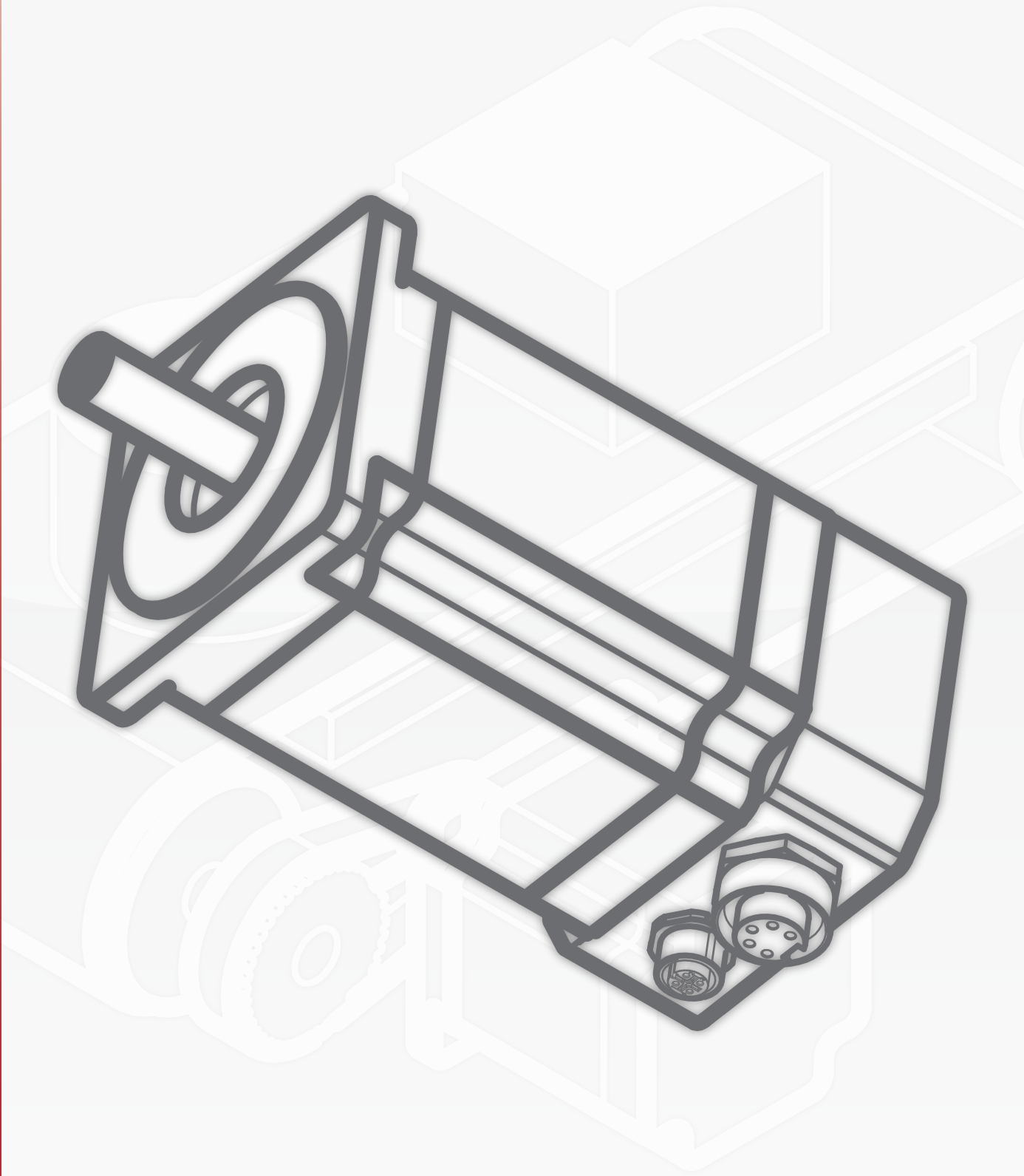


# Stepper servomotors

**Stepper servomotors - Servostep motors**



Smart Motion Equipment

Modbus<sup>RTU</sup>



Modbus<sup>TCP</sup>

CANopen

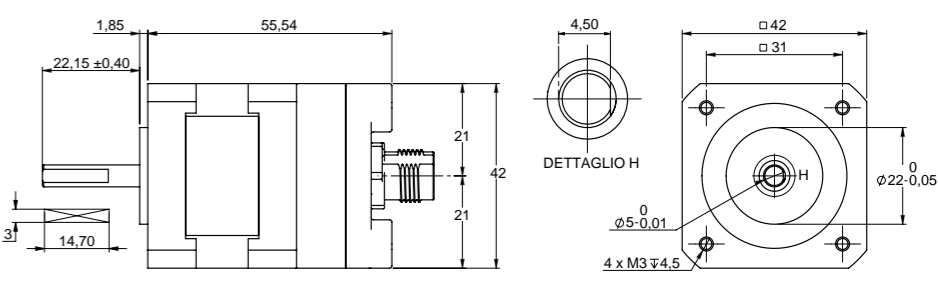
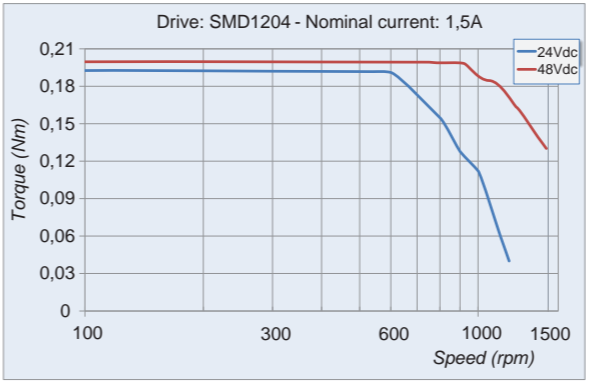
EtherCAT<sup>®</sup>



The torque curves are made with AEP torque transducer mod. MRT250NM

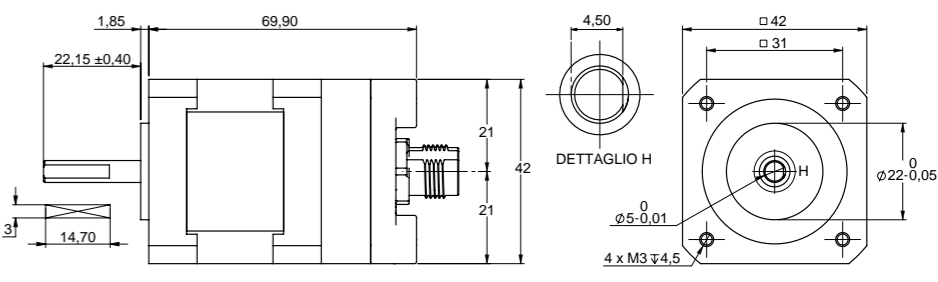
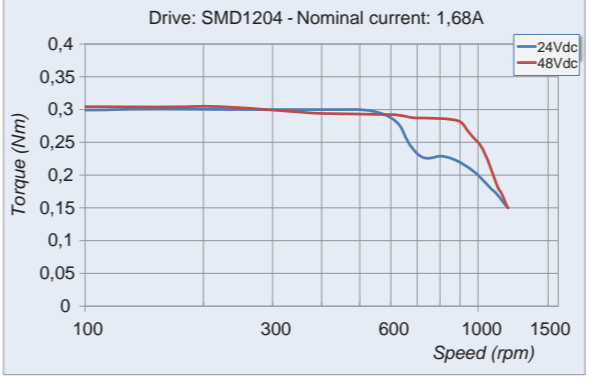
**M42SH33-Tx**

Model	Motor code	Current A/Phase	$\Omega$ per phase	mH per phase	Detent torque	Holding torque	Rotor inertia	Encoder	Pulses/revolution	Weight
M42SH33-T-C	M117	1,5 A	1,35 $\Omega$	2,1 mH	14 mNm	0,23 Nm	35 gcm <sup>2</sup>	-	-	270 g
M42SH33-TO0512P24C	M140	1,5 A	1,35 $\Omega$	2,1 mH	14 mNm	0,23 Nm	35 gcm <sup>2</sup>	Push-pull	512	280 g
M42SH33-TO0512L05C	M130	1,5 A	1,35 $\Omega$	2,1 mH	14 mNm	0,23 Nm	35 gcm <sup>2</sup>	Line-driver	512	280 g



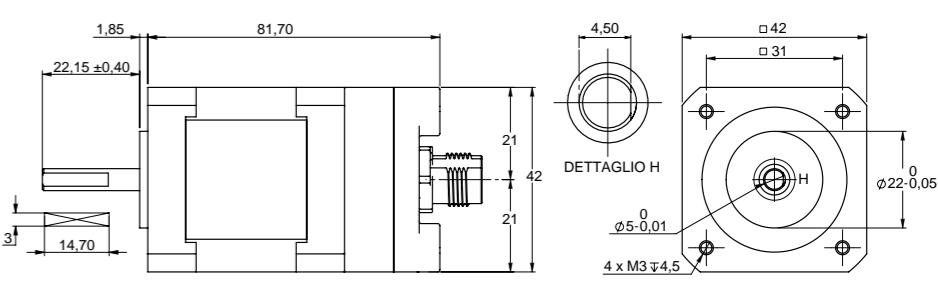
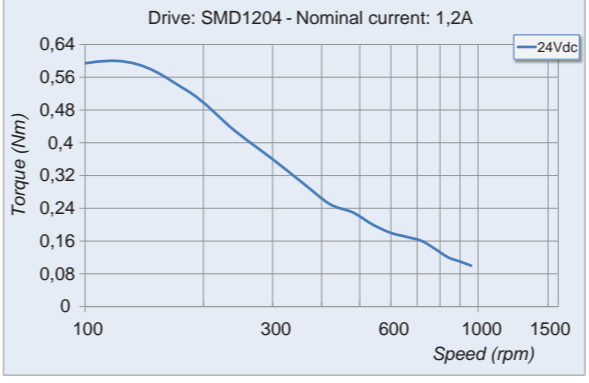
**M42SH47-Tx**

