

Series MTS and MTB motors for electric actuation

New 

1

MOVEMENT

Series MTS: Stepper motors with Nema 23 or 24 flange

Series MTB: Brushless motors in power classes 100, 400 and 750 W



- » High dynamic motors
- » Available with or without brake
- » With single shaft (Series MTS only)
- » With absolute 13 bit encoder (Series MTB only)
- » Different sizes or power classes available

The new Camozzi motors in both their versions MTS and MTB have been designed to be connected in an easy and practical way to the new product range within electrical actuation, being able to drive both electromechanical cylinders and axes.

The new Series MTB of synchronous AC Brushless motors is available with a power of 100, 400 and 750 W. The standard motors are equipped with a 13 bit encoder with 10.000 increments per cycle and are offered with or without a motor brake. Due to the high dynamics of these motors, it is possible to guarantee a constant torque at any speed. Due to the low mass inertia, they are particularly suitable for high work dynamics, like sudden changes in direction or high moving frequencies.

The new Series MTS electrical Stepper motors, in the sizes Nema 23 and Nema 24, are available with single shaft and without brake according to the application needs of the customer. Each motor version comes with its own driving version that is interfaceable with the QSet configuration software, especially developed by Camozzi in order to simplify the setting up of the electric actuator. For both sizes of MTS motors there is one driving version only.

All the Camozzi Drivers have been designed to interface with the "QSet" configuration software, especially developed in order to simplify the setting up of the electromechanical actuators.

SERIES MTS GENERAL CHARACTERISTICS

Mod. MTS-23-18-060-0-0-S-C, MTS-24-18-250-0-0-S-C		
	MTS-23-18-060-0-0-S-C	MTS-24-18-250-0-0-S-C
Shaft	single	single
Leads	4	4
Length	41 mm	85 mm
Holding torque	0.6 Nm	2.5 Nm
Current per phase	4.5 A/Phase	4.5 A/Phase
Resistance	0.48 \downarrow /Phase	0.65 \downarrow /Phase
Motor inertia	135 g·cm ²	900 g·cm ²
Motor mass	0.42 kg	1.4 kg
Dielectric strength	500 V AC/min	500 V AC/min

SERIES MTB GENERAL CHARACTERISTICS

Mod. MTB-010-2-0-E, MTB-010-2-F-E, MTB-040-2-0-E, MTB-040-2-F-E, MTB-075-2-0-E, MTB-075-2-F-E	
Power	100 W Mod. MTB-010-... 400 W Mod. MTB-040-... 750 W Mod. MTB-075-...
Motor type	permanently excited synchronous servo motor
Magnet	Neodymium, iron and boron (NdFeB)
Housing	Aluminium
Colour	black
Protection class: motor on the shaft connector	IP65 IP40 IP20
Insulation class	class A
Shaft end	no machining
Peak torque	3 × nominal torque
Service life	> 20.000 h (at nominal load)
Connection: motor encoder	cable (300 mm) available out of the motor cable (300 mm) available out of the encoder
Cooling	with an integrated radiator
Thermal monitoring	not available
Encoder	incremental 13-bit TTL encoder, 10 000 pulses/revolution
Ambient temperature	0°C ÷ 40°C
Storage temperature	-15°C ÷ 70°C
Air humidity	up to 80 % of relative air humidity
Max. installation height	at below 1.000 m above sea level

