HIWIN®
Motion Control and System Technology

Torque Motor Rotary Tables

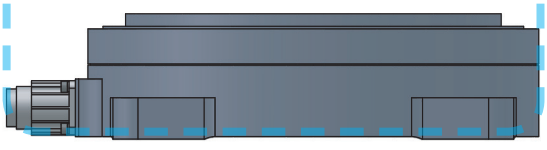
TMN Series

NEW

- Low profile
- Easy installation
- Hollow shaft
- Resolution 4,320,000 counts/rev

Low profile

62% smaller in height



HIWIN

Torque Motor Rotary Tables

TMN Series

Applications

- LED manufacturing and inspection
- Solar cell manufacturing
- Semi-conductor component manufacturing
- High precision index machines

Specifications

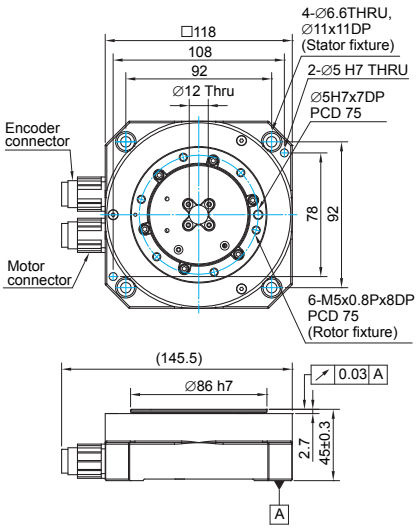
	Symbol	Unit	TMN42	TMN71	TMN93
Continuous torque	T_c	Nm	1.4	3.7	13.2
Continuous current	I_c	A_{rms}	1.5	3.4	3.4
Peak torque (for 1sec.)	T_p	Nm	4.2	11.1	39.6
Peak current (for 1sec.)	I_p	A_{rms}	4.5	10.2	10.2
Torque constant	K_t	Nm/A_{rms}	0.97	1.09	3.9
Electrical time constant	T_e	ms	1.78	4.06	5.4
Resistance (line to line at 25°C)	R_{25}	Ω	4.59	2.22	4.3
Inductance (line to line)	L	mH	8.18	9.02	23.2
Number of poles	2P	-	16	16	22
Back emf constant (line to line)	K_v	$V_{rms}/(rad/s)$	0.56	0.63	2.25
Motor constant (at 25°C)	K_m	N/√W	0.26	0.42	1.11
Thermal resistance	R_{th}	°C/W	2.55	1.05	1.1
Inertia of rotating parts	J	kgm^2	0.003	0.008	0.012
Mass of motor	M_m	kg	2	3.5	7.5
Max. axial load	F_a	N	600	1000	1000
Max. moment load	M	Nm	30	50	50
Max. speed	n	rpm	700	600	500
Repeatabilty		Arc sec	±2.5		
Accuracy*		Arc sec	±10		
Motor dimension	WxLxH	mm	118x118x45	180x180x50	230x230x55

*With error mapping

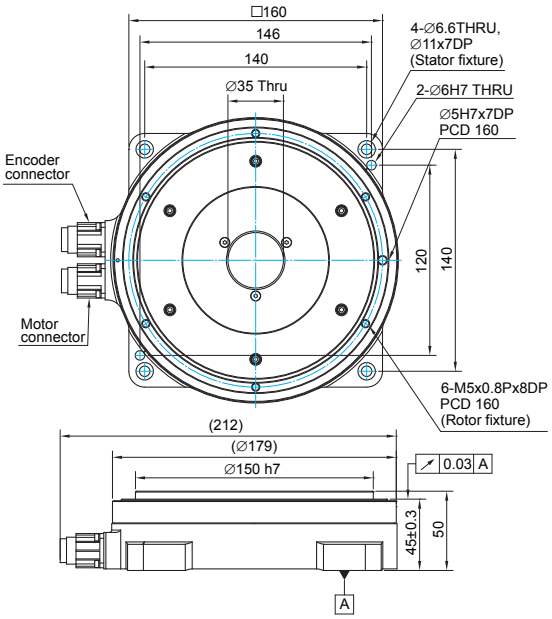
Except dimensions, all the specifications in the table are in ±10% of tolerance

Dimensions

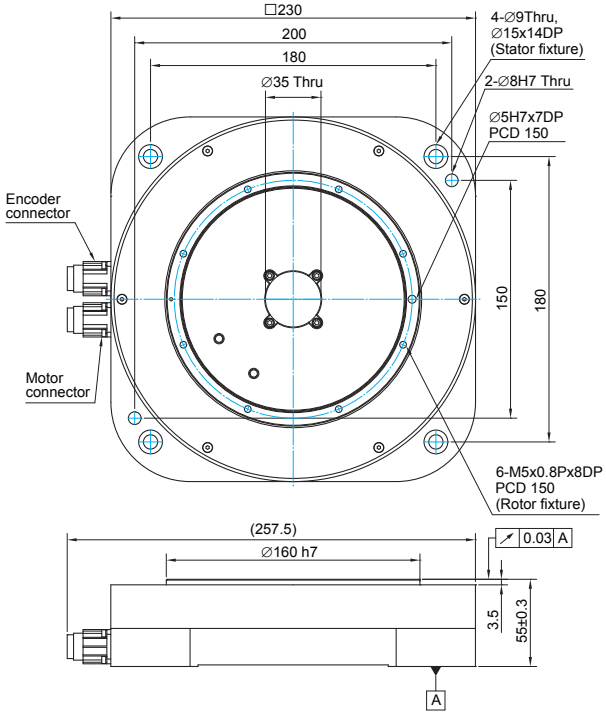
TMN42



TMN71



TMN93



*The specifications in this catalog are subject to change without notification.

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