Model	Motor code	Current A/Phase	$\Omega$ per phase	mH per phase	Detent torque	Holding torque	Rotor inertia	Encoder	Pulses/revolution	Weight
M42SH47-T-C	M111	1,68 A	1,65 $\Omega$	2,8 mH	21 mNm	0,44 Nm	68 gcm <sup>2</sup>	-	-	360 g
M42SH47-TO0512P24C	M141	1,68 A	1,65 $\Omega$	2,8 mH	21 mNm	0,44 Nm	68 gcm <sup>2</sup>	Push-pull	512	370 g
M42SH47-TO0512L05C	M131	1,68 A	1,65 $\Omega$	2,8 mH	21 mNm	0,44 Nm	68 gcm <sup>2</sup>	Line-driver	512	370 g



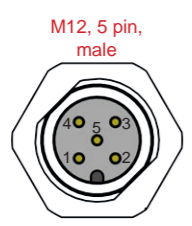
**M42SH60-Tx**

Model	Motor code	Current A/Phase	$\Omega$ per phase	mH per phase	Detent torque	Holding torque	Rotor inertia	Encoder	Pulses/revolution	Weight
M42SH60-T-C	M112	1,2 A	7,3 $\Omega$	16,6 mH	28 mNm	0,8 Nm	102 gcm <sup>2</sup>	-	-	540 g
M42SH60-TO0512P24C	M142	1,2 A	7,3 $\Omega$	16,6 mH	28 mNm	0,8 Nm	102 gcm <sup>2</sup>	Push-pull	512	550 g
M42SH60-TO0512L05C	M132	1,2 A	7,3 $\Omega$	16,6 mH	28 mNm	0,8 Nm	102 gcm <sup>2</sup>	Line-driver	512	550 g



Connessioni MOTORE serie M42  
M42 series MOTOR Wiring

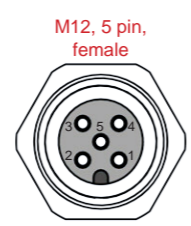
PIN	DESCRIPTION
1	Fase A- / Phase A-
2	Fase A / Phase A
3	Fase B- / Phase B-
4	Fase B / Phase B
5	Schermo / Shield



Connessioni ENCODER serie M42  
M42 series ENCODER Wiring

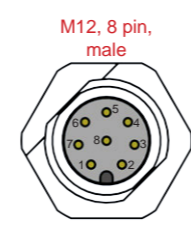
**PUSH PULL**

PIN	DESCRIPTION
1	V <sub>IN</sub> (+24 Vdc)
2	CANALE A / CHANNEL A
3	COMUNE / COMMON
4	CANALE B / CHANNEL B
5	CANALE Z / CHANNEL Z



**LINE DRIVER**

PIN	DESCRIPTION
1	CANALE Z+ / CHANNEL Z+
2	V <sub>IN</sub> (+5 Vdc)
3	CANALE A+ / CHANNEL A+
4	CANALE A- / CHANNEL A-
5	CANALE B+ / CHANNEL B+
6	CANALE B- / CHANNEL B-
7	COMUNE / COMMON
8	CANALE Z- / CHANNEL Z-



**SPECIFICATIONS**

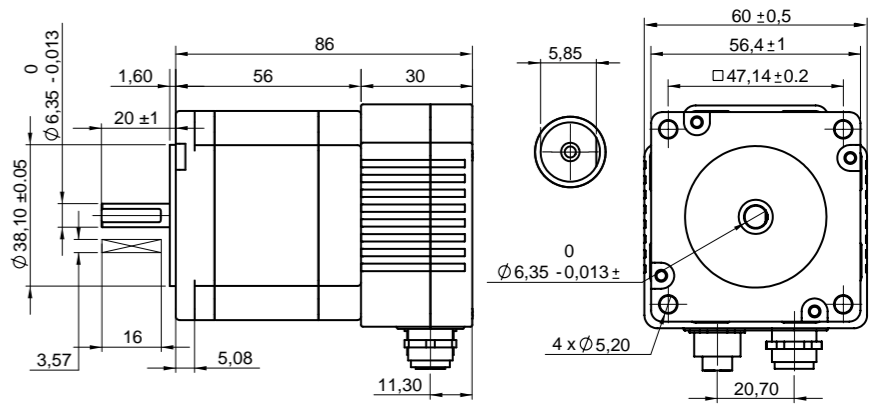
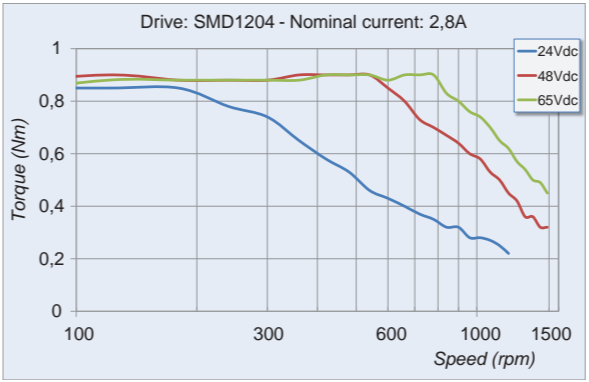
	M42 series
Insulation class	B
Ambient temperature	-10°C +35°C
Temperature rise	80°C max (2 phases ON)
Insulation resistance	100 M $\Omega$ min 500Vdc
Dielectric Strength	500 Vac for one minute
Shaft radial play	0.02 max (with 400g load)
Shaft axial play	0.08 max (with 400g load)
Max radial force	28 N (20mm from front flange)
Max axial force	10 N



**M57SH56-Tx**

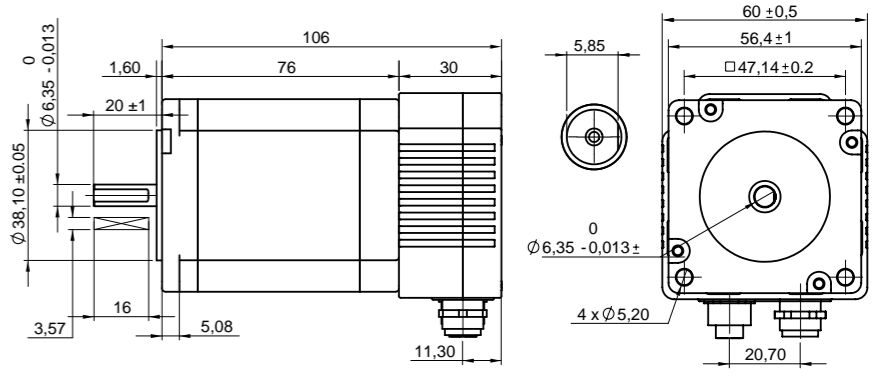
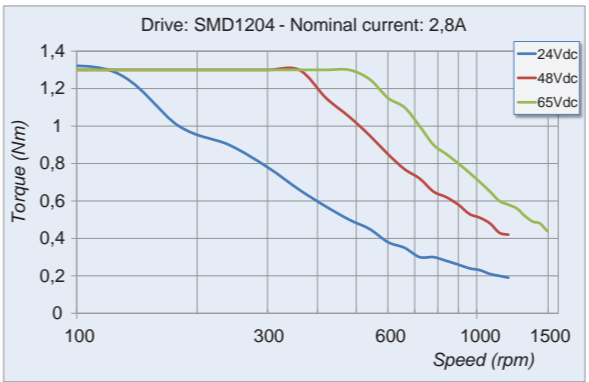
Model	Motor code	Current A/Phase	Ω per phase	mH per phase	Detent torque	Holding torque	Rotor inertia	Encoder	Pulses/revolution	Weight
M57SH56-T-C	M79	2,8 A	0,9 Ω	2,5 mH	40 mNm	1,26 Nm	300 gcm <sup>2</sup>	-	-	0,7 Kg
M57SH56-TO0512P24C	M98	2,8 A	0,9 Ω	2,5 mH	40 mNm	1,26 Nm	300 gcm <sup>2</sup>	Push-pull	512	0,7 Kg
M57SH56-TO0512L05C	M99	2,8 A	0,9 Ω	2,5 mH	40 mNm	1,26 Nm	300 gcm <sup>2</sup>	Line-driver	512	0,7 Kg

The torque curves are made with AEP torque transducer mod. MRT250NM



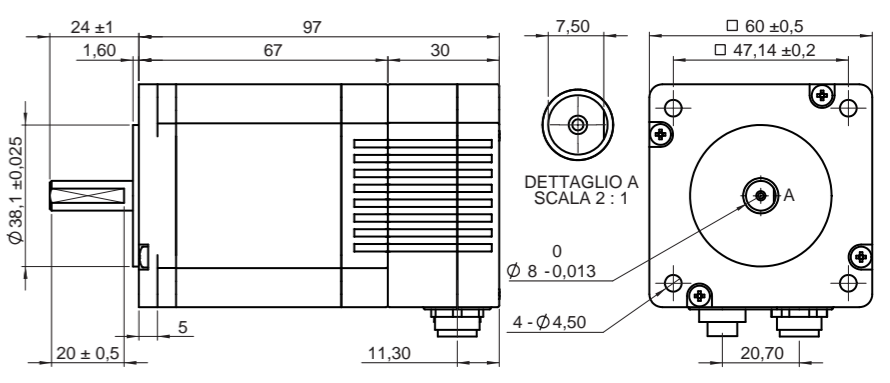
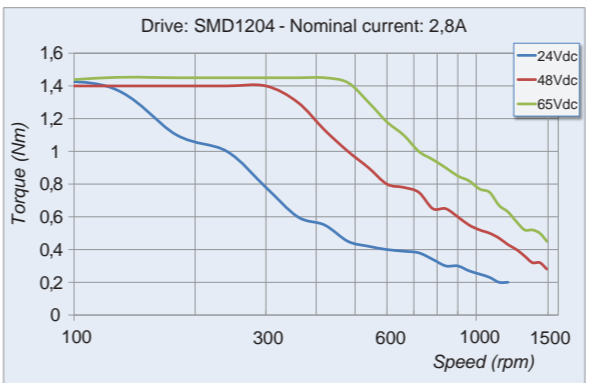
**M57SH76-Tx**

