

Tecnotion presents its full range of TB-motors

The TB-motor is the biggest and strongest of the Tecnotion iron core motor family. It has the same outstanding properties as the other well-known iron core family members.

They stand out for their compact construction, superb force-weight ratio, excellent force-power consumption ratio, low attraction force, fast acceleration, high speed and submicron operational accuracy. They are available as stand-alone products and as integral parts of complete linear drive systems.

TB-motors are applied in:

- Positioning systems
- Pick-and-place systems
- Robotic processes
- Machine tools and for
- Visual inspection purposes



This leaflet gives you the TB's vital technical data. For additional information, please contact

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	Symbol	Unit	TB 15		TB 30		TB 45		TB 60	
			N	S	N	S	N	S	N	S
Motortype, max. voltage ph-ph			3-phase synchronous Ironcore, 600 Veff							
Ultimate Force 3 seconds @25°C	Fu	N	2250		4500		6750		9000	
Ultimate Current	Iu	Arms	13	33	26	66	39	99	52	132
Peak Force 10 seconds @25°C	Fp	N	2000		4000		6000		8000	
Peak Current	Ip	Arms	10	25	20	50	30	75	40	100
Continuous Force * coils @100°C	Fca	N	500..950		1000..1900		1500..2850		2000	2000
									..3800	..3350
Max. Continuous Current * coils @100°C	Ica	Arms	4.2	10.3	8.4	21	12.7	31	16.9	36
Max. Continuous Power Loss all coils	Pc	W	560		1120		1680		2240	1600
Maximum speed @560V	Vmax	m/s	2.5	6	2.5	6	2.5	6	2.5	6
Motor Force Constant I <0.6 Ip	K	N/Arms	225	93	225	93	225	93	225	93
Back EMF	Bemf	V / m/s	183	76	183	76	183	76	183	76
Motor Constant coils @25°C	S	N ² /W	2120		4240		6360		8480	
Magnet Pitch NN	τ	mm	24		24		24		24	
Resistance per phase coils @25°C	Rf	Ω	8	1.4	4	0.7	2.7	0.47	2	0.35
Induction per phase I <0.6 Ip	Lf	mH	64	1.1	32	5.5	21	3.7	16	1.4
Electrical time constant coils @25°C	τe	ms	8		8		8		8	
Thermal Resistance	Rth	°C/W	0.13		0.065		0.043		0.033	
Motor Attraction Force	Fa	N	4000		8000		12000		16000	
Motor Mounting High ± 0.1mm	H	mm	45		45		53		53	
Length of Coil unit	L	mm	290		562		879		1169	
Weight of Coil unit ex cable	M	kg	6		12		~19		~26	
Weight of Cabels	m	gr/m	300		300		600		600	
Temperature Sensor			PTC 1kΩ and KTY 21							

* Depends on application: use of watercooling, cooling surface, air speed and ambient temperature.

Dimensions Magnetplates

Le	192 mm	288 mm	768 mm
N	3	5	15
M5 bolts	8x	12x	32x
Mass	10,5 kg/m		

Magnetplates can be butted together.

