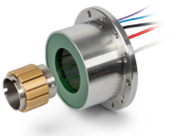
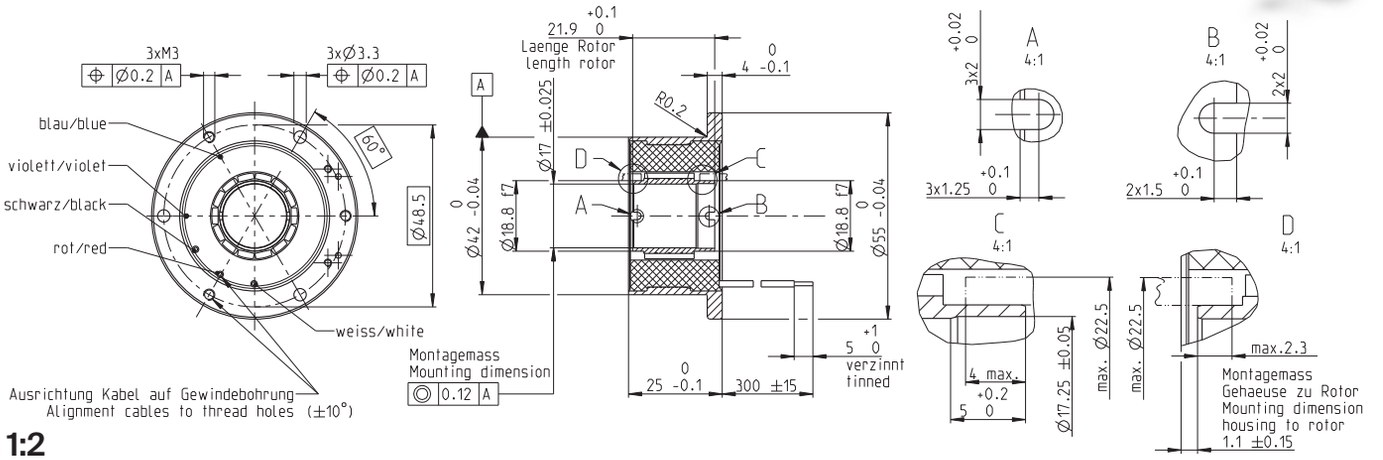
EC frameless DT 38 M ∅42 mm, brushless, 240 watt

Dynamic Torque, potted in mounting flange





M 1:2

Stock program
Standard program
Special program (on request)

			Part numbers
		sensorless	800948
Motor data[1]			
	Values at nominal voltage		
1	Nominal voltage	V	24
2	No load speed	rpm	6290
3	No load current	mA	147
4	Nominal speed	rpm	4830
5	Nominal torque	mNm	237
6	Nominal current (max. continuous current)	A	5.8
7	Stall torque	mNm	1150
8	Stall current	A	63.8
9	Max. efficiency	%	90.6
	Characteristics		
10	Terminal resistance phase to phase	Ω	0.376
11	Terminal inductance phase to phase	mH	0.312
12	Torque constant	mNm/A	36.2
13	Speed constant	rpm/V	264
14	Speed/torque gradient	rpm/mNm	2.740
15	Mechanical time constant	ms	0.583
16	Rotor inertia	gcm²	20.3

Specifications

Thermal data

17	Thermal resistance housing-ambient (R_{th2})	4.5...6.9 K/W
18	Thermal resistance winding-housing	0.33 K/W
19	Thermal time constant winding	3.38 s
20	Thermal time constant motor	574 s
21	Ambient temperature	-40...+100 °C
22	Max. winding temperature	+155 °C

Mechanical data

23	Max. speed	15 000 rpm

Other specifications

29	Number of pole pairs	7
30	Number of phases	3
31	Weight of motor (with mounting flange made of stainless steel)	169 g
	Weight for integration (without mounting flange)	97 g

Values listed in the table are nominal.

Connection motor (Cable AWG 18)

red	Motor winding 1
black	Motor winding 2
white	Motor winding 3

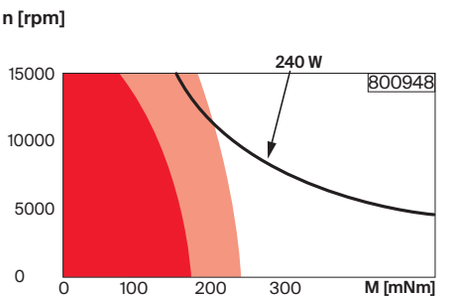
Connection NTC (Cable AWG 24)

purple	NTC
blue	NTC

Resistance 25 °C: 5 kΩ ±1%, beta (25–85 °C): 3490 K

Comment
For Torque control data, refer to "Installation Manual" available on maxon online shop.

Operating range



Comments

[1]The nominal data refer to a thermal resistance, housing-ambient (R_{th2}) of 4.5 K/W.

Continuous operation range at R_{th2} of 6.9 K/W
With mounting flange
Continuous operation range at R_{th2} of 4.5 K/W
Installed in a ∅48 mm aluminum housing
Mounted on an aluminum plate sized 95x95x6 mm
Intermittent operation

Assigned power rating

Modular system

Details on catalog page 60

Sensors
427_TSX 38 MAG with commutation signals

Control Electronics
447_ESCON2 Micro 60/5
454_EPOS4 Micro 24/5 CAN
454_EPOS4 Micro 24/5 EtherCAT
455_EPOS4 Module 50/5
458_EPOS4 Compact 50/5
461_EPOS4 50/5
462_EPOS4 Disk 60/8 CAN
463_EPOS4 Disk 60/8 EtherCAT

Variants

maxon integration into customer housing on request.
Other coil designs on request.

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