Model	Motor code	Current A/Phase	Ω per phase	mH per phase	Detent torque	Holding torque	Rotor inertia	Encoder	Pulses/revolution	Weight
M57SH76-T-C	M213	2,8 A	1,2 Ω	5,4 mH	72 mNm	1,89 Nm	440 gcm <sup>2</sup>	-	-	1,1 Kg
M57SH76-TO0512P24C	M214	2,8 A	1,2 Ω	5,4 mH	72 mNm	1,89 Nm	440 gcm <sup>2</sup>	Push-pull	512	1,1 Kg
M57SH76-TO0512L05C	M215	2,8 A	1,2 Ω	5,4 mH	72 mNm	1,89 Nm	440 gcm <sup>2</sup>	Line-driver	512	1,1 Kg



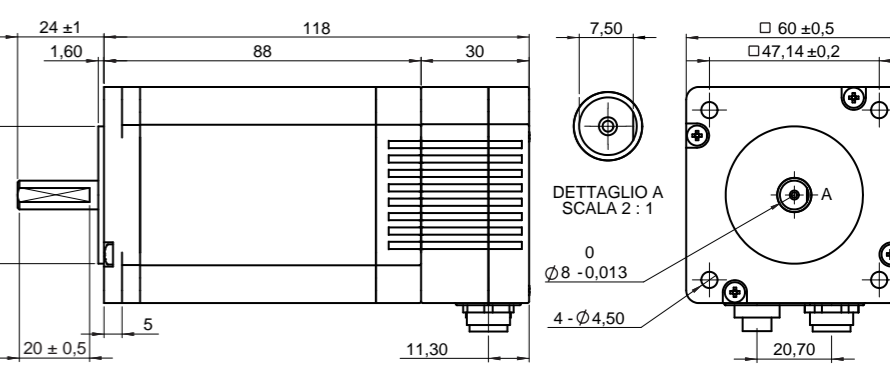
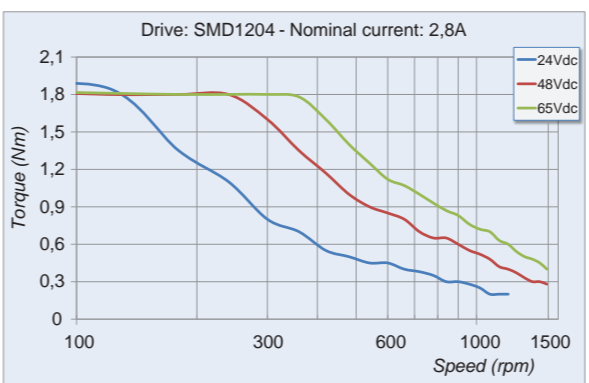
**M60SH65-Tx**

Model	Motor code	Current A/Phase	Ω per phase	mH per phase	Detent torque	Holding torque	Rotor inertia	Encoder	Pulses/revolution	Weight
M60SH65-T-C	M02	2,8 A	1,2 Ω	4,6 mH	56 mNm	2,1 Nm	570 gcm <sup>2</sup>	-	-	1,2 Kg
M60SH65-TO0512P24C	M90	2,8 A	1,2 Ω	4,6 mH	56 mNm	2,1 Nm	570 gcm <sup>2</sup>	Push-pull	512	1,2 Kg
M60SH65-TO0512L05C	M81	2,8 A	1,2 Ω	4,6 mH	56 mNm	2,1 Nm	570 gcm <sup>2</sup>	Line-driver	512	1,2 Kg



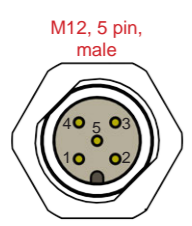
**M60SH86-Tx**

Model	Motor code	Current A/Phase	Ω per phase	mH per phase	Detent torque	Holding torque	Rotor inertia	Encoder	Pulses/revolution	Weight
M60SH86-T-C	M06	2,8 A	1,5 Ω	6,8 mH	75 mNm	3,1 Nm	840 gcm <sup>2</sup>	-	-	1,4 Kg
M60SH86-TO0512P24C	M91	2,8 A	1,5 Ω	6,8 mH	75 mNm	3,1 Nm	840 gcm <sup>2</sup>	Push-pull	512	1,4 Kg
M60SH86-TO0512L05C	M82	2,8 A	1,5 Ω	6,8 mH	75 mNm	3,1 Nm	840 gcm <sup>2</sup>	Line-driver	512	1,4 Kg



Connessioni MOTORE serie M57 - M60  
*M57 - M60 series MOTOR Wiring*

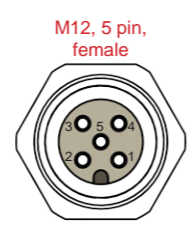
PIN	DESCRIPTION
1	Fase A- / Phase A-
2	Fase A / Phase A
3	Fase B- / Phase B-
4	Fase B / Phase B
5	Schermo / Shield



Connessioni ENCODER serie M57 - M60  
*M57 - M60 series ENCODER Wiring*

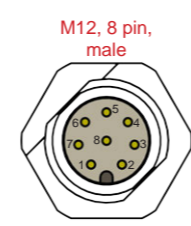
**PUSH PULL**

PIN	DESCRIPTION
1	Vin (+24 Vdc)
2	CANALE A / CHANNEL A
3	COMUNE / COMMON
4	CANALE B / CHANNEL B
5	CANALE Z / CHANNEL Z



**LINE DRIVER**

PIN	DESCRIPTION
1	CANALE Z+ / CHANNEL Z+
2	Vin (+5 Vdc)
3	CANALE A+ / CHANNEL A+
4	CANALE A- / CHANNEL A-
5	CANALE B+ / CHANNEL B+
6	CANALE B- / CHANNEL B-
7	COMUNE / COMMON
8	CANALE Z- / CHANNEL Z-



**SPECIFICATIONS**

	M57 - M60
Insulation class	B
Ambient temperature	-20°C +50°C
Temperature rise	80°C max (2 phases ON)
Insulation resistance	100 MΩ min 500Vdc
Dielectric Strength	500 Vac for one minute
Shaft radial play	0.02 max (0.5Kg)
Shaft axial play	0.08 max (1Kg)
Max radial force	75 N (20mm from front flange)
Max axial force	15 N

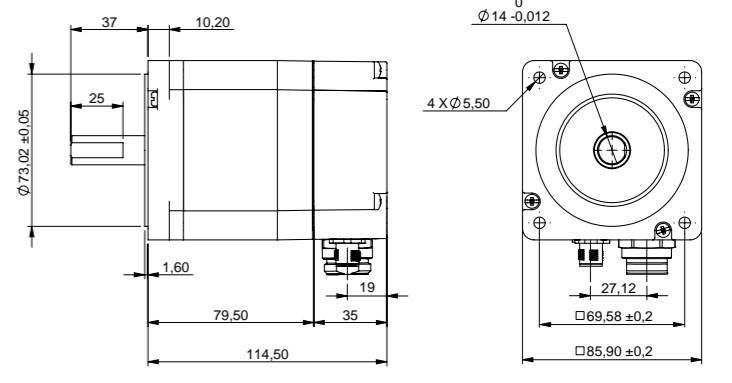
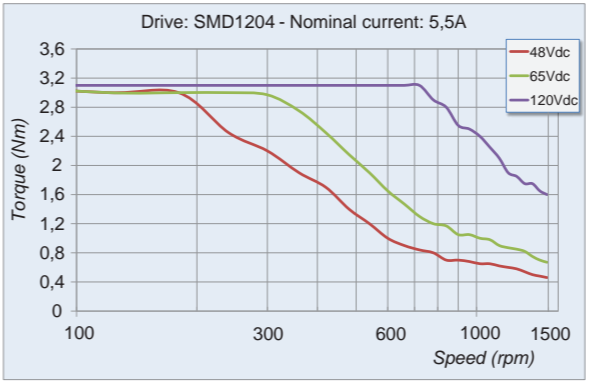


**NEMA 34 - 2 FASI - HIGH TORQUE - SERIE M86 - 1,8°**  
**NEMA 34 - 2 Phases - HIGH TORQUE - M86 Series - 1,8°**

**M86SH80-Tx**

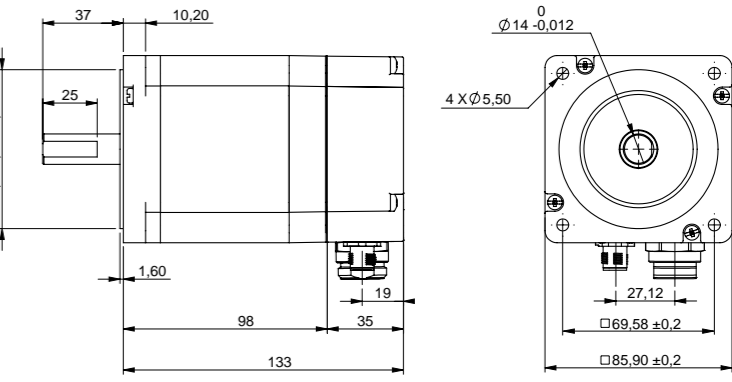
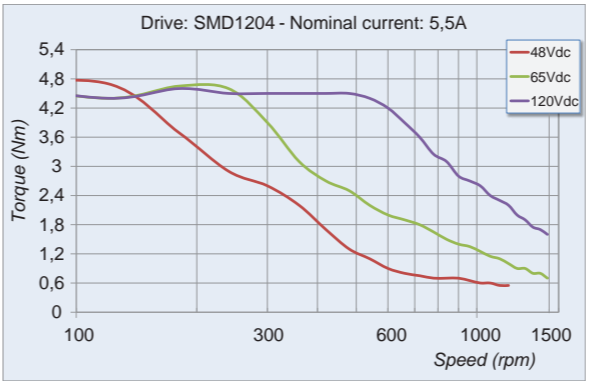
Model	Motor code	Current A/Phase	$\Omega$ per phase	mH per phase	Detent torque	Holding torque	Rotor inertia	Encoder	Pulses/revolution	Weight
M86SH80-T-C	M15	5,5 A	0,42 $\Omega$	3,5 mH	130 mNm	4,6 Nm	1400 gcm <sup>2</sup>	-	-	2,3 Kg
M86SH80-TO0512P24C	M92	5,5 A	0,42 $\Omega$	3,5 mH	130 mNm	4,6 Nm	1400 gcm <sup>2</sup>	Push-pull	512	2,3 Kg
M86SH80-TO0512L05C	M83	5,5 A	0,42 $\Omega$	3,5 mH	130 mNm	4,6 Nm	1400 gcm <sup>2</sup>	Line-driver	512	2,3 Kg

