=1400 min^{-1} in	n_2 [min^{-1}]	T_2 [Nm]	P1 [kW]	FS	Fr_2 [N]	IEC	T_{2M} [Nm]	P [kW]	Rd
7.5	187	178	4	1.0	2500	90 100 112	180	4.0	0.87
10	140	176	3	1.1	2800		193	3.3	0.86
15	93	187	2.2	1.1	3000		202	2.4	0.83
20	70	199	1.8	1.1	3300		226	2.0	0.81
25	56	200	1.5	1.0	3700		202	1.5	0.78
30	47	167	1.1	1.3	4000		220	1.5	0.74
40	35	213	1.1	1.1	4400	80 90	235	1.2	0.71
50	28	206	0.9	1.0	4850		211	0.92	0.67
65	22	154	0.55	1.3	5300	71 80 90	195	0.70	0.63
80	18	180	0.55	1.0	5800		182	0.55	0.60
100	14	210	0.55	0.8	6500		182	0.43	0.56

in	Rapporto di riduzione	*Ratio*	Untersetzungsverhältnis
n_1 [min^{-1}]	Velocità in entrata	*Input speed*	Antriebsdrehzahl
n_2 [min^{-1}]	Velocità in uscita	*Output speed*	Abtriebsdrehzahl
P1 [kW]	Potenza motoriduttore	*Gear motor power*	Getriebemotor Leistung
T2 [Nm]	Coppia in uscita	*Output torque*	Abtriebsdrehmoment
FS	Fattore di servizio	*Service factor*	Betriebsfaktor
Fr_2 [N]	Carico radiale in uscita	*Output radial load*	Radialbelastung am Abtrieb
IEC	Grandezza motore	*Motor size*	Motorgröße
T_{2M} [Nm]	Coppia riduttore	*Gearbox torque*	Getriebe Drehmoment
P [kW]	Potenza riuttore	*Gearbox capacity*	Getriebeleistung
Rd	Rendimento dinamico	*Dynamic efficiency*	Dynamischer Wirkungsgrad

Carichi radiali e assiali

I valori del carico radiale in uscita Fr_2 della tabella sono stati calcolati per una forza agente a metà della sporgenza dell'albero. I valori del carico assiale in uscita Fa_2 sono pari ad 1/5 dei valori riportati in tabella.
Per i carichi radiali Fr_1 [N] agenti sull'albero entrata (SRK) fare riferimento alla tabella seguente.

Radial and axial loads

The Fr_2 radial loads at output shown in the table are calculated for a force acting in the middle of the shaft projection. The Fa_2 axial loads at output are 1/5 of the values reported in the table. Please refer to the following table for radial loads Fr_1 [N] at input (SRK).

Radial und axial belastungen

Die in der Tabelle angegebenen Fr_2 Radialbelastungen am Abtrieb wurden für eine Kraft kalkuliert, die in der Mitte des Wellehervorstehens wirkt. Fa_2 Axialbelastungen am Abtrieb sind 1/5 der in der Tabelle angegebenen Daten wert.
Die folgende Tabelle weist die RadialbelastungenFr_1 [N] am Antrieb (SRK).

n_1 [min^{-1}]	SRK 30		40		50		63		75	
	Fr_1 [N]	Fa_1 [N]	Fr_1 [N]	Fa_1 [N]	Fr_1 [N]	Fa_1 [N]	Fr_1 [N]	Fa_1 [N]	Fr_1 [N]	Fa_1 [N]
1400	100	20	220	44	400	80	480	96	750	150

Dati tecnici — *Technical data* — Technische Daten

SFK SRK 30 — Kg 1.2

n_1=1400 min^{-1}									
in	n_2 [min^{-1}]	T_2 [Nm]	P1 [kW]	FS	Fr_2 [N]	IEC	T_{2M} [Nm]	P [kW]	Rd
7.5	187	9	0.22	2.2	750	63 56	21	0.49	0.84
10	140	12	0.22	1.8	800		22	0.40	0.82
15	93	17	0.22	1.3	850		22	0.28	0.77
20	70	18	0.18	1.1	900		19	0.19	0.72
25	56	15	0.13	1.1	950		21	0.18	0.69
30	47	18	0.13	1.4	1000		20	0.15	0.66
40	35	14	0.09	1.4	1050		21	0.13	0.59
50	28	17	0.09	1.1	1100		19	0.10	0.55
65	22	14	0.06	1.3	1250	56	20	0.09	0.51
80	18	16	0.06	1.1	1350		17	0.06	0.48
100	14	18	0.06	0.8	1500		14	0.05	0.45

SFK SRK 40 — Kg 2.0

n_1=1400 min^{-1}									
in	n_2 [min^{-1}]	T_2 [Nm]	P1 [kW]	FS	Fr_2 [N]	IEC	T_{2M} [Nm]	P [kW]	Rd
7.5	187	24	0.55	1.7	1500	71 63	40	0.92	0.85
10	140	31	0.55	1.3	1600		41	0.73	0.83
15	93	30	0.37	1.4	1700		42	0.52	0.79
20	70	38	0.37	1.0	1800		40	0.39	0.76
25	56	31	0.25	1.1	1900		35	0.29	0.72
30	47	35	0.25	1.3	2000		41	0.29	0.68
40	35	38	0.22	1.1	2100		38	0.22	0.64
50	28	36	0.18	1.0	2200	63 56	38	0.19	0.59
65	22	31	0.13	1.1	2500		35	0.15	0.54
80	18	31	0.11	1.1	2700		33	0.12	0.52
100	14	30	0.09	0.9	3000		28	0.08	0.49

SFK SRK 50 — Kg 3.4

n_1=1400 min^{-1}									
in	n_2 [min^{-1}]	T_2 [Nm]	P1 [kW]	FS	Fr_2 [N]	IEC	T_{2M} [Nm]	P [kW]	Rd
7.5	187	40	0.9	1.8	1650	80 71	70	1.6	0.86
10	140	52	0.9	1.4	1800		73	1.3	0.84
15	93	61	0.75	1.2	1950		74	0.90	0.80
20	70	59	0.55	1.3	2200		75	0.71	0.78
25	56	47	0.37	1.4	2400		65	0.51	0.74
30	47	54	0.37	1.5	2600		66	0.46	0.71
40	35	68	0.37	1.2	2850		69	0.38	0.67
50	28	53	0.25	1.3	3100	71 63	70	0.33	0.62
65	22	64	0.25	1.0	3400		64	0.25	0.58
80	18	53	0.18	1.1	3800		60	0.20	0.54
100	14	45	0.13	1.2	4000		55	0.16	0.51

SFK SRK 63 — Kg 6.3

n_1=1400 min^{-1}									
in	n_2 [min^{-1}]	T_2 [Nm]	P1 [kW]	FS	Fr_2 [N]	IEC	T_{2M} [Nm]	P [kW]	Rd
7.5	187	80	1.8	1.5	2100	80 90	120	2.7	0.87
10	140	105	1.8	1.2	2300		127	2.2	0.85
15	93	125	1.5	1.1	2600		130	1.6	0.81
20	70	120	1.1	1.2	2800		144	1.3	0.80
25	56	118	0.9	1.0	3100		118	0.90	0.77
30	47	134	0.9	1.1	3400		142	0.95	0.73
40	35	142	0.75	1.1	3700	71 80	150	0.79	0.69
50	28	122	0.55	1.0	4000		122	0.55	0.65
65	22	100	0.37	1.2	4450		122	0.45	0.61
80	18	79	0.25	1.4	4900		113	0.36	0.58
100	14	91	0.25	1.1	5400		102	0.28	0.53

SFK SRK 75 — Kg 7.5

n_1=1400 min^{-1}									
in	n_2 [min^{-1}]	T_2 [Nm]	P1 [kW]	FS	Fr_2 [N]	IEC	T_{2M} [Nm]	P [kW]	Rd
7.5	187	178	4	1.0	2500	90 100 112	180	4.0	0.87
10	140	176	3	1.1	2800		193	3.3	0.86
15	93	187	2.2	1.1	3000		202	2.4	0.83
20	70	199	1.8	1.1	3300		226	2.0	0.81
25	56	200	1.5	1.0	3700		202	1.5	0.78
30	47	167	1.1	1.3	4000		220	1.5	0.74
40	35	213	1.1	1.1	4400	80 90	235	1.2	0.71
50	28	206	0.9	1.0	4850		211	0.92	0.67
65	22	154	0.55	1.3	5300	71 80 90	195	0.70	0.63
80	18	180	0.55	1.0	5800		182	0.55	0.60
100	14	210	0.55	0.8	6500		182	0.43	0.56

in	Rapporto di riduzione	*Ratio*	Untersetzungsverhältnis
n_1 [min^{-1}]	Velocità in entrata	*Input speed*	Antriebsdrehzahl
n_2 [min^{-1}]	Velocità in uscita	*Output speed*	Abtriebsdrehzahl
P1 [kW]	Potenza motoriduttore	*Gear motor power*	Getriebemotor Leistung
T2 [Nm]	Coppia in uscita	*Output torque*	Abtriebsdrehmoment
FS	Fattore di servizio	*Service factor*	Betriebsfaktor
Fr_2 [N]	Carico radiale in uscita	*Output radial load*	Radialbelastung am Abtrieb
IEC	Grandezza motore	*Motor size*	Motorgröße
T_{2M} [Nm]	Coppia riduttore	*Gearbox torque*	Getriebe Drehmoment
P [kW]	Potenza riuttore	*Gearbox capacity*	Getriebeleistung
Rd	Rendimento dinamico	*Dynamic efficiency*	Dynamischer Wirkungsgrad

Carichi radiali e assiali

I valori del carico radiale in uscita Fr_2 della tabella sono stati calcolati per una forza agente a metà della sporgenza dell'albero. I valori del carico assiale in uscita Fa_2 sono pari ad 1/5 dei valori riportati in tabella.
Per i carichi radiali Fr_1 [N] agenti sull'albero entrata (SRK) fare riferimento alla tabella seguente.

Radial and axial loads

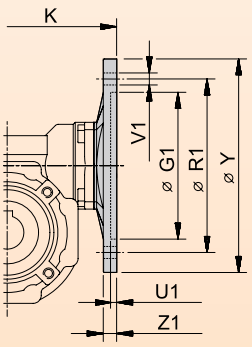
The Fr_2 radial loads at output shown in the table are calculated for a force acting in the middle of the shaft projection. The Fa_2 axial loads at output are 1/5 of the values reported in the table. Please refer to the following table for radial loads Fr_1 [N] at input (SRK).

Radial und axial belastungen

Die in der Tabelle angegebenen Fr_2 Radialbelastungen am Abtrieb wurden für eine Kraft kalkuliert, die in der Mitte des Wellehervorstehens wirkt. Fa_2 Axialbelastungen am Abtrieb sind 1/5 der in der Tabelle angegebenen Daten wert.
Die folgende Tabelle weist die RadialbelastungenFr_1 [N] am Antrieb (SRK).

n_1 [min^{-1}]	SRK 30		40		50		63		75	
	Fr_1 [N]	Fa_1 [N]	Fr_1 [N]	Fa_1 [N]	Fr_1 [N]	Fa_1 [N]	Fr_1 [N]	Fa_1 [N]	Fr_1 [N]	Fa_1 [N]
1400	100	20	220	44	400	80	480	96	750	150

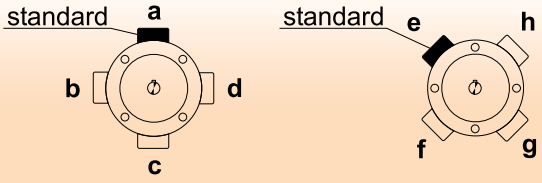
Predisposizioni possibili — *Possible set-ups* — Mögliche Vorrichtungen



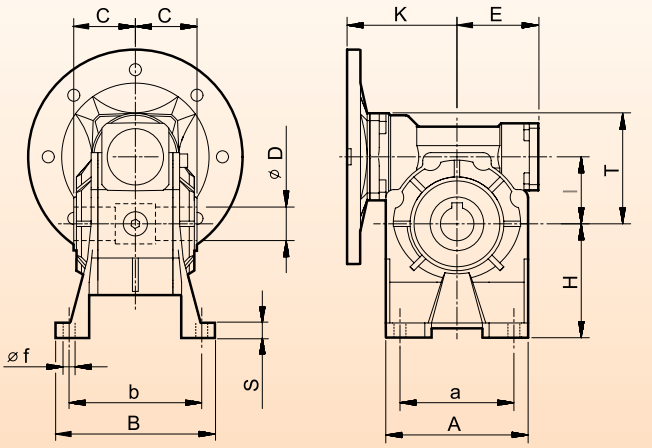
SFK	PAM IEC	G_1	K	R_1	U1	V1 Ø	V1		Y	Z_1	Diametro fori PAM / *Holes diameter IEC-Input* Bohrungdurchmesser IEC-Antrieb										
											7.5	10	15	20	25	30	40	50	65	80	100
30	56 B5	80	57	100	4	7	n° 8		120	8	9	9	9	9	9	9	9	9	9	9	9
	56 B14	50		65	3.5	6		n° 4	80	8	9	9	9	9	9	9	9	9	9	9	9
	63 B5	95		115	4	9	n° 8		140	8	11	11	11	11	11	11	11	11	/	/	/
	63 B14	60		75	4	6	n° 8		90	8	11	11	11	11	11	11	11	11	/	/	/
40	56 B5	80	75	100	4	7	n° 8		120	9	/	/	/	/	/	/	/	9	9	9	9
	56 B14	50		65	3.5	6		n° 4	80	8	/	/	/	/	/	/	/	9	9	9	9
	63 B5	95		115	4	9	n° 8		140	9	11	11	11	11	11	11	11	11	11	11	11
	63 B14	60		75	3.5	6		n° 4	90	8	11	11	11	11	11	11	11	11	11	11	11
	71 B5	110		130	4.5	9	n° 8		160	10	14	14	14	14	14	14	14	/	/	/	/
	71 B14	70		85	3.5	7		n° 4	105	8	14	14	14	14	14	14	14	/	/	/	/
50	63 B5	95	82	115	4	9	n° 8		140	9	/	/	/	/	/	/	/	11	11	11	11
	63 B14	60		75	3.5	6		n° 4	90	8	/	/	/	/	/	/	/	11	11	11	11
	71 B5	110		130	4.5	9	n° 8		160	10	14	14	14	14	14	14	14	14	14	14	14
	71 B14	70		85	3.5	7	(n° 8)*	n° 4	105	8	14	14	14	14	14	14	14	14	14	14	14
	80 B5	130		165	4.5	11	n° 8		200	10	19	19	19	19	19	19	19	/	/	/	/
	80 B14	80		100	4	7	n° 8		120	10	19	19	19	19	19	19	19	/	/	/	/
63	71 B5	110	97	130	4.5	9	n° 8		160	10	/	/	/	/	/	/	14	14	14	14	14
	71 B14	70		85	3.5	7		n° 4	105	10	/	/	/	/	/	/	14	14	14	14	14
	80 B5	130		165	4.5	11	n° 8		200	10	19	19	19	19	19	19	19	19	19	19	19
	80 B14	80		100	4	7		n° 4	120	10	19	19	19	19	19	19	19	19	19	19	19
	90 B5	130		165	4.5	11	n° 8		200	10	24	24	24	24	24	24	/	/	/	/	/
	90 B14	95		115	4	8.5	n° 8		140	10	24	24	24	24	24	24	/	/	/	/	/
75	71 B5	110	114	130	4.5	9	n° 8		160	10	/	/	/	/	/	/	/	/	14	14	14
	71 B14	70		85	3.5	7		n° 4	105	10	/	/	/	/	/	/	/	/	14	14	14
	80 B5	130		165	4.5	11	n° 8		200	10	/	/	/	/	/	/	19	19	19	19	19
	80 B14	80		100	4	7		n° 4	120	11	/	/	/	/	/	/	19	19	19	19	19
	90 B5	130		165	4.5	11	n° 8		200	10	24	24	24	24	24	24	24	24	24	24	24
	90 B14	95		115	4	9		n° 4	140	11	24	24	24	24	24	24	24	24	24	24	24
	100/112 B5	180		215	5	14	n° 8		250	13	28	28	28	28	28	28	/	/	/	/	/
	100 B14	110		130	4.5	9	n° 8		160	11	28	28	28	28	28	28	/	/	/	/	/

* A richiesta / *On request* / Auf Anfrage

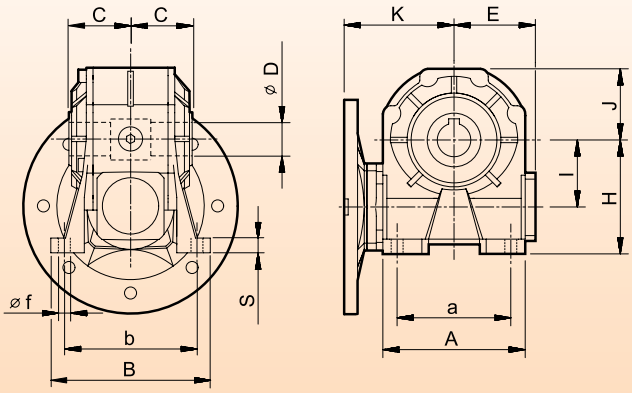
Posizione morsettiera — *Terminal board position* — Lage der Klemmenkaste



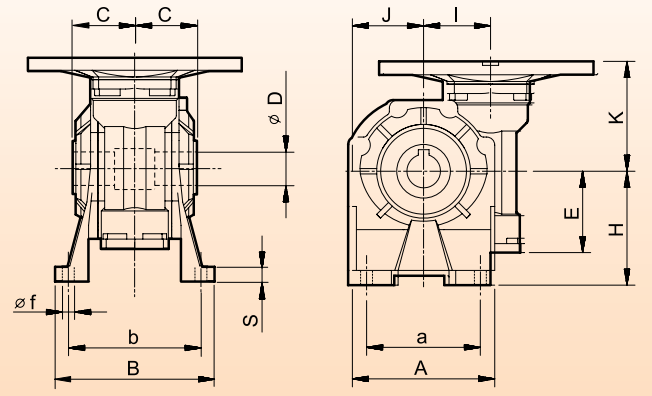
Dimensioni — *Dimensions* — Abmessungen



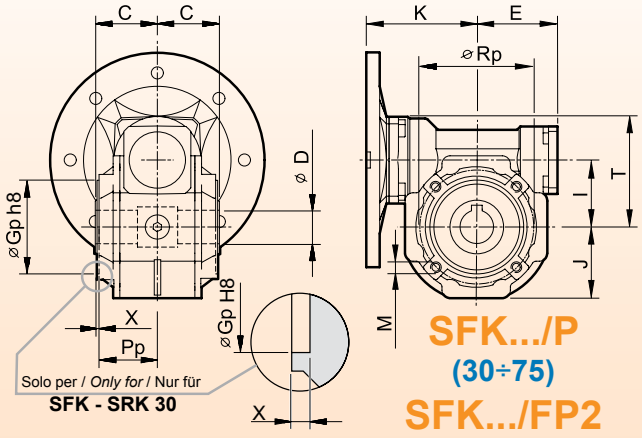
SFK.../A (30÷75)



SFK.../B (30÷75)



SFK.../V (30÷75)

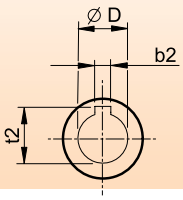


SFK.../P (30÷75)

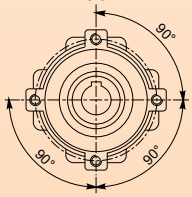
SFK.../FP2 (40, 50)

Flangia pendolare / *Side cover for shaft mounting* / Flansch für Drehmomentstutze

Albero lento cavo / *Hollow output shaft* / Ausgangshohlwelle

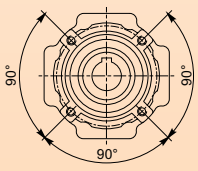


30

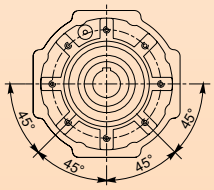


4 Fori / *Holes* / Bohrungen

40 - 50



63 - 75



8 Fori / *Holes* / Bohrungen

SFK SRK	30	40	50	63	75
A	67	87	115	127.5	155.5
a	52 ÷ 40	70	85	95	120
B	78	100	119	136	140
b	66	80 ÷ 88	96 ÷ 102	111	115
f	6.5	7	9	11	11
H	52	71	85	100	115
s	5	9	11	12	12

SFK SRK	30	40	50	63	75
b2	5	6 (6)	8 (8)	8	8 (8)
C	31.5	41	49	60	60
D H7	**14**	**19** (18)	**24** (25)	**25**	**28** (30)
E	41	51	60	71	85
I	31.5	40	50	63	75
J	37.5	43.5	53.5	64	78
T	52.5	68.5	82.5	100.5	116.5
t2	16.3	21.8 (20.8)	27.3 (28.3)	28.3	31.3 (33.3)

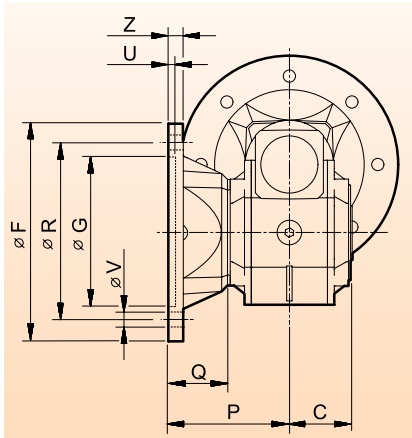
SFK SRK	30	40	50	63	75
$G_{p\ h8}$	42* **H8**	60 **h8** (50 h8)(1)	70 **h8** (60 h8)(1)	70 **h8**	80 **h8**
M	M6x8	M6X10 (M6X8.5)(1)	M8x10 (M6X9)(1)	M8x14	M8x14
P_p	36	38 (38)(1)	46 (46)(1)	57.5	57
R_p	56	83 (65)(1)	85 (75)(1)	85	100
X	5.5	2 (2)(1)	2 (2)(1)	3.5	2

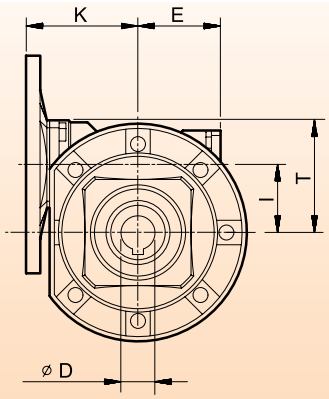
* Vedere dettaglio (SFK - SRK 30/P)
(1) Versione **FP2**.

* *Pls refer to above detail (SFK - SRK 30/P)*
(1) **FP2** version.

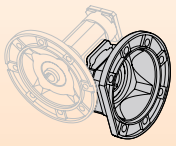
* Siehe o.g. Einzelheit (SFK - SRK 30/P)
(1) Version **FP2**.

Dimensioni — *Dimensions* — Abmessungen

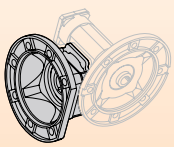




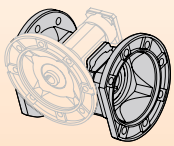
Flangia uscita / *Output flange* / Abtriebsflansch



F...D
Standard



F...S

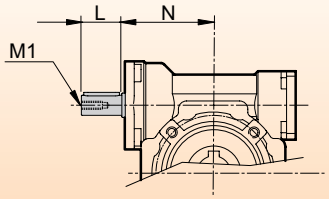


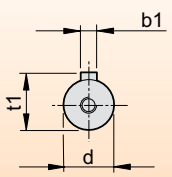
F...2

SFK.../F (30÷50)

SFK SRK	Tipo flangia *Type flange* Typ flansch	C	F		G (H8)	P	Q	R	U	V			Z
												Φ	
30	F	31.5	71		40	50.5	19	56 ÷ 60	3	n° 4		6.	6
40	F	41	140		95	82	41	115	5	n° 4		9	9
50	F	49	160		110	92	43	130	5		n° 7	11	11
	F1			94	70	92.5	43.5	85 ÷ 95	5	n° 4		11	10
	F2		125		70	73	24	90 ÷ 115	5	n° 4		10.5	10
	F3		125		70	85	36	90	5	n° 4		10.5	10

SRK...

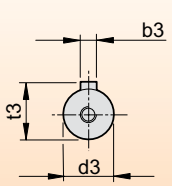


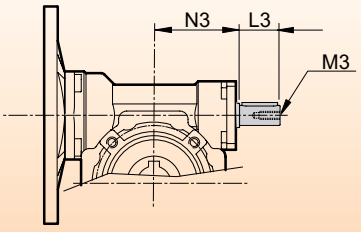


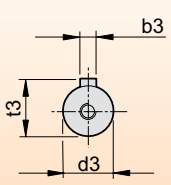
SRK	d (j6)	L	M1	N	b1	t1
30	9	20	M4x10	47	3	10.2
40	11	22	M4x10	64	4	12.5
50	14	30	M5x13	74	5	16
63	18	45	M6x16	80	6	20.5
75	19	40	M6x16	98	6	21.5

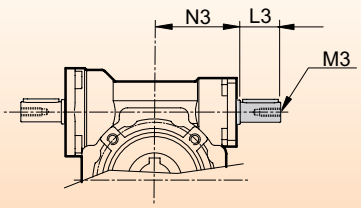
Entrata supplementare (vite bisporgente) — *Additional input (double extended input shaft)* — Zusatzantrieb (beidseitige Welle)

S.e.A.





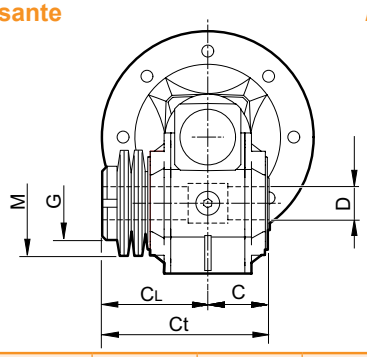


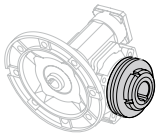


SFK	d3 (j6)	L3	M3	N3	b3	t3
30	9	15	M4x10	42.5	3	10.2
40	11	20	M4x12	52.5	4	12.5
50	14	25	M5x13	62.5	5	16
63	19	30	M8x20	72.5	6	21.5
75	24	40	M8x20	89	8	27

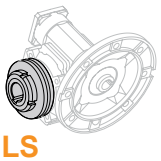
SRK	d3 (j6)	L3	M3	N3	b3	t3
30	9	20	M4x10	42.5	3	10.2
40	11	22	M4x10	52.5	4	12.5
50	14	30	M5x13	62.5	5	16
63	18	45	M6x16	72.5	6	20.5
75	19	40	M6x16	89	6	21.5

Limitatore di coppia cavo passante — *Torque limiter with through hollow shaft* — Drehmomentenbegrenzer mit durchgehender Hohlwelle





LD



LS

SFK SRK	C	CL	Ct	D (H7)	M	G
30	31.5	61.5	93	14	50x25.4x1.25	M25X1.5
40	41	67	108	19	56x30.5x1.5	M30X1.5
50	49	79	128	24	63x40.5x1.8	M40X1.5
63	60	97	157	25	71x40.5x2	M40X1.5
75	60	100	160	28	90x50.5x2.5	M50X1.5

SFK SRK	N°. giri della ghiera di regolazione / *N°. revolutions of ring nut* Nr. Umdrehungen der Mutter										
	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2	3 3/4
	M_{2S} [Nm]										
30	15	20	23	25	—	—	—	—	—	—	—
40	37	45	—	—	—	—	—	—	—	—	—
50	45	55	63	70	77	—	—	—	—	—	—
63	—	—	85	95	110	125	137	150	—	—	—
75	—	—	—	—	147	165	177	190	205	220	230

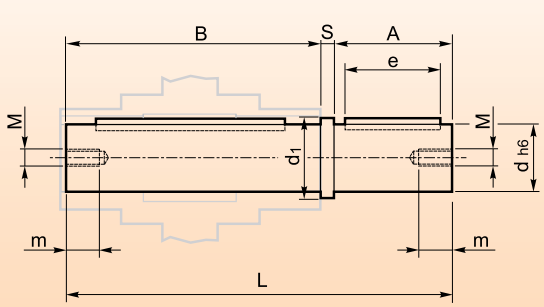
Nella versione con limitatore non è prevista la fornitura degli alberi lenti.
Il dispositivo viene consegnato tarato alla coppia riportata a catalogo T_{2M} salvo diversa indicazione espressa in fase di ordinazione.

The version with torque limiter is supplied without output shafts.
The device is supplied already calibrated at the torque reported in the catalogue T2M, unless otherwise specified in the order.

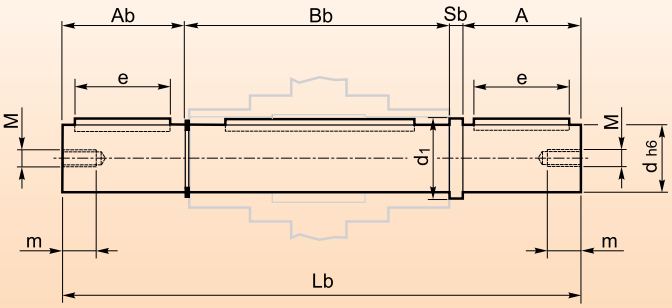
Die Version mit Drehmomentbegrenzer wird ohne Abtriebswellen geliefert.
Wenn die Vorrichtung geliefert wird, ist sie schon auf dem im Katalog T2M angegebenen Drehmoment geeicht, ausser wenn es in der Bestellung anders angegeben wird.

Accessori — *Accessories* — Zubehor

Albero lento semplice / *Single output shaft* / Standard Abtriebswelle



Albero lento doppio / *Double output shaft* / Doppelte Abtriebswelle



SFK SRK	A	Ab	B	Bb	d (h6)	d1	e	L	Lb	M	m	S	Sb
30	30	30	60	65.5	14	19.5	20	92.5	128	M6	14	2.5	2.5
40	40	40	80	84.7	19	24.5	30	125	167.2	M6	14	3	2.5
50	50	50	95	101.2	24	29.5	40	148.5	204.2	M8	18	3.5	3
63	60	60	117	123.2	25	29.5	40	181	246.2	M8	18	4	3
75	60	60	117	123.5	28	34.5	40	181	246.5	M8	18	4	3

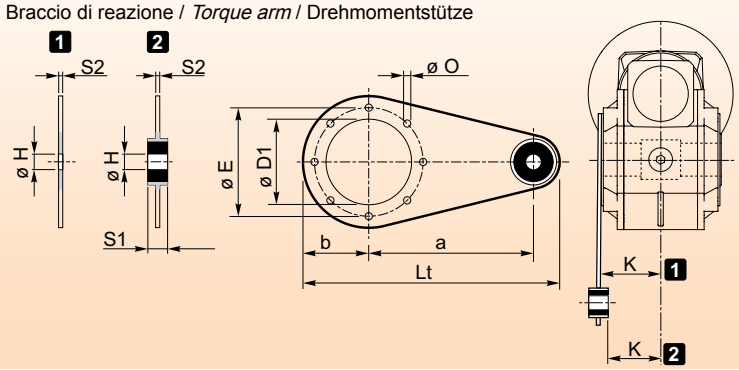
1 Senza boccola / *Without bush* / Ohne Büchse

SFK SRK	a	b	D1	E	H	K	Lt	O	S1	S2
30	70	34.5	42	56	9	36	119.5	7	—	4
40	90	50	60	83	10	38	165	7	—	4
50	100	55	70	85	10	46	180	9	—	4
63	150	53	70	85	10	57.5	230	9	—	6
75	—	—	—	—	—	—	—	—	—	—

2 Con boccola / *With bush* / Mit Büchse

SFK SRK	a	b	D1	E	H	K	Lt	O	S1	S2
30	—	—	—	—	—	—	—	—	—	—
40	90	50	60	83	8	33	165	7	14	4
50	100	55	70	85	8	40.5	180	9	15	4
63	—	—	—	—	—	—	—	—	—	—
75	150	62	80	100	10	50	240	9	20	6

Braccio di reazione / *Torque arm* / Drehmomentstütze



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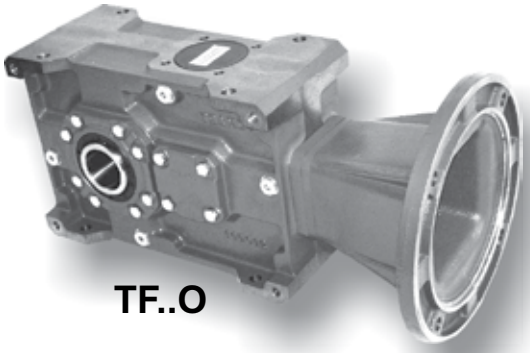
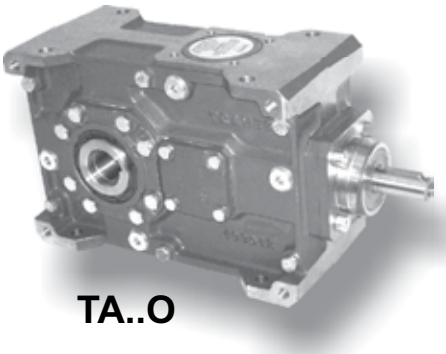
YOUR POWER CONNECTION

TRAMEC T-SERIES

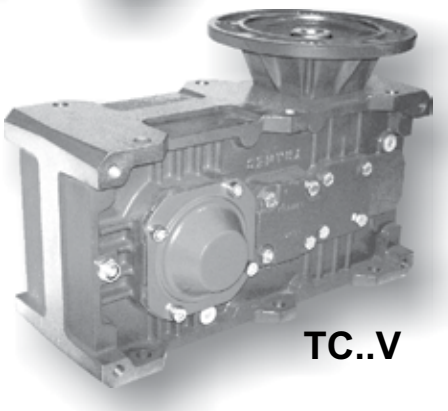
2.0 RIDUTTORE AD ASSI ORTOGONALI — *BEVEL HELICAL GEARBOX* — KEGELSTIRNRADGETRIEBE



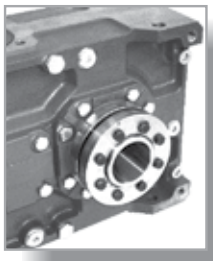
TF..O



TA..O

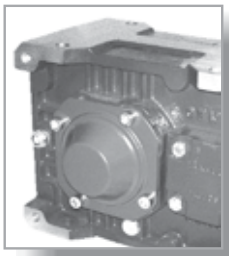


TC..V



Albero lento cavo con calettatore
Hollow output shaft with shrink disc
Abtriebshohlwelle mit Schrumpfscheibe

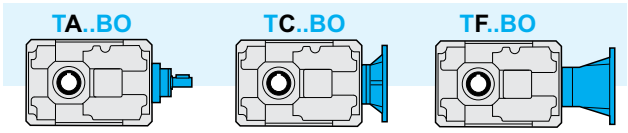
Dispositivo antiretro
Backstop device
Rücklaufsperre

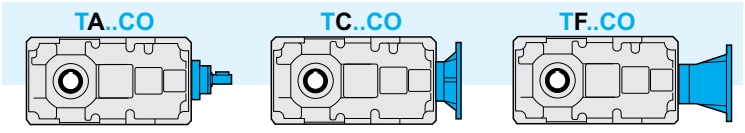


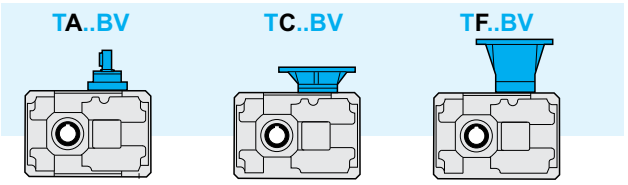
Kit protezione albero cavo
Hollow shaft protection kit
Schutzvorrichtung für die Hohlwelle

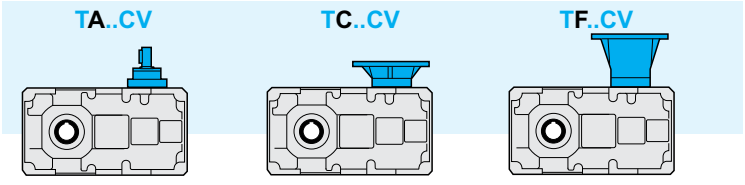
2.2 Designazione — 2.2 *Designation* — 2.2 Bezeichnung

Macchina *Machine* Maschine	Tipo entrata *Input type* Antriebsart	Grandezza *Size* Größe	Rotismo *Gearing* Räderwerk	Rapporto rid. *Ratio* Untersetzungsverhältnis	Predisposiz. *Motor coupling* Motoranschluss	Esecuzione *Execution* Ausführung	Posizione di montaggio *Mounting position* Baulage	Flangia uscita *Output flange* Abtriebsflansch	Antiritorno *Back-stop device* Rücklaufsperre	Calettatore *Shrink disk* Schrumpfscheibe	Entrata supplementare *Additional input* Zusatzantrieb
T	**A**	**112**	**B**	**10/1**	**P.A.M.**	**O**	**B3**	**FLS**	**CW**	**C.S.**	**S.e.A.**
Riduttore ad assi ortogonali *Bevel helical gearbox* **Kegelstirnradgetriebe**	A C F	56 63 71 90 112 140 180 200 225 56 63 80 100 125 160 180 200	B C	in = .../1 5 ÷ 630	56÷ 225	O V	B3 B6 B7 B8 VA VB	FLS FLD 2FL	AW CW	C.S. C.D.	A C F









2.3 Sensi di rotazione alberi

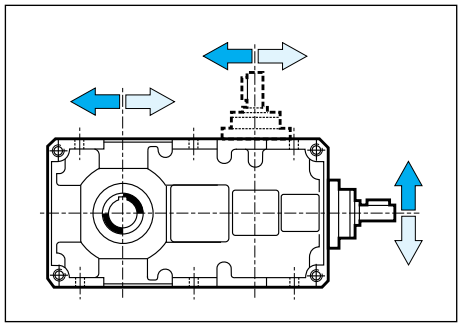
Nei riduttori esecuzione orizzontale, per ottenere il senso di rotazione contrario al catalogo dell' albero lento mantenendo invariato il senso di rotazione dell' albero veloce, è sufficiente ruotare il riduttore di 180° attorno all' asse dell'albero veloce, utilizzando in pratica il piano di fissaggio opposto.
Nei riduttori esecuzione verticale è possibile fornire il senso di rotazione contrario al catalogo specificandolo al momento dell' ordine.

2.3 *Direction of shaft rotation*

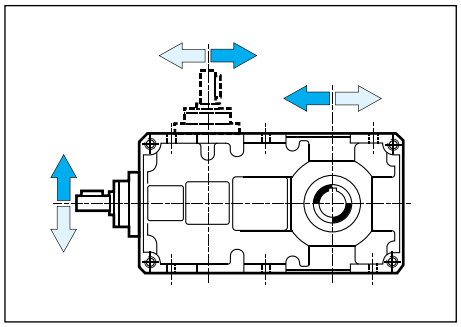
With regard to horizontal mounted gearboxes, in order to get output rotation in a direction opposite to that given in the catalogue, nevertheless keeping input rotation direction unchanged, simply turn the gearbox 180° around the input shaft; in practice, mount the other way up.
Vertical units can be supplied with rotation direction opposite to that given in the catalogue; specify when ordering.

2.3 Drehrichtungen der Wellen

Wenn bei Untersetzungsgetrieben in waagerechter Ausführung für die Abtriebswelle eine andere als die im Katalog angegebene Drehrichtung gewünscht wird und die Antriebswelle ihre Drehrichtung beibehalten soll, so genügt es, das Getriebe um 180° um die Achse der Antriebswelle zu drehen, d.h. die gegenüberliegende Anschlußfläche zu verwenden.
Untersetzungsgetrieben in vertikaler Ausführung sind mit gegensätzlicher Drehrichtung lieferbar, deswegen ist es bei der Bestellung anzugeben, falls die umgekehrte Drehrichtung gewünscht wird.



Sensi di rotazione standard
Standard direction of rotation
Standarddrehrichtungen.



2.4 Entrata supplementare

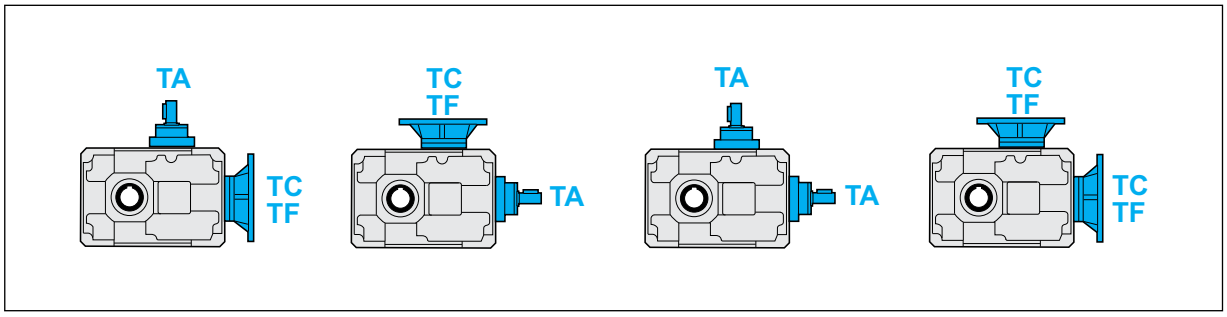
La lavorazione del corpo prevede la possibilità di montare indifferentemente l'albero entrata nella posizione orizzontale (O) o verticale (V) per tutte le grandezze dei riduttori escludendo la grandezza 56 e la 63. Il cambio di versione può essere facilmente realizzato anche succesivamente al primo montaggio.
Fatta esclusione per le grandezze 56 e 63, esiste la possibilità di montare la seconda entrata scegliendola, in base alle necessità, tra quelle previste: TA, TC, TF.
In questo caso occorre definire la versione del riduttore con l'entrata principale e specificare quindi la seconda entrata.

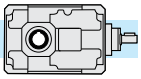
2.4 *Additional input*

The input shaft can be mounted either horizontally (O) or vertically (V) on all sizes except for 56 and 63. The version can be easily changed even after the first assembly.
Except for sizes 56 and 63, there is the possibility of mounting a second input; the available options are TA, TC, TF.
Both the main input and the additional second input shall be specified when ordering.

2.4 Zusatzantrieb

Die Antriebswelle kann entweder waagerecht (O) order senkrecht (V) montiert werden (Größe 56 und 63 Ausgenommen). Auch nach der ersten Montage kann die Version leicht geändert werden.
Mit Ausnahme von den Größen 56 und 63 kann eine zweite Antrieb TA, TC oder TF montiert werden.
Bei der Bestellung sollen sowohl die hauptsächliche Antrieb als auch die zweite Antrieb angegeben werden.





2.5 Velocità in entrata

Tutte le prestazioni dei riduttori sono calcolate in base ad una velocità in entrata di 1400 min^{-1}.
Tutti i riduttori ammettono velocità fino a 3000 min^{-1} anche se è consigliabile, dove l'applicazione lo permette, utilizzare valori inferiori a 1400 min^{-1}.
Nella tabella sottostante riportiamo I coefficienti correttivi della potenza in entrata P alle varie velocità riferita ad Fs =1

2.5 *Input speed*

All calculations of gear unit performance are based on an input speed of 1400 min^{-1}.
All gear units permit speed up to 3000 min^{-1}, nevertheless it is advisable to keep below 1400 min^{-1}, depending on application.
The table below reports input power P corrective coefficients at the various speeds, with Fs = 1.

2.5 Antriebsdrehzahl

Bei der Berechnung der Getriebeleistungen wurde eine Antriebsdrehzahl von 1400 min^{-1} berücksichtigt.
Bei allen Getriebensind Antriebsdrehzahlen bis 3000 min^{-1}. möglich; es ist jedoch ratsam, die Drehzahlen unter 1400 min^{-1}. zu halten, wenn die Anwendung es ermöglicht.
In der folgenden Tabelle finden Sie die Korrekturkoeffizienten für die Antriebsleistung P bei den verschiedenen Drehzahlen, bezogen auf Fs =1.

Tab. 1

n_1 (rpm)	3000	2800	2200	1800	1400	900	700	500
Pc (kW)	P x 1.9	P x 1.8	P x 1.48	P x 1.24	P x 1	P x 0.7	P x 0.56	P x 0.42

2.6 Rendimento

Il valore del rendimento dei riduttori può essere stimato con sufficiente approssimazione in base al numero di riduzioni, trascurando le variazioni non significative attribuibili alle varie grandezze e rapporti.

2.6 *Efficiency*

The efficiency value of the gear units can be estimated sufficiently well on the basis of the number of reduction stages, ignoring non-significant variations which can be attributed to the various sizes and ratios.

2.6 Wirkungsgrad

Der Wirkungsgrad der Getriebe kann mit ausreichender Annäherung aufgrund der Anzahl der Untersetzungsstufen ermittelt werden, dabei können die unwesentlichen Veränderungen, die auf die verschiedenen Größen und Untersetzungsverhältnisse zurückzuführen sind, außer acht gelassen werden.

η	T...B	T...C
	0.95	0.93

2.7 Potenza termica

I valori delle potenze termiche, P_{t0} (kW), relative alle diverse grandezze di riduttori ortogonali sono riportati nella tabella seguente in funzione della velocità di rotazione in entrata del riduttore

2.7 *Thermal power*

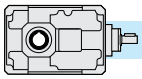
The following table shows the values of thermal power P_{t0} (kW) for each gearbox size on the basis of rotation speed at gearbox input.

2.7 Thermische Leistung

Die folgende Tabelle enthält die Werte P_{t0} der thermischen Leistung (kW) je nach Getriebegröße und abhängig von Drehzahlen am Getriebeantrieb.

