

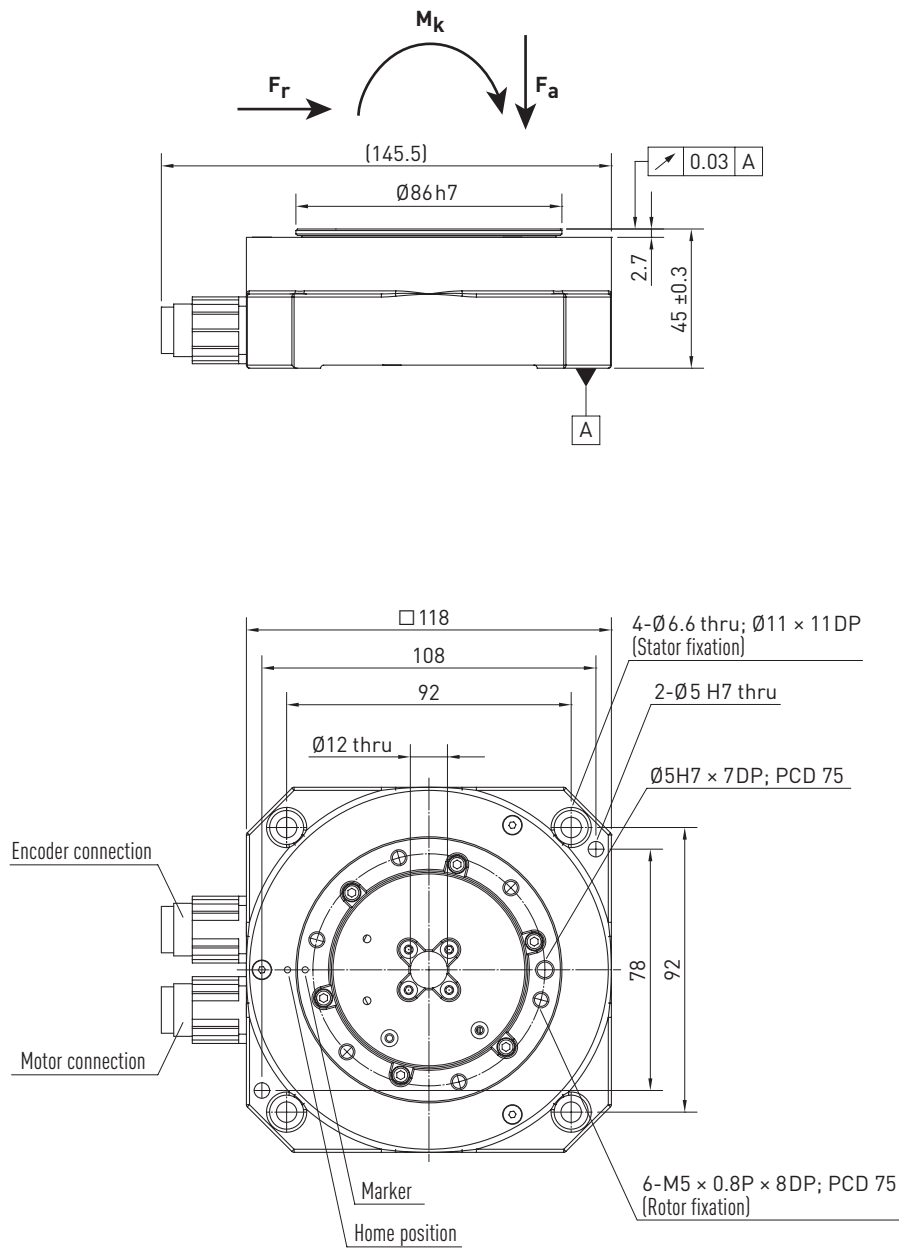
# Rotary Table

DMN42

**HIWIN**<sup>®</sup>

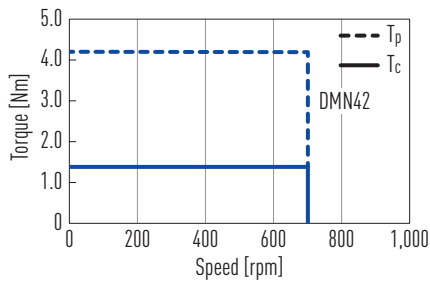
Motion Control & Systems

## Dimensions



## Technical data

### Torque-speed curve (DC bus voltage: 320/560 VDC)



### Technical data for DMN42 HIWIN rotary tables

	Symbol	Unit	DMN42
<b>Technical data of rotary table</b>			
Peak torque (for 1 sec.)	$T_p$	Nm	4.2
Continuous torque	$T_c$	Nm	1.4
Stall torque	$T_s$	Nm	0.98
Inertia of rotating parts	J	kgm <sup>2</sup>	0.003
Weight	$M_m$	kg	2
Max. axial load	$F_a$	N	600
Max. radial load	$F_r$	N	600
Max. moment of tilt	$M_k$	Nm	30
Nominal speed (at 400 VAC)	n	1/min	700
Position accuracy		arcsec	± 45
Repeatability		arcsec	± 2.5
Radial run-out		mm	0.03
Axial run-out		mm	0.03
Height	H	mm	45
Protection class			IP40
<b>Technical data of motor</b>			
Peak current (for 1 sec.)	$I_p$	$A_{eff}$	4.5
Continuous current	$I_c$	$A_{eff}$	1.5
Motor constant	$K_m$	Nm/ $\sqrt{W}$	0.4
Resistance <sup>1)</sup>	$R_{25}$	$\Omega$	4.59
Inductance <sup>1)</sup>	L	mH	8.18
Electrical time constant	$T_e$	ms	1.80
Torque constant	$K_t$	Nm/ $A_{eff}$	0.97
Back emf constant	$K_u$	V <sub>eff</sub> /rad/s	0.56
Number of poles	2p		16
Thermal resistance	$R_{th}$	°C/W	4.84
Thermal time constant	$T_{th}$	s	1,170
Thermal sensor			PTC SNM 100
Max. DC Bus		V	600

All the specifications in the table (except dimensions) are in ± 10 % of tolerance at 25 °C ambient temperature

<sup>1)</sup> Line-to-line

### Encoder specifications (optical, incremental)

- 2,048 lines/cycle
- Index mark
- Signal output sin/cos 1 V<sub>pp</sub>