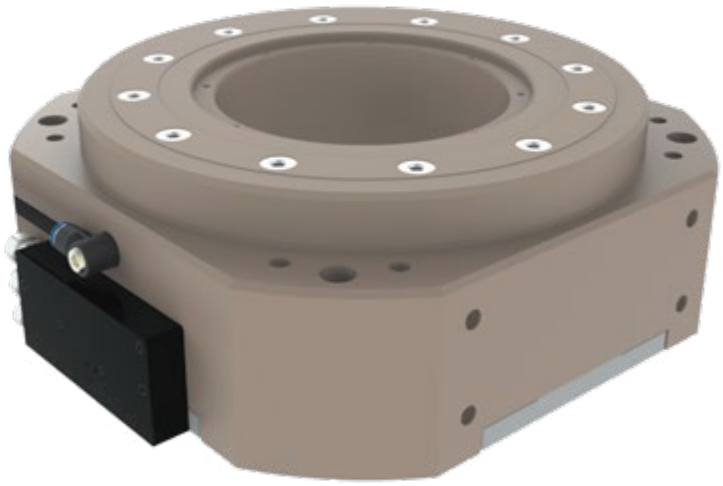


RT250S

Motor & Encoder

NOMINAL TORQUE	Nm	1,5
PEAK TORQUE	Nm	4,5
MAX. SPEED	rpm	100 - 200
ENCODER	periods	40000
ENCODER RESOLUTION	arcsec	go to p. 11
REPEATABILITY	arcsec	resolution x2

Air Bearing

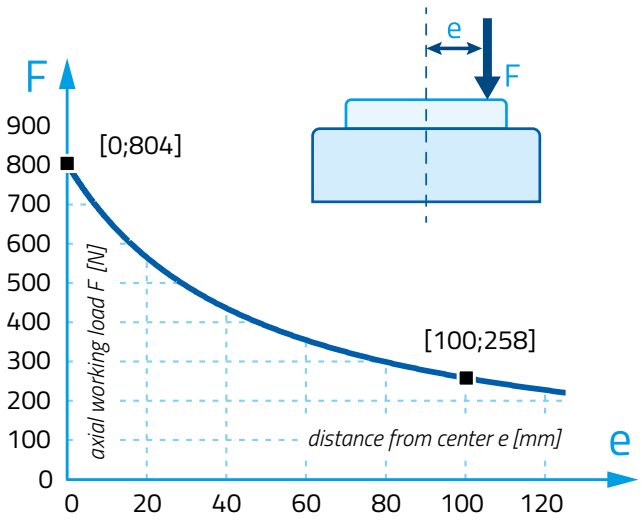
MAX. AXIAL LOAD	N	804
MAX. RADIAL LOAD	N	452
AXIAL STIFFNESS	N/µm*	402
RADIAL STIFFNESS	N/µm*	226
TILT STIFFNESS	Nm/mrad*	2380
RAD. ERR. MOTION	nm LSC***	< 100
AXIAL ERR. MOTION	nm LSC***	< 50
WOBBLE	arcsec	typical**
AIR CONSUMPTION	NL/min	< 15
TOTAL MASS	kg	16,5
ANGULAR ACCURACY	arcsec	± 4,0
MATERIAL		coated aluminium

All data valid at 5 bar air pressure.