SERIES MTS CODING EXAMPLE

MTS - 23 - 18 - 060 - 4 - 0 - S - C

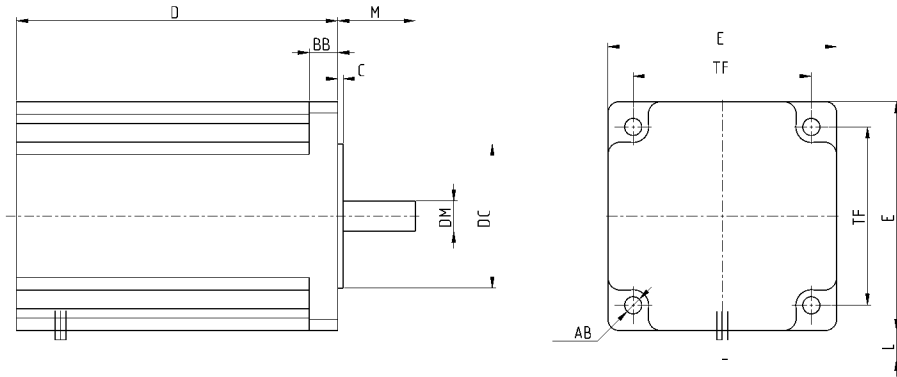
MTS	SERIES
23	MOTOR SIZE FLANGE CONNECTION: 23 = Nema 23 24 = Nema 24
18	RESOLUTION IN DEGREES PER REVOLUTION: 18 = 1.8° per step
060	TORQUE: 060 = 0.6 Nm with Nema 23 only 250 = 2.5 Nm with Nema 24 only
4	ELECTRICAL CONNECTION: 0 = connector 4 = 4 wiring leads
0	BRAKE: 0 = without brake
S	ENCODER VARIANTS: S = single shaft without encoder
C	MECHANICAL SHAFT VARIANTS: C = cylindrical shaft

SERIES MTB CODING EXAMPLE

MTB - 010 - 2 - 0 - E

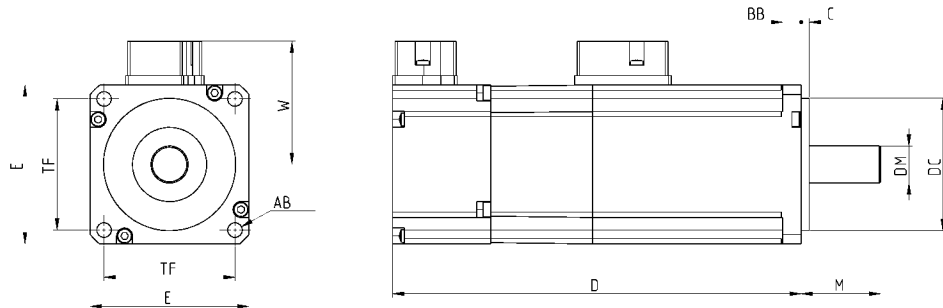
MTB	SERIES
010	POWER: 010 = 100 W 040 = 400 W 075 = 750 W
2	SUPPLY: 2 = 220 V DC
0	BRAKE: 0 = without brake F = with brake
E	ENCODER: E = standard 13 bit

Series MTS Stepper motors - dimensions



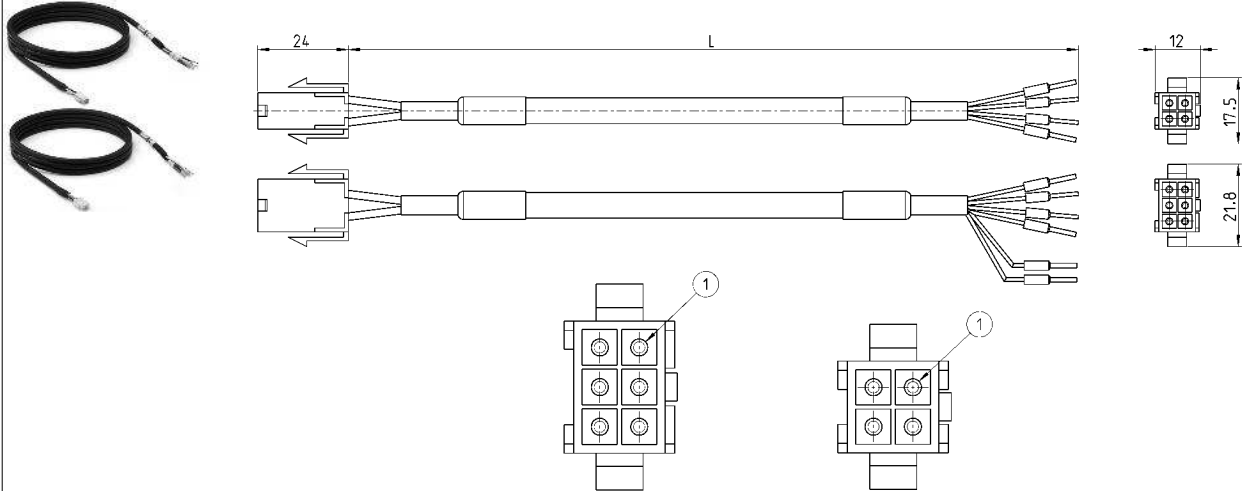
Mod.	Nema	D	E	L	DM [h7]	M	DC [js10]	C	TF	∅AB	BB
MTS-23-18-060-0-0-S-C	23	41	56.4	300 ± 10	6.35	20.6	38.1	1.6	47.14	5.1	4.8
MTS-24-18-250-0-0-S-C	24	85	60.5	300 ± 10	8	20.6	38.1	1.5	47.14	4.5	7.5

