

S160 SERIES

BRUSHLESS SERVOMOTORS

Serie **S160 100% Made in Italy**, servomotori a magneti permanenti in NdFeB 6 poli con elevate prestazioni dinamiche e valori d'inerzia ridotti. Dimensioni meccaniche ridotte con quadro 60mm e coppia 0,75 / 1,35Nm. Sono disponibili vari tipi di avvolgimenti da 32 a 230VAC, possibilità d'abbinare riduttori epicicloidali di precisione e/o freni di stazionamento.

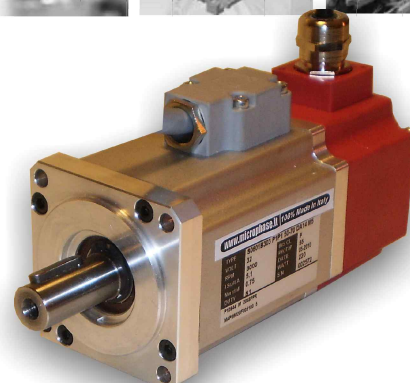
S160 series, sinusoidal brushless servomotor with permanent rare earth magnets (NdFeB), three different nominal voltage from 32 to 230Vac, torque range 0,75 / 1,35Nm, precision planetary gearboxes and / or brakes available.

► Caratteristiche standard - Standard features

- B.E.M.F. Sinusoidale - Sinusoidal B.E.M.F.
- Magneti in terre rare (NdFeB) - Rare earth magnets (NdFeB)
- Flange di montaggio personalizzabili - Special flanges and shafts
- Facoder 2048PPR 5V LD or absolute encoder
- Connettori d'uscita fissi/estraibili - Flying screw connectors
- Momento d'inerzia ridotti - Low rotor inertia



