

TBM Series Frameless Motors



The TBM frameless motor is a new series of direct drive torque motors designed for applications that require high power in a small, compact form factor with minimized weight and inertia.

Typical applications include robotic joints, weapon stations, sensor gimbals, sight systems, UAV propulsion and guidance, as well as many others.

TBM(S) Product Features

- 3 frame sizes ranging from 60mm up to 129mm
- 3 stacks lengths per frame
- 2 standard winding options per frame
- Latching Hall Effects (pre-aligned / factory installed)
- Low Cogging designs
- Stainless Steel Yokes for maximum corrosion protection
- RoHS Compliant
- Banded Rotors
- Laser Marked Armatures

For non-standard requests Kollmorgen provides a variety of standard options and configurations.

If higher levels of customization are required, contact Kollmorgen to help us understand exactly what you need.

TBM(S) Specifications Overview

Specifications

Model	Diameter (mm)	Continuous Stall Torque T_c^* (Nm)	Continuous Current I_c (A)	Peak Stall Torque T_p^* (Nm)	Peak Current I_p (A)	Design Voltage (V DC)	Rated Speed (U_{min}^{-1})	Weight W_t^* (kg)	Inertia* (J_m) ($kg \cdot m^2$)
TBM(S)-6013-A	60,30	0,415	5,51	1,39	19	48	4000	0,221	1,41E-05
TBM(S)-6013-B	60,30	0,390	8,30	1,23	27	24	3540	0,221	1,41E-05
TBM(S)-6025-A	60,30	0,727	5,58	2,82	21	48	2630	0,398	2,52E-05
TBM(S)-6025-B	60,30	0,694	9,33	2,56	34	24	2250	0,398	2,52E-05
TBM(S)-6051-A	60,30	1,080	6,54	5,08	30	48	2065	0,571	4,75E-05
TBM(S)-6051-B	60,30	0,925	9,33	3,53	34	24	1600	0,571	4,75E-05
TBM(S)-7615-A	75,92	0,939	10,50	3,04	36	48	3930	0,435	3,04E-05
TBM(S)-7615-B	75,92	0,918	14,30	2,22	36	24	2560	0,435	3,04E-05
TBM(S)-7631-A	75,92	1,650	10,90	5,37	36	48	2300	0,738	5,64E-05
TBM(S)-7631-B	75,92	1,640	13,00	4,60	36	24	1210	0,738	5,64E-05
TBM(S)-7646-A	75,92	2,180	11,80	6,74	36	48	1850	1,079	8,19E-05
TBM(S)-7646-B	75,92	2,130	14,40	5,51	36	24	1025	1,079	8,19E-05
TBM(S)-12913-A	128,88	2,870	12,50	11,00	57	100	2490	1,320	2,71E-04
TBM(S)-12913-B	128,88	2,890	20,80	7,36	57	48	2505	1,320	2,71E-04
TBM(S)-12941-A	128,88	8,300	17,00	27,10	57	100	1520	3,170	7,21E-04
TBM(S)-12941-B	128,88	7,660	18,30	24,40	57	48	580	3,170	7,21E-04
TBM(S)-12995-A	128,88	10,400	16,30	36,20	57	100	1190	4,050	9,37E-04
TBM(S)-12995-B	128,88	9,880	18,10	31,00	57	48	625	4,050	9,37E-04

* Notes:

- 1) Continuous Stall Torque assumes ambient temperature of 25 °C
- 2) Inertia and weight assume max thru-bore
- 3) Some peak and continuous torques may be limited by lead wire