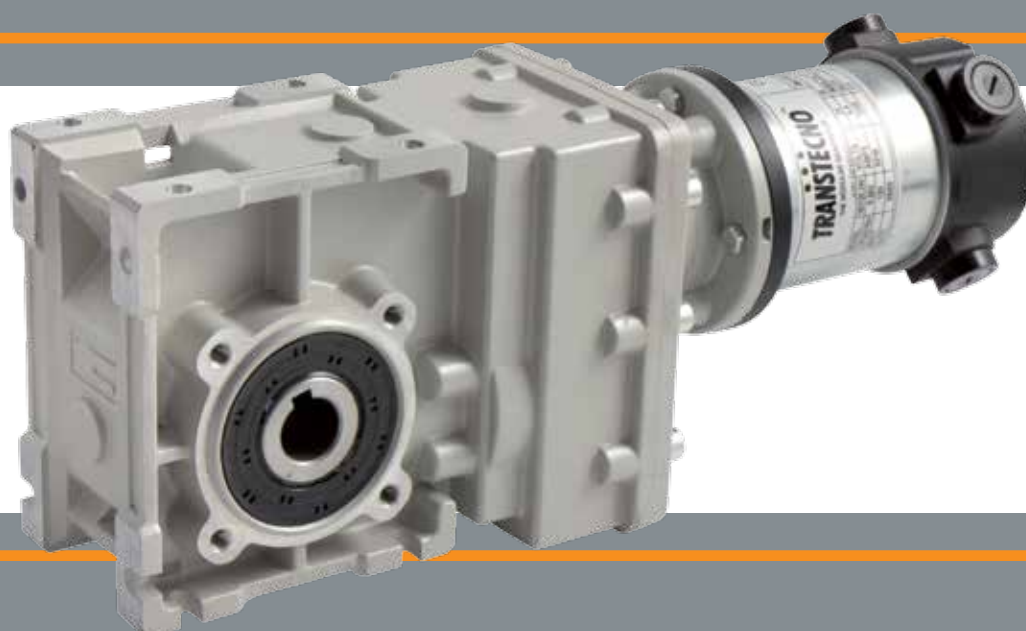
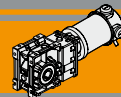


MOTORIDUTTORI C.C. AD ASSI ORTOGONALI
RARE EARTH D.C. BEVEL HELICAL GEARMOTORS

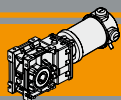




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Caratteristiche tecniche

Technical features

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

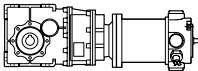
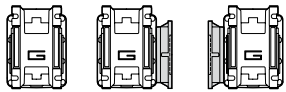
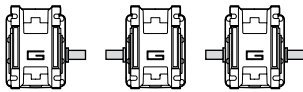
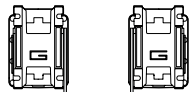
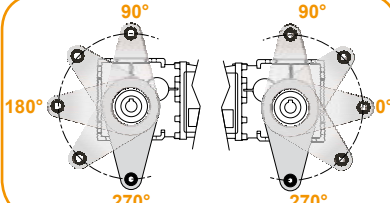
The main features of NDCMB D.C. gearmotor range are:

- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder
- Potenze motore disponibili da 160 a 250W S2
- Magneti in terre rare
- Carcasse 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 160 to 250W S2
- Rare earth magnets
- Die-cast aluminum housing
- Permanent synthetic oil long-life lubrication
- Ground helical gears

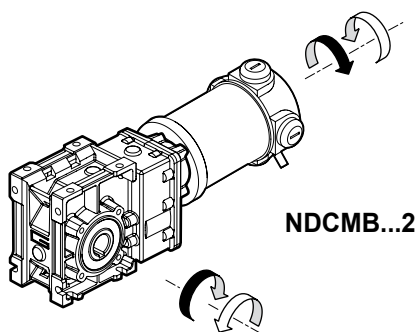
Designazione

Classification

MOTORIDUTTORE / GEARMOTOR									
NDCMB	120/402		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
	120/402	180/402	U	Vedere tabella See tables	Vedere tabella See tables	SZDX SZSX DZ	BRDX BRSX	0° 90° 180° 270°	120
	120/502	180/502	FD FS FLD FLS FBD FBS						240
Versione Riduttore Gearbox Version			Albero di uscita Output shaft		Braccio di reazione Torque arm		Angolo Angle		
									
