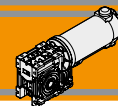




Ferrite

Motoriduttori CC a vite senza fine
DC wormgearmotors

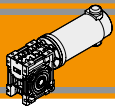




Indice	Index	Pag. Page
Caratteristiche tecniche	<i>Technical features</i>	N2
Designazione	<i>Classification</i>	N2
Simbologia	<i>Symbols</i>	N2
Lubrificazione	<i>Lubrication</i>	N3
Carichi radiali	<i>Radial loads</i>	N3
Dati di dentatura	<i>Toothing data</i>	N4
Rendimento	<i>Efficiency</i>	N4
Dati tecnici per servizio S2	<i>Technical data for S2 duty</i>	N5
Motori applicabili	<i>Motor adapters</i>	N6
Dimensioni	<i>Dimensions</i>	N7
Opzioni	<i>Options</i>	N20
Accessori	<i>Accessories</i>	N20

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Caratteristiche tecniche

Technical features

Le caratteristiche principali dei motoriduttori CC a vite senza fine a magneti permanenti in ferrite serie ECM sono:

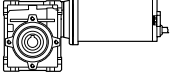
The main features of ECM ferrite permanent magnets DC wormgearmotors range are:

- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder
- Potenze motore disponibili da 100 a 800W S2
- Magneti in ferrite
- Carcasse dei riduttori in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico.

- Low voltage power supply 12/24 Vdc
- Suitable for encoder assembly
- Motor power ratings available from 100 to 800W S2
- Ferrite magnets
- Die-cast aluminum housing
- Permanent synthetic oil long-life lubrication.

Designazione

Classification

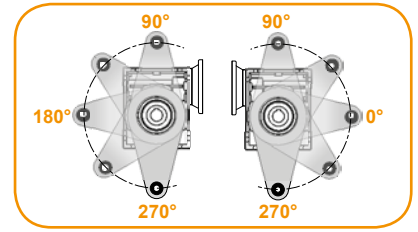
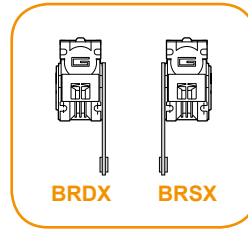
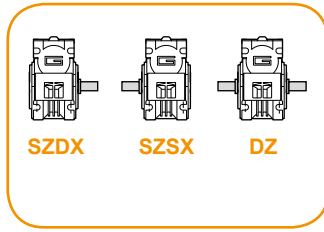
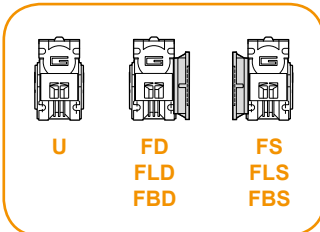
MOTORIDUTTORE / GEARMOTOR														
ECM	070/026						U	10	SZDX	BRSX	90	240	VS	
Tipo Type	Grandezza Size						Versione Riduttore Gearbox Version	Rapporto Ratio	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Versione Motore Motor Version	Opzioni Options	
	070/026	100/026	180/026	250/030	350/030	600/040	U FD FS FLD FLS FBD FBS	Vedere tabella <i>See tables</i>	SZDX SZSX DZ	BRDX BRSX	0° 90° 180° 270°	120 240 24E	VS	
	070/030	100/030	180/030	250/040	350/040	600/050								100/040

Versione Riduttore
Gearbox Version

Albero di uscita
Output shaft

Braccio di reazione
Torque arm

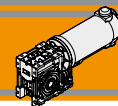
Angolo
Angle



Simbologia

Symbols

n_1 [min ⁻¹]	Velocità in ingresso / <i>Input speed</i>	R_d %	Rendimento dinamico / <i>Dynamic efficiency</i>
n_2 [min ⁻¹]	Velocità in uscita / <i>Output speed</i>	A_2 [N]	Carico assiale ammissibile in uscita / <i>Permitted output axial load</i>
i	Rapporto di riduzione / <i>Ratio</i>	R_s %	Rendimento statico / <i>Static efficiency</i>
P_1 [kW]	Potenza in entrata / <i>Input power</i>	R_2 [N]	Carico radiale ammissibile in uscita / <i>Permitted output radial load</i>
M_2 [Nm]	Coppia in uscita in funzione di P_1 / <i>Output torque referred to P_1</i>	Z	Numero di principi della vite / <i>Worm starts</i>
sf	Fattore di servizio / <i>Service factor</i>	β	Angolo d'elica / <i>Helix angle</i>



Lubrificazione

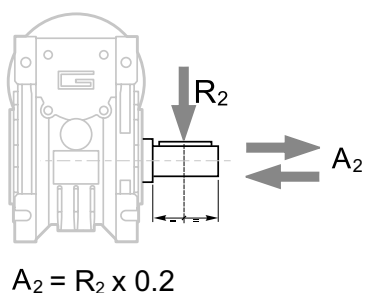
Lubrication

I riduttori a vite senza fine della serie CM sono lubrificati a vita con olio sintetico di viscosità 320 e possono essere installati in qualunque posizione di montaggio.

Permanent synthetic oil long-life lubrication allow to use CM wormgearbox range in all mounting position.

Carichi radiali

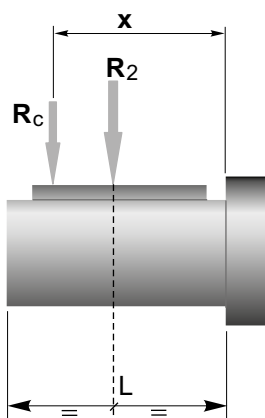
Radial loads



n_2 [min ⁻¹]	R_2 [N]					
	CM026	CM030	CM040	CM050	CM063	CM070
187	400	674	1264	1770	2445	2613
140	490	743	1392	1949	2692	2878
93	580	851	1596	2234	3085	3298
70	610	936	1754	2456	3392	3626
56	610	1008	1890	2646	3654	3906
47	610	1069	2004	2805	3874	4141
35	610	1179	2210	3095	4273	4568
28	610	1270	2381	3334	4603	4921
23	610	1356	2542	3559	4915	5254
18	610	1471	2759	3862	5334	5702
14	610	1600	3000	4200	5800	6200

Quando il carico radiale risultante non è applicato sulla mezza-ria dell'albero occorre calcolare quello effettivo con la seguente formula:

When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:

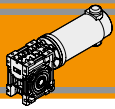


$$R_c = \frac{R_2 \cdot a}{(b+x)} \leq R_{2MAX}$$

$$R \leq R_c$$

a, b = valori riportati nella tabella
a, b = values given in the table

	CM					
	026	030	040	050	063	070
a	56	65	84	101	120	122
b	43	50	64	76	95	92
R_{2MAX}	610	1600	3000	4200	5800	6200



Dati di dentatura

Toothing data

	Dati della coppia vite-corona Worm wheel data	Rapporto / Ratio											
		5	7.5	10	15	20	25	30	40	50	60	80	100
CM026	Z	6	4	3	2	2		1	1	1	1		
	β	34° 35'	24° 41'	19° 1'	12° 57'	10° 30'		6° 33'	5° 17'	4° 26'	3° 49'		
CM030	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	27° 4'	24° 28'	18° 50'	12° 49'	10° 23'	8° 43'	6° 29'	5° 14'	4° 23'	3° 46'	2° 57'	2° 25'
CM040	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	34° 19'	24° 28'	18° 50'	12° 49'	10° 23'	8° 43'	6° 29'	5° 14'	4° 23'	3° 46'	2° 57'	2° 25'
CM050	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	33° 37'	23° 54'	18° 23'	12° 29'	10° 6'	8° 28'	6° 19'	5° 5'	4° 15'	3° 39'	2° 51'	2° 20'
CM063	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	34° 23'	24° 31'	18° 53'	12° 50'	10° 24'	8° 44'	6° 30'	5° 14'	4° 23'	3° 47'	2° 57'	2° 25'
CM070	Z		4	3	2	2	2	1	1	1	1	1	1
	β		26° 12'	20° 15'	13° 49'	11° 15'	9° 29'	7° 0'	5° 41'	4° 46'	4° 7'	3° 13'	2° 39'

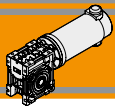
Rendimento

Efficiency

	n ₁ [min ⁻¹]	Rendimento Efficiency	Rapporto / Ratio											
			5	7.5	10	15	20	25	30	40	50	60	80	100
CM026	2800	Rd	89	87	85	83	80		73	68	64	60		
	1400		87	84	83	78	74		66	61	57	53		
	900		84	83	80	75	71		61	57	52	48		
			Rs	72	71	68	61	56		46	41	36	34	
CM030	2800	Rd	89	88	86	84	81	78	74	70	65	62	57	52
	1400		86	85	84	79	75	72	67	62	58	55	48	43
	900		84	83	81	75	71	68	62	58	53	49	43	39
			Rs	72	67	63	55	50	43	39	35	31	27	23
CM040	2800	Rd	90	89	87	84	83	80	77	73	69	66	60	56
	1400		88	86	84	81	78	74	70	65	60	58	52	46
	900		86	84	82	77	74	70	66	60	57	53	46	41
			Rs	74	71	67	60	55	51	45	40	36	32	28
CM050	2800	Rd	91	90	88	86	84	82	78	74	71	68	62	58
	1400		89	87	85	82	79	76	72	67	63	60	54	49
	900		87	85	84	79	75	72	68	62	59	55	48	43
			Rs	73	70	66	59	55	51	44	39	35	32	27
CM063	2800	Rd	91	90	88	86	84	83	79	76	73	70	65	60
	1400		90	88	86	84	81	78	75	70	66	63	57	52
	900		89	86	84	81	78	75	70	65	61	58	52	47
			Rs	73	71	67	60	55	51	45	40	36	33	28
CM070	2800	Rd		90	89	87	85	84	80	77	74	72	67	62
	1400			89	87	84	82	80	76	72	68	65	60	53
	900			87	85	82	79	77	72	67	63	60	54	49
			Rs		72	69	62	60	55	48	43	38	36	31

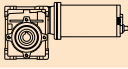
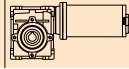
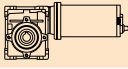
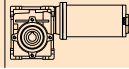
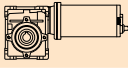
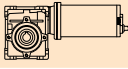
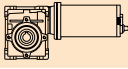


Rendimento teorico del riduttore dopo il rodaggio
Theoretical efficiency of the gearbox after the first running period



Dati tecnici per servizio S2

Technical data for S2 duty

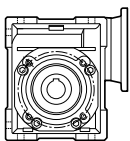
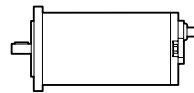
P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version		
500							800								
(3000 min ⁻¹)	600	7.2	4.0	5		ECM350/040	120/240	(3000 min ⁻¹)	600	11	2.5	5		ECM600/040	120/240
	400	11	2.9	7.5				400	17	1.8	7.5				
	300	14	2.4	10				300	22	1.5	10				
	200	20	1.7	15				200	32	1.1	15				
	150	26	1.2	20				150	42	0.7	20				
	120	32	0.9	25				120	40	0.7	25				
	100	37	1.0	30				100	54	0.7	30				
	75	46	0.7	40				75	49	0.7	40				
	60	46	0.7	50				600	12	4.7	5	ECM600/050			120/240
	50	41	0.7	60				400	17	3.3	7.5				
	38	39	0.7	80		300	22	2.7	10						
	30	34	0.7	100		200	33	1.9	15						
	200	21	3.0	15		ECM350/050	120/240	150	43	1.3	20				
	150	27	2.1	20				120	52	1.0	25				
	120	33	1.6	25				100	60	1.1	30				
	100	37	1.8	30				75	75	0.8	40				
	75	47	1.3	40				60	81	0.7	50				
	60	57	1.0	50				50	74	0.7	60				
	50	65	0.8	60				38	66	0.7	80				
	38	66	0.7	80				200	33	3.5	15	ECM600/063	120/240		
	30	61	0.7	100				150	43	2.4	20				
	150	27	3.8	20				ECM350/063	120/240	120	53			1.8	25
	120	33	2.8	25		100			60	2.1	30				
	100	38	3.4	30		75			77	1.4	40				
	75	48	2.3	40		60			93	1.1	50				
	60	58	1.8	50		50			107	0.9	60				
	50	67	1.5	60		38			132	0.7	80				
	38	83	1.1	80		30			114	0.7	100				
	30	96	0.8	100		150			43	3.5	20			ECM600/070	120/240
	75	49	3.4	40		ECM350/070			120/240	120	53	2.6	25		
	60	59	2.5	50						100	61	3.0	30		
	50	69	2.1	60				75	78	2.1	40				
	38	85	1.5	80				60	94	1.6	50				
	30	99	1.2	100				50	110	1.3	60				
								38	137	0.9	80				
								30	158	0.7	100				

