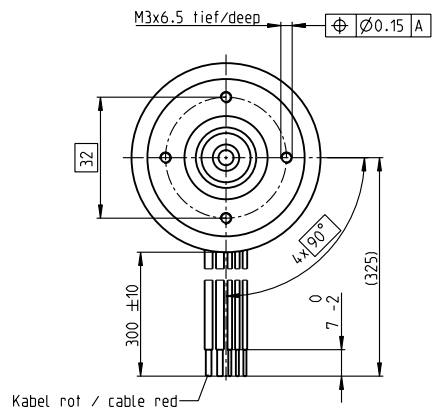
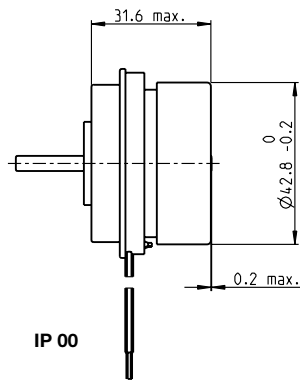
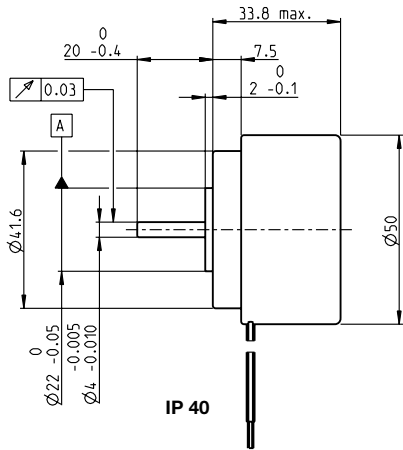


EC 45 flat brushless, 30 Watt, with integrated electronics

1-Q-Speed Controller

maxon flat motor



M 1:2

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

		Part Numbers							
		2 wire version				5 wire version			
		Enable		Direction		Enable		Direction	
IP 40 (with cover)	353518	353519	350909	370425	353516	353517	352886	370424	370424
IP 00 (without cover)									

Motor Data (provisional)

Values at nominal voltage		IP 40 (with cover)		IP 00 (without cover)		IP 40 (with cover)		IP 00 (without cover)	
1 Nominal voltage	V	24	24	24	24	24	24	24	24
2 No load speed	rpm	3000	3000	6000	6000	6000	6000	6000	6000
3 No load current	mA	79.5	79.5	210	210	210	210	210	210
4 Nominal speed	rpm	3000	3000	6000	6000	6000	6000	6000	6000
5 Nominal torque (max. continuous torque)	mNm	72.8	94.7	59.4	89.6	59.4	89.6	59.4	89.6
6 Nominal current (max. continuous current)	A	1.33	1.78	2.06	3.1	2.06	3.1	2.06	3.1
33 Max. torque	mNm	106	106	104	104	104	104	104	104
34 Max. current	A	2.02	2.02	3.62	3.62	3.62	3.62	3.62	3.62
9 Max. efficiency	%	73	73	76	76	76	76	76	76
Characteristics		Speed	Speed	Speed	Speed	Speed	Speed	Speed	Speed
35 Type of control		Speed	Speed	Speed	Speed	Speed	Speed	Speed	Speed
36 Supply voltage +V _{CC}	V	10...28	10...28	10...28	10...28	10...28	10...28	10...28	10...28
37 Speed set value input	V	= V _{CC}	= V _{CC}	= V _{CC}	= V _{CC}	0.33...10.8	0.33...10.8	0.33...10.8	0.33...10.8
38 Scale speed set value input	rpm/V	125	125	250	250	600	600	600	600
39 Speed range	rpm	1250...3500	1250...3500	2500...7000	2500...7000	200...6480	200...6480	200...6480	200...6480
40 Max. acceleration	rpm/s	3000	3000	6000	6000	6000	6000	6000	6000

Specifications

- Thermal data**
- 17 Thermal resistance housing-ambient 5.6 (3.12) K/W
 - 18 Thermal resistance winding-housing 7.7 (4.5) K/W
 - 19 Thermal time constant winding 37.6 (22) s
 - 20 Thermal time constant motor 633 (353) s
 - 21 Ambient temperature -40...+85°C
 - 22 Max. winding temperature +125°C
 - 41 Max. temperature of electronics +105°C
- Mechanical data (preloaded ball bearings)**
- 16 Rotor inertia 135 gcm²
 - 24 Axial play at axial load < 7.0 N 0 mm
 - > 7.0 N 0.14 mm
 - 25 Radial play preloaded 6.8 N
 - 26 Max. axial load (dynamic) 95 N
 - 27 Max. force for press fits (static) (static, shaft supported) 1000 N
 - 28 Max. radial load, 5 mm from flange 55 N
- Other specifications**
- 31 Weight of motor 226 g
 - 32 Direction of rotation Clockwise (CW)

Values listed in the table are nominal.

Protective functions

Overload protection, blockage protection, inverse-polarity protection, thermal overload protection, low/high voltage cut-off

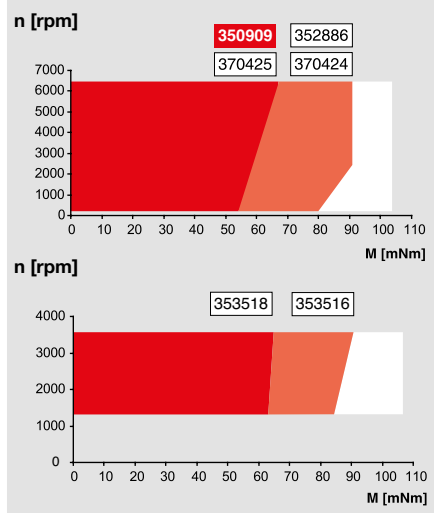
Connection 2 wire version (Cable AWG 18)

- red +V_{CC} 10...28 VDC
- black GND

Connection 5 wire version (Cable AWG 18/24)

- red +V_{CC} 10...28 VDC
- black GND
- white Speed set value input
- green Monitor n (6 pulses per revolution)
- grey Disable (Type Enable) or sense of direction (Type Direction)

Operating Range



Comments

Continuous operation
The drive can be operated with a speed controller and, taking account of the given thermal resistance (fig. 17 and 18) at an ambient temperature of 25°C, does not exceed the maximum permissible operating temperatures.

Overload range
The drive reaches these operating points. Speed may vary from the set value. The overload protection shuts down the drive in the event of sustained overload.

maxon Modular System

Details on catalog page 36

Planetary Gearhead

Ø42 mm
3 - 15 Nm
Page 363

Spur Gearhead

Ø45 mm
0.5 - 2.0 Nm
Page 365