U FD FLD FLS FBD FBS			SZDX SZSX DZ		BRDX BRSX				

Sensi di rotazione

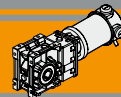
Direction of rotation



Simbologia

Symbols

n_1	[min ⁻¹]	Velocità in ingresso / Input speed	M_2	[Nm]	Coppia in uscita in funzione di P_1 / Output torque referred to P_1
n_2	[min ⁻¹]	Velocità in uscita / Output speed	s_f		Fattore di servizio / Service factor
i		Rapporto di riduzione / Ratio	A_2	[N]	Carico assiale ammissibile in uscita / Permitted output axial load
P_1	[kW]	Potenza in entrata / Input power	R_2	[N]	Carico radiale ammissibile in uscita / Permitted output radial load



Lubrificazione

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

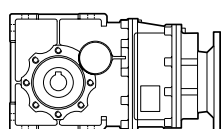
Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use sizes 402 and 502 in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.

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

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

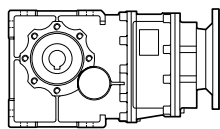
NDCMB

Posizioni di montaggio / Mounting positions

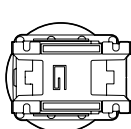


B3

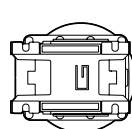
(standard)



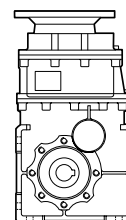
B8



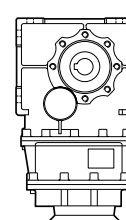
B6



B7



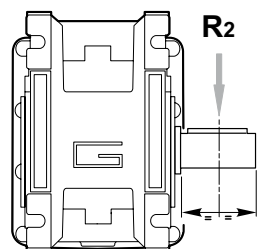
V5



V6

Carichi radiali

Radial loads

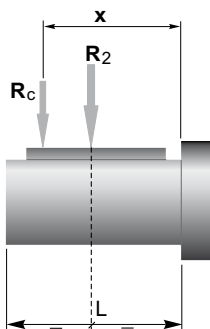


$$A_2 = R_2 \times 0.2$$

n ₂ [min ⁻¹]	R ₂ [N]	
	CMB 402	CMB 502
400	905	1116
300	996	1228
200	1141	1406
170	1204	1484
140	1414	1743
100	1582	1949
90	1638	2019
60	2047	2490
40	2524	3029
30	2778	3334
20	3180	3816
15	3500	4200
10	3500	4200

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:*

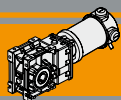


	CMB 402	CMB 502
a	86	104
b	66	79
R _{2MAX}	3500	4200

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

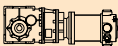
*a, b = valori riportati nella tabella
 a, b = values given in the table*

$$R \leq R_c$$



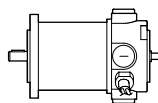
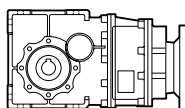
Dati tecnici per servizio S2

Technical data for S2 duty

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version		
160								
(3000 min ⁻¹)	485	3.0	10.5	6.18	120/402	120/240		
	401	3.6	8.6	7.49				
	326	4.4	7.0	9.20				
	254	5.7	6.2	11.83				
	240	6.0	5.9	12.48				
	202	7.1	4.9	14.83				
	170	8.4	4.1	17.63				
	161	8.9	4.8	18.60				
	134	10.7	4.0	22.33				
	125	11.4	3.8	23.91				
	104	13.8	3.7	28.89				
	97	14.8	3.5	30.84				
	89	16.1	3.2	33.57				
	84	17.1	3.0	35.63				
	70	20.5	2.5	42.75				
	54	26.5	1.9	55.31				
	51	28.3	1.8	59.06				
	47	30.8	1.7	64.29				
	70	20.5	4.8	42.75	120/502	120/240		
	54	26.5	3.7	55.31				
	51	28.3	3.5	59.06				
	47	30.8	3.2	64.29				
250								
(3000 min ⁻¹)	485	4.6	6.7	6.18			180/402	120/240
	401	5.6	5.5	7.49				
	326	6.9	4.5	9.20				
	254	8.8	4.0	11.83				
	240	9.3	3.7	12.48				
	202	11.1	3.2	14.83				
	170	13.2	2.7	17.63				
	161	13.9	3.1	18.60				
	134	16.7	2.6	22.33				
	125	17.9	2.4	23.91				
	104	21.6	2.4	28.89				
	97	23.1	2.2	30.84				
	89	25.1	2.0	33.57				
	84	26.7	1.9	35.63				
	70	32.0	1.6	42.75				
	54	41.4	1.2	55.31				
	51	44.2	1.2	59.06				
	47	48.1	1.1	64.29				
	134	16.7	5.1	22.33	180/502	120/240		
	125	17.9	4.8	23.91				
	104	21.6	4.5	28.89				
	97	23.1	4.2	30.84				
	89	25.1	3.9	33.57				
	84	26.7	3.7	35.63				
	70	32.0	3.1	42.75				
	54	41.4	2.4	55.31				
	51	44.2	2.2	59.06				
	47	48.1	2.0	64.29				

