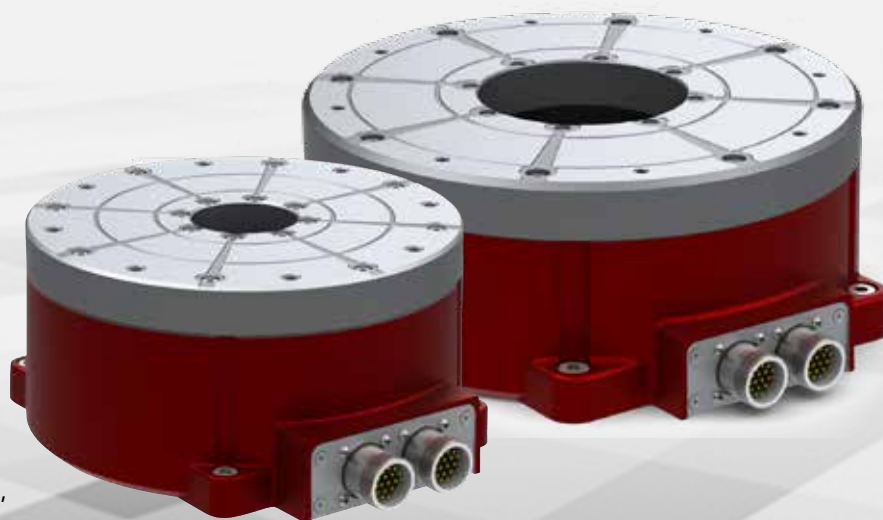


## Torque motors iTM 180 and iTM 240

- Energy-efficient due to low losses
- Completely ready for use in a ready-to-assemble housing
- Hollow shaft for the media feed-through
- Convection cooling
- integrated measuring system
- Tested according to the EC regulation 73/23/ECC, and to the standards EN50178 and EN60204

### Options

- Absolute measuring system equipped with BISS-C protocol
- Clamping plate made of die-cast aluminium, Ø 250 mm and Ø 500 mm



### Advantages offered by the torque motor

- High torques from speed 0
- Reduced assembly space, since there is no gearbox required
- Clearance-free, robust, maintenance-free and smooth-running

