



THE BEST WAY TO FIND AN EXCELLENT DRIVE

antrimon
● motion

SERVOMOTORI C.C.
D.C. SERVOMOTORS

SERIE
Series

ESA 2S

COPPIA - TORQUE

Nm 0.32

DATI MOTORE - MOTOR RATINGS		SIMBOLI Symbols	UNITA' Units	TIPO DI AVVOLGIMENTO Type of winding						
				1	2					
SERVOMOTORE - Servomotor	VELOCITA' NOMINALE - <i>Rated speed</i>	n	[rpm]	3000	3000					
	COPPIA ROTORE BLOCCATO - <i>Continuous stall torque</i>	Cn	[Nm]	0.32	0.32					
	POTENZA A VELOCITA' NOMINALE - <i>Power at rated speed</i>	Pn	[W]	70	70					
	CORRENTE A ROTORE BLOCCATO - <i>Stall current</i>	In	[A]	4.6	3.2					
	PICCO DI COPPIA ALLO SPUNTO - <i>Peak torque</i>	Cmax	[Nm]	1.6	1.6					
	CORRENTE AL PICCO DI COPPIA - <i>Peak current</i>	Imax	[A]	23	16					
	CORRENTE SMAGNETIZZANTE - <i>Demagnetise current</i>	Ipeak	[A]	25.3	17.6					
	FCEM A VELOCITA' NOMINALE - <i>Bemf at rated speed</i>	E	[V]	21.9	31.2					
	MAX VELOCITA' - <i>Max speed</i>	Nmax	[rpm]	4000	4000					
	DATI MECCANICI - MECHANICAL DATA									
	MOMENTO D'INERZIA - <i>Moment of inertia</i>	Jm	Kg cm ²	0.324	0.324					
	MAX. ACC. TEORICA - <i>Max theoretical acceleration</i>	αmax	rad/s ²	33950	33950					
	COSTANTE DI TEMPO MECCANICA - <i>Mechanical time constant</i>	Tm	[ms]	6	6					
	COPPIA SMORZAMENTO A 1000 RPM - <i>Damping constant at 1000 rpm</i>	Td	[Nm]	0.015	0.015					
	COPPIA ATTRITO STATICO - <i>Static friction torque</i>	Tf	[Nm]	0.002	0.002					
	MAX CARICO RADIALE (A 3000 RPM) - <i>Max radial load (at 3000 rpm)</i>	Fr	[N]	196	196					
	MAX CARICO ASSIALE - <i>Max axial load</i>	Fa	[N]	58	58					
	PESO - <i>Weight</i>	M	[Kg]	1.3	1.3					
	DATI ELETTRICI - WINDING DATA									
	COSTANTE DI TENSIONE ± 5% - <i>Voltage constant ± 5%</i>	Ke	V/Krpm	7.3	10.4					
	COSTANTE DI COPPIA ± 5% - <i>Torque constant ± 5%</i>	Kt	[Nm/A]	0.07	0.1					
	COSTANTE DI TEMPO ELETTRICA - <i>Electrical time constant</i>	Te	[ms]	1.58	1.62					
	COSTANTE DI TEMPO TERMICA - <i>Thermal time constant</i>	Tt	[min]	15	15					
	RESIST. ARMATURA ± 10% A 25°C - <i>Armature resistance ± 10% at 25°C</i>	Ra	[Ohm]	0.82	1.82					
	RESIST. ARMATURA CON SPAZZOLE - <i>Terminal resistance</i>	Rt	[Ohm]	0.85	1.85					
	INDUTTANZA - <i>Inductance</i>	La	[mH]	1.34	3					
	GRADO DI PROTEZIONE - <i>Protection degree</i>		IP						54	
	CLASSE D' ISOLAMENTO - <i>Insulation class</i>								F	
DINAMO T. Tacho generator	COSTANTE DI TENSIONE - <i>Voltage constant</i>	Ke	V/Krpm	10 +/- 5% (MAX 9000 rpm)						
	ONDULAZIONE PICCO/PICCO - <i>Ripple</i>		[%]	< 1.5 A 1000 rpm						
	LINEARITA' A 6000 RPM - <i>Linearity at 6000 rpm</i>		[%]	< 0.1						
	ERRORE DI REVERSIBILITA' - <i>Reversibility error</i>		[%]	< 0.12						
	COEFFICIENTE DI TEMPERATURA - <i>Temperature coefficient</i>		[%]	0.02						
	MOMENTO D' INERZIA - <i>Moment of inertia</i>	J	g cm ²	40						
	RESISTENZA - <i>Resistance</i>	Ra	[Ohm]	86						
	INDUTTANZA - <i>Inductance</i>	La	[mH]	13						
	CORRENTE - <i>Current</i>	I	[mA]	2 (MAX 8 mA)						
	NUMERO POLI - <i>Number of poles</i>			4						
VITA SPAZZOLE PREVISTA - <i>Life expectancy</i>			15000 A 3000 rpm							
FRENO Brake	TIPO - <i>Type</i>			STD						
	COPPIA STATICA - <i>Static torque</i>	C	[Nm]	0.5						
	TENSIONE DI ALIMENTAZIONE - <i>Power supply voltage</i>	E	[V]	24						
	CORRENTE NOMINALE - <i>Rated current</i>	I	[A]	0.42						
	POTENZA ASSORBITA - <i>Input power</i>	P	[W]	10						