Motori applicabili

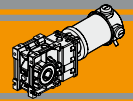
Motor adapters



		ND	
		120.120 120.240	180.120 180.240
CMB	402	6.18 - 64.29	6.18 - 64.29
	502	6.18 - 64.29	6.18 - 64.29

6.18 - 64.29

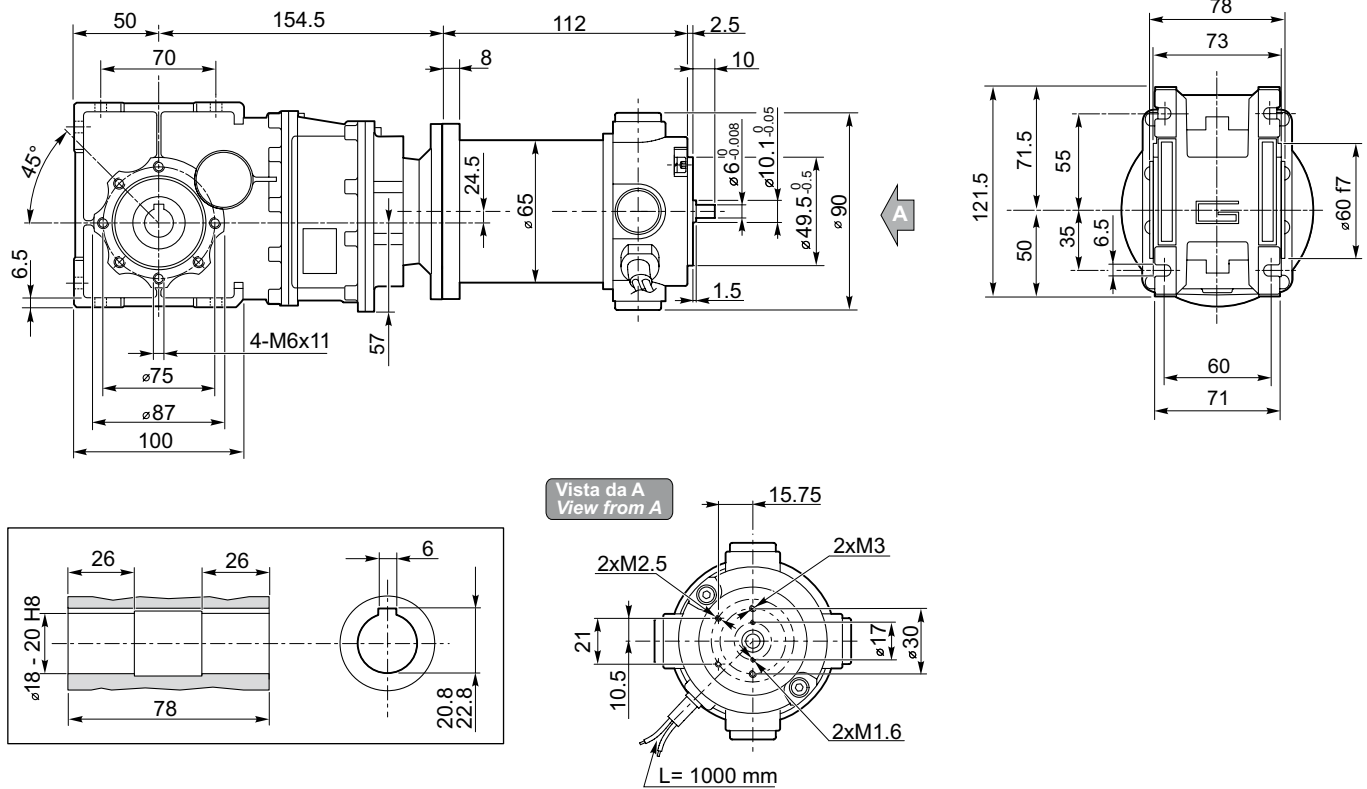
Rapporti di riduzione i