Tab. 2

Potenza Termica / *Thermal power* / Thermische Leistung **P_{t0}** [kW]		
T	**n_1** [min^{-1}]	
	1400	**2800**
T56B	4.0	3.4
T63B	5.5	4.7
TA71B	4.4	3.8
TA90B	6.7	5.7
TA112B	10.1	8.6
TA140B	15.2	12.9
TA180B	24.6	20.9
TA200B	31.5	26.8
TA225B	39.9	33.9
T56C	3.3	2.8
T63C	4.2	3.6
TA80C	5.0	4.3
TA100C	7.6	6.5
TA125C	11.5	9.8
TA160C	18.3	15.6
TA180C	22.9	19.4
TA200C	29.9	25.4

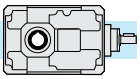


T	n_1 = 1400			TC - TF				TA	
	in	ir	n_2 rpm	T_2 Nm	P1 kW	FS'	IEC	T_{2M} Nm	P kW
56B	**8**	8.06	**174**	*94*	1.8	1.2	56 63 (B5) 71 80 90 (B5) (B14) **TF**	110	2.1
	10	10.17	**138**	*119*	1.8	1.0		120	1.8
	12.5	12.31	**114**	*120*	1.5	1.1		130	1.6
	16	15.00	**93**	*107*	1.1	1.3		140	1.4
	20	20.33	**69**	*119*	0.9	1.2		140	1.1
	25	24.62	**57**	*120*	0.75	1.2		140	0.90
	31.5	30.00	**47**	*107*	0.55	1.3		140	0.70
	40	39.38	**36**	*140*	0.55	1.0		140	0.55
	50	48.00	**29**	*115*	0.37	1.2		140	0.45
56C	**40**	40.28	**35**	*95*	*0.37*	*1.4*	56 63 (B5) 71 80 90 (B5) (B14) **TF**	*135*	*0.53*
	50	50.83	**28**	*119*	*0.37*	*1.2*		*140*	*0.43*
	63	61.54	**23**	*98*	*0.25*	*1.4*		*140*	*0.36*
	80	75.00	**19**	*119*	*0.25*	*1.2*		*145*	*0.30*
	100	101.67	**14**	*116*	*0.18*	*1.2*		*145*	*0.22*
	125	123.08	**11**	*141*	*0.18*	*1.0*		*145*	*0.19*
	160	150.00	**9**	*124*	*0.13*	*1.2*		*145*	*0.15*
	200	196.92	**7**	*112*	*0.09*	*1.3*		*145*	*0.10*
	250	240.00	**6**	*137*	*0.09*	*1.1*		*150*	*0.10*
63B	**8**	7.94	**176**	*93*	*1.8*	*1.7*	56 63 (B5) 71 80 90 (B5) (B14) **TF**	*155*	*3.0*
	10	10.18	**138**	*119*	*1.8*	*1.4*		*170*	*2.6*
	12.5	12.50	**112**	*146*	*1.8*	*1.3*		*185*	*2.3*
	16	15.88	**88**	*185*	*1.8*	*1.1*		*200*	*1.9*
	20	20.36	**69**	*198*	*1.5*	*1.0*		*200*	*1.5*
	25	25.00	**56**	*178*	*1.1*	*1.1*		*200*	*1.2*
	31.5	31.00	**45**	*181*	*0.9*	*1.1*		*200*	*1.0*
	40	40.00	**35**	*194*	*0.75*	*1.0*		*200*	*0.80*
	50	49.60	**28**	*177*	*0.55*	*1.1*		*200*	*0.60*
	63	60.80	**23**	*146*	*0.37*	*1.2*		*170*	*0.40*
63C	**40**	39.71	**35**	*189*	*0.75*	*1.1*	56 63 (B5) 71 80 90 (B5) (B14) **TF**	*200*	*0.79*
	50	50.89	**28**	*178*	*0.55*	*1.2*		*210*	*0.65*
	63	62.50	**22**	*147*	*0.37*	*1.4*		*210*	*0.53*
	80	79.41	**18**	*186*	*0.37*	*1.1*		*210*	*0.42*
	100	101.79	**14**	*161*	*0.25*	*1.3*		*210*	*0.33*
	125	125.00	**11**	*198*	*0.25*	*1.1*		*210*	*0.26*
	160	155.00	**9**	*177*	*0.18*	*1.2*		*210*	*0.21*
	200	200.00	**7**	*165*	*0.13*	*1.3*		*210*	*0.17*
	250	248.00	**6**	*205*	*0.13*	*1.0*		*210*	*0.13*
	315	304.00	**5**	*174*	*0.09*	*1.0*		*180*	*0.09*
71B	**10**	10.25	**137**	*120*	*1.8*	*1.9*	63 71 80 90 (B5) **TC-TF** 80 (B14) **TC**	*230*	*3.5*
	12.5	13.05	**107**	*152*	*1.8*	*1.6*		*240*	*2.8*
	16	15.63	**90**	*182*	*1.8*	*1.4*		*250*	*2.5*
	20	19.64	**71**	*229*	*1.8*	*1.3*		*290*	*2.3*
	25	24.99	**56**	*243*	*1.5*	*1.2*		*280*	*1.7*
	31.5	29.95	**47**	*213*	*1.1*	*1.2*		*260*	*1.3*
	40	38.73	**36**	*226*	*0.9*	*1.1*		*240*	*1.0*
	50	50.18	**28**	*244*	*0.75*	*1.1*		*260*	*0.80*
	63	60.13	**23**	*214*	*0.55*	*1.2*		*260*	*0.70*
	80	77.76	**18**	*186*	*0.37*	*1.3*		*240*	*0.50*

T	n_1 = 1400			TC - TF				TA	
	in	ir	n_2 rpm	T_2 Nm	P1 kW	FS'	IEC	T_{2M} Nm	P kW
90B	**5***	4.56	**307**	*118*	4	3.2	71 80 90 100 112 (B5) **TC-TF** 90• (B14) **TC**	380	12.8
	6.3*	6.26	**224**	*162*	4	2.5		405	10.0
	10	10.25	**137**	*266*	*4*	*1.8*		*480*	*7.2*
	12.5	13.05	**107**	*338*	*4*	*1.6*		*530*	*6.3*
	16	15.63	**90**	*405*	*4*	*1.4*		*550*	*5.4*
	20	19.64	**71**	*509*	*4*	*1.2*		*620*	*4.9*
	25	24.99	**56**	*486*	*3*	*1.3*		*630*	*3.9*
	31.5	29.95	**47**	*427*	*2.2*	*1.3*		*560*	*2.9*
	40	38.73	**36**	*452*	*1.8*	*1.1*		*500*	*2.0*
	50	50.18	**28**	*488*	*1.5*	*1.1*		*550*	*1.7*
	63	60.13	**23**	*429*	*1.1*	*1.3*		*570*	*1.5*
	80	77.76	**18**	*454*	*0.9*	*1.1*		*505*	*1.0*
80C	**50**	52.18	**27**	*596*	*1.8*	*1.1*	63 71 80 90 (B5) **TC-TF** 80 (B14) **TC**	*660*	*2.0*
	63	62.53	**22**	*595*	*1.5*	*1.1*		*680*	*1.7*
	80	79.58	**18**	*555*	*1.1*	*1.3*		*710*	*1.4*
	100	99.97	**14**	*698*	*1.1*	*1.1*		*740*	*1.2*
	125	119.78	**12**	*684*	*0.9*	*1.1*		*740*	*1.0*
	160	152.45	**9**	*532*	*0.55*	*1.3*		*680*	*0.70*
	200	182.67	**8**	*637*	*0.55*	*1.1*		*700*	*0.60*
	250	240.51	**6**	*565*	*0.37*	*1.3*		*750*	*0.49*
	315	306.11	**5**	*719*	*0.37*	*1.0*		*740*	*0.38*
	400	366.78	**4**	*582*	*0.25*	*1.2*		*700*	*0.30*
	500	474.35	**3**	*542*	*0.18*	*1.2*		*660*	*0.22*
	630	613.46	**2**	*506*	*0.13*	*1.2*		*620*	*0.16*
112B	**5***	4.86	**288**	*290*	9.2	1.5	80 90 100 112 132 (B5) **TC-TF**	440	14.0
	10	10.25	**137**	*611*	9.2	1.5		*920*	*13.9*
	12.5	13.05	**107**	*778*	9.2	1.3		*1000*	*11.8*
	16	15.63	**90**	*932*	9.2	1.2		*1100*	*10.9*
	20	19.64	**71**	*1171*	9.2	1.0		*1190*	*9.4*
	25	24.99	**56**	*1215*	7.5	1.1		*1280*	*7.9*
	31.5	29.95	**47**	*1067*	5.5	1.1		*1220*	*6.3*
	40	38.73	**36**	*1004*	*4*	1.0		*1050*	*4.2*
	50	50.18	**28**	*976*	*3*	1.1		*1070*	*3.3*
	63	60.13	**23**	*857*	*2.2*	*1.4*		*1240*	*3.2*
	80	77.76	**18**	*907*	*1.8*	*1.2*		*1080*	*2.1*
100C	**50**	52.18	**27**	*993*	*3*	*1.3*	71 80 90 100 112 (B5) **TC-TF** 90• (B14) **TC**	*1300*	*3.9*
	63	62.53	**22**	*1190*	*3*	*1.1*		*1350*	*3.4*
	80	79.58	**18**	*1111*	*2.2*	*1.3*		*1410*	*2.8*
	100	99.97	**14**	*1395*	*2.2*	*1.1*		*1470*	*2.3*
	125	119.78	**12**	*1368*	*1.8*	*1.1*		*1480*	*1.9*
	160	152.45	**9**	*1064*	*1.1*	*1.3*		*1360*	*1.4*
	200	182.67	**8**	*1275*	*1.1*	*1.1*		*1400*	*1.2*
	250	240.51	**6**	*1144*	*0.75*	*1.3*		*1500*	*1.0*
	315	306.11	**5**	*1456*	*0.75*	*1.0*		*1480*	*0.80*
	400	366.78	**4**	*1280*	*0.55*	*1.1*		*1400*	*0.60*
	500	474.35	**3**	*1113*	*0.37*	*1.2*		*1360*	*0.50*
	630	613.46	**2**	*973*	*0.25*	*1.3*		*1240*	*0.30*

• Flange quadrate / *Square flanges* / Viereckige Flansche

*** Rapporti speciali / *Special ratios* / Sonderverhältnisse**



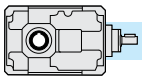
2.8 Dati tecnici — 2.8 *Technical data* — 2.8 Technische Daten

T	n_1 = 1400			TC - TF				TA	
	in	ir	n_2 rpm	T_2 Nm	P1 kW	FS'	IEC	T_{2M} Nm	P kW
140B	**7***	6.88	**203**	*983*	*22*	*1.4*	80 90 100 112 132 160 180 (B5) **TC-TF**	1350	30.2
	10	10.25	**137**	*1461*	*22*	*1.3*		*1850*	*27.9*
	12.5	13.05	**107**	*1860*	*22*	*1.1*		*2050*	*24.3*
	16	15.63	**90**	*1874*	*18.5*	*1.2*		*2200*	*21.7*
	20	19.64	**71**	*2354*	*18.5*	*1.0*		*2400*	*18.9*
	25	24.99	**56**	*2429*	*15*	*1.0*		*2540*	*15.7*
	31.5	29.95	**47**	*2135*	*11*	*1.1*		*2300*	*11.9*
	40	38.73	**36**	*1882*	*7.5*	*1.2*		*2210*	*8.8*
	50	50.18	**28**	*1789*	*5.5*	*1.2*		*2120*	*6.5*
	63	60.13	**23**	*2143*	*5.5*	*1.1*		*2350*	*6.0*
	80	77.76	**18**	*2016*	*4*	*1.1*		*2250*	*4.5*
125C	**50**	52.18	**27**	*2483*	*7.5*	*1.1*	80 90 100 112 132 (B5) **TC-TF**	*2650*	*8.0*
	63	62.53	**22**	*2182*	*5.5*	*1.3*		*2760*	*7.0*
	80	79.58	**18**	*2777*	*5.5*	*1.0*		*2880*	*5.7*
	100	99.97	**14**	*2537*	*4*	*1.2*		*3000*	*4.7*
	125	119.78	**12**	*2280*	*3*	*1.3*		*3000*	*4.0*
	160	152.45	**9**	*2128*	*2.2*	*1.3*		*2720*	*2.8*
	200	182.67	**8**	*2549*	*2.2*	*1.1*		*2800*	*2.4*
	250	240.51	**6**	*2746*	*1.8*	*1.1*		*3050*	*2.0*
	315	306.11	**5**	*2913*	*1.5*	*1.0*		*2960*	*1.5*
	400	366.78	**4**	*2560*	*1.1*	*1.1*		*2800*	*1.2*
	500	474.35	**3**	*2257*	*0.75*	*1.2*		*2640*	*0.90*
	630	613.46	**2**	*2140*	*0.55*	*1.2*		*2550*	*0.70*
180B	**10**	10.25	**137**	*1993*	*30*	*2.0*	100 112 132 160 180 200 (B5) **TC-TF**	*3900*	*58.7*
	12.5	13.05	**107**	*2536*	*30*	*1.7*		*4300*	*50.9*
	16	15.63	**90**	*3039*	*30*	*1.5*		*4500*	*44.4*
	20	19.64	**71**	*3818*	*30*	*1.3*		*5100*	*40.1*
	25	24.99	**56**	*4859*	*30*	*1.1*		*5230*	*32.3*
	31.5	29.95	**47**	*4269*	*22*	*1.1*		*4680*	*24.1*
	40	38.73	**36**	*3764*	*15*	*1.1*		*4300*	*17.1*
	50	50.18	**28**	*3577*	*11*	*1.2*		*4300*	*13.2*
	63	60.13	**23**	*4286*	*11*	*1.1*		*4780*	*12.3*
	80	77.76	**18**	*3779*	*7.5*	*1.2*		*4380*	*8.7*
160C	**50**	52.18	**27**	*4966*	*15*	*1.0*	80 90 100 112 132 160 180 (B5) **TC-TF**	*5130*	*15.5*
	63	62.53	**22**	*4363*	*11*	*1.2*		*5350*	*13.5*
	80	79.58	**18**	*4644*	*9.2*	*1.2*		*5570*	*11.0*
	100	99.97	**14**	*4756*	*7.5*	*1.2*		*5800*	*9.2*
	125	119.78	**12**	*5699*	*7.5*	*1.0*		*5800*	*7.6*
	160	152.45	**9**	*5319*	*5.5*	*1.0*		*5470*	*5.7*
	200	182.67	**8**	*4635*	*4*	*1.2*		*5600*	*4.8*
	250	240.51	**6**	*4577*	*3*	*1.3*		*5890*	*3.3*
	315	306.11	**5**	*5826*	*3*	*1.0*		*5920*	*3.0*
	400	366.78	**4**	*5119*	*2.2*	*1.1*		*5600*	*2.4*
	500	474.35	**3**	*4514*	*1.5*	*1.2*		*5280*	*1.8*
	630	613.46	**2**	*4281*	*1.1*	*1.2*		*4960*	*1.3*

T	n_1 = 1400			TC - TF				TA	
	in	ir	n_2 rpm	T_2 Nm	P1 kW	FS'	IEC	T_{2M} Nm	P kW
200B	**8**	*8.14*	**172**	*1582*	*30*	*3.2*	112 132 160 180 200 (B5) **TC-TF**	*5000*	*94.8*
	10	*10.43*	**134**	*2028*	*30*	*2.7*		*5500*	*81.4*
	12.5	*12.60*	**111**	*2449*	*30*	*2.4*		*6000*	*73.5*
	16	*15.63*	**90**	*3039*	*30*	*2.1*		*6500*	*64.2*
	20	*17.65*	**79**	*3432*	*30*	*2.1*		*7100*	*62.1*
	25	*24.14*	**58**	*4692*	*30*	*1.5*		*7150*	*45.7*
	31.5	*29.95*	**47**	*5822*	*30*	*1.2*		*7250*	*37.4*
	40	*33.82*	**41**	*6575*	*30*	*1.1*		*7300*	*33.3*
	50	*47.93*	**29**	*6833*	*22*	*1.1*		*7400*	*23.8*
	63	*54.13*	**26**	*6489*	*18.5*	*1.1*		*7400*	*21.1*
180C	**50**	*53.11*	**26**	*6234*	*18.5*	*1.2*	80 90 100 112 132 160 180 (B5) **TC-TF**	*7240*	*21.5*
	63	*63.64*	**22**	*6056*	*15*	*1.2*		*7280*	*18.0*
	80	*76.85*	**18**	*7313*	*15*	*1.0*		*7420*	*15.2*
	100	*99.39*	**14**	*6936*	*11*	*1.1*		*7500*	*11.9*
	125	*122.88*	**11**	*7172*	*9.2*	*1.0*		*7500*	*9.6*
	160	*147.23*	**10**	*7005*	*7.5*	*1.1*		*7550*	*8.1*
	200	*190.41*	**7**	*6644*	*5.5*	*1.1*		*7600*	*6.3*
	250	*246.73*	**6**	*6261*	*4*	*1.2*		*7650*	*4.9*
	315	*295.63*	**5**	*7502*	*4*	*1.0*		*7700*	*4.1*
	400	*382.33*	**4**	*7276*	*3*	*1.1*		*7950*	*3.3*
225B	**8**	*8.44*	**166**	*2461*	*45*	*3.0*	132 160 180 200 225 (B5) **TF**	*7500*	*137.1*
	10	*10.13*	**138**	*2955*	*45*	*2.8*		*8300*	*126.4*
	12.5	*12.45*	**112**	*3630*	*45*	*2.5*		*9100*	*112.8*
	16	*15.93*	**88**	*4644*	*45*	*2.2*		*10000*	*96.9*
	20	*19.13*	**73**	*5577*	*45*	*1.9*		*10700*	*86.3*
	25	*23.49*	**60**	*6850*	*45*	*1.6*		*11000*	*72.3*
	31.5	*30.29*	**46**	*8832*	*45*	*1.3*		*11100*	*56.6*
	40	*37.09*	**38**	*8892*	*37*	*1.2*		*10800*	*44.9*
200C	**40**	*42.62*	**33**	*8110*	*30*	*1.3*	100 112 132 160 180 200 (B5) **TC-TF**	*10900*	*40.3*
	50	*51.18*	**27**	*9740*	*30*	*1.1*		*11000*	*33.9*
	63	*62.86*	**22**	*8772*	*22*	*1.3*		*11350*	*28.5*
	80	*76.97*	**18**	*10742*	*22*	*1.0*		*11050*	*22.6*
	100	*98.04*	**14**	*9330*	*15*	*1.2*		*11200*	*18.0*
	125	*120.41*	**12**	*11459*	*15*	*1.0*		*11500*	*15.1*
	160	*147.45*	**9**	*10290*	*11*	*1.1*		*11200*	*12.0*
	200	*196.87*	**7**	*9367*	*7.5*	*1.2*		*11400*	*9.1*
	250	*241.79*	**6**	*11504*	*7.5*	*1.0*		*11700*	*7.6*
	315	*296.07*	**5**	*10330*	*5.5*	*1.1*		*11850*	*6.3*

• **Flange quadrate / *Square flanges* / Viereckige Flansche**

*** Rapporto speciale / *Special ratio* / Sonderverhältnisse**



2.9 **Dimensioni** 2.9 ***Dimensions*** 2.9 **Abmessungen**

	TA...- TF...				TA...- TF...			
	56B		**63B**		**56C**		**63C**	
R	73.5		75		73.5		75	
F	9		9		9		9	
e	45		50		45		50	
H h8	65		70		65		70	
X h8	65		80		65		80	
E h8	65		70		65		70	
M	M8		M8		M8		M8	
C f8	70		80		70		80	
K	85		100		85		100	
L	59		65		94		100	
S	71		85		36		50	
f	9		9		9		9	
m	45		55		45		55	
c	73.5		80		73.5		80	
N2	**6**	8	**8**	8	**6**	8	**8**	8
M2	**22.8**	28.3	**28.3**	31.3	**22.8**	28.3	**28.3**	31.3
D2 H7	**20**	25	**25**	28	**20**	25	**25**	28
b	73.5		75		73.5		75	
r	45		50		45		50	
B	92		111		92		111	
G	90		100		90		100	
V	97		117		97		117	
C2	100		120		100		120	
F2	9		9		9		9	
N1	4		4		4		4	
M1	13.8		13.8		13.8		13.8	
D1h6	12		12		12		12	
d_1	M4x10		M4x10		M4x10		M4x10	
L1	17.5		17.5		17.5		17.5	
h	113		120.2		146.6		153.7	
T	—		—		229		241.2	
	TA.. - TF..				**TA.. - TF..**			
kg	4.5		6.0		5.0		6.5	

	TF...																			
	56B					**56C**					**63B**					**63C**				
IEC..B5	**56**	**63**	**71**	**80**	**90**	**56**	**63**	**71**	**80**	**90**	**56**	**63**	**71**	**80**	**90**	**56**	**63**	**71**	**80**	**90**
Y	120	140	160	200	200	120	140	160	200	200	120	140	160	200	200	120	140	160	200	200
P	153	156	163	183	183	187	190	197	217	217	160	163	170	190	190	194	197	201	221	221
Q	218	221	228	248	248	252	255	262	282	282	230	233	240	260	260	264	267	271	291	291
kg	4.5	4.5	4.5	4.5	4.5	5.0	5.0	5.0	5.0	5.0	6.0	6.0	6.0	6.0	6.0	6.5	6.5	6.5	6.5	6.5

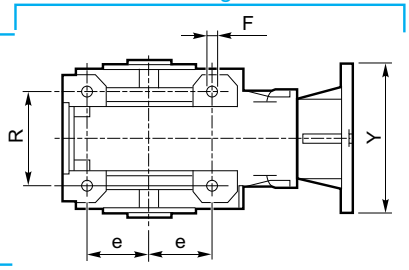
	TF...																			
	56B					**56C**					**63B**					**63C**				
IEC..B14	**56**	**63**	**71**	**80**	**90**	**56**	**63**	**71**	**80**	**90**	**56**	**63**	**71**	**80**	**90**	**56**	**63**	**71**	**80**	**90**
Y	—	—	105	120	140	—	—	105	120	140	—	—	105	120	140	—	—	105	120	140
P	—	—	163	183	183	—	—	197	217	217	—	—	170	190	190	—	—	204	224	224
Q	—	—	228	248	248	—	—	262	282	282	—	—	240	260	260	—	—	274	294	294
kg	—	—	4.5	4.5	4.5	—	—	5.0	5.0	5.0	—	—	6.0	6.0	6.0	—	—	6.5	6.5	6.5

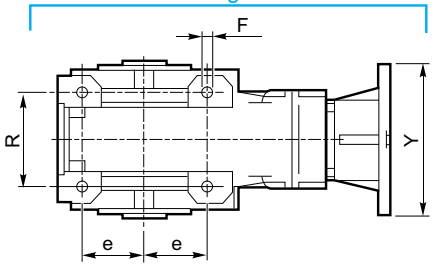
T..56B - T..56C - T..63B - T..63C

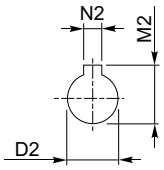
2 Riduzioni/*Stages*/Stufen

3 Riduzioni/*Stages*/Stufen

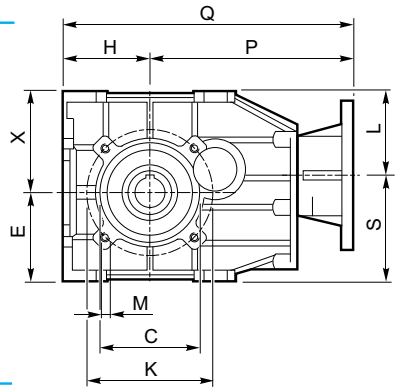
TF 56 - TF 63

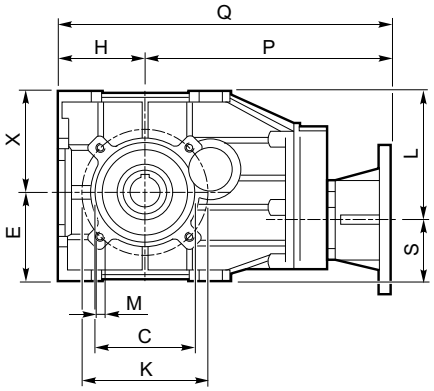


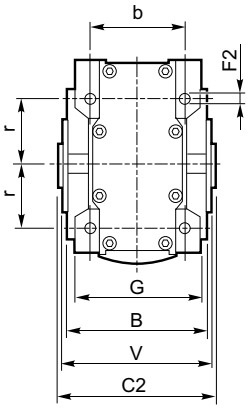




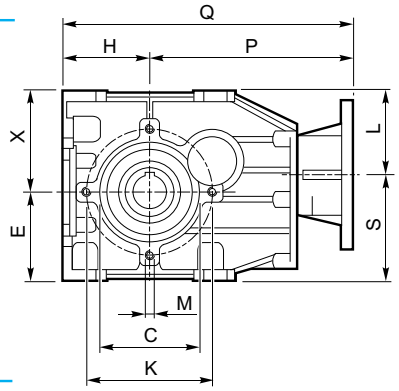
TF 56

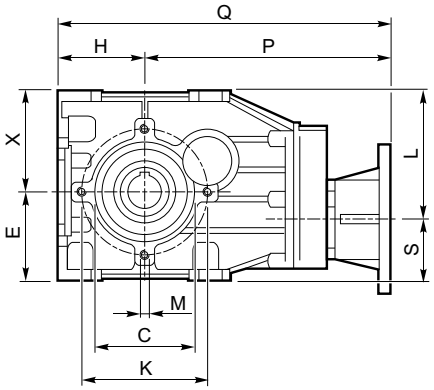


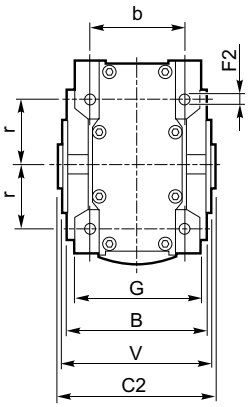




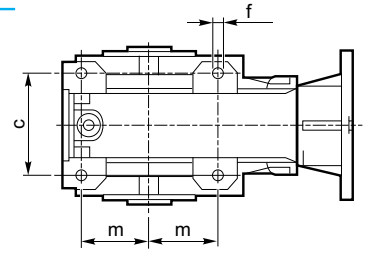
TF 63

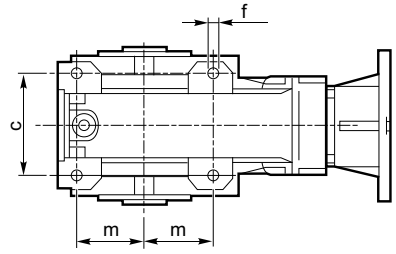




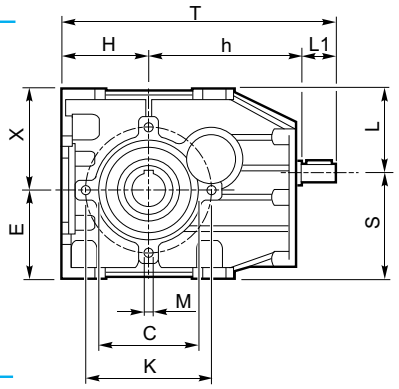


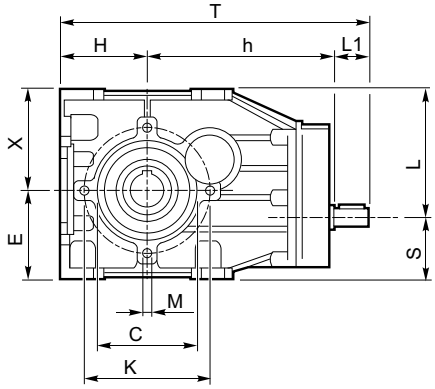
TF 56 - TF 63

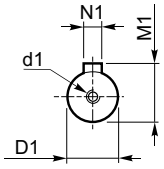


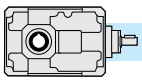


TA 56 - TA 63









2.9 Dimensioni — 2.9 *Dimensions* — 2.9 Abmessungen

	TA... - TC... - TF...						
	71B	**90B**	**112B**	**140B**	**180B**	**200B**	**225B**
A	142	180	224	280	360	400	450
a	102	134	166	209	272.5	305	344
a1	—	—	—	—	—	—	—
B	112	127	150	175	215	255	290
b	90	104	125	145	180	210	240
C2	115	130	155	180	220	260	300
D1 h6	14	19	24	28	38	38	48
D2 H7	**24** 28	**32** 30 35	**42** 40 45	**55** 50	**70** 60	**90** 80	**100**
E	206	262	326	407	522.5	585	654
e	38	52	64	82	110	120	140
F	9	11	13	15	17	19	21
f	M8x13	M10x16	M12x19	M14x22	M16x25	M18x35	M18x30
G	122	155	194	244	320	350	400
g	61	77.5	97	122	160	175	200
H	71	90	112	140	180	200	225
h	174	212	262	317	400	422.5	500
I	110	130	160	190	237.5	237.5	296
i	125	159.5	199	249	322.5	360	404
L1	30	40	50	60	80	80	110
O	64	82	102	127	162.5	185	204
T	275	342	424	517	660	702.5	835
t	211	260	322	390	497.5	517.5	631
Z	9	11	13	15	17	22	25

	TA..						
kg	12.5	20	34	58	116	165	232

	TC... - TF...						
kg	15.5	25	44	75	136	185	270

	TC...										
	71B				**90B**				**112B**		
IEC	63 B5	71 B5	80/90 B5	80 B14	71 B5	80/90 B5	*90 B14	100/112 B5	80/90 B5	100/112 B5	132 B5
Y	140	160	200	120	160	200	□120 / R73	250	200	250	300
P	177	184	204	204	220	240	240	250	286	296	318
p	113	120	140	140	138	158	158	168	184	194	216
Q	248	255	275	275	310	330	330	340	398	408	430
q	184	191	211	211	228	248	248	258	296	306	328

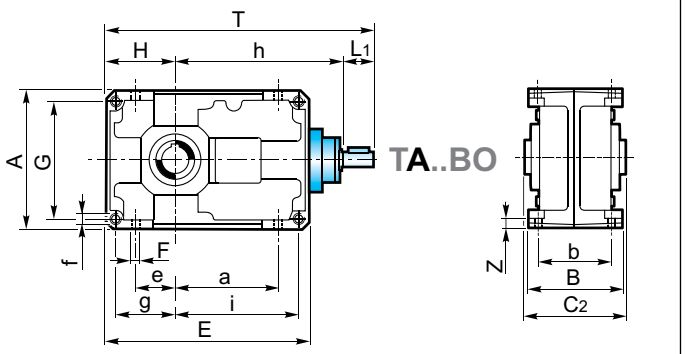
	140B				**180B**				**200B**			
IEC	80/90 B5	100/112 B5	132 B5	160/180 B5	100/112 B5	132 B5	160/180 B5	200 B5	100/112 B5	132 B5	160/180 B5	200 B5
Y	200	250	300	350	250	300	350	400	250	300	350	400
P	331	341	363	393	413(i=10-40) / 423(i=50-80)		463(i=10-40) / 473(i=50-80)		435(i=8-40) / 445(i=50-63)		485(i=8-40) / 495(i=50-63)	
p	204	214	236	266	250(i=10-40) / 260(i=50-80)		300(i=10-40) / 310(i=50-80)		250(i=8-40) / 260(i=50-63)		300(i=8-40) / 310(i=50-63)	
Q	471	481	503	533	593(i=10-40) / 603(i=50-80)		643(i=10-40) / 653(i=50-80)		640(i=8-40) / 650(i=50-63)		690(i=8-40) / 700(i=50-63)	
q	344	354	376	406	430(i=10-40) / 440(i=50-80)		480(i=10-40) / 490(i=50-80)		450(i=8-40) / 460(i=50-63)		500(i=8-40) / 510(i=50-63)	

* Flange quadrate / *Square flanges* / Viereckige Flansche

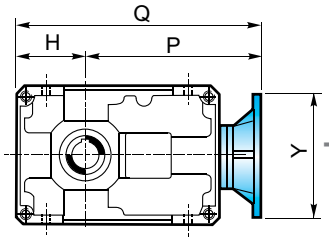
	TF...											
	71B			**90B**			**112B**			**140B**			
IEC	63 B5	71 B5	80/90 B5	71 B5	80/90 B5	100/112 B5	80/90 B5	100/112 B5	132 B5	80/90 B5	100/112 B5	132 B5	160/180 B5
Y	140	160	200	160	200	250	200	250	300	200	250	300	350
P	231	238	259	286	307	317	367	377	398	432	442	463	493
p	167	174	195	204	225	235	265	275	296	305	315	336	366
Q	302	309	330	376	397	407	479	489	510	572	582	603	633
q	238	245	266	294	315	325	377	387	408	445	455	476	506

	180B				**200B**				**225B**			
IEC	100/112 B5	132 B5	160/180 B5	200 B5	100/112 B5	132 B5	160/180 B5	200 B5	132 B5	160/180 B5	200 B5	225 B5
Y	250	300	350	400	250	300	350	400	300	350	400	450
P	546	566	596	596	568.5	588.5	618.5	620.5	698	728	728	760
p	393.5	403	433	433	383.5	403.5	433.5	435.5	494	524	524	556
Q	736	746	776	776	768.5	788.5	818.5	820.5	923	953	953	985
q	573.5	583	613	613	583.5	603.5	633.5	635.5	774	749	749	781

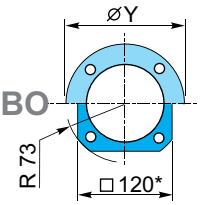
T..71B - T..225B



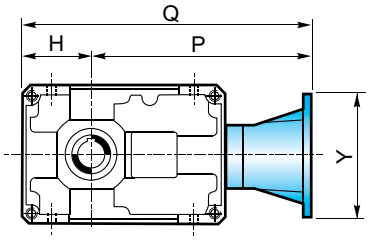
TA..BO



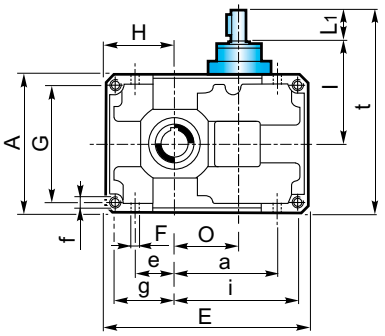
TC..BO



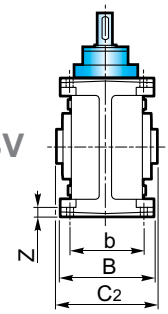
* Solo per / *Only for* / Nur für **90 B14**

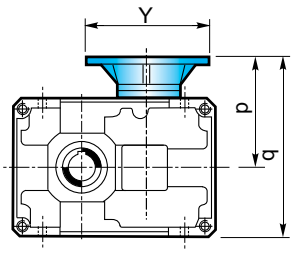


TF..BO

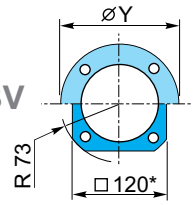


TA..BV

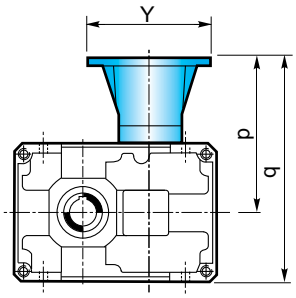




TC..BV

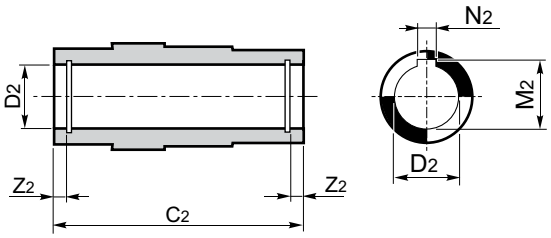


* Solo per / *Only for* / Nur für **90 B14**

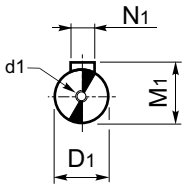


TF..BV

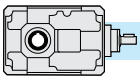
Albero uscita cavo
Hollow output shaft
Abtriebshohlwelle



Albero entrata
Input shaft
Antriebswelle



	TA... - TC... - TF...													
	71B		**90B**			**112B**			**140B**		**180B**		**200B**	**225B**
D1 h6	14		19			24			28		38		38	48
d1	M4x15		M8x22			M8x22			M8x22		M10x28		M10x28	M12x34
M1	16		21.5			27			31		41		41	51.5
N1	5		6			8			8		10		10	14
C2	115		130			155			180		220		260	300
D2 H7	**24**	28	**32**	30	35	**42**	40	45	**55**	50	**70**	60	**90** 80	**100**
M2	27.3	31.3	35.3	33.3	38.3	45.3	43.3	48.8	59.3	53.8	74.9	64.4	95.4 85.4	106.4
N2	8	8	10	8	10	12	12	14	16	14	20	18	25 22	28
Z2	—	—	8.7	8.7	8.4	11	11	11	11.9	11.9	15.4	15.9	18.9 18.9	20



2.9 **Dimensioni** 2.9 ***Dimensions*** 2.9 **Abmessungen**

	TA... - TC... - TF...											
	80C			100C			125C		160C		180C		200C
A	160			200			250		320		360		400
a	82			102			127		162.5		185		204
a1	106			134			169		217		207		277.5
B	127			150			175		215		255		290
b	104			125			145		180		210		240
C2	130			155			180		220		260		300
D1 h6	14			19			24		28		28		38
D2 H7	**32**	30	35	**42**	40	45	**55**	50	**70**	60	**90**	80	**100**
E	306			384			479		609.5		652		766.5
e	42			52			67		90		100		115
F	11			13			15		17		19		21
f	M10x16			M12x19			M14x22		M16x25		M18x35		M18x30
G	135			170			214		280		310		350
g	67.5			85			107		140		155		175
H	80			100			125		160		180		200
h	256			314			389		479.5		502		604
I	110			130			160		190		190		237.5
i	213.5			269			336		429.5		447		541.5
L1	30			40			50		60		60		80
O	146			184			229		289.5		312		366.5
T	366			454			564		699.5		742		884
t	220			270			335		410		430		517.5
Z	11			13			16		17		22		25

	TA..					
kg	19	36	66	120	170	260

	TC... - TF...					
kg	22	41	76	137	190	295

	TC...										
	80C				100C				125C		
IEC	63 B5	71 B5	80/90 B5	80 B14	71 B5	80/90 B5	*90 B14	100/112 B5	80/90 B5	100/112 B5	132 B5
Y	140	160	200	120	160	200	□120 / R 73	250	200	250	300
P	259	266	286	286	322	342	342	352	413	423	445
p	113	120	140	140	138	158	158	168	184	194	216
Q	339	346	366	366	422	442	442	452	538	548	570
q	193	200	220	220	238	258	258	268	309	319	341

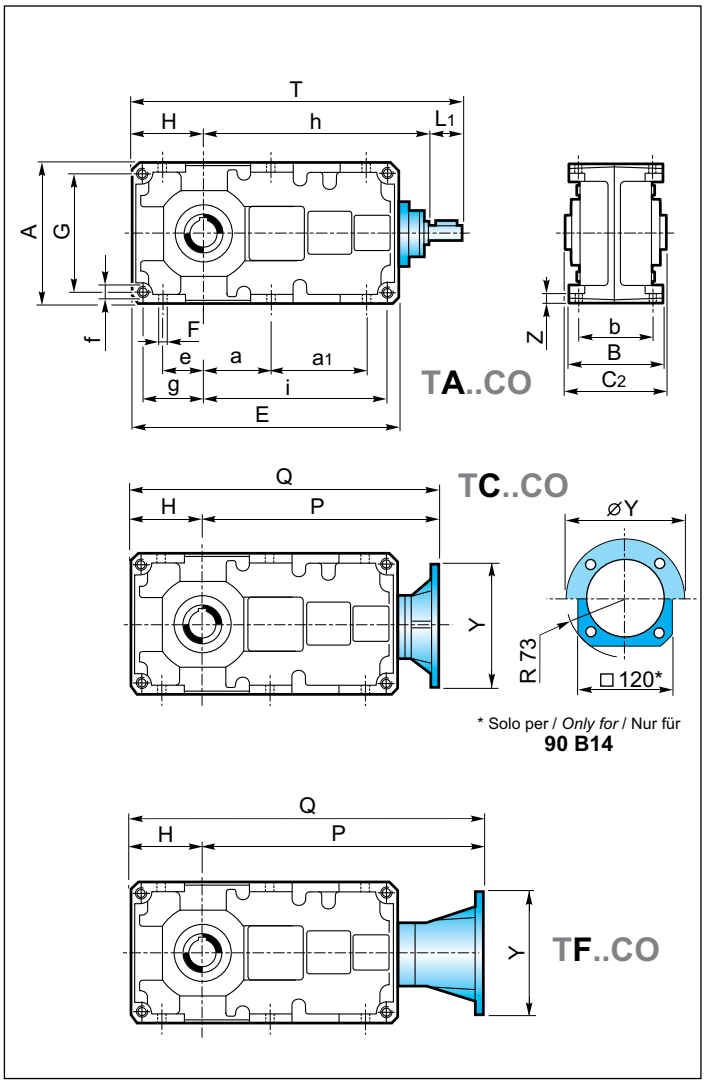
	160C				180C				200C			
IEC	80/90B5	100/112 B5	132 B5	160 B5	80/90 B5	100/112 B5	132 B5	160/180 B5	100/112 B5	132 B5	160/180 B5	200 B5
Y	200	250	300	350	200	250	300	350	250	300	350	400
P	493	503	525	555	516	526	548	578	617(i=40-160) / 627(i=200-315)	667(i=40-160) / 677(i=200-315)		
p	204	214	236	266	204	214	236	266	250(i=40-160) / 260 (i=200-315)	300(i=40-160) / 310 (i=200-315)		
Q	653	663	686	715	696	706	728	758	617(i=40-160) / 627(i=200-315)	867(i=40-160) / 877(i=200-315)		
q	364	374	396	426	384	394	416	446	450(i=40-160) / 460(i=200-315)	500(i=40-160) / 510(i=200-315)		

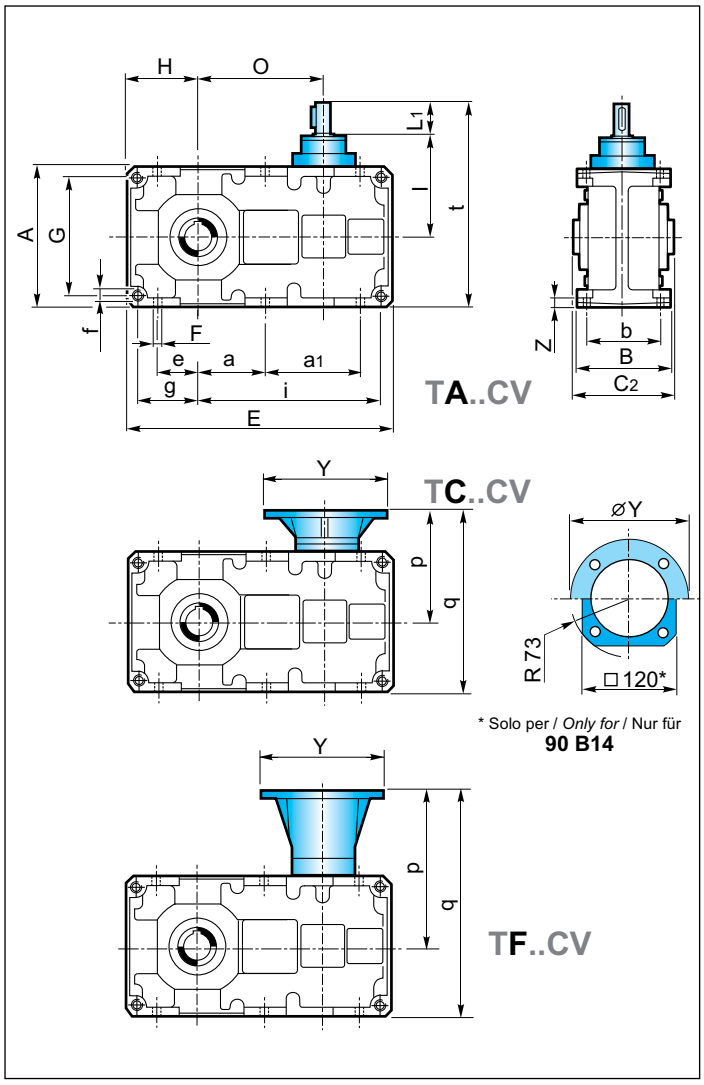
* Flange quadrate / *Square flanges* / Viereckige Flansche

	TF...								
	80C			100C			125C		
IEC	63 B5	71 B5	80/90 B5	71 B5	80/90 B5	100/112 B5	80/90 B5	100/112 B5	132 B5
Y	140	160	200	160	200	250	200	250	300
P	313	320	341	388	409	419	494	504	525
p	167	174	195	204	225	235	265	275	296
Q	393	400	421	488	509	519	619	629	650
q	247	254	275	304	325	335	390	400	421

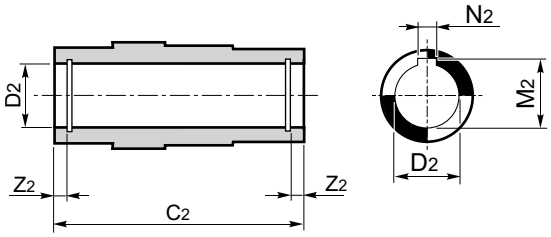
	160C				180C				200C		
IEC	80/90 B5	100/112 B5	132 B5	160 B5	80/90 B5	100/112 B5	132 B5	160/180 B5	132 B5	160/180 B5	200 B5
Y	200	250	300	350	200	250	300	350	300	350	400
P	594	604	625	655	617	627	648	678	770	800	802
p	305	315	336	366	305	315	336	366	404	434	436
Q	754	764	785	815	797	807	828	858	970	1000	1002
q	465	475	496	526	485	495	516	546	604	634	636

T..80C - T..200C

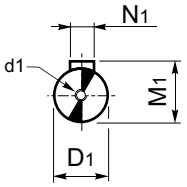




Albero uscita cavo
Hollow output shaft
Abtriebshohlwelle



Albero entrata
Input shaft
Antriebswelle



	TA... - TC... - TF...											
	80C			**100C**			**125C**		**160C**		**180C**	**200C**
D1 h6	14			19			24		28		28	38
d1	M4x15			M8x22			M8x22		M8x22		M8x22	M10x28
M1	16			21.5			27		31		31	41
N1	5			6			8		8		8	10
C2	130			155			180		220		260	300
D2 H7	**32**	30	35	**42**	40	45	**55**	50	**70**	60	**90**	80	**100**
M2	35.3	33.3	38.3	45.3	43.3	48.8	59.3	53.8	74.9	64.4	95.4	85.4	106.4
N2	10	8	10	12	12	14	16	14	20	18	25	22	28
Z2	8.7	8.7	8.4	11	11	11	11.9	11.9	15.4	15.9	18.9	18.9	20

2.10 Accessori

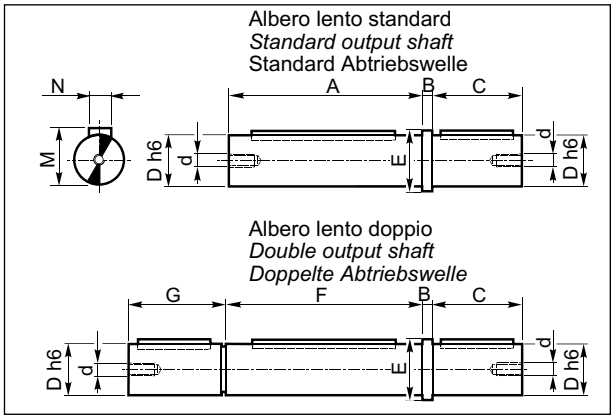
2.10 *Accessories*

2.10 Zubehör

Albero lento

Output shaft

Abtriebswelle



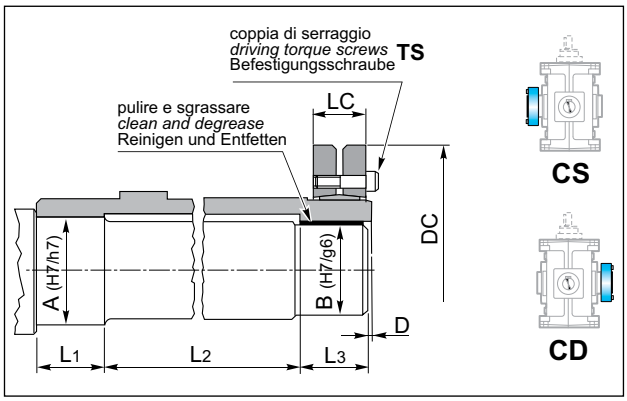
	T										
	56B 56C	63B 63C	71B	90B 80C		112B 100C		140B 125C	180B 160C	200B 180C	225B 200C
A	100	120	114	129	129	154	154	179	219	259	298
B	5	5	5	6	6	8	8	10	12	15	15
C	40	45	50	60	60	80	80	100	125	140	180
D_{h6}	20	25	24	32	35	42	45	55	70	90	100
d	M8	M8	M8	M8	M8	M10	M10	M10	M12	M16	M18
E	26	32	30	40	43	50	53	65	80	110	118
F	100	120	115	130	—	155	—	180	220	260	300
G	41	46	49	59	—	79	—	99	124	141	178
M	22.5	28	27	35	38	45	48.5	59	74.5	94	106
N	6	8	8	10	10	12	14	16	20	25	28

Materiale albero lento: **EN 10083 - 1 C40 bonificato**
Output shaft material: ***EN 10083 - 1 C40 tempered***
Material der Abtriebswelle: **EN 10083 - 1 C40 vergütet**

Albero lento cavo con calettatore

Hollow output shaft with shrink disc

Abtriebshohlwelle mit Schrumpfscheibe



	T								
	56B 56C	63B 63C	71B	90B 80C	112B 100C	140B 125C	180B 160C	200B 180C	225B 200C
A	27	32	27	37	47	57	72	92	102
B	25	30	25	35	45	55	70	90	100
D	2	2	2	2	2	2	2	3	3
DC	60	72	60	80	100	115	155	188	215
LC	21.5	23.5	22	26	31	31	39	50	54
L_1	32	36	36	39	45	50	60	70	80
L_2	61	75	68	82	100	115	143	175	200
L_3	32	36	36	39	45	50	60	70	80
$TS_{(Nm)}$	4	12	8	12	12	12	36	59	72

Kit protezione albero cavo

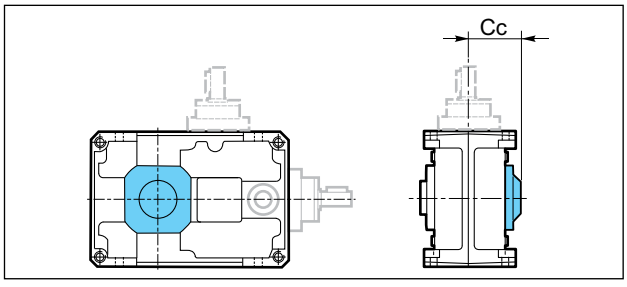
Ad esclusione delle grandezze 56 e 63, a richiesta è possibile predisporre il riduttore con un kit di protezione dell'albero cavo. Tale protezione, essendo dotata di un'opportuna guarnizione, impedisce ad eventuali fluidi, presenti nell'ambiente di lavoro, di venire a contatto con l'abero cavo del riduttore oltre ad impedire il contatto con corpi estranei. Le dimensioni di ingombro sono riportate nella tabella seguente.

Hollow shaft protection kit

On request we can supply a hollow shaft protection kit (except for sizes 56 and 63). The kit features a gasket which prevents any contact between hollow shaft and foreign bodies or fluids existing in the working environment. Over-all dimensions are reported in the following table.

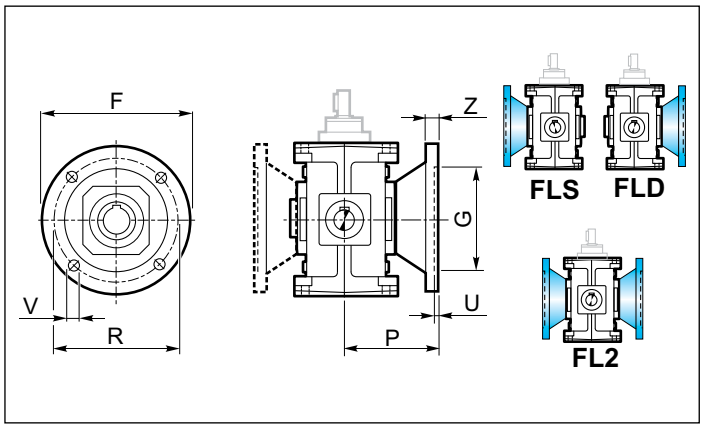
Schutzvorrichtung für die Hohlwelle

Auf Wunsch ist eine Schutzvorrichtung für die Hohlwelle lieferbar (Größen 56 und 63 ausgenommen).
Die Schutzvorrichtung weist eine Dichtung auf, die zur Vermeidung von irgendwelchem Kontakt zwischen Hohlwelle und Fremdkörper oder Flüssigkeiten der Arbeitsumgebung dient. In der folgenden Tabelle wird den Raumbedarf angegeben.