N.B.
Verificare sempre che la coppia M2 utilizzata non ecceda il valore indicato nelle caselle in grigio

N.B.
Please check that the output torque M2 does not exceed the value in the grey areas

Motori applicabili

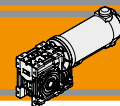
Motor adapters



		EC						
		070.12E 070.24E	100.120 100.240 100.24E	180.120 180.240	180.24E	250.120 250.240	350.120 350.240	600.120 600.240
CM	026	5-60	5-60	5-60				
	030	5-100	5-100	5-100	5-50	5-50	5-50	
	040		5-100	5-100	5-100	5-100	5-100	5-40
	050			40-100	5-100	5-100	15-100	5-80
	063					40-100	20-100	15-100
	070						40-100	20-100

5-100

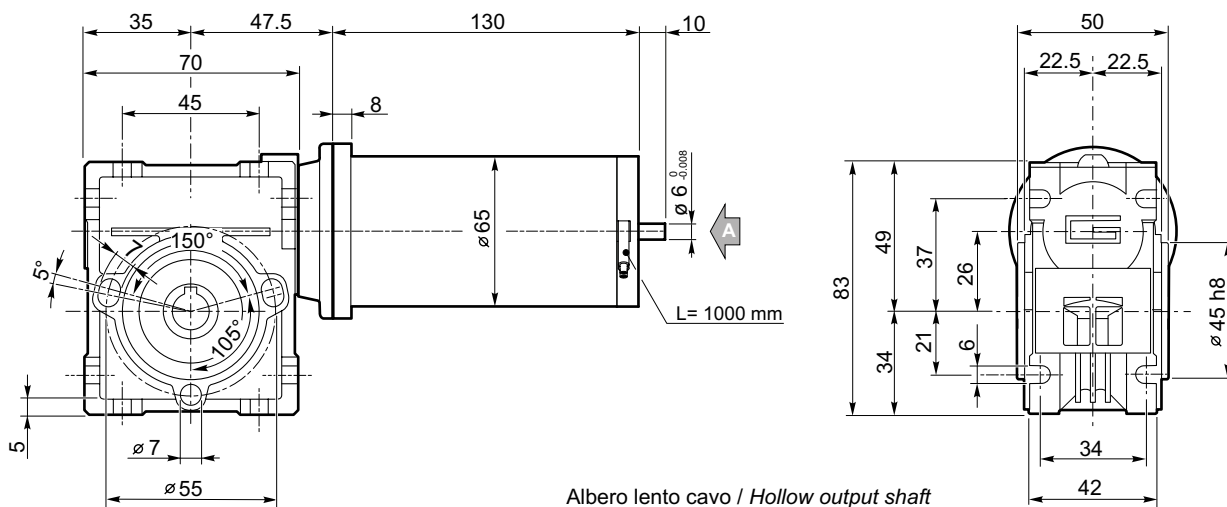
Rapporti di riduzione i
Ratio i



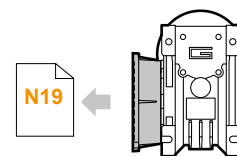
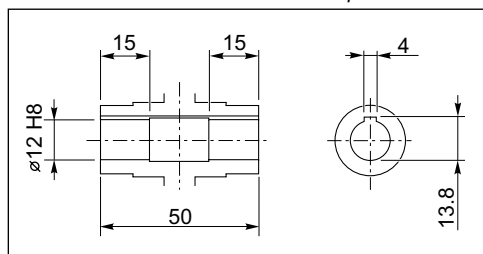
Dimensioni

Dimensions

ECM070/026 U

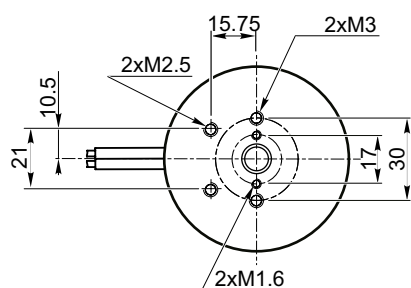


Albero lento cavo / Hollow output shaft



ECM070/026 F

Vista da A
View from A



Freno / Brake



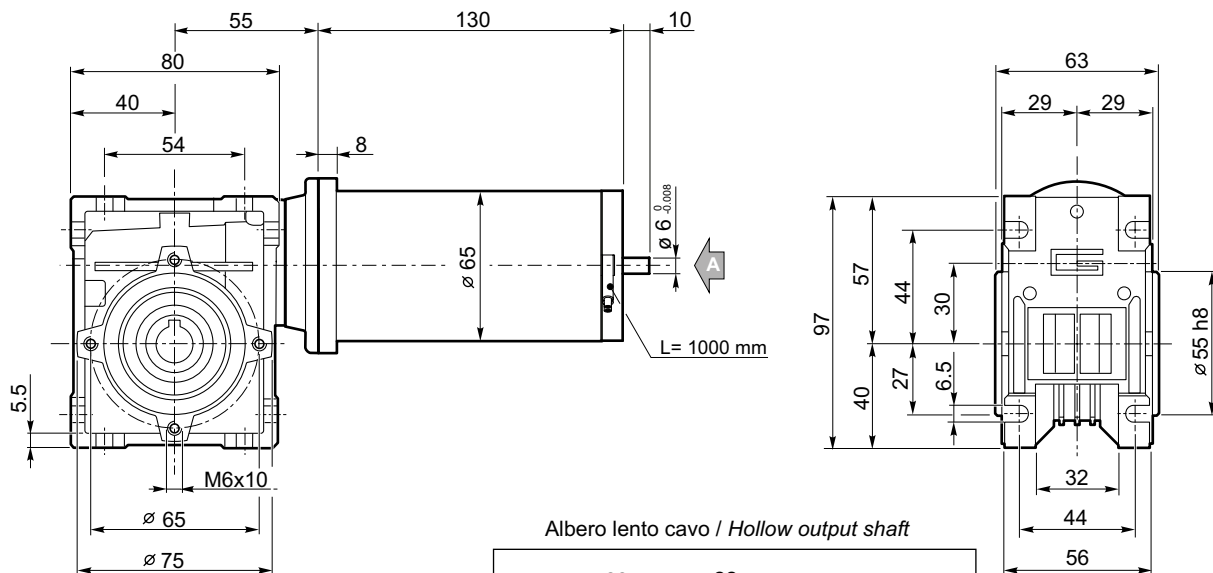
H23

Encoder

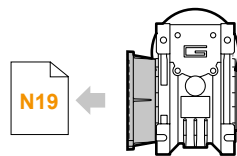
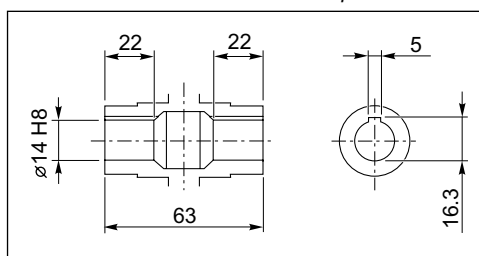