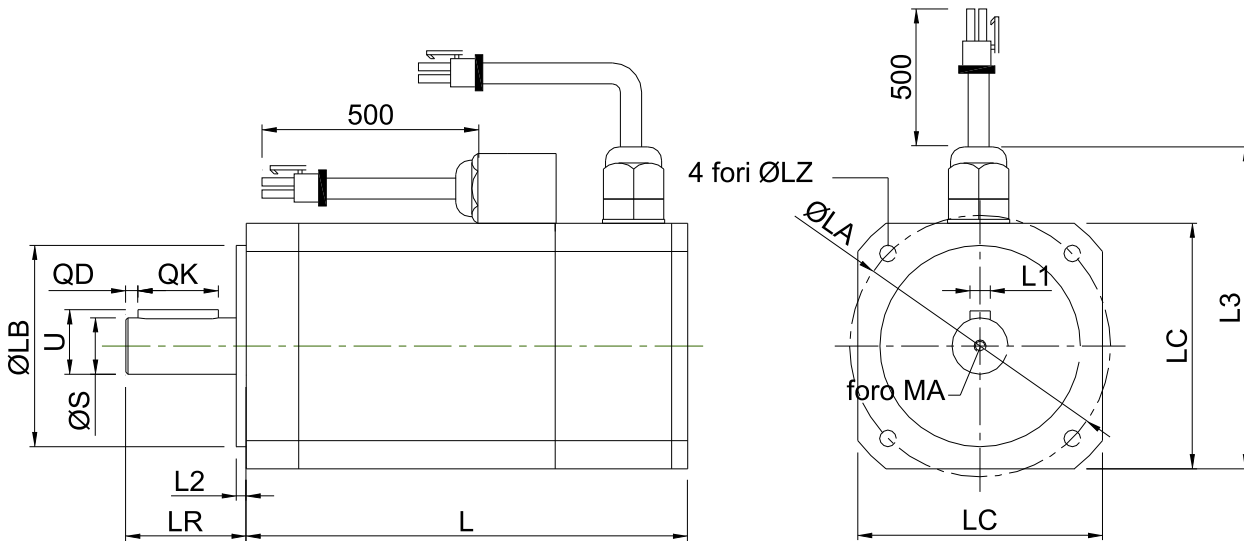
more
than you
expect



Dati tecnici / Technical specifications

Alimentazione <i>Drives voltage</i>		32 Vac	230 Vac	32 Vac	230 Vac
Modello <i>Type</i>		S160-1B303	S160-1B302	S160-2B305	S160-2B301
Coppia di stallo <i>Stall torque</i>	M ₀ (Nm)	0,85		1,35	
Coppia di picco <i>Peak torque</i>	M _{pk} (Nm)	2,60		4,10	
dt max avvolgimenti <i>dt max winding</i>	C	105	105	105	105
Corrente di stallo <i>Stall current</i>	I ₀ (ARMS)	5,45	1,42	9,40	1,86
Corrente nominale <i>Nominal torque</i>	I _N (A)	5,30	1,40	9,10	1,80
Coppia nominale <i>Rated torque</i>	M _N (Nm)	0,80		1,27	
Potenza nominale <i>Rated power</i>	P _N (w)	250		400	
Giri nominali <i>Rated speed</i>	N _N (rpm)	3.000			
Giri massimi <i>Max. speed</i>	N _{MAX} (rpm)	4.000			
Corrente di picco <i>Peak current</i>	I _{MAX} (ARMS)	16,4	4,25	28,20	5,60
Costante di tensione <i>Voltage constant</i>	K _E (VRMS / KRPM)	9,63	36,30	8,85	44,60
Costante di coppia <i>Torque constant</i>	K _T (Nm/A)	0,159	0,6	0,15	0,73
Inerzia di rotore <i>Rotor inertia</i>	J _R (Kg cm ²)	0,19		0,30	
Resistenza @ 20 C <i>Winding resistance</i>	R _{U-V} (ohm)	0,85	12,50	0,37	8,50
Induttanza @ 1 KHz <i>Winding inductance</i>	L _{U-V} (mH)	2,60	38,10	1,21	30
Peso <i>Weight</i>	M (Kg)	1,20		2	
Massimo carico radiale <i>Max. radial load</i>	N	250			
Massimo carico assiale <i>Max. axial load</i>	N	80			
Temperatura ambiente <i>Ambient temperature</i>		0 / +40 C			
Servizio <i>Time rating</i>		Continuo - <i>Continuos</i>			
Grado di protezione <i>Level of protection</i>		IP55			
Classe di isolamento <i>Insulation class</i>		Classe F <i>F Class</i>			

► Dimensioni e tolleranze - Dimension and tolerance

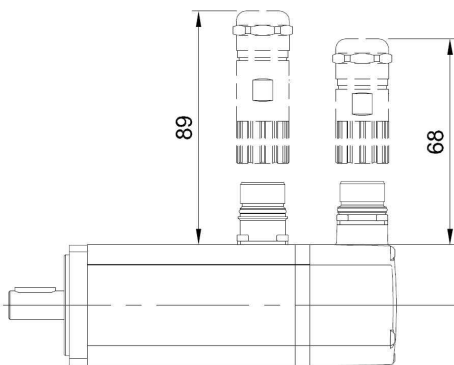


Motor	L	L+	LR	LC	LA	LZ	S h6	LB h7	QK	U	L1	L2	L3	MA
S160-1	128.5	173	30	60	70	5.5	14	50	20	16	5	2.5	87 2	M5
S160-2	163.5	208	30	60	70	5.5	14	50	20	16	5	2.5	87 2	M5

(L+) Quote motore con freno - (L+) Dimensions motor with brake

[Datasheet S160 - 2 of 2]

► Conessioni - Pinout Connections

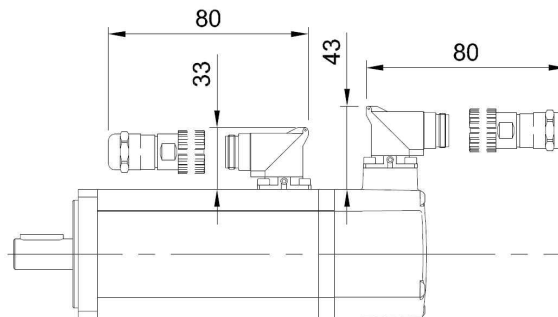


Uscite connettori - Connector pinout

Power connector M16 Right angle		Signal connector M16 Right angle		Signal connector M23 Straight angle	
A	U	1	+5V	1	+5V
B	V	2	CHA -	2	CHA -
C	W	3	OV	3	OV
D	GND	4		4	
1	Brake +	5		5	
2	Brake -	6	HALL V	6	HALL V
		7	HALL W	7	HALL W
		8	HALL U	8	HALL U
		9		9	
		10		10	
		11	CHZ -	11	CHZ -
		12	CHB	12	CHB
		13	CHB -	13	CHB -
		14	CHA	14	CHA
		15	CHZ	15	CHZ
				16	
				17	

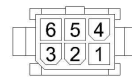
Power connector M23 Straight angle	
1	U
2	V
3	GND
4	W
5	Brake +
6	Brake -

Connettori estraibili / Flying connector



Uscite cavo - Cable Wiring

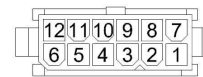
Power connector type Molex 55559-06p-210



1	U	Green / 1
2	V	White / 2
3	Brake +	Red
4	W	Brown / 3
5	GND	Green / Yellow
6	Brake -	Black

Motore senza freno (brake+/-) non connessi - Motor without brake not connected

Signal connector type Molex 55559-12p-210



1	+5V	Red
2	CHA-	Blue
3	OV	Black
4	HALL V	Grey
5	HALL W	White
6	HALL U	Brown
7	CHZ-	Yellow / Black
8	CHB+	Green
9	CHB-	Green / Black
10	CHA	Blue / Black
11	CHZ	Yellow
12	Shield	Shield

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