	T						
	71B	90B 80C	112B 100C	140B 125C	180B 160C	200B 180C	225B 200C
Cc	79.5	87	105	120.5	141.5	167.5	191.5

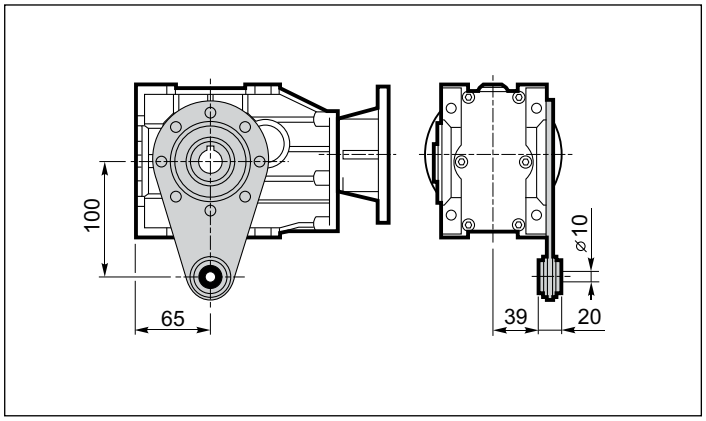
Flangia uscita — *Output flange* — Abtriebsflansch



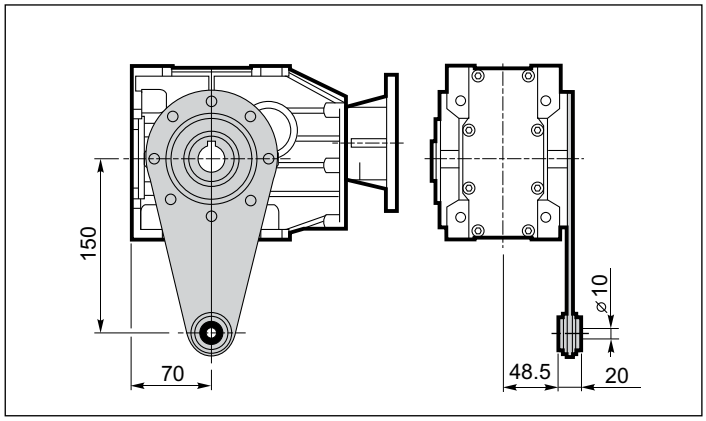
	T							
	56B 56C	63B 63C	71B	90B 80C	112B 100C	140B 125C	180B 160C	200B 180C
F	140	160	160	200	250	300	350	400
G_{G6}	95	110	110	130	180	230	250	300
R	115	130	130	165	215	265	300	350
P	82	91.5	87	100	125	150	180	215
U	5	5	4	4.5	5	5	6	6
V	9	9	12	12	14	16	18	20
Z	15	10	10	12	16	20	25	30
kg	0.5	0.5	2	3.2	5	8	12.5	24

Braccio di reazione — *Torque arm* — Drehmomentstütze

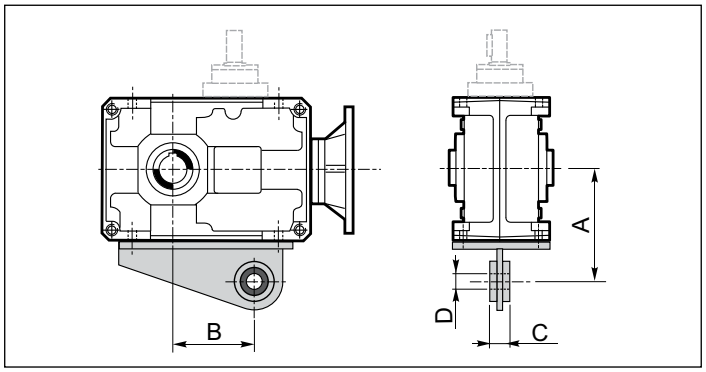
56B - 56C



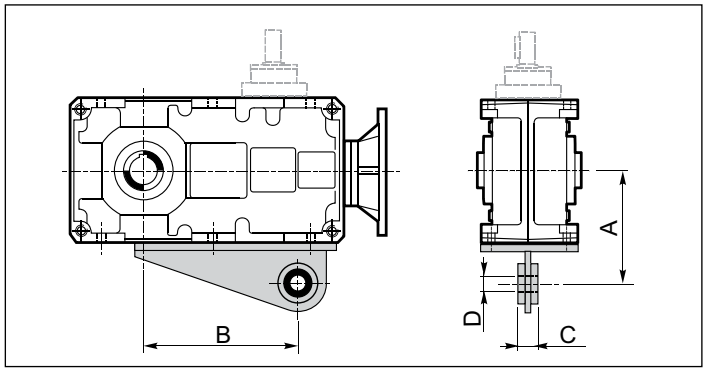
63B - 63C



71B - 225B



80C - 200C



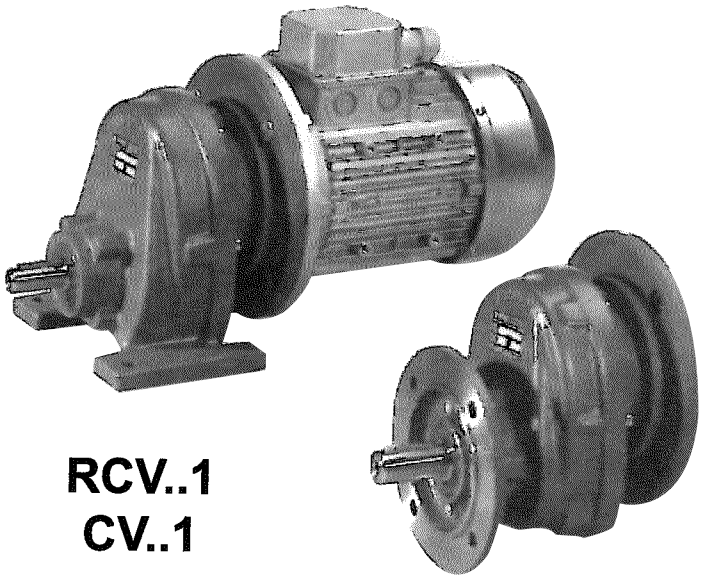
	T						
	71B	90B	112B	140B	180B	200B	225B
A	123	140	172	205	260	300	325
B	84	116	144	189	247.5	280	319
C	25	25	30	30	35	45	45
D	20	20	25	25	35	40	40

	T					
	80C	100C	125C	160C	180C	200C
A	130	160	190	240	280	300
B	170	214	276	354.5	367	456.5
C	25	30	30	35	45	45
D	20	25	25	35	40	40

JOHN BROOKS LTD.

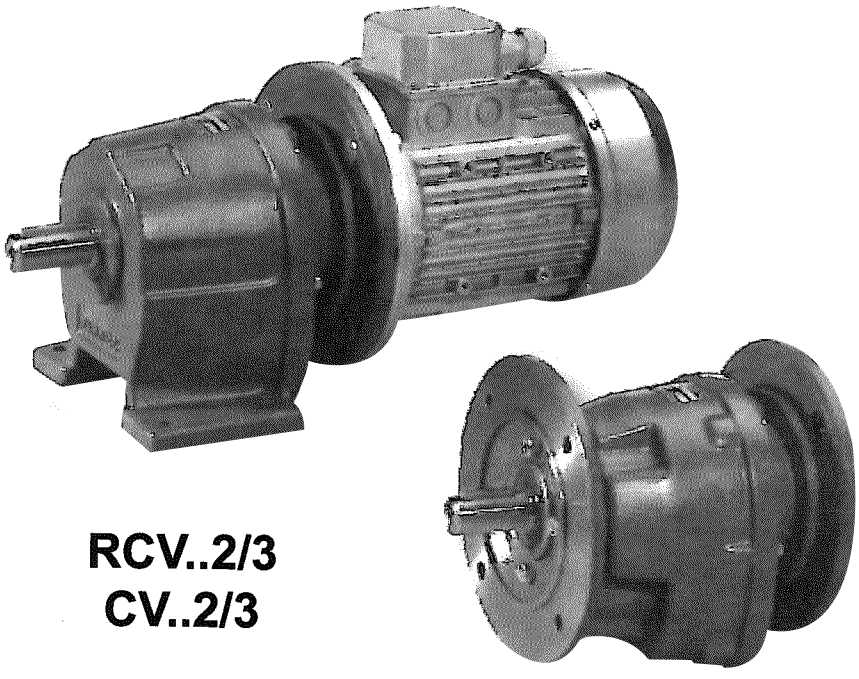
YOUR POWER CONNECTION

VARMEC



RCV..1
CV..1

Riduttori coassiali ad ingranaggi
Helical gear reducers
Stirnradgetriebe
Motoreducteurs coaxiaux
Reductores de engranajes cilindricos
Ridutor coassial



RCV..2/3
CV..2/3

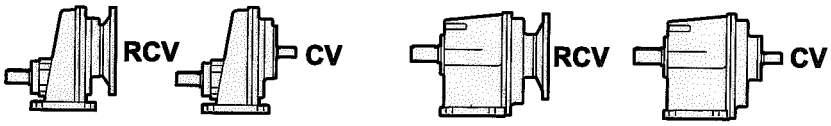
DESIGNAZIONE / *DESIGNATION* / GETRIEBEBEZEICHUNGEN / DESIGNATION / *DESIGNACION* / DESIGNAÇÃO

RIDUTTORE / *GEAR REDUCER* / GETRIEBE / REDUCTEUR / *REDUCTOR* / RIDUTOR

RCV 20 2 P 5.49 80B5 B3 ....

RCV

TIPO DI RIDUTTORE
TYPE OF GEAR REEDUCER
GETRIEBETYPEN
TYPE DE REDUCTEUR
TIPO DE REDUCTOR
TIPO DE RIDUTOR



20

GRANDEZZA
SIZE
GETRIEBEGRÖSSEN
TAILLE
TAMANO DEL REDUCTOR
GRANDEZA

14, 19, 24, 28, 38

16, 20, 25, 30, 35, 45, 55, 60

2

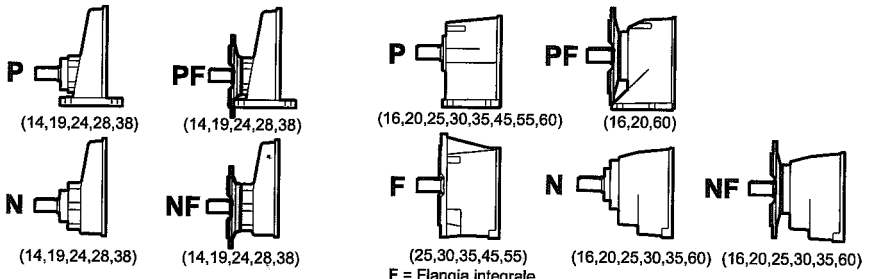
N° STADI DI RIDUZIONE
N. OF STAGES OF REDUCTION
ANZAHL DER UNTERSETZUNGEN
N.° STADES DE REDUCTION
N° ESTADOS DE REDUCCION
N° DE PARTE DE REDUÇÃO

1

2, 3

P

FORMA COSTRUTTIVA
STRUCTURAL SHAPE
BAUFORM
FORME CONSTRUCTIVE
FORMA CONSTRUCTIVA
FORMA CONSTRUTIVA



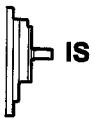
F = Flangia integrale
F = Flange mount
F = Integriertem Flansch
F = Bride monobloc
F = Brida integral
F = Brida integral

5.49

RAPPORTO DI RIDUZIONE
REDUCTION RATIO
UNTERSETZUNGSVERHÄLTNIS
RAPPORT DE REDUCTION
RELACION DE REDUCCION
RAZÃO DE REDUÇÃO

80B5

TIPO DI ENTRATA
TYPE OF INPUT
EINTRIEBSARTEN
TYPE D'ENTREE
TIPO DE ENTRADA
TIPO DE ENTRADA



IEC
63, 71, 80, 90, 100, 112, 132, 160, 180, 200 (B5,B14)

NEMA
56, 140, 180, 210, 250, 280

B3

POSIZIONE DI MONTAGGIO
ASSEMBLY POSITION
EINBAUPOSITION
POSITION DE MONTAGE
POSICION DE MONTAJE
POSIÇÃO DE MONTAGEM

....

OPZIONI
OPTIONS
SONDERAUSFÜHRUNGEN
OPTIONS
OPCIONES
OPÇÃO

Opzioni riduttori

AV Anelli di tenuta in entrata e uscita in Viton
EV Anelli di tenuta in entrata in Viton
EX Riduttore in versione Atex
OA I riduttori sono forniti con olio lubrificante alimentare
OS I riduttori della serie CV-RCV 45-55-60 solitamente sprovvisti di lubrificante, vengono forniti con olio sintetico
AU Dimensione dell'albero lento diverso dallo standard (specificare le dimensioni)
ME Riduttore con motore elettrico (specificare le caratteristiche del motore elettrico)

Gear reducer options

AV *Viton input and output oil seals*

EV *Viton input oil seals*
EX *Atex gear reducer version*
OA *Gear reducers are supplied with alimentary lubricant oil*
OS *Gear reducers from series CV-RCV 45-55-60 usually without lubricant, will come supplied with synthetic oil*

AU *The dimensions of the output shaft differ from standard (please specify dimensions)*
ME *Gear reducers with an electric motor (please specify the characteristics of the electric motor)*

Sonderausführungen

AV Dichtungsringe in Eintrieb und Abtrieb in Viton
EV Dichtungsringe in Eintrieb in Viton
EX Getriebe in Atex—Version
OA Die Getriebe der Größe CV-RCV 45-55-60 werden mit mineralischem Öl geliefert
OS Die Getriebe der Größe CV-RCV 45-55-60 werden mit synthetischem Öl geliefert
AU Die Abmessung der Abtriebswelle entspricht nicht der Standardversion (die Abmessungen sind zu spezifizieren)
ME Getriebe mit elektrischem Motor (die Eigenschaften des Motors sind zu spezifizieren)

Options réducteurs

AV Bagues d'étanchéite en entrée et sortie en Viton
EV Bagues d'étanchéité en entrée en Viton
EX Réducteur en version Atex
OA Les réducteurs sont fournis avec huile lubrifiant alimentaire
OS Les réducteurs de la serie CV-RCV 45-55-60 normalement dépourvus de lubrifiant, sont fournis avec huile synthétique
AU de l'arbre de sortie différents du standard (spécifier les dimensions).
ME Réducteur avec moteur életrique (spécifier les caractéristiques du moteur électrique)

Opciones reductores

AV *Anillos herméticos en entrada y salida en VITON*
EV *Anillos herméticos en entrada en viton*
EX *Reductor en versión Atex*
OA *Los reductores están provistos de aceite lubricante alimenticio*
OS *Los reductores de la serie CV-RCV 45-55-60 que no son provistos de lubricante, se abastecen con aceite sintético*
AU *Dimensiones del eje lento (salida) diferente del estándar (especificar las dimensiones)*
ME *Reductor con motor eléctrico (especificar las características del motor eléctrico).*

Opção ridutor

AV Anel de segurança em entrada e saida em viton
EV Anel de segurança em entrada em viton
EX Ridutor em versão atex
OA O ridutor são fornido com ólio lubrificante alimentar
OS O ridutor da série CV-RCV 45-55-60 não tem lubrificante vem fornido com ólio sintético
AU Dimensão do eixo lento diferente da standart (specificar a dimensão)
ME Ridutor com motor elétrico (specificar a caracteristica do motor elétrico)

MOTORE / *MOTOR* / MOTOREN / MOTEUR / *MOTOR* / MOTOR

T 80A 4 230/400 50 CLF A ....

T — TIPO MOTORE / *TYPE OF MOTOR* / MOTORTYP
TYPE MOTEUR / *TIPO DE MOTOR* / TIPO DE MOTOR
T trifase **TF** trifase autofrenante **M** monofase **MF** monofase autofrenante
T *tri-phase* ***TF*** *self-locking tri-phase* ***M*** *monophase* ***MF*** *self-locking monophase*
T Drehstrommotor **TF** Drehstrom-Bremsmotor **M** Einphasenmotor **MF** Einphasen-Bremsmotor
T triphasé **TF** triphasé auto **M** monophasé **MF** monophasé auto
T *trifàsico* - ***TF*** *trifàsico autofrenante* - ***M*** *monofasico* - ***MF*** *monofasico autofrenante*
T motor elétrico trifásico **TF** motor elétrico trifásico autofrenante **M** motor monofásico **MF** motor monofásico autofrenante

80A — GRANDEZZA / *SIZE* / GRÖSSE
TAILLE / *TAMANO* / GRANDEZA

4 — N° POLI / *N. OF POLES* / ANZAHL DER POLE
N.° POLES / *N° POLOS* / N° PÓLO

230/400 — TENSIONE / *VOLTAGE* / SPANNUNG
TENSION / *TENSION* / TENSÃO

50 — FREQUENZA / *FREQUENCY* / FREQUENZ
FREQUENCE / *FRECUENCIA* / FREQÜÊNCIA

CLF — CLASSE ISOLAMENTO / *INSULATION CLASS* / ISOLATIONSKLASSE
CLASSE ISOLEMENT / *CLASE DE AISLAMIENTO* / CLASSE ISOLAMENTO

IP55 — PROTEZIONE / *PROTECTION* / SCHUTZ
PROTECTION / *PROTECCION* / PROTEÇÃO

A — POSIZIONE MORSETTIERA / *POSITION OF TERMINAL BOX* / POSITION DER KLEMMLEISTE
POSITION BARRETTE DE CONNECTION / *POSICION DE LA CAJA DE BORNES* / POSIÇÃO

.... — OPZIONI / *OPTIONS* / SONDERAUSFÜHRUNGEN
OPTIONS / *OPCIONES* / OPÇÃO

SELEZIONE MOTORIDUTTORI / *MOTOR REDUCER SELECTION* / AUSWAHL DER GETRIEBEMOTOREN SELECTION MOTO-REDUCTEURS / *SELECCION MOTORREDUCTORES* / SELEÇÃO MOTORIDUTOR

P_1 = **0.09** kW — 63A6 n_1= 900 min^{-1}

n_2 min^{-1}	Mn_2 Nm	fs			i	
3.1	256	1.4		**RCV 303**	**287.90**	63A6
3.1	256	1.7		**RCV 353**	**287.90**	63A6
3.5	228	1.5		**RCV 303**	**256.50**	63A6
3.5	228	1.9		**RCV 353**	**256.50**	63A6
3.9	205	1.6		**RCV 303**	**230.30**	63A6
3.9	205	2.0		**RCV 353**	**230.30**	63A6
4.7	171	1.2		**RCV 253**	**192.10**	63A6
4.8	168	1.8		**RCV 303**	**189.20**	63A6
4.8	168	2.3		**RCV 353**	**189.20**	63A6
5.7	140	1.4		**RCV 253**	**157.90**	63A6
6.0	134	2.4		**RCV 303**	**151.10**	63A6
6.2	128	1.6		**RCV 253**	**144.40**	63A6
6.4	126	0.9		**RCV 203**	**141.30**	63A6
6.7	120	2.6		**RCV 303**	**134.70**	63A6
7.3	109	1.9		**RCV 253**	**122.50**	63A6
7.4	107	2.9		**RCV 303**	**120.90**	63A6
7.5	107	1.0		**RCV 203**	**120.10**	63A6
8.3	97	2.0		**RCV 253**	**109.10**	63A6
8.3	96	1.1		**RCV 203**	**108.10**	63A6
9.2	87	1.2		**RCV 203**	**97.70**	63A6
10.0	80	2.5		**RCV 253**	**89.70**	63A6
11.0	73	2.8		**RCV 253**	**82.00**	63A6
11.1	72	1.5		**RCV 203**	**81.40**	63A6
13.0	62	1.8		**RCV 203**	**69.20**	63A6
14.0	57	1.8		**RCV 203**	**64.30**	63A6
15.5	52	2.1		**RCV 203**	**58.10**	63A6
17.2	48.1	1.5		**RCV 162**	**52.48**	63A6
18.2	45.4	2.3		**RCV 202**	**49.52**	63A6
20.1	41.0	2.6		**RCV 202**	**44.77**	63A6
21.1	39.1	1.8		**RCV 162**	**42.67**	63A6
25.6	32.2	2.1		**RCV 162**	**35.14**	63A6
31.5	26.2	2.9		**RCV 162**	**28.57**	63A6
35.3	23.4	3.1		**RCV 162**	**25.51**	63A6
36.6	22.5	3.4		**RCV 162**	**24.59**	63A6
43.4	19.0	3.8		**RCV 162**	**20.74**	63A6
55	15.1	4.7		**RCV 162**	**16.47**	63A6
62	13.4	5.1		**RCV 162**	**14.63**	63A6
75	11.0	6.0		**RCV 162**	**11.95**	63A6
92	9.0	6.6		**RCV 162**	**9.80**	63A6
118	7.0	7.4		**RCV 162**	**7.62**	63A6
121	7.0	5.0	**RCV 141**		**7.46**	63A6
127	6.5	8.3		**RCV 162**	**7.11**	63A6
165	5.1	6.6	**RCV 141**		**5.47**	63A6
176	4.7	9.8		**RCV 162**	**5.10**	63A6
188	4.5	7.1	**RCV 141**		**4.79**	63A6
212	4.0	8.3	**RCV 141**		**4.24**	63A6
243	3.4	12.1		**RCV 162**	**3.70**	63A6
265	3.2	9.4	**RCV 141**		**3.40**	63A6
323	2.6	11.5	**RCV 141**		**2.79**	63A6
386	2.2	12.4	**RCV 141**		**2.33**	63A6
698	1.2	14.1	**RCV 141**		**1.29**	63A6

P_1 = **0.12** kW — 63A4 n_1= 1400 min^{-1}, 63B6 n_1= 900 min^{-1}

n_2 min^{-1}	Mn_2 Nm	fs			i	
3.1	341	1.0		**RCV 303**	**287.90**	63B6
3.1	341	1.3		**RCV 353**	**287.90**	63B6
3.5	304	1.1		**RCV 303**	**256.50**	63B6
3.5	304	1.4		**RCV 353**	**256.50**	63B6
3.9	273	1.2		**RCV 303**	**230.30**	63B6
3.9	273	1.5		**RCV 353**	**230.30**	63B6
4.7	228	0.9		**RCV 253**	**192.10**	63B6
4.9	219	1.6		**RCV 303**	**287.90**	63A4
4.9	219	2.0		**RCV 353**	**287.90**	63A4
5.5	195	1.7		**RCV 303**	**256.50**	63A4
5.5	195	2.2		**RCV 353**	**256.50**	63A4
6.1	175	1.8		**RCV 303**	**230.30**	63A4
6.1	175	2.3		**RCV 353**	**230.30**	63A4
7.3	146	1.3		**RCV 253**	**192.10**	63A4
7.4	144	2.1		**RCV 303**	**189.20**	63A4
7.4	144	2.7		**RCV 353**	**189.20**	63A4
8.9	120	1.7		**RCV 253**	**157.90**	63A4
9.3	115	2.8		**RCV 303**	**151.10**	63A4
9.7	110	1.9		**RCV 253**	**144.40**	63A4
9.9	108	1.0		**RCV 203**	**141.30**	63A4
11.4	93	2.2		**RCV 253**	**122.50**	63A4
11.7	91	1.2		**RCV 203**	**120.10**	63A4
12.8	83	2.3		**RCV 253**	**109.10**	63A4
13.0	82	1.3		**RCV 203**	**108.10**	63A4
14.3	74	1.4		**RCV 203**	**97.70**	63A4
15.6	68	2.9		**RCV 253**	**89.70**	63A4
17.2	62	1.7		**RCV 203**	**81.40**	63A4
20.2	53	2.1		**RCV 203**	**69.20**	63A4
21.8	49.0	2.1		**RCV 203**	**64.30**	63A4
24.1	44.2	2.4		**RCV 203**	**58.10**	63A4
26.7	41.2	1.7		**RCV 162**	**52.48**	63A4
28.3	38.9	2.7		**RCV 202**	**49.52**	63A4
31.3	35.2	3.0		**RCV 202**	**44.77**	63A4
32.8	33.5	2.1		**RCV 162**	**42.67**	63A4
39.8	27.6	2.4		**RCV 162**	**35.14**	63A4
49.0	22.5	3.0		**RCV 162**	**28.57**	63A4
55	20.0	3.3		**RCV 162**	**25.51**	63A4
57	19.3	3.6		**RCV 162**	**24.59**	63A4
68	16.3	4.1		**RCV 162**	**20.74**	63A4
85	12.9	4.9		**RCV 162**	**16.47**	63A4
96	11.5	5.4		**RCV 162**	**14.63**	63A4
117	9.4	6.4		**RCV 162**	**11.95**	63A4
143	7.7	7.0		**RCV 162**	**9.80**	63A4
184	6.0	7.9		**RCV 162**	**7.62**	63A4
188	6.0	5.0	**RCV 141**		**7.46**	63A4
197	5.6	8.6		**RCV 162**	**7.11**	63A4
256	4.4	6.6	**RCV 141**		**5.47**	63A4
275	4.0	10.2		**RCV 162**	**5.10**	63A4
292	3.8	7.5	**RCV 141**		**4.79**	63A4
330	3.4	8.2	**RCV 141**		**4.24**	63A4
412	2.7	9.9	**RCV 141**		**3.40**	63A4
502	2.2	12.1	**RCV 141**		**2.79**	63A4
601	1.9	12.8	**RCV 141**		**2.33**	63A4
1085	1.0	14.5	**RCV 141**		**1.29**	63A4

P1 = 0.18 kW — 63A2 n_1= 2800 min^{-1}, 63B4 n_1= 1400 min^{-1}, 71A6 n_1= 900 min^{-1}

n_2 min^{-1}	Mn_2 Nm	fs			i	
3.1	511	0.9		RCV 353	287.90	71A6
3.5	456	0.9		RCV 353	256.50	71A6
3.9	409	1.0		RCV 353	230.30	71A6
4.8	336	0.9		RCV 303	189.20	71A6
4.8	336	1.1		RCV 353	189.20	71A6
4.9	329	1.1		RCV 303	287.90	63B4
4.9	329	1.3		RCV 353	287.90	63B4
5.5	293	1.1		RCV 303	256.50	63B4
5.5	293	1.5		RCV 353	256.50	63B4
6.1	263	1.2		RCV 303	230.30	63B4
6.1	263	1.6		RCV 353	230.30	63B4
7.3	219	0.9		RCV 253	192.10	63B4
7.4	216	1.4		RCV 303	189.20	63B4
7.4	216	1.8		RCV 353	189.20	63B4
8.9	180	1.1		RCV 253	157.90	63B4
9.3	173	1.9		RCV 303	151.10	63B4
9.3	173	2.4		RCV 353	151.10	63B4
9.7	165	1.3		RCV 253	144.40	63B4
10.4	154	2.0		RCV 303	134.70	63B4
10.4	154	2.6		RCV 353	134.70	63B4
11.4	140	1.5		RCV 253	122.50	63B4
11.6	138	2.2		RCV 303	120.90	63B4
11.6	138	2.8		RCV 353	120.90	63B4
14.1	113	2.6		RCV 303	99.30	63B4
14.3	112	1.0		RCV 203	97.70	63B4
15.6	102	2.0		RCV 253	89.70	63B4
17.1	94	2.2		RCV 253	82.00	63B4
17.2	93	1.2		RCV 203	81.40	63B4
20.1	80	2.6		RCV 253	69.60	63B4
20.2	79	1.4		RCV 203	69.20	63B4
21.8	73	1.4		RCV 203	64.30	63B4
23.3	69	2.8		RCV 253	60.10	63B4
24.1	66	1.6		RCV 203	58.10	63B4
26.7	62	1.1		RCV 162	52.48	63B4
28.3	58	1.8		RCV 202	49.52	63B4
31.3	53	2.0		RCV 202	44.77	63B4
32.8	50	1.4		RCV 162	42.67	63B4
37.5	44.0	2.4		RCV 202	37.31	63B4
39.8	41.4	1.6		RCV 162	35.14	63B4
44.2	37.4	2.9		RCV 202	31.71	63B4
49.0	33.7	2.0		RCV 162	28.57	63B4
55	30.1	2.2		RCV 162	25.51	63B4
57	29.0	2.4		RCV 162	24.59	63B4
68	24.4	2.7		RCV 162	20.74	63B4
85	19.4	3.3		RCV 162	16.47	63B4
96	17.2	3.6		RCV 162	14.63	63B4
117	14.1	4.3		RCV 162	11.95	63B4
127	13.0	4.1		RCV 162	7.11	71A6
143	11.6	4.7		RCV 162	9.80	63B4
184	9.0	5.2		RCV 162	7.62	63B4
188	9.0	3.3	RCV 141		7.46	63B4
197	8.4	5.7		RCV 162	7.11	63B4
256	6.6	4.4	RCV 141		5.47	63B4
275	6.0	6.8		RCV 162	5.10	63B4
292	5.8	5.0	RCV 141		4.79	63B4
330	5.1	5.5	RCV 141		4.24	63B4

P1 = 0.18 kW — 63A2 n_1= 2800 min^{-1}, 63B4 n_1= 1400 min^{-1}, 71A6 n_1= 900 min^{-1}

n_2 min^{-1}	Mn_2 Nm	fs			i	
412	4.1	6.6	RCV 141		3.40	63B4
502	3.4	8.0	RCV 141		2.79	63B4
601	2.8	8.6	RCV 141		2.33	63B4
824	2.0	11.2	RCV 141		3.40	63A2
1085	1.6	9.7	RCV 141		1.29	63B4

P1 = 0.25 kW — 63B2 n_1= 2800 min^{-1}, 71A4 n_1= 1400 min^{-1}, 71B6 n_1= 900 min^{-1}

4.0	562	1.3		RCV 453	227.70	71B6
4.9	457	1.0		RCV 353	287.90	71A4
5.5	407	1.1		RCV 353	256.50	71A4
6.1	365	0.9		RCV 303	230.30	71A4
6.1	365	1.1		RCV 353	230.30	71A4
6.1	361	2.1		RCV 453	227.70	71A4
6.9	321	2.2		RCV 453	202.10	71A4
7.4	300	1.0		RCV 303	189.20	71A4
7.4	300	1.3		RCV 353	189.20	71A4
7.7	287	2.5		RCV 453	180.70	71A4
8.6	258	2.6		RCV 453	162.70	71A4
9.3	240	1.3		RCV 303	151.10	71A4
9.3	240	1.7		RCV 353	151.10	71A4
9.5	234	2.8		RCV 453	147.20	71A4
9.7	229	0.9		RCV 253	144.40	71A4
10.4	214	1.5		RCV 303	134.70	71A4
10.4	214	1.9		RCV 353	134.70	71A4
11.4	194	1.1		RCV 253	122.50	71A4
11.6	192	1.6		RCV 303	120.90	71A4
11.6	192	2.1		RCV 353	120.90	71A4
12.8	173	1.1		RCV 253	109.10	71A4
14.1	158	1.9		RCV 303	99.30	71A4
14.1	158	2.4		RCV 353	99.30	71A4
15.6	142	1.4		RCV 253	89.70	71A4
17.0	130	2.4		RCV 303	82.20	71A4
17.1	130	1.6		RCV 253	82.00	71A4
19.1	117	2.7		RCV 303	73.30	71A4
20.1	110	1.9		RCV 253	69.60	71A4
20.2	110	1.0		RCV 203	69.20	71A4
21.3	104	2.9		RCV 303	65.80	71A4
21.8	102	1.0		RCV 203	64.30	71A4
23.3	95	2.0		RCV 253	60.10	71A4
24.1	92	1.2		RCV 203	58.10	71A4
28.3	81	1.3		RCV 202	49.52	71A4
28.5	80	2.4		RCV 252	49.04	71A4
31.3	73	1.5		RCV 202	44.77	71A4
32.8	70	1.0		RCV 162	42.67	71A4
34.7	66	3.0		RCV 252	40.29	71A4
37.5	61	1.8		RCV 202	37.31	71A4
39.8	58	1.1		RCV 162	35.14	71A4
44.2	52	2.1		RCV 202	31.71	71A4
49.0	46.8	1.4		RCV 162	28.57	71A4
49.8	46.1	2.2		RCV 202	28.13	71A4
55	41.8	1.6		RCV 162	25.51	71A4
55	41.6	2.5		RCV 202	25.43	71A4
57	40.3	1.7		RCV 162	24.59	71A4
66	34.7	2.8		RCV 202	21.19	71A4
68	34.0	1.9		RCV 162	20.74	71A4

P1 = 0.25 kW — 63B2 n_1= 2800 min^{-1}, 71A4 n_1= 1400 min^{-1}, 71B6 n_1= 900 min^{-1}

n_2 min^{-1}	Mn_2 Nm	fs			i	
85	27.0	2.4		**RCV 162**	**16.47**	71A4
96	24.0	2.6		**RCV 162**	**14.63**	71A4
110	20.9	2.6		**RCV 162**	**25.51**	63B2
117	19.6	3.1		**RCV 162**	**11.95**	71A4
121	19.4	1.8	**RCV 141**		**7.46**	71B6
127	18.1	3.0		**RCV 162**	**7.11**	71B6
143	16.0	3.4		**RCV 162**	**9.80**	71A4
165	14.2	2.4	**RCV 141**		**5.47**	71B6
184	12.5	3.8		**RCV 162**	**7.62**	71A4
188	12.5	2.4	**RCV 141**		**7.46**	71A4
197	11.6	4.1		**RCV 162**	**7.11**	71A4
212	11.0	3.0	**RCV 141**		**4.24**	71B6
256	9.1	3.2	**RCV 141**		**5.47**	71A4
275	8.4	4.9		**RCV 162**	**5.10**	71A4
292	8.0	3.6	**RCV 141**		**4.79**	71A4
330	7.1	4.0	**RCV 141**		**4.24**	71A4
378	6.1	6.1		**RCV 162**	**3.70**	71A4
412	5.7	4.8	**RCV 141**		**3.40**	71A4
502	4.7	5.8	**RCV 141**		**2.79**	71A4
601	3.9	6.2	**RCV 141**		**2.33**	71A4
698	3.4	5.1	**RCV 141**		**1.29**	71B6
824	2.8	8.1	**RCV 141**		**3.40**	63B2
1085	2.2	7.0	**RCV 141**		**1.29**	71A4

P1 = 0.37 kW — 71A2 n_1= 2800 min^{-1}, 71B4 n_1= 1400 min^{-1}, 80A6 n_1= 900 min^{-1}

2.8	1160	1.0		**RCV 553**	**317.67**	80A6
3.0	1107	2.9		**RCV 603**	**303.10**	80A6
3.5	947	1.2		**RCV 553**	**259.37**	80A6
4.0	831	0.9		**RCV 453**	**227.70**	80A6
4.0	821	1.4		**RCV 553**	**224.93**	80A6
4.5	738	1.0		**RCV 453**	**202.10**	80A6
4.9	671	1.7		**RCV 553**	**183.64**	80A6
5.0	660	1.1		**RCV 453**	**180.70**	80A6
5.5	594	1.1		**RCV 453**	**162.70**	80A6
6.1	538	1.2		**RCV 453**	**147.20**	80A6
6.1	535	1.4		**RCV 453**	**227.70**	71B4
6.2	530	2.1		**RCV 553**	**145.09**	80A6
6.9	474	1.5		**RCV 453**	**202.10**	71B4
7.4	444	0.9		**RCV 353**	**189.20**	71B4
7.4	441	0.9		**RCV 353**	**120.90**	80A6
7.6	433	2.8		**RCV 553**	**118.46**	80A6
7.7	424	1.7		**RCV 453**	**180.70**	71B4
8.3	398	2.8		**RCV 553**	**108.86**	80A6
8.5	385	1.8		**RCV 453**	**105.50**	80A6
8.6	382	1.8		**RCV 453**	**162.70**	71B4
9.1	363	1.0		**RCV 353**	**99.30**	80A6
9.3	355	0.9		**RCV 303**	**151.10**	71B4
9.3	355	1.2		**RCV 353**	**151.10**	71B4
9.5	346	1.9		**RCV 453**	**147.20**	71B4
9.5	344	2.0		**RCV 453**	**94.30**	80A6
9.7	338	0.9		**RCV 303**	**287.90**	71A2
9.7	338	1.1		**RCV 353**	**287.90**	71A2
10.4	316	1.0		**RCV 303**	**134.70**	71B4
10.4	316	1.3		**RCV 353**	**134.70**	71B4
11.6	284	1.1		**RCV 303**	**120.90**	71B4

P1 = 0.37 kW — 71A2 n_1= 2800 min^{-1}, 71B4 n_1= 1400 min^{-1}, 80A6 n_1= 900 min^{-1}

n_2 min^{-1}	Mn_2 Nm	fs			i	
11.6	284	1.4		**RCV 353**	**120.90**	71B4
13.3	248	2.8		**RCV 453**	**105.50**	71B4
14.1	233	1.3		**RCV 303**	**99.30**	71B4
14.1	233	1.6		**RCV 353**	**99.30**	71B4
15.5	212	2.8		**RCV 453**	**180.70**	71A2
15.6	211	1.0		**RCV 253**	**89.70**	71B4
17.0	193	1.6		**RCV 303**	**82.20**	71B4
17.0	193	2.1		**RCV 353**	**82.20**	71B4
17.1	193	1.1		**RCV 253**	**82.00**	71B4
19.1	173	1.8		**RCV 303**	**73.30**	71B4
19.1	173	2.3		**RCV 353**	**73.30**	71B4
20.1	163	1.3		**RCV 253**	**69.60**	71B4
21.3	155	2.0		**RCV 303**	**65.80**	71B4
21.3	155	2.5		**RCV 353**	**65.80**	71B4
23.3	141	1.4		**RCV 253**	**60.10**	71B4
25.9	127	2.3		**RCV 303**	**54.00**	71B4
25.9	127	2.9		**RCV 353**	**54.00**	71B4
28.3	120	0.9		**RCV 202**	**49.52**	71B4
28.5	119	1.6		**RCV 252**	**49.04**	71B4
30.3	108	2.9		**RCV 303**	**46.20**	71B4
31.3	109	1.0		**RCV 202**	**44.77**	71B4
34.7	98	2.0		**RCV 252**	**40.29**	71B4
37.5	90	1.2		**RCV 202**	**37.31**	71B4
38.0	89	2.3		**RCV 252**	**36.86**	71B4
44.2	77	1.4		**RCV 202**	**31.71**	71B4
49.0	69	1.0		**RCV 162**	**28.57**	71B4
49.8	68	1.5		**RCV 202**	**28.13**	71B4
54	62	3.0		**RCV 252**	**25.75**	71B4
55	62	1.1		**RCV 162**	**25.51**	71B4
55	62	1.7		**RCV 202**	**25.43**	71B4
57	60	1.2		**RCV 162**	**24.59**	71B4
66	51	1.9		**RCV 202**	**21.19**	71B4
68	50	1.3		**RCV 162**	**20.74**	71B4
78	43.6	2.2		**RCV 202**	**18.01**	71B4
85	39.9	1.6		**RCV 162**	**16.47**	71B4
90	37.5	2.1		**RCV 202**	**15.48**	71B4
100	33.9	2.3		**RCV 202**	**14.00**	71B4
117	29.0	2.1		**RCV 162**	**11.95**	71B4
120	28.3	2.8		**RCV 202**	**11.67**	71B4
121	28.7	1.2	**RCV 141**		**7.46**	80A6
143	23.7	2.3		**RCV 162**	**9.80**	71B4
163	20.8	3.5		**RCV 202**	**8.57**	71B4
179	19.3	2.4	**RCV 191**		**7.82**	71B4
179	19.3	2.4	**RCV 241**		**7.82**	71B4
184	18.5	2.5		**RCV 162**	**7.62**	71B4
188	18.5	1.6	**RCV 141**		**7.46**	71B4
197	17.2	2.8		**RCV 162**	**7.11**	71B4
256	13.5	2.1	**RCV 141**		**5.47**	71B4
275	12.4	3.3		**RCV 162**	**5.10**	71B4
292	11.8	2.4	**RCV 141**		**4.79**	71B4
330	10.5	2.7	**RCV 141**		**4.24**	71B4
378	9.0	4.1		**RCV 162**	**3.70**	71B4
412	8.4	3.2	**RCV 141**		**3.40**	71B4
502	6.9	3.9	**RCV 141**		**2.79**	71B4
601	5.8	4.2	**RCV 141**		**2.33**	71B4
698	5.0	3.4	**RCV 141**		**1.29**	80A6
824	4.2	5.5	**RCV 141**		**3.40**	71A2

P1 = 0.37 kW

71A2 n_1= 2800 min^{-1}
71B4 n_1= 1400 min^{-1}
80A6 n_1= 900 min^{-1}

n_2 min^{-1}	Mn_2 Nm	fs			i	
1004	3.5	6.7	**RCV 141**		**2.79**	71A2
1085	3.2	4.7	**RCV 141**		**1.29**	71B4
1202	2.9	7.3	**RCV 141**		**2.33**	71A2
2171	1.6	8.1	**RCV 141**		**1.29**	71A2

P1 = 0.55 kW

71B2 n_1= 2800 min^{-1}
80A4 n_1= 1400 min^{-1}
80B6 n_1= 900 min^{-1}

3.0	1645	2.0	**RCV 603**	**303.10**	80B6
3.6	1344	2.6	**RCV 603**	**247.60**	80B6
4.0	1221	0.9	**RCV 553**	**224.93**	80B6
4.1	1179	2.7	**RCV 603**	**217.20**	80B6
4.4	1108	1.1	**RCV 553**	**317.67**	80A4
5.4	905	1.3	**RCV 553**	**259.37**	80A4
6.1	795	0.9	**RCV 453**	**227.70**	80A4
6.2	785	1.5	**RCV 553**	**224.93**	80A4
6.9	705	1.0	**RCV 453**	**202.10**	80A4
7.6	641	1.8	**RCV 553**	**183.64**	80A4
7.7	631	1.1	**RCV 453**	**180.70**	80A4
8.6	568	1.2	**RCV 453**	**162.70**	80A4
9.5	514	1.3	**RCV 453**	**147.20**	80A4
10.4	470	0.9	**RCV 353**	**134.70**	80A4
11.8	413	2.9	**RCV 553**	**118.46**	80A4
12.9	380	2.9	**RCV 553**	**108.86**	80A4
13.3	368	1.9	**RCV 453**	**105.50**	80A4
14.1	347	1.1	**RCV 353**	**99.30**	80A4
14.8	329	2.1	**RCV 453**	**94.30**	80A4
16.5	296	2.3	**RCV 453**	**84.90**	80A4
17.0	287	1.1	**RCV 303**	**82.20**	80A4
17.0	287	1.4	**RCV 353**	**82.20**	80A4
18.2	268	2.5	**RCV 453**	**76.80**	80A4
19.1	257	1.2	**RCV 303**	**73.30**	80A4
19.1	257	1.6	**RCV 353**	**73.30**	80A4
21.3	230	1.3	**RCV 303**	**65.80**	80A4
21.3	230	1.7	**RCV 353**	**65.80**	80A4
25.9	188	1.5	**RCV 303**	**54.00**	80A4
25.9	188	2.0	**RCV 353**	**54.00**	80A4
28.5	177	1.1	**RCV 252**	**49.04**	80A4
30.3	161	2.0	**RCV 303**	**46.20**	80A4
30.3	161	2.5	**RCV 353**	**46.20**	80A4
34.0	144	2.2	**RCV 303**	**41.20**	80A4
34.0	144	2.8	**RCV 353**	**41.20**	80A4
34.7	145	1.4	**RCV 252**	**40.29**	80A4
38.0	133	1.6	**RCV 252**	**36.86**	80A4
38.0	133	2.4	**RCV 302**	**36.82**	80A4
38.0	133	3.0	**RCV 352**	**36.82**	80A4
42.7	118	2.6	**RCV 302**	**32.80**	80A4
44.2	114	0.9	**RCV 202**	**31.71**	80A4
44.8	113	1.8	**RCV 252**	**31.27**	80A4
47.5	106	2.8	**RCV 302**	**29.45**	80A4
49.8	101	1.0	**RCV 202**	**28.13**	80A4
54	93	2.0	**RCV 252**	**25.75**	80A4
66	76	1.3	**RCV 202**	**21.19**	80A4
66	76	2.6	**RCV 252**	**21.16**	80A4
68	75	0.9	**RCV 162**	**20.74**	80A4
72	70	2.9	**RCV 252**	**19.35**	80A4
78	65	1.5	**RCV 202**	**18.01**	80A4

P1 = 0.55 kW

71B2 n_1= 2800 min^{-1}
80A4 n_1= 1400 min^{-1}
80B6 n_1= 900 min^{-1}

n_2 min^{-1}	Mn_2 Nm	fs			i	
85	59	1.1		**RCV 162**	**16.47**	80A4
96	53	1.2		**RCV 162**	**14.63**	80A4
100	51	3.0		**RCV 252**	**14.01**	80A4
100	51	1.5		**RCV 202**	**14.00**	80A4
117	43.0	1.4		**RCV 162**	**11.95**	80A4
120	42.0	1.9		**RCV 202**	**11.67**	80A4
141	35.7	2.2		**RCV 202**	**9.92**	80A4
143	35.3	1.5		**RCV 162**	**9.80**	80A4
162	31.9	2.6	**RCV 281**		**5.57**	80B6
179	28.8	1.6	**RCV 191**		**7.82**	80A4
179	28.8	1.6	**RCV 241**		**7.82**	80A4
181	27.9	2.6		**RCV 202**	**7.75**	80A4
184	27.4	1.7		**RCV 162**	**7.62**	80A4
188	27.4	1.1	**RCV 141**		**7.46**	80A4
197	25.6	1.9		**RCV 162**	**7.11**	80A4
217	23.3	3.0		**RCV 202**	**6.46**	80A4
256	20.1	1.4	**RCV 141**		**5.47**	80A4
256	20.1	2.2	**RCV 191**		**5.47**	80A4
256	20.1	2.2	**RCV 241**		**5.47**	80A4
275	18.4	2.2		**RCV 162**	**5.10**	80A4
292	17.6	1.6	**RCV 141**		**4.79**	80A4
297	17.3	2.5	**RCV 191**		**4.71**	80A4
297	17.3	2.5	**RCV 241**		**4.71**	80A4
330	15.6	1.8	**RCV 141**		**4.24**	80A4
341	15.1	2.7	**RCV 191**		**4.11**	80A4
341	15.1	2.7	**RCV 241**		**4.11**	80A4
378	13.3	2.8		**RCV 162**	**3.70**	80A4
412	12.5	2.2	**RCV 141**		**3.40**	80A4
435	11.8	2.7	**RCV 191**		**3.22**	80A4
435	11.8	2.7	**RCV 241**		**3.22**	80A4
502	10.3	2.6	**RCV 141**		**2.79**	80A4
549	9.2	3.7		**RCV 162**	**5.10**	71B2
601	8.6	2.8	**RCV 141**		**2.33**	80A4
698	7.4	2.3	**RCV 141**		**1.29**	80B6
757	6.7	4.7		**RCV 162**	**3.70**	71B2
824	6.3	3.7	**RCV 141**		**3.40**	71B2
1004	5.1	4.5	**RCV 141**		**2.79**	71B2
1085	4.7	3.2	**RCV 141**		**1.29**	80A4
1202	4.3	4.9	**RCV 141**		**2.33**	71B2
2171	2.4	5.5	**RCV 141**		**1.29**	71B2

P1 = 0.75 kW

80A2 n_1= 2800 min^{-1}
80B4 n_1= 1400 min^{-1}
90S6 n_1= 900 min^{-1}

3.0	2243	1.4	**RCV 603**	**303.10**	90S6
3.6	1833	1.9	**RCV 603**	**247.60**	90S6
4.1	1608	2.0	**RCV 603**	**217.20**	90S6
4.3	1532	2.3	**RCV 603**	**207.00**	90S6
4.6	1442	2.3	**RCV 603**	**303.10**	80B4
5.4	1234	0.9	**RCV 553**	**259.37**	80B4
5.7	1178	2.9	**RCV 603**	**247.60**	80B4
6.2	1070	1.1	**RCV 553**	**224.93**	80B4
7.6	874	1.3	**RCV 553**	**183.64**	80B4
8.6	774	0.9	**RCV 453**	**162.70**	80B4
9.5	700	0.9	**RCV 453**	**147.20**	80B4
9.7	690	1.6	**RCV 553**	**145.09**	80B4
11.8	564	2.1	**RCV 553**	**118.46**	80B4

JOHN BROOKS LTD.

