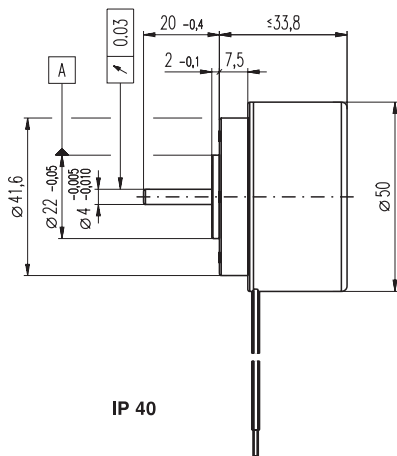


EC 45 flat brushless, 30 Watt, with integrated electronics

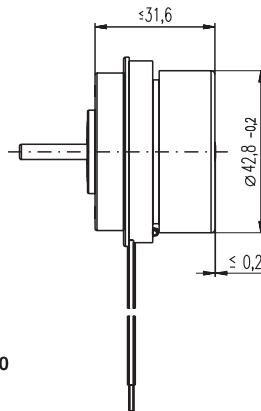
1-Q-speed controller

NEW

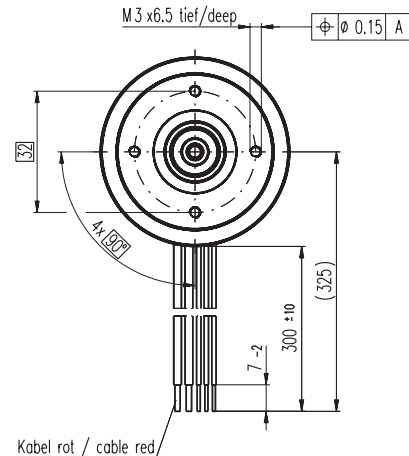
maxon flat motor



IP 40



IP 00



Kabel rot / cable red

M 1:2

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

IP 40 (with cover)
IP 00 (without cover)

Order Number

2 wire version		5 wire version	
353518	353519	350909	352886
353516	353517		

Motor Data (provisional)

Values at nominal voltage		24	24	24	24	24	24
1	Nominal voltage	V	24	24	24	24	24
2	No load speed	rpm	3000	3000	6000	6000	6000
3	No load current	mA	105	105	222	222	222
4	Nominal speed	rpm	3000	3000	6000	6000	6000
5	Nominal torque (max. continuous torque)	mNm	65	91	67	91	67
6	Nominal current (max. continuous current)	A	1.2	1.8	2.4	3	2.4
33	Max. torque	mNm	106	106	104	104	104
34	Max. current	A	2.1	2.1	3.6	3.6	3.6
9	Max. efficiency	%	71	71	73	77	73
Characteristics		Speed	Speed	Speed	Speed	Speed	Speed
35	Control variable						
36	Supply voltage + V _{CC}	V	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
38	Scale speed set value input	rpm / V	125	125	250	250	600
39	Turning speed range	rpm	1250 ... 3500	1250 ... 3500	2500 ... 7000	2500 ... 7000	200 ... 6480
40	Max. acceleration	rpm / s	3000	3000	6000	6000	6000

Specifications

- Thermal data**
- 17 Thermal resistance housing-ambient 5.8 (3.5) K / W
 - 18 Thermal resistance winding-housing 5 K / W
 - 19 Thermal time constant winding 25 s
 - 20 Thermal time constant motor 650 (400) s
 - 21 Ambient temperature -40 ... +85°C
 - 22 Max. permissible 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 < 2 N 0 mm
 - > 2 N 0.14 mm
 - 25 Radial play preloaded
 - 26 Max. axial load (dynamic) 6.8 N
 - 27 Max. axial load (static) 95 N
 - (static, shaft supported) 1000 N
 - 28 Max. radial loading, 7.5 mm from flange 51 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

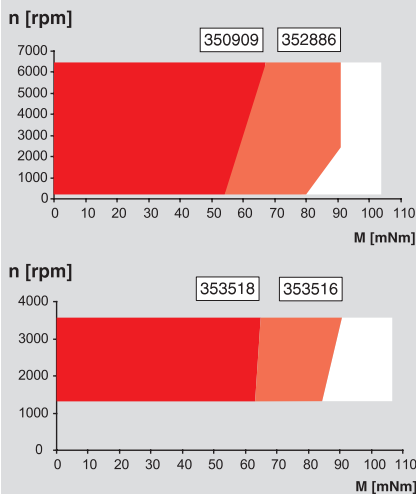
Connection 2 wire version (Cable AWG 18/24)

- 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 (2.4 ... 28 VDC)

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

Overview on page 16 - 21

Planetary Gearhead

- ∅42 mm
- 3 - 15 Nm
- Page 244

Spur Gearhead

- ∅45 mm
- 0.5 - 2.0 Nm
- Page 246