The torque curves are made with AEP torque transducer mod. MRT250NM



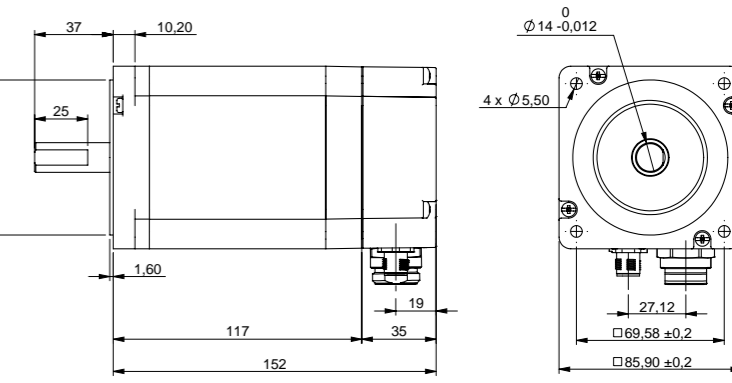
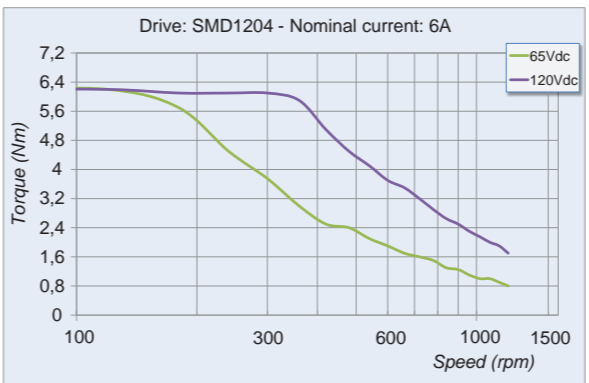
**M86SH96-Tx**

Model	Motor code	Current A/Phase	$\Omega$ per phase	mH per phase	Detent torque	Holding torque	Rotor inertia	Encoder	Pulses/revolution	Weight
M86SH96-T-C	M216	5,6 A	0,45 $\Omega$	3,8 mH	120 mNm	6,5 Nm	1900 gcm <sup>2</sup>	-	-	2,9 Kg
M86SH96-TO0512P24C	M217	5,6 A	0,45 $\Omega$	3,8 mH	120 mNm	6,5 Nm	1900 gcm <sup>2</sup>	Push-pull	512	2,9 Kg
M86SH96-TO0512L05C	M218	5,6 A	0,45 $\Omega$	3,8 mH	120 mNm	6,5 Nm	1900 gcm <sup>2</sup>	Line-driver	512	2,9 Kg



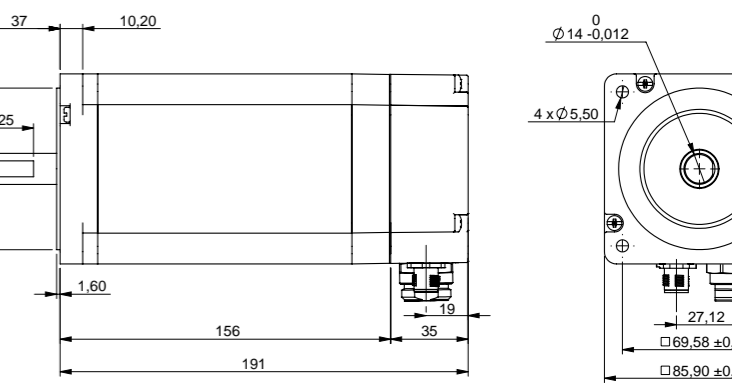
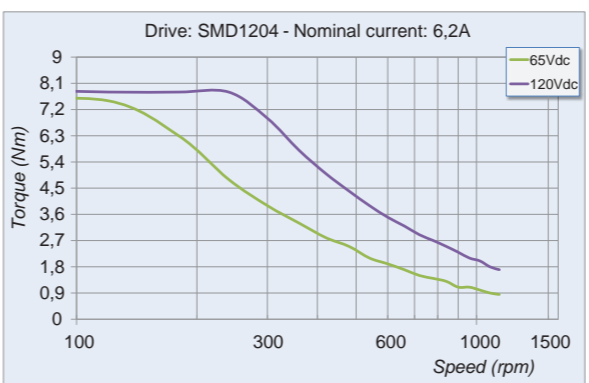
**M86SH118-Tx**

Model	Motor code	Current A/Phase	$\Omega$ per phase	mH per phase	Detent torque	Holding torque	Rotor inertia	Encoder	Pulses/revolution	Weight
M86SH118-T-C	M18	6,0 A	0,45 $\Omega$	5,1 mH	230 mNm	8,7 Nm	2700 gcm <sup>2</sup>	-	-	3,8 Kg
M86SH118-TO0512P24C	M93	6,0 A	0,45 $\Omega$	5,1 mH	230 mNm	8,7 Nm	2700 gcm <sup>2</sup>	Push-pull	512	3,8 Kg
M86SH118-TO0512L05C	M84	6,0 A	0,45 $\Omega$	5,1 mH	230 mNm	8,7 Nm	2700 gcm <sup>2</sup>	Line-driver	512	3,8 Kg



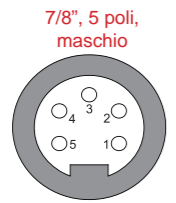
**M86SH156-Tx**

Model	Motor code	Current A/Phase	$\Omega$ per phase	mH per phase	Detent torque	Holding torque	Rotor inertia	Encoder	Pulses/revolution	Weight
M86SH156-T-C	M22	6,2 A	0,75 $\Omega$	9 mH	360 mNm	12,8 Nm	4000 gcm <sup>2</sup>	-	-	5,4 Kg
M86SH156-TO0512P24C	M94	6,2 A	0,75 $\Omega$	9 mH	360 mNm	12,8 Nm	4000 gcm <sup>2</sup>	Push-pull	512	5,4 Kg
M86SH156-TO0512L05C	M85	6,2 A	0,75 $\Omega$	9 mH	360 mNm	12,8 Nm	4000 gcm <sup>2</sup>	Line-driver	512	5,4 Kg



Connessioni MOTORE serie M86  
M86 series MOTOR Wiring

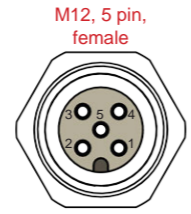
PIN	DESCRIPTION
1	Fase A / Phase A
2	Fase A- / Phase A-
3	Schermo / Shield
4	Fase B / Phase B
5	Fase B- / Phase B-



Connessioni ENCODER serie M86  
M86 series ENCODER Wiring

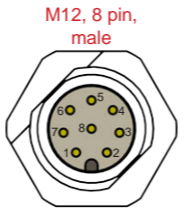
**PUSH PULL**

PIN	DESCRIPTION
1	VIN (+24 Vdc)
2	CANALE A / CHANNEL A
3	COMUNE / COMMON
4	CANALE B / CHANNEL B
5	CANALE Z / CHANNEL Z



**LINE DRIVER**

PIN	DESCRIPTION
1	CANALE Z+ / CHANNEL Z+
2	VIN (+5 Vdc)
3	CANALE A+ / CHANNEL A+
4	CANALE A- / CHANNEL A-
5	CANALE B+ / CHANNEL B+
6	CANALE B- / CHANNEL B-
7	COMUNE / COMMON
8	CANALE Z- / CHANNEL Z-



**SPECIFICATIONS**

	M86 Series
Insulation class	B
Ambient temperature	-20°C +50°C
Temperature rise	80°C max (2 phases ON)
Insulation resistance	100 M $\Omega$ min 500Vdc
Dielectric Strength	820 Vac per minuto
Shaft radial play	0.02 max (0.5Kg)
Shaft axial play	0.08 max (1Kg)
Max radial force	220 N (20mm from front flange)
Max axial force	60 N

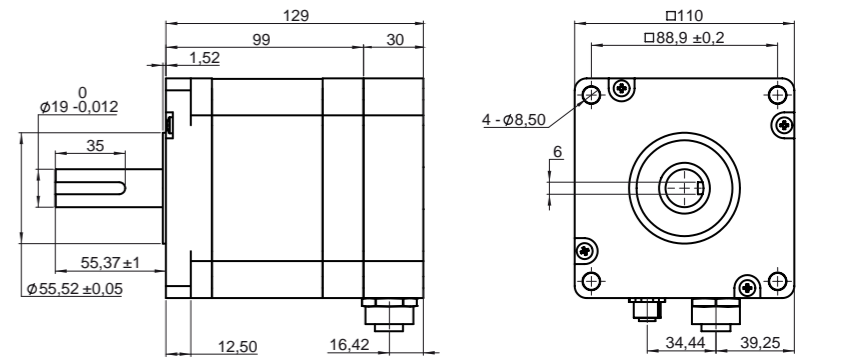
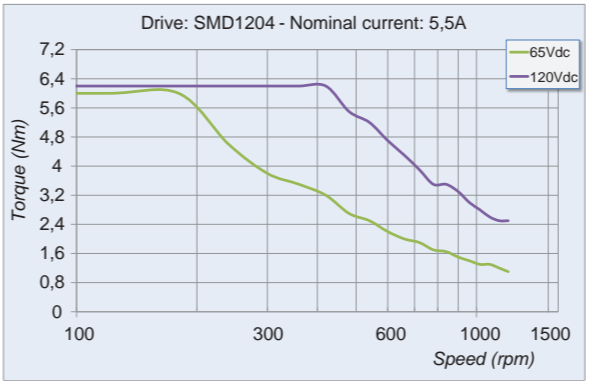