YOUR POWER CONNECTION

EP-REP PLANETARY GEARHEADS

1.0 REDUCTORES PLANETARIOS SERIE REP / *PLANETARY GEARBOXES REP SERIES* / REDUCTEURS EPICYCLOIDAUX SERIE EP

1.2 Nomenclatura

1.2 *Designation*

1.2 Désignation

Reductores planetarios *Planetary gearbox* Réducteur épicycloïdal	Tamaños *Size* Taille	Números de etapas *Steps* Nombre d'étages	Coaxiales *Coaxial* Coaxiale	Relación de reducción *Ratio* Rapport de réduction	Eje de salida *Ouput shaft* Arbre de sortie	Brida de salida *Output flange* Bride de sortie	Eje de entrada *Input shaft* Arbre en entrée	Brida de entrada *Input flange* *Bride en entrée*	Tipo de precisión *Precision class* Classe de précision
REP	**075**	**2**	**C**	**100**	**AU16**	**FLT**	**AE12**	**P03**	**P**
	075 **100** **125** **150**	**1** **2** **3**	**C**	**3 - 343**	Ver tabla *See tables* Voir tableaux	**FLT** **FLQ**	Ver tabla *See tables* Voir tableaux	Ver tabla *See tables* Voir tableaux	

1.3 Selección

Control mecánico

Al seleccionar un reductor planetario REP se debe considerar el tipo de servicio, intermitente o continuo.
Conocido el ciclo de trabajo:

1.3 *Selection*

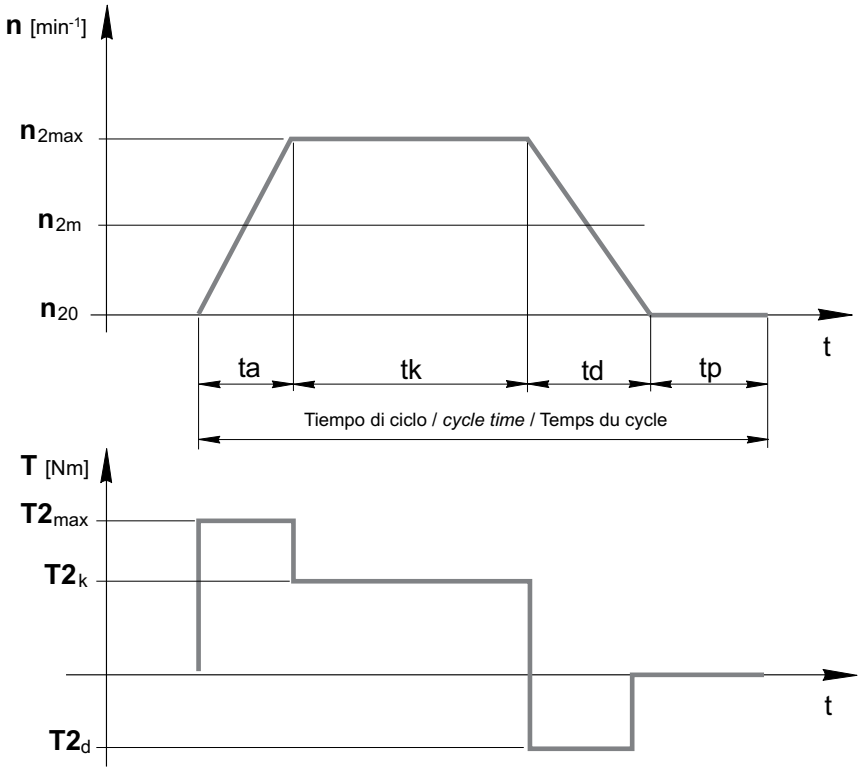
Mechanical check

The selection of the REP planetary gearbox depends on whether the duty is continuous or intermittent.
The working cycle being:

1.3 Sélection

Vérification mécanique

Il faut choisir les réducteurs épicycloïdaux REP sur la base du service : intermittent ou continu.
Le cycle de travail étant :



n_{2max}	[min^{-1}]	Velocidad máxima *Max. speed* Vitesse maximum
n_{2m}	[min^{-1}]	Velocidad media *Average speed* Vitesse moyenne
n_{20}	[min^{-1}]	Velocidad cero (motor inactivo) *Zero speed (motor off)* Vitesse zéro (moteur éteint)
ta	[s]	Tiempo de aceleración *Acceleration time* Temps d'accélération
tk	[s]	Tiempo de funcionamiento por revolución al minuto *Temps de fonctionnement à régime*
td	[s]	Tiempo de desaceleración *Deceleration time* Temps de décélération
tp	[s]	Tiempo de pausa *Pause time* Temps de pause
T_{2max}	[Nm]	Par máximo *Max. torque* Couple maximum
T_{2k}	[Nm]	Régimen de par *Standard torque* Couple à régime
T_{2d}	[Nm]	Par en desaceleración *Decelerating torque* Couple en décélération

REP 075

Etapas *Steps* Etages	1				2							3									
i	**3**	**4**	**5**	**6**	**9**	**12**	**16**	**20**	**24**	**30**	**36**	**27**	**36**	**48**	**64**	**80**	**100**	**120**	**144**	**180**	**216**
$T2_N$	35	45	35	30	40	50	50	50	50	40	35	40	55	55	55	55	55	55	55	40	35
$T2_A$	55	65	55	50	60	70	70	70	70	60	55	60	80	80	80	80	80	80	80	60	55
$T2_S$	110	130	110	100	120	140	140	140	140	120	110	120	150	150	150	150	150	150	150	120	110
J_{min}	0.16	0.14	0.12	0.11	0.16	0.16	0.14	0.12	0.11	0.11	0.11	0.16	0.16	0.16	0.14	0.12	0.11	0.11	0.11	0.11	0.11
J_{max}	0.25	0.22	0.20	0.19	0.25	0.25	0.22	0.20	0.19	0.19	0.19	0.25	0.25	0.25	0.22	0.20	0.20	0.19	0.19	0.19	0.19
Rt	4																				
Rd	0.96				0.93							0.91									

	Etapas *Steps* Etages		
n_{1nom}	4000	4500	5000
n_{1max}	6000		
LpA	< 70		
Lh	20000		
F_{R2}	1400		
F_{A2}	700		
α_{max}	4'	6'	8'

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REP 100

Etapas *Steps* Etages	1				2							3									
i	**3**	**4**	**5**	**6**	**9**	**12**	**16**	**20**	**24**	**30**	**36**	**27**	**36**	**48**	**64**	**80**	**100**	**120**	**144**	**180**	**216**
$T2_N$	90	110	90	75	100	115	115	115	115	85	75	100	120	120	120	120	120	120	120	95	80
$T2_A$	145	170	130	120	160	180	180	180	180	140	130	160	190	190	190	190	190	190	190	150	130
$T2_S$	290	340	260	240	320	360	360	360	360	280	260	320	380	380	380	380	380	380	380	300	260
J_{min}	0.47	0.35	0.28	0.26	0.48	0.47	0.34	0.28	0.26	0.25	0.25	0.48	0.48	0.47	0.34	0.28	0.28	0.25	0.25	0.25	0.25
J_{max}	0.80	0.69	0.62	0.60	0.82	0.81	0.68	0.62	0.59	0.59	0.59	0.82	0.82	0.81	0.68	0.62	0.61	0.59	0.59	0.59	0.59
Rt	11																				
Rd	0.96				0.93							0.91									

	Etapas *Steps* Etages		
n_{1nom}	4000	4500	5000
n_{1max}	6000		
LpA	< 70		
Lh	20000		
F_{R2}	2100		
F_{A2}	1050		
α_{max}	4'	6'	8'

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REP 125

Etapas *Steps* Etages	1				2							3									
i	**3**	**4**	**5**	**7**	**9**	**12**	**16**	**20**	**28**	**35**	**49**	**36**	**48**	**64**	**80**	**100**	**140**	**196**	**245**	**343**
$T2_N$	220	230	200	160	250	260	260	260	260	230	180	280	280	280	280	280	280	280	250	200
$T2_A$	350	370	320	300	400	420	420	420	420	370	350	450	450	450	450	450	450	450	400	370
$T2_S$	700	750	650	600	800	850	850	850	850	750	700	900	900	900	900	900	900	900	800	750
J_{min}	1.91	1.18	0.84	0.64	1.93	1.85	1.14	0.82	0.62	0.63	0.62	1.92	1.84	1.14	0.81	0.80	0.62	0.61	0.61	0.61
J_{max}	5.10	4.36	4.02	3.82	5.11	5.03	4.33	4.00	3.81	3.81	3.81	5.11	5.03	4.32	4.00	3.98	3.80	3.80	3.79	3.79
Rt	32																				
Rd	0.96				0.93							0.91									

	Etapas *Steps* Etages		
n_{1nom}	3000	3500	4000
n_{1max}	5000		
LpA	< 70		
Lh	20000		
F_{R2}	3700		
F_{A2}	1850		
α_{max}	4'	6'	8'

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REP 150

Etapas *Steps* Etages	1				2							3									
i	**3**	**4**	**5**	**7**	**9**	**12**	**16**	**20**	**28**	**35**	**49**	**36**	**48**	**64**	**80**	**100**	**140**	**196**	**245**	**343**
$T2_N$	430	470	410	340	500	560	560	560	560	470	370	600	600	600	600	600	600	600	500	450
$T2_A$	700	750	650	600	800	900	900	900	900	750	700	950	950	950	950	950	950	950	800	750
$T2_S$	1400	1500	1300	1200	1600	1800	1800	1800	1800	1500	1400	1900	1900	1900	1900	1900	1900	1900	1600	1500
J_{min}	6.58	4.64	3.64	3.05	6.54	6.32	4.49	3.55	3.01	2.99	2.97	6.51	6.31	4.49	3.55	3.61	2.98	2.97	2.97	2.97
J_{max}	12.94	11.00	10.01	9.42	12.90	12.69	10.86	9.92	9.37	9.35	9.34	12.87	12.67	10.85	9.91	9.87	9.35	9.34	9.34	9.34
Rt	60																				
Rd	0.96				0.93							0.91									

	Etapas *Steps* Etages		
n_{1nom}	3000	3500	4000
n_{1max}	5000		
LpA	< 70		
Lh	20000		
F_{R2}	6600		
F_{A2}	3300		
α_{max}	4'	6'	8'

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1.8 Momento de inercia J [kg·cm²]

1.8 *Moment of inertia J [kg·cm²]*

1.8 Moment d'inertie J [kg·cm²]

		REP 075									
		Eje de entrada / *Input shaft* / Arbre en entrée									
Etapas *Steps* Etages	i	6	6.35	7	8	9	9.52	11	12	12.7	14
1	3	0.16	0.16	0.16	0.19	0.19	0.19	0.21	0.21	0.21	0.25
	4	0.14	0.14	0.14	0.16	0.16	0.16	0.18	0.19	0.18	0.22
	5	0.12	0.12	0.12	0.14	0.14	0.14	0.16	0.16	0.16	0.20
	6	0.11	0.11	0.11	0.13	0.13	0.13	0.15	0.16	0.16	0.19
2	9	0.16	0.16	0.16	0.19	0.19	0.19	0.21	0.21	0.21	0.25
	12	0.16	0.16	0.16	0.19	0.19	0.18	0.21	0.21	0.21	0.25
	16	0.14	0.14	0.14	0.16	0.16	0.16	0.18	0.18	0.18	0.22
	20	0.12	0.12	0.12	0.14	0.14	0.14	0.16	0.16	0.16	0.20
	24	0.11	0.11	0.11	0.13	0.13	0.13	0.15	0.16	0.15	0.19
	30	0.11	0.11	0.11	0.13	0.13	0.13	0.15	0.16	0.15	0.19
	36	0.11	0.11	0.11	0.13	0.13	0.13	0.15	0.16	0.15	0.19
3	27	0.16	0.16	0.16	0.19	0.19	0.19	0.21	0.21	0.21	0.25
	36	0.16	0.16	0.16	0.19	0.19	0.19	0.21	0.21	0.21	0.25
	48	0.16	0.16	0.16	0.19	0.19	0.18	0.21	0.21	0.21	0.25
	64	0.14	0.14	0.14	0.16	0.16	0.16	0.18	0.18	0.18	0.22
	80	0.12	0.12	0.11	0.14	0.14	0.14	0.16	0.16	0.16	0.20
	100	0.11	0.11	0.11	0.14	0.14	0.14	0.16	0.16	0.16	0.20
	120	0.11	0.11	0.11	0.13	0.13	0.13	0.15	0.16	0.15	0.19
	144	0.11	0.11	0.11	0.13	0.13	0.13	0.15	0.16	0.15	0.19
	180	0.11	0.11	0.11	0.13	0.13	0.13	0.15	0.16	0.15	0.19
	216	0.11	0.11	0.11	0.13	0.13	0.13	0.15	0.16	0.15	0.19

		REP 100							
		Eje de entrada / *Input shaft* / Arbre en entrée							
Etapas *Steps* Etages	i	9	9.52	11	12.7	14	15.87	16	19
1	3	0.47	0.47	0.49	0.49	0.53	0.82	0.82	0.80
	4	0.35	0.35	0.37	0.37	0.41	0.70	0.70	0.69
	5	0.28	0.28	0.30	0.30	0.34	0.63	0.63	0.62
	6	0.26	0.26	0.28	0.28	0.32	0.61	0.61	0.60
2	9	0.48	0.48	0.50	0.51	0.55	0.83	0.83	0.82
	12	0.47	0.47	0.49	0.49	0.53	0.82	0.82	0.81
	16	0.34	0.34	0.36	0.36	0.41	0.69	0.69	0.68
	20	0.28	0.28	0.30	0.30	0.34	0.63	0.63	0.62
	24	0.26	0.26	0.28	0.28	0.32	0.61	0.61	0.59
	30	0.25	0.25	0.27	0.28	0.32	0.61	0.60	0.59
	36	0.25	0.25	0.27	0.28	0.32	0.60	0.60	0.59
3	27	0.49	0.49	0.51	0.51	0.55	0.84	0.84	0.82
	36	0.48	0.48	0.50	0.51	0.55	0.84	0.83	0.82
	48	0.47	0.47	0.49	0.49	0.53	0.82	0.82	0.81
	64	0.34	0.34	0.36	0.36	0.41	0.69	0.69	0.68
	80	0.28	0.28	0.30	0.30	0.34	0.63	0.63	0.62
	100	0.28	0.27	0.30	0.30	0.34	0.63	0.63	0.61
	120	0.25	0.25	0.27	0.28	0.32	0.61	0.60	0.59
	144	0.25	0.25	0.27	0.28	0.32	0.60	0.60	0.59
	180	0.25	0.25	0.27	0.28	0.32	0.60	0.60	0.59
	216	0.25	0.25	0.27	0.28	0.32	0.60	0.60	0.59

Los valores de los momentos de inercia referidos son del eje de entrada.

The moment of inertia values refer to the input shaft.

Les valeurs des moments d'inertie reportées se réfèrent à l'arbre en entrée.

1.8 Momento de inercia J [kg·cm²]

1.8 Moment of inertia J [kg·cm²]

1.8 Moment d'inertie J [kg·cm²]

		REP 125							
		Eje de entrada / *Input shaft* / Arbre en entrée							
Etapas *Steps* Etages	i	12.7	14	15.87	16	19	22	24	28
1	3	1.91	1.98	2.26	2.26	2.24	4.95	4.91	5.10
	4	1.18	1.25	1.53	1.53	1.50	4.22	4.18	4.36
	5	0.84	0.91	1.19	1.19	1.16	3.88	3.84	4.02
	7	0.64	0.70	0.99	0.99	0.96	3.67	3.63	3.82
2	9	1.93	1.99	2.28	2.28	2.25	4.97	4.92	5.11
	12	1.85	1.91	2.20	2.20	2.17	4.88	4.84	5.03
	16	1.14	1.21	1.49	1.49	1.47	4.18	4.14	4.33
	20	0.82	0.88	1.17	1.16	1.14	3.85	3.81	4.00
	28	0.62	0.69	0.97	0.97	0.95	3.66	3.62	3.81
	35	0.63	0.69	0.98	0.98	0.95	3.66	3.62	3.81
	49	0.62	0.69	0.97	0.97	0.95	3.66	3.62	3.81
3	36	1.92	1.99	2.27	2.27	2.24	4.96	4.92	5.11
	48	1.84	1.91	2.19	2.19	2.17	4.88	4.84	5.03
	64	1.14	1.21	1.49	1.49	1.46	4.18	4.14	4.32
	80	0.81	0.88	1.16	1.16	1.14	3.85	3.81	4.00
	100	0.80	0.87	1.15	1.15	1.12	3.84	3.80	3.98
	140	0.62	0.68	0.97	0.97	0.94	3.65	3.61	3.80
	196	0.61	0.68	0.96	0.96	0.94	3.65	3.61	3.80
	245	0.61	0.68	0.96	0.96	0.93	3.65	3.61	3.79
	343	0.61	0.68	0.96	0.96	0.93	3.65	3.61	3.79

		REP 150								
		Eje de entrada / *Input shaft* / Arbre en entrée								
Etapas *Steps* Etages	i	15.87	16	19	22	24	28	32	35	38
1	3	6.58	6.58	6.62	7.57	7.53	11.55	13.38	13.28	12.94
	4	4.64	4.64	4.68	5.63	5.59	9.62	11.44	11.34	11.00
	5	3.64	3.64	3.68	4.63	4.59	8.62	10.45	10.35	10.01
	7	3.05	3.05	3.09	4.04	4.00	8.03	9.86	9.76	9.42
2	9	6.54	6.54	6.58	7.53	7.49	11.51	13.34	13.24	12.90
	12	6.32	6.32	6.36	7.31	7.27	11.30	13.13	13.03	12.69
	16	4.49	4.49	4.53	5.48	5.44	9.47	11.30	11.20	10.86
	20	3.55	3.55	3.59	4.54	4.50	8.53	10.36	10.26	9.92
	28	3.01	3.01	3.05	4.00	3.96	7.98	9.81	9.71	9.37
	35	2.99	2.99	3.03	3.97	3.94	7.96	9.79	9.69	9.35
	49	2.97	2.97	3.01	3.96	3.92	7.95	9.78	9.68	9.34
3	36	6.51	6.51	6.55	7.50	7.46	11.49	13.31	13.21	12.87
	48	6.31	6.31	6.35	7.29	7.26	11.28	13.11	13.01	12.67
	64	4.49	4.48	4.52	5.47	5.44	9.46	11.29	11.19	10.85
	80	3.55	3.54	3.59	4.53	4.50	8.52	10.35	10.25	9.91
	100	3.51	3.51	3.55	4.50	4.46	8.48	10.31	10.21	9.87
	140	2.98	2.98	3.02	3.97	3.93	7.96	9.79	9.69	9.35
	196	2.97	2.97	3.01	3.96	3.92	7.95	9.78	9.68	9.34
	245	2.97	2.97	3.01	3.96	3.92	7.95	9.78	9.68	9.34
	343	2.97	2.97	3.01	3.96	3.92	7.95	9.78	9.68	9.34

Los valores de los momentos de inercia referidos son del eje de entrada.

The moment of inertia values refer to the input shaft.

Les valeurs des moments d'inertie reportées se réfèrent à l'arbre en entrée.

1.9 Datos Técnicos — *1.9 Technical data* — 1.9 Données techniques

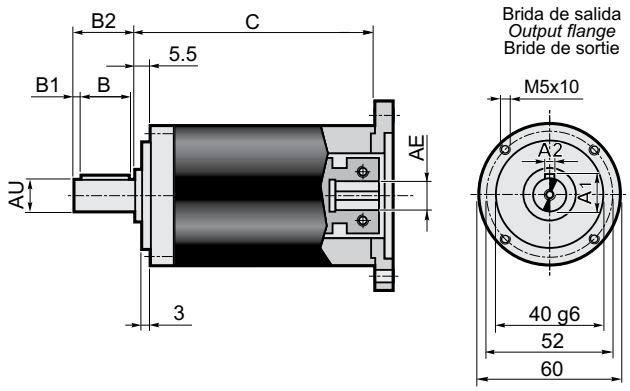
Etapas / *Steps* / Etages	1				2							3									
i	**3**	**4**	**5**	**6**	**9**	**12**	**16**	**20**	**24**	**30**	**36**	**27**	**36**	**48**	**64**	**80**	**100**	**120**	**144**	**180**	**216**
$n_{1\ nom}$	4000				4500							5000									
$n_{1\ max}$	6000																				
$T2_N$	35	45	35	30	40	50	50	50	50	40	35	40	55	55	55	55	55	55	55	40	35
$T2_A$	55	65	55	50	60	70	70	70	70	60	55	60	80	80	80	80	80	80	80	60	55
$T2_S$	110	130	110	100	120	140	140	140	140	120	110	120	150	150	150	150	150	150	150	120	110
J	Ver pág. 9 / *See on page 9* / Voir p. 9																				
LpA	< 70																				
R_d	0.96				0.93							0.91									
L_h	20000																				
F_{R2}	1400																				
F_{A2}	700																				
R_t	4																				
α_{max}	4’				6’							8’									
Kg	1.3				1.6							1.9									

i	Relación de reducción nominal	*Nominal ratio*	Rapport de réduction nominale
$n_{1\ nom}$	Velocidad máxima de salida [min^{-1}]	*Nominal input speed [min^{-1}]*	Nom Vitesse nominale en entrée [min^{-1}]
$n_{1\ max}$	Velocidad máxima de salida [min^{-1}]	*Maximum input speed [min^{-1}]*	Max Vitesse maximum en entrée [min^{-1}]
$T2_N$	Par nominal (intermitente) en salida [Nm]	*Rated intermittent output torque [Nm]*	Couple nominal intermittent en sortie [Nm]
$T2_A$	Par máximo de aceleración en salida [Nm]	*Maximum acceleration output torque [Nm]*	Couple maximum d’accélération en sortie [Nm]
$T2_S$	Par máximo de urgencia en salida [Nm]	*Maximum emergency output torque [Nm]*	Couple maximum de sécurité en sortie [Nm]
LpA	Nivel de rumor dB(A) a 3000 min^{-1}	*Noise level dB(A) at 3000 min^{-1}*	Niveau de bruit dB(A) à 3000 min^{-1}
Rd	Rendimiento dinámico	*Dynamic efficiency*	Rendement dynamique
L_h	Vida de los cojinetes [h]	*Bearing life [h]*	Durée de vie des roulements [h]
F_{R2}	Carga radial nominal de salida [N] a 300min^{-1}	*Rated output radial load [N] at 300min^{-1}*	Charge radiale nominale en sortie [N] à 300min^{-1}
F_{A2}	Carga axial de salida [N] a 300min^{-1}	*Output axial load [N] at 300min^{-1}*	Charge axiale en sortie [N] à 300min^{-1}
R_t	Rigidez torsional [Nm / arcmin]	*Torsional rigidity [Nm / arcmin]*	Rigidité de torsion [Nm / arcmin]
α_{max}	Juego angular máximo [arcmin]	*Maximum backlash [arcmin]*	Jeu angulaire maximum [arcmin]
J	Momento de inercia [kg·cm^2]	*Moment of inertia [kg·cm^2]*	J Moment d’inertie [kg·cm^2]

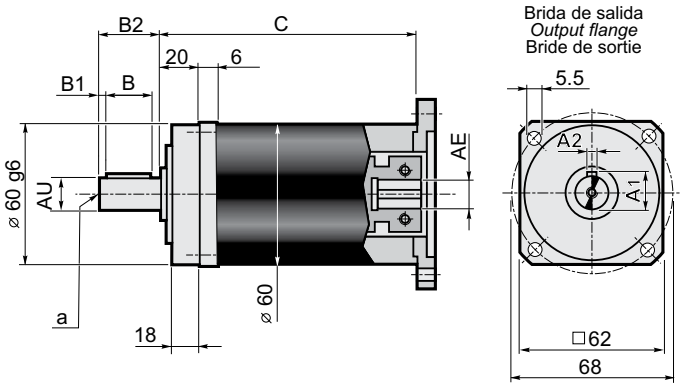
1.10 Tamaños — *1.10 Dimensions* — 1.10 Dimensions

Tamaños generales y salidas / *General and output dimensions* / Dimensions générales et sorties

FLT



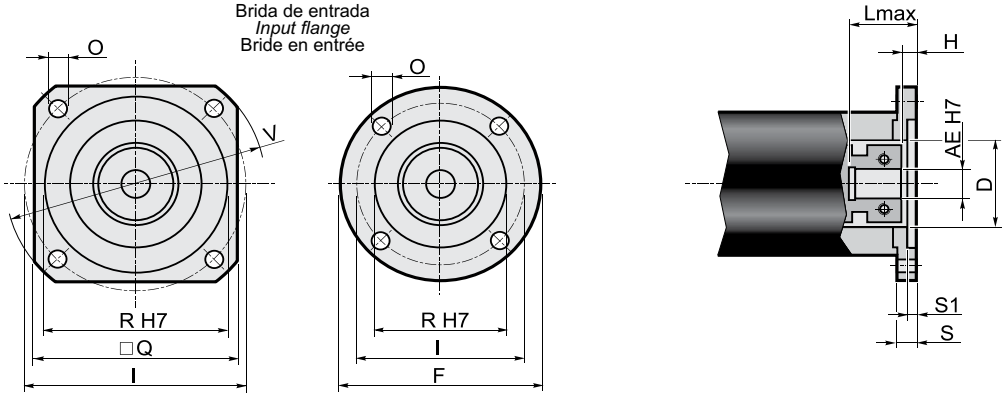
FLQ



Etapas/*Steps*/*Etages*	1	2	3	
C	83.2	100.9	118.6	AE= 6-6.35-7-8-9-9.52 11-12-12.7-14

	Eje de salida - *Output shaft* - Arbre de sortie						
	AU j6	**A1**	**A2**	**B**	**B1**	**B2**	**a**
AU12	12	13.5	4	15	3	21	M4x10
AU14	14	16	5	25	2	28	M5x13
AU16	16	18	5	25	2	28	M5x13

Tamaño entrada / *Input dimensions* / Dimensions en entrée



Brida de entrada / *Input flange* / Brides en entrée										Eje de entrada / *Input shaft* / Arbre en entrée																			
										AE																			
										6		6.35		7		8		9		9.52		11		12		12.7		14	
	F	Q	V	I	R (H7)	O	S	S1	D	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H
P01*	60	=	=	43.82	22	4.5	10	3	22	34	3.5	34	3.5	34	3.5	25	5.5	25	5.5	34	5.5	25	5.5	34	5.5	34	5.5	34	5.5
P02*	=	60	80	66.67	38.1	5.5	10	3	32	34	3.5	34	3.5	34	3.5	25	5.5	25	5.5	34	5.5	25	5.5	34	5.5	34	5.5	34	5.5
P03*	=	60	80	63	40	5.5	10	3.5	32	34	3.5	34	3.5	34	3.5	25	5.5	25	5.5	34	5.5	25	5.5	34	5.5	34	5.5	34	5.5
P04	=	70	90	75	60	6.5	10.5	3.5	32	34.5	4	34.5	4	34.5	4	25.5	6	25.5	6	34.5	6	25.5	6	34.5	6	34.5	6	34.5	6
P05	105	=	=	85	70	6.5	10.5	3.5	32	34.5	4	34.5	4	34.5	4	25.5	6	25.5	6	34.5	6	25.5	6	34.5	6	34.5	6	34.5	6
P06	=	80	110	98.42	73.02	6	11	3.5	35	35	4.5	35	4.5	35	4.5	26	6.5	26	6.5	35	6.5	26	6.5	35	6.5	35	6.5	35	6.5
P07	=	95	120	100	80	6.5	11.5	4	32	35.5	5	35.5	5	35.5	5	26.5	7	26.5	7	35.5	7	26.5	7	35.5	7	35.5	7	35.5	7
P08	=	98	130	115	95	9	11.5	4	32	35.5	5	35.5	5	35.5	5	26.5	7	26.5	7	35.5	7	26.5	7	35.5	7	35.5	7	35.5	7
P09	=	116	160	130	110	9	12	4.5	32	36	5.5	36	5.5	36	5.5	27	7.5	27	7.5	36	7.5	27	7.5	36	7.5	36	7.5	36	7.5
P10*	60	=	=	39	26	4.5	10	3	26	34	3.5	34	3.5	34	3.5	25	5.5	25	5.5	34	5.5	25	5.5	34	5.5	34	5.5	34	5.5
P11*	60	=	=	42	32	4.5	10	3	32	34	3.5	34	3.5	34	3.5	25	5.5	25	5.5	34	5.5	25	5.5	34	5.5	34	5.5	34	5.5
P12*	65	=	=	46	32	4.5	10	3.5	32	34	3.5	34	3.5	34	3.5	25	5.5	25	5.5	34	5.5	25	5.5	34	5.5	34	5.5	34	5.5
P13*	80	=	=	65	50	5.5	10	3.5	32	34	3.5	34	3.5	34	3.5	25	5.5	25	5.5	34	5.5	25	5.5	34	5.5	34	5.5	34	5.5
P14*	60	=	=	39	20	4.5	10	2.5	20	34	3.5	34	3.5	34	3.5	25	5.5	25	5.5	34	5.5	25	5.5	34	5.5	34	5.5	34	5.5
P15	=	75	100	90	60	5.8	12	3.5	32	36	5.5	36	5.5	36	5.5	27	7.5	27	7.5	36	7.5	27	7.5	36	7.5	36	7.5	36	7.5
P16*	60	=	=	45	30	3.5	14	7	30	38	7.5	38	7.5	38	7.5	29	9.5	29	9.5	38	9.5	29	9.5	38	9.5	38	9.5	38	9.5
P17	=	60	82	70	50	4.5	16.5	8	32	40.5	10	40.5	10	40.5	10	31.5	12	31.5	12	40.5	12	31.5	12	40.5	12	40.5	12	40.5	12
P18	=	60	80	60	50	M4	10.5	3.5	32	34.5	4	34.5	4	34.5	4	25.5	6	25.5	6	34.5	6	25.5	6	34.5	6	34.5	6	34.5	6
P19*	60	=	=	36	25	4.5	10	3	25	34	3.5	34	3.5	34	3.5	25	5.5	25	5.5	34	5.5	25	5.5	34	5.5	34	5.5	34	5.5
P20	=	60	82	70	50	5.5	10.5	3.5	32	34.5	4	34.5	4	34.5	4	25.5	6	25.5	6	34.5	6	25.5	6	34.5	6	34.5	6	34.5	6
P21*	60	=	=	46	30	4.5	10	3	30	34	3.5	34	3.5	34	3.5	25	5.5	25	5.5	34	5.5	25	5.5	34	5.5	34	5.5	34	5.5
P22	=	60	80	70.71	36	4.5	10	2	32	34	3.5	34	3.5	34	3.5	25	5.5	25	5.5	34	5.5	25	5.5	34	5.5	34	5.5	34	5.5
P23	=	62	85	70	50	5.5	15.5	3.5	32	39.5	9	39.5	9	39.5	9	30.5	11	30.5	11	39.5	11	30.5	11	39.5	11	39.5	11	39.5	11
P24	=	75	100	90	70	5.8	12	3.5	32	36	5.5	36	5.5	36	5.5	27	7.5	27	7.5	36	7.5	27	7.5	36	7.5	36	7.5	36	7.5
P25	=	70	95	85	55	5.8	12	3.5	32	36	5.5	36	5.5	36	5.5	27	7.5	27	7.5	36	7.5	27	7.5	36	7.5	36	7.5	36	7.5
P26*	=	60	80	65.5	34	5.5	10	3.5	33	34	3.5	34	3.5	34	3.5	25	5.5	25	5.5	34	5.5	25	5.5	34	5.5	34	5.5	34	5.5
P27	=	80	110	95	50	6.5	12	3.5	32	36	5.5	36	5.5	36	5.5	27	7.5	27	7.5	36	7.5	27	7.5	36	7.5	36	7.5	36	7.5
P28	=	60	80	66.67	38.1	M4	9	2.5	32	33	2.5	33	2.5	33	2.5	24	4.5	24	4.5	33	4.5	24	4.5	33	4.5	33	4.5	33	4.5
P29	60	=	=	45	30	M3	11	4	32	35	4.5	35	4.5	35	4.5	26	6.5	26	6.5	35	6.5	26	6.5	35	6.5	35	6.5	35	6.5
P30	=	70	95	85	60	5.8	12	3.5	32	36	5.5	36	5.5	36	5.5	27	7.5	27	7.5	36	7.5	27	7.5	36	7.5	36	7.5	36	7.5
P31	=	62	85	70	50	M4	11	3.5	32	35	4.5	35	4.5	35	4.5	26	6.5	26	6.5	35	6.5	26	6.5	35	6.5	35	6.5	35	6.5
P32	=	60	80	65	40	M5	10	3.5	32	34	3.5	34	3.5	34	3.5	25	5.5	25	5.5	34	5.5	25	5.5	34	5.5	34	5.5	34	5.5
P33	=	85	115	99	60	5.5	11	3.5	32	35	4.5	35	4.5	35	4.5	26	6.5	26	6.5	35	6.5	26	6.5	35	6.5	35	6.5	35	6.5
P34	=	65	87	73.54	40	M4	10	3.5	32	34	3.5	34	3.5	34	3.5	25	5.5	25	5.5	34	5.5	25	5.5	34	5.5	34	5.5	34	5.5
P35	=	60	80	70.71	36	M4	14	2	32	38	7.5	38	7.5	38	7.5	29	9.5	29	9.5	38	9.5	29	9.5	38	9.5	38	9.5	38	9.5
P36	=	85	115	98.42	73.02	6	15	3.5	35	39	8.5	39	8.5	39	8.5	30	10.5	30	10.5	39	10.5	30	10.5	39	10.5	39	10.5	39	10.5

* Para ensamblar el reductor es necesario desmontar la brida del reductor (ver **esquema de montaje 2** en la pág. 25).

** To mount the motor it is necessary to remove the gearbox flange (see **assembly drawing 2** on page 25).*

* Pour assembler le moteur, il faut démonter la bride du réducteur (voir **schéma de montage 2** page 25).

REP100

1.9 Datos Técnicos — *1.9 Technical data* — 1.9 Données techniques

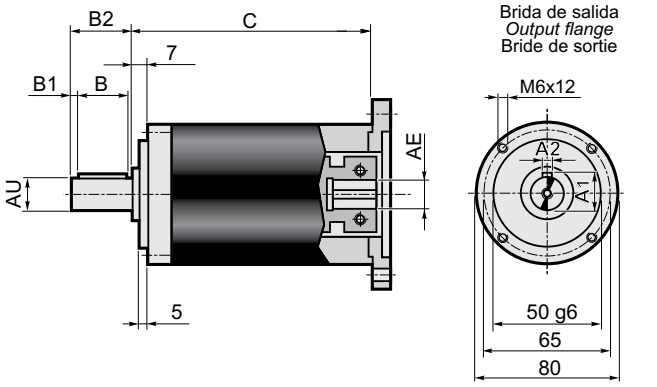
Etapas / *Steps* / Etages	1				2							3									
i	**3**	**4**	**5**	**6**	**9**	**12**	**16**	**20**	**24**	**30**	**36**	**27**	**36**	**48**	**64**	**80**	**100**	**120**	**144**	**180**	**216**
$n_{1\ nom}$	4000				4500							5000									
$n_{1\ max}$	6000																				
$T2_N$	90	110	90	75	100	115	115	115	115	85	75	100	120	120	120	120	120	120	120	95	80
$T2_A$	145	170	130	120	160	180	180	180	180	140	130	160	190	190	190	190	190	190	190	150	130
$T2_S$	290	340	260	240	320	360	360	360	360	280	260	320	380	380	380	380	380	380	380	300	260
J	Ver pág. 9 / *See on page 9* / Voir p. 9																				
LpA	< 70																				
R_d	0.96				0.93							0.91									
L_h	20000																				
F_{R2}	2100																				
F_{A2}	1050																				
R_t	11																				
α_{max}	4’				6’							8’									
Kg	2.7				3.5							4.3									

i	Relación de reducción nominal	*Nominal ratio*	Rapport de réduction nominale
$n_{1\ nom}$	Velocidad nominal de salida [min^{-1}]	*Nominal input speed [min^{-1}]*	Nom Vitesse nominale en entrée [min^{-1}]
$n_{1\ max}$	Velocidad máxima de salida [min^{-1}]	*Maximum input speed [min^{-1}]*	max Vitesse maximum en entrée [min^{-1}]
$T2_N$	Par nominal (intermitente) en salida [Nm]	*Rated intermittent output torque [Nm]*	Couple nominal intermittent en sortie [Nm]
$T2_A$	Par máximo de aceleración en salida [Nm]	*Maximum acceleration output torque [Nm]*	Couple maximum d’accélération en sortie [Nm]
$T2_S$	Par máximo de urgencia en salida [Nm]	*Maximum emergency output torque [Nm]*	Couple maximum de sécurité en sortie [Nm]
LpA	Nivel de rumor dB(A) a 3000 min^{-1}	*Noise level dB(A) at 3000 min^{-1}*	Niveau de bruit dB(A) à 3000 min^{-1}
Rd	Rendimiento dinámico	*Dynamic efficiency*	Rendement dynamique
L_h	Vida de los cojinetes [h]	*Bearing life [h]*	Durée de vie des roulements [h]
F_{R2}	Carga radial nominal de salida [N] a 300min^{-1}	*Rated output radial load [N] at 300min^{-1}*	Charge radiale nominale en sortie [N] à 300min^{-1}
F_{A2}	Carga axial de salida [N] a 300min^{-1}	*Output axial load [N] at 300min^{-1}*	Charge axiale en sortie [N] à 300min^{-1}
R_t	Rigidez torsional [Nm / arcmin]	*Torsional rigidity [Nm / arcmin]*	Rigidité de torsion [Nm / arcmin]
α_{max}	Juego angular máximo [arcmin]	*Maximum backlash [arcmin]*	Jeu angulaire maximum [arcmin]
J	Momento de inercia [kg·cm^2]	*Moment of inertia [kg·cm^2]*	J Moment d’inertie [kg·cm^2]

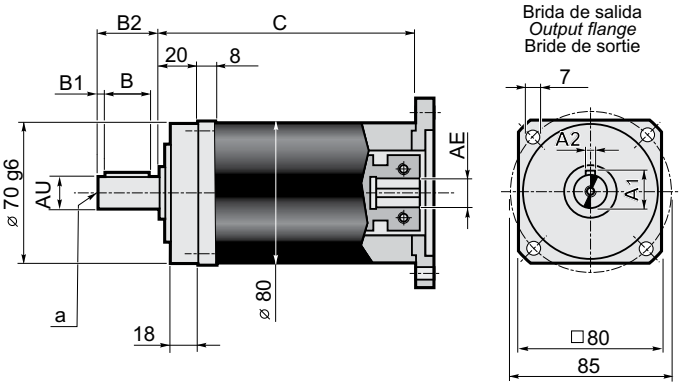
1.10 Tamaños — 1.10 Dimensions — 1.10 Dimensions

Tamaños generales y salidas / *General and output dimensions* / Dimensions générales et sorties

FLT



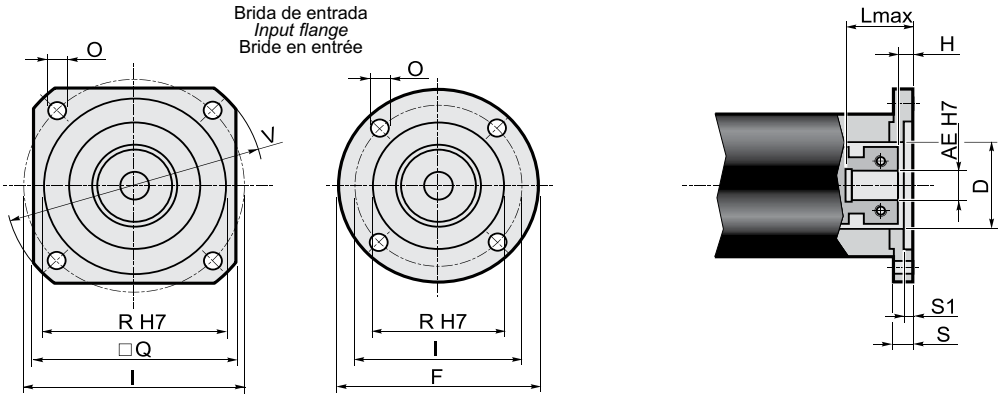
FLQ



Etapas/*Steps*/*Etages*	1	2	3	
C	102	127	152.5	AE= 9-9.52-11-12.7 14-15.87-16-19

	Eje de salida - *Output shaft* - Arbre de sortie						
	AU j6	**A1**	**A2**	**B**	**B1**	**B2**	**a**
AU19	19	21.5	6	30	3	36	M6x16
AU22	22	24.5	6	30	3	36	M6x16

Tamaño entrada / *Input dimensions* / Dimensions en entrée



Brida de entrada / *Input flange* / Bride en entrée										Eje de entrada - *Input shaft* - Arbre en entrée																	
										AE																	
										9		9.525		11		12		12.7		14		15.87		16		19	
	F	Q	V	I	R (H7)	O	S	S1	D	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H
P01*	80	=	=	66.67	38.1	5.5	12	3	38.1	41	3.5	41	6	26	6	41	6	41	6	41	6	41	6	41	6	41	6
P02	=	106.5	140	125.72	55.52	7	11	3	45	40	2.5	40	5	25	5	40	5	40	5	40	5	40	5	40	5	40	5
P03*	=	80	90	75	60	5.5	12	3.5	45	41	3.5	41	6	26	6	41	6	41	6	41	6	41	6	41	6	41	6
P04*	105	=	=	85	70	6.5	12	3.5	45	41	3.5	41	6	26	6	41	6	41	6	41	6	41	6	41	6	41	6
P05	=	82.5	110	98.425	73.02	6.5	12	3	45	41	3.5	41	6	26	6	41	6	41	6	41	6	41	6	41	6	41	6
P06	=	90	120	100	80	6.5	13	4	45	42	4.5	42	7	27	7	42	7	42	7	42	7	42	7	42	7	42	7
P07	=	100	135	115	95	8.5	13	4.5	45	42	4.5	42	7	27	7	42	7	42	7	42	7	42	7	42	7	42	7
P08	=	116	160	130	110	9	13	4.5	45	42	4.5	42	7	27	7	42	7	42	7	42	7	42	7	42	7	42	7
P09*	80	=	=	39	26	4.5	12	4	26	41	3.5	41	6	26	6	41	6	41	6	41	6	41	6	41	6	41	6
P10*	80	=	=	65	50	5.5	12	3.5	45	41	3.5	41	6	26	6	41	6	41	6	41	6	41	6	41	6	41	6
P11	=	150	182	166	115	9	32	11	50x14	61	23.5	61	26	46	26	61	26	61	26	61	26	61	26	61	26	61	26
P12*	=	80	105	90	70	6.5	12	3.5	32	41	3.5	41	6	26	6	41	6	41	6	41	6	41	6	41	6	41	6
P14 *	105	=	=	90	70	6	19	9	32	48	10.5	48	13	33	13	48	13	48	13	48	13	48	13	48	13	48	13
P15 *	80	=	=	70	50	4.5	17	8	45	46	8.5	46	11	31	11	46	11	46	11	46	11	46	11	46	11	46	11
P16	=	142	190	165	130	11	13	4.5	45	42	4.5	42	7	27	7	42	7	42	7	42	7	42	7	42	7	42	7
P17*	80	=	=	63	40	5.5	12	3.5	40	41	3.5	41	6	26	6	41	6	41	6	41	6	41	6	41	6	41	6
P18	=	130	170	145	110	M8	31	7	32	60	22.5	60	25	45	25	60	25	60	25	60	25	60	25	60	25	60	25
P19*	=	80	105	90	60	6.5	12	3.5	32	41	3.5	41	6	26	6	41	6	41	6	41	6	41	6	41	6	41	6
P20*	=	80	105	85	55	5.5	12	3.5	36	41	3.5	41	6	26	6	41	6	41	6	41	6	41	6	41	6	41	6
P21	=	80	110	95	50	M6	12	3.5	45	41	3.5	41	6	26	6	41	6	41	6	41	6	41	6	41	6	41	6
P22	80	=	=	70	50	M4	12	4	45	41	3.5	41	6	26	6	41	6	41	6	41	6	41	6	41	6	41	6
P23	=	80	90	75	60	M5	12	3.5	45	41	3.5	41	6	26	6	41	6	41	6	41	6	41	6	41	6	41	6
P24	80	=	=	46	30	M4	12	4	30	41	3.5	41	6	26	6	41	6	41	6	41	6	41	6	41	6	41	6
P26	80	=	=	65	40	M5	12	3.5	40	41	3.5	41	6	26	6	41	6	41	6	41	6	41	6	41	6	41	3.5
P27	=	80	110	82.02	36.8	M6	14	10	36.8	43	5.5	43	8	28	8	43	8	43	8	43	8	43	8	43	8	43	5.5
P28	=	90	120	100	80	6.5	28	4	45	57	19.5	57	22	42	22	57	22	57	22	57	22	57	22	57	22	57	22
P29*	80	=	=	66.67	50	5.5	12	3	45	41	3.5	41	6	26	6	41	6	41	6	41	6	41	6	41	6	41	6
P30	=	115	155	130	80	9	13	4	45	42	4.5	42	7	27	7	42	7	42	7	42	7	42	7	42	7	42	7
P31*	=	80	105	56	44	M6	14	10	36.8	43	5.5	43	8	28	8	43	8	43	8	43	8	43	8	43	8	43	8
P32	=	80	105	90	70	M6	12	3.5	32	41	3.5	41	6	26	6	41	6	41	6	41	6	41	6	41	6	41	6
P33	=	130	165	145	110	9	13	4.5	45	42	4.5	42	7	27	7	42	7	42	7	42	7	42	7	42	7	42	7
P34	=	90	120	100	80	M6	19	5	45	48	10.5	48	13	33	13	48	13	48	13	48	13	48	13	48	13	48	13

* Para ensamblar el reductor es necesario desmontar la brida del reductor (ver **esquema de montaje 2** en la pág. 25).

* *To mount the motor it is necessary to remove the gearbox flange (see **assembly drawing 2** on page 25).*

* Pour assembler le moteur, il faut démonter la bride du réducteur (voir **schéma de montage 2** page 25).

1.9 Datos Técnicos — *1.9 Technical data* — 1.9 Données techniques

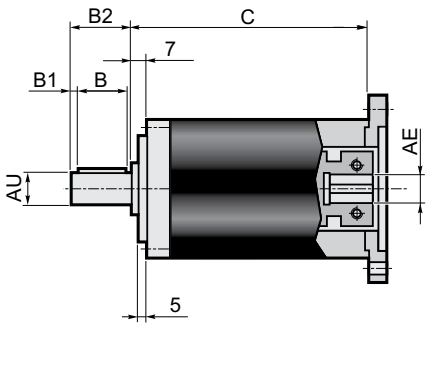
Etapas / *Steps* / Etages	1				2							3								
i	**3**	**4**	**5**	**7**	**9**	**12**	**16**	**20**	**28**	**35**	**49**	**36**	**48**	**64**	**80**	**100**	**140**	**196**	**245**	**343**
$n_{1\ nom}$	3000				3500							4000								
$n_{1\ max}$	5000																			
$T2_N$	220	230	200	160	250	260	260	260	260	230	180	280	280	280	280	280	280	280	250	200
$T2_A$	350	370	320	300	400	420	420	420	420	370	350	450	450	450	450	450	450	450	400	370
$T2_S$	700	750	650	600	800	850	850	850	850	750	700	900	900	900	900	900	900	900	800	750
J	Ver pag. 10 / *See on page 10* / Voir p. 10																			
LpA	< 70																			
R_d	0.96				0.93							0.91								
L_h	20000																			
F_{R2}	3700																			
F_{A2}	1850																			
R_t	32																			
α_{max}	4’				6’							8’								
Kg	7.2				9.3							11.4								

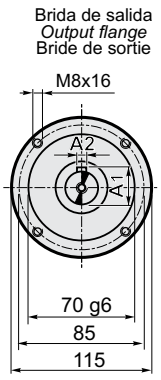
i	Relación de reducción nominal	*Nominal ratio*	Rapport de réduction nominale
$n_{1\ nom}$	Velocidad nominal de salida [min^{-1}]	*Nominal input speed [min^{-1}]*	Nom Vitesse nominale en entrée [min^{-1}]
$n_{1\ max}$	Velocidad máxima de salida [min^{-1}]	*Maximum input speed [min^{-1}]*	max Vitesse maximum en entrée [min^{-1}]
$T2_N$	Par nominal (intermitente) en salida [Nm]	*Rated intermittent output torque [Nm]*	Couple nominal intermittent en sortie [Nm]
$T2_A$	Par máximo de aceleración en salida [Nm]	*Maximum acceleration output torque [Nm]*	Couple maximum d’accélération en sortie [Nm]
$T2_S$	Par máximo de urgencia en salida [Nm]	*Maximum emergency output torque [Nm]*	Couple maximum de sécurité en sortie [Nm]
LpA	Nivel de rumor dB(A) a 3000 min^{-1}	*Noise level dB(A) at 3000 min^{-1}*	Niveau de bruit dB(A) à 3000 min^{-1}
Rd	Rendimiento dinámico	*Dynamic efficiency*	Rendement dynamique
L_h	Vida de los cojinetes [h]	*Bearing life [h]*	Durée de vie des roulements [h]
F_{R2}	Carga radial nominal de salida [N] a 300min^{-1}	*Rated output radial load [N] at 300min^{-1}*	Charge radiale nominale en sortie [N] à 300min^{-1}
F_{A2}	Carga axial de salida [N] a 300min^{-1}	*Output axial load [N] at 300min^{-1}*	Charge axiale en sortie [N] à 300min^{-1}
R_t	Rigidez torsional [Nm / arcmin]	*Torsional rigidity [Nm / arcmin]*	Rigidité de torsion [Nm / arcmin]
α_{max}	Juego angular máximo [arcmin]	*Maximum backlash [arcmin]*	Jeu d’angle maximum [arcmin]
J	Momento de inercia [kg·cm^2]	*Moment of inertia [kg·cm^2]*	J Moment d’inertie [kg·cm^2]

1.10 Tamaños — 1.10 Dimensions — 1.10 Dimensions

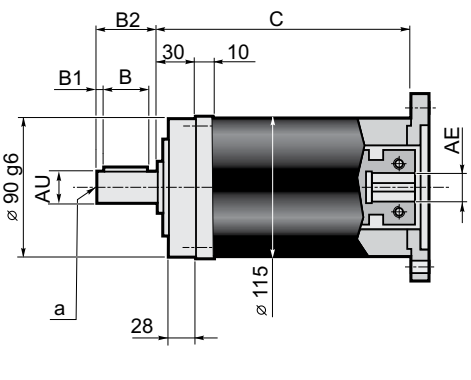
Tamaños generales y salidas / *General and output dimensions* / Dimensions générales et sorties

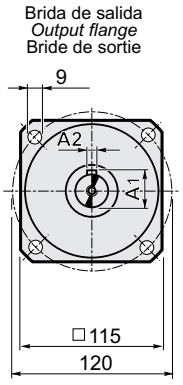
FLT





FLQ

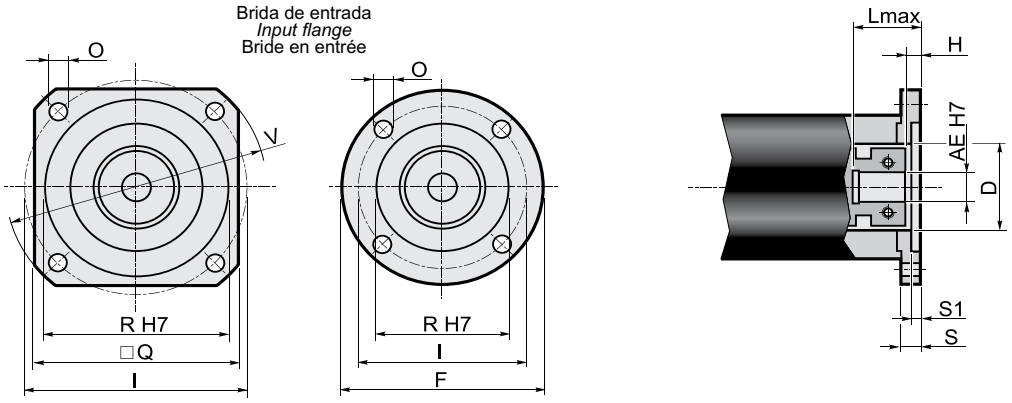




Etapas/*Steps*/*Etages*	1	2	3	
C	126	158.4	191	AE= 12.7-14-15.87-16-19
	145	177	210	AE= 22-24-28

	Brida de salida - *Output shaft* - Arbre de sortie						
	AU j6	**A1**	**A2**	**B**	**B1**	**B2**	**a**
AU25	25	28	8	40	5	50	M8x20
AU32	32	35	10	50	4	58	M10x25

Tamaño entrada / *Input dimensions* / Dimensions en entrée



Brida de entrada / *Input flange* / Brides en entrée										Eje de entrada - *Input shaft* - Arbre en entrée																	
										AE																	
										12.7		14		15.87		16		19		22		24		25		28	
	F	Q	V	I	R (H7)	O	S	S1	D	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H
P01*	=	115	140	125.72	55.52	6.5	13	3	55.52	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P02*	115	=	=	75	60	5.5	13	3.5	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P03*	115	=	=	85	70	6.5	13	3.5	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P04*	115	=	=	98.42	73.02	6.5	13	3	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P05*	120	=	=	100	80	6.5	13	4	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P06*	=	115	140	115	95	9	13	4.5	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P07	=	115	160	130	110	8.5	13	4.5	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P08	=	142	190	165	130	11	13	4.5	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P09	=	192	250	215	180	13	14	4.5	60	44	7	36	7	44	7	44	7	44	7	63	7	63	7	63	7	63	7
P10*	115	=	=	65	50	6.5	13	3.5	50	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P11	=	130	170	145	110	M 8	31	7	60	61	24	53	24	61	24	61	24	61	24	80	24	80	24	80	24	80	24
P12	=	130	170	145	110	M 8	17	7	60	47	10	39	10	47	10	47	10	47	10	66	10	66	10	66	10	66	10
P13	=	115	160	130	110	M 8	13	4.5	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P14*	115	=	=	70	50	6.5	13	3.5	50	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P15	115	=	=	90	70	M5	11	3.5	60	41	4	33	4	41	4	41	4	41	4	60	4	60	4	60	4	60	4
P17*	115	=	=	90	70	6.5	13	3.5	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P18	=	115	155	130	95	8.5	13	4.5	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P19*	115	=	=	95	50	6.5	13	3.5	50	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P20	115	=	=	99	60	M6	13	4	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P21*	130	=	=	106	82.5	12.5	26.5	15	60	56.5	19.5	48.5	17.5	56.5	19.5	56.5	19.5	56.5	19.5	75.5	19.5	75.5	19.5	75.5	19.5	75.5	19.5

* Para ensamblar el reductor es necesario desmontar la brida del reductor (ver **esquema de montaje 2** en la pág. 25).

