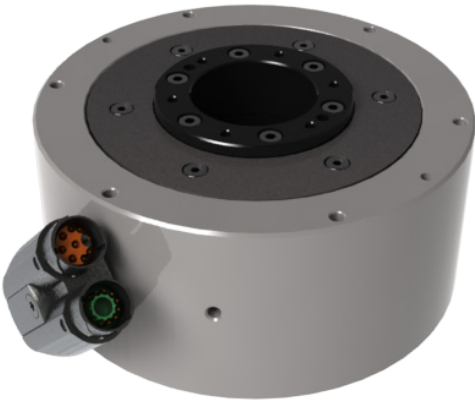
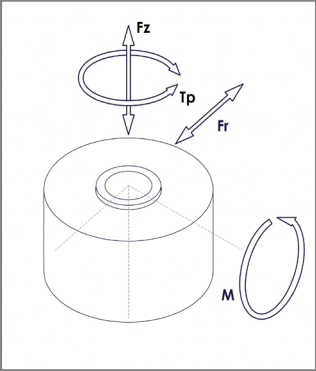


MRT03
ROTARY TABLE

Maximum angular speed: 5879 rpm
Maximum angular acceleration: 8974 rad/s²
Operating voltage: 600 Vdc, max. 900 Vdc

Load Diagram



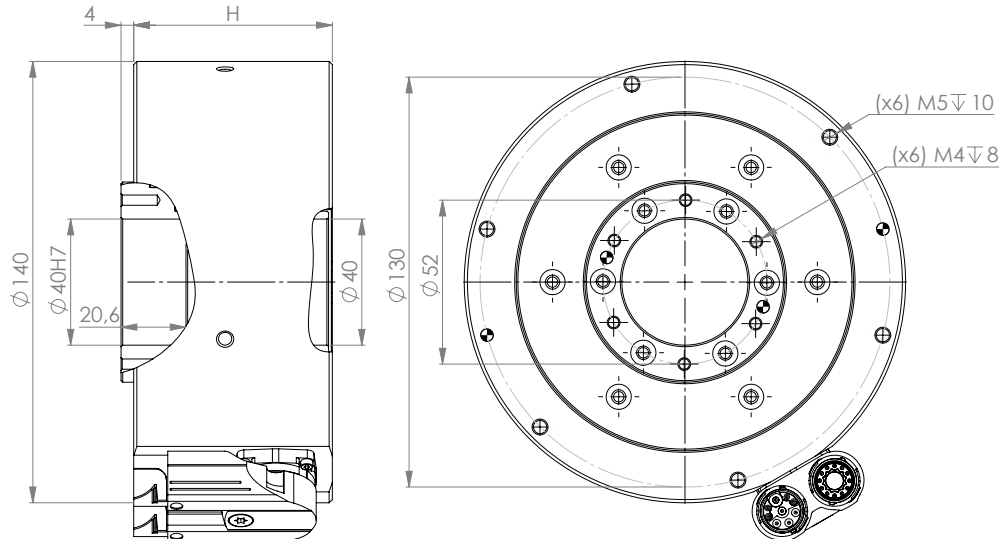
DIMENSIONS AND SPECIFICATIONS

Parameter		Remarks	Sym	Unit	MRT03			
Performance	Housing type (standard or special)				S	A	S	A
	Winding type				II17N	II17N	II25N	II25N
	Motortype, max voltage ph-ph				3-phase synchronous Iron core, 230 V _{ac rms} (320V _{dc})			
	Peak torque @ 20°C/s increase	Magnet @ 25°C	T _p	Nm	3.50	3.50	7.32	7.32
	Continuous torque	Coil @ 120°C	T _c	Nm	1.7	1.7	3.8	3.8
	Maximum speed @ max. voltage	@T _c	N _{max}	rpm	5879	5879	2940	2940
	Motor torque constant	Up to I _c	K _t	Nm/A _{rms}	0.36	0.36	0.72	0.72
	Motor constant	Coils @ 25°C	K _m	(Nm) ² /W	0.025	0.025	0.069	0.069
	Peak current	Magnet @ 25°C	I _p	A _{rms}	13.1	13.1	13.7	13.7
	Maximum continuous current	Coils @ 110°C	I _c	A _{rms}	4.7	4.7	5.3	14
	Poles		N _{mag}	nr	20			
Thermal	Temperature cut-off / sensor				Optional PTC 1kΩ / NTC			
Mechanical	Max. axial load		Fz	N	1100			
	Max. radial load		Fr	N	490			
	Max. moment load		M	Nm	230			
	Stator OD			mm	140			
	Rotor ID			mm	40			
	Height		H	mm	63		71	
	Rotor inertia			Kg·cm ²	3.9		4.5	
Total mass				Kg	3		3.45	

