**ECMB****MOTORIDUTTORI C.C. AD ASSI ORTOGONALI**
PERMANENT MAGNETS D.C. BEVEL HELICAL GEARMOTORS**Caratteristiche tecniche****Technical features**

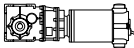
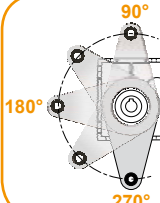
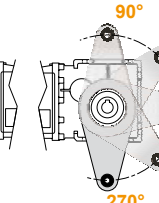
Le caratteristiche principali dei motoriduttori a corrente continua della serie ECMB sono:

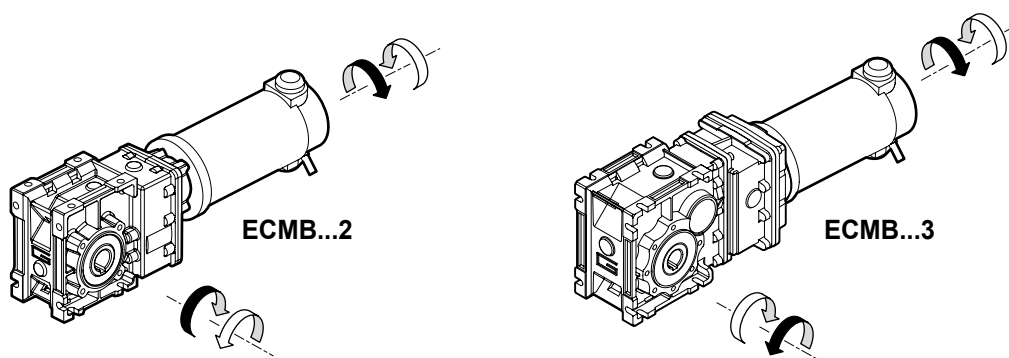
The main features of ECMB D.C. gearmotor range are:

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

- 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
- Ground helical gears

Designazione**Classification**

MOTORIDUTTORE / GEARMOTOR															
ECMB		100/402					U	9.2	D20	SZDX	BRSX	90	240		
Tipo Type		Grandezza Size					Versione Riduttore Gearbox Version	Rapporto Ratio	Albero di uscita Output shaft	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Versione Motore Motor Version		
ECMB		070/402	100/402	180/402	250/402	350/402	600/402	U FD FS FLD FLS FBD FBS	Vedere tabella See tables	Vedere tabella See tables	SZDX SZSX DZ	BRDX BRSX	0° 90° 180° 270°	120 240 24E	
		100/502	180/502	250/502	350/502	600/502	600/633								
Versione Riduttore Gearbox Version		Albero di uscita Output shaft					Braccio di reazione Torque arm		Angolo Angle						
 U		 FD FLD FBD		 FS FLS FBS		 SZDX		 SZSX		 DZ		 BRDX		 BRSX	
									 90°					 180°	

Sensi di rotazione**Direction of rotation****Simbologia****Symbols**

n_1	[min ⁻¹]	Velocità in ingresso / Input speed
n_2	[min ⁻¹]	Velocità in uscita / Output speed
i		Rapporto di riduzione / Ratio
P_1	[kW]	Potenza in entrata / Input power

M_2	[Nm]	Coppia in uscita in funzione di P_1 / Output torque referred to P_1
sf		Fattore di servizio / Service factor
A_2	[N]	Carico assiale ammissibile in uscita / Permitted output axial load
R_2	[N]	Carico radiale ammissibile in uscita / Permitted output radial load

Lubrificazione

Tutti i riduttori nelle taglie 402, 502 e 633 sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

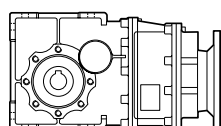
Lubrication

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use sizes 402, 502 and 603 in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.

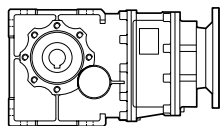
CMB	Quantità di olio (litri) / <i>Oil quantity (litres)</i>					
	B3	B8	B6	B7	V5	V6
402	0.4					
502	0.52					
633	1.3					
	Lubrificati a vita / <i>Life lubrication</i>					

N.B.
 Le quantità di lubrificante sono indipendenti dalla posizione di montaggio per le taglie 402, 502 e 603.
The oil quantity does not depend on mounting position for sizes 402, 502 and 603.