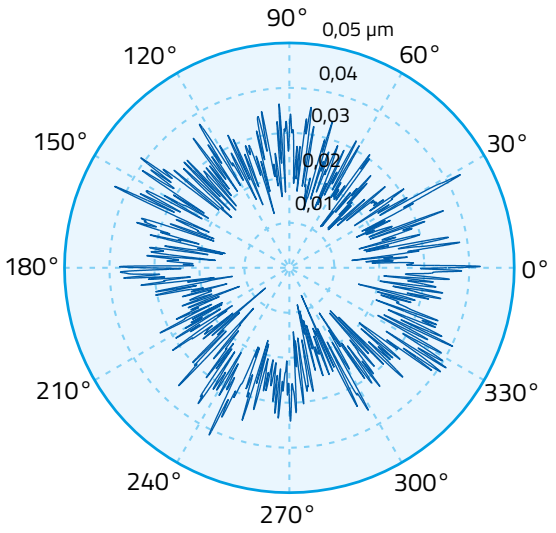
* Tolerance on value +/- 20%

** Measurement report of the wobble error motion can be provided on request.

*** Error motion measured on spherical artefact with center at 146 mm above top surface.

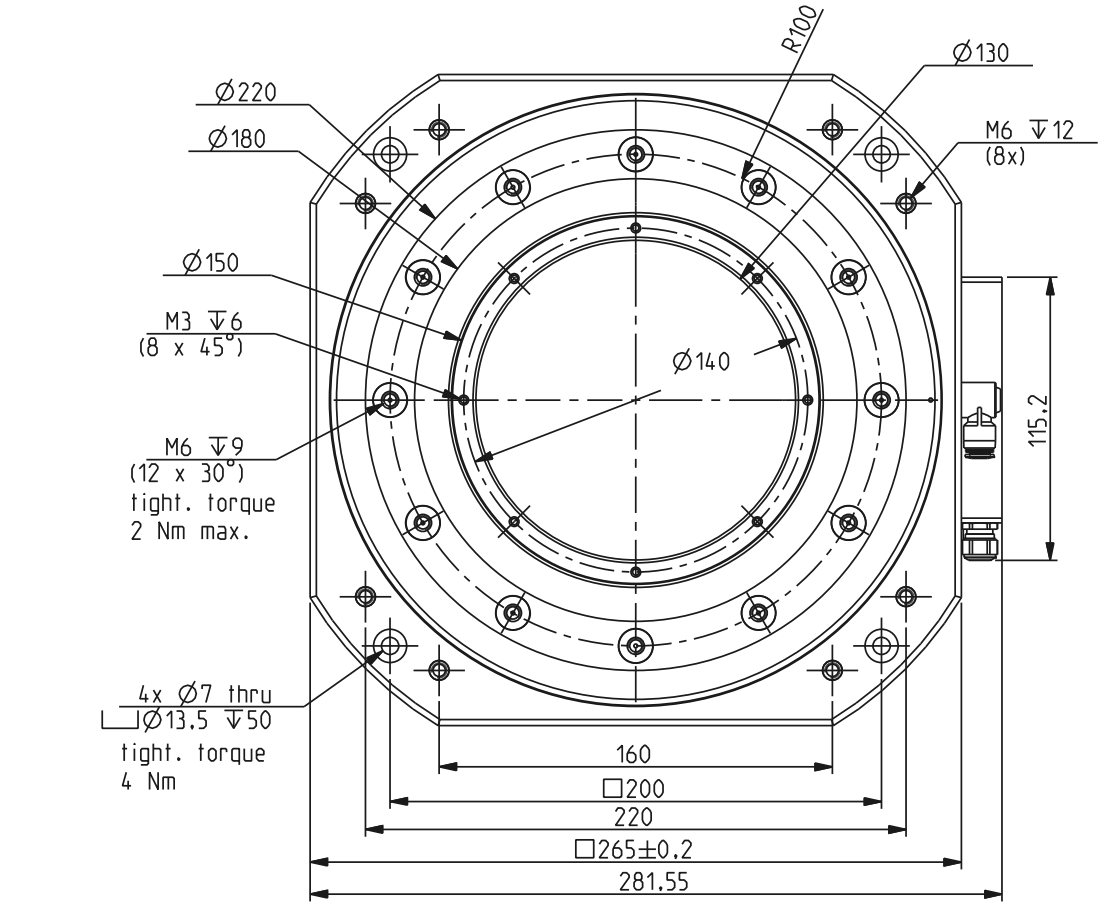


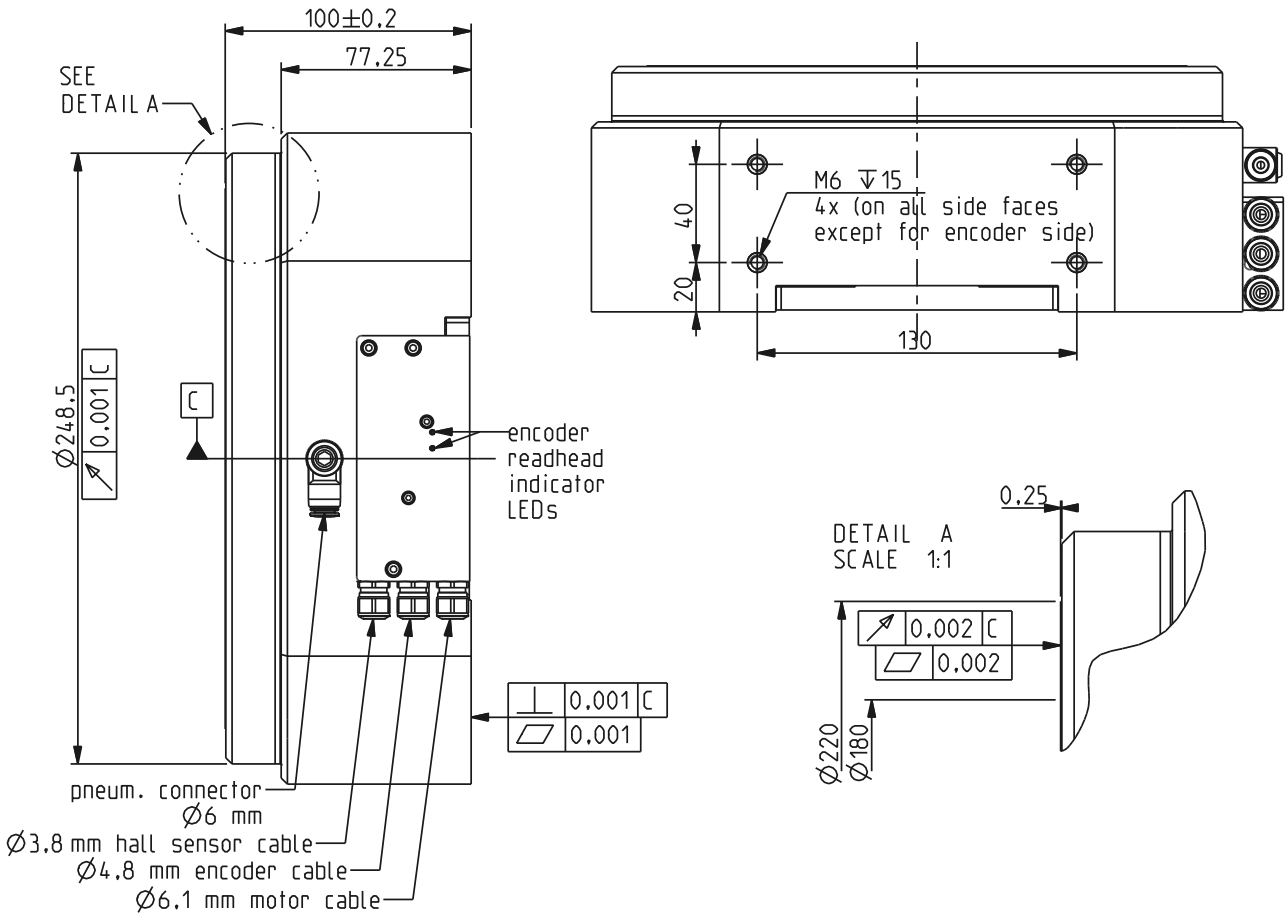
Max. working load vs. eccentricity



Roundness

error motion (typical value): LSC Δr = 36,6 nm
filter: 360 UPR, 1 revolution (9,6 rpm)





Supply voltage 48 V DC only.
Required flatness for mounting surfaces is 1 µm (rotor and stator).
Contact LAB Motion Systems support for advice on side-mounting requirements.