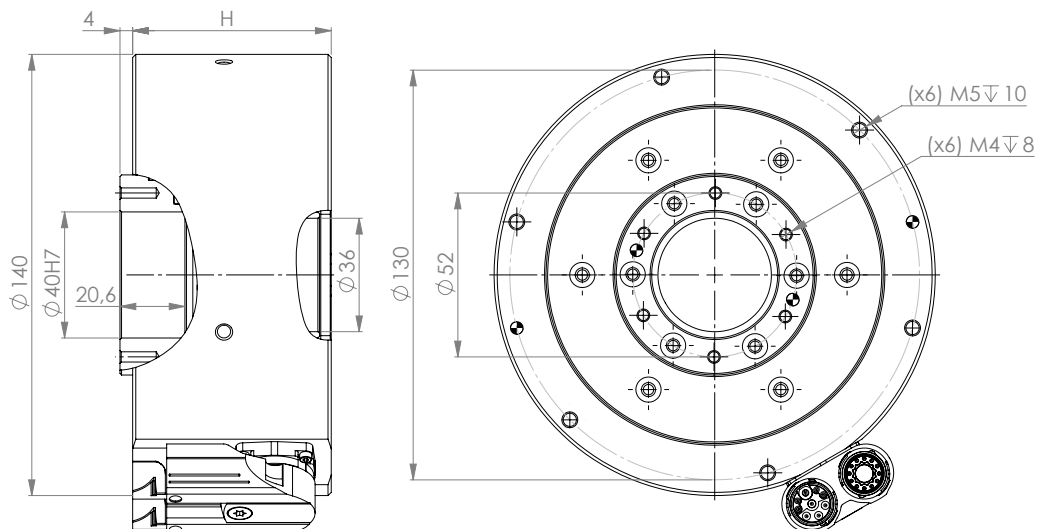
MRT03

TECHNICAL DESCRIPTION

MRT03S STANDARD HOUSING:



MRT03A SPECIAL HOUSING:



ACCURACY AND PRECISION

Mechanical Accuracy

Axial runout: Standard 13 µm, High accuracy 4 µm
Radial runout: Standard 13 µm, High accuracy 4 µm

Encoder Accuracy 2R018002M/2R018041U

Encoder grating period accuracy: $\pm 5.4 \text{ arcmin}^{(1)}$
Encoder position error: $\pm 14 \text{ arcsec}^{(2)}$

Encoder Accuracy 1R021404C

Encoder grating period accuracy: $\pm 1.62 \text{ arcsec}^{(1)}$
Encoder position error: $\pm 1 \text{ arcsec}^{(2)}$

Encoder Accuracy 3H0105E1S

Encoder grating period accuracy: $\pm 40 \text{ arcsec}^{(1)}$
Encoder position error: $\pm 3 \text{ arcsec}^{(2)}$

Encoder Accuracy 5S0256H2M

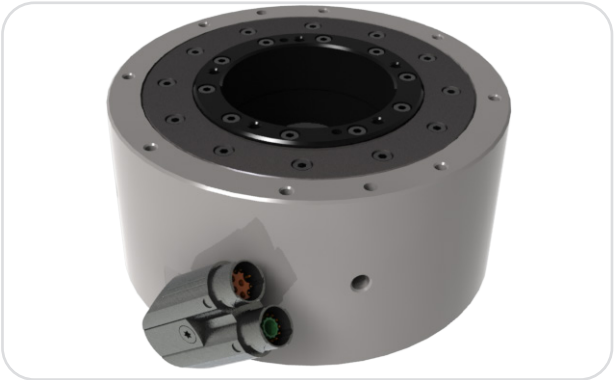
Encoder grating period accuracy: $\pm 3 \text{ arcmin}^{(1)}$
Encoder position error: $\pm 18 \text{ arcsec}^{(2)}$