**NEMA 42 - 2 FASI - HIGH TORQUE - SERIE M110 - 1,8°**  
**NEMA 42 - 2 Phases - HIGH TORQUE - M110 Series - 1,8°**

The torque curves are made with AEP torque transducer mod. MRT250NM

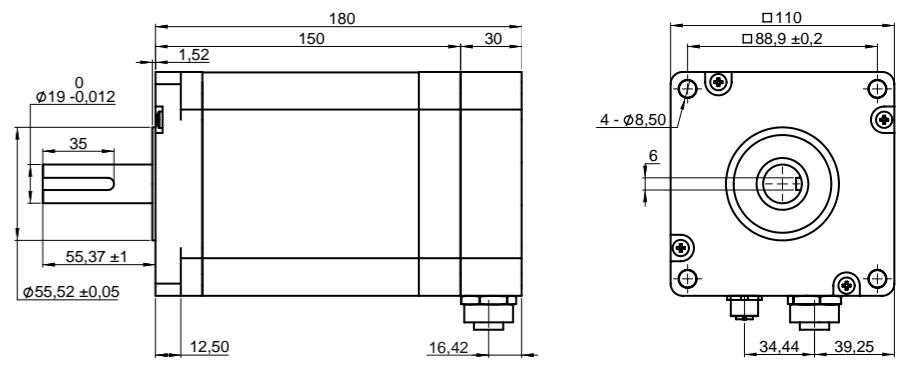
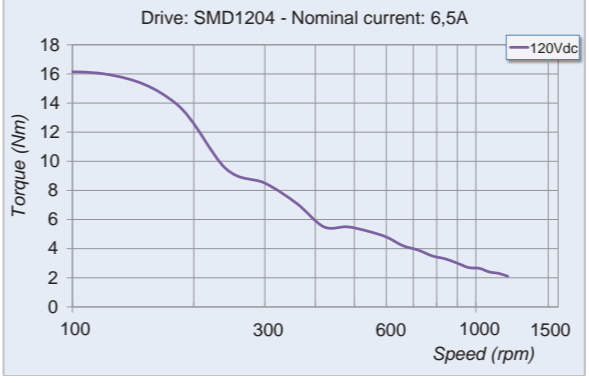
**M110SH99-Tx**

Model	Motor code	Current A/Phase	Ω per phase	mH per phase	Detent torque	Holding torque	Rotor inertia	Encoder	Pulses/revolution	Weight
M110SH99-T-C	M32	5,5 A	0,9 Ω	12 mH	380 mNm	11,2 Nm	5500 gcm <sup>2</sup>	-	-	5 Kg
M110SH99-TO0512P24C	M95	5,5 A	0,9 Ω	12 mH	380 mNm	11,2 Nm	5500 gcm <sup>2</sup>	Push-pull	512	5 Kg
M110SH99-TO0512L05C	M86	5,5 A	0,9 Ω	12 mH	380 mNm	11,2 Nm	5500 gcm <sup>2</sup>	Line-driver	512	5 Kg



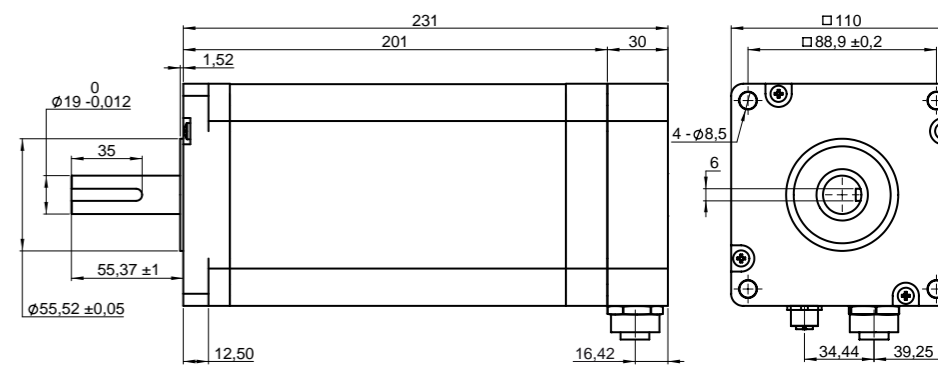
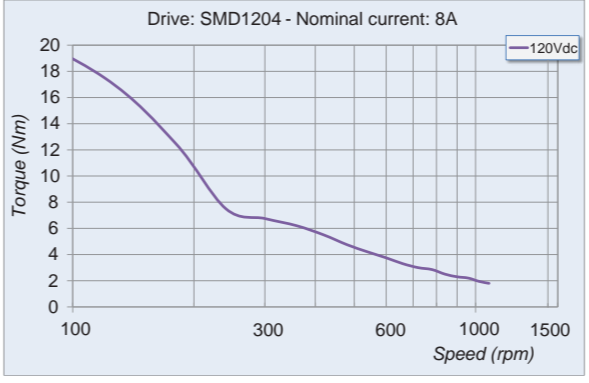
**M110SH150-Tx**

Model	Motor code	Current A/Phase	Ω per phase	mH per phase	Detent torque	Holding torque	Rotor inertia	Encoder	Pulses/revolution	Weight
M110SH150-T-C	M36	6,5 A	0,8 Ω	15 mH	510 mNm	22 Nm	10900 gcm <sup>2</sup>	-	-	8,4 Kg
M110SH150-TO0512P24C	M96	6,5 A	0,8 Ω	15 mH	510 mNm	22 Nm	10900 gcm <sup>2</sup>	Push-pull	512	8,4 Kg
M110SH150-TO0512L05C	M87	6,5 A	0,8 Ω	15 mH	510 mNm	22 Nm	10900 gcm <sup>2</sup>	Line-driver	512	8,4 Kg



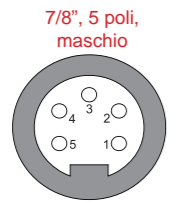
**M110SH201-Tx**

Model	Motor code	Current A/Phase	Ω per phase	mH per phase	Detent torque	Holding torque	Rotor inertia	Encoder	Pulses/revolution	Weight
M110SH201-T-C	M40	8,0 A	0,67 Ω	12 mH	670 mNm	30 Nm	16200 gcm <sup>2</sup>	-	-	11,7 Kg
M110SH201-TO0512P24C	M97	8,0 A	0,67 Ω	12 mH	670 mNm	30 Nm	16200 gcm <sup>2</sup>	Push-pull	512	11,7 Kg
M110SH201-TO0512L05C	M88	8,0 A	0,67 Ω	12 mH	670 mNm	30 Nm	16200 gcm <sup>2</sup>	Line-driver	512	11,7 Kg



Connessioni MOTORE serie M110  
M110 series MOTOR Wiring

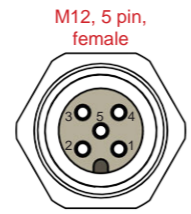
PIN	DESCRIPTION
1	Fase A / Phase A
2	Fase A- / Phase A-
3	Schermo / Shield
4	Fase B / Phase B
5	Fase B- / Phase B-



Connessioni ENCODER serie M110  
M110 series ENCODER Wiring

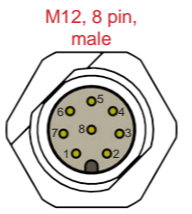
**PUSH PULL**

PIN	DESCRIPTION
1	V <sub>IN</sub> (+24 Vdc)
2	CANALE A / CHANNEL A
3	COMUNE / COMMON
4	CANALE B / CHANNEL B
5	CANALE Z / CHANNEL Z



**LINE DRIVER**

PIN	DESCRIPTION
1	CANALE Z+ / CHANNEL Z+
2	V <sub>IN</sub> (+5 Vdc)
3	CANALE A+ / CHANNEL A+
4	CANALE A- / CHANNEL A-
5	CANALE B+ / CHANNEL B+
6	CANALE B- / CHANNEL B-
7	COMUNE / COMMON
8	CANALE Z- / CHANNEL Z-



**SPECIFICATIONS**

	M110 Series
Insulation class	B
Ambient temperature	-20°C +50°C
Temperature rise	80°C max (2 phases ON)
Insulation resistance	100 MΩ min 500Vdc
Dielectric Strength	820 Vac for one minute
Shaft radial play	0.02 max (0.5Kg)
Shaft axial play	0.08 max (1Kg)
Max radial force	220 N (20mm from front flange)
Max axial force	60 N



# MOTORIDUTTORI EPICICLOIDALI PLANETARY GEARMOTORS

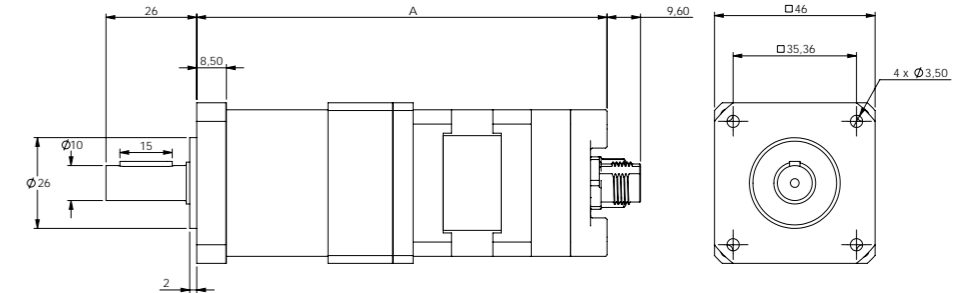


Gearbox	IPG42		IPG55	
	1 stage	2 stages	1 stage	2 stages
Motor	A	A	A	A
M42SH33-Txx	118	129	-	-
M42SH47-Txx	132	143	-	-
M42SH60-Txx	144	155	-	-
M57SH56-Txx	-	-	151	170
M57SH76-Txx	-	-	171	190
M60SH65-Txx	-	-	162	181
M60SH86-Txx	-	-	183	202

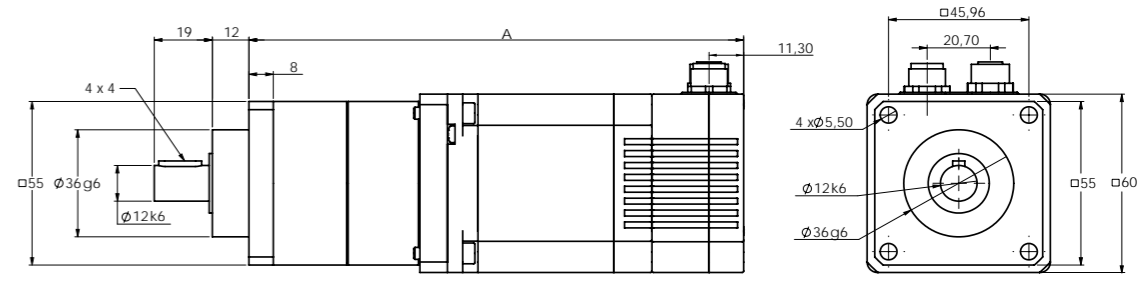
Dimensions in mm.