H24

ECM070/030 U

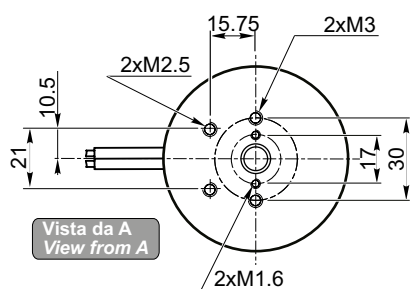


Albero lento cavo / Hollow output shaft



ECM070/030 F

Vista da A
View from A



Freno / Brake

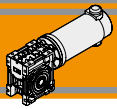


H23

Encoder



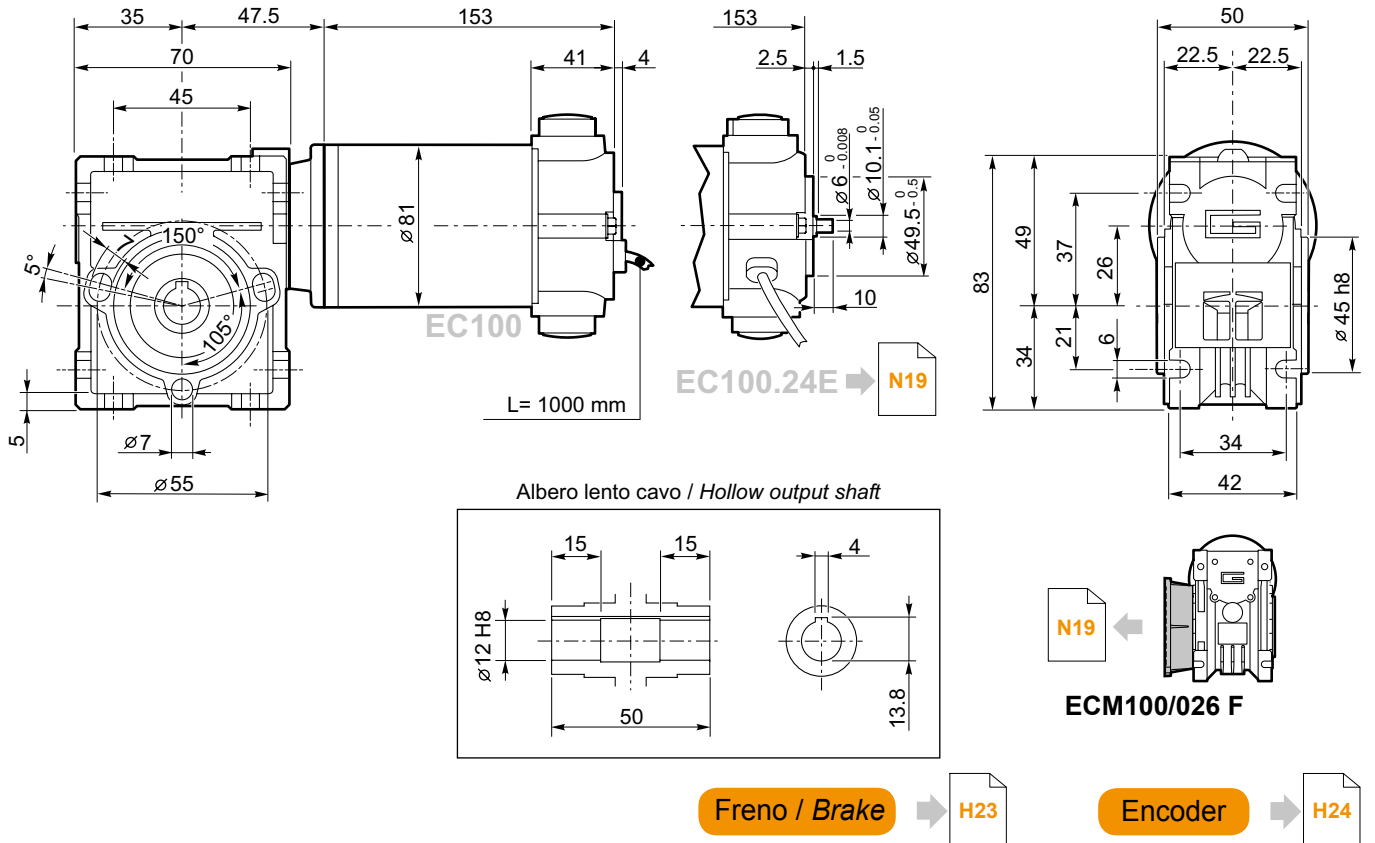
H24



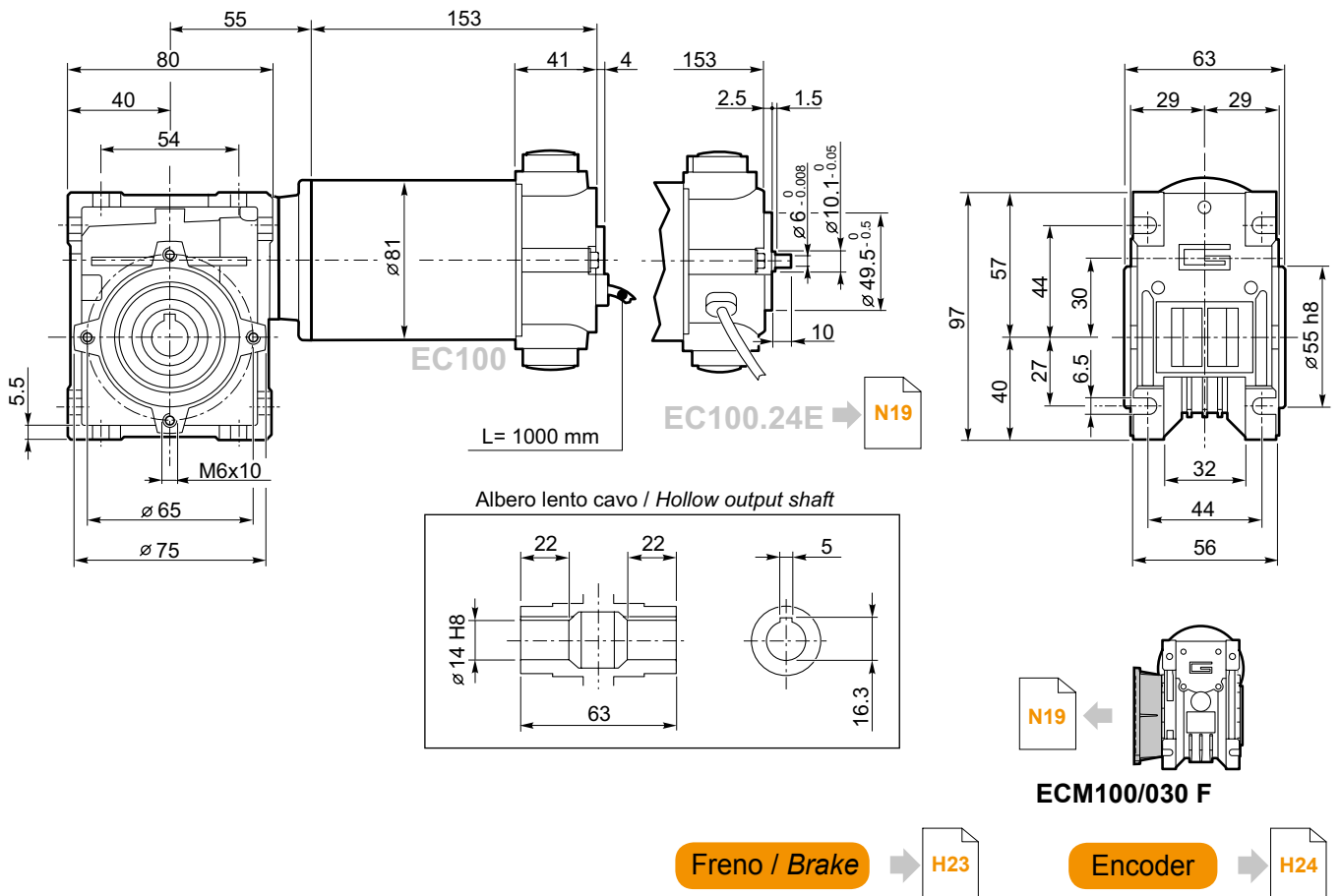
Dimensioni

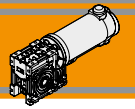
Dimensions

ECM100/026 U



ECM100/030 U

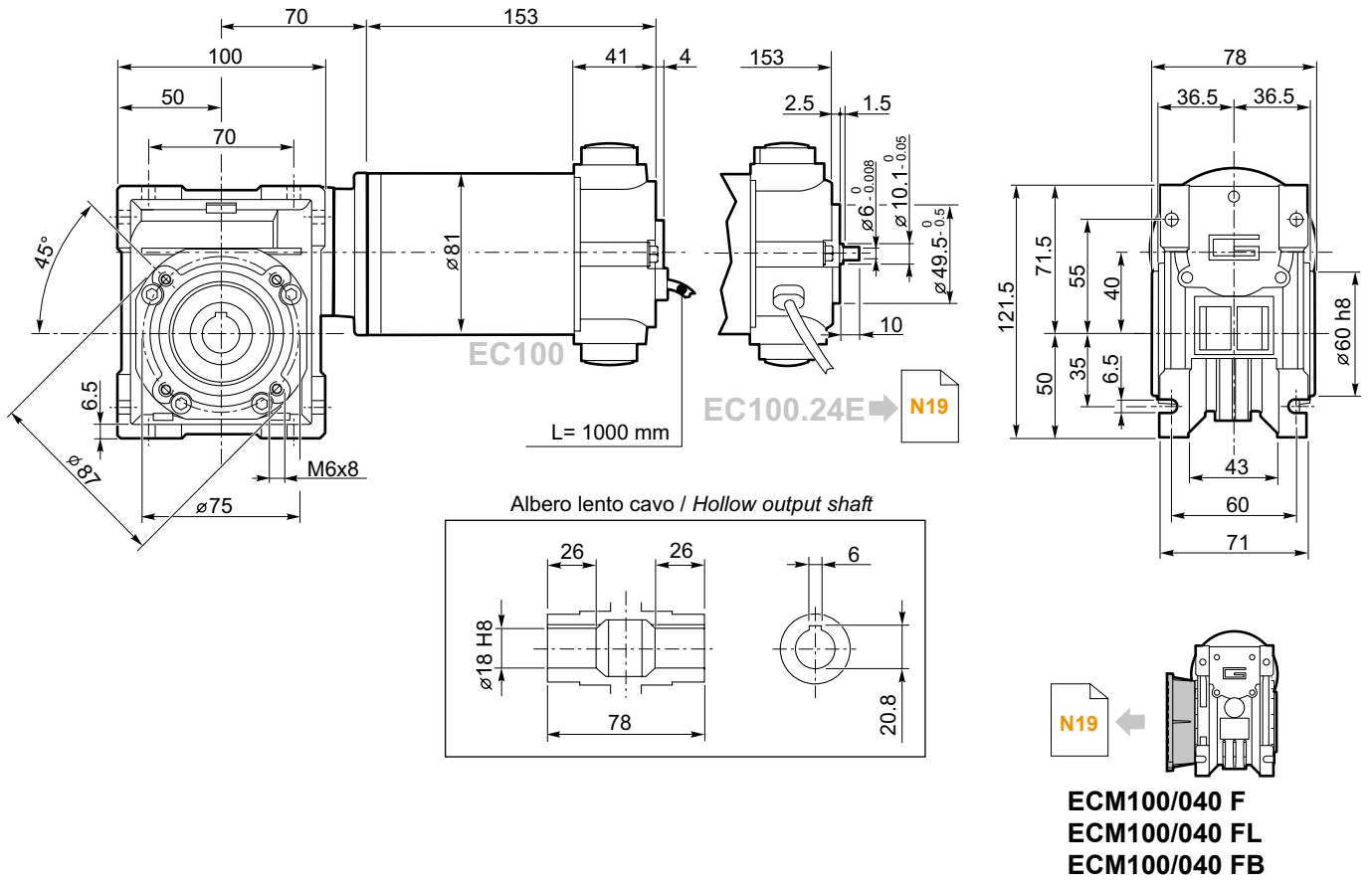




Dimensioni

Dimensions

ECM100/040 U

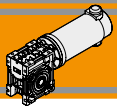


Freno / Brake →



Encoder →

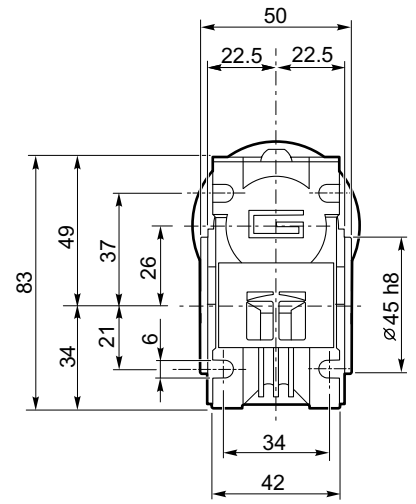
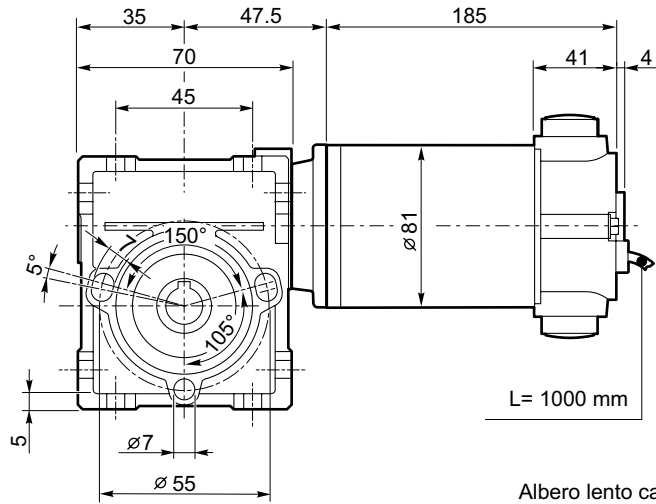




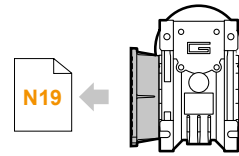
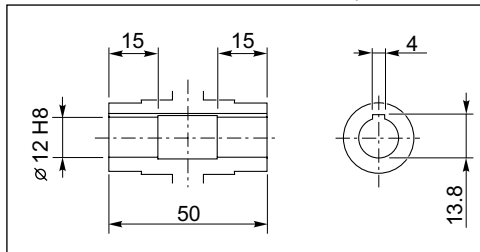
Dimensioni

Dimensions

ECM180/026 U



Albero lento cavo / Hollow output shaft



ECM180/026 F

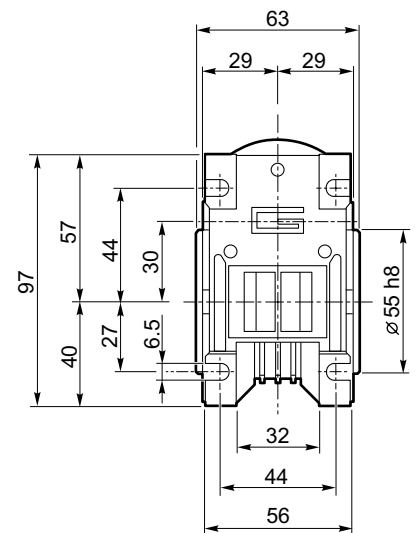
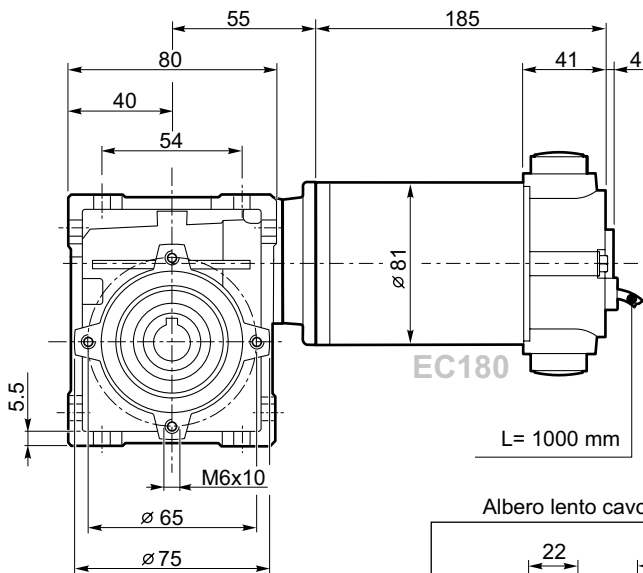
Freno / Brake

H23

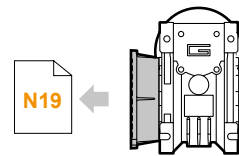
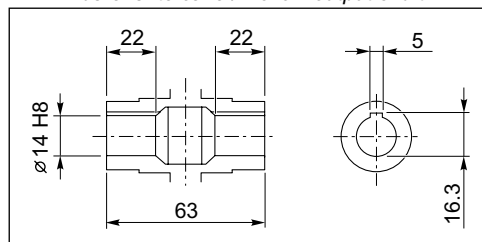
Encoder

