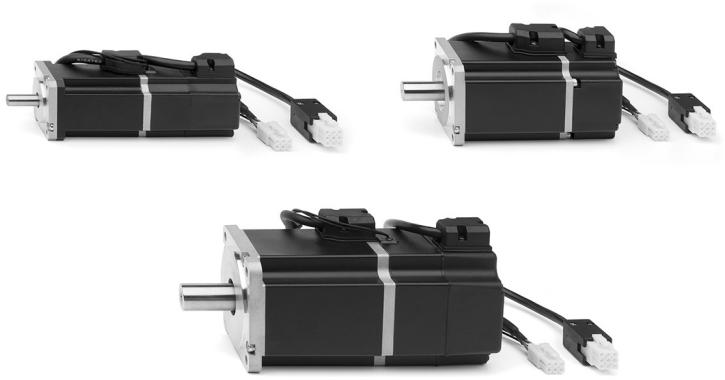
Series MTB motors for electric actuation

Brushless motors in power classes 100, 400, 750, 1000 W



- Low inertia motors
- Available with or without brake
- With incremental 13 bit encoder
- Different sizes or power classes available
- IP65 version available

The Camozzi motors Series 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 Series MTB of synchronous AC Brushless motors is available with a power of 100, 400, 750, 1000 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.

GENERAL DATA

Power	100 W (Mod. MTB-010-...) 400 W (Mod. MTB-040-...) 750 W (Mod. MTB-075-...) 1000 W (Mod. MTB-100...)
Type of motor	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
Nominal torque	0.32 Nm (100 W) - 1.27 Nm (400 W) - 2.4 Nm (750 W) - 4.77 Nm (1000 W)
Peak torque	3 × nominal torque
Braking torque (only for motors with brake)	0.32 Nm (100 W) - 1.27 Nm (400 W) - 2.4 Nm (750 W) - 4.77 Nm (1000 W)
Service life	> 20.000 h (at nominal load)
Motor connection **Encoder connection**	cable (300 mm) available out of the motor cable (300 mm) available out of the encoder (motors with 1 KW power are equipped with an outgoing motor connector)
Cooling	with an integrated radiator
Thermal monitoring	not available
Encoder	incremental 13-bit TTL encoder, 10 000 pulses/revolution
Ambient temperature **Storage temperature**	0°C ÷ 40°C –15°C ÷ 70°C
Air humidity	up to 80% of relative air humidity
Max. installation height	at below 1000 metres above sea level

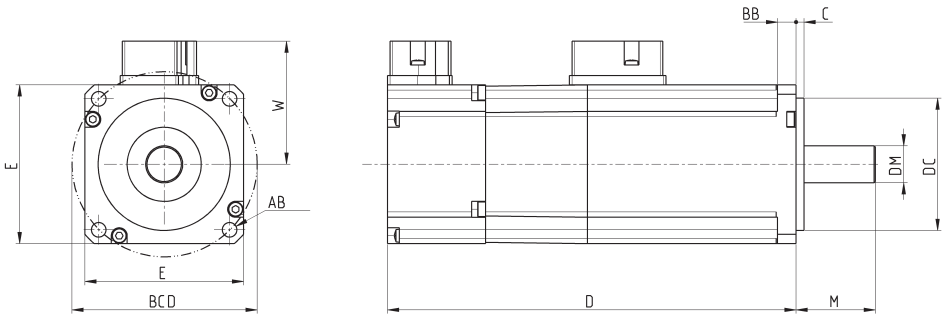
CODING EXAMPLE

MTB	-	010	-	2	-	0	-	E

MTB	SERIES
010	POWER: 010 = 100 W 040 = 400 W 075 = 750 W 100 = 1000 W
2	SUPPLY: 2 = 220 V DC
0	BRAKE: 0 = without brake F = with brake
E	ENCODER: E = incremental 13 bit
	VERSION: = Standard P = IP65