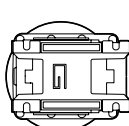
Posizioni di montaggio / Mounting positions



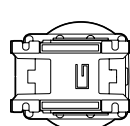
B3
(standard)



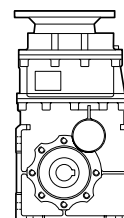
B8



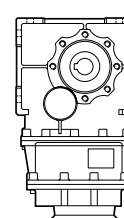
B6



B7



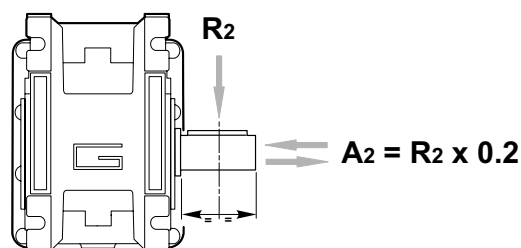
V5



V6

Carichi radiali

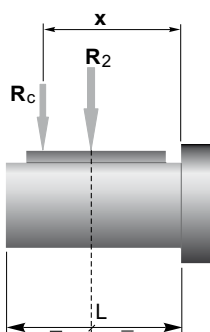
Radial loads



n ₂ [min ⁻¹]	R ₂ [N]		
	CMB 402	CMB 502	CMB 633
400	905	1116	1835
300	996	1228	2020
200	1141	1406	2312
170	1204	1484	2441
140	1414	1743	2604
100	1582	1949	2913
90	1638	2019	3321
60	2047	2490	3801
40	2524	3029	4492
30	2778	3334	5159
20	3180	3816	5906
15	3500	4200	6500
10	3500	4200	6500

Quando il carico radiale risultante non è applicato sulla mezzes-
 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:*

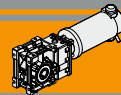


	CMB 402	CMB 502	CMB 633
a	86	104	118
b	66	79	93
R _{2MAX}	3500	4200	6500

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

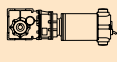
*a, b = valori riportati nella tabella
 a, b = values given in the table*

$$R \leq R_c$$

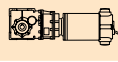


Dati tecnici per servizio S2

Technical data for S2 duty

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
350						
(3000 min ⁻¹)	106	29.5	5.83	28.17	250/633	120/240
	89	35.4	4.86	33.81		
	84	37.6	4.57	35.92		
	77	40.7	4.79	38.88		
	64	49.4	3.95	47.16		
	52	60.7	3.21	57.93		
	49	64.5	3.02	61.63		
	41	77.5	2.52	73.96		
	38	82.3	2.37	78.58		
	32	97.7	1.99	93.33		
	21	147.2	1.33	140.52		
	17	190.4	1.02	181.81		
	14	221.3	0.88	211.31		

500						
(3000 min ⁻¹)	485	9	3.4	6.18	350/402	120/240
	401	11	2.8	7.49		
	326	14	2.3	9.2		
	254	18	2.0	11.83		
	240	19	1.9	12.48		
	202	22	1.6	14.83		
	170	26	1.3	17.63		
	161	28	1.5	18.6		
	134	33	1.3	22.33		
	125	36	1.2	23.91		
	104	43	1.2	28.89		
	97	46	1.1	30.84		
	89	50	1.0	33.57		
	84	53	1.0	35.63		
	70	64	0.8	42.75		
	54	73	0.7	55.31		
	51	73	0.7	59.06		
	47	73	0.7	64.29		
	326	14	4.0	9.20	350/502	120/240
	254	18	4.0	11.83		
	240	19	3.7	12.48		
	202	22	3.2	14.83		
	170	26	2.7	17.63		
	161	28	3.1	18.60		
	134	33	2.6	22.33		
	125	35.8	2.4	23.91		
	104	43	2.3	28.89		
	97	46	2.1	30.84		
	89	50	2.0	33.57		
	84	53	1.8	35.63		
	70	64	1.5	42.75		
	54	83	1.2	55.31		
	51	88	1.1	59.06		
	47	96	1.0	64.29		

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
500						
(3000 min ⁻¹)	139	32	5.3	21.56	350/633	120/240
	113	40	4.3	26.48		
	106	42	4.1	28.17		
	89	51	3.4	33.81		
	84	54	3.2	35.92		
	77	58	3.4	38.88		
	64	71	2.8	47.16		
	52	87	2.2	57.93		
	49	92	2.1	61.63		
	41	111	1.8	73.96		
	38	118	1.7	78.58		
	32	140	1.4	93.33		
	21	210	0.9	140.52		
	17	272	0.7	181.81		
	14	279	0.7	211.31		

