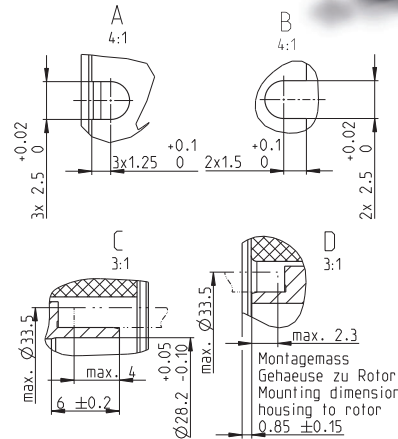
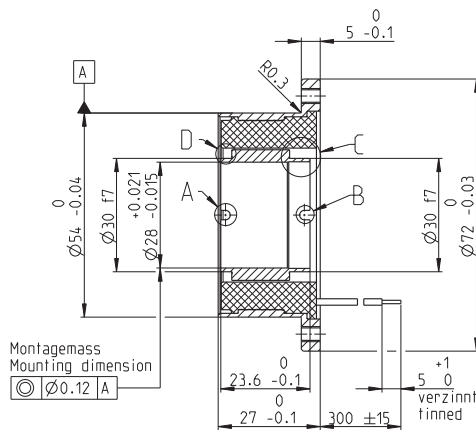
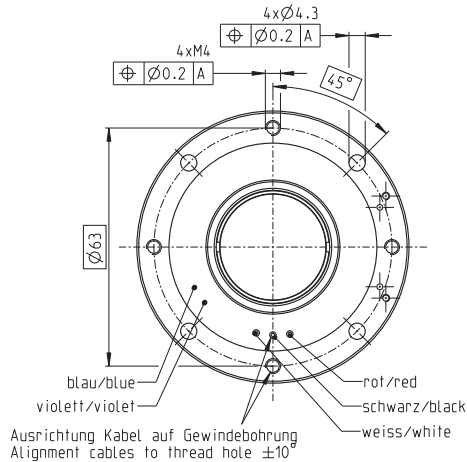


EC frameless DT 50 M Ø54 mm, brushless, 210 watt

Dynamic Torque



M 1:2

- Stock program
- Standard program
- Special program (on request)

Part numbers

sensorless	758031
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Motor data

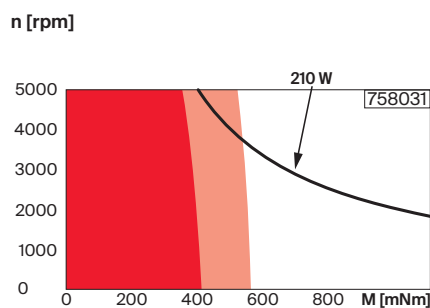
Values at nominal voltage		
1 Nominal voltage	V	48
2 No load speed	rpm	4330
3 No load current	mA	109
4 Nominal speed	rpm	3700
5 Nominal torque	mNm	430
6 Nominal current (max. continuous current)	A	3.84
Continuous torque with heat sink	mNm	552
7 Stall torque	mNm	2750
8 Stall current	A	63
9 Max. efficiency	%	91.8
Characteristics		
10 Terminal resistance phase to phase	Ω	0.762
11 Terminal inductance phase to phase	mH	0.571
12 Torque constant	mNm/A	105
13 Speed constant	rpm/V	90.7
14 Speed/torque gradient	rpm/mNm	0.656
15 Mechanical time constant	ms	0.68
16 Rotor inertia	gcm ²	98.8

Specifications	Operating range	Comments
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Thermal data	
17 Thermal resistance housing-ambient	5.02 K/W
18 Thermal resistance winding-housing	0.412 K/W
19 Thermal time constant winding	711 s
20 Thermal time constant motor	678 s
21 Ambient temperature	-40...+100°C
22 Max. winding temperature	+155°C

Mechanical data	
23 Max. speed	5000 rpm

Other specifications	
29 Number of pole pairs	10
30 Number of phases	3
31 Weight of motor (with mounting flange made of stainless steel)	270 g
Weight for integration (without mounting flange)	156 g



- Continuous operation
- Continuous operation with reduced thermal resistance R_{th2} 50%
- Intermittent operation
- Assigned power rating

Modular system

Details on catalog page 56

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.

Sensor
523_TSX 50 MAG with
commutation signals

Motor Control
551_ESCON Module 50/5
553_ESCON 50/5
557_ESCON2 Micro 60/5
563_EPOS4 Micro 24/5 CAN
563_EPOS4 Micro 24/5 EtherCAT
564_EPOS4 Module 50/5
567_EPOS4 Compact 50/5
569_EPOS4 50/5
570_EPOS4 Disk 60/8 CAN
570_EPOS4 Disk 60/8 EtherCAT

Variants

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