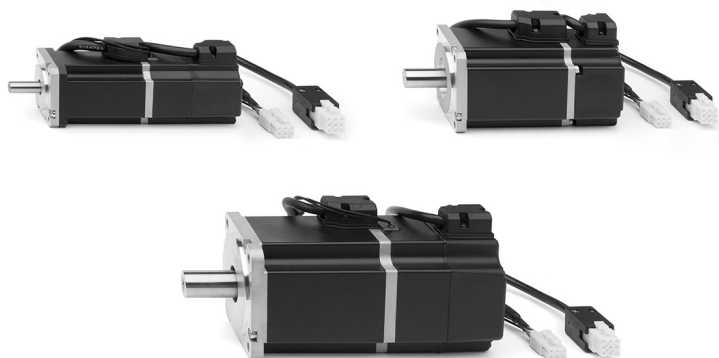


# Series MTB motors for electric actuation

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

<b>Power</b>	100 W (Mod. MTB-010-...) 400 W (Mod. MTB-040-...) 750 W (Mod. MTB-075-...) 1000 W (Mod. MTB-100-...)
<b>Type of motor</b>	permanently excited synchronous servo motor
<b>Magnet</b>	Neodymium, iron and boron (NdFeB)
<b>Housing</b>	Aluminium
<b>Colour</b>	black
<b>Protection class</b>	IP65 (motor) IP40 (shaft) IP20 (connector)
<b>Insulation class</b>	class A
<b>Shaft end</b>	no machining
<b>Nominal torque</b>	0.32 Nm (100 W) - 1.27 Nm (400 W) - 2.4 Nm (750 W) - 4.77 Nm (1000 W)
<b>Peak torque</b>	3 × nominal torque
<b>Braking torque (only for motors with brake)</b>	0.32 Nm (100 W) - 1.27 Nm (400 W) - 2.4 Nm (750 W) - 4.77 Nm (1000 W)
<b>Service life</b>	> 20.000 h (at nominal load)
<b>Motor connection</b>	cable (300 mm) available out of the motor
<b>Encoder connection</b>	cable (300 mm) available out of the encoder (motors with 1 KW power are equipped with an outgoing motor connector)
<b>Cooling</b>	with an integrated radiator
<b>Thermal monitoring</b>	not available
<b>Encoder</b>	incremental 13-bit TTL encoder, 10 000 pulses/revolution
<b>Ambient temperature</b>	0°C ÷ 40°C
<b>Storage temperature</b>	-15°C ÷ 70°C
<b>Air humidity</b>	up to 80% of relative air humidity
<b>Max. installation height</b>	at below 1000 metres above sea level

**CODING EXAMPLE**

<b>MTB</b>	<b>-</b>	<b>010</b>	<b>-</b>	<b>2</b>	<b>-</b>	<b>0</b>	<b>-</b>	<b>E</b>
------------	----------	------------	----------	----------	----------	----------	----------	----------

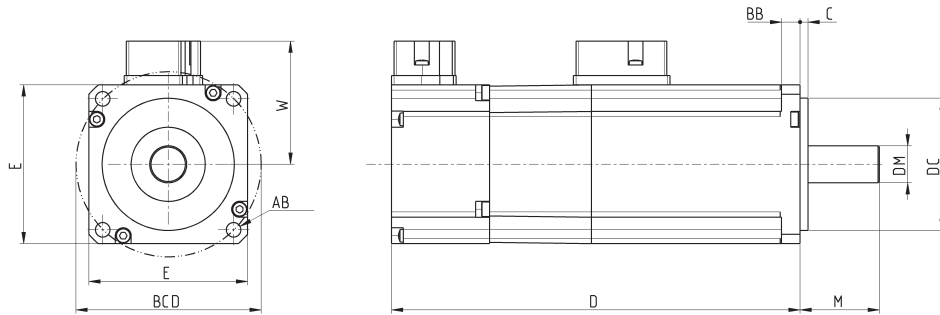
<b>MTB</b>	SERIES
<b>010</b>	POWER: 010 = 100 W 040 = 400 W 075 = 750 W 100 = 1000 W
<b>2</b>	SUPPLY: 2 = 220 V DC
<b>0</b>	BRAKE: 0 = without brake F = with brake
<b>E</b>	ENCODER: E = incremental 13 bit
	VERSION: = Standard P = IP65