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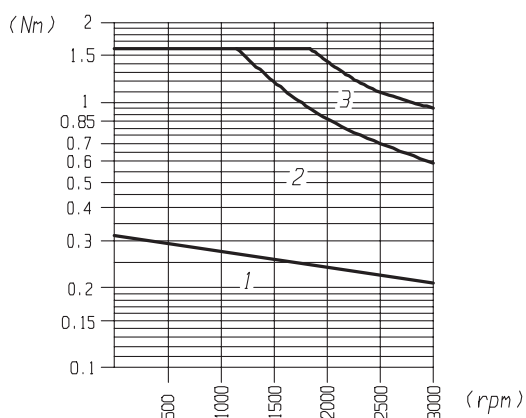
SERVOMOTORI C.C.

D.C. SERVOMOTORS

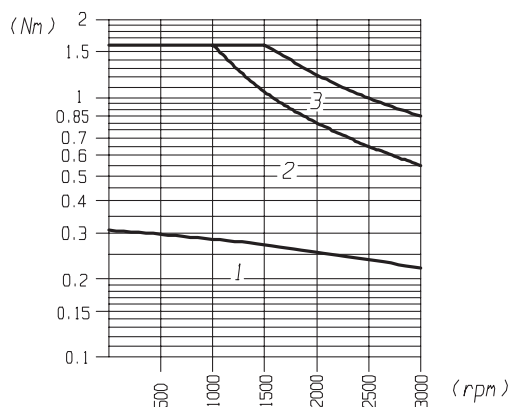
ESA2S

CURVE OPERATIVE PERFORMANCE CURVES

ESA 2S1



ESA 2S2



1 = Area di ciclo continuo
2 = Area di ciclo intermittente
3 = Area di accel. decel.

1 = Continuous duty area
2 = Intermittent duty area
3 = Accel. decel. duty area



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SERVOMOTORI C.C. D.C. SERVOMOTORS

