

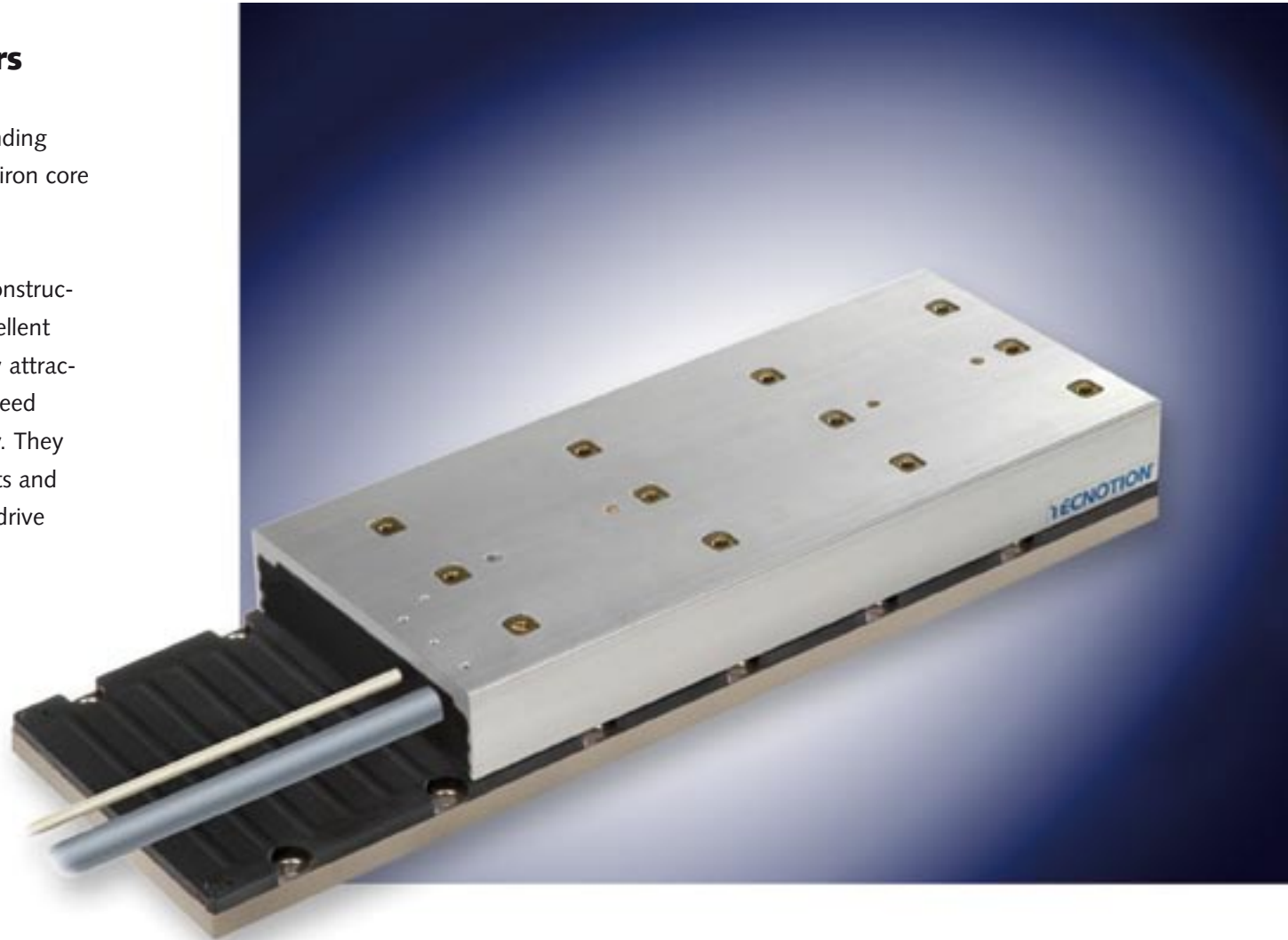
## **Tecnotion presents its full range of TB-motors**

The TB-motor 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



## Specifications

	Symbol	Unit	TB 12		TB 15		TB 30		TB 45	
			N	S	N	S	N	S	N	S
Motortype, max. voltage ph-ph			3-phase synchronous Ironcore, 600 Veff							
Ultimate Force 10°C/s @25°C	Fu	N	1800		2250		4500		6750	
Ultimate Current	Iu	Arms	13.0	26	13.5	33	26	66	39	99
Peak Force 6°C/s @25°C	Fp	N	1600		2000		4000		6000	
Peak Current	Ip	Arms	10.0	20	10.0	25	20	50	30	75
Continuous Force * coils @100°C	Fca	N	400..760		500..950		1000..1900		1500..2850	
Max. Continuous Current * coils @100°C	Ica	Arms	4.1	8.2	4.2	10.2	8.5	20	12.5	31
Max. Continuous Power Loss all coils	Pc	W	430		550		1100		1650	
Maximum speed @560V	Vmax	m/s	3	6	2.5	6	2.5	6	2.5	6
Motor Force Constant I <0.6 Ip	K	N/Arms	186	93	225	93	225	93	225	93
Back EMF	Bemf	V / m/s	152	76	183	76	183	76	183	76
Motor Constant coils @25°C	S	N <sup>2</sup> /W	1750		2150		4300		6450	
Magnet Pitch NN	τ	mm	24		24		24		24	
Resistance per phase coils @25°C	Rf	Ω	6.6	1.6	7.8	1.30	3.9	0.66	2.6	0.44
Induction per phase I <0.6 Ip	Lf	mH	52	13	63	10.5	32	5.3	21	3.5
Electrical time constant coils @25°C	τe	ms	8		8		8		8	
Thermal Resistance	Rth	°C/W	0.16		0.13		0.065		0.043	
Thermal Time Constant minimum	τ th	s	90		90		90		90	
Motor Attraction Force	Fa	N	3400		4000		8000		12000	
Length of Coil unit	L	mm	244		290		562		834	
Weight of Coil unit ex cable	M	kg	4.9		5.9		11.7		17.5	
Weight of Cables	m	kg/m	0.3		0.3		0.3		0.3	
Temperature Sensor			PTC 1kΩ and KTY 21							

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

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

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### Dimensions Magnetplates

Le	192 mm	288 mm
N	3	5
M5 bolts	8x	12x
Mass	10,5 kg/m	
Magnetplates can be butted together.		