Series MTB Brushless motors - dimensions



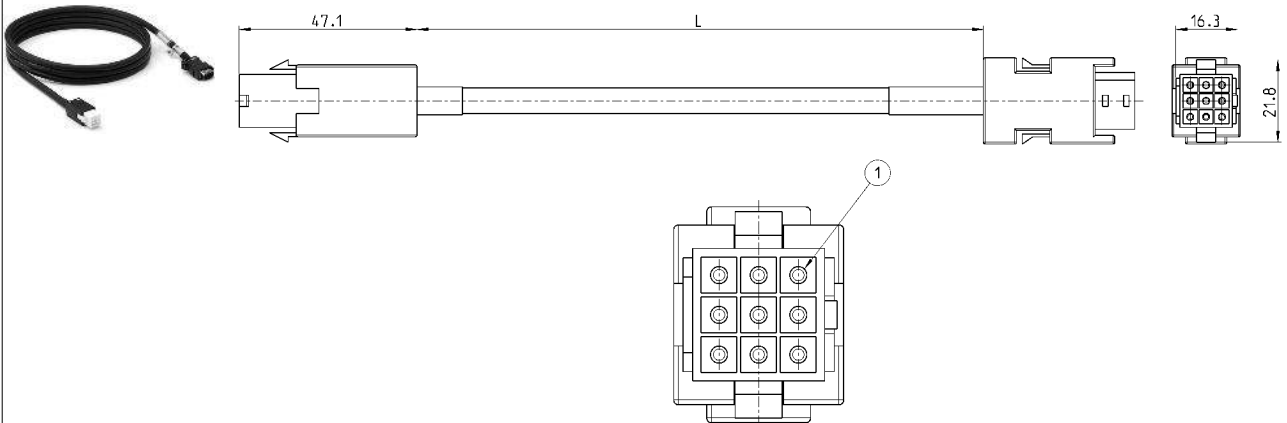
Mod.	Power	D	E	W	∅DM [h6]	M	∅DC	C	TF	∅AB	BB
MTB-010-2-0-E	100 W	110.5	42	32	8	25	30 f7	2.5	31.8	3.4	12
MTB-010-2-F-E	100 W	139	42	32	8	25	30 f7	2.5	31.8	3.4	12
MTB-040-2-0-E	400 W	121.5	60	46.5	14	30	50 h7	3	49.5	5.5	7.5
MTB-040-2-F-E	400 W	159	60	46.5	14	30	50 h7	3	49.5	5.5	7.5
MTB-075-2-0-E	750 W	140	80	56.5	19	40	70 f6	3	63.6	6.6	9
MTB-075-2-F-E	750 W	176	80	56.5	19	40	70 f6	3	63.6	6.6	9

Cables for Stepper (MTS) and Brushless (MTB) motors



Mod.	Motor	Brake	Pins	L = cable (m)
EC-200422-B100	Stepper	-	4	1
EC-200422-B300	Stepper	-	4	3
EC-200422-B500	Stepper	-	4	5
EC-210622-B100	Stepper	婁	6	1
EC-210622-B300	Stepper	婁	6	3
EC-210622-B500	Stepper	婁	6	5
EC-200421-B100	Brushless	-	4	1
EC-200421-B300	Brushless	-	4	3
EC-200421-B500	Brushless	-	4	5
EC-210621-B100	Brushless	婁	6	1
EC-210621-B300	Brushless	婁	6	3
EC-210621-B500	Brushless	婁	6	5

Cables for Brushless (MTS) motor encoder



Mod.	Pins	L = cable (m)
EC-220923-B100	9	1
EC-220923-B300	9	3
EC-220923-B500	9	5