Ratio i



Dimensioni

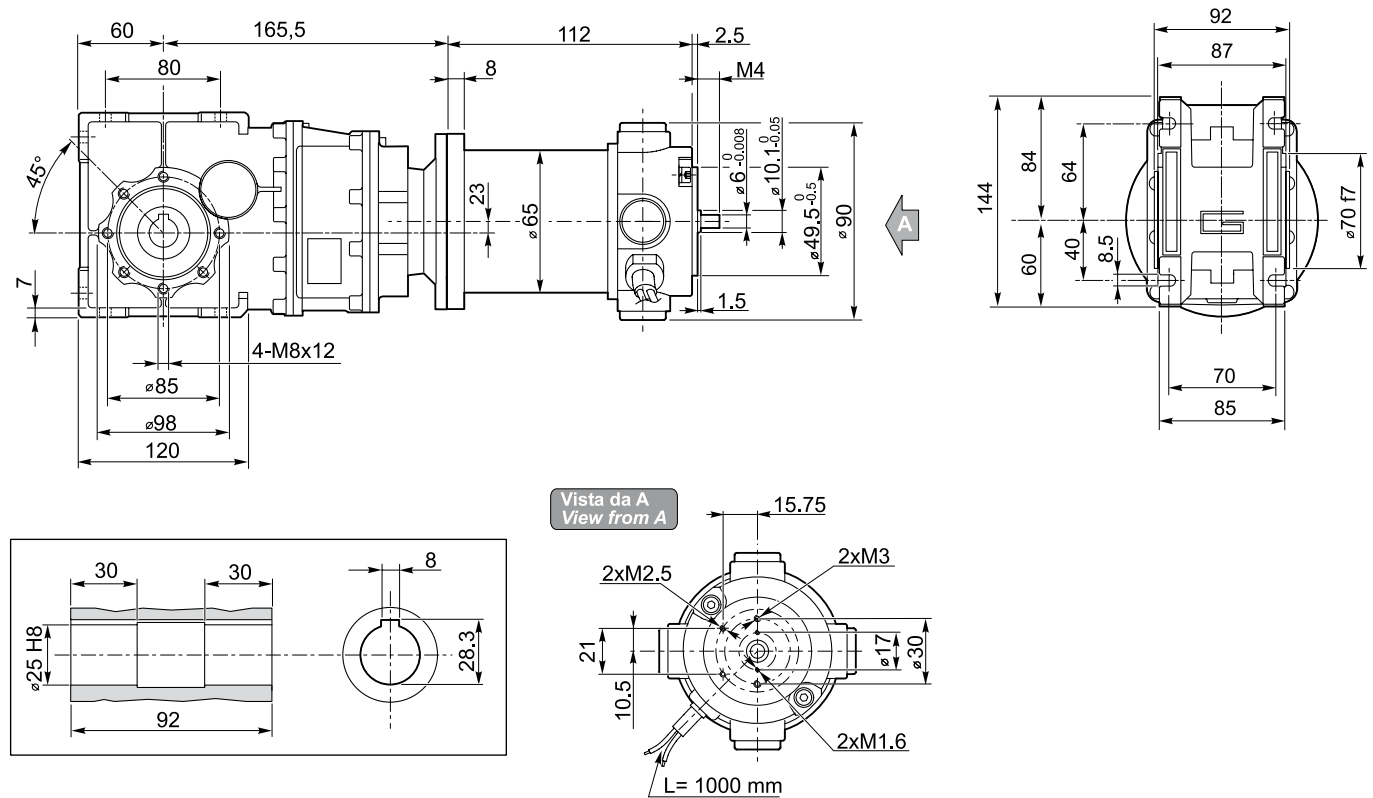
Dimensions

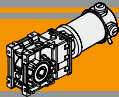
NDCMB120/402 U



NDCMB

NDCMB120/502 U

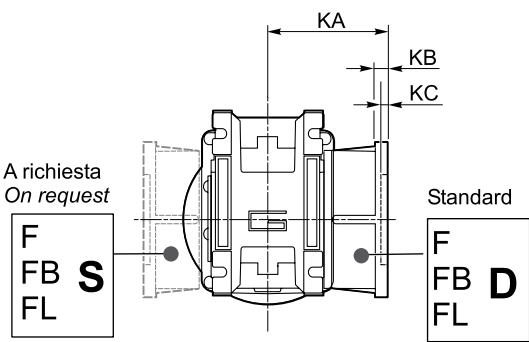
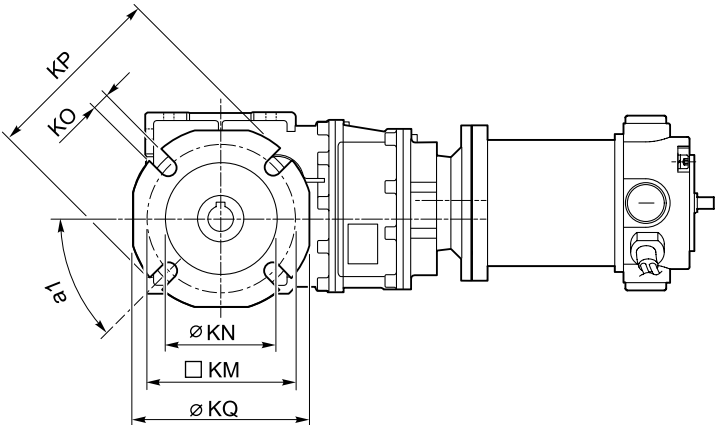