H24

ECM180/030 U



Albero lento cavo / Hollow output shaft



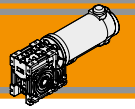
ECM180/030 F

Freno / Brake

H23

Encoder

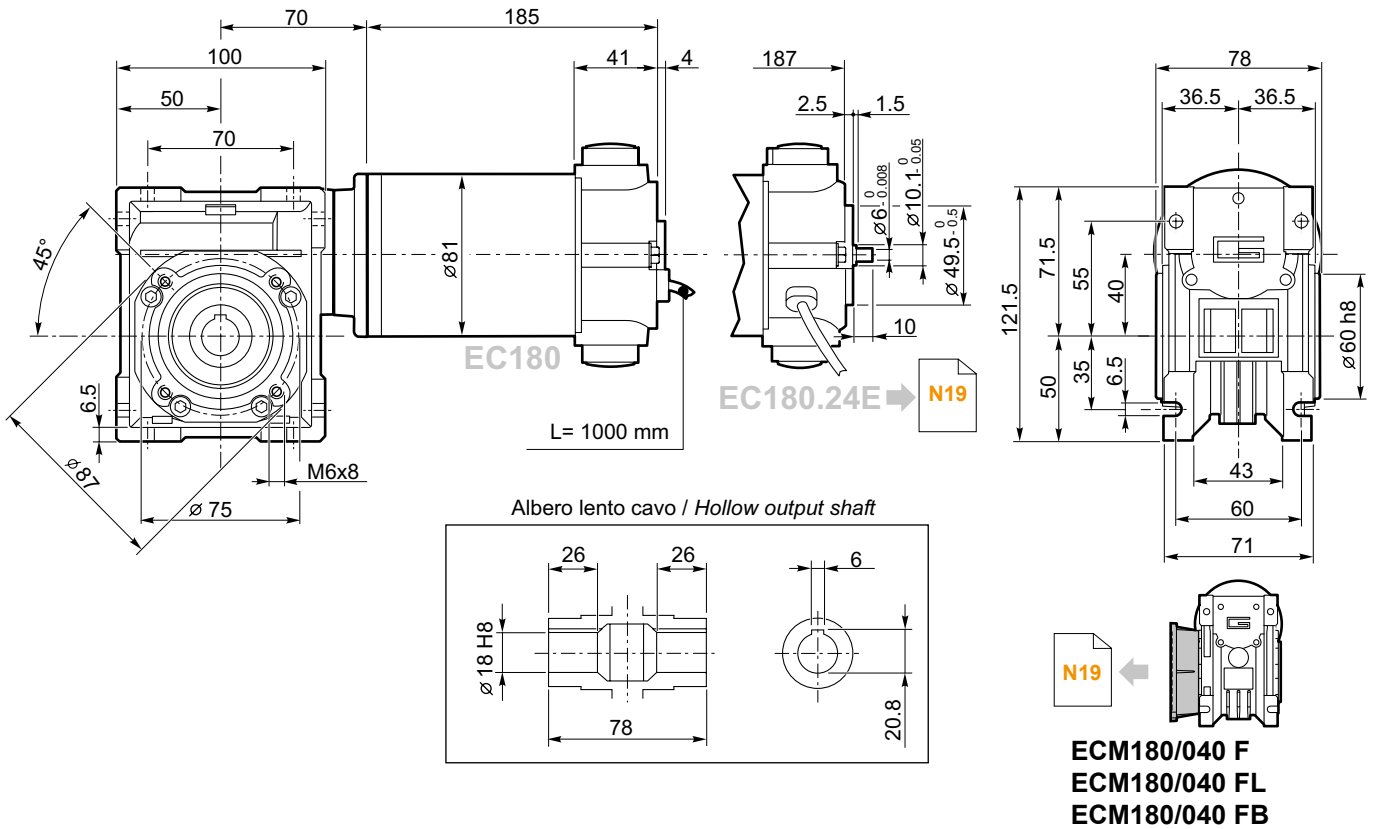
H24



Dimensioni

Dimensions

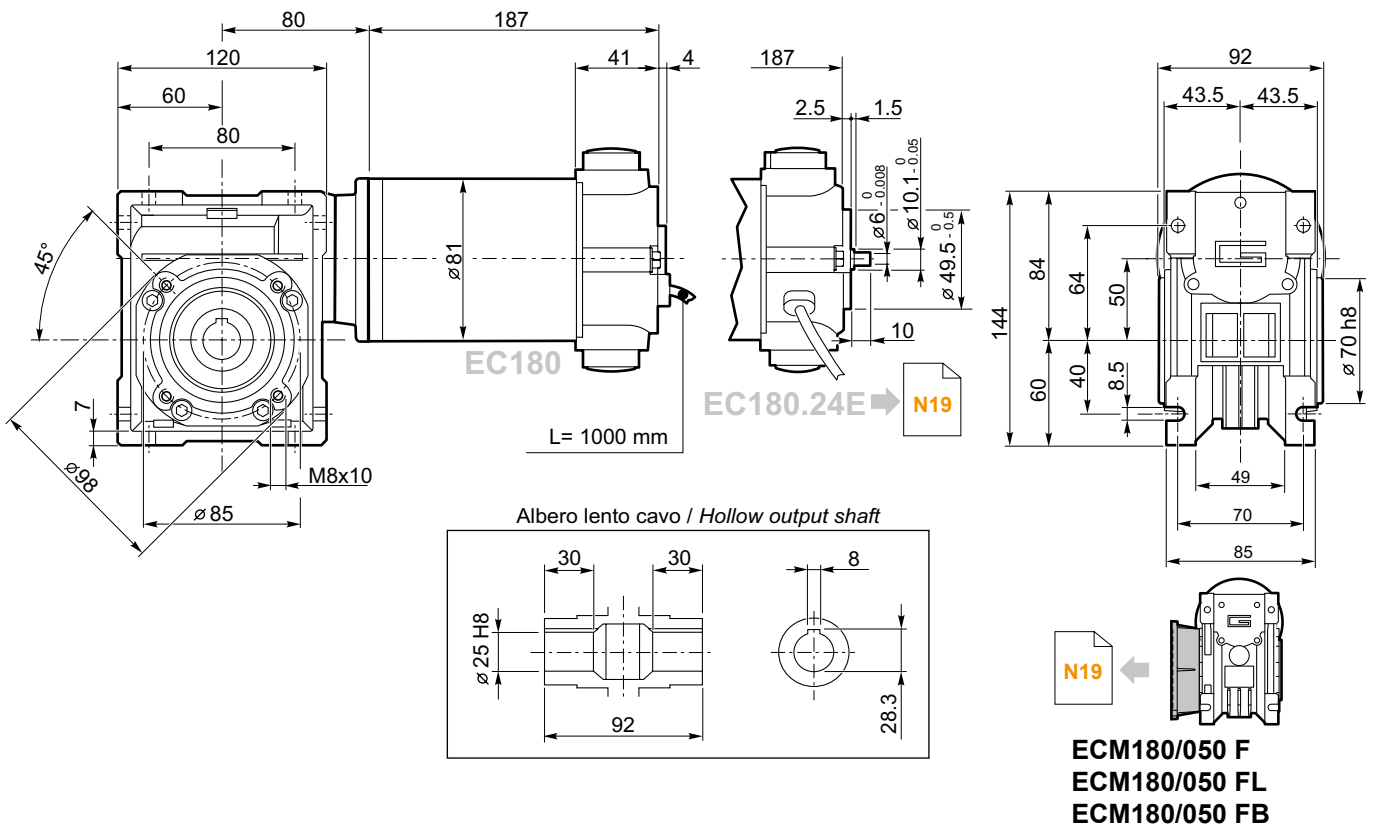
ECM180/040 U



Freno / Brake → H23

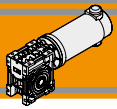
Encoder → H24

ECM180/050 U



Freno / Brake → H23

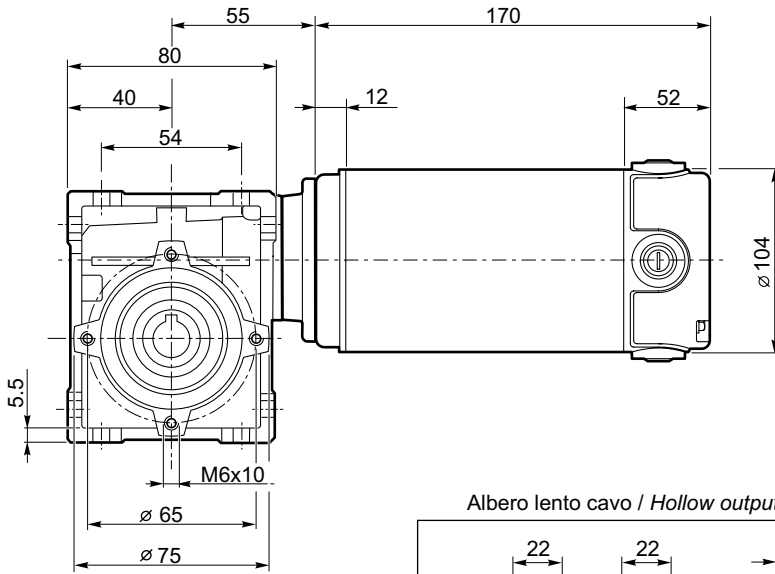
Encoder → H24



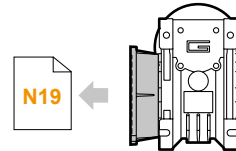
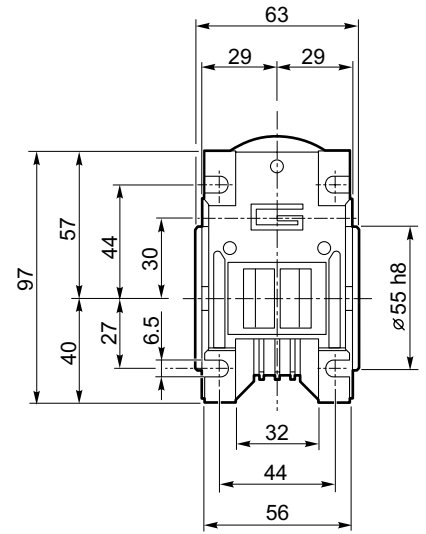
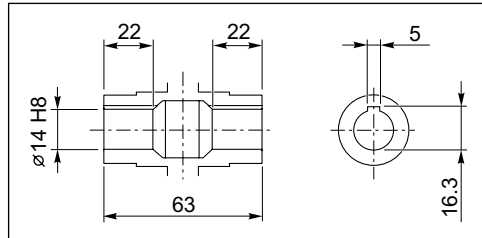
Dimensioni

Dimensions

ECM250/030 U

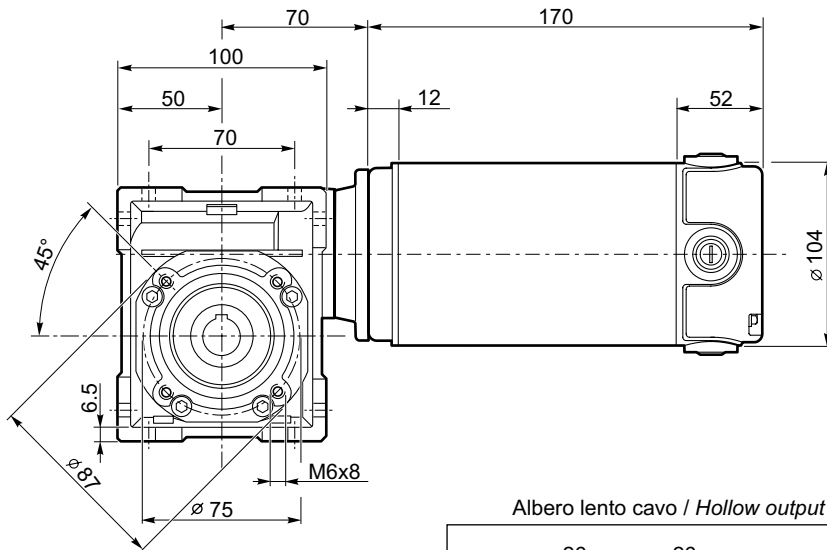


Albero lento cavo / Hollow output shaft

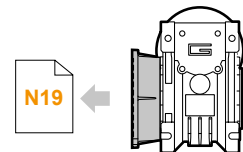
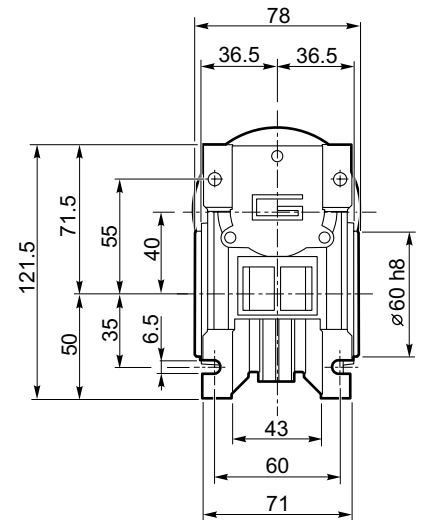
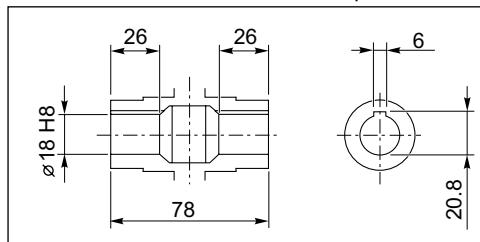