SERIE
Series

ESA 2L

COPPIA - TORQUE
Nm 0.47

DATI MOTORE - MOTOR RATINGS		SIMBOLI Symbols	UNITA' Units	TIPO DI AVVOLGIMENTO Type of winding						
				1	2					
SERVOMOTORE - Servomotor	VELOCITA' NOMINALE - Rated speed	n	[rpm]	3000	3000					
	COPPIA ROTORE BLOCCATO - Continuous stall torque	Cn	[Nm]	0.47	0.47					
	POTENZA A VELOCITA' NOMINALE - Power at rated speed	Pn	[W]	95	95					
	CORRENTE A ROTORE BLOCCATO - Stall current	In	[A]	6.5	4.6					
	PICCO DI COPPIA ALLO SPUNTO - Peak torque	Cmax	[Nm]	2.35	2.35					
	CORRENTE AL PICCO DI COPPIA - Peak current	Imax	[A]	32.5	23					
	CORRENTE SMAGNETIZZANTE - Demagnetise current	lpeak	[A]	35.75	25.3					
	FCEM A VELOCITA' NOMINALE - Bemf at rated speed	E	[V]	22.5	32.1					
	MAX VELOCITA' - Max speed	Nmax	[rpm]	4000	4000					
	DATI MECCANICI - MECHANICAL DATA									
	MOMENTO D'INERZIA - Moment of inertia	Jm	Kg cm ²	0.607	0.607					
	MAX. ACC. TEORICA - Max theoretical acceleration	αmax	rad/s ²	24711	24711					
	COSTANTE DI TEMPO MECCANICA - Mechanical time constant	Tm	[ms]	6	7					
	COPPIA SMORZAMENTO A 1000 RPM - Damping constant at 1000 rpm	Td	[Nm]	0.018	0.018					
	COPPIA ATTRITO STATICO - Static friction torque	Tf	[Nm]	0.003	0.003					
	MAX CARICO RADIALE (A 3000 RPM) - Max radial load (at 3000 rpm)	Fr	[N]	196	196					
	MAX CARICO ASSIALE - Max axial load	Fa	[N]	58	58					
	PESO - Weight	M	[Kg]	1.85	1.85					
	DATI ELETTRICI - WINDING DATA									
	COSTANTE DI TENSIONE ± 5% - Voltage constant ± 5%	Ke	V/Krpm	7.5	10.7					
COSTANTE DI COPPIA ± 5% - Torque constant ± 5%	Kt	[Nm/A]	0.072	0.103						
COSTANTE DI TEMPO ELETTRICA - Electrical time constant	Te	[ms]	1.46	1.4						
COSTANTE DI TEMPO TERMICA - Thermal time constant	Tt	[min]	25	25						
RESIST. ARMATURA ± 10% A 25°C - Armature resistance ± 10% at 25°C	Ra	[Ohm]	0.45	1.16						
RESIST. ARMATURA CON SPAZZOLE - Terminal resistance	Rt	[Ohm]	0.48	1.19						
INDUTTANZA - Inductance	La	[mH]	0.7	1.65						
GRADO DI PROTEZIONE - Protection degree		IP						54		
CLASSE D' ISOLAMENTO - Insulation class								F		
DINAMO T. Tacho generator	COSTANTE DI TENSIONE - Voltage constant	Ke	V/Krpm	10 +/- 5% (MAX 9000 rpm)						
	ONDULAZIONE PICCO/PICCO - Ripple		[%]	< 1.5 A 1000 rpm						
	LINEARITA' A 6000 RPM - Linearity at 6000 rpm		[%]	< 0.1						
	ERRORE DI REVERSIBILITA' - Reversibility error		[%]	< 0.12						
	COEFFICIENTE DI TEMPERATURA - Temperature coefficient		[%]	0.02						
	MOMENTO D' INERZIA - Moment of inertia	J	g cm ²	40						
	RESISTENZA - Resistance	Ra	[Ohm]	86						
	INDUTTANZA - Inductance	La	[mH]	13						
	CORRENTE - Current	I	[mA]	2 (MAX 8 mA)						
	NUMERO POLI - Number of poles			4						
VITA SPAZZOLE PREVISTA - Life expctancy			15000 A 3000 rpm							
FRENO Brake	TIPO - Type			STD						
	COPPIA STATICA - Static torque	C	[Nm]	0.5						
	TENSIONE DI ALIMENTAZIONE - Power supply voltage	E	[V]	24						
	CORRENTE NOMINALE - Rated current	I	[A]	0.42						
	POTENZA ASSORBITA - Input power	P	[W]	10						



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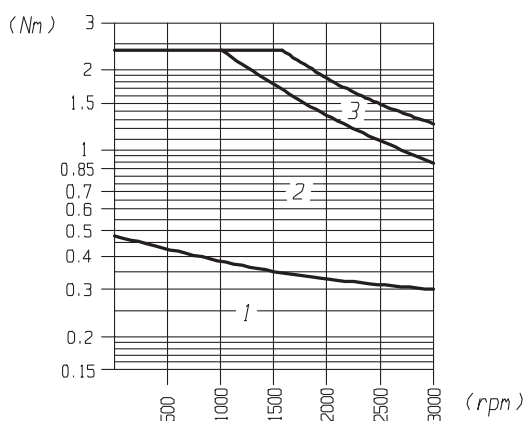
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D.C. SERVOMOTORS

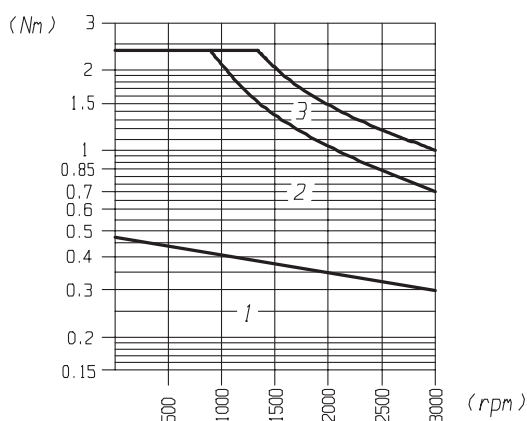
ESA2L

CURVE OPERATIVE PERFORMANCE CURVES

ESA 2L1



ESA 2L2



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ESA 2

SERVOMOTORI C.C.

