



## TORQUEMOTORS iTM 180 and iTM 240



### CHARACTERISTICS

- energy efficient due to low losses
- ready to use in a ready-to-install housing
- hollow shafts for feed through
- convection cooling
- integrated measuring system
- tested in accordance to EC 73/23 / EEC, EN50178 and EN60204

### ADVANTAGES OF THE TORQUE MOTOR

- high torques from zero speed
- small mounting space, due to „no gear required“
- play-free, robust, maintenance-free and quiet

### OPTIONS

- absolute measuring system with BISS-C protocol
- clamping plate made of aluminium die-casting, Ø 250 mm and Ø 500 mm

### APPLICATION RANGE

- Swiveling axes
- Rotary indexing plate
- Measurement technique
- Positioning

TECHNICAL DATA	iTM180-48V	iTM180-320V	iTM240-48V	iTM240-320V
rated voltage	48 VDC	320 VDC	48 VDC	320 VDC
rated current	6.5 A	1.3 A	8,0 A	2.3 A
rated power	160 W	340 W	275 W	500 W
rated torque	12.3 Nm	13 Nm	20.8 Nm	32 Nm
peak current	15 A	3.2 A	20,0 A	5,0 A
peak torque	28 Nm	32 Nm	52 Nm	70 Nm
rated speed	126 rpm	250 rpm	126 rpm	150 rpm
coil resistance (phase-phase)	1.0 Ohm	21 Ohm	0.8 Ohm	14.8 Ohm
motor inductivity (phase-phase)	3.0 mH	66 mH	2 mH	60.6 mH
torque constant	1.9 Nm/A	10 Nm/A	2.6 Nm/A	14 Nm/A
voltage constant	0.16 V/min <sup>-1</sup>	0.77 V/min <sup>-1</sup>	0.195 V/min <sup>-1</sup>	0.90 V/min <sup>-1</sup>
poles	40	40	46	40
thermal protection	optional			
torque of inertia (rotational parts)	0.0085 kg/m <sup>2</sup>	0.0114 kg/m <sup>2</sup>	0.0085 kg/m <sup>2</sup>	0.0114 kg/m <sup>2</sup>
weight	8 kg		13 kg	
hollow shaft diameter	45 mm		90 mm	
axial run-out accuracy	0,05 mm			
length / width / height	199 / 188 / 92 mm		242 / 253 / 95 mm	
max. axle load / max. radial load	3100 N		4000 N	
max. speed	150 rpm	180 rpm	155 rpm	180 rpm
IP protection class	IP40			

### INTEGRATED: INCREMENTAL MEASUREMENT / RS422

min. distance phase phase	550 ns
channels	A, /A, B, /B, Z, /Z
rated voltage	5 VDC
hall channels	yes (A,B,C)
resolution (with x4)	iTM 180: standard 276 000 / optional up to 2 260 000 iTM 240: standard 420 000 / optional up to 3 440 000

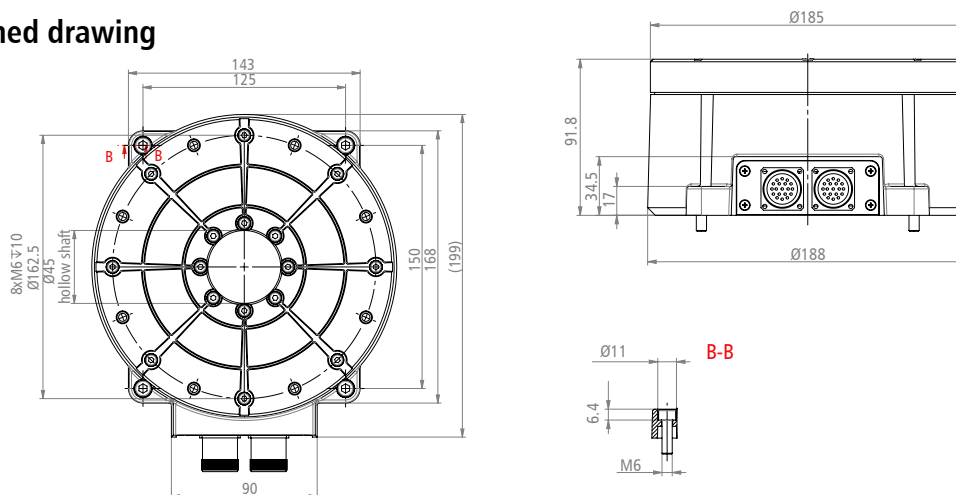
### OPTIONAL: ABSOLUTE MEASURING SYSTEM

interface	SSI, BiSS, SPI
rated voltage	5 VDC
resolution	max. 38 bit (1.048.576)

ORDERING DATA (Part No.)	iTM180-48V	iTM180-320V	iTM240-48V	iTM240-320V
Torquemotor	267401 0048i	267401 0320i	267400 0048i	267400 0320i
Controller (MC1-20 / EC-Servo)	381518 0020	-	381518 0020	-
Controller (MC1-40 / EC-Servo)	-	381518 0040	-	381518 0040
Motor cable (M23 6-pol Stift / cable end sleeve)	392303 0x00	-	392303 0x00	-
Motor cable (M23 8 pin connector / M23 8 pin female connector)	-	392307 0x00	-	392307 0x00
Encoder cable(M23-17 pin connector / SubD15)	392325 0x00			

## TORQUEMOTOR iTM 180

### Dimensioned drawing



## TORQUEMOTOR iTM 240

### Dimensioned drawing