SERIES MTB MOTORS

**Series MTB Brushless motors - dimensions**

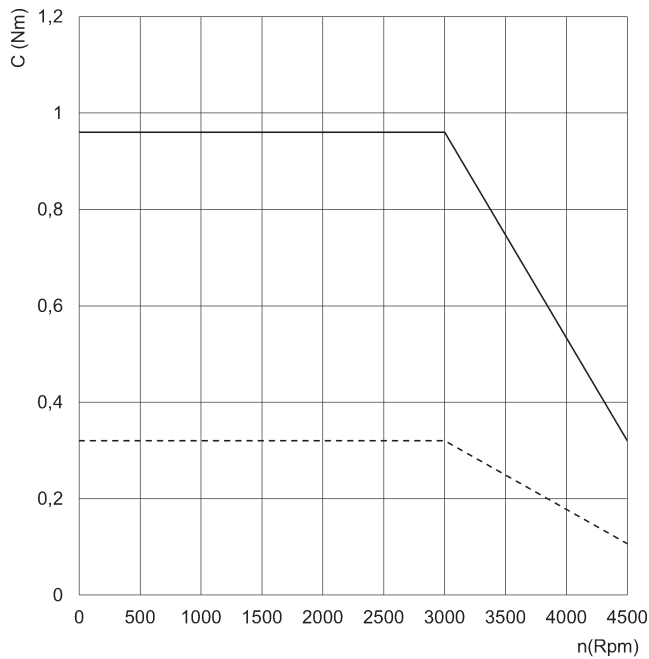


Supplied with:  
1 motor  
4 screws



Mod.	Power	torque constant	voltage constant	D	E	W	$\varnothing_{DM}^{(h6)}$	M	$\varnothing_{DC}$	C	BCD	$\varnothing_{AB}$	BB	$L_{cavi}$	J (Kgcm <sup>2</sup> )	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

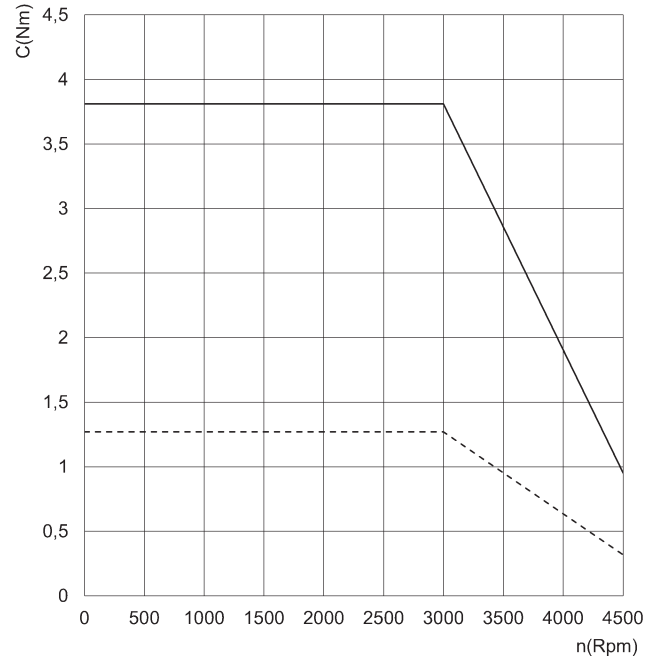


MTB-010..

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.

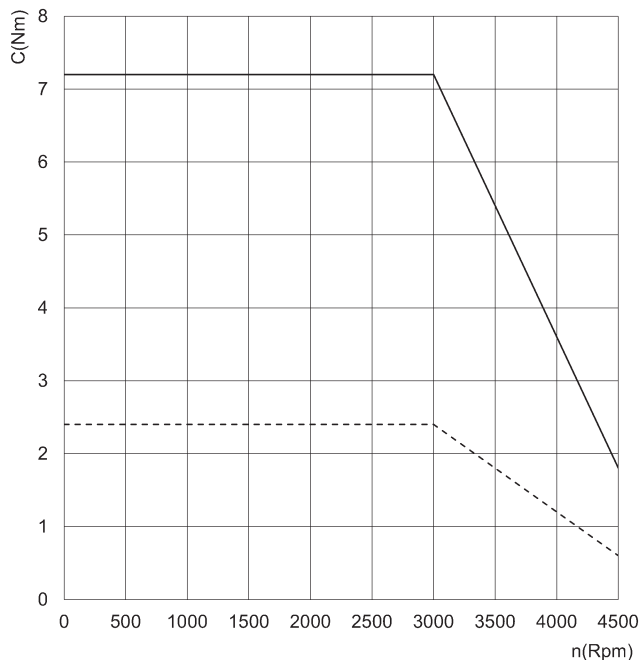


MTB-040..

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.

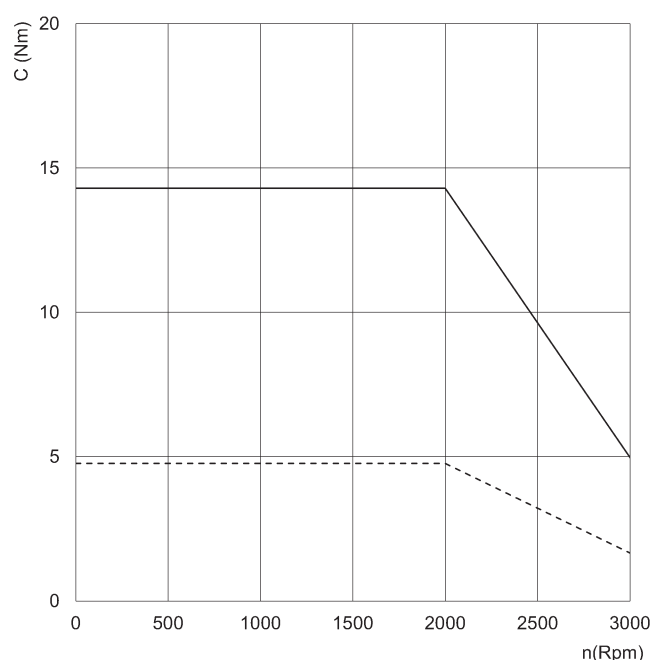


MTB-075..

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.