* *To mount the motor it is necessary to remove the gearbox flange (see* ***assembly drawing 2*** *on page 25).*

* Pour assembler le moteur, il faut démonter la bride du réducteur (voir **schéma de montage 2** page 25).

1.9 Datos técnicos — *1.9 Technical data* — 1.9 Données techniques

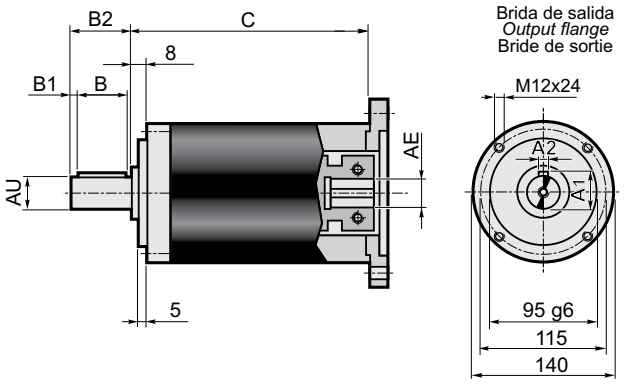
Etapas / *Steps* / Etages	1				2							3								
i	**3**	**4**	**5**	**7**	**9**	**12**	**16**	**20**	**28**	**35**	**49**	**36**	**48**	**64**	**80**	**100**	**140**	**196**	**245**	**343**
$n_{1\ nom}$	3000				3500							4000								
$n_{1\ max}$	5000																			
$T2_N$	430	470	410	340	500	560	560	560	560	470	370	600	600	600	600	600	600	600	500	450
$T2_A$	700	750	650	600	800	900	900	900	900	750	700	950	950	950	950	950	950	950	800	750
$T2_S$	1400	1500	1300	1200	1600	1800	1800	1800	1800	1500	1400	1900	1900	1900	1900	1900	1900	1900	1600	1500
J	Ver pag. 10 / *See on page 10* / Voir p. 10																			
LpA	< 70																			
R_d	0.96				0.93							0.91								
L_h	20000																			
F_{R2}	6600																			
F_{A2}	3300																			
R_t	60																			
α_{max}	4’				6’							8’								
Kg	13.0				17.0							21								

i	Relación de reducción nominal	*Nominal ratio*	Rapport de réduction nominale
$n_{1\ nom}$	Velocidad nominal de salida [min^{-1}]	*Nominal input speed [min^{-1}]*	Nom Vitesse nominale en entrée [min^{-1}]
$n_{1\ max}$	Velocidad máxima de salida [min^{-1}]	*Maximum input speed [min^{-1}]*	max Vitesse maximum en entrée [min^{-1}]
$T2_N$	Par nominal (intermitente) en salida [Nm]	*Rated intermittent output torque [Nm]*	Couple nominal intermittent en sortie [Nm]
$T2_A$	Par máximo de aceleración en salida [Nm]	*Maximum acceleration output torque [Nm]*	Couple maximum d’accélération en sortie [Nm]
$T2_S$	Par máximo de urgencia en salida [Nm]	*Maximum emergency output torque [Nm]*	Couple maximum de sécurité en sortie [Nm]
LpA	Nivel de rumor dB(A) a 3000 min^{-1}	*Noise level dB(A) at 3000 min^{-1}*	Niveau de bruit dB(A) à 3000 min^{-1}
Rd	Rendimiento dinámico	*Dynamic efficiency*	Rendement dynamique
L_h	Vida de los cojinetes [h]	*Bearing life [h]*	Durée de vie des roulements [h]
F_{R2}	Carga radial nominal de salida [N] a 300min^{-1}	*Rated output radial load [N] at 300min^{-1}*	Charge radiale nominale en sortie [N] à 300min^{-1}
F_{A2}	Carga axial de salida [N] a 300min^{-1}	*Output axial load [N] at 300min^{-1}*	Charge axiale en sortie [N] à 300min^{-1}
R_t	Rigidez torsional [Nm / arcmin]	*Torsional rigidity [Nm / arcmin]*	Rigidité de torsion [Nm / arcmin]
α_{max}	Juego angular máximo [arcmin]	*Maximum backlash [arcmin]*	Jeu angulaire maximum [arcmin]
J	Momento de inercia [kg·cm^2]	*Moment of inertia [kg·cm^2]*	J Moment d’inertie [kg·cm^2]

1.10 Tamaños — *1.10 Dimensions* — 1.10 Dimensions

Tamaños generales y salidas / *General and output dimensions* / Dimensions générales et sorties

FLT



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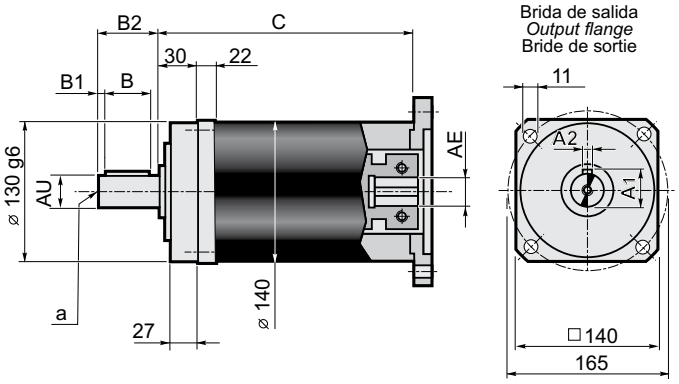
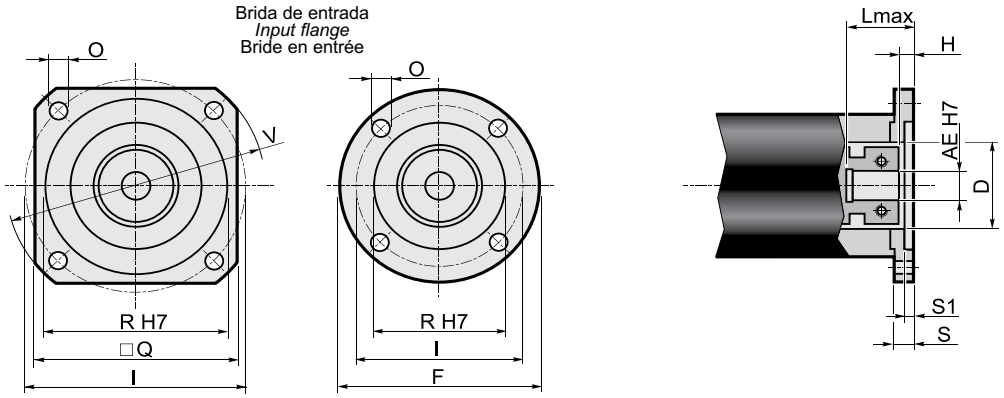


Etapas/*Steps*/Etages	1	2	3	
C	160	201	242	AE= 15.87-16-19-22-24
	185	226	267	AE= 28-32-35-38

	Eje de salida - *Output shaft* - Arbre de sortie						
	AU j6	**A1**	**A2**	**B**	**B1**	**B2**	**a**
AU38	38	41	10	70	5	80	M10x25
AU40	40	43	12	70	5	80	M10x25

Tamaño entrada / *Input dimensions* / Dimensions en entrée



Brida de entrada / *Input flange* / Bride en entrée										Eje de entrada - *Input shaft* - Arbre en entrée																	
										AE																	
										15.87		16		19		22		24		28		32		35		38	
	F	Q	V	I	R (H7)	O	S	S1	D	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H
P01*	140	=	=	125.72	55.52	6.5	15	4	55.52	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P02*	140	=	=	100	80	6.5	15	4	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P03*	140	=	=	115	95	8.5	15	4.5	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P04*	=	140	160	130	110	8.5	15	4.5	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P05	=	142	190	165	130	11	15	4.5	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P06	=	190	250	215	180	13	15	4.5	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P07	=	250	300	265	230	13	15	4.5	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P08	=	130	165	145	110	M 8	18	7	70	60.8	9.8	60.8	9.8	45.8	9.8	60.8	9.8	60.8	9.8	85.8	10.3	85.8	10.3	85.8	10.3	85.8	10.3
P09	=	180	230	200	114.3	13.5	22	11	70	64.8	13.8	64.8	13.8	49.8	13.8	64.8	13.8	64.8	13.8	89.8	14.3	89.8	14.3	89.8	14.3	89.8	14.3
P10	=	115	150	130	95	M 8	15	4.5	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P11	=	180	230	198	155	13.5	22	7	120x11	64.8	13.8	64.8	13.8	49.8	13.8	64.8	13.8	64.8	13.8	89.8	14.3	89.8	14.3	89.8	14.3	89.8	14.3
P12	=	220	270	235	200	13.5	15	5	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P13	=	190	250	215	130	13	15	4.5	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P14	=	142	190	165	110	11	15	4.5	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P15*	150	=	=	90	70	6.5	15	4	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3

* Para ensamblar el reductor es necesario desmontar la brida del reductor (ver **esquema de montaje 2** en la pág. 25).

* *To mount the motor it is necessary to remove the gearbox flange (see **assembly drawing 2** on page 25).*

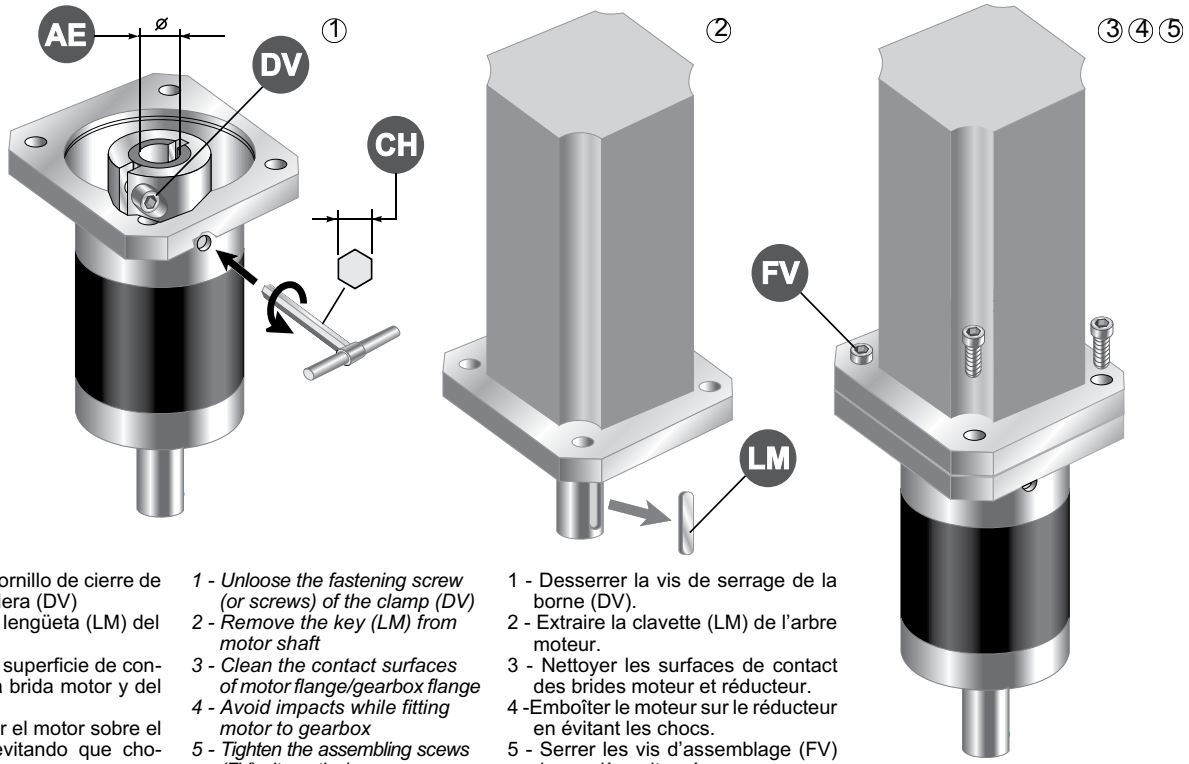
* Pour assembler le moteur, il faut démonter la bride du réducteur (voir **schéma de montage 2** page 25).

1.11 Instrucciones de instalación motor

1.11 *Instructions for assembly of motor*

1.11 Instructions pour le montage du moteur

① Esquema de montaje / *Assembly drawing* / Schéma de montage

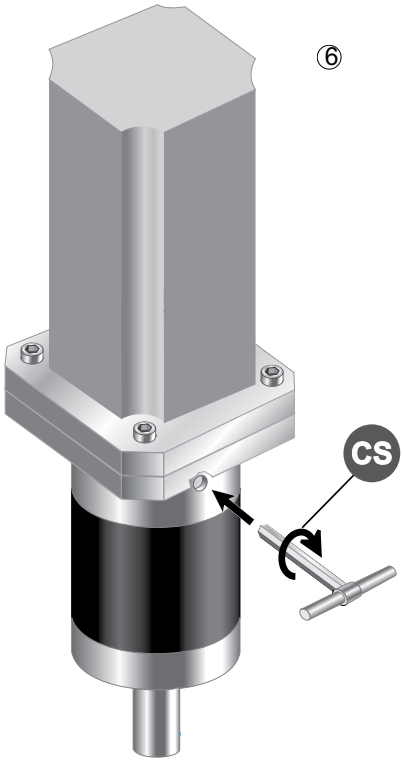


1 - Aflojar el tornillo de cierre de la abrazadera (DV)
2 - Extraer la lengüeta (LM) del eje motor
3 - Limpiar la superficie de contacto de la brida motor y del reductor
4 - Ensamblar el motor sobre el reductor evitando que choquen
5 - Ajustar los tornillos de ensamblaje (FV) alternando
6 - Ajustar el tornillo (o tornillos) de la abrazadera (DV) al par (CS) indicada en tabla

1 - Unloose the fastening screw (or screws) of the clamp (DV)
2 - Remove the key (LM) from motor shaft
3 - Clean the contact surfaces of motor flange/gearbox flange
4 - Avoid impacts while fitting motor to gearbox
5 - Tighten the assembling scews (FV) alternatively
6 - Tighten the clamp screw,or screws (DV) according to the torque (CS) reported in the table

1 - Desserrer la vis de serrage de la borne (DV).
2 - Extraire la clavette (LM) de l'arbre moteur.
3 - Nettoyer les surfaces de contact des brides moteur et réducteur.
4 -Emboîter le moteur sur le réducteur en évitant les chocs.
5 - Serrer les vis d'assemblage (FV) de manière alternée.
6 - Serrer la ou les vis de la borne (DV) au couple (CS) indiqué dans le tableau.

REP 075	AE	6	6.35	7	8	9	9.52	11	12	12.7	14
	DV	M4									
	NV	1									
	CH	3									
	CS [Nm]	4.8									
REP 100	AE	9	9.52	11	12	12.7	14	15.87	16	19	
	DV	M4						M5			
	NV	1						1			
	CH	3						4			
	CS [Nm]	4.8						9.4			
REP 125	AE	12.7	14	15.87	16	19	22	24	28		
	DV	M4		M5			M6				
	NV	1		1			2				
	CH	3		4			5				
	CS [Nm]	4.8		9.4			16.2				
REP 150	AE	15.87	16	19	22	24	28	32	35	38	
	DV	M6			M6			M6			
	NV	1			2			3			
	CH	5			5			5			
	CS [Nm]	16.2			16.2			16.2			



AE= Eje de entrada / *Input shaft* / Arbre en entrée
DV= Diámetro tornillo / *Screw diameter* / Diamètre de la vis

NV= número tornillo / *Number of screw* / Nombre de vis
CS= Par de cierre / *Setting torque* / Couple de serrage

2.0 REDUCTORES PLANETARIOS SERIE EP / *PLANETARY GEARBOXES EP SERIES* / REDUCTEURS EPICYCLOIDAUX SERIE EP

2.2 Nomenclatura

2.2 *Designation*

2.2 Désignation

Reductores planetarios *Planetary gearbox* Réducteur épicycloïdal	Tamaños *Size* Taille	Números de etapas *Steps* Nombre d'etages	Coaxiales *Coaxial* Coaxiale	Relación de reducción *Ratio* Rapport de réduction	Eje de salida *Ouput shaft* Arbre de sortie	Brida de salida *Output flange* Bride de sortie	Eje de entrada *Input shaft* Arbre en entrée	Brida de entrada *Input flange* Bride en entrée
EP	**55**	**2**	**C**	**100**	**A**	**A**	**AE..**	**P..**
	55 **75** **90** **120** **155**	**1** **2**	**C**	**3 - 100**	**A** **T**	**A** **T** **Q**	Ver tabla *See tables* Voir tableaux	Ver tabla *See tables* Voir tableaux

2.3 Selección

En la selección de los reductores planetarios EP se debe realizar considerando el tipo de servicio, intermitente o continuo. Verificando las siguientes relaciones.

1) Servicio intermitente:

$$T_m \cdot i \cdot R_D \cdot fc \leq T_{2N}$$

2) Servicio continuo:

$$T_m \cdot i \cdot R_D \cdot fc / 0.65 \leq T_{2N}$$

Donde:
Tm = par nominal del motor (Nm)
i = relación de transmisión del reductor
R_D = rendimento dinamico
fc = factor de ciclo (ver tabla)

2.3 *Selection*

The selection of planetary gearboxes EP series has to be made after the checking of service factor. For intermittent or continuous duty it is necessary to apply the following formulas:

1) Intermittent duty:

$$T_m \cdot i \cdot R_D \cdot fc \leq T_{2N}$$

2) Continuos duty:

$$T_m \cdot i \cdot R_D \cdot fc / 0.65 \leq T_{2N}$$

where:
Tm = nominal torque of motor (Nm)
i = transmission ratio of gearbox
R_D = dynamic efficiency
fc = cycle factor (see table)

2.3 Sélection

Il faut choisir les réducteurs épicycloïdaux EP sur la base du service : intermittent ou continu, où les calculs suivants se vérifient

1) Pour un fonctionnement intermittent:

$$T_m \cdot i \cdot R_D \cdot fc \leq T_{2N}$$

2) Pour un fonctionnement continu:

$$T_m \cdot i \cdot R_D \cdot fc / 0.65 \leq T_{2N}$$

où:
Tm= couple nominal du moteur (Nm)
I = rapport de transmission du réducteur
R_D = Rendement dynamique
fc = facteur de cycle (voir tableau)

Ciclos/hora - *cycle/h* - Cycles/heure	≤1000	1000/2000	2000/3000
fc	**1**	**1.2/1.5**	**1.5/2**

En las aplicaciones donde sea necesario ciclos de funcionamiento a frecuentes aceleraciones, verificar que el par máximo de aceleración sea igual o menor al valor T_{2A} indicado en la tabla.

For application with operation cycles based on frequent accelerations it is necessary to verify that max acceleration torque is equal or inferior to the T_{2A} value shown in the tables.

Dans les applications où sont prévues des cycles de fonctionnement caractérisés par de fréquentes accélérations, il est nécessaire de vérifier que le couple maximum d'accélération soit égal ou inférieur à la valeur de T_{2A} indiquée dans le tableau.

2.4 Juego Angular (α_{max})

Juego máximo [arcmin] calculado sobre el eje de salida, con el eje de entrada bloqueado, con un par igual al 2% del par nominal.

2.4 *Backlash (α_{max})*

Max. backlash measured on output shaft by torque equals to 2% of the nominal torque value with input shaft blocked.

2.4 Jeu angulaire (α_{max})

Jeu maximum [arcmin] mesuré sur l'arbre de sortie avec l'arbre en entrée bloqué et un couple équivalent à 2% du couple nominal.

Datos técnicos EP | ***EP Technical data*** | **Données techniques EP**

EP 55

Etapas *Steps* Etages	1					2													
i	**3**	**4**	**5**	**7**	**10**	**9**	**12**	**15**	**16**	**20**	**25**	**28**	**35**	**40**	**50**	**70**	**100**		Etapas *Steps* Etages **1**	**2**
$T2_N$	12	14	16	12	10	14	16	16	16	16	16	16	16	16	16	14	12	**n_{1nom}**	4000	
$T2_A$	22	24	24	22	20	24	28	28	28	28	28	28	28	28	28	24	22	**n_{1max}**	5000	
$T2_S$	44	48	48	44	40	48	56	56	56	56	56	56	56	56	56	48	44	**LpA**	< 70	
J_{min}	0.07	0.06	0.06	0.06	0.05	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.05	**Lh**	20000	
J_{max}	0.09	0.08	0.08	0.07	0.07	0.09	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	**F_{R2}**	300	
Rt	1.0				0.9	1.0											0.9	**F_{A2}**	450	
Rd	0.96					0.93												**α_{max}**	15'	20'

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EP 75

Etapas *Steps* Etages	1					2													
i	**3**	**4**	**5**	**7**	**10**	**9**	**12**	**15**	**16**	**20**	**25**	**28**	**35**	**40**	**50**	**70**	**100**		Etapas *Steps* Etages **1**	**2**
$T2_N$	22	28	32	28	20	26	32	36	36	36	36	36	36	36	36	30	22	**n_{1nom}**	4000	
$T2_A$	40	45	50	45	40	50	60	60	60	60	60	60	60	60	60	50	45	**n_{1max}**	5000	
$T2_S$	80	90	100	90	80	100	120	120	120	120	120	120	120	120	120	100	90	**LpA**	< 70	
J_{min}	0.17	0.12	0.11	0.09	0.09	0.16	0.16	0.15	0.12	0.12	0.10	0.09	0.09	0.09	0.09	0.09	0.09	**Lh**	20000	
J_{max}	0.22	0.16	0.15	0.14	0.13	0.21	0.20	0.20	0.16	0.16	0.15	0.14	0.14	0.13	0.13	0.13	0.13	**F_{R2}**	1800	
Rt	3.5				3.0	3.5											3.0	**F_{A2}**	1400	
Rd	0.96					0.93												**α_{max}**	15'	20'

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EP 90

Etapas *Steps* Etages	1					2													
i	**3**	**4**	**5**	**7**	**10**	**9**	**12**	**15**	**16**	**20**	**25**	**28**	**35**	**40**	**50**	**70**	**100**		Etapas *Steps* Etages **1**	**2**
$T2_N$	50	55	60	55	50	65	70	75	75	75	75	75	75	75	75	65	55	**n_{1nom}**	4000	
$T2_A$	80	90	100	90	80	100	110	120	120	120	120	120	120	120	120	100	90	**n_{1max}**	5000	
$T2_S$	160	180	200	180	160	200	220	240	240	240	240	240	240	240	240	200	180	**LpA**	< 70	
J_{min}	0.53	0.35	0.29	0.24	0.21	0.53	0.51	0.51	0.34	0.34	0.28	0.23	0.23	0.21	0.21	0.21	0.21	**Lh**	20000	
J_{max}	0.73	0.55	0.49	0.44	0.41	0.73	0.71	0.70	0.54	0.53	0.48	0.43	0.43	0.41	0.41	0.41	0.41	**F_{R2}**	2600	
Rt	9.0				7.5	9.0											7.5	**F_{A2}**	2000	
Rd	0.96					0.93												**α_{max}**	15'	20'

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EP 120

Etapas *Steps* Etages	1					2													
i	**3**	**4**	**5**	**7**	**10**	**9**	**12**	**15**	**16**	**20**	**25**	**28**	**35**	**40**	**50**	**70**	**100**		Etapas *Steps* Etages **1**	**2**
$T2_N$	120	150	180	150	100	150	180	220	220	220	220	220	220	220	220	170	110	**n_{1nom}**	3000	
$T2_A$	190	240	290	220	180	240	290	350	350	350	350	350	350	350	350	270	200	**n_{1max}**	4000	
$T2_S$	400	500	600	460	380	500	600	700	700	700	700	700	700	700	700	540	400	**LpA**	< 70	
J_{min}	2.02	1.13	0.86	0.62	0.50	2.00	1.92	1.88	1.07	1.05	0.80	0.60	0.60	0.50	0.49	0.49	0.49	**Lh**	20000	
J_{max}	4.17	3.28	3.01	2.77	2.65	4.15	4.07	4.03	3.22	3.20	2.95	2.75	2.75	2.65	2.64	2.64	2.64	**F_{R2}**	4500	
Rt	32				28	32	30							28				**F_{A2}**	4000	
Rd	0.96					0.93												**α_{max}**	15'	20'

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EP 155

Etapas Steps Etages	1					2													
i	**3**	**4**	**5**	**7**	**10**	**9**	**12**	**15**	**16**	**20**	**25**	**28**	**35**	**40**	**50**	**70**	**100**		Etapas *Steps* Etages **1**	**2**
$T2_N$	240	320	380	300	220	320	400	500	500	500	500	500	500	500	500	350	250	**n_{1nom}**	3000	
$T2_A$	420	540	600	480	400	480	600	750	750	750	750	750	750	750	750	560	460	**n_{1max}**	4000	
$T2_S$	880	1140	1260	1000	850	1000	1250	1500	1500	1500	1500	1500	1500	1500	1500	1120	920	**LpA**	< 70	
J_{min}	6.97	4.45	3.57	2.86	2.49	6.84	6.55	6.46	4.22	4.16	3.38	2.78	2.76	2.45	2.44	2.44	2.43	**Lh**	20000	
J_{max}	13.59	11.07	10.19	9.48	9.11	13.46	13.18	13.08	10.84	10.78	10.00	9.40	9.38	9.07	9.06	9.06	9.05	**$F_{R2\ (AA)}$** **$F_{R2\ (TT)}$**	6500 5300	
Rt	60				50	60											50	**$F_{A2\ (AA)}$** **$F_{A2\ (TT)}$**	3250 2650	
Rd	0.96					0.93												**α_{max}**	15'	20'

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2.7 Momento de inercia J [kg·cm²]

2.7 *Moment of inertia J [kg·cm²]*

2.7 Moment d'inertie J [kg.cm2]

		EP 55						
		Eje de entrada / *Input shaft* / Arbre en entrée						
Etapas *Steps* Etages	i	6	6.35	7	8	9	9.525	11
1	3	0.07	0.07	0.07	0.09	0.09	0.09	0.09
	4	0.06	0.06	0.06	0.08	0.08	0.08	0.08
	5	0.06	0.06	0.06	0.07	0.07	0.07	0.08
	7	0.06	0.06	0.06	0.07	0.07	0.07	0.07
	10	0.05	0.05	0.05	0.07	0.07	0.07	0.07
2	9	0.07	0.07	0.07	0.09	0.09	0.09	0.09
	12	0.07	0.07	0.07	0.09	0.09	0.09	0.09
	15	0.07	0.07	0.07	0.09	0.09	0.09	0.09
	16	0.06	0.06	0.06	0.08	0.08	0.08	0.08
	20	0.06	0.06	0.06	0.08	0.08	0.07	0.08
	25	0.06	0.06	0.06	0.07	0.07	0.07	0.08
	28	0.06	0.06	0.06	0.07	0.07	0.07	0.07
	35	0.06	0.06	0.06	0.07	0.07	0.07	0.07
	40	0.05	0.05	0.05	0.07	0.07	0.07	0.07
	50	0.05	0.05	0.05	0.07	0.07	0.07	0.07
	70	0.05	0.05	0.05	0.07	0.07	0.07	0.07
	100	0.05	0.05	0.05	0.07	0.07	0.07	0.07

		EP 75									
		Eje de entrada / *Input shaft* / Arbre en entrée									
Etapas *Steps* Etages	i	6	6.35	7	8	9	9.525	11	12	12.7	14
1	3	0.17	0.17	0.17	0.18	0.18	0.18	0.20	0.20	0.20	0.22
	4	0.12	0.12	0.12	0.13	0.13	0.13	0.14	0.15	0.14	0.16
	5	0.11	0.11	0.11	0.12	0.12	0.12	0.13	0.14	0.13	0.15
	7	0.09	0.09	0.09	0.11	0.11	0.11	0.12	0.12	0.12	0.14
	10	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.12	0.11	0.13
2	9	0.16	0.16	0.16	0.17	0.17	0.17	0.19	0.19	0.19	0.21
	12	0.16	0.16	0.16	0.17	0.17	0.17	0.18	0.18	0.18	0.20
	15	0.15	0.15	0.15	0.17	0.17	0.17	0.18	0.18	0.18	0.20
	16	0.12	0.12	0.12	0.13	0.13	0.13	0.14	0.15	0.14	0.16
	20	0.12	0.12	0.12	0.13	0.13	0.13	0.14	0.14	0.14	0.16
	25	0.10	0.10	0.10	0.12	0.12	0.12	0.13	0.13	0.13	0.15
	28	0.09	0.09	0.09	0.11	0.11	0.11	0.12	0.12	0.12	0.14
	35	0.09	0.09	0.09	0.11	0.11	0.11	0.12	0.12	0.12	0.14
	40	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.12	0.11	0.13
	50	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.12	0.11	0.13
	70	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.12	0.11	0.13
	100	0.09	0.09	0.09	0.10	0.10	0.10	0.11	0.12	0.11	0.13

Los valores de los momentos de inercia referidos apuntan al eje de entrada.

The moment of inertia values refer to the input shaft.

Les valeurs des moments d'inertie reportées se réfèrent à l'arbre en entrée.

2.7 Momento de inercia J [kg·cm²]

2.7 *Moment of inertia J [kg·cm²]*

2.7 Moment d'inertie J [kg·cm²]

		EP 90								
		Eje de entrada / *Input shaft* / Arbre en entrée								
Etapas *Steps* Etages	i	**9**	**9.525**	**11**	**12**	**12.7**	**14**	**15.87**	**16**	**19**
1	**3**	0.53	0.53	0.54	0.54	0.54	0.56	0.76	0.76	0.73
	4	0.35	0.35	0.36	0.36	0.36	0.38	0.58	0.58	0.55
	5	0.29	0.29	0.30	0.30	0.30	0.32	0.52	0.52	0.49
	7	0.24	0.24	0.25	0.25	0.25	0.27	0.47	0.47	0.44
	10	0.21	0.21	0.22	0.23	0.23	0.25	0.44	0.44	0.41
2	**9**	0.53	0.53	0.54	0.55	0.55	0.56	0.76	0.76	0.73
	12	0.51	0.51	0.52	0.53	0.53	0.55	0.74	0.74	0.71
	15	0.51	0.51	0.52	0.52	0.52	0.54	0.74	0.74	0.70
	16	0.34	0.34	0.35	0.35	0.35	0.37	0.57	0.57	0.54
	20	0.34	0.34	0.35	0.35	0.35	0.37	0.57	0.57	0.53
	25	0.28	0.28	0.29	0.29	0.29	0.31	0.51	0.51	0.48
	28	0.24	0.23	0.24	0.25	0.25	0.27	0.46	0.46	0.43
	35	0.23	0.23	0.24	0.25	0.25	0.27	0.46	0.46	0.43
	40	0.21	0.21	0.22	0.23	0.23	0.24	0.44	0.44	0.41
	50	0.21	0.21	0.22	0.23	0.22	0.24	0.44	0.44	0.41
	70	0.21	0.21	0.22	0.23	0.22	0.24	0.44	0.44	0.41
	100	0.21	0.21	0.22	0.23	0.22	0.24	0.44	0.44	0.41

		EP 120							
		Eje de entrada / *Input shaft* / Arbre en entrée							
Etapas *Steps* Etages	i	**12.7**	**14**	**15.87**	**16**	**19**	**22**	**24**	**28**
1	**3**	2.02	2.08	2.25	2.25	2.22	4.36	4.32	4.17
	4	1.13	1.19	1.36	1.36	1.33	3.47	3.43	3.28
	5	0.86	0.91	1.08	1.08	1.05	3.19	3.15	3.01
	7	0.62	0.68	0.85	0.85	0.82	2.96	2.92	2.77
	10	0.51	0.56	0.73	0.73	0.70	2.84	2.80	2.66
2	**9**	2.00	2.06	2.23	2.23	2.20	4.34	4.30	4.15
	12	1.92	1.97	2.14	2.14	2.11	4.26	4.22	4.07
	15	1.88	1.93	2.10	2.10	2.07	4.22	4.18	4.03
	16	1.07	1.13	1.30	1.30	1.27	3.41	3.37	3.22
	20	1.05	1.10	1.28	1.28	1.24	3.39	3.35	3.20
	25	0.80	0.86	1.03	1.03	0.99	3.14	3.10	2.95
	28	0.61	0.66	0.83	0.83	0.80	2.94	2.90	2.76
	35	0.60	0.65	0.82	0.82	0.79	2.94	2.90	2.75
	40	0.50	0.55	0.72	0.72	0.69	2.83	2.79	2.65
	50	0.49	0.55	0.72	0.72	0.68	2.83	2.79	2.64
	70	0.49	0.54	0.71	0.71	0.68	2.83	2.79	2.64
	100	0.49	0.54	0.71	0.71	0.68	2.83	2.79	2.64

Los valores de los momentos de inercia referidos apuntan al eje de entrada.

The moment of inertia values refer to the input shaft.

Les valeurs des moments d'inertie reportées se réfèrent à l'arbre en entrée.

2.7 Momento de inercia J [kg·cm²]

2.7 *Moment of inertia J [kg·cm²]*

2.7 Moment d'inertie J [kg·cm²]

		EP 155								
		Eje de entrada / *Input shaft* / Arbre en entrée								
Etapas *Steps* Etages	i	**15.87**	**16**	**19**	**22**	**24**	**28**	**32**	**35**	**38**
1	**3**	6.97	6.97	7.01	8.24	8.21	12.21	14.05	13.92	13.59
	4	4.45	4.45	4.48	5.72	5.68	9.69	11.53	11.40	11.07
	5	3.57	3.57	3.60	4.84	4.80	8.80	10.64	10.51	10.19
	7	2.86	2.86	2.89	4.13	4.09	8.09	9.93	9.81	9.48
	10	2.49	2.49	2.52	3.76	3.72	7.73	9.57	9.44	9.11
2	**9**	6.84	6.84	6.87	8.11	8.07	12.07	13.91	13.79	13.46
	12	6.55	6.55	6.59	7.83	7.79	11.79	13.63	13.51	13.18
	15	6.46	6.46	6.49	7.73	7.69	11.70	13.54	13.41	13.08
	16	4.22	4.22	4.25	5.49	5.45	9.45	11.29	11.17	10.84
	20	4.16	4.16	4.19	5.43	5.40	9.40	11.24	11.11	10.78
	25	3.38	3.38	3.41	4.65	4.62	8.62	10.46	10.33	10.00
	28	2.78	2.78	2.81	4.05	4.02	8.02	9.86	9.73	9.40
	35	2.76	2.76	2.80	4.03	4.00	8.00	9.84	9.71	9.38
	40	2.45	2.45	2.48	3.72	3.69	7.69	9.53	9.40	9.07
	50	2.44	2.44	2.48	3.71	3.68	7.68	9.52	9.39	9.06
	70	2.44	2.44	2.47	3.71	3.67	7.67	9.51	9.39	9.06
	100	2.43	2.43	2.46	3.70	3.67	7.67	9.51	9.38	9.05

Los valores de los momentos de inercia referidos apuntan al eje de entrada.

The moment of inertia values refer to the input shaft.

Les valeurs des moments d'inertie reportées se réfèrent à l'arbre en entrée.

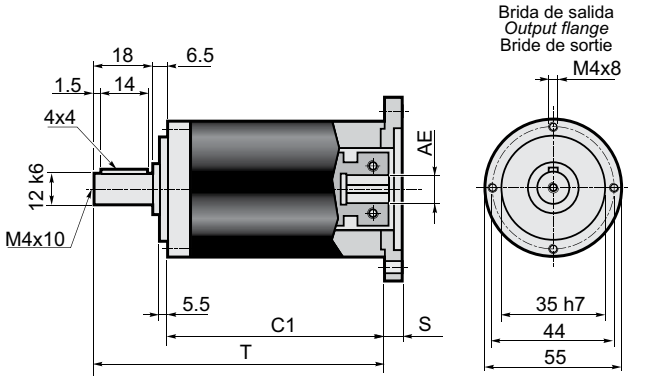
2.8 Datos Técnicos — 2.8 *Technical data* — 2.8 Données techniques

EP 55																			Etapas *Steps* Etages	
Etapas *Steps* Etages	1					2														
i	**3**	**4**	**5**	**7**	**10**	**9**	**12**	**15**	**16**	**20**	**25**	**28**	**35**	**40**	**50**	**70**	**100**		**1**	**2**
$T2_N$	12	14	16	12	10	14	16	16	16	16	16	16	16	16	16	14	12	**n_{1nom}**	4000	
$T2_A$	22	24	24	22	20	24	28	28	28	28	28	28	28	28	28	24	22	**n_{1max}**	5000	
$T2_S$	44	48	48	44	40	48	56	56	56	56	56	56	56	56	56	48	44	**LpA**	< 70	
J_{min}	0.07	0.06	0.06	0.06	0.05	0.07	0.07	0.07	0.06	0.06	0.06	0.06	0.06	0.05	0.05	0.05	0.05	**Lh**	20000	
J_{max}	0.09	0.08	0.08	0.07	0.07	0.09	0.09	0.09	0.08	0.08	0.08	0.07	0.07	0.07	0.07	0.07	0.07	**F_{R2}**	300	
Rt	1.0				0.9	1.0											0.9	**F_{A2}**	450	
Rd	0.96					0.93												**α_{max}**	15'	20'
Kg	0.8					1.8														

2.9 Tamaños — 2.9 *Dimensions* — 2.9 Dimensions

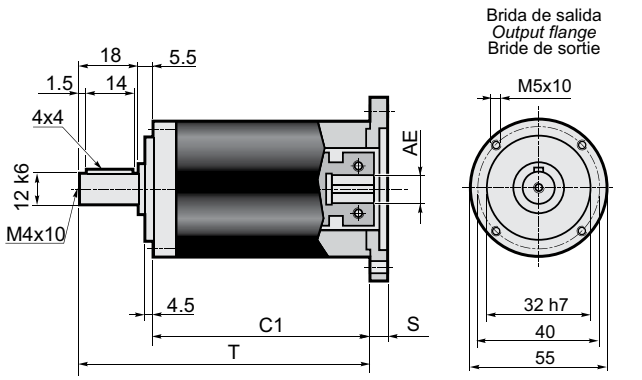
Tamaños generales y salidas / *General and output dimensions* / Dimensions générales et sorties

AA



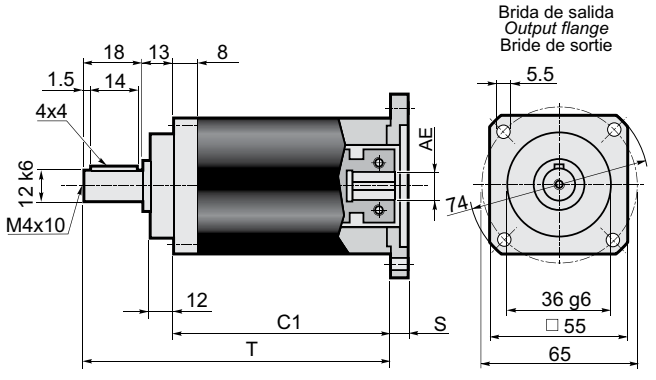
Etapas/*Steps*/Etages	1	2	
C1	62.5	81.5	AE= 6 - 6.35 - 7 - 8 - 9 - 9.52 - 11
T	87	106	

TT



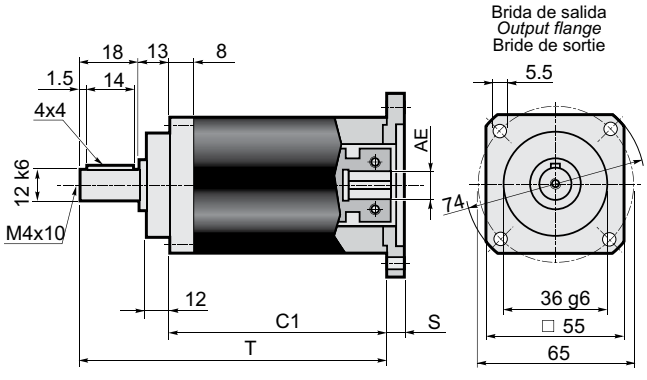
Etapas/*Steps*/Etages	1	2	
C1	63.5	82.5	AE= 6 - 6.35 - 7 - 8 - 9 - 9.52 - 11
T	87	106	

AQ



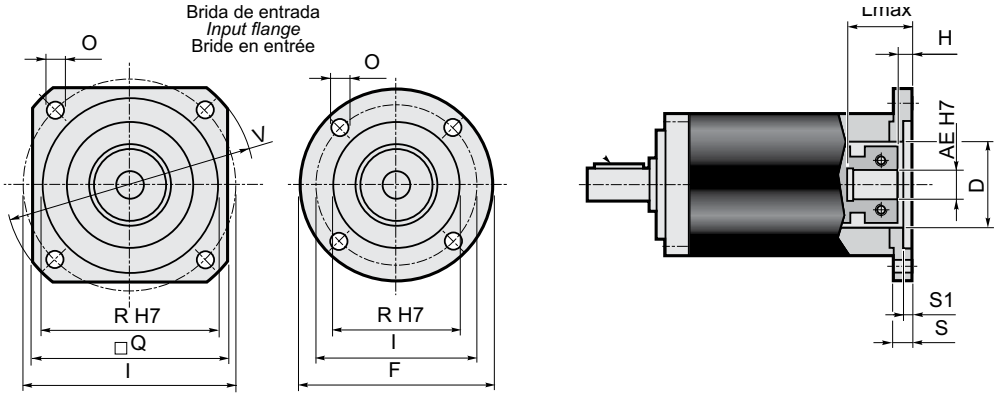
Etapas/*Steps*/Etages	1	2	
C1	56	75	AE= 6 - 6.35 - 7 - 8 - 9 - 9.52 - 11
T	87	106	

TQ



Etapas/*Steps*/Etages	1	2	
C1	56	75	AE= 6 - 6.35 - 7 - 8 - 9 - 9.52 - 11
T	87	106	

Tamaño entrada / *Input dimensions* / Dimensions en entrée



Brida de entrada / *Input flange* / Bride en entrée										Eje de entrada / *Input shaft* / Arbre en entrée													
										AE													
										6		6.35		7		8		9		9.52		11	
	F	Q	V	I	R (H7)	O	S	S1	D	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H
P01*	60	=	=	43.82	22	4.5	10	3	22	30	7	30	7	30	7	30	7	30	7	30	7	30	7
P02*	=	60	80	66.67	38.1	5.5	10	3	32	30	7	30	7	30	7	30	7	30	7	30	7	30	7
P03*	=	60	80	63	40	5.5	10	3.5	32	30	7	30	7	30	7	30	7	30	7	30	7	30	7
P04	=	70	90	75	60	6.5	10.5	3.5	32	30.5	7.5	30.5	7.5	30.5	7.5	30.5	7.5	30.5	7.5	30.5	7.5	30.5	7.5
P05	105	=	=	85	70	6.5	10.5	3.5	32	30.5	7.5	30.5	7.5	30.5	7.5	30.5	7.5	30.5	7.5	30.5	7.5	30.5	7.5
P06	=	80	110	98.42	73.02	6	11	3.5	35	31	8	31	8	31	8	31	8	31	8	31	8	31	8
P07	=	95	120	100	80	6.5	11.5	4	32	31.5	8.5	31.5	8.5	31.5	8.5	31.5	8.5	31.5	8.5	31.5	8.5	31.5	8.5
P08	=	98	130	115	95	9	11.5	4	32	31.5	8.5	31.5	8.5	31.5	8.5	31.5	8.5	31.5	8.5	31.5	8.5	31.5	8.5
P09	=	116	160	130	110	9	12	4.5	32	32	9	32	9	32	9	32	9	32	9	32	9	32	9
P10*	60	=	=	39	26	4.5	10	3	26	30	7	30	7	30	7	30	7	30	7	30	7	30	7
P11*	60	=	=	42	32	4.5	10	3	32	30	7	30	7	30	7	30	7	30	7	30	7	30	7
P12*	65	=	=	46	32	4.5	10	3.5	32	30	7	30	7	30	7	30	7	30	7	30	7	30	7
P13*	80	=	=	65	50	5.5	10	3.5	32	30	7	30	7	30	7	30	7	30	7	30	7	30	7
P14*	60	=	=	39	20	4.5	10	2.5	20	30	7	30	7	30	7	30	7	30	7	30	7	30	7
P15	=	75	100	90	60	5.8	12	3.5	32	32	9	32	9	32	9	32	9	32	9	32	9	32	9
P16*	60	=	=	45	30	3.5	14	7	30	34	11	34	11	34	11	34	11	34	11	34	11	34	11
P17	=	60	82	70	50	4.5	16.5	8	32	36.5	13.5	36.5	13.5	36.5	13.5	36.5	13.5	36.5	13.5	36.5	13.5	36.5	13.5
P18	=	60	80	60	50	M4	10.5	3.5	32	30.5	7.5	30.5	7.5	30.5	7.5	30.5	7.5	30.5	7.5	30.5	7.5	30.5	7.5
P19*	60	=	=	36	25	4.5	10	3	25	30	7	30	7	30	7	30	7	30	7	30	7	30	7
P20	=	60	82	70	50	5.5	10.5	3.5	32	30.5	7.5	30.5	7.5	30.5	7.5	30.5	7.5	30.5	7.5	30.5	7.5	30.5	7.5
P21*	60	=	=	46	30	4.5	10	3	30	30	7	30	7	30	7	30	7	30	7	30	7	30	7
P22	=	60	80	70.71	36	4.5	10	2	32	30	7	30	7	30	7	30	7	30	7	30	7	30	7
P23	=	62	85	70	50	5.5	15.5	3.5	32	35.5	12.5	35.5	12.5	35.5	12.5	35.5	12.5	35.5	12.5	35.5	12.5	35.5	12.5
P24	=	75	100	90	70	5.8	12	3.5	32	32	9	32	9	32	9	32	9	32	9	32	9	32	9
P25	=	70	95	85	55	5.8	12	3.5	32	32	9	32	9	32	9	32	9	32	9	32	9	32	9
P26*	=	60	80	65.5	34	5.5	10	3.5	33	30	7	30	7	30	7	30	7	30	7	30	7	30	7
P27	=	80	110	95	50	6.5	12	3.5	32	32	9	32	9	32	9	32	9	32	9	32	9	32	9
P28	=	60	80	66.67	38.1	M4	9	2.5	32	29	6	29	6	29	6	29	6	29	6	29	6	29	6
P29	60	=	=	45	30	M3	11	4	32	31	8	31	8	31	8	31	8	31	8	31	8	31	8
P30	=	70	95	85	60	5.8	12	3.5	32	32	9	32	9	32	9	32	9	32	9	32	9	32	9
P31	=	62	85	70	50	M4	11	3.5	32	31	8	31	8	31	8	31	8	31	8	31	8	31	8
P32	=	60	80	65	40	M5	10	3.5	32	30	7	30	7	30	7	30	7	30	7	30	7	30	7
P33	=	85	115	99	60	5.5	11	3.5	35	31	8	31	8	31	8	31	8	31	8	31	8	31	8
P34	=	65	87	73.54	40	M4	10	3.5	32	30	7	30	7	30	7	30	7	30	7	30	7	30	7
P35	=	60	80	70.71	36	M4	14	2	32	34	11	34	11	34	11	34	11	34	11	34	11	34	11
P36	=	85	115	98.42	73.02	6	15	3.5	35	35	12	35	12	35	12	35	12	35	12	35	12	35	12

* Para ensamblar el reductor es necesario desmontar la brida del reductor (ver **esquema de montaje 2** en la pág. 45).

