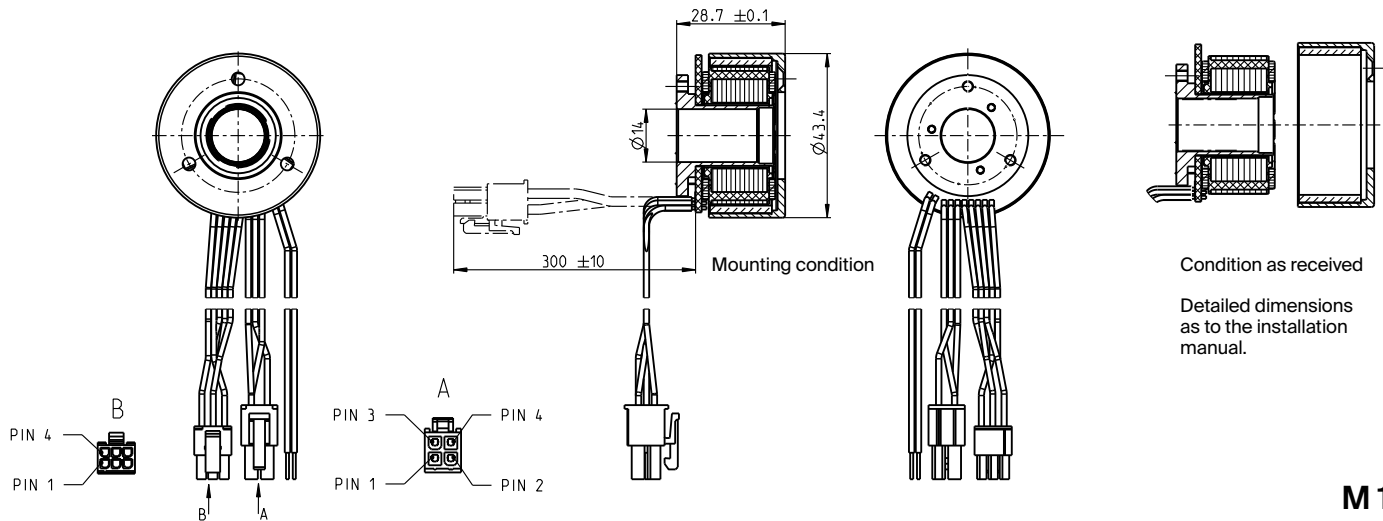


# EC frameless 45 flat $\varnothing 43.4$ mm, brushless, 70 watt



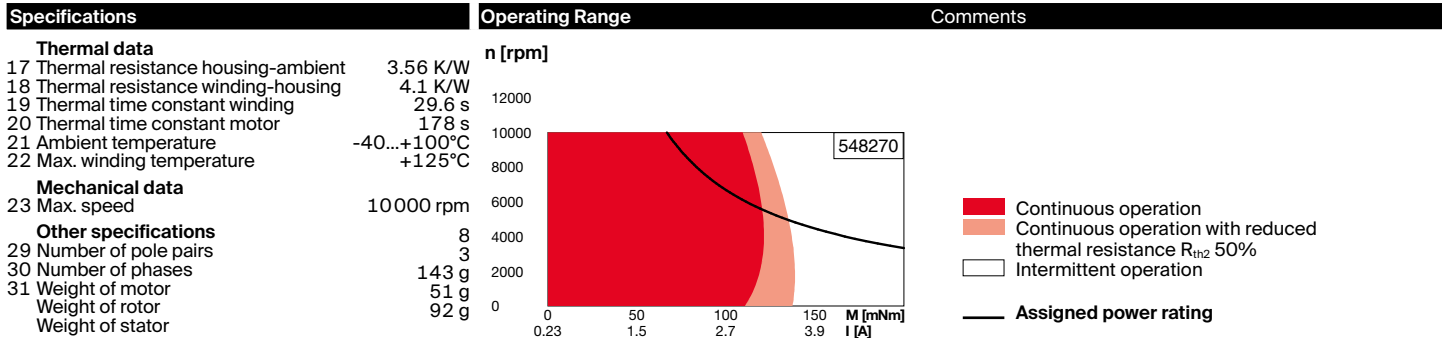
EC frameless

M 1:2

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

		Part Numbers			
	with Hall sensors	548270	574035	574036	574037

Motor Data					
<b>Values at nominal voltage</b>					
1 Nominal voltage	V	24	30	36	48
2 No load speed	rpm	6110	6230	6330	3440
3 No load current	mA	234	194	166	48.1
4 Nominal speed	rpm	4860	4990	5080	2540
5 Nominal torque (max. continuous torque)	mNm	128	112	108	134
6 Nominal current (max. continuous current)	A	3.21	2.36	1.93	0.936
7 Stall torque	mNm	1460	1170	1100	915
8 Stall current	A	39.5	25.8	20.7	6.97
9 Max. efficiency	%	85.4	83.7	83.2	84.3
<b>Characteristics</b>					
10 Terminal resistance phase to phase	$\Omega$	0.608	1.16	1.74	6.89
11 Terminal inductance phase to phase	mH	0.463	0.691	0.966	5.85
12 Torque constant	mNm/A	36.9	45.1	53.3	131
13 Speed constant	rpm/V	259	212	179	72.7
14 Speed/torque gradient	rpm/mNm	4.26	5.44	5.85	3.82
15 Mechanical time constant	ms	10.7	13.7	14.7	9.6
16 Rotor inertia	gcm <sup>2</sup>	240	240	240	240



Values listed in the table are nominal.

Connection motor (Cable AWG 24)		
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 <sub>Hall</sub> 4.5...24 VDC	Pin 5
	N.C.	Pin 6

Connector Part number	
Molex	43025-0600

Wiring diagram for Hall sensors see p. 59  
\*Internal pull-up (7...1.3 k $\Omega$ ) on pin 5

Connection NTC (Cable AWG 24)	
pink	NTC
blue	NTC

Resistance 25°C: 5 k $\Omega$   $\pm$  1%, beta(25-85°C): 3490 K

maxon Modular System Details on catalog page 46

Recommended Electronics:	
Notes	Page 46
ESCON 36/3 EC	501
ESCON Mod. 50/4 EC-S	501
ESCON Module 50/5	501
ESCON 50/5	503
DEC Module 50/5	505
EPOS4 Micro 24/5	509
EPOS4 Mod./Comp. 50/5	510
EPOS4 Comp. 24/5 3-axes	511
EPOS4 50/5	515
EPOS4 Disk 60/12	517
EPOS2 P 24/5	520