ECM250/030 F

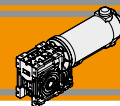
ECM250/040 U



Albero lento cavo / Hollow output shaft



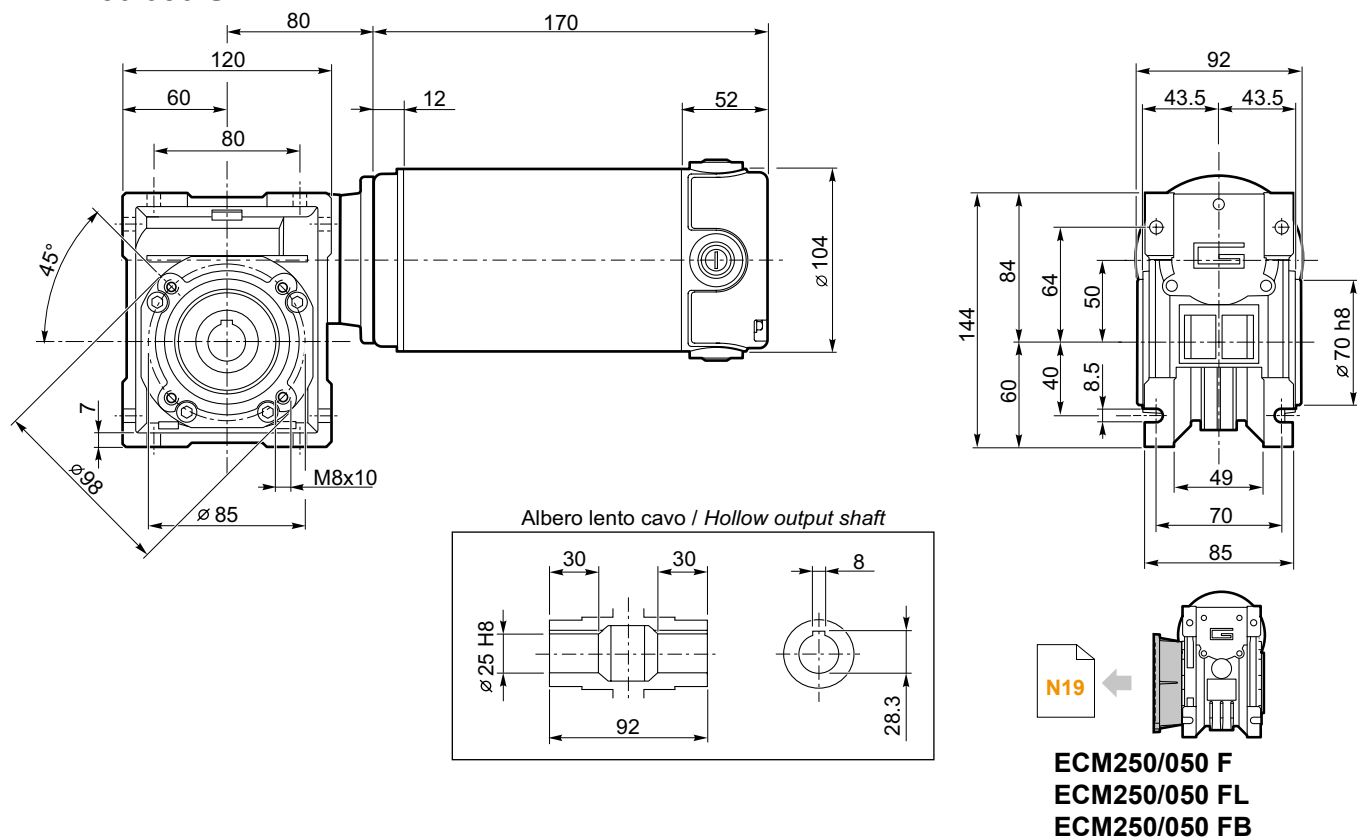
ECM250/040 F
ECM250/040 FL
ECM250/040 FB



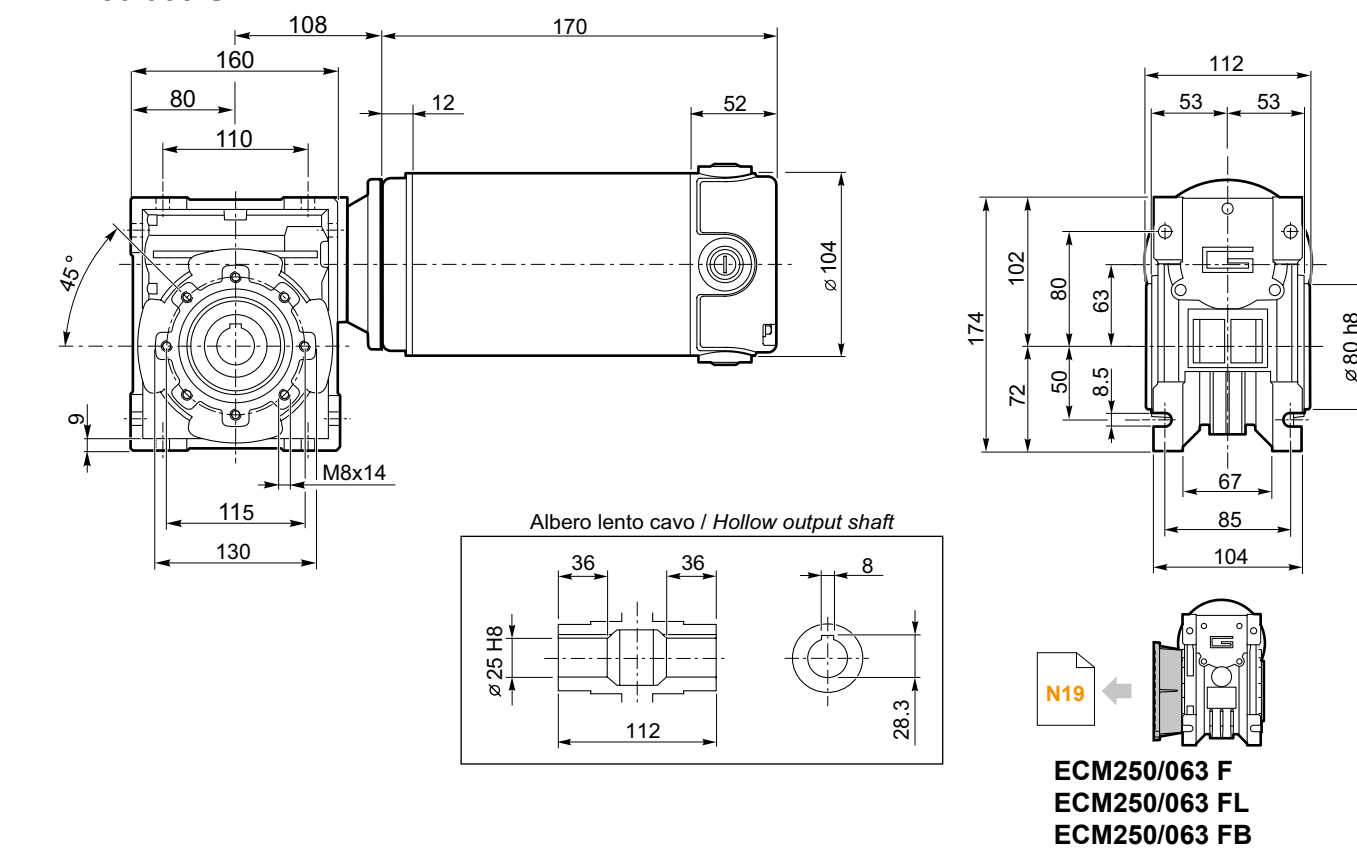
Dimensioni

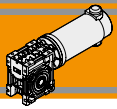
Dimensions

ECM250/050 U



ECM250/063 U

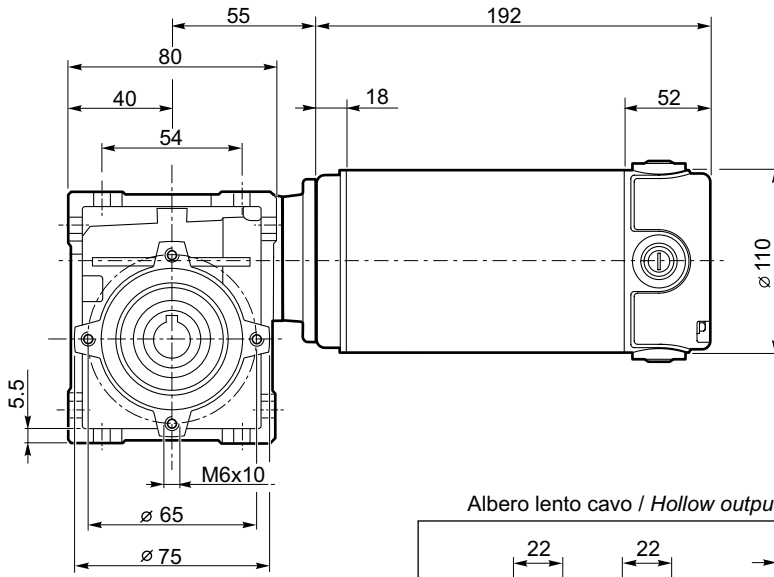




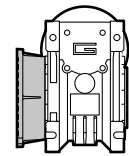
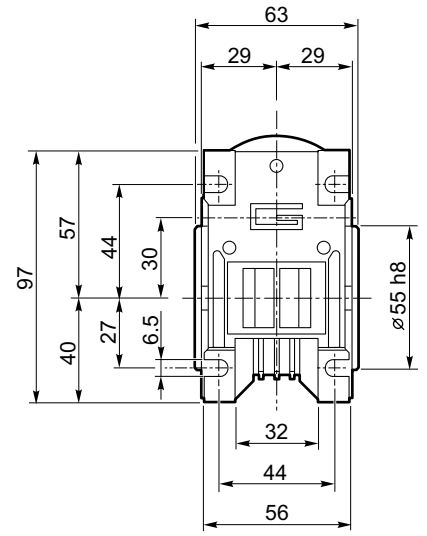
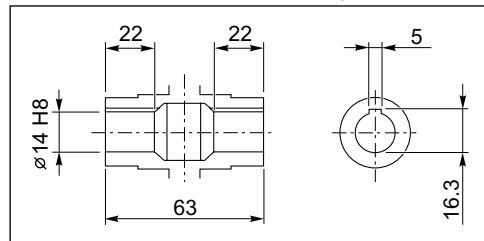
Dimensioni