¹⁾ Absolute Accuracy of Encoder

²⁾ Repeatability of Encoder

MRT03
CONNECTORS OPTIONS

■ **Connector YTEC**

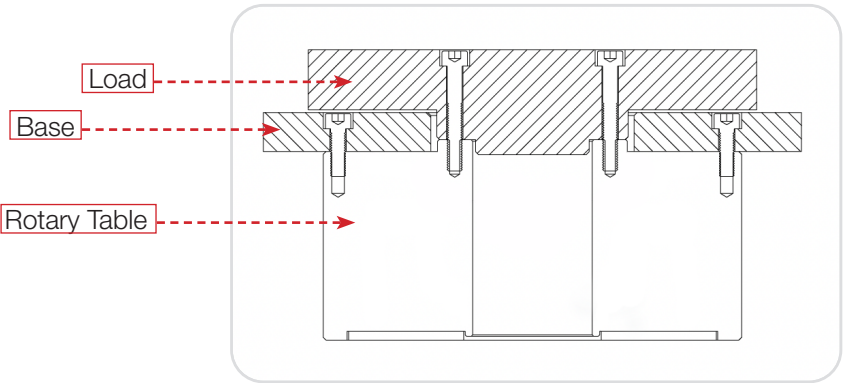


■ **Connector Hybrid M23**
- Only for EnDat2.2 (B&R)

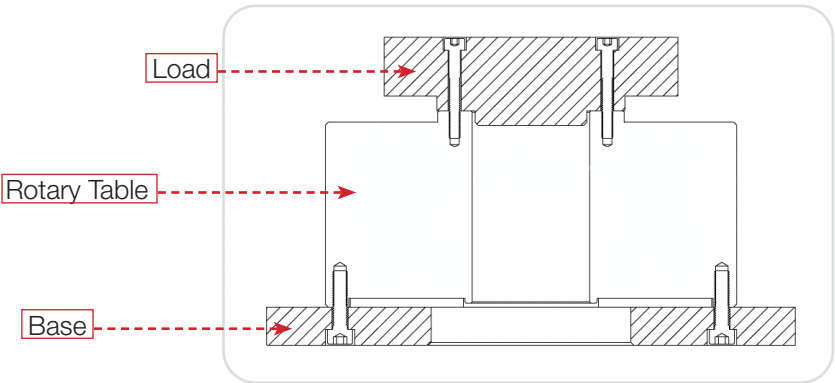


FIXATION OPTIONS

On the top



On the base



MRT03 ORDER CODE

Type model

MRT - Compact rotary table with torque motor and hollow shaft.

MRT03S - II□□□ - □□□□□□□□ - □□A - T□□ - □ - 000

Motor size

□ **Peak torque, Nm (aircooled)¹⁾:**
17 - 3.96 Nm 60 - NA
25 - NA 92 - NA
34 - NA

Winding

□□ **Motor winding:**
N - Standard winding
Y - High-speed winding
I - Low voltage winding
X - No motor

Connectors

□□ **Type:**
00A - Base Y-TEC connector
09A - Hybrid M23 connector | only
for EnDat2.2 (B&R)

Crossed Roller Bearing Accuracy

□□ **Axial and Radial Runout:**
01 - Standar accuracy 13µm
02 - High accuracy 4µm

Lubrication

□ **Grease type:**
S - Standard

Encoder

Incremental:
1R021404C - Incremental optic 1Vpp (Sin/Cos) 5000 inc/turn
2R018002M - Incremental magnetic 1Vpp (Sin/Cos) 90 inc/turn
2R018041U - Incremental magnetic TTL 180.000 inc/turn
Absolute:
3H0105E1S - Absolute inductive EnDat2.2+Safety, 1.048.576 inc/turn
5S0256H2M - Absolute magnetic Hiperface, 4.096 inc/turn

¹⁾ Depending on the application and ambient temperature