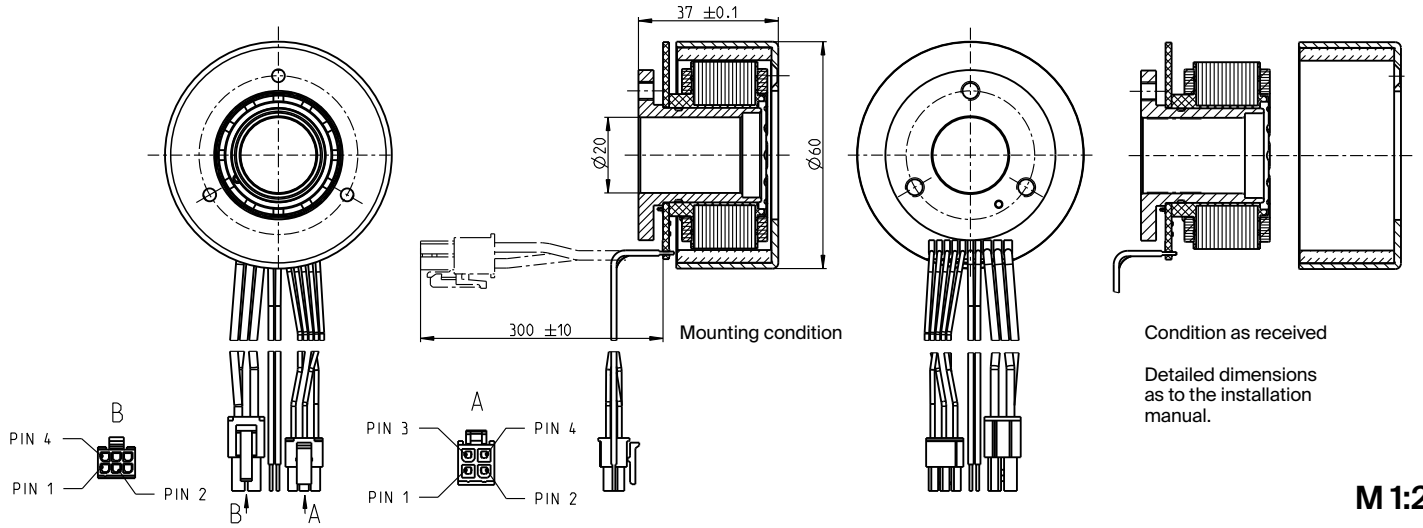


EC frameless 60 flat $\varnothing 60$ mm, brushless, 100 watt

EC frameless



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 | Operating Range | Comments |
|---------------------------------------|-----------------|----------|
| 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 43025-0600
Wiring diagram for Hall sensors see p. 59
- Connection NTC** (Cable AWG 24)
- pink NTC
 - blue NTC
- Resistance 25°C: 5 k Ω \pm 1%, β (25-85°C): 3490K

maxon Modular System Details on catalog page 46

- Recommended Electronics:**
- | | |
|-----------------------|---------|
| Notes | Page 46 |
| ESCON Mod. 50/4 EC-S | 501 |
| ESCON Mod. 50/5 | 501 |
| ESCON Mod. 50/8 (HE) | 502 |
| ESCON 50/5 | 503 |
| ESCON 70/10 | 503 |
| DEC Module 50/5 | 505 |
| EPOS4 Mod./Comp. 50/5 | 510 |
| EPOS4 Mod./Comp. 50/8 | 513 |
| EPOS4 50/5 | 515 |
| EPOS4 70/15 | 515 |
| EPOS4 Disk 60/8 | 516 |
| EPOS4 Disk 60/12 | 517 |
| EPOS2 P 24/5 | 520 |