Dimensions

ECM350/030 U



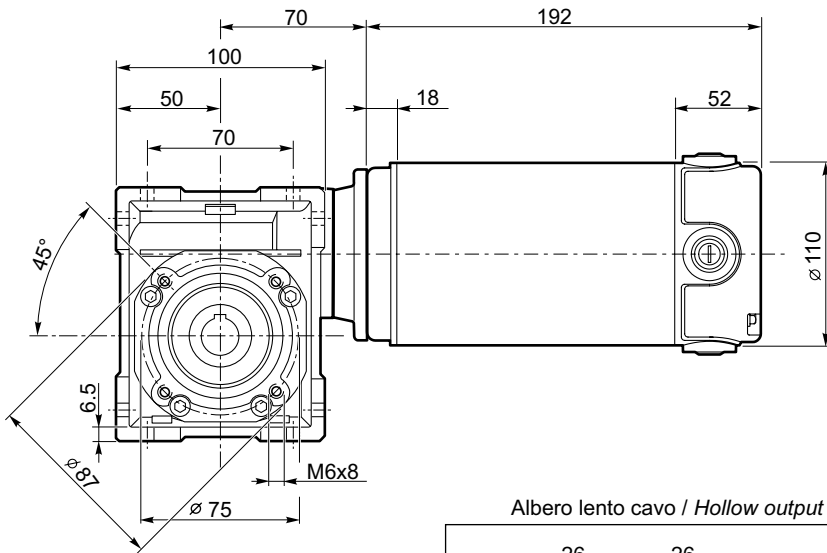
Albero lento cavo / Hollow output shaft



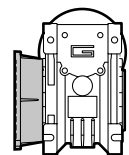
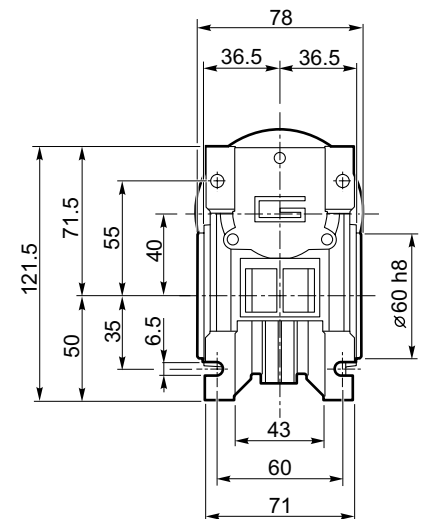
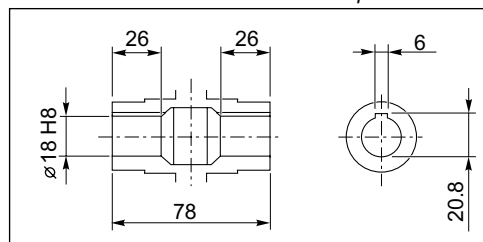
ECM350/030 F

Freno / Brake → **H23**

ECM350/040 U

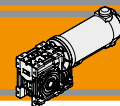


Albero lento cavo / Hollow output shaft



ECM350/040 F
ECM350/040 FL
ECM350/040 FB

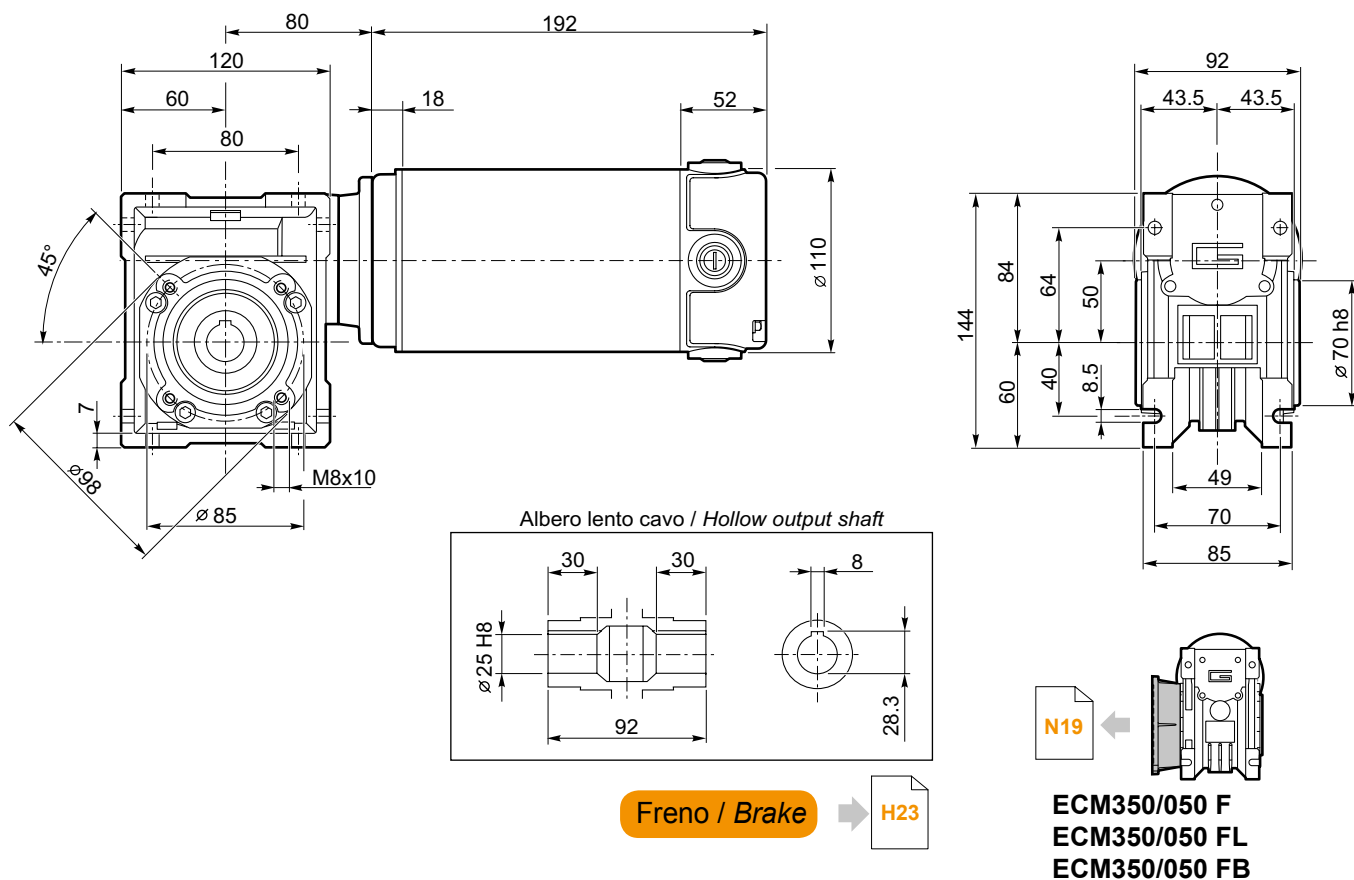
Freno / Brake → **H23**



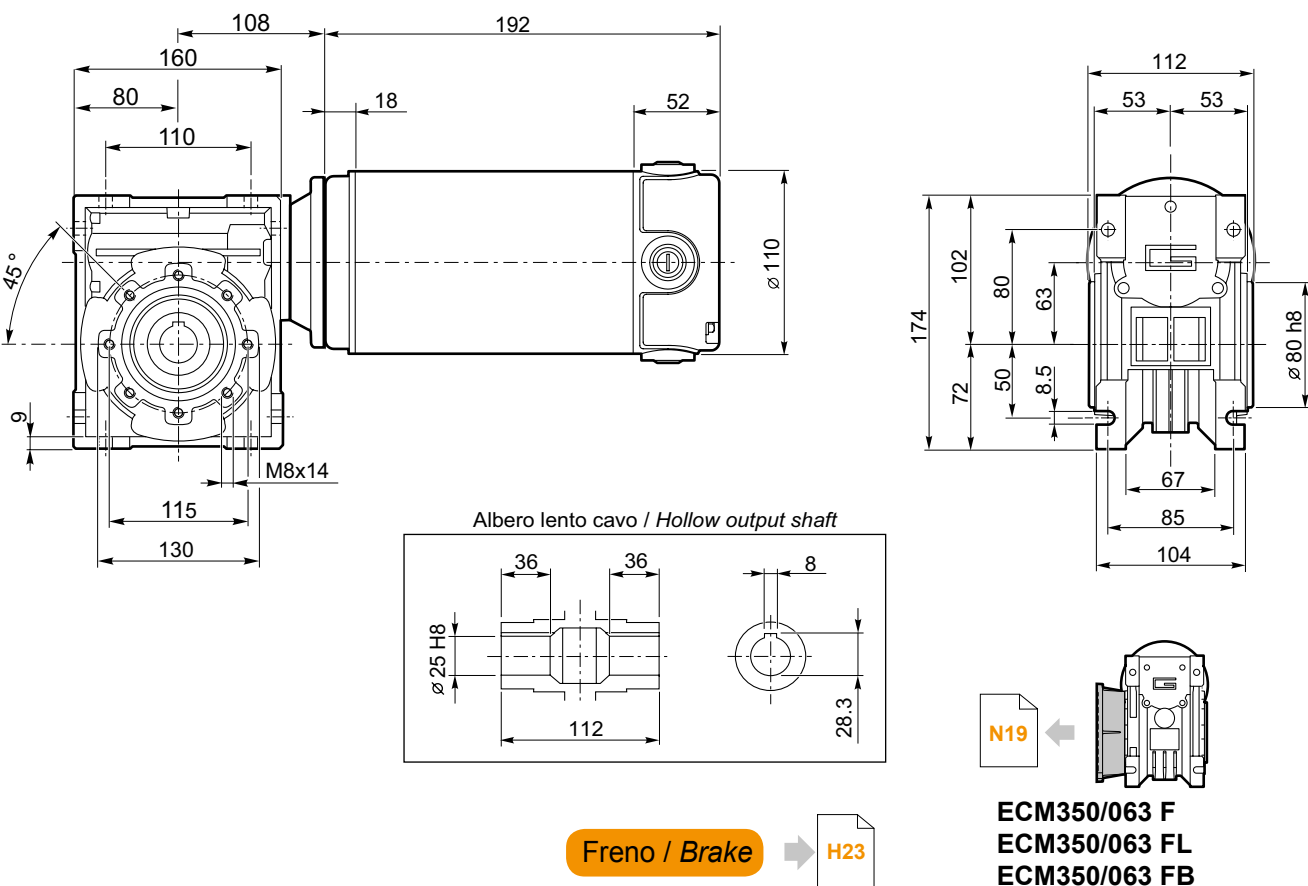
Dimensioni

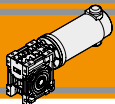
Dimensions

ECM350/050 U

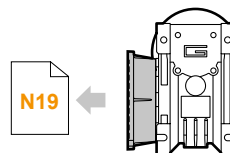
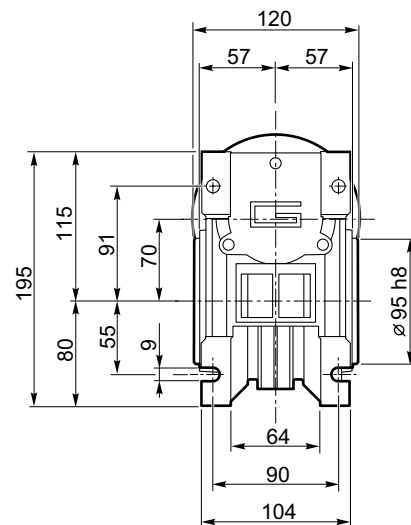
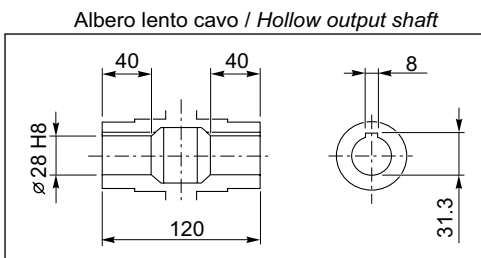
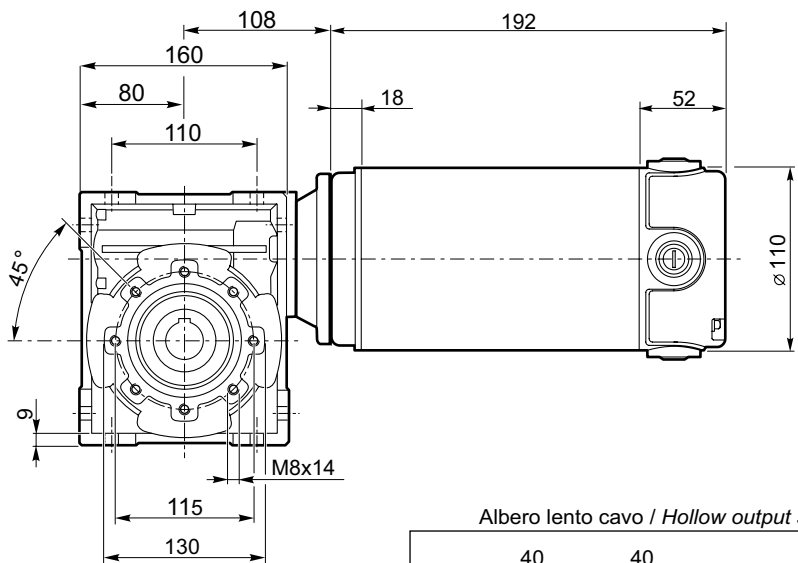