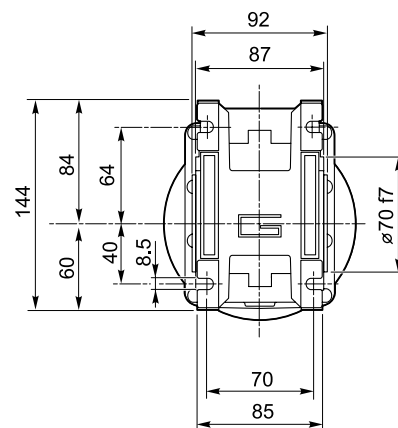
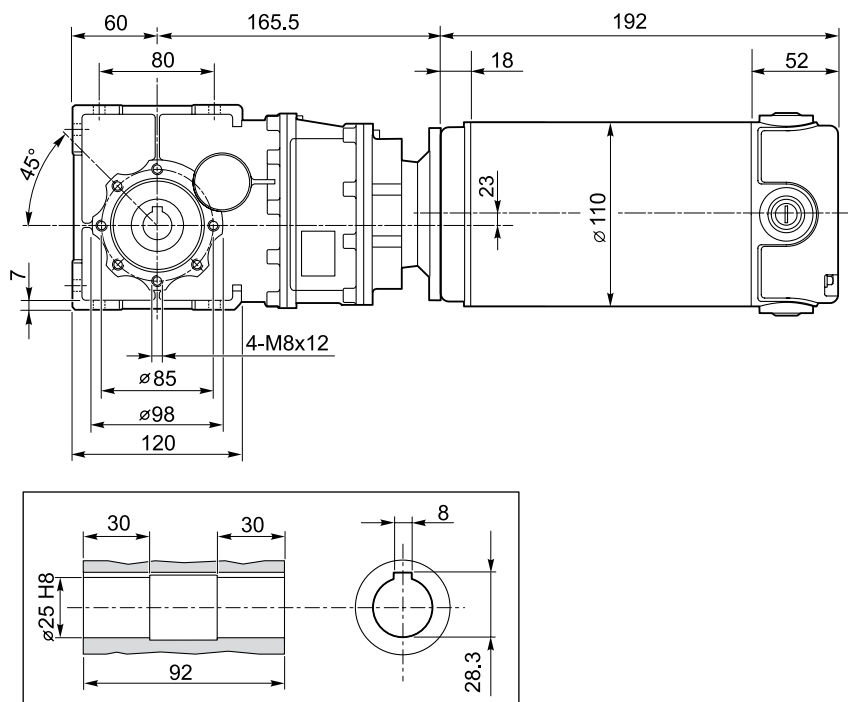
800						
(3000 min ⁻¹)	485	15	2.1	6.18	600/402	120/240
	401	18	1.7	7.49		
	326	22	1.4	9.20		
	254	28	1.2	11.83		
	240	30	1.2	12.48		
	202	36	1.0	14.83		
	170	42	0.8	17.63		
	161	45	1.0	18.60		
	134	53	0.8	22.33		
	125	57	0.8	23.91		
	104	69	0.7	28.89		
	97	73	0.7	30.84		
	89	73	0.7	33.57		
	84	73	0.7	35.63		
	70	73	0.7	42.75		
	54	73	0.7	55.31		
	51	73	0.7	59.06		
	47	73	0.7	64.29		
	485	15	3.7	6.18	600/502	120/240
	401	18	3.1	7.49		
	326	22	2.5	9.20		
	254	28	2.5	11.83		
	240	30	2.3	12.48		
	202	36	2.0	14.83		
	170	42	1.7	17.63		
	161	45	1.9	18.60		
	134	53	1.6	22.33		
	125	57	1.5	23.91		
	104	69	1.4	28.89		
	97	74	1.3	30.84		
	89	80	1.2	33.57		
	84	85	1.1	35.63		
	70	102	1.0	42.75		
	54	132	0.7	55.31		
	51	140	0.7	59.06		
	47	140	0.7	64.29		



Dimensioni

Dimensions

ECMB350/502 U



ECMB350/633 U