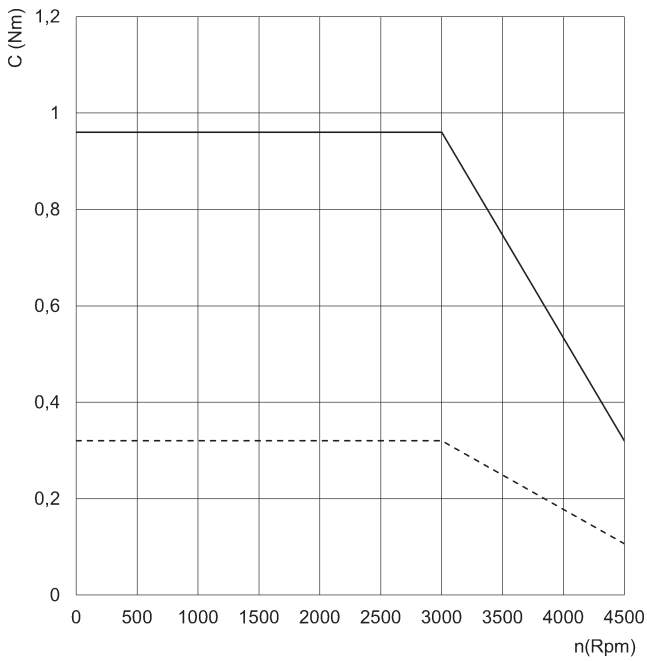
Series MTB Brushless motors - dimensions

Supplied with:
1 motor
4 screws



Mod.	Power	Torque constant	Voltage constant	D	E	W	⌀DM(h6)	M	⌀DC	C	BCD	⌀AB	BB	cavi	J (Kgcm²)	Weight (kg)
MTB-010-2-0-E	100 W	0,356 Nm/Arms	21,98 Vrms/krpm	110.5	42	32	8	25	30 f7	2.5	45	3.4	12	300± 10	0,36	0.63
MTB-010-2-0-EP	100 W	0,356 Nm/Arms	21,98 Vrms/krpm	110.5	42	32	8	25	30 f7	2.5	45	3.4	12	300± 10	0,36	0.75
MTB-010-2-F-E	100 W	0,356 Nm/Arms	21,98 Vrms/krpm	139	42	32	8	25	30 f7	2.5	45	3.4	12	300± 10	0,38	0.76
MTB-010-2-F-EP	100 W	0,356 Nm/Arms	21,98 Vrms/krpm	139	42	32	8	25	30 f7	2.5	45	3.4	12	300± 10	0,38	0.9
MTB-040-2-0-E	400 W	0,51 Nm/Arms	31,9 Vrms/krpm	121.5	60	46.5	14	30	50 h7	3	70	5.5	7.5	300± 10	0,27	1.31
MTB-040-2-0-EP	400 W	0,51 Nm/Arms	31,9 Vrms/krpm	121.5	60	46.5	14	30	50 h7	3	70	5.5	7.5	300± 10	0,27	1.4
MTB-040-2-F-E	400 W	0,51 Nm/Arms	31,9 Vrms/krpm	159	60	46.5	14	30	50 h7	3	70	5.5	7.5	300± 10	0,31	1.86
MTB-040-2-F-EP	400 W	0,51 Nm/Arms	31,9 Vrms/krpm	159	60	46.5	14	30	50 h7	3	70	5.5	7.5	300± 10	0,31	1.95
MTB-075-2-0-E	750 W	0,47 Nm/Arms	28,4 Vrms/krpm	140	80	56.5	19	40	70 f6	3	90	6.6	9	300± 10	1,4	2.66
MTB-075-2-0-EP	750 W	0,47 Nm/Arms	28,4 Vrms/krpm	140	80	56.5	19	40	70 f6	3	90	6.6	9	300± 10	1,4	2.75
MTB-075-2-F-E	750 W	0,47 Nm/Arms	28,4 Vrms/krpm	176	80	56.5	19	40	70 f6	3	90	6.6	9	300± 10	1,46	3.32
MTB-075-2-F-EP	750 W	0,47 Nm/Arms	28,4 Vrms/krpm	176	80	56.5	19	40	70 f6	3	90	6.6	9	300± 10	1,46	3.45
MTB-100-2-0-EP	1000 W	0,94 Nm/Arms	54,7 Vrms/krpm	141	130	113	24	55	110	3	145	9	12	-	7,6	5.8
MTB-100-2-F-EP	1000 W	0,94 Nm/Arms	54,7 Vrms/krpm	175	130	113	24	55	110	3	145	9	12	-	8,7	7.7