ECM350/063 U





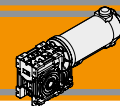
ECM350/070 U



ECM350/070 F

Freno / Brake

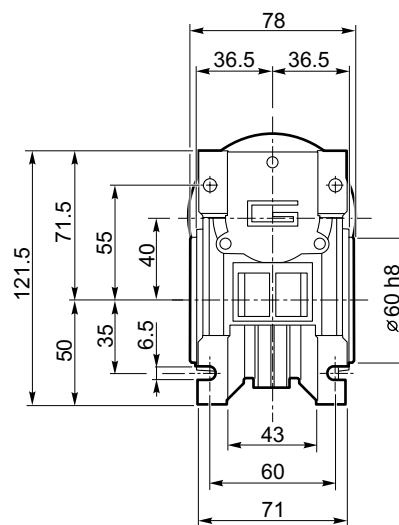
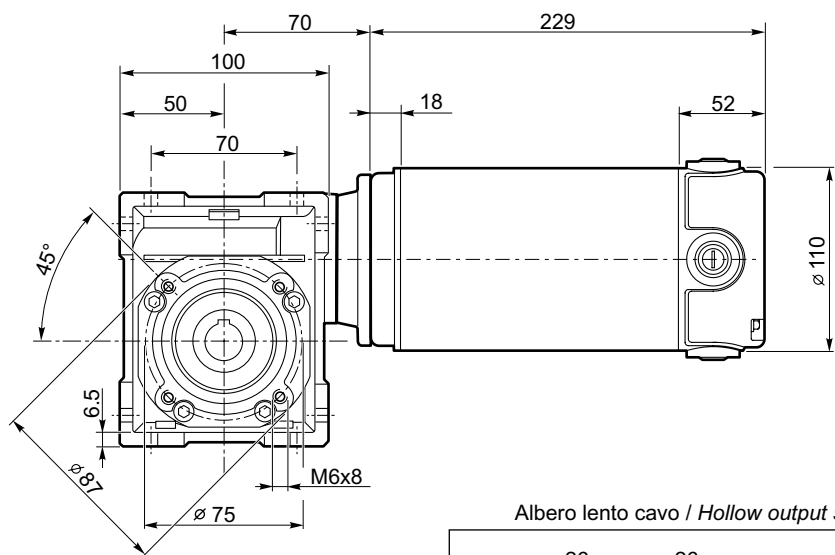




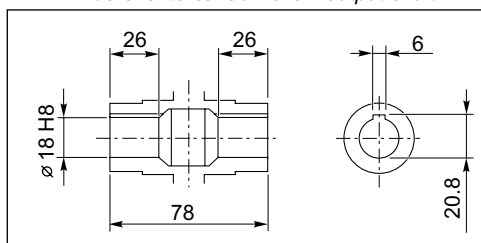
Dimensioni

Dimensions

ECM600/040 U



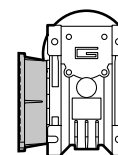
Albero lento cavo / Hollow output shaft



Freno / Brake

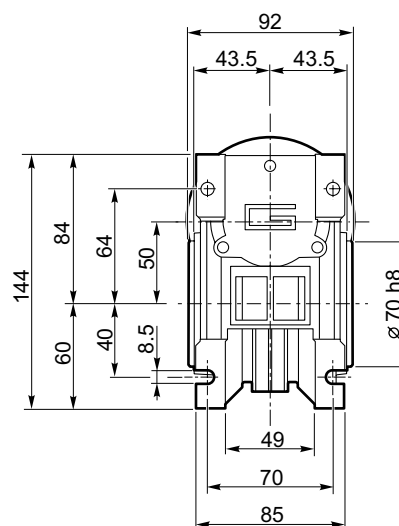
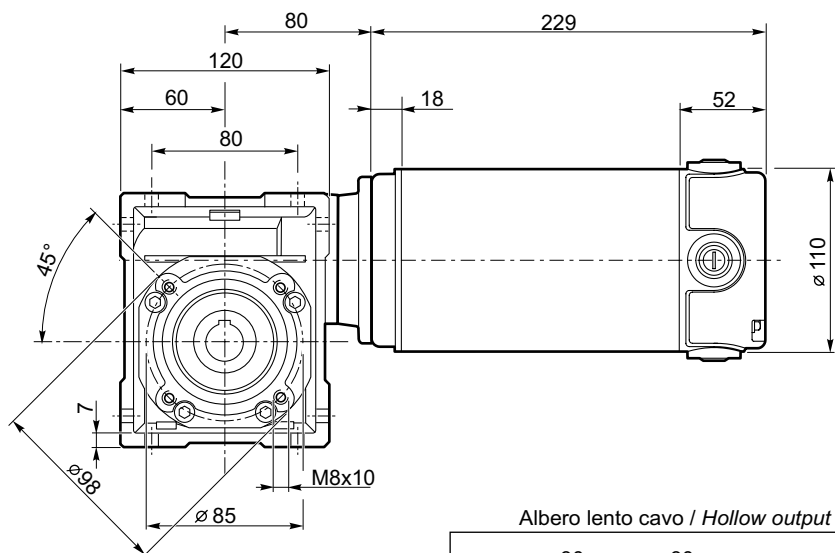
H23

N19

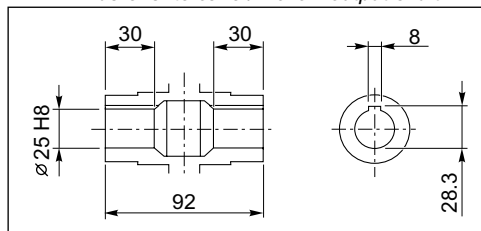


ECM600/040 F
ECM600/040 FL
ECM600/040 FB

ECM600/050 U



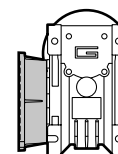
Albero lento cavo / Hollow output shaft



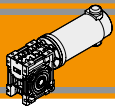
Freno / Brake

H23

N19



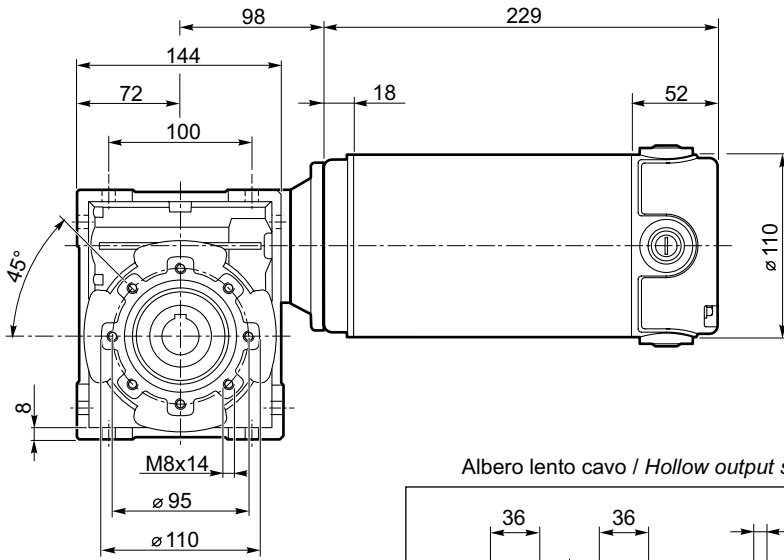
ECM600/050 F
ECM600/050 FL
ECM600/050 FB



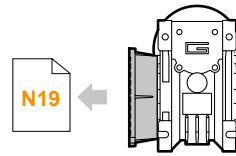
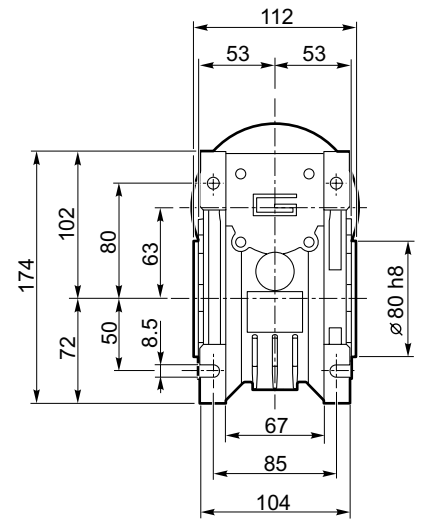
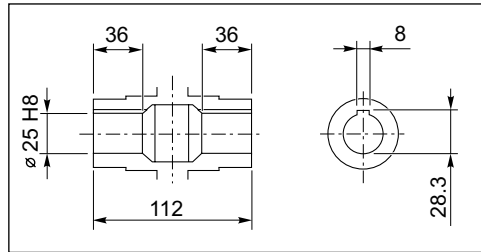
Dimensioni

Dimensions

ECM600/063 U



Albero lento cavo / Hollow output shaft

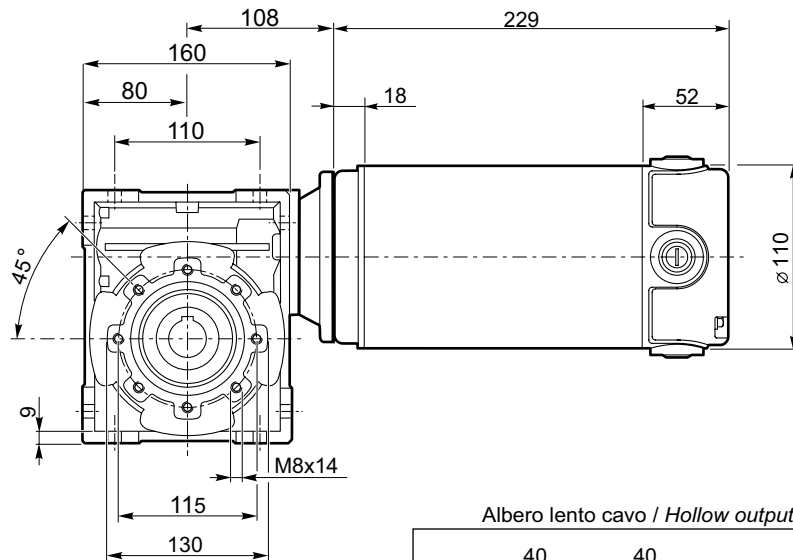


ECM600/063 F
ECM600/063 FL
ECM600/063 FB

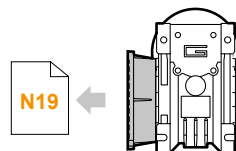
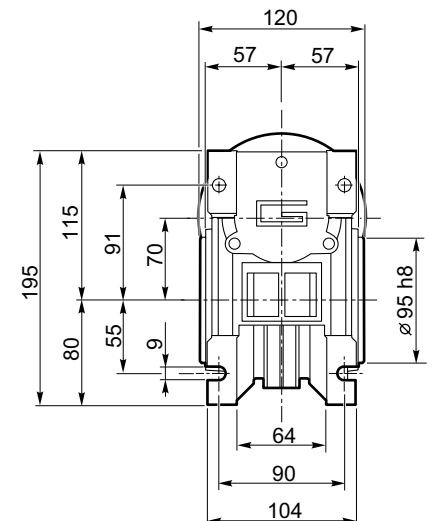
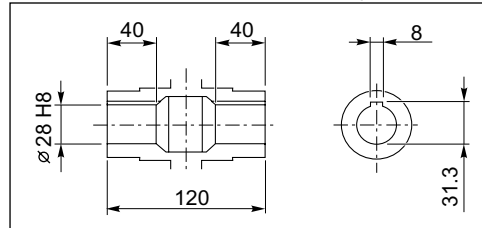
Freno / Brake