Dimensioni

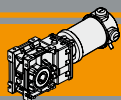
Dimensions

NDCMB.../... F... Flange uscita / Output flanges



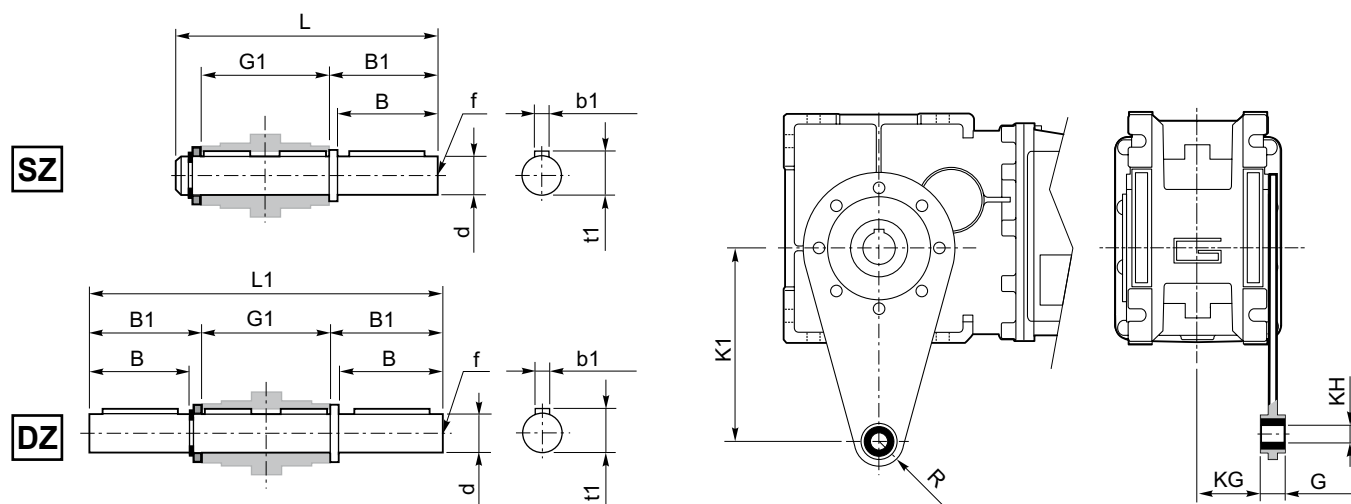
NDCMB

Flange uscita / Output flanges																											
	F									FL									FB								
CMB	a ₁	KA	KB	KC	KM	KN H8	KO	KP	KQ	a ₁	KA	KB	KC	KM	KN H8	KO	KP	KQ	a ₁	KA	KB	KC	KM	KN H8	KO	KP	KQ
402	45°	67	7.5	4.5	80-95	60	9	110	95	45°	97	7.5	4.5	80-95	60	9	110	95	45°	80	8.5	5	115-125	95	9.5	140	112
502	45°	90	9	5	90-110	70	11	125	110	45°	120	9	5	90-110	70	11	125	110	45°	89	9	5	130-145	110	9.5	160	132



Accessori

Accessories



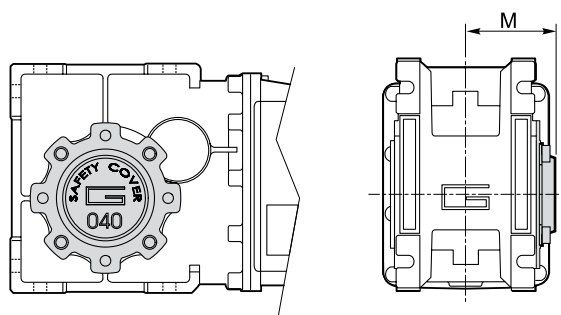
Albero lento / Output shaft

CMB	d h7	B	B1	G1	L	L1	f	b1	t1
402	18	40	43	78	128	164	M6	6	20.5
502	25	50	53.5	92	153	199	M10	8	28

Braccio di reazione / Torque arm

CMB	K1	G	KG	KH	R
402	100	14	31	10	18
502	100	14	38	10	18

SC - Safety cover



CMB	M
402	54.5
502	62.5

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