* *To mount the motor it is necessary to remove the gearbox flange (see **assembly drawing 2** on page 45).*

* Pour assembler le moteur, il faut démonter la bride du réducteur (voir **schéma de montage 2** page 45).

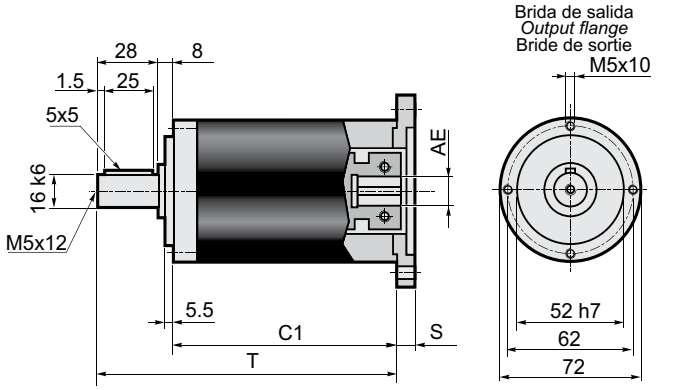
2.8 Datos Técnicos — *2.8 Technical data* — 2.8 Données techniques

EP 75																				
Etapas *Steps* Etages	1					2													Etapas *Steps* Etages	
i	**3**	**4**	**5**	**7**	**10**	**9**	**12**	**15**	**16**	**20**	**25**	**28**	**35**	**40**	**50**	**70**	**100**		**1**	**2**
$T2_N$	22	28	32	28	20	26	32	36	36	36	36	36	36	36	36	30	22	**n_{1nom}**	4000	
$T2_A$	40	45	50	45	40	50	60	60	60	60	60	60	60	60	60	50	45	**n_{1max}**	5000	
$T2_S$	80	90	100	90	80	100	120	120	120	120	120	120	120	120	120	100	90	**LpA**	< 70	
J_{min}	0.17	0.12	0.11	0.09	0.09	0.16	0.16	0.15	0.12	0.12	0.10	0.09	0.09	0.09	0.09	0.09	0.09	**Lh**	20000	
J_{max}	0.22	0.16	0.15	0.14	0.13	0.21	0.20	0.20	0.16	0.16	0.15	0.14	0.14	0.13	0.13	0.13	0.13	**F_{R2}**	1800	
Rt	3.5				3.0	3.5											3.0	**F_{A2}**	1400	
Rd	0.96					0.93												**α_{max}**	15'	20'
Kg	1.4					2.0														

2.9 Tamaños — *2.9 Dimensions* — 2.9 Dimensions

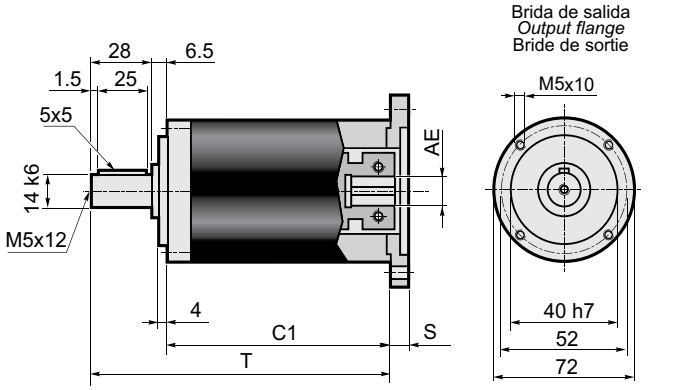
Tamaños generales y salidas / *General and output dimensions* / Dimensions générales et sorties

AA



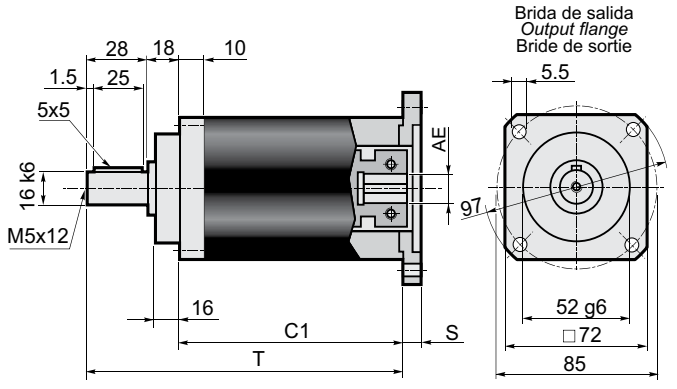
Etapas/*Steps*/Etages	1	2	
C1	78.5	101	AE= 6-6.35-7-8-9-9.52-11-12-12.7-14
T	114.5	137	

TT



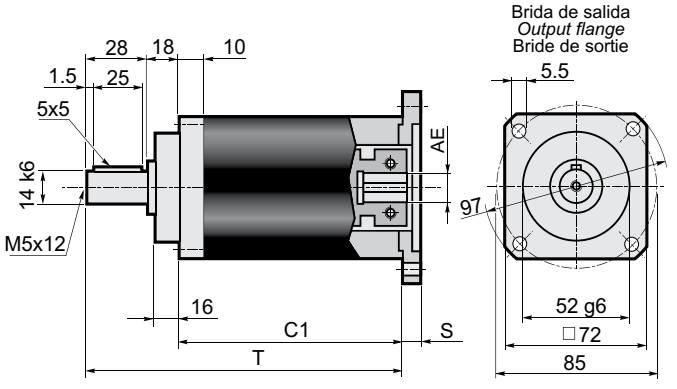
Etapas/*Steps*/Etages	1	2	
C1	80	102.5	AE= 6-6.35-7-8-9-9.52-11-12-12.7-14
T	114.5	137	

AQ



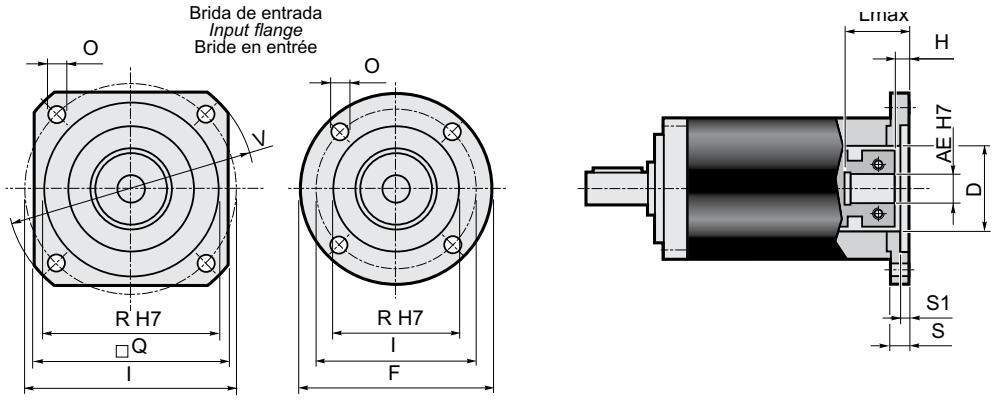
Etapas/*Steps*/Etages	1	2	
C1	68.5	91	AE= 6-6.35-7-8-9-9.52-11-12-12.7-14
T	114.5	137	

TQ



Etapas/*Steps*/Etages	1	2	
C1	68.5	91	AE= 6-6.35-7-8-9-9.52-11-12-12.7-14
T	114.5	137	

Tamaño entrada / *Input dimensions* / Dimensions en entrée



Brida de entrada / Input flange / Bride en entrée										Eje de entrada / *Input shaft* / Arbre en entrée																			
										AE																			
										6		6.35		7		8		9		9.52		11		12		12.7		14	
	F	Q	V	I	R (H7)	O	S	S1	D	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H
P01*	60	=	=	43.82	22	4.5	10	3	22	35	4.5	35	4.5	35	4.5	26	6.5	26	6.5	35	6.5	26	6.5	35	6.5	35	6.5	35	6.5
P02*	=	60	80	66.67	38.1	5.5	10	3	32	35	4.5	35	4.5	35	4.5	26	6.5	26	6.5	35	6.5	26	6.5	35	6.5	35	6.5	35	6.5
P03*	=	60	80	63	40	5.5	10	3.5	32	35	4.5	35	4.5	35	4.5	26	6.5	26	6.5	35	6.5	26	6.5	35	6.5	35	6.5	35	6.5
P04	=	70	90	75	60	6.5	10.5	3.5	32	35.5	5	35.5	5	35.5	5	26.5	7	26.5	7	35.5	7	26.5	7	35.5	7	35.5	7	35.5	7
P05	105	=	=	85	70	6.5	10.5	3.5	32	35.5	5	35.5	5	35.5	5	26.5	7	26.5	7	35.5	7	26.5	7	35.5	7	35.5	7	35.5	7
P06	=	80	110	98.42	73.02	6	11	3.5	35	36	5.5	36	5.5	36	5.5	27	7.5	27	7.5	36	7.5	27	7.5	36	7.5	36	7.5	36	7.5
P07	=	95	120	100	80	6.5	11.5	4	32	36.5	6	36.5	6	36.5	6	27.5	8	27.5	8	36.5	8	27.5	8	36.5	8	36.5	8	36.5	8
P08	=	98	130	115	95	9	11.5	4	32	36.5	6	36.5	6	36.5	6	27.5	8	27.5	8	36.5	8	27.5	8	36.5	8	36.5	8	36.5	8
P09	=	116	160	130	110	9	12	4.5	32	37	6.5	37	6.5	37	6.5	28	8.5	28	8.5	37	8.5	28	8.5	37	8.5	37	8.5	37	8.5
P10*	60	=	=	39	26	4.5	10	3	26	35	4.5	35	4.5	35	4.5	26	6.5	26	6.5	35	6.5	26	6.5	35	6.5	35	6.5	35	6.5
P11*	60	=	=	42	32	4.5	10	3	32	35	4.5	35	4.5	35	4.5	26	6.5	26	6.5	35	6.5	26	6.5	35	6.5	35	6.5	35	6.5
P12*	65	=	=	46	32	4.5	10	3.5	32	35	4.5	35	4.5	35	4.5	26	6.5	26	6.5	35	6.5	26	6.5	35	6.5	35	6.5	35	6.5
P13*	80	=	=	65	50	5.5	10	3.5	32	35	4.5	35	4.5	35	4.5	26	6.5	26	6.5	35	6.5	26	6.5	35	6.5	35	6.5	35	6.5
P14*	60	=	=	39	20	4.5	10	2.5	20	35	4.5	35	4.5	35	4.5	26	6.5	26	6.5	35	6.5	26	6.5	35	6.5	35	6.5	35	6.5
P15	=	75	100	90	60	5.8	12	3.5	32	37	6.5	37	6.5	37	6.5	28	8.5	28	8.5	37	8.5	28	8.5	37	8.5	37	8.5	37	8.5
P16*	60	=	=	45	30	3.5	14	7	30	39	8.5	39	8.5	39	8.5	30	10.5	30	10.5	39	10.5	30	10.5	39	10.5	39	10.5	39	10.5
P17	=	60	82	70	50	4.5	16.5	8	32	41.5	11	41.5	11	41.5	11	32.5	13	32.5	13	41.5	13	32.5	13	41.5	13	41.5	13	41.5	13
P18	=	60	80	60	50	M4	10.5	3.5	32	35.5	5	35.5	5	35.5	5	26.5	7	26.5	7	35.5	7	26.5	7	35.5	7	35.5	7	35.5	7
P19*	60	=	=	36	25	4.5	10	3	25	35	4.5	35	4.5	35	4.5	26	6.5	26	6.5	35	6.5	26	6.5	35	6.5	35	6.5	35	6.5
P20	=	60	82	70	50	5.5	10.5	3.5	32	35.5	5	35.5	5	35.5	5	26.5	7	26.5	7	35.5	7	26.5	7	35.5	7	35.5	7	35.5	7
P21*	60	=	=	46	30	4.5	10	3	30	35	4.5	35	4.5	35	4.5	26	6.5	26	6.5	35	6.5	26	6.5	35	6.5	35	6.5	35	6.5
P22	=	60	80	70.71	36	4.5	10	2	32	35	4.5	35	4.5	35	4.5	26	6.5	26	6.5	35	6.5	26	6.5	35	6.5	35	6.5	35	6.5
P23	=	62	85	70	50	5.5	15.5	3.5	32	40.5	10	40.5	10	40.5	10	31.5	12	31.5	12	40.5	12	31.5	12	40.5	12	40.5	12	40.5	12
P24	=	75	100	90	70	5.8	12	3.5	32	37	6.5	37	6.5	37	6.5	28	8.5	28	8.5	37	8.5	28	8.5	37	8.5	37	8.5	37	8.5
P25	=	70	95	85	55	5.8	12	3.5	32	37	6.5	37	6.5	37	6.5	28	8.5	28	8.5	37	8.5	28	8.5	37	8.5	37	8.5	37	8.5
P26*	=	60	80	65.5	34	5.5	10	3.5	33	35	4.5	35	4.5	35	4.5	26	6.5	26	6.5	35	6.5	26	6.5	35	6.5	35	6.5	35	6.5
P27	=	80	110	95	50	6.5	12	3.5	32	37	6.5	37	6.5	37	6.5	28	8.5	28	8.5	37	8.5	28	8.5	37	8.5	37	8.5	37	8.5
P28	=	60	80	66.67	38.1	M4	9	2.5	32	34	3.5	34	3.5	34	3.5	25	5.5	25	5.5	34	5.5	25	5.5	34	5.5	34	5.5	34	5.5
P29	60	=	=	45	30	M3	11	4	32	36	5.5	36	5.5	36	5.5	27	7.5	27	7.5	36	7.5	27	7.5	36	7.5	36	7.5	36	7.5
P30	=	70	95	85	60	5.8	12	3.5	32	37	6.5	37	6.5	37	6.5	28	8.5	28	8.5	37	8.5	28	8.5	37	8.5	37	8.5	37	8.5
P31	=	62	85	70	50	M4	11	3.5	32	36	5.5	36	5.5	36	5.5	27	7.5	27	7.5	36	7.5	27	7.5	36	7.5	36	7.5	36	7.5
P32	=	60	80	65	40	M5	10	3.5	32	35	4.5	35	4.5	35	4.5	26	6.5	26	6.5	35	6.5	26	6.5	35	6.5	35	6.5	35	6.5
P33	=	85	115	99	60	5.5	11	3.5	32	36	5.5	36	5.5	36	5.5	27	7.5	27	7.5	36	7.5	27	7.5	36	7.5	36	7.5	36	7.5
P34	=	65	87	73.54	40	M4	10	3.5	32	35	4.5	35	4.5	35	4.5	26	6.5	26	6.5	35	6.5	26	6.5	35	6.5	35	6.5	35	6.5
P35	=	60	80	70.71	36	M4	14	2	32	39	8.5	39	8.5	39	8.5	30	10.5	30	10.5	39	10.5	30	10.5	39	10.5	39	10.5	39	10.5
P36	=	85	115	98.42	73.02	6	15	3.5	35	40	9.5	40	9.5	40	9.5	35	11.5	31	11.5	40	11.5	35	11.5	40	11.5	40	11.5	40	11.5

* Para ensamblar el reductor es necesario desmontar la brida del reductor (ver **esquema de montaje 2** en la pág. 45).

* *To mount the motor it is necessary to remove the gearbox flange (see* ***assembly drawing 2*** *on page 45).*

* Pour assembler le moteur, il faut démonter la bride du réducteur (voir **schéma de montage 2** page 45).

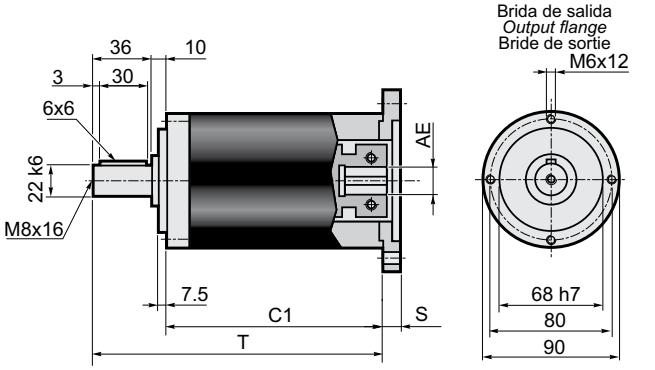
2.8 Datos Técnicos — 2.8 *Technical data* — 2.8 Données techniques

EP 90																			Etapas *Steps* Etages	
Etapas *Steps* Etages	1					2														
i	**3**	**4**	**5**	**7**	**10**	**9**	**12**	**15**	**16**	**20**	**25**	**28**	**35**	**40**	**50**	**70**	**100**		**1**	**2**
$T2_N$	50	55	60	55	50	65	70	75	75	75	75	75	75	75	75	65	55	**n_{1nom}**	4000	
$T2_A$	80	90	100	90	80	100	110	120	120	120	120	120	120	120	120	100	90	**n_{1max}**	5000	
$T2_S$	160	180	200	180	160	200	220	240	240	240	240	240	240	240	240	200	180	**LpA**	< 70	
J_{min}	0.53	0.35	0.29	0.24	0.21	0.53	0.51	0.51	0.34	0.34	0.28	0.23	0.23	0.21	0.21	0.21	0.21	**Lh**	20000	
J_{max}	0.73	0.55	0.49	0.44	0.41	0.73	0.71	0.70	0.54	0.53	0.48	0.43	0.43	0.41	0.41	0.41	0.41	**F_{R2}**	2600	
Rt	9.0				7.5	9.0											7.5	**F_{A2}**	2000	
Rd	0.96					0.93												**α_{max}**	15'	20'
Kg	2.8					3.7														

2.9 Tamaños — 2.9 *Dimensions* — 2.9 Dimensions

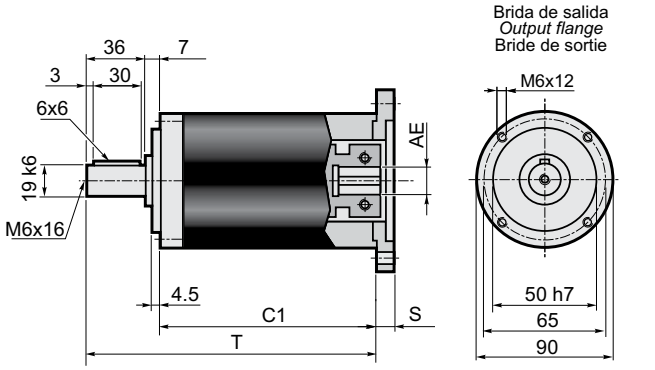
Tamaños generales y salidas / *General and output dimensions* / Dimensions générales et sorties

AA



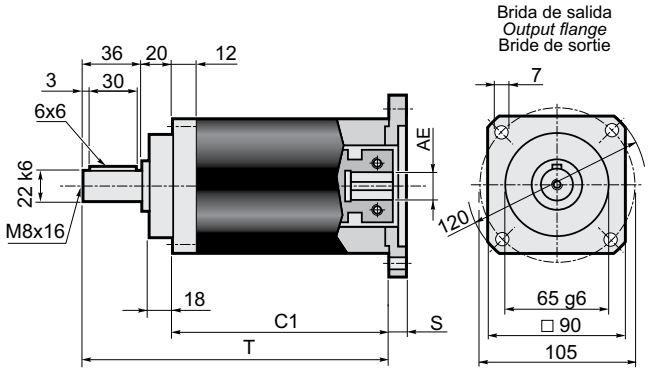
Etapas/*Steps*/Etages	1	2	
C1	98	127	AE= 9-9.52-11-12-12.7-14-15.87-16-19
T	144	173	

TT



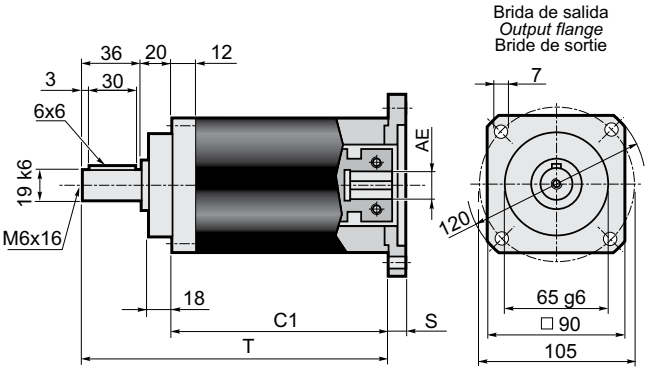
Etapas/*Steps*/Etages	1	2	
C1	101	130	AE= 9-9.52-11-12-12.7-14-15.87-16-19
T	144	173	

AQ



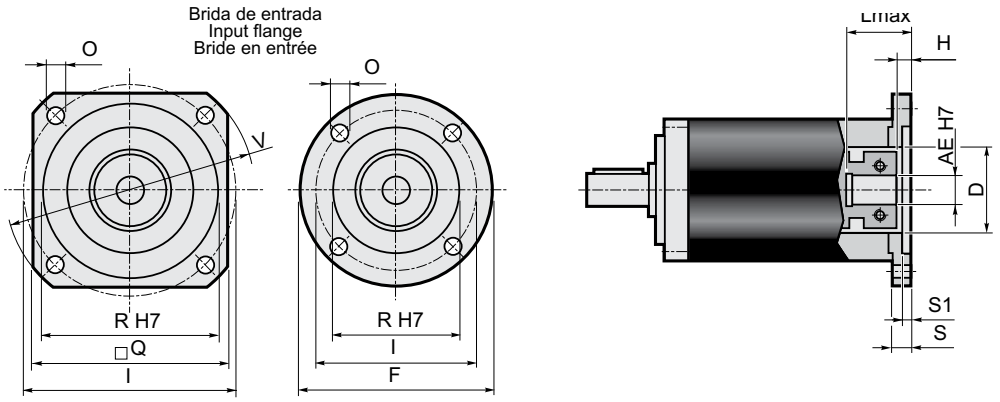
Etapas/*Steps*/Etages	1	2	
C1	88	117	AE= 9-9.52-11-12-12.7-14-15.87-16-19
T	144	173	

TQ



Etapas/*Steps*/Etages	1	2	
C1	88	117	AE= 9-9.52-11-12-12.7-14-15.87-16-19
T	144	173	

Tamaño entrada / *Input dimensions* / Dimensions en entrée



Brida de entrada / Input flange / Bride en entrée										Eje de entrada - *Input shaft* - Arbre en entrée																	
										AE																	
										9		9.525		11		12		12.7		14		15.87		16		19	
	F	Q	V	I	R (H7)	O	S	S1	D	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H
P01*	80	=	=	66.67	38.1	5.5	12	3	38.1	44	6.5	44	9	29	9	44	9	44	9	44	9	44	9	44	9	44	9
P02	=	106.5	140	125.72	55.52	7	11	3	45	43	5.5	43	8	28	8	43	8	43	8	43	8	43	8	43	8	43	8
P03*	=	80	90	75	60	5.5	12	3.5	45	44	6.5	44	9	29	9	44	9	44	9	44	9	44	9	44	9	44	9
P04*	105	=	=	85	70	6.5	12	3.5	45	44	6.5	44	9	29	9	44	9	44	9	44	9	44	9	44	9	44	9
P05	=	82.5	110	98.425	73.02	6.5	12	3	45	44	6.5	44	9	29	9	44	9	44	9	44	9	44	9	44	9	44	9
P06	=	90	120	100	80	6.5	13	4	45	45	7.5	45	10	30	10	45	10	45	10	45	10	45	10	45	10	45	10
P07	=	100	135	115	95	8.5	13	4.5	45	45	7.5	45	10	30	10	45	10	45	10	45	10	45	10	45	10	45	10
P08	=	116	160	130	110	9	13	4.5	45	45	7.5	45	10	30	10	45	10	45	10	45	10	45	10	45	10	45	10
P09*	80	=	=	39	26	4.5	12	4	26	44	6.5	44	9	29	9	44	9	44	9	44	9	44	9	44	9	44	9
P10*	80	=	=	65	50	5.5	12	3.5	45	44	6.5	44	9	29	9	44	9	44	9	44	9	44	9	44	9	44	9
P11	=	150	182	166	115	9	32	11	50x14	64	26.5	64	29	49	29	64	29	64	29	64	29	64	29	64	29	64	29
P12*	=	80	105	90	70	6.5	12	3.5	32	44	6.5	44	9	29	9	44	9	44	9	44	9	44	9	44	9	44	9
P14*	105	=	=	90	70	6	19	9	32	51	13.5	51	16	36	16	51	16	51	16	51	16	51	16	51	16	51	16
P15*	80	=	=	70	50	4.5	17	8	45	49	11.5	49	14	34	14	49	14	49	14	49	14	49	14	49	14	49	14
P16	=	142	190	165	130	11	13	4.5	45	45	7.5	45	10	30	10	45	10	45	10	45	10	45	10	45	10	45	10
P17*	80	=	=	63	40	5.5	12	3.5	40	44	6.5	44	9	29	9	44	9	44	9	44	9	44	9	44	9	44	9
P18	=	130	170	145	110	M8	31	7	32	63	25.5	63	28	48	28	63	28	63	28	63	28	63	28	63	28	63	28
P19*	=	80	105	90	60	6.5	12	3.5	32	44	6.5	44	9	29	9	44	9	44	9	44	9	44	9	44	9	44	9
P20*	=	80	105	85	55	5.5	12	3.5	36	44	6.5	44	9	29	9	44	9	44	9	44	9	44	9	44	9	44	9
P21	=	80	110	95	50	M6	12	3.5	45	44	6.5	44	9	29	9	44	9	44	9	44	9	44	9	44	9	44	9
P22	80	=	=	70	50	M4	12	4	45	44	6.5	44	9	29	9	44	9	44	9	44	9	44	9	44	9	44	9
P23	=	80	90	75	60	M5	12	3.5	45	44	6.5	44	9	29	9	44	9	44	9	44	9	44	9	44	9	44	9
P24	80	=	=	46	30	M4	12	4	30	44	6.5	44	9	29	9	44	9	44	9	44	9	44	9	44	9	44	9
P26	80	=	=	65	40	M5	12	3.5	40	44	6.5	44	9	29	9	44	9	44	9	44	9	44	9	44	9	44	9
P27	=	80	105	82.02	36.8	M6	14	10	36.8	46	8.5	46	11	31	11	46	11	46	11	46	11	46	11	46	11	46	11
P28	=	90	120	100	80	6.5	28	4	45	60	22.5	60	25	45	25	60	25	60	25	60	25	60	25	60	25	60	25
P29*	80	=	=	66.67	50	5.5	12	3	45	44	6.5	44	9	29	9	44	9	44	9	44	9	44	9	44	9	44	9
P30	=	115	155	130	80	9	13	4	45	45	7.5	45	10	30	10	45	10	45	10	45	10	45	10	45	10	45	10
P31*	=	80	105	56	44	M6	14	10	36.8	46	8.5	46	11	31	11	46	11	46	11	46	11	46	11	46	11	46	11
P32	=	80	105	90	70	M6	12	3.5	32	44	6.5	44	9	29	9	44	9	44	9	44	9	44	9	44	9	44	9
P33	=	130	165	145	110	9	13	4.5	45	45	7.5	45	10	30	10	45	10	45	10	45	10	45	10	45	10	45	10
P34	=	90	120	100	80	M6	19	5	45	51	13.5	51	16	36	16	51	16	51	16	51	16	51	16	51	16	51	16

* Para ensamblar el reductor es necesario desmontar la brida del reductor (ver **esquema de montaje 2** en la pág. 45).

* *To mount the motor it is necessary to remove the gearbox flange (see* ***assembly drawing 2*** *on page 45).*

* Pour assembler le moteur, il faut démonter la bride du réducteur (voir **schéma de montage 2** page 45).

EP120

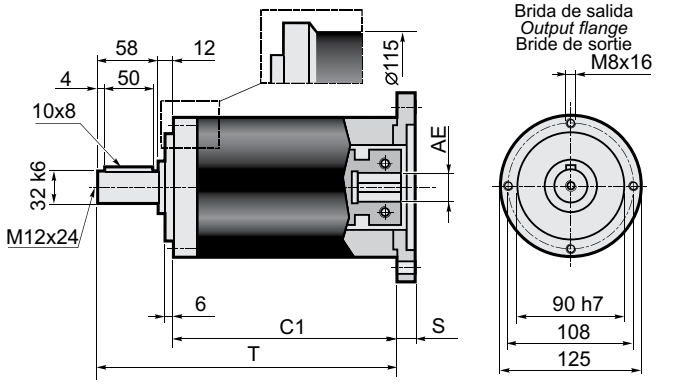
2.8 Datos Técnicos — *2.8 Technical data* — 2.8 Données techniques

EP 120																			Etapas *Steps* Etages	
Etapas *Steps* Etages	1					2														
i	**3**	**4**	**5**	**7**	**10**	**9**	**12**	**15**	**16**	**20**	**25**	**28**	**35**	**40**	**50**	**70**	**100**		**1**	**2**
$T2_N$	120	150	180	150	100	150	180	220	220	220	220	220	220	220	220	170	110	**n_{1nom}**	3000	
$T2_A$	190	240	290	220	180	240	290	350	350	350	350	350	350	350	350	270	200	**n_{1max}**	4000	
$T2_S$	400	500	600	460	380	500	600	700	700	700	700	700	700	700	700	540	400	**LpA**	< 70	
J_{min}	2.02	1.13	0.86	0.62	0.50	2.00	1.92	1.88	1.07	1.05	0.80	0.60	0.60	0.50	0.49	0.49	0.49	**Lh**	20000	
J_{max}	4.17	3.28	3.01	2.77	2.65	4.15	4.07	4.03	3.22	3.20	2.95	2.75	2.75	2.65	2.64	2.64	2.64	**F_{R2}**	4500	
Rt	32				28	32	30							28				**F_{A2}**	4000	
Rd	0.96					0.93												**α_{max}**	15'	20'
Kg	7.5					8.0														

2.9 Tamaños — *2.9 Dimensions* — 2.9 Dimensions

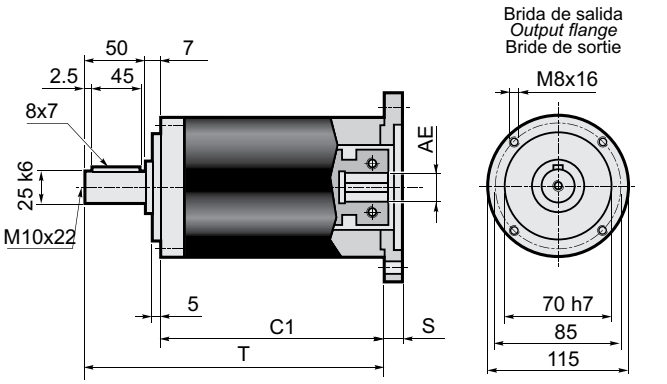
Tamaños generales y salidas / *General and output dimensions* / Dimensions générales et sorties

AA



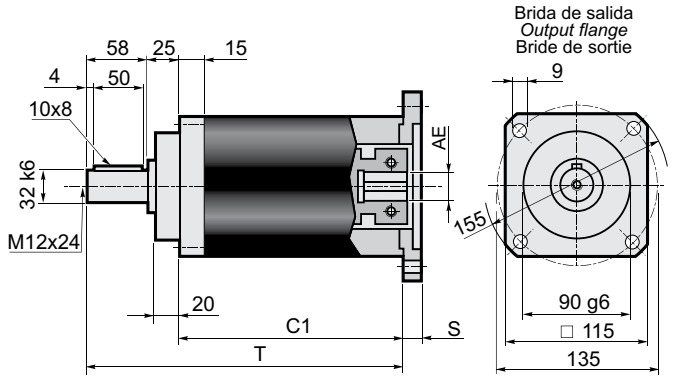
Etapas/*Steps*/Etages	1	2	
C1	115.8	148.4	AE= 12.7-14-15.87-16-19
T	185.8	218.4	
C1	134.8	167.4	AE= 22-24-28
T	204.8	237.4	

TT



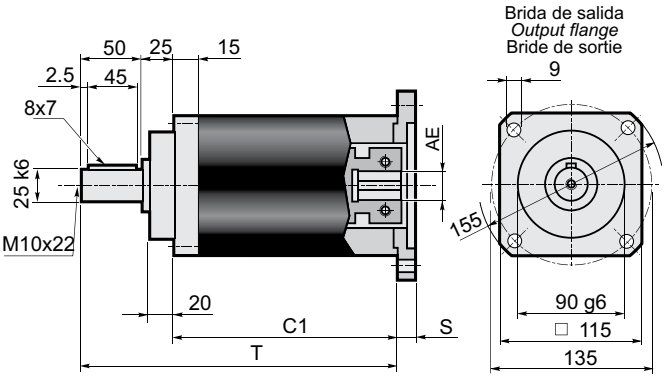
Etapas/*Steps*/Etages	1	2	
C1	120.8	153.4	AE= 12.7-14-15.87-16-19
T	177.8	210.4	
C1	139.8	172.4	AE= 22-24-28
T	196.8	229.4	

AQ



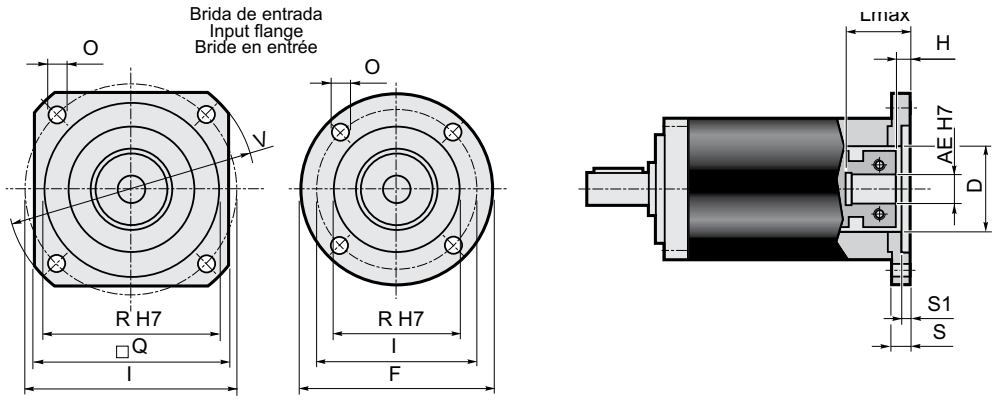
Etapas/*Steps*/Etages	1	2	
C1	102.8	135.4	AE= 12.7-14-15.87-16-19
T	185.8	218.4	
C1	121.8	154.4	AE= 22-24-28
T	204.8	237.4	

TQ



Etapas/*Steps*/Etages	1	2	
C1	102.8	135.4	AE= 12.7-14-15.87-16-19
T	177.8	210.4	
C1	121.8	154.4	AE= 22-24-28
T	196.8	229.4	

Tamaño entrada / *Input dimensions* / Dimensions en entrée



Brida de entrada / *Input flange* / Bride en entrée										Eje de entrada - *Input shaft* - Arbre en entrée																	
										AE																	
										12.7		14		15.87		16		19		22		24		25		28	
	F	Q	V	I	R (H7)	O	S	S1	D	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H
P01*	=	115	140	125.72	55.52	6.5	13	3	55.52	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P02*	115	=	=	75	60	5.5	13	3.5	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P03*	115	=	=	85	70	6.5	13	3.5	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P04*	115	=	=	98.42	73.02	6.5	13	3	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P05*	120	=	=	100	80	6.5	13	4	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P06*	=	115	140	115	95	9	13	4.5	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P07	=	115	160	130	110	8.5	13	4.5	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P08	=	142	190	165	130	11	13	4.5	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P09	=	192	250	215	180	13	14	4.5	60	44	7	36	7	44	7	44	7	44	7	63	7	63	7	63	7	63	7
P10*	115	=	=	65	50	6.5	13	3.5	50	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P11	=	130	170	145	110	M 8	31	7	60	61	24	53	24	61	24	61	24	61	24	80	24	80	24	80	24	80	24
P12	=	130	170	145	110	M 8	17	7	60	47	10	39	10	47	10	47	10	47	10	66	10	66	10	66	10	66	10
P13	=	115	160	130	110	M 8	13	4.5	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P14*	115	=	=	70	50	6.5	13	3.5	50	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P15	115	=	=	90	70	M5	11	3.5	60	41	4	33	4	41	4	41	4	41	4	60	4	60	4	60	4	60	4
P17*	115	=	=	90	70	6.5	13	3.5	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P18	=	115	155	130	95	8.5	13	4.5	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P19*	115	=	=	95	50	6.5	13	3.5	50	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P20	115	=	=	99	60	M6	13	4	60	43	6	35	6	43	6	43	6	43	6	62	6	62	6	62	6	62	6
P21*	130	=	=	106	82.5	12.5	26.3	15	60	56.5	19.5	48.5	19.5	56.5	19.5	56.6	19.5	56.5	19.5	75.5	19.5	75.5	19.5	75.5	19.5	75.5	19.5

* Para ensamblar el reductor es necesario desmontar la brida del reductor (ver **esquema de montaje 2** en la pág. 45).

** To mount the motor it is necessary to remove the gearbox flange (see **assembly drawing 2** on page 45).*

* Pour assembler le moteur, il faut démonter la bride du réducteur (voir **schéma de montage 2** page 45).

EP155

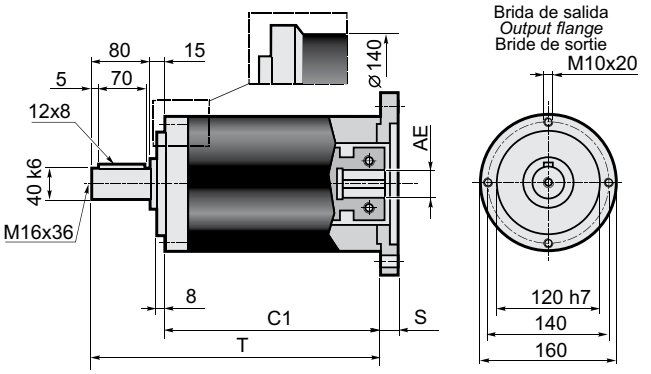
2.8 Datos Técnicos — *2.8 Technical data* — 2.8 Données techniques

EP 155																			
Etapas *Steps* Etages	1					2												Etapas *Steps* Etages	
i	**3**	**4**	**5**	**7**	**10**	**9**	**12**	**15**	**16**	**20**	**25**	**28**	**35**	**40**	**50**	**70**	**100**	**1**	**2**
T2$_N$	240	320	380	300	220	320	400	500	500	500	500	500	500	500	500	350	250	**n_{1nom}**	3000	
T2$_A$	420	540	600	480	400	480	600	750	750	750	750	750	750	750	750	560	460	**n_{1max}**	4000	
T2$_S$	880	1140	1260	1000	850	1000	1250	1500	1500	1500	1500	1500	1500	1500	1500	1120	920	**LpA**	< 70	
J_{min}	6.97	4.45	3.57	2.86	2.49	6.84	6.55	6.46	4.22	4.16	3.38	2.78	2.76	2.45	2.44	2.44	2.43	**Lh**	20000	
J_{max}	13.59	11.07	10.19	9.48	9.11	13.46	13.18	13.08	10.84	10.78	10.00	9.40	9.38	9.07	9.06	9.06	9.05	**$F_{R2\ (AA)}$** **$F_{R2\ (TT)}$**	6500 5300	
Rt	60				50	60											50	**$F_{A2\ (AA)}$** **$F_{A2\ (TT)}$**	3250 2650	
Rd	0.96					0.93												**α_{max}**	15'	20'
Kg	10.9					15.7														

2.9 Tamaños — *2.9 Dimensions* — 2.9 Dimensions

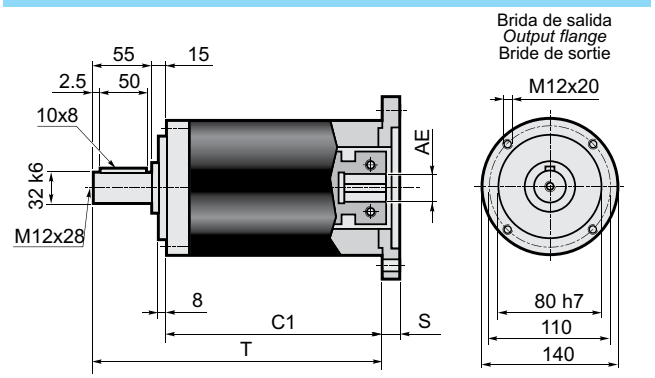
Tamaños generales y salidas / *General and output dimensions* / Dimensions générales et sorties

AA



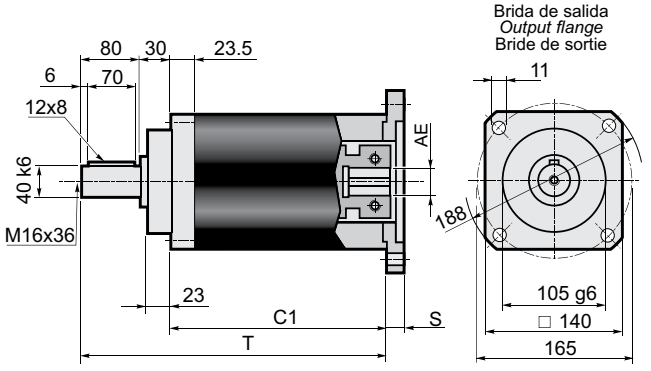
Etapas/*Steps*/Etages	1	2	
C1	156	197.5	AE= 15.87-16-19-22-24
T	251	292.5	
C1	181	222.5	AE= 28-32-35-38
T	276	317.5	

TT



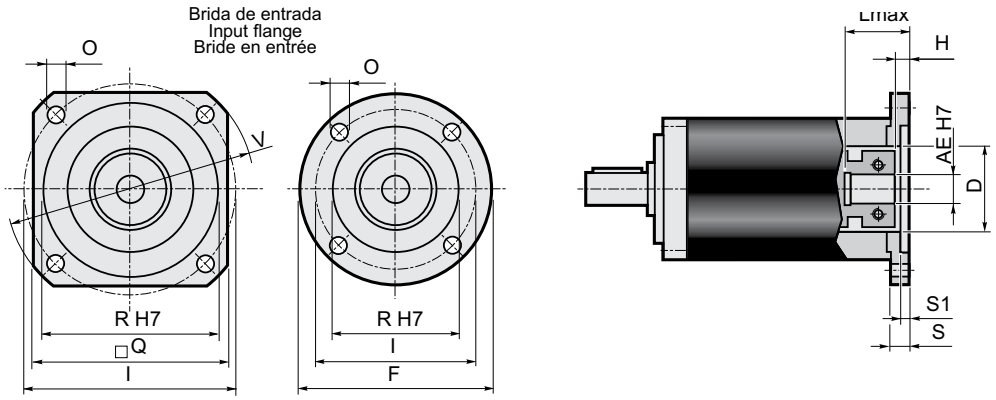
Etapas/*Steps*/Etages	1	2	
C1	156	197.5	AE= 15.87-16-19-22-24
T	226	267.5	
C1	181	222.5	AE= 28-32-35-38
T	251	292.5	

AQ



Etapas/*Steps*/Etages	1	2	
C1	141	182.5	AE= 15.87-16-19-22-24
T	251	292.5	
C1	166	207.5	AE= 28-32-35-38
T	276	317.5	

Tamaño entrada / *Input dimensions* / Dimensions en entrée



Brida de entrada / *Input flange* / Bride en entrée										Eje de entrada - *Input shaft* - Arbre en entrée																	
										AE																	
										15.87		16		19		22		24		28		32		35		38	
	F	Q	V	I	R (H7)	O	S	S1	D	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H	L max	H
P01*	140	=	=	125.72	55.52	6.5	15	4	55.52	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P02*	140	=	=	100	80	6.5	15	4	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P03*	140	=	=	115	95	8.5	15	4.5	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P04*	=	140	160	130	110	8.5	15	4.5	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P05	=	142	190	165	130	11	15	4.5	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P06	=	190	250	215	180	13	15	4.5	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P07	=	250	300	265	230	13	15	4.5	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P08	=	130	165	145	110	M 8	18	7	70	60.8	9.8	60.8	9.8	45.8	9.8	60.8	9.8	60.8	9.8	85.8	10.3	85.8	10.3	85.8	10.3	85.8	10.3
P09	=	180	230	200	114.3	13.5	22	11	70	64.8	13.8	64.8	13.8	49.8	13.8	64.8	13.8	64.8	13.8	89.8	14.3	89.8	14.3	89.8	14.3	89.8	14.3
P10	=	115	150	130	95	M 8	15	4.5	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P11	=	180	230	198	155	13.5	22	7	120x11	64.8	13.8	64.8	13.8	49.8	13.8	64.8	13.8	64.8	13.8	89.8	14.3	89.8	14.3	89.8	14.3	89.8	14.3
P12	=	220	270	235	200	13.5	15	5	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P13	=	190	250	215	130	13	15	4.5	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P14	=	142	190	165	110	11	15	4.5	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3
P15*	150	=	=	90	70	6.5	15	4	70	57.8	6.8	57.8	6.8	42.8	6.8	57.8	6.8	57.8	6.8	82.8	7.3	82.8	7.3	82.8	7.3	82.8	7.3

* Para ensamblar el reductor es necesario desmontar la brida del reductor (ver **esquema de montaje 2** en la pág. 45).

** To mount the motor it is necessary to remove the gearbox flange (see **assembly drawing 2** on page 45).*

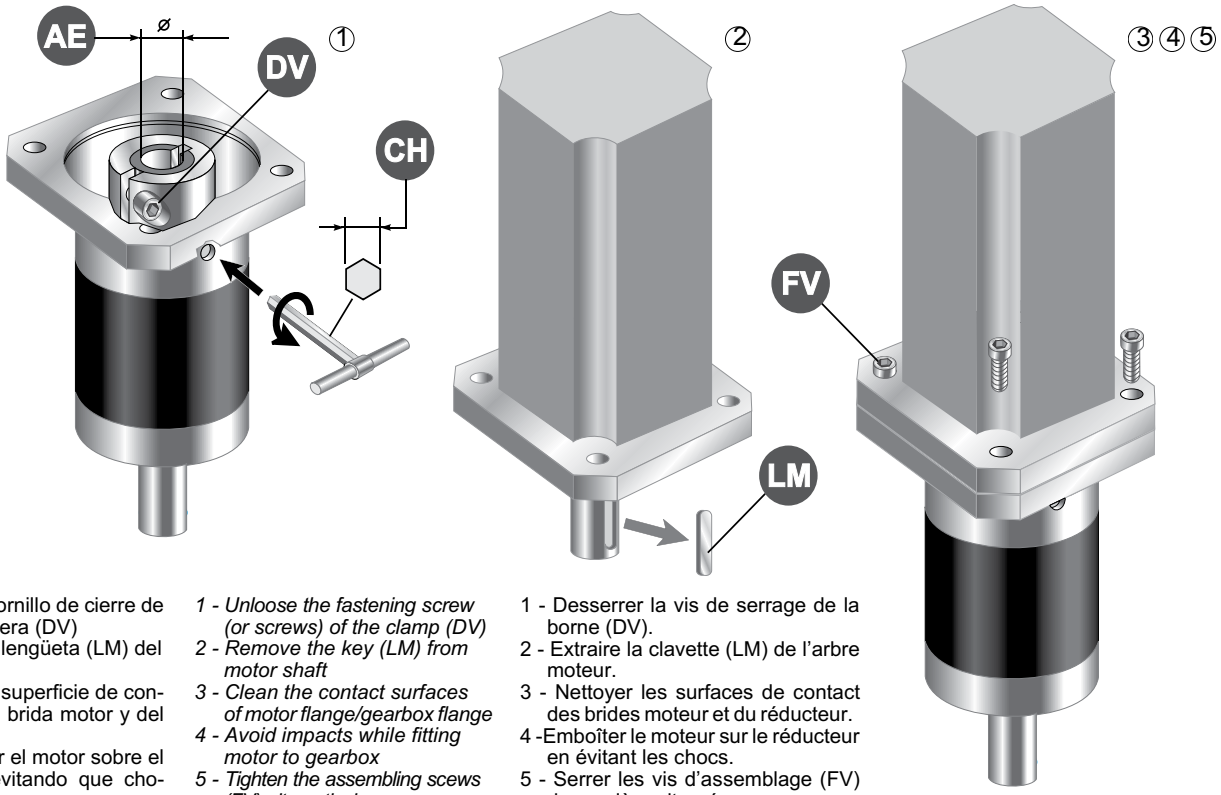
* Pour assembler le moteur, il faut démonter la bride du réducteur (voir **schéma de montage 2** page 45).

