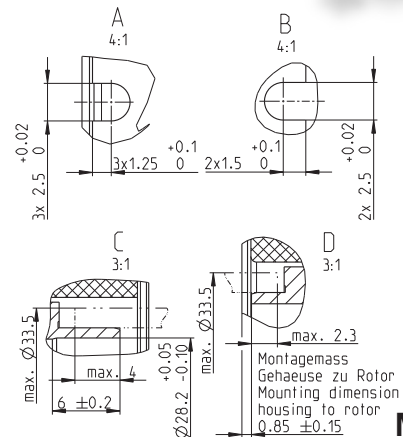
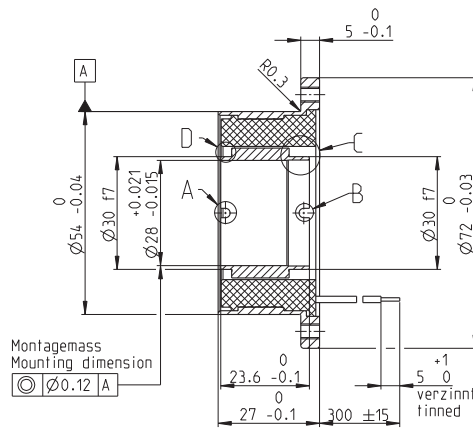
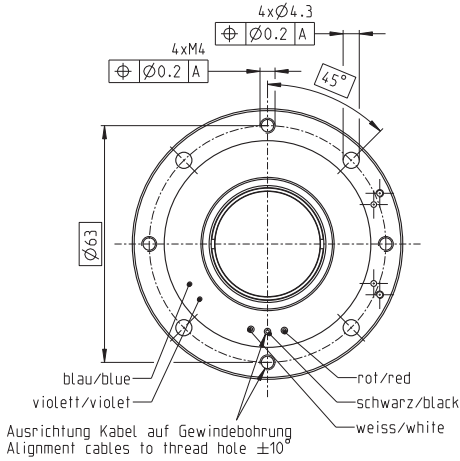
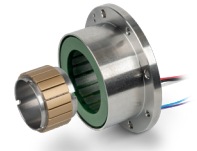


EC frameless DT 50 M Ø54 mm, brushless, 210 watt

Dynamic Torque, potted in mounting flange



M 2:3

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

Part numbers	
sensorless	758031

Motor data ¹	
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 3490
5 Nominal torque	mNm 600
6 Nominal current (max. continuous current)	A 5.16
7 Stall torque	mNm 2770
8 Stall current	A 64.2
9 Max. efficiency	% 91.9
Characteristics	
10 Terminal resistance phase to phase	Ω 0.748
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 0.644
15 Mechanical time constant	ms 0.67
16 Rotor inertia	gcm ² 98.8

Specifications	Operating range	Comments
Thermal data 17 Thermal resistance housing-ambient (R_{th2}) 2.8...5.0 K/W 18 Thermal resistance winding-housing (R_{th1}) 0.412 K/W 19 Thermal time constant winding 711 s 20 Thermal time constant motor 678s 21 Ambient temperature -40...+100°C 22 Max. winding temperature +155°C Mechanical data 23 Max. speed 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		¹ The nominal data refer to a thermal resistance, housing-ambient (R_{th2}) of 2.8 K/W. ■ Continuous operation range at R_{th2} of 5.0 K/W With mounting flange ■ Continuous operation range at R_{th2} of 2.8 K/W Installed in a Ø62 mm aluminum housing Mounted on an aluminum plate sized 125x125x10 mm □ Intermittent operation — Assigned power rating

Modular system	Details on catalog page 60
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.	Sensors 428_TSX 50 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.