Gearbox	IPG75			IPG90			IPG120	
	1 stage	2 stages	B	1 stage	2 stages	B	1 stage	2 stages
Motor	A	A		A	A		A	A
M86SH80-Txx	200	223	86	215	244	86	-	-
M86SH96-Txx	218	241	86	233	262	86	-	-
M86SH118-Txx	237	-	86	252	281	86	-	-
M86SH156-Txx	276	-	86	291	320	86	-	-
M110SH99-Txx	-	-	-	242	271	110	259	292
M110SH150-Txx	-	-	-	-	-	-	310	343
M110SH201-Txx	-	-	-	-	-	-	361	394

IPG42xxx								
Stages	Reduction ratio	Intermittent torque	Acceleration torque	Emergency torque	Dynamic efficiency	Backlash	Inertia	Output shaft
1	3 .. 8	6 .. 9 Nm	6 .. 9 Nm	12 .. 18 Nm	0,96	10'	0,017..0,03 Kgcm <sup>2</sup>	10 mm
2	16 .. 64	8 .. 12 Nm	8 .. 12 Nm	12 .. 24 Nm	0,94	15'	0,016..0,022 Kgcm <sup>2</sup>	10 mm

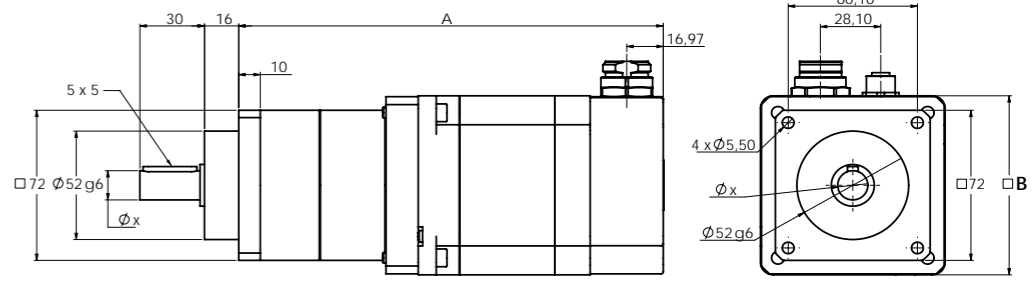


IPG55xxx								
Stages	Reduction ratio	Intermittent torque	Acceleration torque	Emergency torque	Dynamic efficiency	Backlash	Inertia	Output shaft
1	3 .. 10	10 .. 16 Nm	20 .. 24 Nm	40 .. 48 Nm	0,96	8'	0,05..0,09 Kgcm <sup>2</sup>	12 mm
2	9 .. 100	12 .. 16 Nm	22 .. 28 Nm	44 .. 56 Nm	0,93	10'	0,05..0,09 Kgcm <sup>2</sup>	12 mm



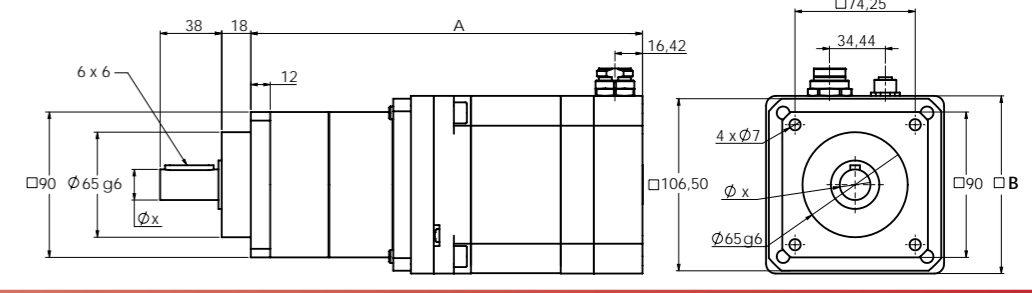
IPG75xxx								
Stages	Reduction ratio	Intermittent torque	Acceleration torque	Emergency torque	Dynamic efficiency	Backlash	Inertia	Output shaft
1	3 .. 10	20 .. 32 Nm	40 .. 50 Nm	80 .. 100 Nm	0,96	8'	0,09..0,22 Kgcm <sup>2</sup>	14 / 16 mm
2	9 .. 100	22 .. 36 Nm	45 .. 60 Nm	90 .. 120 Nm	0,93	10'	0,09..0,21 Kgcm <sup>2</sup>	14 / 16 mm

Output shaft	TQ	AQ
Ø x	14 k6	16 k6



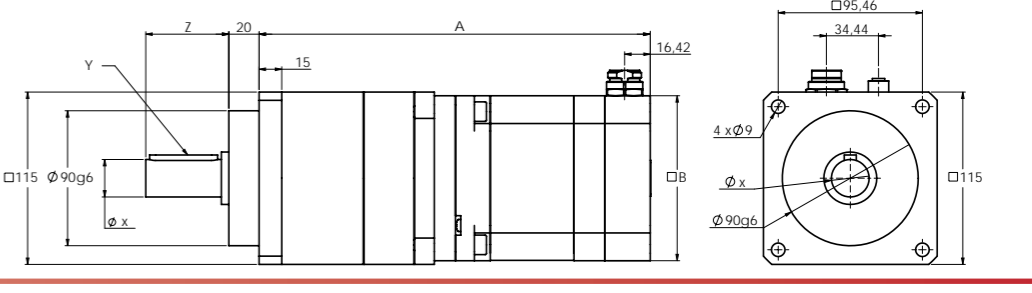
IPG90xxx								
Stages	Reduction ratio	Intermittent torque	Acceleration torque	Emergency torque	Dynamic efficiency	Backlash	Inertia	Output shaft
1	3 .. 10	50 .. 60 Nm	80 .. 100 Nm	160..200 Nm	0,96	8'	0,21..0,73 Kgcm <sup>2</sup>	19 / 22 mm
2	9 .. 100	55 .. 75 Nm	90 .. 120 Nm	180..240 Nm	0,93	10'	0,21..0,73 Kgcm <sup>2</sup>	19 / 22 mm

Output shaft	TQ	AQ
Ø x	19 k6	22 k6



IPG120xxx								
Stages	Reduction ratio	Intermittent torque	Acceleration torque	Emergency torque	Dynamic efficiency	Backlash	Inertia	Output shaft
1	3 .. 10	100..180 Nm	180..290 Nm	380..600 Nm	0,96	8'	0,50..4,17 Kgcm <sup>2</sup>	25 / 32 mm
2	9 .. 100	110..220 Nm	200..350 Nm	400..700 Nm	0,93	10'	0,49..4,15 Kgcm <sup>2</sup>	25 / 32 mm

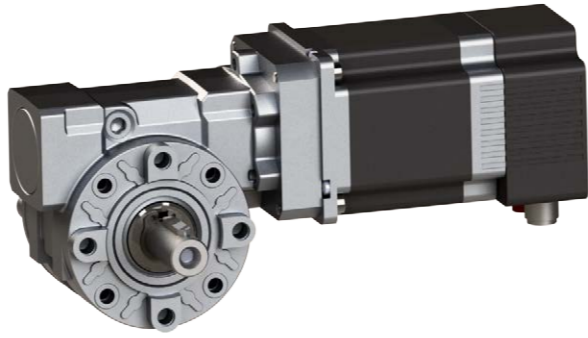
Output shaft	TQ	AQ
Ø x	25 k6	32 k6
Y	8 x 7	10 x 8
Z	55	63



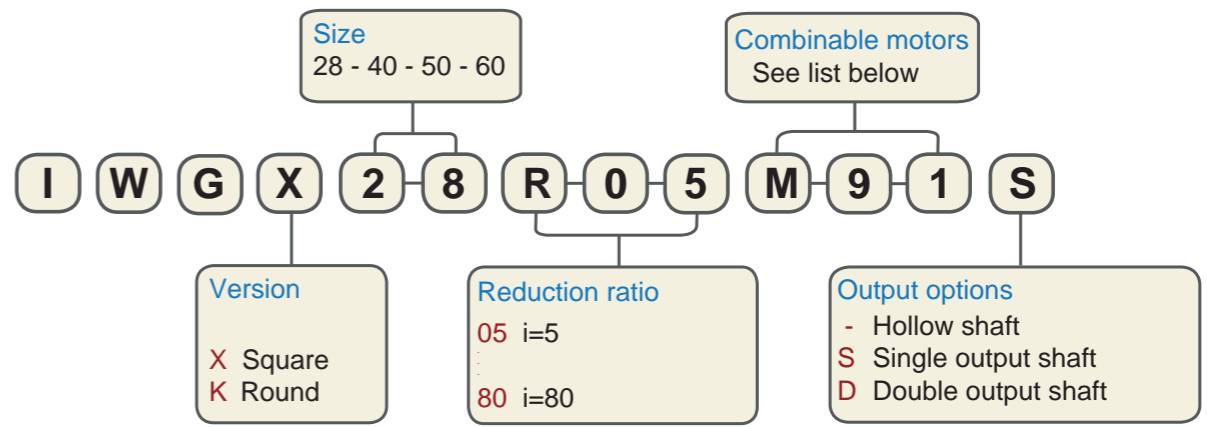
IWGX



IW GK



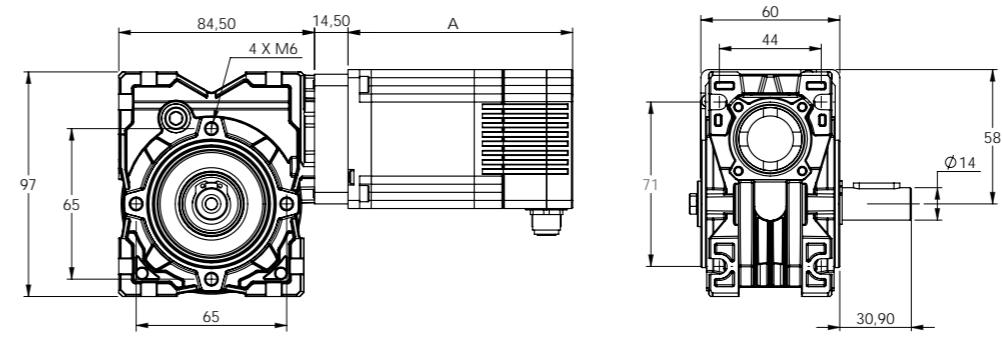
**Ordering code**



Size 28							
Model	Version	Reduction ratio	Maximum applicable output torque	Efficiency (%)	Radial loads	Axial loads	Output shaft
IWGX28	Square	5 .. 100	8 .. 24 Nm	36 .. 86	45 .. 100 N	9 .. 20 N	14 mm
IW GK28	Round						