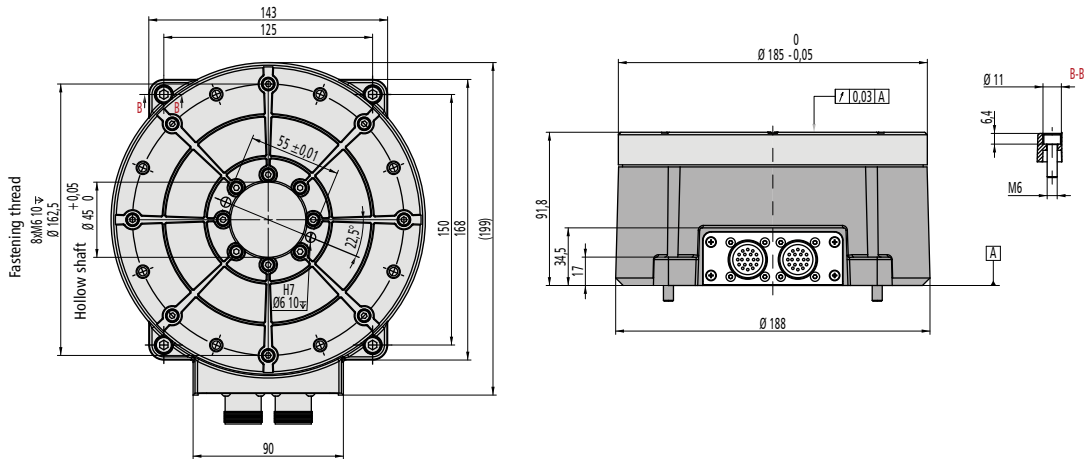
### Areas of application

- Swivel axes
- Rotary table
- Measuring technology
- Positioning

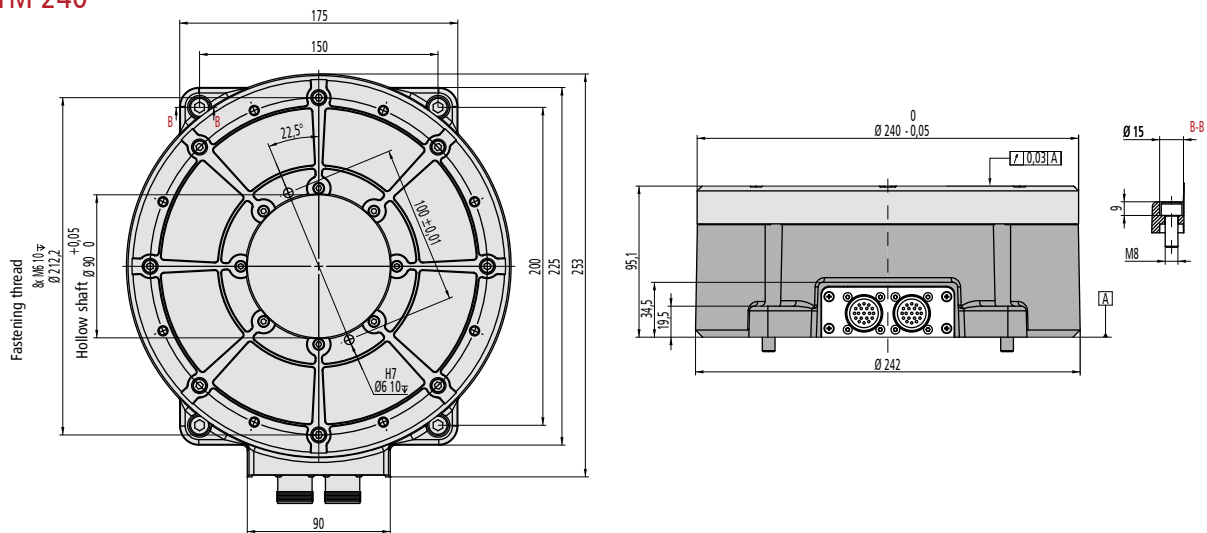
### Technical details

	iTM180-48V	iTM240-320V
Nominal voltage	48 DC	320 VDC
Rated current	7.4 A	1.8 A
Nominal power	350 W	475 W
rated torque	15 Nm	27 Nm
Peak current	18.5 A	5.4 A
Maximum peak torque	38 Nm	75 Nm
Nominal turn speed	220 rpm	160 rpm
max. rotational speed	260 rpm	200 rpm
Winding resistance (phase-phase)	1.1 ohms	14.8 ohms
Motor inductance (phase-phase)	1.4 mH	60.6 mH
Voltage constant	0.128 V/min <sup>-1</sup>	1.15 V/min <sup>-1</sup>
Torque constant	2.11 Nm/A	15 Nm/A
Number of poles	40	40
Thermoguard		Optional
Moment of inertia (of the rotating components)	0.0085 kg/m <sup>2</sup>	0.0114 kg/m <sup>2</sup>
Weight	8 kg	13 kg
max. axle load/max. radial load	3100 N	4000 N
Protection class		IP40
hollow shaft diameter	45 mm	90 mm
run-out accuracy		0.05 mm
Dimensions (LxWxH)	199 / 188 / 92 mm	242 / 253 / 95 mm

## Dimensional drawing iTM 180



## iTM 240



### integrated: incremental measuring system / RS422

Item	RS422
Signals	A, /A, B, /B optional: Z, /Z
supply voltage	5 VDC
Power consumption	< 100 mA
Distance between the sensor and the magnetic tape	0.4 - 0.7 mm
max. resolution (after quadrature) increments/r	iTM 180: standard 276,000 / optional up to 2,260,000 iTM 240: standard 420,000 / optional up to 3,440,000
Repetitive accuracy	± 1 increment(s)
Positioning accuracy	270 arcs/sec
Working temperature range	-5 to +80 °C
Storage temperature range	-20 to +100 °C

### Order data (Part No.)

	iTM180-48V	iTM240-320V
torque motor	267402 0048i	267400 0320i
Controller (MC1-20 / EC Servo)	381518 0020	-
Controller (MC1-40 / EC Servo)	-	381518 0040
Motor cable (M23 6 wire pin / wire end ferrule)	392303 0x00	-
Motor cable (M23 8 wire pin / M23 8 wire socket)	-	392307 0x00
Encoder cable (M23-17wire pin / SubD15)	392325 0x00	