D.C. SERVOMOTORS

DIMENSIONI (mm)

DIMENSIONS (mm)

Type	S	L
A	20	25
L	136	183.5
d (j6)	7	9
C	-	3x3x15

PREDISPOSTO ENCODER STD
STD ENCODER PREARRANGEMENT

DINAMO TACHIMETRICA

TACHO GENERATOR

cavo schermato L=1m
shielded cable L=1m

Type	S	L
L	177.5	225

PREDISPOSTO ENCODER STD
STD ENCODER PREARRANGEMENT

FRENO 0,5Nm + DINAMO TACHIMETRICA

TACHO GENERATOR + BRAKE 0,5Nm

n°2 cavi 0.5*1m
n°2 cables 0.5*1m

cavo schermato L=1m
shielded cable L=1m

Type	S	L
L	219	266.5

PREDISPOSTO ENC. STD
STD ENC. PREARRANGEMENT



SERVOMOTORI C.C.

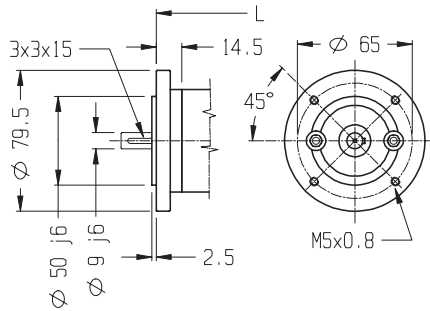
D.C. SERVOMOTORS

ESA 2

OPTIONALS

FLANGIA B14/56

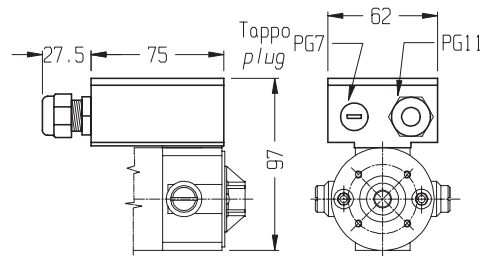
B14/56 FLANGE



Type	S	L
L	141	188.5

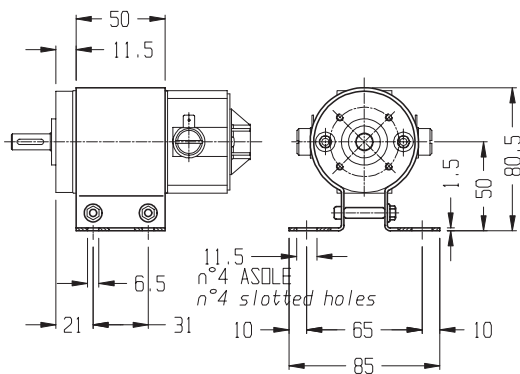
MORSETTIERA

TERMINAL BOX



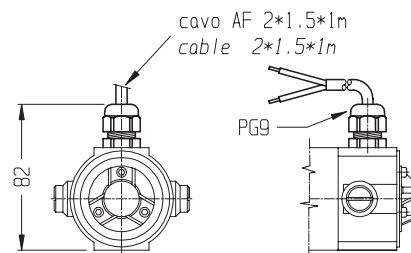
PIEDE A FASCIA

FOOT BAND TYPE



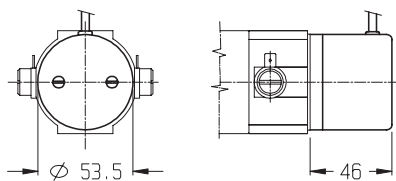
CAVO

FLYING LEADS



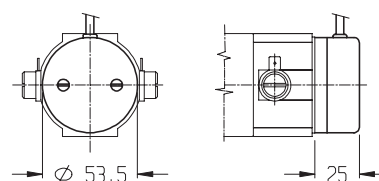
ENCODER EH53

ENCODER EH53



ENCODER EH38

ENCODER EH38





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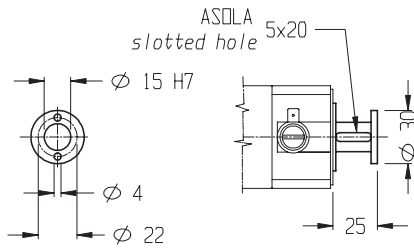
D.C. SERVOMOTORS

ESA 2

OPTIONALS

DISTANZ. ENC. N°1

ENCODER SPACER N°1



DISTANZ. ENC. N°2

ENCODER SPACER N°2