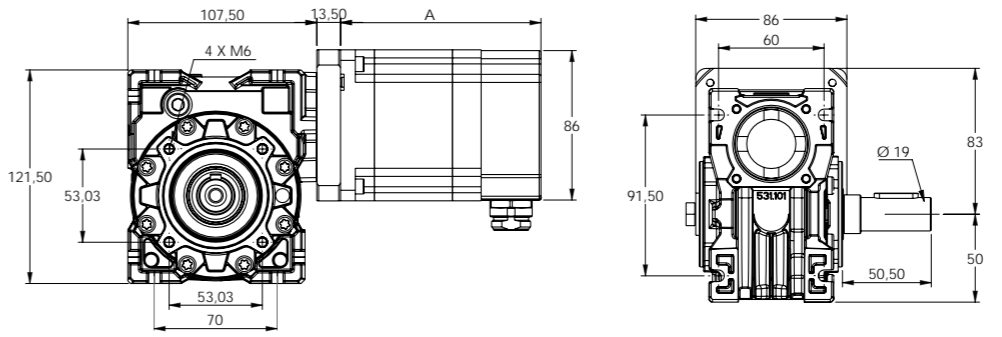
Le quote sono espresse in mm.

Dimensions in mm.



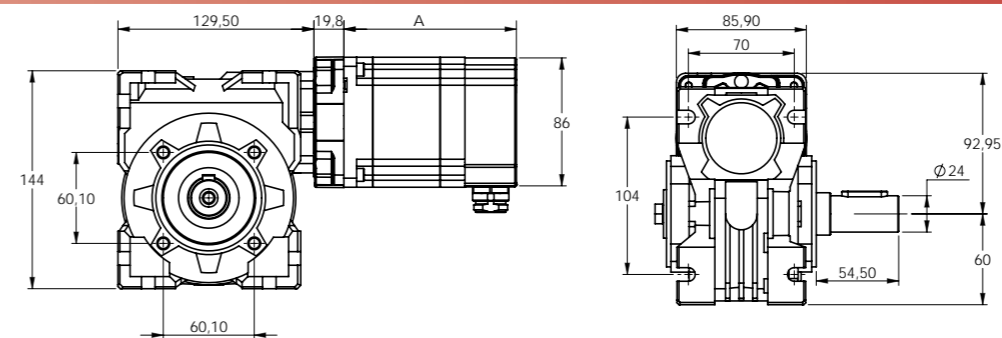
Combinable motors	A
M57SH56-Txx	86
M57SH56-Txx	106
M60SH65-Txx	97
M60SH86-Txx	118

Size 40							
Model	Version	Reduction ratio	Maximum applicable output torque	Efficiency (%)	Radial loads	Axial loads	Output shaft
IWGX40	Square	5 .. 100	38 .. 59 Nm	39 .. 85	100 .. 230 N	20 .. 46 N	19 mm
IW GK40	Round						



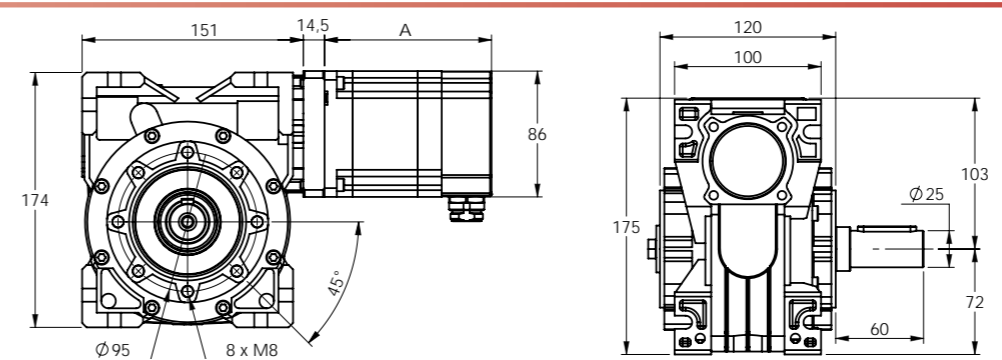
Combinable motors	A
M86SH80-Txx	115
M86SH96-Txx	133
M86SH118-Txx	152
M86SH156-Txx	191

Size 50							
Model	Version	Reduction ratio	Maximum applicable output torque	Efficiency (%)	Radial loads	Axial loads	Output shaft
IWGX50	Square	5 .. 100	62 .. 110 Nm	39 .. 86	125 .. 320 N	25 .. 64 N	24 mm
IW GK50	Round						



Combinable motors	A
M86SH80-Txx	115
M86SH96-Txx	133
M86SH118-Txx	152
M86SH156-Txx	191

Size 60							
Model	Version	Reduction ratio	Maximum applicable output torque	Efficiency (%)	Radial loads	Axial loads	Output shaft
IWGX60	Square	5 .. 100	100 .. 187 Nm	44 .. 87	240 .. 560 N	48 .. 112 N	25 mm
IW GK60	Round						



Combinable motors	A
M86SH80-Txx	115
M86SH96-Txx	133
M86SH118-Txx	152
M86SH156-Txx	191

# FRENI ELETTRICITÀ

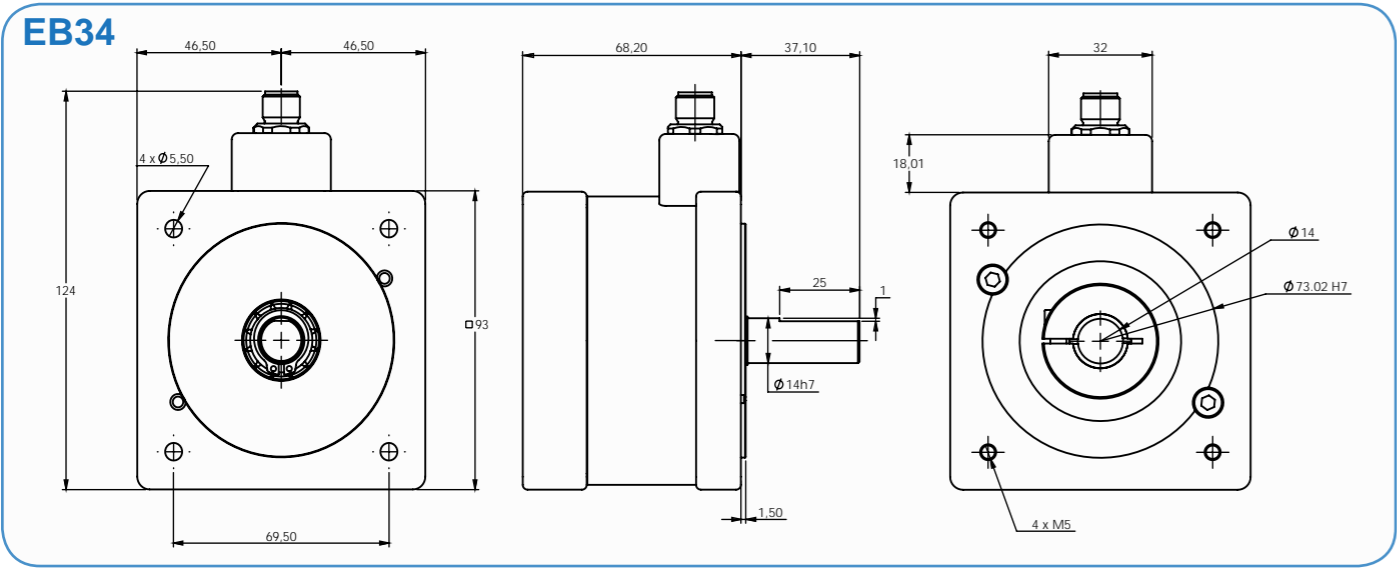
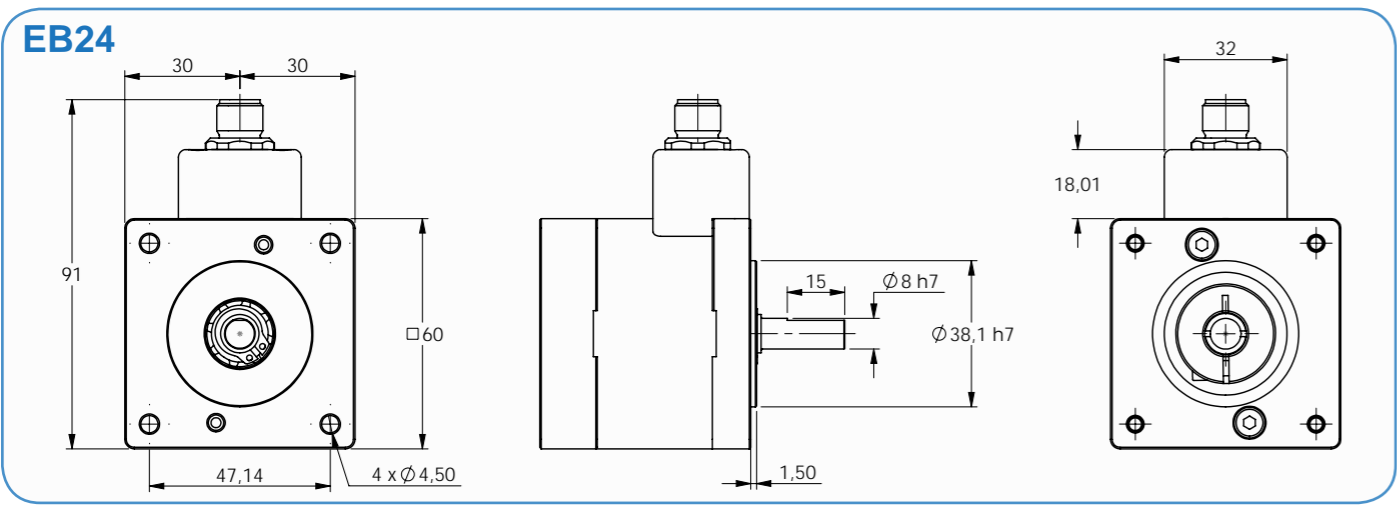
Electro-magnetic brake

EB24 and EB34 are negative single disc electromagnetic brakes, closed by a spring mechanism and equipped with NEMA 24/NEMA 34 flange for an easy and quick mounting. It is used for a dry run as an holding brake.

