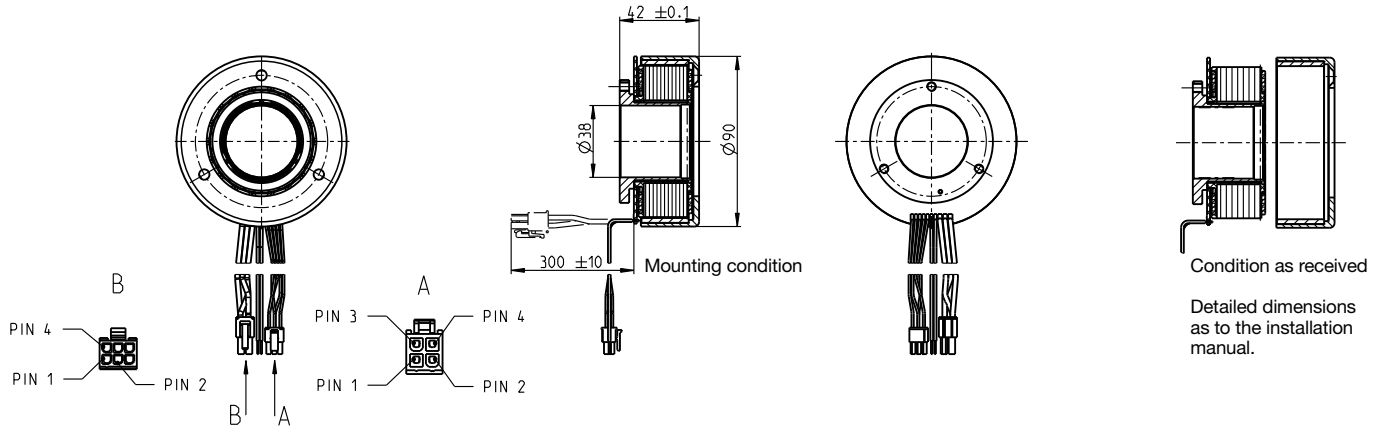


EC frameless 90 flat $\varnothing 90$ mm, brushless, 260 Watt

NEW

maxon frameless motor



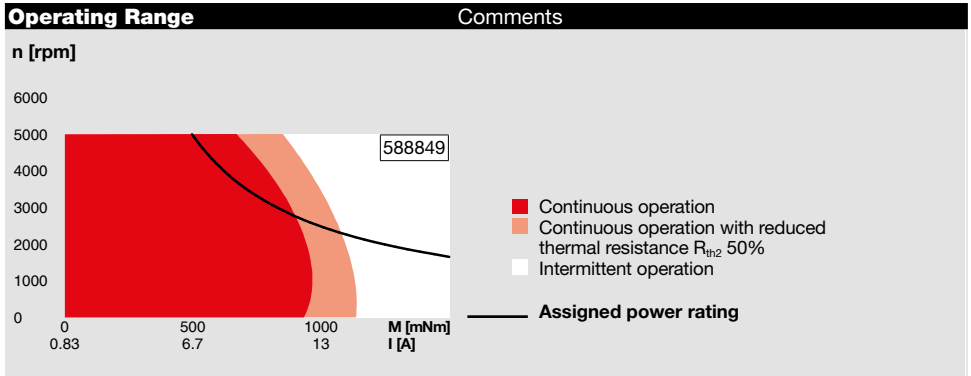
M 1:4

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

Part Numbers				
with Hall sensors	588849	542099	581294	581295

Motor Data					
Values at nominal voltage					
1 Nominal voltage	V	18	30	48	60
2 No load speed	rpm	2100	2080	1960	1980
3 No load current	mA	830	490	278	227
4 Nominal speed	rpm	1770	1770	1660	1690
5 Nominal torque (max. continuous torque)	mNm	1010	988	964	963
6 Nominal current (max. continuous current)	A	12.1	7.06	4.06	3.28
7 Stall torque	mNm	13400	14100	13000	13200
8 Stall current	A	166	103	56.2	46.3
9 Max. efficiency	%	86	87	86	86
Characteristics					
10 Terminal resistance phase to phase	Ω	0.109	0.29	0.854	1.29
11 Terminal inductance phase to phase	mH	0.133	0.369	1.07	1.63
12 Torque constant	mNm/A	80.7	136	231	286
13 Speed constant	rpm/V	118	70.2	41.3	33.4
14 Speed/torque gradient	rpm/mNm	0.159	0.15	0.153	0.152
15 Mechanical time constant	ms	8.85	8.32	8.47	8.41
16 Rotor inertia	gcm ²	5300	5300	5300	5300

Specifications	
Thermal data	
17 Thermal resistance housing-ambient	1.74 K/W
18 Thermal resistance winding-housing	1.82 K/W
19 Thermal time constant winding	60.5 s
20 Thermal time constant motor	258 s
21 Ambient temperature	-40...+100°C
22 Max. winding temperature	+125°C
Mechanical data	
23 Max. speed	5000 rpm
Other specifications	
29 Number of pole pairs	11
30 Number of phases	3
31 Weight of motor	814 g
Weight of rotor	292 g
Weight of stator	522 g



Values listed in the table are nominal.

Connection motor (Cable AWG 16)		
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 Mod./Comp. 50/15	455
EPOS4 70/15	456
EPOS2 P 24/5	464
MAXPOS 50/5	468