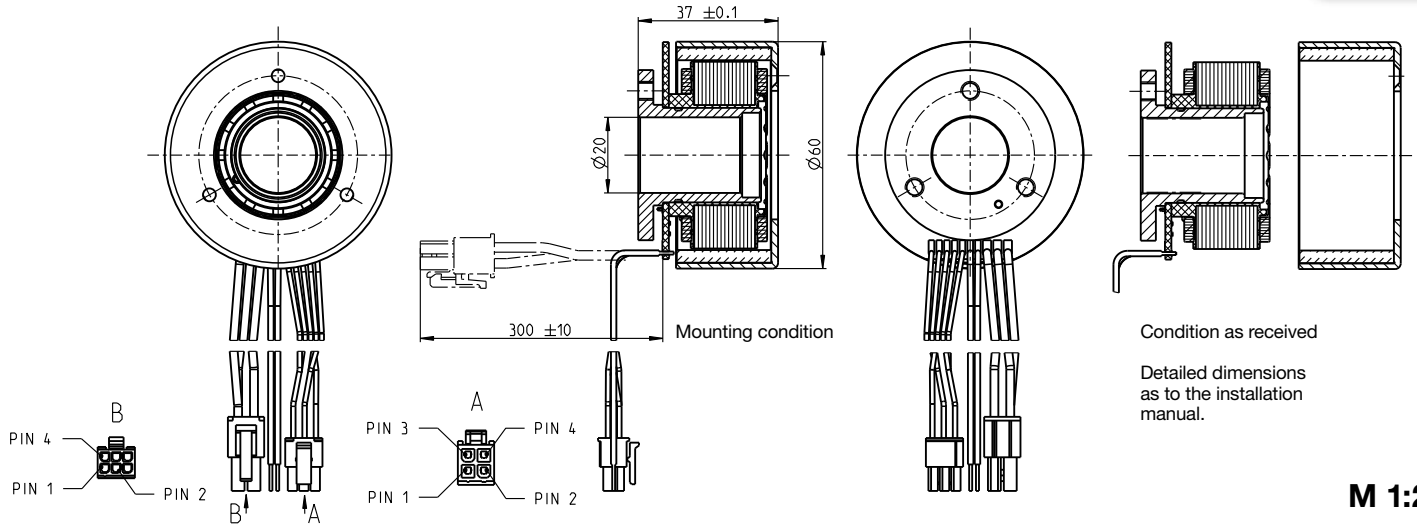


EC frameless 60 flat $\varnothing 60$ mm, brushless, 100 Watt

NEW

maxon frameless motor



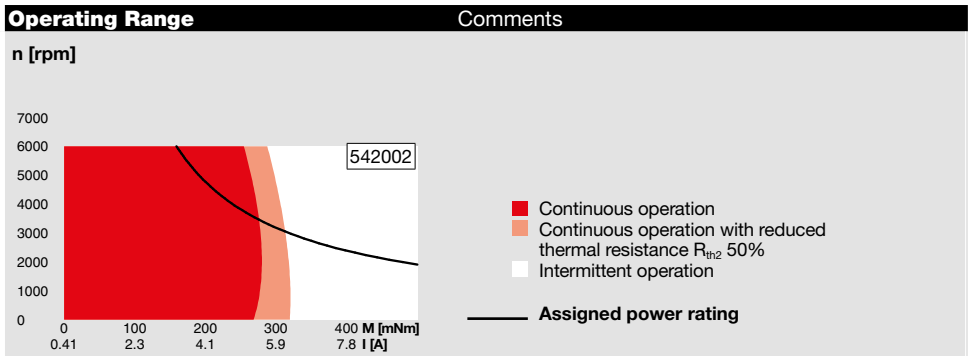
M 1:2

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

Part Numbers	
with Hall sensors	550153 542002 550154

Motor Data		550153	542002	550154
Values at nominal voltage				
1 Nominal voltage	V	12	24	48
2 No load speed	rpm	3710	4250	3970
3 No load current	mA	671	419	187
4 Nominal speed	rpm	3170	3740	3490
5 Nominal torque (max. continuous torque)	mNm	279	289	319
6 Nominal current (max. continuous current)	A	9.25	5.47	2.78
7 Stall torque	mNm	2850	4180	5010
8 Stall current	A	93.5	78.2	43.8
9 Max. efficiency	%	84	86	88
Characteristics				
10 Terminal resistance phase to phase	Ω	0.128	0.307	1.1
11 Terminal inductance phase to phase	mH	0.062	0.188	0.864
12 Torque constant	mNm/A	30.5	53.4	114
13 Speed constant	rpm/V	313	179	83.4
14 Speed/torque gradient	rpm/mNm	1.32	1.03	0.798
15 Mechanical time constant	ms	17.2	13.4	10.4
16 Rotor inertia	gcm ²	1246	1246	1246

Specifications	
Thermal data	
17 Thermal resistance housing-ambient	2.5 K/W
18 Thermal resistance winding-housing	3.8 K/W
19 Thermal time constant winding	40 s
20 Thermal time constant motor	89.9 s
21 Ambient temperature	-40...+100°C
22 Max. winding temperature	+125°C
Mechanical data	
23 Max. speed	6000 rpm
Other specifications	
29 Number of pole pairs	7
30 Number of phases	3
31 Weight of motor	333 g
Weight of rotor	160 g
Weight of stator	173 g



Values listed in the table are nominal.

Connection motor (Cable AWG 18)		
red	Motor winding 1	Pin 1
black	Motor winding 2	Pin 2
white	Motor winding 3	Pin 3
	N.C.	Pin 4

Connector Part number		
Molex	39-01-2040	
Connection sensors (Cable AWG 24)		
yellow	Hall sensor 1	Pin 1
brown	Hall sensor 2	Pin 2
grey	Hall sensor 3	Pin 3
blue	GND	Pin 4
green	V _{Hall} 4.5...24 VDC	Pin 5
	N.C.	Pin 6

Connector Part number	
Molex	430-25-0600

Wiring diagram for Hall sensors see p. 43

Connection NTC (Cable AWG 24)	
pink	NTC
blue	NTC

Resistance 25°C: 5 k Ω \pm 1%, beta (25–85°C): 3490 K

maxon Modular System Overview on page 28–36

Recommended Electronics:

Notes	Page 32
ESCON Mod. 50/4 EC-S	445
ESCON Mod. 50/5	445
ESCON Mod. 50/8 (HE)	446
ESCON 50/5	447
ESCON 70/10	447
DEC Module 50/5	449
EPOS4 50/5	453
EPOS4 Mod./Comp. 50/5	453
EPOS4 Mod./Comp. 50/8	454
EPOS4 70/15	456
EPOS2 P 24/5	464
MAXPOS 50/5	468