Torque-speed curves

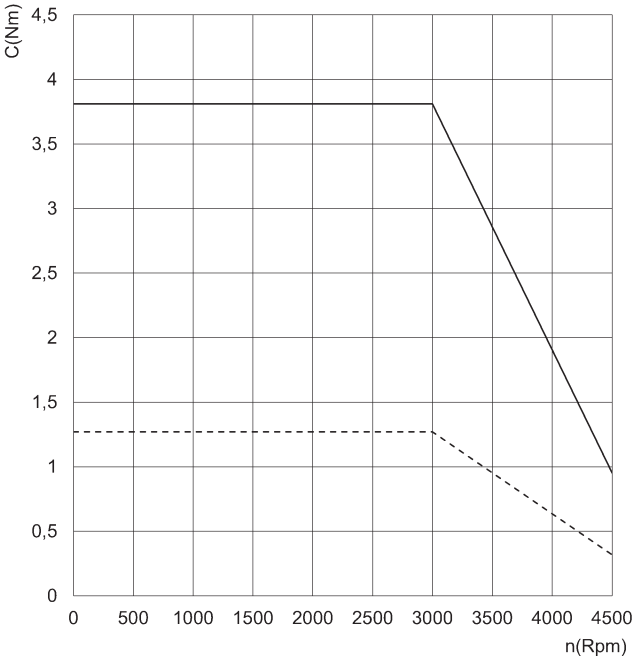


MTB-010..

C = torque
n = number of revolutions per minute

The continuous line represents the peak torque of the motor.

The dashed line represents the nominal torque of the motor.

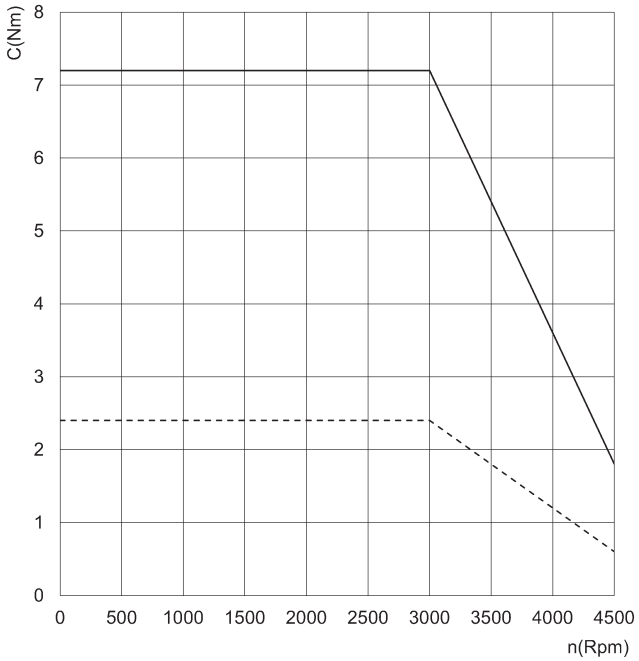


MTB-040..

C = torque
n = number of revolutions per minute

The continuous line represents the peak torque of the motor.

The dashed line represents the nominal torque of the motor.

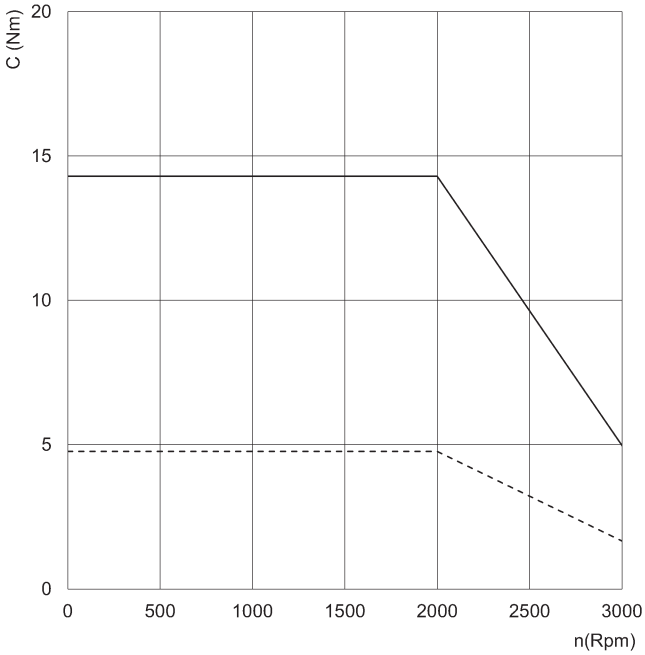


MTB-075..

C = torque
n = number of revolutions per minute

The continuous line represents the peak torque of the motor.

The dashed line represents the nominal torque of the motor.



MTB-100..

C = torque
n = number of revolutions per minute

The continuous line represents the peak torque of the motor.

The dashed line represents the nominal torque of the motor.