2.10 Instrucciones de montaje motor

2.10 *Instructions for assembly of motor*

2.10 Instructions pour le montage du moteur

1 Esquema montaje / *Assembly drawing* / Schéma de montage

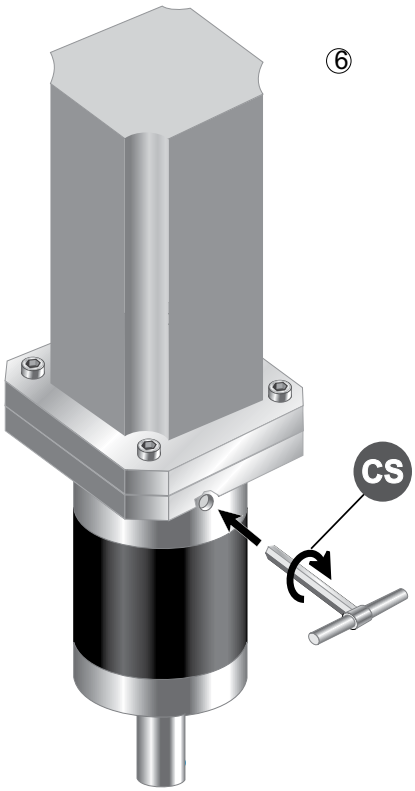


1 - Aflojar el tornillo de cierre de la abrazadera (DV)
2 - Extraer la lengüeta (LM) del eje motor
3 - Limpiar la superficie de contacto de la brida motor y del reductor
4 - Ensamblar el motor sobre el reductor evitando que choquen
5 - Ajustar los tornillos de ensamblaje (FV) alternando
6 - Ajustar el tornillo (o tornillos) de la abrazadera (DV) al par (CS) indicada en tabla

1 - Unloose the fastening screw (or screws) of the clamp (DV)
2 - Remove the key (LM) from motor shaft
3 - Clean the contact surfaces of motor flange/gearbox flange
4 - Avoid impacts while fitting motor to gearbox
5 - Tighten the assembling scews (FV) alternatively
6 - Tighten the clamp screw,or screws (DV) according to the torque (CS) reported in the table

1 - Desserrer la vis de serrage de la borne (DV).
2 - Extraire la clavette (LM) de l'arbre moteur.
3 - Nettoyer les surfaces de contact des brides moteur et du réducteur.
4 -Emboîter le moteur sur le réducteur en évitant les chocs.
5 - Serrer les vis d'assemblage (FV) de manière alternée.
6 - Serrer la ou les vis de la borne (DV) au couple (CS) indiqué dans le tableau.

EP 55	AE	6	6.35	7	8	9	9.52	11			
	DV	M4									
	NV	1									
	CH	3									
	CS [Nm]	4.8									
EP 75	AE	6	6.35	7	8	9	9.52	11	12	12.7	14
	DV	M4									
	NV	1									
	CH	3									
	CS [Nm]	4.8									
EP 90	AE	9	9.52	11	12	12.7	14	15.87	16	19	
	DV	M4						M5			
	NV	1						1			
	CH	3						4			
	CS [Nm]	4.8						9.4			
EP 120	AE	12.7	14	15.87	16	19	22	24	28		
	DV	M4		M5			M6				
	NV	1		1			2				
	CH	3		4			5				
	CS [Nm]	4.8		9.4			16.2				
EP 155	AE	15.87	16	19	22	24	28	32	35	38	
	DV	M6			M6			M6			
	NV	1			2			3			
	CH	5			5			5			
	CS [Nm]	16.2			16.2			16.2			



AE= Eje de entrada / *Input shaft* / Arbre en entrée
DV= Diámetro tornillo / *Screw diameter* / Diamètre de la vis
NV= número tornillo / *Number of screw* / Nombre de vis
CS= Par de cierre / *Setting torque* / Couple de serrage

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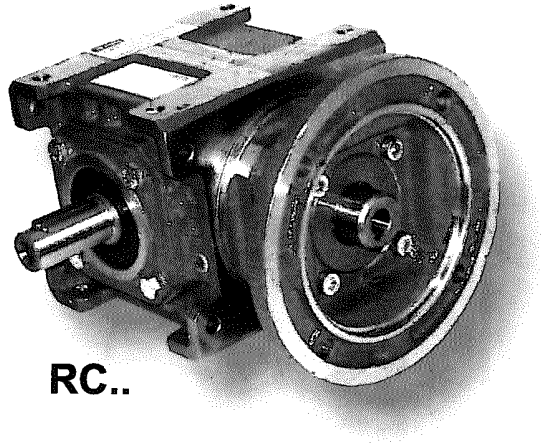
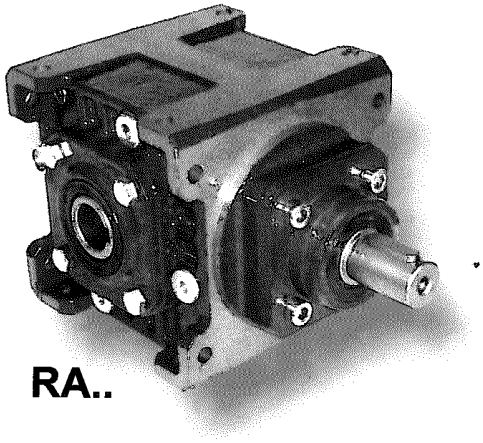
YOUR POWER CONNECTION

R SERIES SPIRAL BEVEL

5.0 RINVII ANGOLARI — *RIGHT ANGLE GEARBOX* — WINKELGETRIEBE



RC..



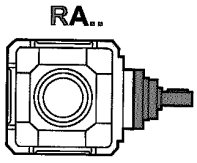
RA..

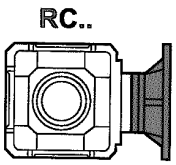
5.2 Designazione

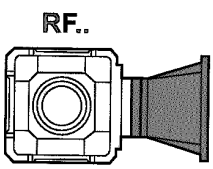
5.2 *Designation*

5.2 Bezeichnung

Macchina *Machine* Maschine	Tipo entrata *Input type* Antriebsart	Grandezza *Size* Größe	Rotismo *Gearing* Getriebe	Tipo uscita *Output type* Ausgang Typ	Rapporto rid. *Ratio* Untersetzungsverhältnis	Predisposizione att. mot. *Motor coupling* Motoranschluss	Rotazione alberi *Shafts rotation* Wellendrehrichtungen	Posizione di montaggio *Mounting position* Baulage	Flangia uscita *Output flange* Abtriebsflansch	Entrata supplementare *Additional input* Zusatzantrieb
R	A	28	A	S	10/1	P.A.M.	B	B3	FLD	S.e.A.
Rinvii angolari *Right angle garboxes* Winkelgetriebe	A, C, F	19, 24, 28, 38, 48	A	S, B, C	in = .../1, 1, 2.5, 5, 10	63 ÷ 200	A, B, C, D, E, F, G, H, I, L	B3, B6, B7, B8, VA, VB	FLS, FLD, 2FL	A, C, F







5.3 Velocità in entrata

Tutte le prestazioni dei riduttori sono calcolate in base ad una velocità in entrata di 1400 min^{-1}.
La massima velocità ammessa in entrata è pari a 1400 min^{-1}. Nel caso in cui tale limite debba essere superato contattare il servizio tecnico.
Nella tabella sottostante riportiamo I coefficienti correttivi della potenza in entrata P alle varie velocità riferita ad Fs =1

5.3 *Input speed*

All calculations of gear unit performance specifications are based on an input speed of 1400 min^{-1}.
1400 min^{-1} is the max. allowed input speed. Should the required speed be higher, contact the technical service.
The table below shows the input power P corrective coefficients at the various speeds, with Fs =1.

5.3 Antriebsdrehzahl

Bei der Berechnung der Getriebeleistungen wurde eine Antriebsdrehzahl von 1400 Min^{-1} berücksichtigt.
1400 Min^{-1} ist die max. zulässige Antriebsdrehzahl. Ist die verlangte Antriebsdrehzahl höher, ist das technische Büro zu befragen.
In der folgenden Tabelle finden Sie die Korrekturkoeffizienten für die Antriebsleistung P bei den verschiedenen Drehzahlen, bezogen auf Fs =1.

Tab. 1

n_1 [min^{-1}]	1400	900	700	500
Pc (kW)	P x 1	P x 0.7	P x 0.56	P x 0.42

5.7 Dati tecnici — *5.7 Technical data* — 5.7 Technische daten

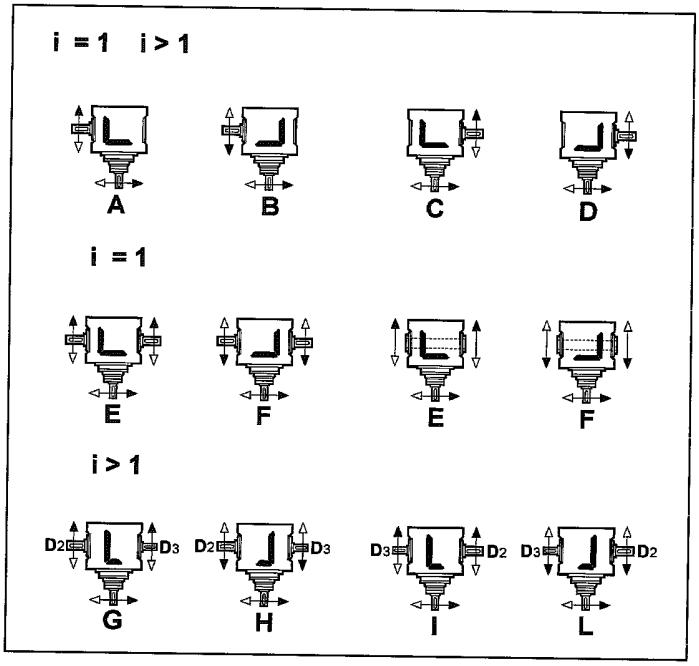
R	n_1 = 1400			RC - RF			RA	
	in	ir	n_2 rpm	T_2 Nm	P1 kW	FS'	T_{2M} Nm	P kW
19	1	1	1400	12	1.8	3	35	5.5
	2.5	2.56	546	30	1.8	1.6	50	3
	5	4.90	285	48	1.5	1	48	1.5
	10	9.85	142	48	0.75	1	48	0.75
24	1	1	1400	26	4	2.7	73	11
	2.5	2.56	546	68	4	1.4	93	5.5
	5	4.90	285	97	3	1	97	3
	10	9.85	142	98	1.5	1	98	1.5
28	1	1	1400	61	9.2	2.4	146	22
	2.5	2.56	546	156	9.2	1.2	187	11
	5	4.90	285	179	5.5	1	179	5.5
	10	9.85	142	196	3	1	196	3

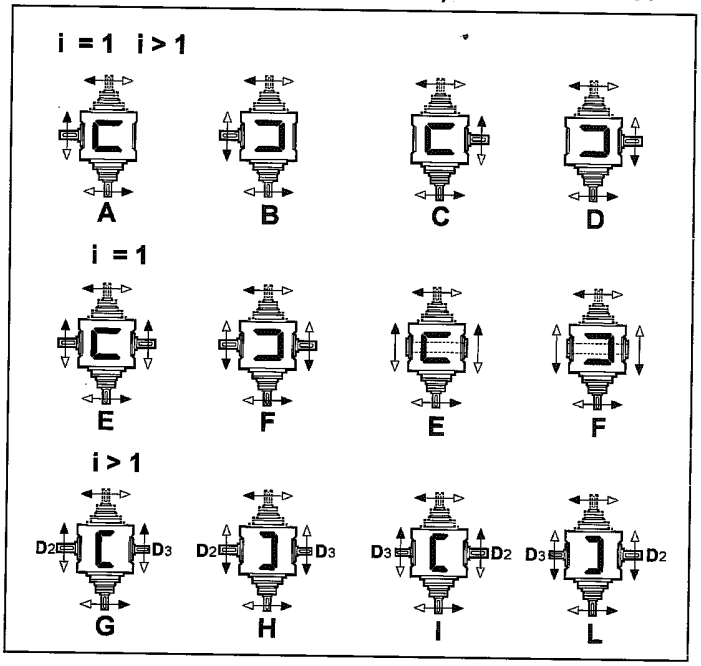
R	n_1 = 1400			RC - RF			RA	
	in	ir	n_2 rpm	T_2 Nm	P1 kW	FS'	T_{2M} Nm	P kW
38	1	1	1400	146	22	2	291	45
	2.5	2.56	546	373	22	1	365	22
	5	4.90	285	357	11	1	350	11
	10	9.85	142	359	5.5	1	350	5.5
48	1	1	1400	199	30	3	596	90
	2.5	2.56	546	509	30	1.5	763	45
	5	4.90	285	715	22	1	715	22
	10	9.85	142	717	11	1	717	11

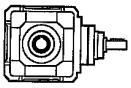
R	i	IEC									
		63	71	80	90	100	112	132	160	180	200
19	1	RF		RC - RF							
	2.5-5-10	RC - RF									
24	1		RF		RC - RF						
	2.5-5-10		RC - RF								
28	1			RF		RC - RF					
	2.5-5-10			RC - RF							
38	1				RF			RC - RF			
	2.5-5-10				RC - RF						
48	1					RC - RF					
	2.5-5-10										

5.8 Senso di rotazione alberi — *5.8 Shaft Rotation Direction* — 5.8 Wellendrehrichtungen

s.e. =
Entrata supplementare / *Additional input* / Zusatzantrieb







TRAMEC

5.9 **Momenti d'inerzia** [Kg·cm^2]
(riferiti all'albero veloce in entrata)

5.9 ***Moments of inertia*** *[Kg·cm^2]*
(referred to input shaft)

5.9 **Trägheitsmoment** [Kg·cm^2]
((bez. Antriebswelle)

		i_n	RA	RC IEC B5 63	RC IEC B5 71	RC IEC B5 80	RC IEC B5 90	RF IEC B5 63	RF IEC B5 71	RF IEC B5 80	RF IEC B5 90
19	S	1	4.53	-	-	5.09	5.11	4.81	5.31	5.44	6.51
		2.5	0.88	0.93	1.07	1.45	1.50	1.13	1.15	1.82	2.89
		5	0.36	0.41	0.55	0.93	0.97	0.61	0.63	1.31	2.37
		10	0.19	0.22	0.36	0.74	0.79	0.44	0.46	1.14	2.20
	B	1	4.57	-	-	5.13	5.14	4.84	5.34	5.48	6.55
		2.5	0.88	0.93	1.07	1.45	1.50	1.13	1.15	1.83	2.89
		5	0.36	0.41	0.55	0.93	0.97	0.61	0.63	1.31	2.37
		10	0.19	0.22	0.36	0.74	0.79	0.44	0.46	1.14	2.20
	C	1	4.17	-	-	4.74	4.80	4.45	4.95	5.08	6.16

		i_n	RA	RC IEC B5 71	RC IEC B5 80	RC IEC B5 90	RC IEC B5 110-112	RF IEC B5 71	RF IEC B5 80	RF IEC B5 90	RF IEC B5 110-112
24	S	1	11.52	-	-	12.37	13.22	13.36	13.69	13.61	15.39
		2.5	2.46	2.87	3.04	3.42	4.26	3.32	3.46	4.63	6.80
		5	1.08	1.45	1.62	2.00	2.84	1.94	2.07	3.25	5.42
		10	0.64	0.97	1.14	1.52	2.36	1.49	1.63	2.80	4.97
	B	1	11.60	-	-	12.46	13.31	13.45	13.77	13.70	15.47
		2.5	2.47	2.88	3.05	3.43	4.27	3.33	3.47	4.64	6.81
		5	1.08	1.45	1.62	2.00	2.84	1.94	2.07	3.25	5.42
		10	0.64	0.97	1.14	1.52	2.36	1.49	1.63	2.80	4.97
	C	1	10.48	-	-	11.33	12.18	12.32	12.64	12.57	14.34

		i_n	RA	RC IEC B5 80	RC IEC B5 90	RC IEC B5 110-112	RC IEC B5 132	RF IEC B5 80	RF IEC B5 90	RF IEC B5 110-112	RF IEC B5 132
28	S	1	31.45	-	-	33.06	36.42	35.79	35.74	35.91	46.94
		2.5	7.02	7.95	7.82	8.78	11.92	9.36	9.29	11.60	25.60
		5	3.22	4.06	3.93	4.88	8.02	5.55	5.48	7.80	21.79
		10	1.75	2.46	2.33	3.28	6.42	4.08	4.01	6.33	20.32
	B	1	31.87	-	-	33.49	36.84	36.21	36.16	36.34	47.36
		2.5	7.05	7.98	7.85	8.80	11.94	9.38	9.31	11.63	25.62
		5	3.23	4.06	3.93	4.88	8.02	5.56	5.49	7.81	21.80
		10	1.75	2.46	2.33	3.28	6.42	4.08	4.01	6.33	20.33
	C	1	28.36	-	-	29.97	33.33	32.69	32.65	32.82	43.84

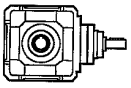
5.9 **Momenti d'inerzia** [Kg·cm^2]
(riferiti all'albero veloce in entrata)

5.9 ***Moments of inertia*** *[Kg·cm^2]*
(referred to input shaft)

5.9 **Trägheitsmoment** [Kg·cm^2]
((bez. Antriebswelle)

		i_n	RA	RC IEC B5 80	90	110-112	132	160	180	RF IEC B5 80	90	110-112	132	160	180
38	S	1	82.73	-	-	-	86.77	91.21	94.03	-	99.4	100.4	101.8	103.9	149.0
		2.5	20.67	21.83	21.70	21.84	25.04	29.46	32.48	22.87	25.25	25.43	40.29	42.47	87.73
		5	7.92	8.95	8.82	8.95	12.15	16.58	19.60	10.12	12.50	12.67	27.53	29.71	74.98
		10	4.17	4.83	4.70	4.84	8.04	12.46	15.48	6.36	8.75	8.92	23.78	25.96	71.23
	B	1	84.86	-	-	-	88.91	93.34	96.16	-	101.49	102.53	103.90	106.08	151.18
		2.5	20.74	21.90	21.77	21.91	25.11	29.53	32.55	22.94	25.32	25.49	40.35	42.53	87.80
		5	7.94	8.96	8.83	8.97	12.17	16.60	19.61	10.13	12.52	12.69	27.55	29.73	75.00
		10	4.17	4.83	4.70	4.84	8.04	12.47	15.48	6.37	8.75	8.93	23.79	25.97	71.23
	C	1	76.44	-	-	-	80.58	85.01	87.84	-	16.63	17.67	19.04	21.22	66.32

		i_n	RA	RC IEC B5 110-112	132	160	180	200	IEC B5 110-112	132	160	180	200
48	S	1	177.58	177.7	183.4	182.4	185.3	195.7	233.7	238.9	246.9	244.9	241.4
		2.5	61.86	64.36	70.04	69.04	71.95	82.34	81.5	82.8	85.0	134.1	130.7
		5	24.06	26.80	32.48	31.48	34.39	44.78	43.7	45.0	47.2	96.3	92.9
		10	11.50	13.77	19.45	18.45	21.36	31.75	31.1	32.5	34.7	83.8	80.3
	B	1	183.40	183.5	189.2	188.2	191.1	201.5	239.5	244.7	252.7	250.7	247.2
		2.5	62.11	64.70	70.38	69.38	72.29	82.68	81.7	83.1	85.3	134.4	130.9
		5	24.13	26.89	32.57	31.57	34.48	44.87	43.7	45.1	47.3	96.4	92.9
		10	11.52	13.80	19.48	18.48	21.39	31.77	31.1	32.5	34.7	83.8	80.3
	C	1	160.10	160.8	166.5	165.5	168.4	178.8	-	221.4	229.4	227.4	223.9



5.10 Dimensioni

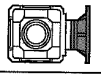
5.10 *Dimensions*

5.10 Abmessungen

		RA...- RC...- RF...				
		19	24	28	38	48
A		112	142	180	224	280
a		80	100	130	160	190
B		128	146	175	204	230
b		110	125	145	175	200
C2		130	150	180	210	240
D2 h6	i = 1	19	24	28	38	48
d2		M8	M8	M8	M10	M12
M2		21.5	27	31	41	51.5
N2	i > 1	6	8	8	10	14
F		7	9	11	13	15
H		56	71	90	112	140
L2		40	50	60	80	110
Z		7	9	10	13	15
D3 h6		19	24	28	38	48
d3		M8	M8	M8	M10	M12
L3		40	50	60	80	110
M3	i = 1	21.5	27	31	41	51.5
N3		6	8	8	10	14
D4 H7		20	25	30	40	50
M4		22.8	28.3	33.3	43.3	53.8
N4		6	8	8	12	14
D3 h6		14	19	24	28	38
d3		M6	M8	M8	M10	M10
L3	i > 1	30	40	50	60	80
M3		16	21.5	27	31	41
N3		5	6	8	8	10

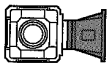
		RA				
		19	24	28	38	48
h		101	120	147	170	207.5
D1 h6		19	24	28	38	48
d1	i = 1	M8	M8	M8	M10	M12
M1		21.5	27	31	41	51.5
N1		6	8	8	10	14
h		110	130	160	190	237.5
D1 h6		14	19	24	28	38
d1	i > 1	M6	M8	M8	M8	M10
M1		16	21.5	27	31	41
N1		5	6	8	8	10
L1	i = 1	30	40	50	60	80
X	i > 1	90	110	130	150	175
kg		8.5	14	23	38	62
		RC...- RF...				
kg		11.5	19	33	55	82

		RC...								
		19				24				
IEC		63 B5	71 B5	80/90 B5	80 B14	71 B5	80 B5	90 B5	90* B14	100/112 B5
Q		—	—	—	—	—	—	—	120	—
Y		140	160	200	120	160	200	200	146	250
P	i = 1	—	—	131	131	—	—	148	148	158
P	i > 1	113	120	140	140	138	158	158	158	168



		RC...												
		28			38				48					
IEC		80/90	100/112	132	80/90	100/112	132	160/180	100/112	132	160	180	200	
Y		200	250	300	200	250	300	350	250	300	350	350	400	
P	i = 1	—	181	203	—	—	216	246	220	270	270	270	270	
P	i > 1	184	194	216	204	214	236	266	250 (i=2.5 - 5) 260 (i=10)	300 (i=2.5 - 5)		310 (i=10)		

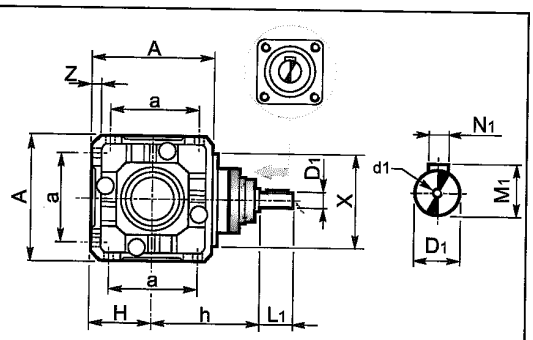
*** Flange quadrate / *Square flanges* / Viereckige Flansche**



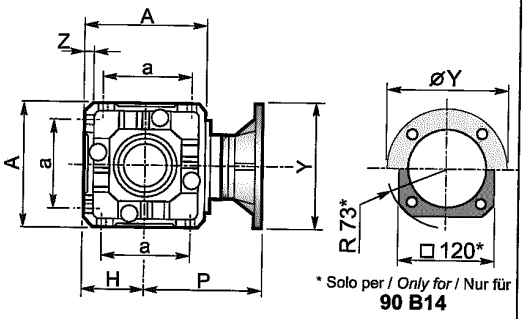
		RF...																
		19			24			28			38				48			
IEC		63	71	80/90	71	80/90	100 112	80/90	100 112	132	80	90	100 112	132	160 180	100 112	132	160 180	200
Y		140	160	200	160	200	250	200	250	300	200	200	250	300	350	250	300	350	400
P	i = 1	158	165	186	194	215	225	252	262	283	—	285	295	316	346	354	373	405	405
P	i > 1	167	174	195	204	225	235	265	275	296	305	305	315	336	366	384	403	435	435

Tipo entrata / *Input type* / Antriebsart

RA

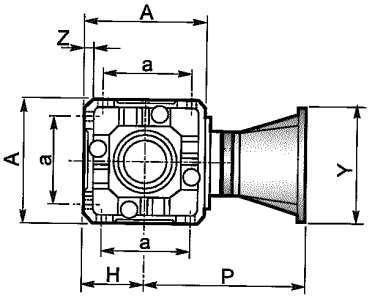


RC



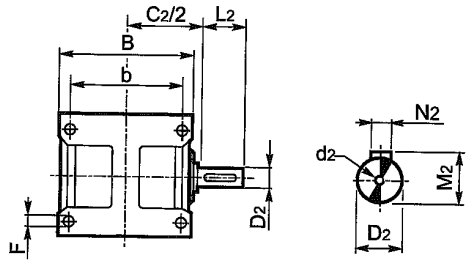
* Solo per / *Only for* / Nur für **90 B14**

RF



Tipo uscita / *Output type* / Ausgang Typ

S



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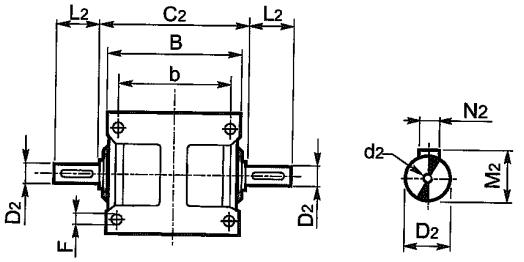
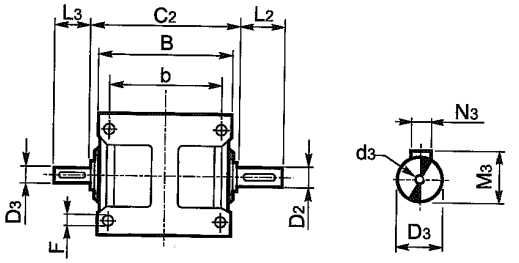
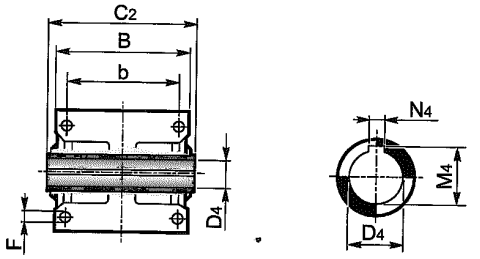


B i > 1



C i = 1



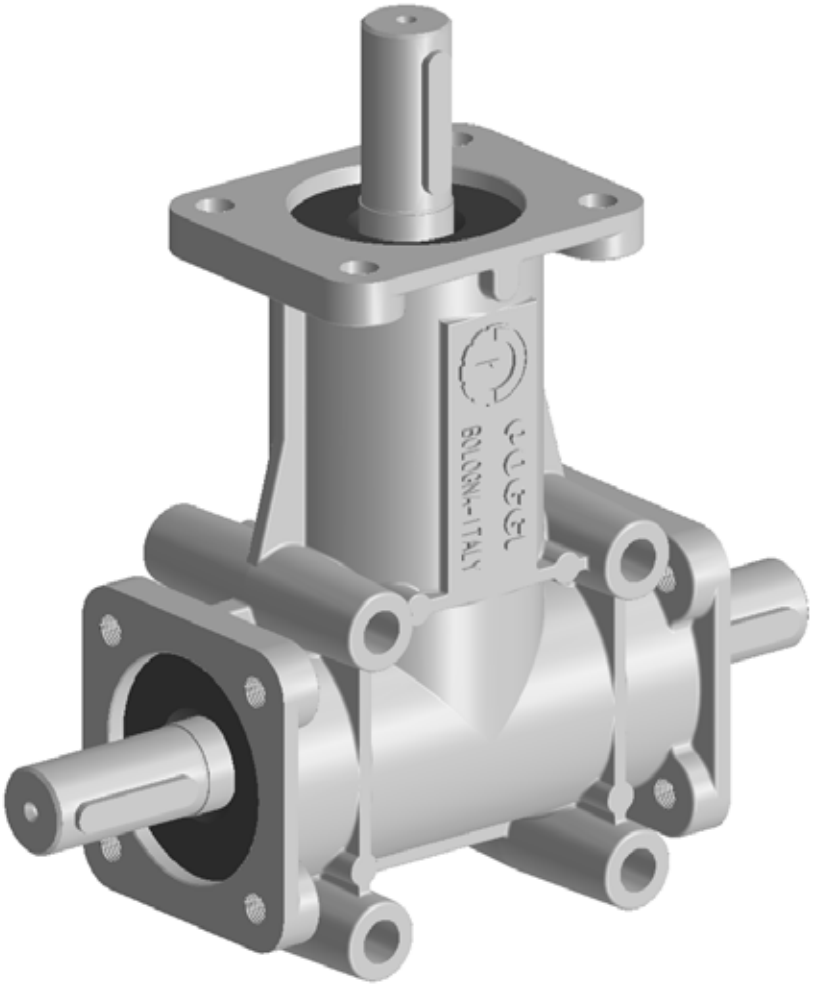
JOHN BROOKS LTD.

YOUR POWER CONNECTION

POGGI SPIRAL BEVEL RIGHT ANGLE GEARBOXES

Rinvii angolari serie 2000

Series 2000 right angle gearboxes
Kegelradgetriebe Serie 2000
Renvois d'angle série 2000
Reenvíos de ángulo serie 2000



Prestazioni dei rinvii angolari serie 2000

Performances of series 2000 gearboxes
Leistung der Kegelradgetriebe Serie 2000
Performances des renvois d'angle série 2000
Prestaciones de los reenvíos de ángulo serie 2000

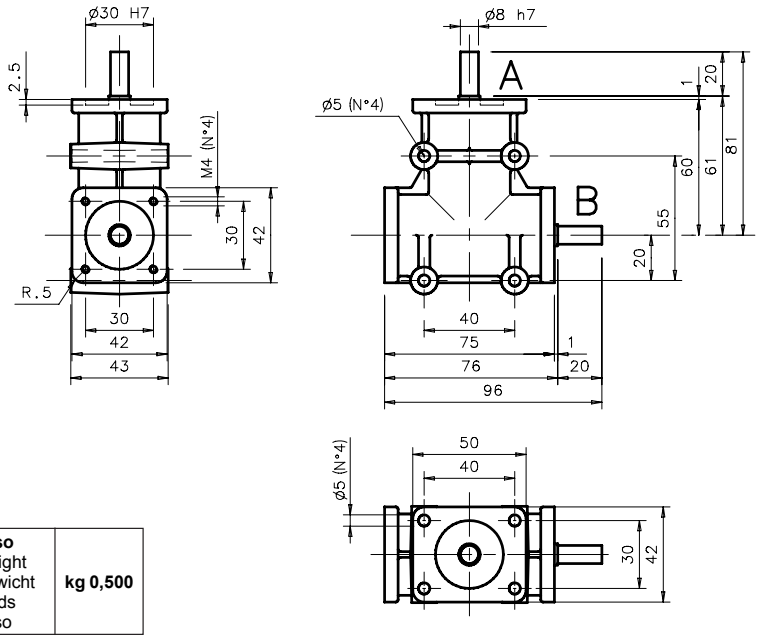
Articolo Article Typ Article Artículo	**Rapporto** Ratio Übersetzung Rapport Relación	**Albero A potenza max in entrata a 1400 g/1'** Shaft A max. input power at 1400 rpm Max. Eingangsleistung der Welle A mit 1400 U/m Arbre A puissance max. en entrée à 1400 tr/min Eje A potencia max. en entrada a 1400 r.p.m.		**Coppia max per ogni albero in uscita in Nm** Max. torque for each output shaft in Nm Max. Abtriebsdrehmoment jeder Ausgangswelle in Nm Couple max. de chaque arbre de sortie en Nm Par max. de cada eje de salida en Nm		
		kW	HP	B	C	D
2000	1 : 1	0,42	0,58	3,0	-	-
	1 : 2	0,10	0,14	1,5	-	-
2002	1 : 1	0,42	0,58	1,5	1,5	-
	1 : 2	0,10	0,14	0,8	0,8	-
2006	1 : 1	1,83	2,50	4,5	4,5	4,5
	1 : 2	0,50	0,68	2,5	2,5	2,5
	1 : 3	0,25	0,34	1,7	1,7	1,7
2007	1 : 1	1,83	2,50	9,0	4,5	-
	1 : 2	0,50	0,68	5,0	2,5	-
	1 : 3	0,25	0,34	3,5	1,7	-
2008	1 : 1	1,83	2,50	6,5	6,5	-
	1 : 2	0,50	0,68	3,5	3,5	-
	1 : 3	0,25	0,34	2,5	2,5	-
2011	1 : 1	1,83	2,50	13,0	-	-
	1 : 2	0,50	0,68	7,0	-	-
	1 : 3	0,25	0,34	5,0	-	-
2012	1 : 1	1,83	2,50	13,0	-	-
	1 : 2	0,50	0,68	7,0	-	-
	1 : 3	0,25	0,34	5,0	-	-
2025	1 : 1	7,35	10,00	35,0	18,0	-
	1 : 2	2,94	4,00	28,0	14,0	-
	1 : 3	1,47	2,00	18,0	9,0	-

Articolo Article Typ Article Artículo	**Rapporto** Ratio Übersetzung Rapport Relación	**Albero A potenza max in entrata a 1400 g/1'** Shaft A max. input power at 1400 rpm Max. Eingangsleistung der Welle A mit 1400 U/m Arbre A puissance max. en entrée à 1400 tr/min Eje A potencia max. en entrada a 1400 r.p.m.		**Coppia max per ogni albero in uscita in Nm** Max. torque for each output shaft in Nm Max. Abtriebsdrehmoment jeder Ausgangswelle in Nm Couple max. de chaque arbre de sortie en Nm Par max. de cada eje de salida en Nm		
		kW	HP	B	C	D
2026	1 : 1	7,35	10,00	18,0	18,0	18,0
	1 : 2	2,94	4,00	14,0	14,0	14,0
	1 : 3	1,47	2,00	9,0	9,0	9,0
2027	1 : 1	7,35	10,00	16,6	16,6	16,6
2028	1 : 1	5,50	7,50	38,0	-	-
	1 : 2	1,83	2,50	25,0	-	-
	1 : 3	0,91	1,25	18,0	-	-
2030	1 : 1	5,50	7,50	38,0	-	-
	1 : 2	1,83	2,50	25,0	-	-
	1 : 3	0,91	1,25	18,0	-	-
2031	1 : 1	5,50	7,50	19,0	19,0	-
	1 : 2	1,83	2,50	12,5	12,5	-
	1 : 3	0,91	1,25	9,0	9,0	-
2032	1 : 1	7,35	10,00	50,0	-	-
	1 : 2	2,94	4,00	40,0	-	-
	1 : 3	1,47	2,00	28,0	-	-
2033	1 : 1	7,35	10,00	25,0	25,0	-
	1 : 2	2,94	4,00	20,0	20,0	-
	1 : 3	1,47	2,00	14,0	14,0	-

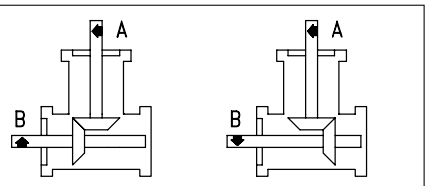
1 kgm = 9,8 Nm

Rinvio angolare a 2 vie
2-way right angle gearbox
Zweiweg-Kegelradgetriebe
Renvoi d'angle à 2 voies
Reenvío de ángulo con 2 vías

2000



Peso Weight Gewicht Poids Peso	**kg 0,500**

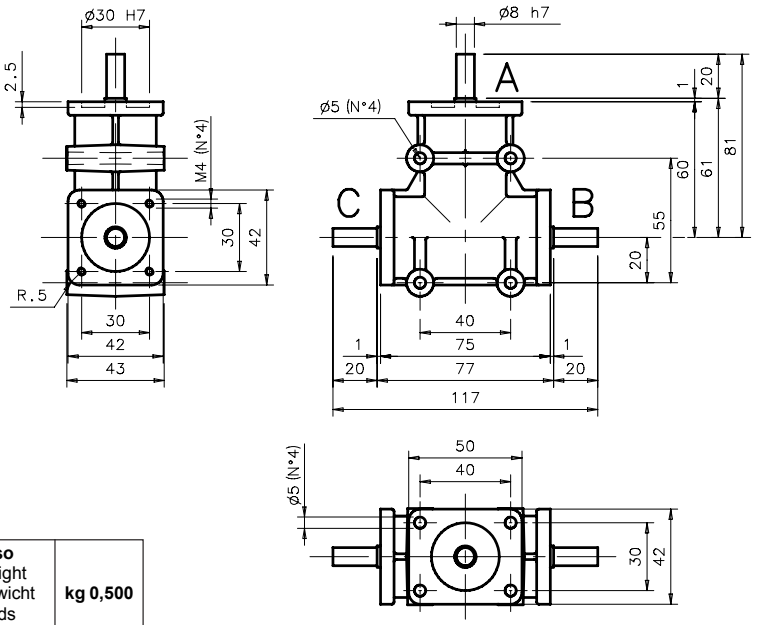


D. 1 D. 2

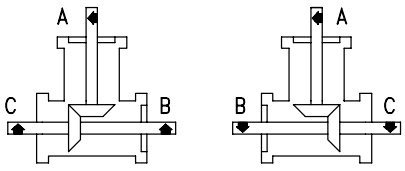
Rapporto Ratio Übersetzung Rapport Relación	**Disp.** Disp. Dreh. Disp. Disp.	**Codice** Item number Codierung Code Código	**Descrizione** Designation Bezeichnung Désignation Referencia
1 : 1	1	182000111	2000 R 1 : 1 D1
1 : 1	2	182000112	2000 R 1 : 1 D2
1 : 2	1	182000121	2000 R 1 : 2 D1
1 : 2	2	182000122	2000 R 1 : 2 D2

Rinvio angolare a 3 vie
3-way right angle gearbox
Dreiweg-Kegelradgetriebe
Renvoi d'angle à 3 voies
Reenvío de ángulo con 3 vías

2002



Peso Weight Gewicht Poids Peso	**kg 0,500**

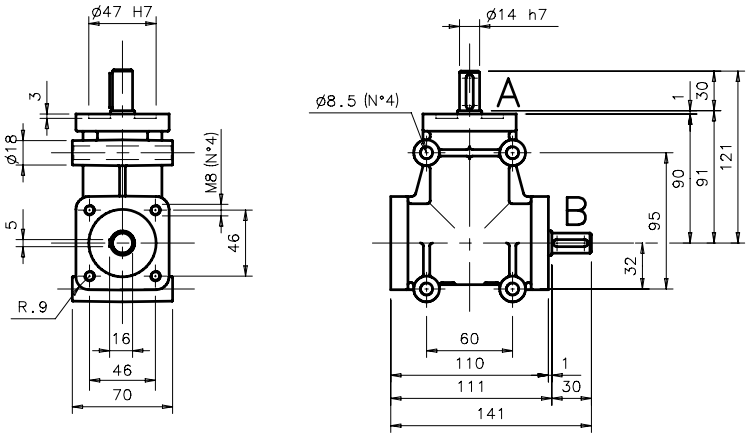


D. 1/2

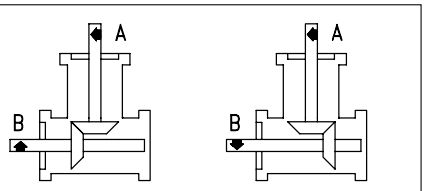
Rapporto Ratio Übersetzung Rapport Relación	**Disp.** Disp. Dreh. Disp. Disp.	**Codice** Item number Codierung Code Código	**Descrizione** Designation Bezeichnung Désignation Referencia
1 : 1	1/2	182002111	2002 R 1 : 1 D1/2
1 : 2	1/2	182002121	2002 R 1 : 2 D1/2

Rinvio angolare a 2 vie
2-way right angle gearbox
Zweiweg-Kegelradgetriebe
Renvoi d'angle à 2 voies
Reenvío de ángulo con 2 vías

2011



Peso Weight Gewicht Poids Peso	kg 2,000

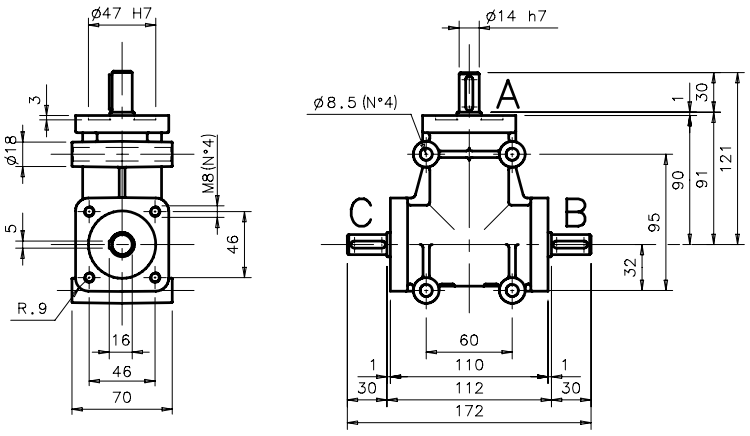


D. 1 D. 2

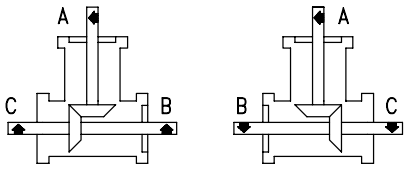
Rapporto Ratio Übersetzung Rapport Relación	Disp. Disp. Dreh. Disp. Disp.	Codice Item number Codierung Code Código	Descrizione Designation Bezeichnung Désignation Referencia
1 : 1	1	182011111	2011 R 1 : 1 D1
1 : 1	2	182011112	2011 R 1 : 1 D2
1 : 2	1	182011121	2011 R 1 : 2 D1
1 : 2	2	182011122	2011 R 1 : 2 D2
1 : 3	1	182011131	2011 R 1 : 3 D1
1 : 3	2	182011132	2011 R 1 : 3 D2

Rinvio angolare a 3 vie
3-way right angle gearbox
Dreiweg-Kegelradgetriebe
Renvoi d'angle à 3 voies
Reenvío de ángulo con 3 vías

2008



Peso Weight Gewicht Poids Peso	kg 2,000

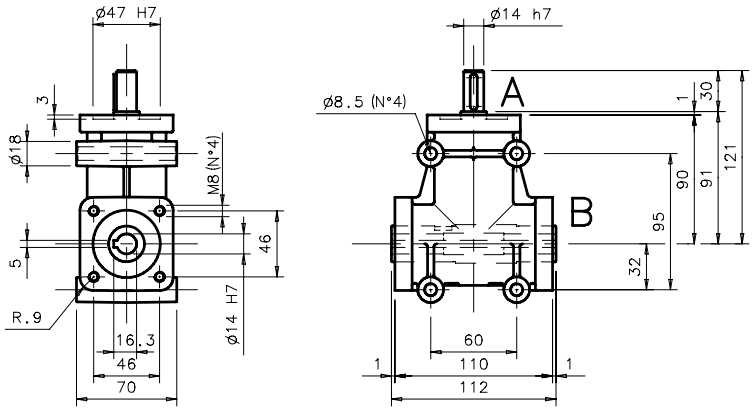


D. 1/2

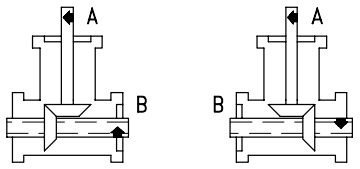
Rapporto Ratio Übersetzung Rapport Relación	Disp. Disp. Dreh. Disp. Disp.	Codice Item number Codierung Code Código	Descrizione Designation Bezeichnung Désignation Referencia
1 : 1	1/2	182008111	2008 R 1 : 1 D1/2
1 : 2	1/2	182008121	2008 R 1 : 2 D1/2
1 : 3	1/2	182008131	2008 R 1 : 3 D1/2

Rinvio angolare a 3 vie ad albero cavo
3-way right angle gearbox with hollow shaft
Dreiweg-Hohlwellengetriebe
Renvoi d'angle à 3 voies à arbre creux
Reenvío de ángulo con 3 vías y eje hueco

2012



Peso Weight Gewicht Poids Peso	kg 2,000

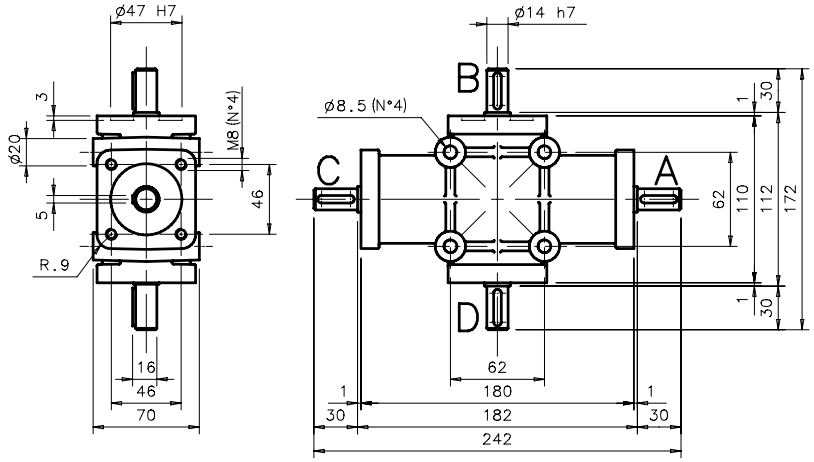


D. 1/2

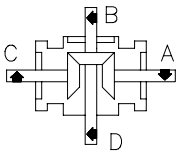
Rapporto Ratio Übersetzung Rapport Relación	Disp. Disp. Dreh. Disp. Disp.	Codice Item number Codierung Code Código	Descrizione Designation Bezeichnung Désignation Referencia
1 : 1	1/2	182012111	2012 R 1 : 1 D1/2
1 : 2	1/2	182012121	2012 R 1 : 2 D1/2
1 : 3	1/2	182012131	2012 R 1 : 3 D1/2

Rinvio angolare a 4 vie
4-way right angle gearbox
Vierweg-Kegelradgetriebe
Renvoi d'angle à 4 voies
Reenvío de ángulo con 4 vías

2006



Peso Weight Gewicht Poids Peso	kg 3,250

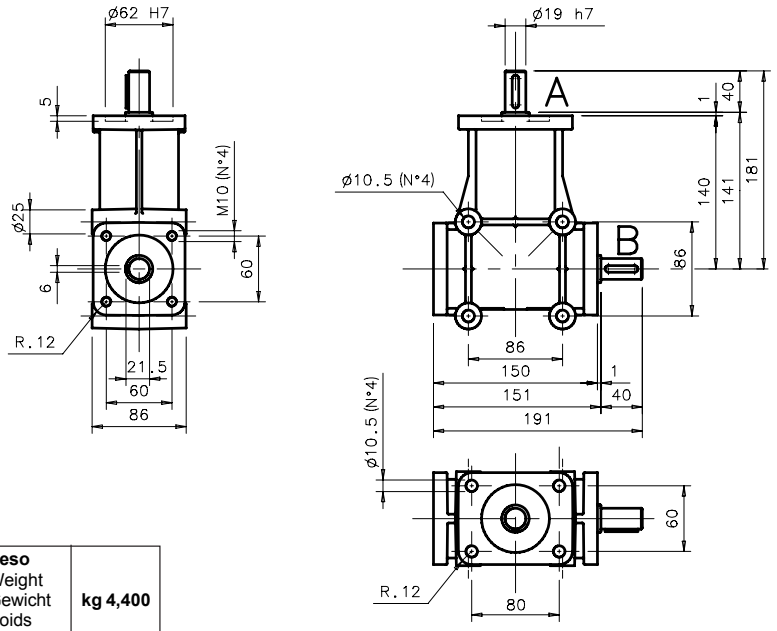


D. 1/2

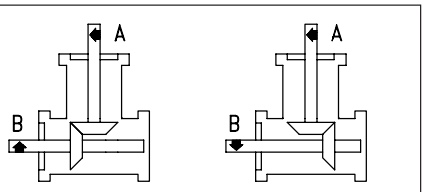
Rapporto Ratio Übersetzung Rapport Relación	Disp. Disp. Dreh. Disp. Disp.	Codice Item number Codierung Code Código	Descrizione Designation Bezeichnung Désignation Referencia
1 : 1	1/2	182006111	2006 R 1 : 1 D1/2
1 : 2	1/2	182006121	2006 R 1 : 2 D1/2
1 : 3	1/2	182006131	2006 R 1 : 3 D1/2

Rinvio angolare a 2 vie
2-way right angle gearbox
Zweiweg-Kegelradgetriebe
Renvoi d'angle à 2 voies
Reenvío de ángulo con 2 vías