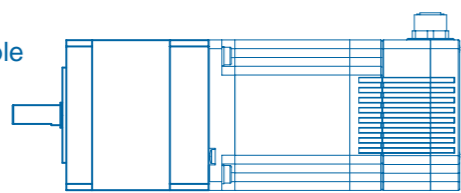
Characteristics		EB24	EB34	U.M.
Braking torque		1,5	3,0	Nm
Max output torque (Nm)		5	13	Nm
Max axial force (Fa)		5	10	N
Max radial force (Fr)		5	10	N
Tripping time	Insertion	10	17	ms
	Disinsertion	21	35	ms
Maximum speed		3000	3000	RPM
Inertia		9	70	gcm <sup>2</sup>
Operating temperature range		-10 .. +90	-10 .. +90	°C
Ambient temperature range		-10 .. +50	-10 .. +50	°C
Humidity range (no condensation)		95% or less	95% or less	%HR
Weight		750	1850	g
Supply		24	24	V <sub>dc</sub>
Power		15	24	W



## Mechanical dimensions



Mounting example



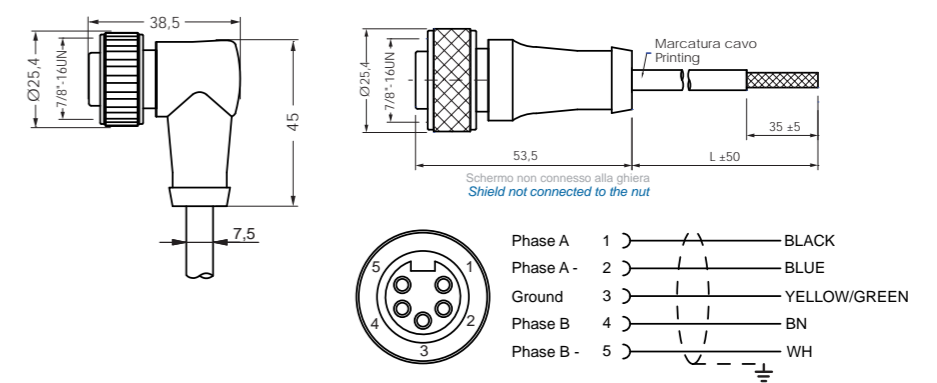
# CAVI A POSA MOBILE

Dynamic laying cables

## CONV05Fxx78CxxSU100

Cavo motore preassemblato  
7/8" 5 vie femmina

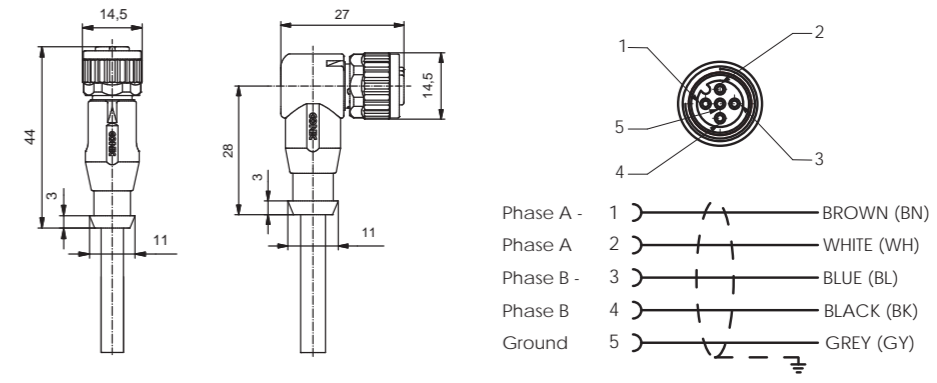
7/8" 5 ways female  
preassembled motor cable



## CONV05FxxM12CxxSU034

Cavo motore preassemblato  
M12 5 vie femmina

M12 5 ways female  
preassembled motor cable

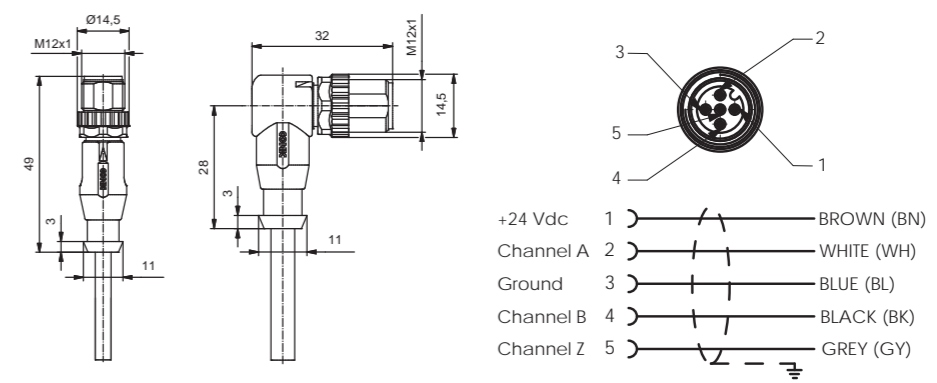


## CONV05MxxM12CxxSU025

Cavo encoder PUSH PULL  
preassemblato M12 5 vie maschio

M12 5 ways male  
preassembled PUSH-PULL  
encoder cable

### ENCODER PUSH-PULL

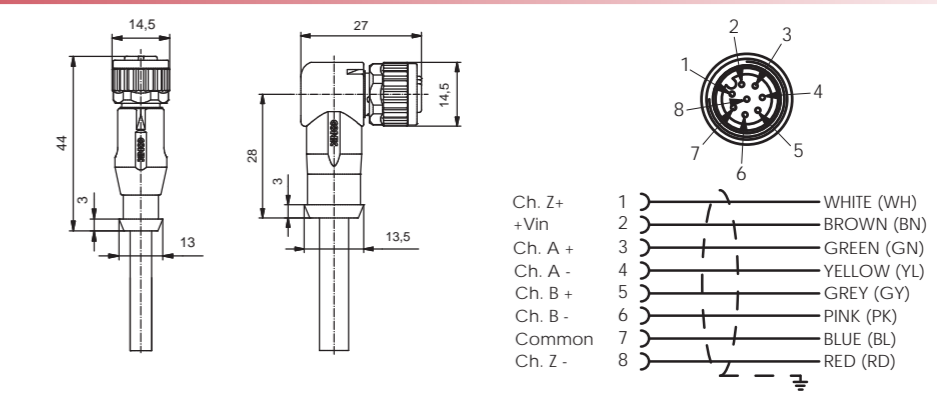


## CONV08FxxM12CxxSU025

Cavo encoder LINE-DRIVER  
preassemblato M12 8 vie femmina

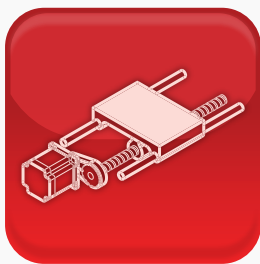
M12 8 ways female  
preassembled LINE-DRIVER  
encoder cable

### ENCODER LINE-DRIVER



SPECIFICATIONS / <i>Specifications</i>	UM	CONV05Fxx78CxxSU100	CONV05MxxM12CxxSU025	CONV05FxxM12CxxSU034	CONV08FxxM12CxxSU025
Temperatura posa mobile / <i>Dynamic laying temperature</i>	°C	-30 .. +80	-25 .. +80	-25 .. +80	-25 .. +80
Temperatura posa fissa / <i>Static laying temperature</i>	°C	-30 .. +80	-25 .. +80	-25 .. +80	-25 .. +80
Formazione sezione / <i>Stranding</i>	N x mm	cl 6	42 x 0,10	32 x 0,10	32 x 0,10
Raggio di curvatura / <i>Banding radius min</i>	mm	10 x Ø	10 x Ø	10 x Ø	10 x Ø
Tensione nominale / <i>Nominale voltage</i>	V	300	300	300	300
Tensione di prova / <i>Testing voltage</i>	V	2000	2000	2000	2000
Note materiale guaina / <i>Sheat material notes</i>		Halogen free	Halogen free	Halogen free	Halogen free
Note materiale isolante / <i>Insulation material notes</i>		Halogen free	Halogen free	Halogen free	Halogen free
Colore / <i>Colour</i>		Black	Black	Black	Black





## Linear actuators

- *Ball-screw linear axes*
- *Belt linear axes*
- *ISO electric cylinders*
- *Pick and Place*



## Rotary actuators

- *Self-supporting programmable rotary tables*
- *Format changeover*
- *Parts orientation*



## Transport systems

- *Variable pitch conveyors*
- *Controlled speed roller tables*
- *Reduced backlash motorgearboxes*



## Unwinding systems

- *Label applicators*
- *Variable or constant pitch unwinding machines*
- *Sheeter machines*

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