H23

ECM600/070 U



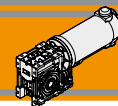
Albero lento cavo / Hollow output shaft



ECM600/070 F

Freno / Brake

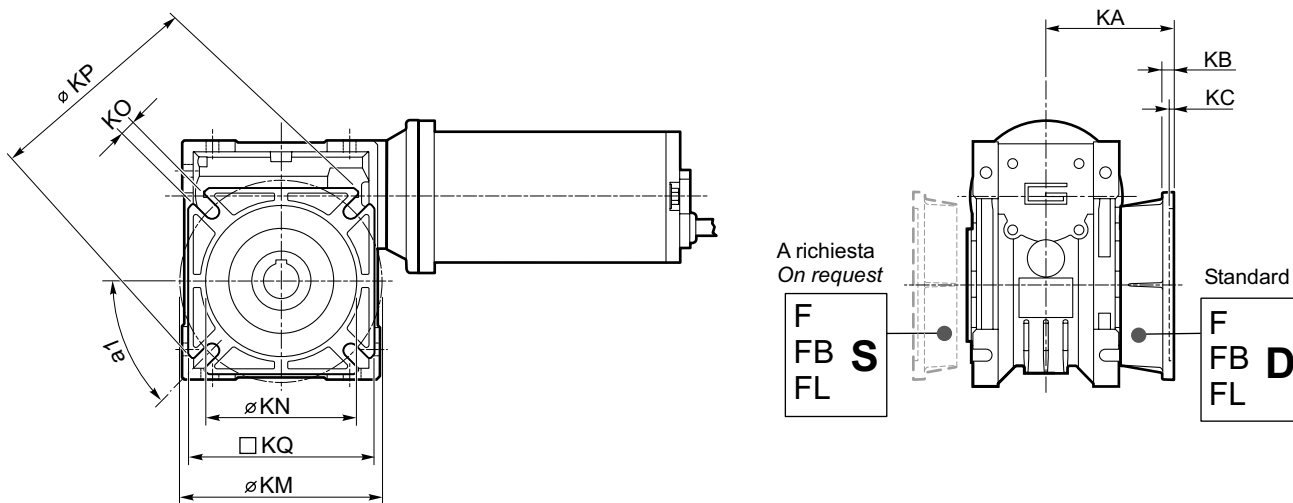
H23



Dimensioni

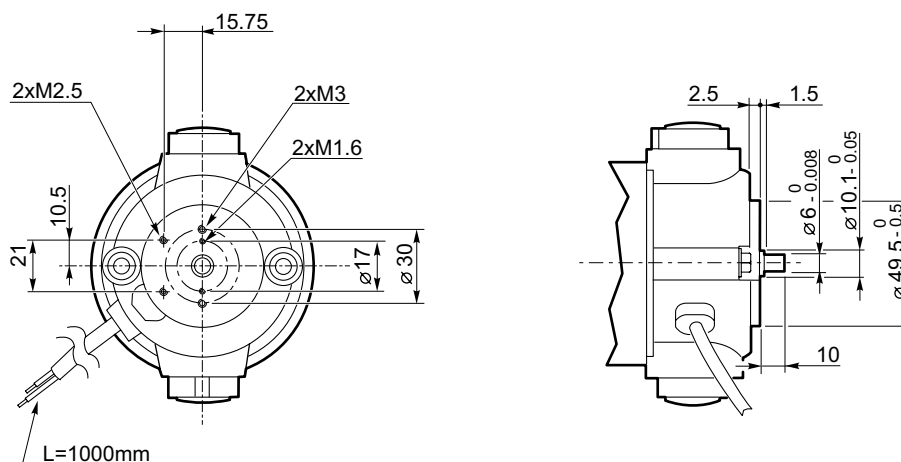
Dimensions

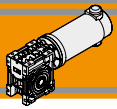
ECM.../... F... Flange uscita / Output flanges



CM	CM..F									CM..FB						CM..FL									
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
026	45°	45	6	4.5	55-69	40	6.5(n.4)	75	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
030	45°	54.5	6	4	68	50	6.5(n.4)	80	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
040	45°	67	7.5	4	80-95	60	9(n.4)	110	95	80	8.5	5	115-125	95	9.5(n.4)	140	112	97	7.5	4.5	80-95	60	9(n.4)	110	95
050	45°	90	9	5	90-110	70	11(n.4)	125	110	89	9	5	130-145	110	9.5(n.4)	160	132	120	9	5	90-110	70	11(n.4)	125	110
063	45°	82	10	6	150-160	115	11(n.4)	180	142	98	10	5	165-180	130	11(n.4)	200	160	112	10	6	150-160	115	11(n.4)	180	142
070	45°	107	13	6	165-180	130	14(n.4)	200	170	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

EC100.24E
EC180.24E

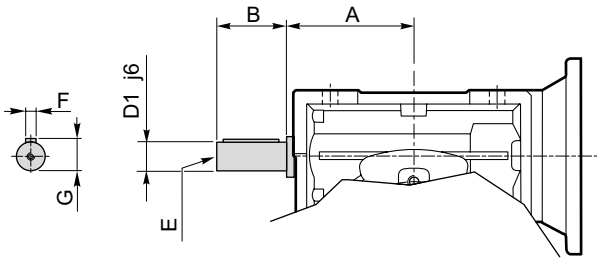




Opzioni

Options

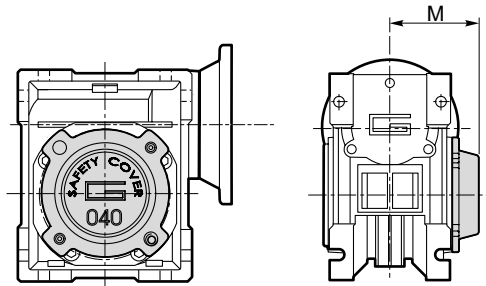
VS - Vite sporgente / Extended input shaft



	A	B	D ₁ j6	E	F	G
CM 030	45	20	9	M4	3	10.2
CM 040	53	23	11	M5	4	12.5
CM 050	64	30	14	M6	5	16
CM 063	75	40	19	M6	6	21.5
CM 070	84	40	19	M6	6	21.5

Costruito su richiesta
Built on request

SC - Safety cover



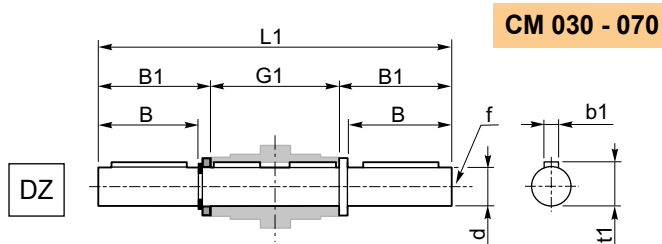
	M
CM 030	47
CM 040	54.5
CM 050	62.5
CM 063	73
CM 070	75

Accessori

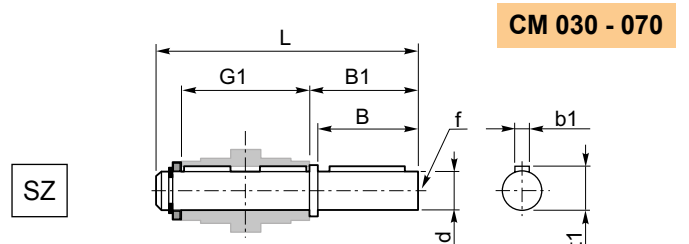
Accessories

Albero lento

Output shaft

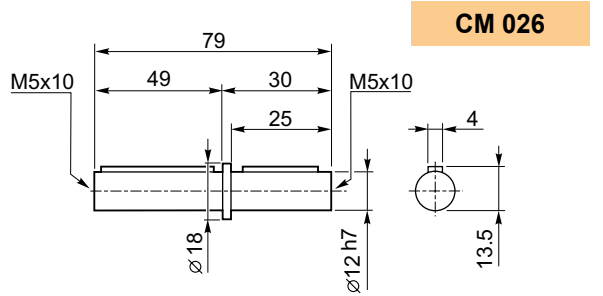


CM 030 - 070



CM 030 - 070

	d h7	B	B1	G1	L	L1	f	b1	t1
CM 030	14	30	32.5	63	102	128	M6	5	16
CM 040	18	40	43	78	128	164	M6	6	20.5
CM 050	25	50	53.5	92	153	199	M10	8	28
CM 063	25	50	53.5	112	173	219	M10	8	28
CM 070	28	60	63.5	120	192	247	M10	8	31

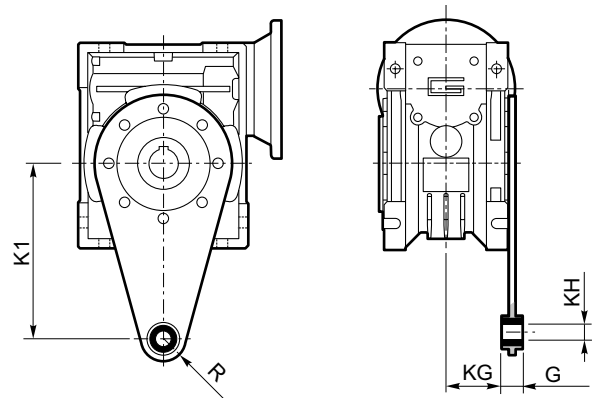


CM 026

Braccio di reazione

Torque arm

	K1	G	KG	KH	R
CM 030	85	14	23	8	15
CM 040	100	14	31	10	18
CM 050	100	14	38	10	18
CM 063	150	14	47.5	10	18
CM 070	200	25	46.5	20	30





MA TRANSTECNO S.A.P.I. DE C.V.
 Av. Mundial # 176, Parque Industrial
 JM Apodaca, Nuevo León,
 C.P. 66600
 MÉXICO
 T +52 8113340920
 info@transtecno.com.mx
 www.transtecno.com.mx



TRANSTECNO SRL
 Via Caduti di Sabbiano, 11/D-E
 40011 Anzola dell'Emilia (BO)
 ITALY
 T+39 051 64 25 811
 F +39 051 73 39 04
 sales@transtecno.com
 www.transtecno.com



**HANGZHOU TRANSTECNO POWER
 TRANSMISSIONS CO LTD**
 Changlian Road, Fengdu Industry zone,
 Pingyao Town Yuhang Area,
 Hangzhou, 311115 - CHINA
 T +86 571 86 92 02 60
 F +86 571 86 92 18 10
 info-china@transtecno.com
 www.transtecno.cn



TRANSTECNO U.S.A. LLC
 5440 S.W. 156th Place Miami,
 FL 33185 - USA
 Tel: +1 (305) 220-4423
 Fax: +1 (305) 220-5945
 usaoffice@transtecno.com



TRANSTECNO B.V.
 De Stuwdam, 43
 3815 KM Amersfoort - NETHERLANDS
 Tel: +31(0) 33 45 19 505
 Fax: +31(0) 33 45 19 506
 info@transtecno.nl
 www.transtecno.nl



SALES OFFICE GUANGZHOU
 Room 401A, LeTian Building, No.188 TangAn Road,
 Tianhe District, Guangzhou City, 510665 - CHINA
 Tel: +86 20 387 760 57
 Fax: +86 20 387 761 27
 guangzhouoffice@transtecno.com



SALES OFFICE BRAZIL
 Rua Dr. Freire Alemão 155 / 402 - CEP. 90450-060
 Auxiliadora Porto Alegre RS - BRAZIL
 Tel: +55 51 3251 5447
 Fax: +55 51 3251 5447
 Mobile: +55 51 811 45 962
 braziloffice@transtecno.com
 www.transtecno.com.br



**TRANSTECNO IBÉRICA
 THE MODULAR GEARMOTOR, S.A.**
 C/Enginy, 2 Nave 6 - 08850 Gavà (Barcelona) - SPAIN
 Tel: +34 931 598 950
 info@transtecno.es
 www.transtecno.es



SALES OFFICE INDIA
 A/10, Anagha, S.N. Road, Mulund (W) Mumbai
 400080 - INDIA
 Tel: +91 9820614698
 Fax-Italy: +39 051 733 904
 indiaoffice@transtecno.com



SALES OFFICE FRANCE
 12 Impasse des Mûriers
 38300 Ruy - FRANCE
 Tel: +33 (0) 6 85 12 09 87
 Fax-Italy: +39 051 733 904
 franceoffice@transtecno.com
 www.transtecno.fr



SALES OFFICE SOUTH KOREA
 D-304 Songdo BRC Smart Valley 30, Songdomirae-ro,
 Yeonsu-gu, Incheon, 406-840 - KOREA
 Tel: +82 70 8288 2107
 Fax: +82 32 815 2107
 Mobile: +82 10 5094 2107
 koreaoffice@transtecno.com



SALES OFFICE OCEANIA
 Unit 3, 18-24 Ricketts Road, Mount Waverley 3149
 Victoria - AUSTRALIA
 Tel: +61 9544 8005
 Fax: +61 9543 8005
 Mobile: +61 0438 060 997
 oceaniaoffice@transtecno.com
 www.transtecno.com.au

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