2030



Peso Weight Gewicht Poids Peso	kg 4,400

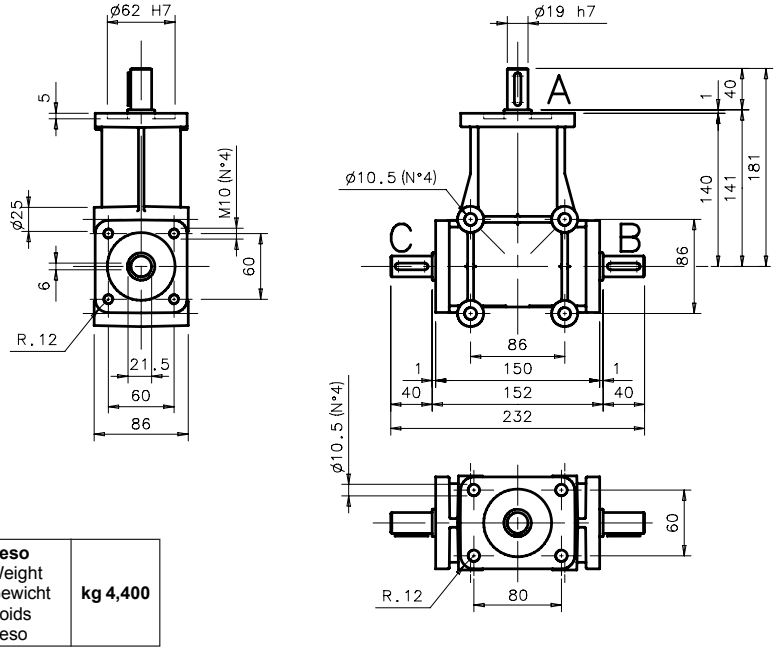


D. 1 D. 2

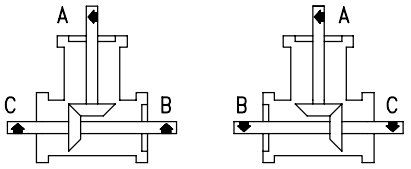
Rapporto Ratio Übersetzung Rapport Relación	Disp. Disp. Dreh. Disp. Disp.	Codice Item number Codierung Code Código	Descrizione Designation Bezeichnung Désignation Referencia
1 : 1	1	182030111	2030 R 1 : 1 D1
1 : 1	2	182030112	2030 R 1 : 1 D2
1 : 2	1	182030121	2030 R 1 : 2 D1
1 : 2	2	182030122	2030 R 1 : 2 D2
1 : 3	1	182030131	2030 R 1 : 3 D1
1 : 3	2	182030132	2030 R 1 : 3 D2

Rinvio angolare a 3 vie
3-way right angle gearbox
Dreiweg-Kegelradgetriebe
Renvoi d'angle à 3 voies
Reenvío de ángulo con 3 vías

2031



Peso Weight Gewicht Poids Peso	kg 4,400

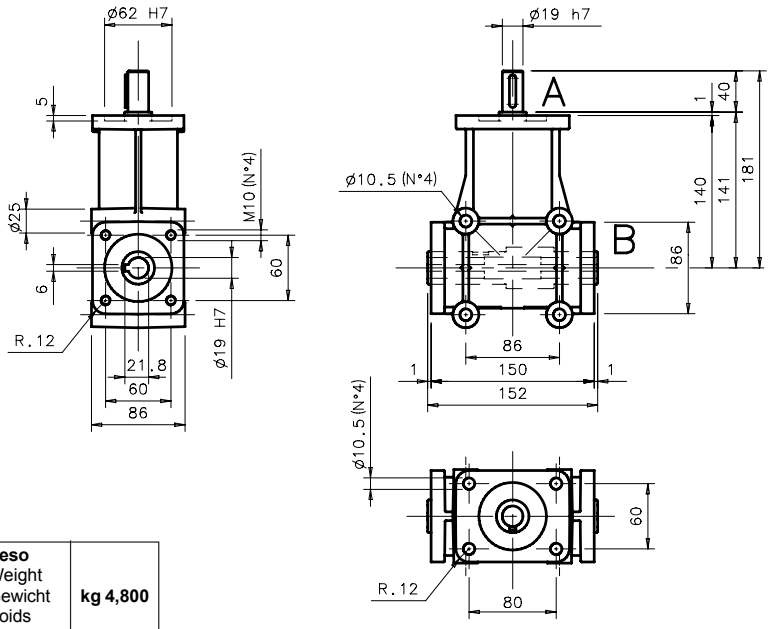


D. 1/2

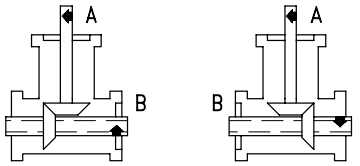
Rapporto Ratio Übersetzung Rapport Relación	Disp. Disp. Dreh. Disp. Disp.	Codice Item number Codierung Code Código	Descrizione Designation Bezeichnung Désignation Referencia
1 : 1	1/2	182031111	2031 R 1 : 1 D1/2
1 : 2	1/2	182031121	2031 R 1 : 2 D1/2
1 : 3	1/2	182031131	2031 R 1 : 3 D1/2

Rinvio angolare a 3 vie ad albero cavo
3-way right angle gearbox with hollow shaft
Dreiweg-Hohlwellengetriebe
Renvoi d'angle à 3 voies à arbre creux
Reenvío de ángulo con 3 vías y eje hueco

2028



Peso Weight Gewicht Poids Peso	**kg 4,800**

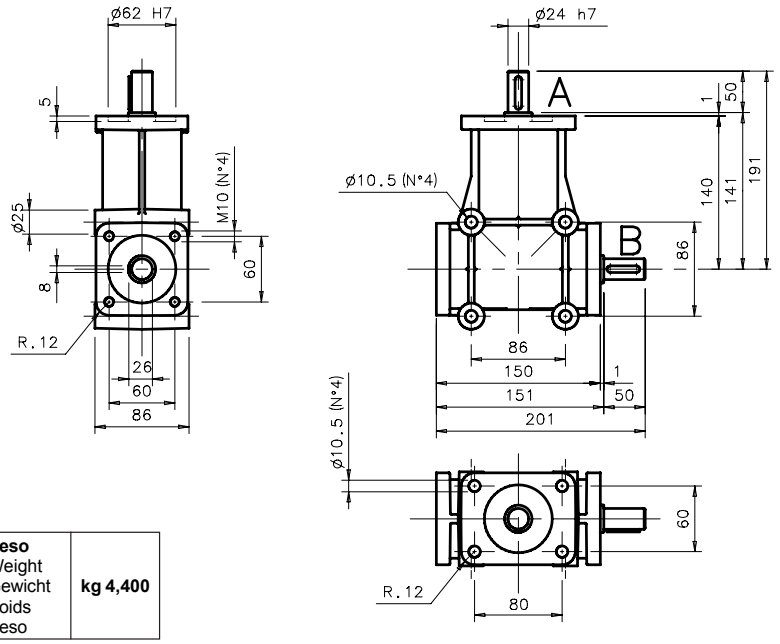


D. 1/2

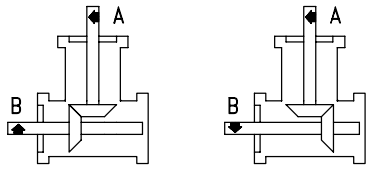
Rapporto Ratio Übersetzung Rapport Relación	**Disp.** Disp. Dreh. Disp. Disp.	**Codice** Item number Codierung Code Código	**Descrizione** Designation Bezeichnung Désignation Referencia
1 : 1	1/2	182028111	2028 R 1 : 1 D1/2
1 : 2	1/2	182028121	2028 R 1 : 2 D1/2
1 : 3	1/2	182028131	2028 R 1 : 3 D1/2

Rinvio angolare a 2 vie
2-way right angle gearbox
Zweiweg-Kegelradgetriebe
Renvoi d'angle à 2 voies
Reenvío de ángulo con 2 vías

2032



Peso Weight Gewicht Poids Peso	kg 4,400

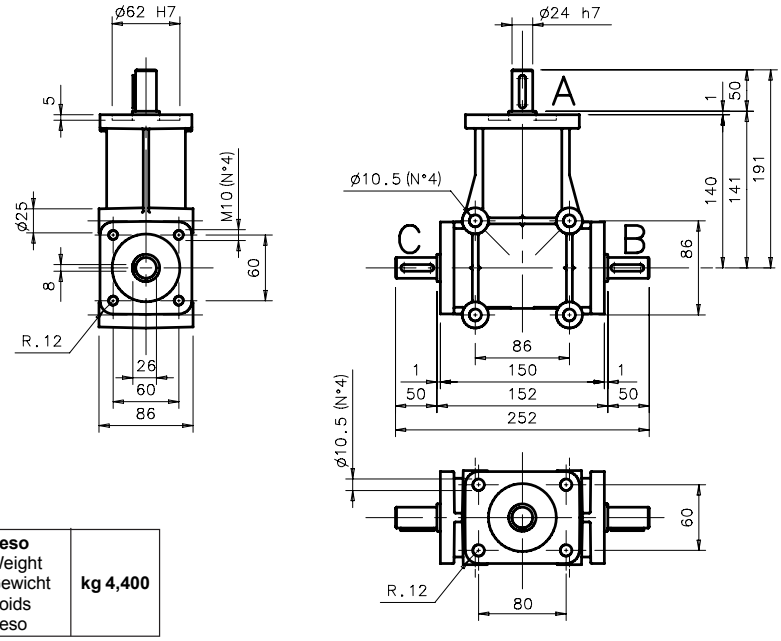


D. 1 D. 2

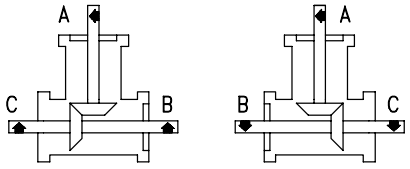
Rapporto Ratio Übersetzung Rapport Relación	Disp. Disp. Dreh. Disp. Disp.	Codice Item number Codierung Code Código	Descrizione Designation Bezeichnung Désignation Referencia
1 : 1	1	182032111	2032 R 1 : 1 D1
1 : 1	2	182032112	2032 R 1 : 1 D2
1 : 2	1	182032121	2032 R 1 : 2 D1
1 : 2	2	182032122	2032 R 1 : 2 D2
1 : 3	1	182032131	2032 R 1 : 3 D1
1 : 3	2	182032132	2032 R 1 : 3 D2

Rinvio angolare a 3 vie
3-way right angle gearbox
Dreiweg-Kegelradgetriebe
Renvoi d'angle à 3 voies
Reenvío de ángulo con 3 vías

2033



Peso Weight Gewicht Poids Peso	kg 4,400

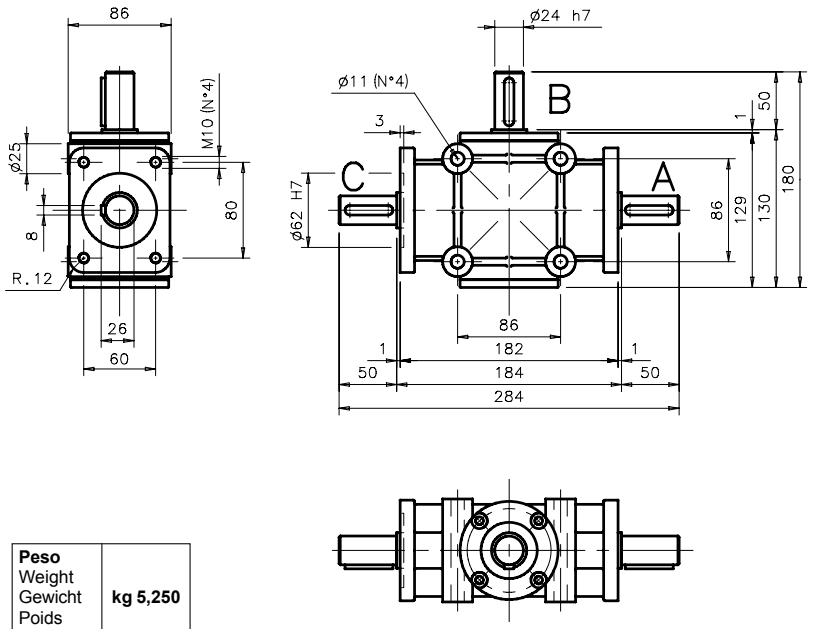


D. 1/2

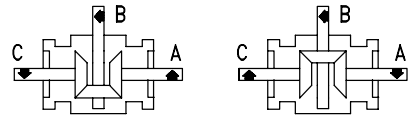
Rapporto Ratio Übersetzung Rapport Relación	Disp. Disp. Dreh. Disp. Disp.	Codice Item number Codierung Code Código	Descrizione Designation Bezeichnung Désignation Referencia
1 : 1	1/2	182033111	2033 R 1 : 1 D1/2
1 : 2	1/2	182033121	2033 R 1 : 2 D1/2
1 : 3	1/2	182033131	2033 R 1 : 3 D1/2

Rinvio angolare a 3 vie indipendenti
3-way independent shafts right angle gearbox
Unabhängiges Dreiweg-Kegelradgetriebe
Renvoi d'angle à 3 voies indépendantes
Reenvío de ángulo con 3 vías indipendientes

2025



Peso Weight Gewicht Poids Peso	kg 5,250

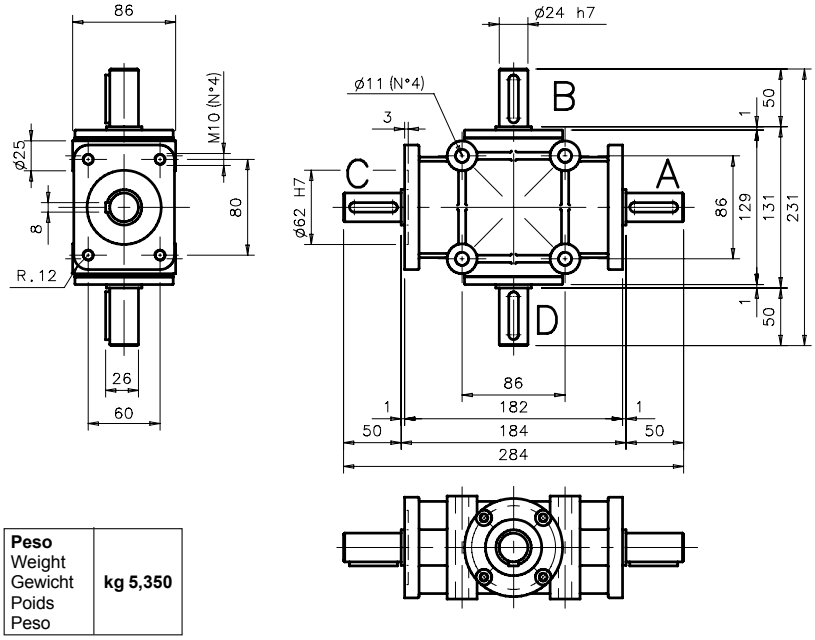


D. 1 D. 2

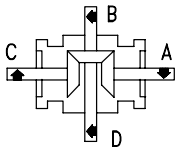
Rapporto Ratio Übersetzung Rapport Relación	Disp. Disp. Dreh. Disp. Disp.	Codice Item number Codierung Code Código	Descrizione Designation Bezeichnung Désignation Referencia
1 : 1	1	182025111	2025 R 1 : 1 D1
1 : 1	2	182025112	2025 R 1 : 1 D2
1 : 2	1	182025121	2025 R 1 : 2 D1
1 : 2	2	182025122	2025 R 1 : 2 D2
1 : 3	1	182025131	2025 R 1 : 3 D1
1 : 3	2	182025132	2025 R 1 : 3 D2

Rinvio angolare a 4 vie
4-way right angle gearbox
Vierweg-Kegelradgetriebe
Renvoi d'angle à 4 voies
Reenvío de ángulo con 4 vías

2026



Peso Weight Gewicht Poids Peso	kg 5,350



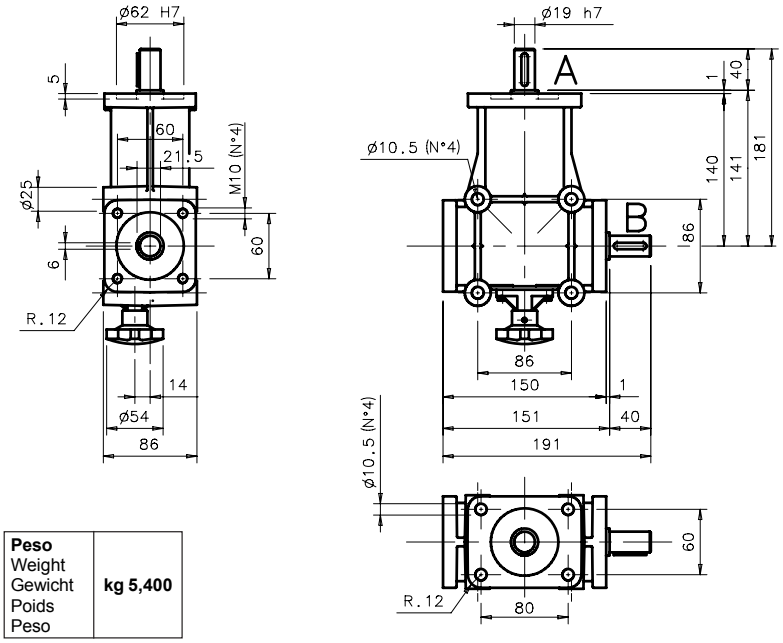
D. 1/2

Rapporto Ratio Übersetzung Rapport Relación	Disp. Disp. Dreh. Disp. Disp.	Codice Item number Codierung Code Código	Descrizione Designation Bezeichnung Désignation Referencia
1 : 1	1/2	182026111	2026 R 1 : 1 D1/2
1 : 2	1/2	182026121	2026 R 1 : 2 D1/2
1 : 3	1/2	182026131*	2026 R 1 : 3 D1/2

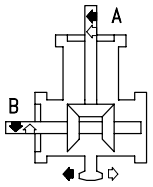
*** A richiesta** - On request - Auf Anfrage - Sur demande - Bajo consulta.

Invertitore meccanico a 2 vie con alberi disposti a 90°
2-ways reversing gearboxes with shafts at 90°
Zweiweg-Laufwendegetriebe mit 90° versetzten Wellen
Inverseur mécanique à 2 voies avec arbres à 90°
Inversor mecánico con 2 vías con ejes en 90°

2019



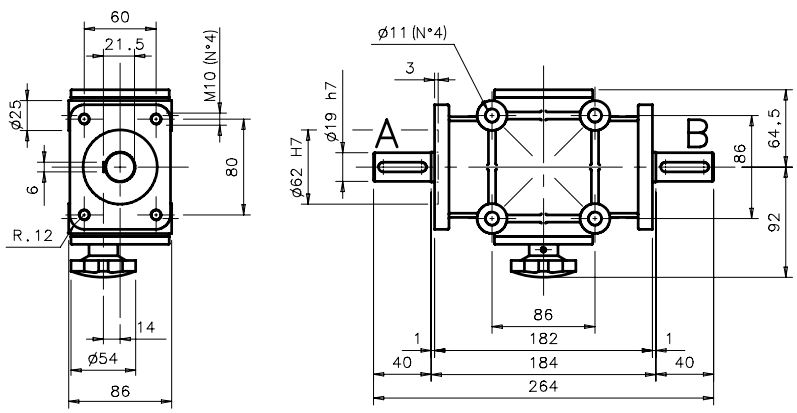
Peso Weight Gewicht Poids Peso	**kg 5,400**



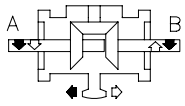
Rapporto Ratio Übersetzung Rapport Relación	**Codice** Item number Codierung Code Código	**Descrizione** Designation Bezeichnung Désignation Referencia
1 : 1	182019	2019

Invertitore meccanico a 2 vie con alberi disposti a 180°
2-ways reversing gearboxes with shafts at 180°
Zweiweg-Laufwendegetriebe mit 180° versetzten Wellen
Inverseur mécanique à 2 voies avec arbres à 180°
Inversor mecánico con 2 vías con ejes en 180°

2020



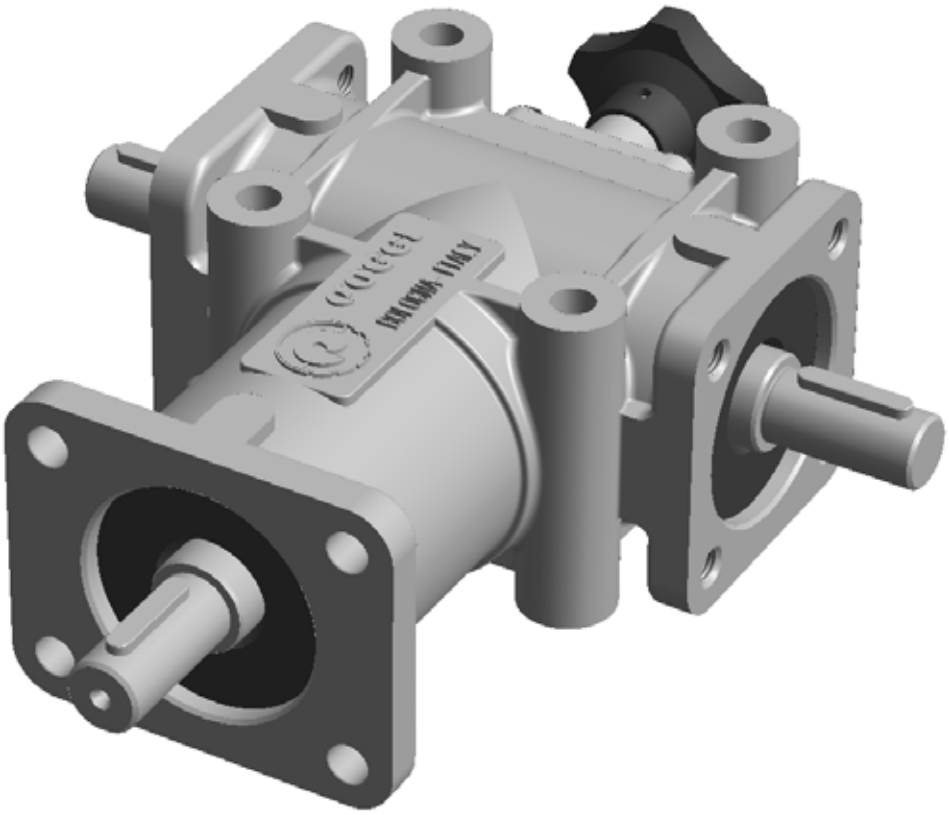
Peso Weight Gewicht Poids Peso	**kg 5,100**



Rapporto Ratio Übersetzung Rapport Relación	**Codice** Item number Codierung Code Código	**Descrizione** Designation Bezeichnung Désignation Referencia
1 : 1	182020	2020

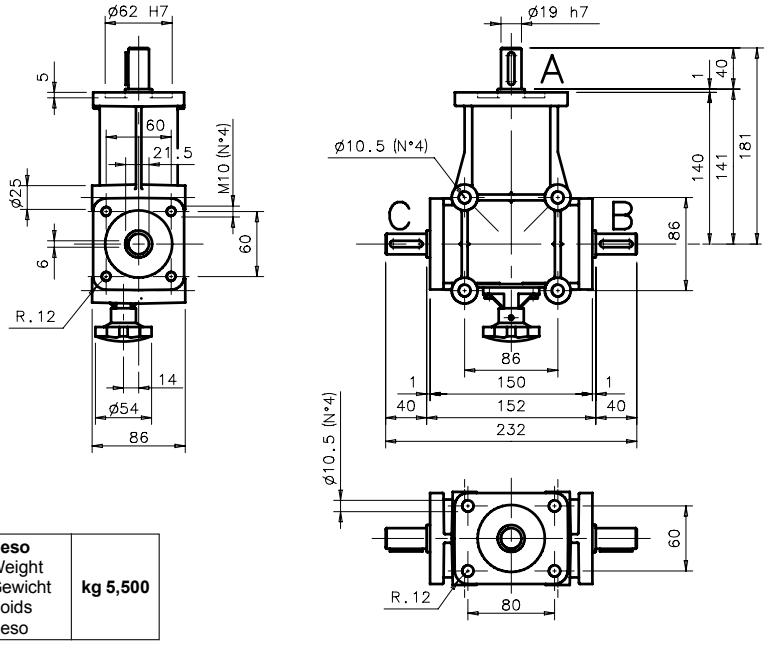
Invertitori meccanici di rotazione

Reversing gearboxes
Laufwendegetriebe
Inverseurs mécaniques de rotation
Inversores mecánicos de rotación

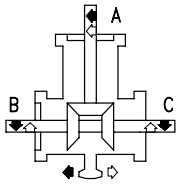


Invertitore meccanico a 3 vie con alberi disposti a 90°
3-ways reversing gearboxes with shafts at 90°
Dreiweg-Laufwendegetriebe mit 90° versetzten Wellen
Inverseur mécanique à 3 voies avec arbres à 90°
Inversor mecánico con 3 vías con ejes en 90°

2023



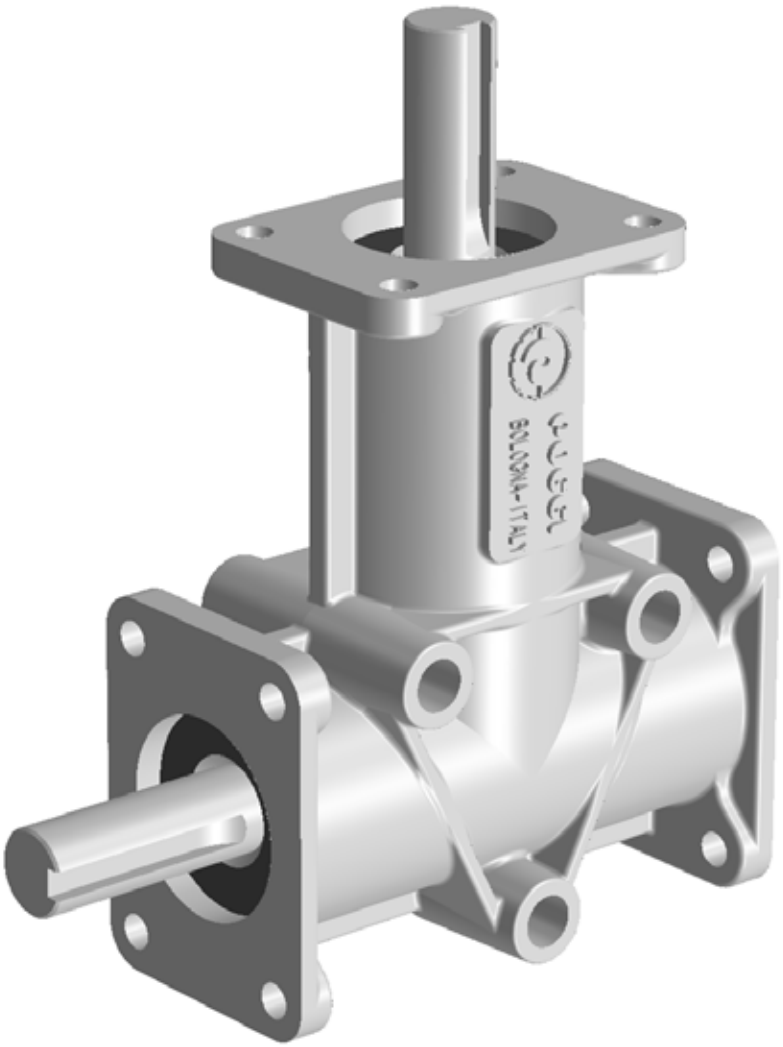
Peso Weight Gewicht Poids Peso	**kg 5,500**



Rapporto Ratio Übersetzung Rapport Relación	**Codice** Item number Codierung Code Código	**Descrizione** Designation Bezeichnung Désignation Referencia
1 : 1	182023	2023

Rinvii angolari serie 4000

Series 4000 right angle gearboxes
Kegelradgetriebe Serie 4000
Renvois d'angle série 4000
Reenvíos de ángulo serie 4000



Prestazioni dei rinvii angolari serie 4000

Performances of series 4000 gearboxes
Leistung der Kegelradgetriebe Serie 4000
Performances des renvois d'angle série 4000
Prestaciones de los reenvíos de ángulo serie 4000

Articolo Article Typ Article Artículo	**Rapporto** Ratio Übersetzung Rapport Relación	**Albero A potenza max in entrata a 1400 g/1'** Shaft A max. input power at 1400 rpm Max. Eingangsleistung der Welle A mit 1400 U/m Arbre A puissance max. en entrée à 1400 tr/min Eje A potencia max. en entrada a 1400 r.p.m.		**Coppia max per ogni albero in uscita in Nm** Max. torque for each output shaft in Nm Max. Abtriebsdrehmoment jeder Ausgangswelle in Nm Couple max. de chaque arbre de sortie en Nm Par max. de cada eje de salida en Nm	
		kW	HP	B	C
4000	1 : 1	0,37	0,50	2,4	-
	1 : 2	0,15	0,20	2,0	-
4002	1 : 1	0,37	0,50	1,2	1,2
	1 : 2	0,15	0,20	1,0	1,0
4008	1 : 1	1,30	1,75	4,4	4,4
	1 : 2	0,50	0,70	3,4	3,4
4011	1 : 1	1,30	1,75	8,8	-
	1 : 2	0,50	0,70	6,8	-

Articolo Article Typ Article Artículo	**Rapporto** Ratio Übersetzung Rapport Relación	**Albero A potenza max in entrata a 1400 g/1'** Shaft A max. input power at 1400 rpm Max. Eingangsleistung der Welle A mit 1400 U/m Arbre A puissance max. en entrée à 1400 tr/min. Eje A potencia max. en entrada a 1400 rpm		**Coppia max per ogni albero in uscita in Nm** Max. torque for each output shaft in Nm Max. Abtriebsdrehmoment jeder Ausgangswelle in Nm Couple max. de chaque arbre de sortie en Nm Par max. de cada eje de salida en Nm	
		kW	HP	B	C
4030	1 : 1	4,00	5,50	27,2	-
	1 : 2	1,50	2,00	20,0	-
4031	1 : 1	4,00	5,50	13,6	13,6
	1 : 2	1,50	2,00	10,0	10,0
4032	1 : 1	6,50	8,80	44,0	-
	1 : 2	3,00	4,08	40,9	-
4033	1 : 1	6,50	8,80	22,0	22,0
	1 : 2	3,00	4,08	20,4	20,4

1 kgm = 9,8 Nm

Lubrificazione dei rinvii angolari serie 4000

Lubrication of Series 4000 right angle gearboxes
Schmierung der Kegelradgetriebe Serie 4000
Lubrification des renvois d'angle série 4000
Lubricación de los reenvíos de ángulo serie 4000

Quantità di lubrificante contenuta nei rinvii angolari serie 4000
Lubricant contents of series 4000 right angle gearboxes
Öl Quantität im Kegelradgetriebe Serie 4000
Quantité de lubrifiant contenue dans les renvois d'angle série 4000
Cantidad de lubricante contenida en los reenvíos de ángulo serie 4000

Articolo - Article - Typ - Article - Artículo	**g**
4000	30
4002	30
4008	60
4011	60

Articolo - Article - Typ - Article - Artículo	**g**
4030	100
4031	100
4032	130
4033	130

L'olio contenuto nei rinvii è di tipo AGIP BLASIA S150 ma può essere utilizzato uno di quelli riportati nella tabella sottostante.
Qualora si dovesse aggiungere o cambiare l'olio contenuto nel rinvio, si raccomanda di sostituirlo totalmente.

The oil contained in our right angle gearboxes is type AGIP BLASIA S150 but it can be replaced by one of those as listed in the table below.
In case of need to add or change the oil, we recommend to replace it completely.

In den Kegelradgetrieben befindet sich AGIP BLASIA S150 Öl / alternativ können auch die in unten stehender Tabelle genannten Öle verwendet werden.
Falls ein Schmierstoffwechsel notwendig sein sollte, empfehlen wir einen gesamten Austausch.

L'huile contenue dans les renvois d'angle est le type AGIP BLASIA S150 mais elle peut être remplacée par l'une des huiles indiquées dans le tableau ci-dessous.
S'il est nécessaire d'ajouter ou de remplacer l'huile contenue dans le renvoi, nous recommandons de la remplacer complètement.

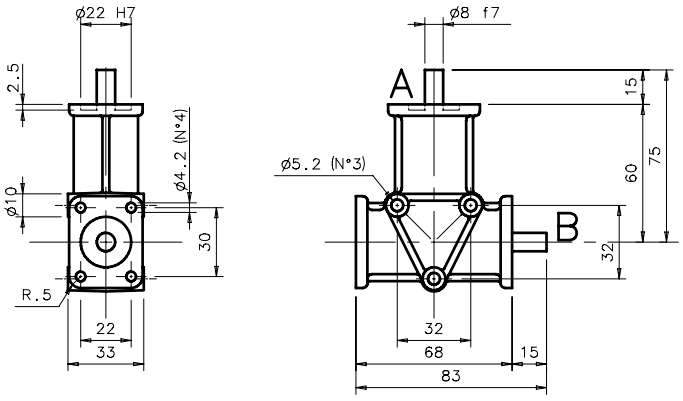
El aceite contenido en los reenvíos es el tipo AGIP BLASIA S150 pero es posible utilizar uno de los aceites indicados en la tabla abajo.
En caso sea preciso añadir o reemplazar el aceite contenido en el reenvío, recomendamos reemplazarlo totalmente.

Tabella degli oli consigliati
Table of recommended oils
Schmierstoffempfehlungen
Tableau des huiles conseillées
Tabla de los aceites recomendados

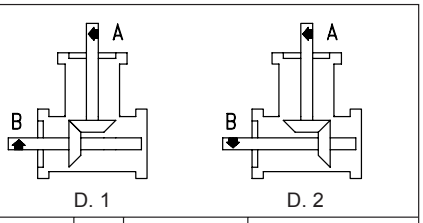
Produttore Manufacturer Hersteller Producteur Fabricante	AGIP	BP	ESSO	GULF	MOBIL	SHELL
Sigla olio Oil type Öl Typ Type d'huile Tipo de aceite	BLASIA S150	ENERGOL SGR 150	SPARTAN SEP 150	SYNTETIC GEAR LUBRICANT	GLYGOYLE 22	TIVELA WA

Rinvio angolare a 2 vie
2-way right angle gearbox
Zweiweg-Kegelradgetriebe
Renvoi d'angle à 2 voies
Reenvío de ángulo con 2 vías

4000



Peso Weight Gewicht Poids Peso	**kg 0,300**

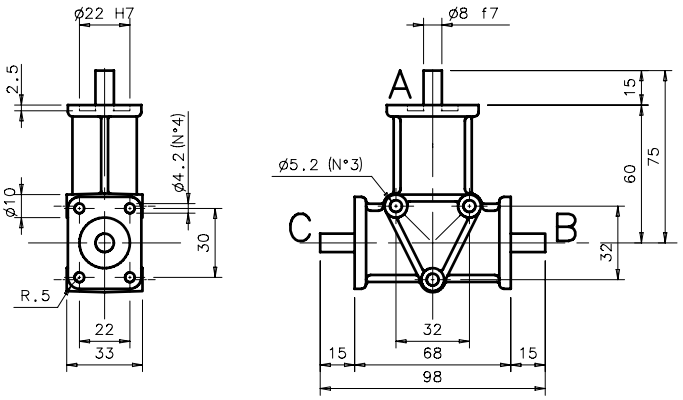


D. 1 D. 2

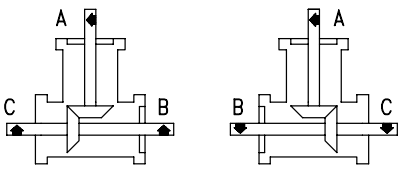
Rapporto Ratio Übersetzung Rapport Relación	**Disp.** Disp. Dreh. Disp. Disp.	**Codice** Item number Codierung Code Código	**Descrizione** Designation Bezeichnung Désignation Referencia
1 : 1	1	184000111	4000 R 1 : 1 D1
1 : 1	2	184000112	4000 R 1 : 1 D2
1 : 2	1	184000121	4000 R 1 : 2 D1
1 : 2	2	184000122	4000 R 1 : 2 D2

Rinvio angolare a 3 vie
3-way right angle gearbox
Dreiweg-Kegelradgetriebe
Renvoi d'angle à 3 voies
Reenvío de ángulo con 3 vías

4002



Peso Weight Gewicht Poids Peso	**kg 0,300**

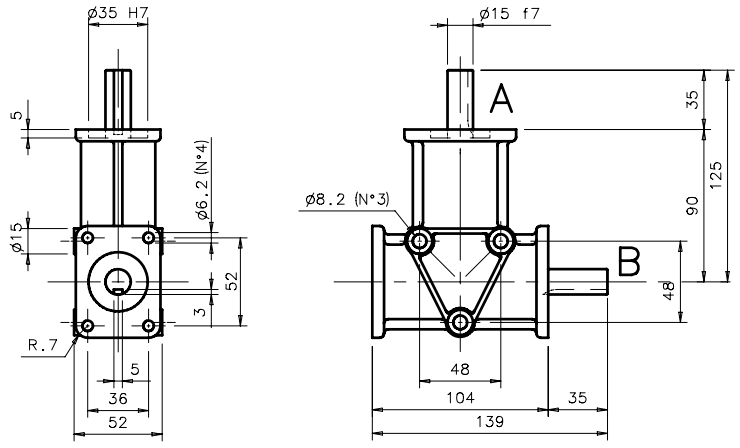


D. 1/2

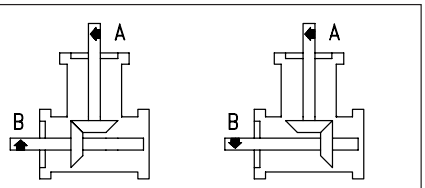
Rapporto Ratio Übersetzung Rapport Relación	**Disp.** Disp. Dreh. Disp. Disp.	**Codice** Item number Codierung Code Código	**Descrizione** Designation Bezeichnung Désignation Referencia
1 : 1	1/2	184002111	4002 R 1 : 1 D1/2
1 : 2	1/2	184002121	4002 R 1 : 2 D1/2

Rinvio angolare a 2 vie
2-way right angle gearbox
Zweiweg-Kegelradgetriebe
Renvoi d'angle à 2 voies
Reenvío de ángulo con 2 vías

4011



Peso Weight Gewicht Poids Peso	**kg 1,200**

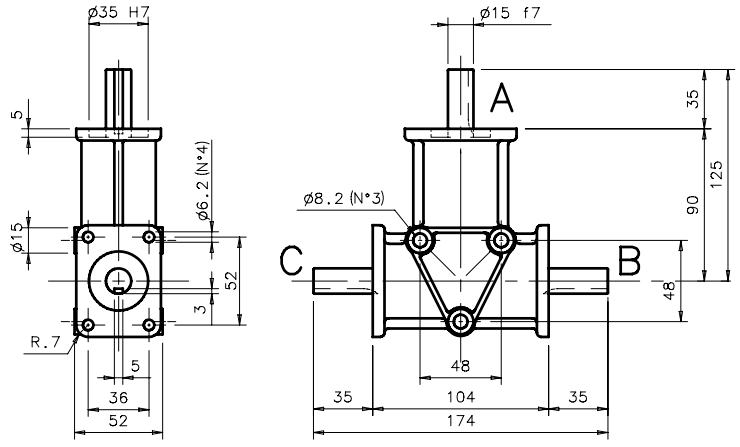


D. 1 D. 2

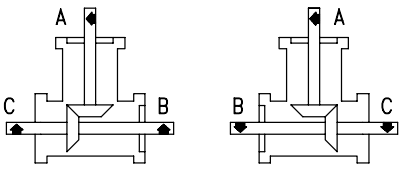
Rapporto Ratio Übersetzung Rapport Relación	**Disp.** Disp. Dreh. Disp. Disp.	**Codice** Item number Codierung Code Código	**Descrizione** Designation Bezeichnung Désignation Referencia
1 : 1	1	184011111	4011 R 1 : 1 D1
1 : 1	2	184011112	4011 R 1 : 1 D2
1 : 2	1	184011121	4011 R 1 : 2 D1
1 : 2	2	184011122	4011 R 1 : 2 D2

Rinvio angolare a 3 vie
3-way right angle gearbox
Dreiweg-Kegelradgetriebe
Renvoi d'angle à 3 voies
Reenvío de ángulo con 3 vías

4008



Peso Weight Gewicht Poids Peso	**kg 1,200**

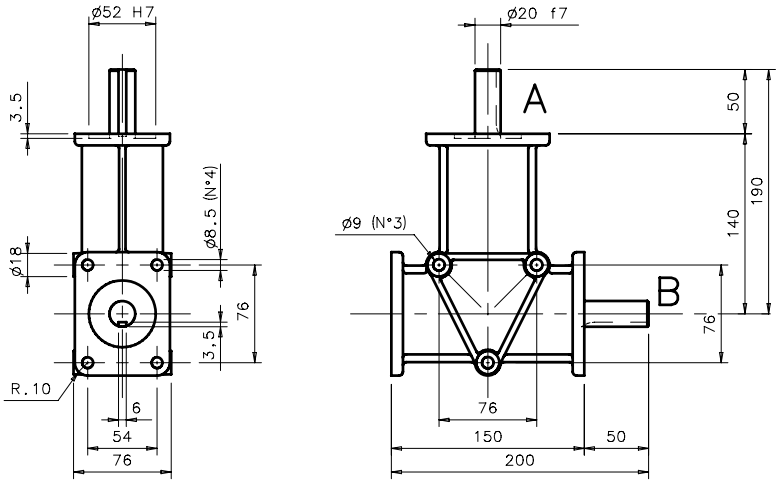


D. 1/2

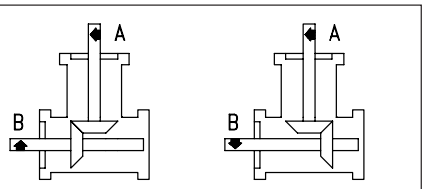
Rapporto Ratio Übersetzung Rapport Relación	**Disp.** Disp. Dreh. Disp. Disp.	**Codice** Item number Codierung Code Código	**Descrizione** Designation Bezeichnung Désignation Referencia
1 : 1	1/2	184008111	4008 R 1 : 1 D1/2
1 : 2	1/2	184008121	4008 R 1 : 2 D1/2

Rinvio angolare a 2 vie
2-way right angle gearbox
Zweiweg-Kegelradgetriebe
Renvoi d'angle à 2 voies
Reenvío de ángulo con 2 vías

4030



Peso Weight Gewicht Poids Peso	kg 3,500

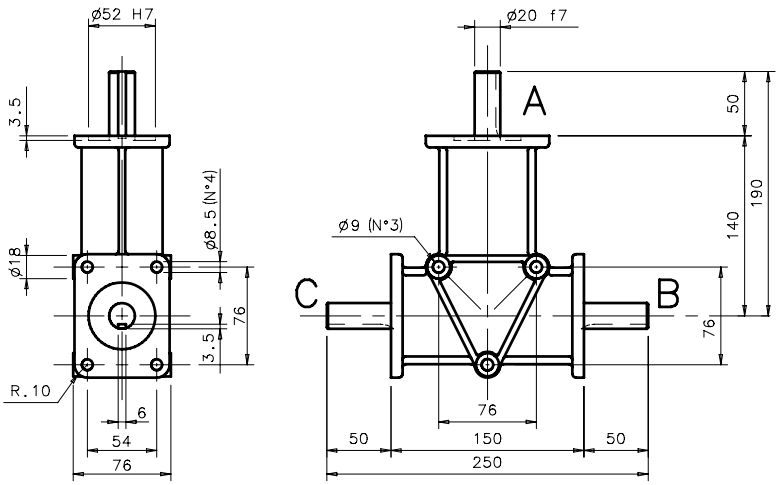


D. 1 D. 2

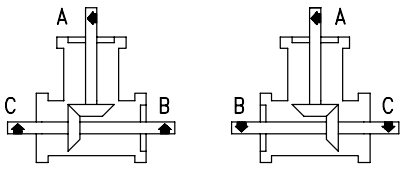
Rapporto Ratio Übersetzung Rapport Relación	Disp. Disp. Dreh. Disp. Disp.	Codice Item number Codierung Code Código	Descrizione Designation Bezeichnung Désignation Referencia
1 : 1	1	184030111	4030 R 1 : 1 D1
1 : 1	2	184030112	4030 R 1 : 1 D2
1 : 2	1	184030121	4030 R 1 : 2 D1
1 : 2	2	184030122	4030 R 1 : 2 D2

Rinvio angolare a 3 vie
3-way right angle gearbox
Dreiweg-Kegelradgetriebe
Renvoi d'angle à 3 voies
Reenvío de ángulo con 3 vías

4031



Peso Weight Gewicht Poids Peso	kg 3,500

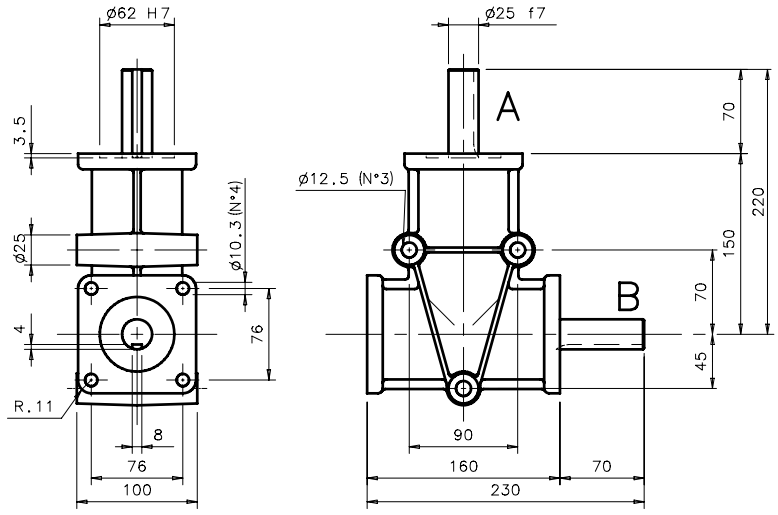


D. 1/2

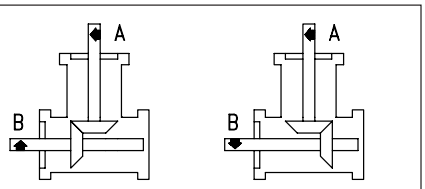
Rapporto Ratio Übersetzung Rapport Relación	Disp. Disp. Dreh. Disp. Disp.	Codice Item number Codierung Code Código	Descrizione Designation Bezeichnung Désignation Referencia
1 : 1	1/2	184031111	4031 R 1 : 1 D1/2
1 : 2	1/2	184031121	4031 R 1 : 2 D1/2

Rinvio angolare a 2 vie
2-way right angle gearbox
Zweiweg-Kegelradgetriebe
Renvoi d'angle à 2 voies
Reenvío de ángulo con 2 vías

4032



Peso Weight Gewicht Poids Peso	kg 5,800

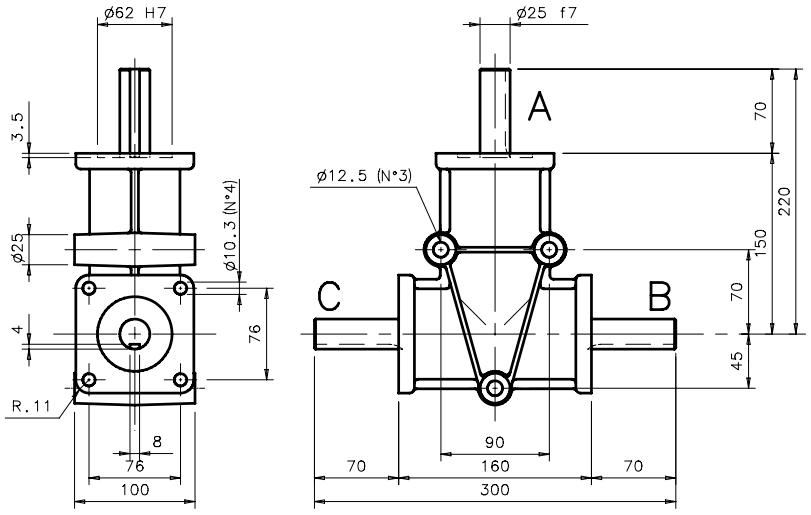


D. 1 D. 2

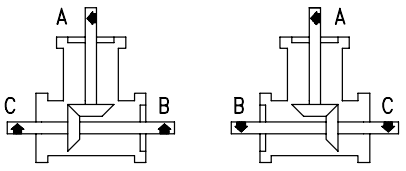
Rapporto Ratio Übersetzung Rapport Relación	Disp. Disp. Dreh. Disp. Disp.	Codice Item number Codierung Code Código	Descrizione Designation Bezeichnung Désignation Referencia
1 : 1	1	184032111	4032 R 1 : 1 D1
1 : 1	2	184032112	4032 R 1 : 1 D2
1 : 2	1	184032121	4032 R 1 : 2 D1
1 : 2	2	184032122	4032 R 1 : 2 D2

Rinvio angolare a 3 vie
3-way right angle gearbox
Dreiweg-Kegelradgetriebe
Renvoi d'angle à 3 voies
Reenvío de ángulo con 3 vías

4033



Peso Weight Gewicht Poids Peso	kg 5,800



D. 1/2

Rapporto Ratio Übersetzung Rapport Relación	Disp. Disp. Dreh. Disp. Disp.	Codice Item number Codierung Code Código	Descrizione Designation Bezeichnung Désignation Referencia
1 : 1	1/2	184033111	4033 R 1 : 1 D1/2
1 : 2	1/2	184033121	4033 R 1 : 2 D1/2

OTHER GEAR PRODUCTS AVAILABLE

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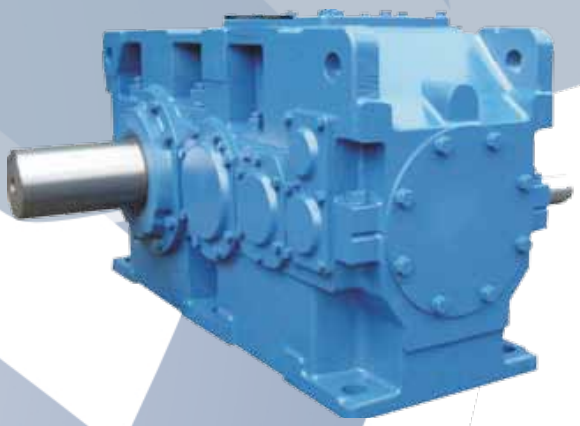

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