

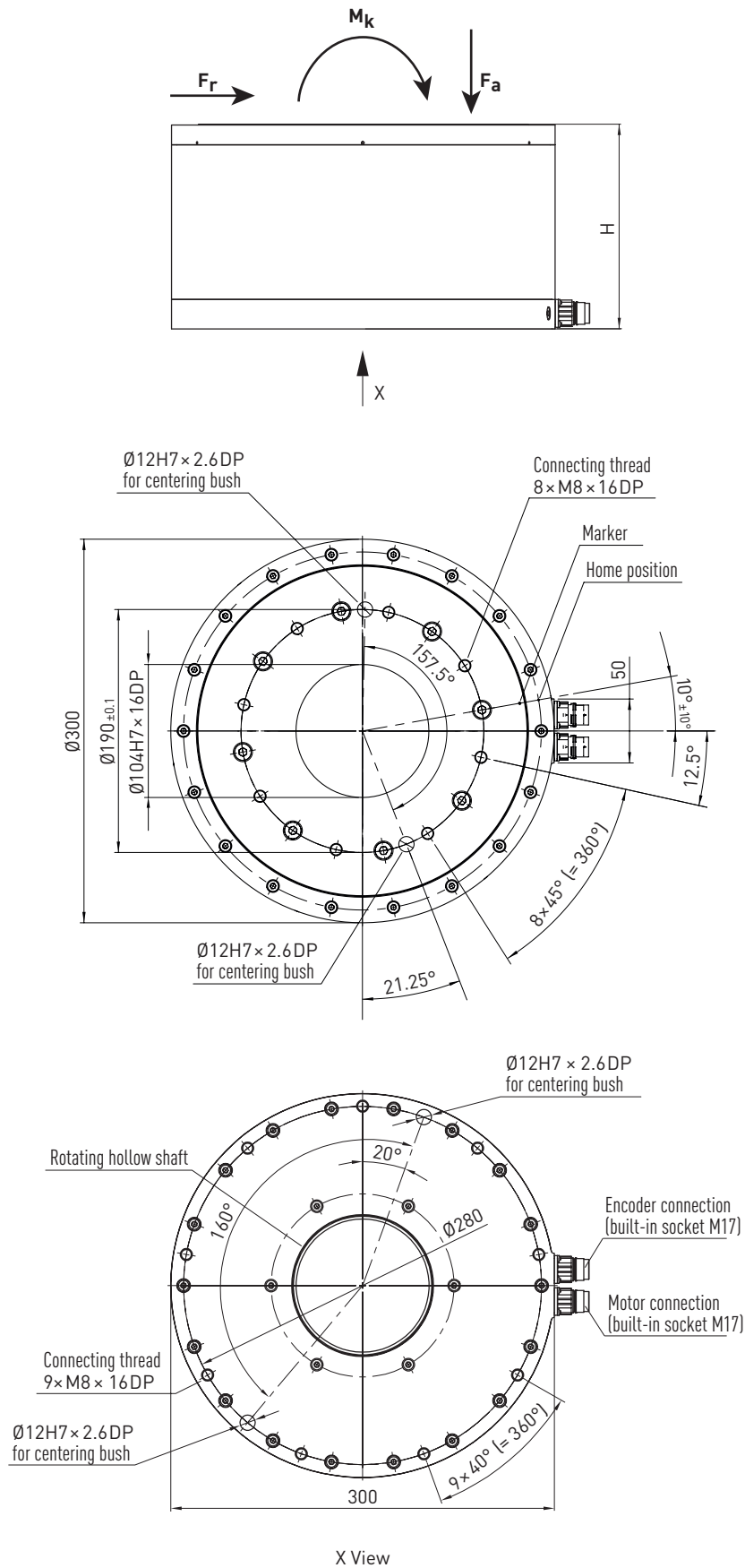
# Rotary Table

DMS7

**HIWIN**<sup>®</sup>

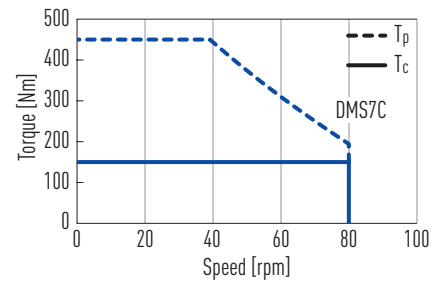
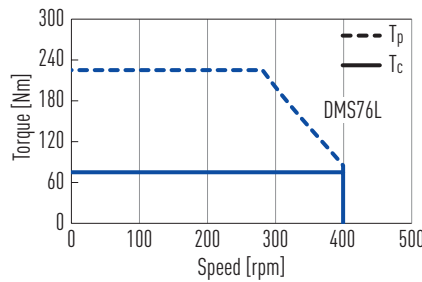
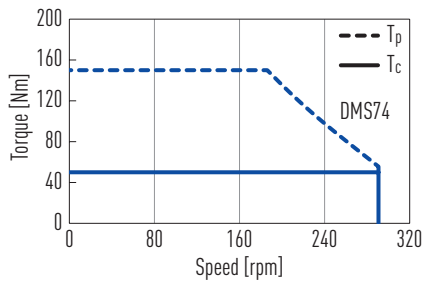
Motion Control & Systems

## Dimensions



## Technical data

### Torque-speed curves (DC bus voltage: 560 VDC)



Technical data for DMS7 HIWIN rotary tables					
	Symbol	Unit	DMS74	DMS76L	DMS7C
<b>Technical data of rotary table</b>					
Peak torque (for 1 sec.)	$T_p$	Nm	150	225	450
Continuous torque	$T_c$	Nm	50	75	150
Stall torque	$T_s$	Nm	35.0	52.5	105.0
Inertia of rotating parts	$J$	kgm <sup>2</sup>	0.152	0.174	0.241
Weight	$M_m$	kg	39.0	44.5	61.5
Max. axial load	$F_a$	N	8,000		
Max. radial load	$F_r$	N	6,500		
Max. moment of tilt	$M_k$	Nm	360		
Nominal speed (at 400 VAC, 30 % duty cycle)	$n$	1/min	290	400	80
Position accuracy		arcsec	$\pm 25/\pm 10^2$		
Repeatability		arcsec	$\pm 2.5$		
Radial run-out		mm	0.05		
Axial run-out		mm	0.05		
Height	$H$	mm	160	180	240
Protection class			IP40		
<b>Technical data of motor</b>					
Peak current (for 1 sec.)	$I_p$	$A_{eff}$	10.2	20.4	10.2
Continuous current	$I_c$	$A_{eff}$	3.4	6.8	3.4
Motor constant	$K_m$	Nm/ $\sqrt{W}$	3.9	5.0	7.7
Resistance <sup>1)</sup>	$R_{25}$	$\Omega$	12.9	4.3	29.0
Inductance <sup>1)</sup>	$L$	mH	55	19	145
Electrical time constant	$T_e$	ms	4.3	4.4	5.0
Torque constant	$K_t$	Nm/ $A_{eff}$	17.0	12.8	51.1
Back emf constant	$K_u$	$V_{eff}/(\text{rad/s})$	9.8	7.4	29.5
Number of poles	$2p$		44		
Thermal resistance	$R_{th}$	$^{\circ}\text{C/W}$	0.42	0.32	0.19
Thermal time constant	$T_{th}$	s	2,230	2,330	2,350
Thermal sensor			PTC SNM 120		
Max. DC Bus		V	600		

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

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

<sup>2)</sup> With error mapping

### Encoder type A specifications (optical, incremental)

- 5,400 lines/cycle
- Index mark
- Signal output sin/cos 1 V<sub>pp</sub>