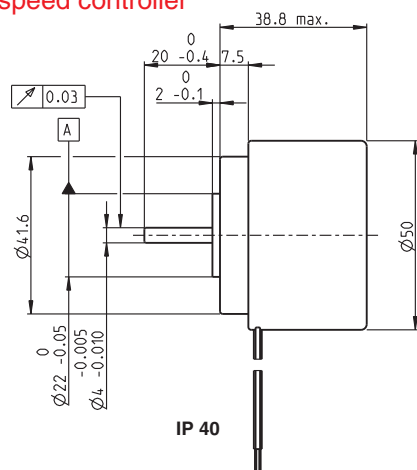
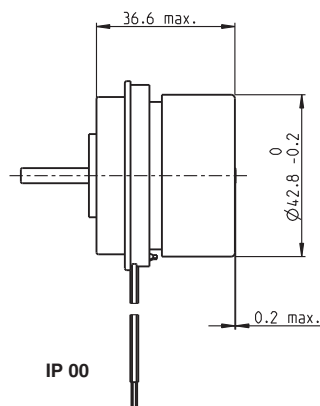


EC 45 flat brushless, 50 Watt, with integrated electronics

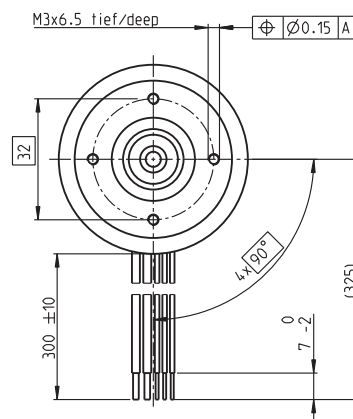
1-Q-speed controller



IP 40



IP 00



M 1:2

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

Order Number

	2 wire version		5 wire version		
			Enable	Direction	
IP 40 (with cover)	353526		350910	370427	
IP 00 (without cover)		353524		352887	370426

Motor Data (provisional)

Values at nominal voltage							
1	Nominal voltage	V	24	24	24	24	24
2	No load speed	rpm	3000	3000	4500	4500	4500
3	No load current	mA	127	127	192	192	192
4	Nominal speed	rpm	3000	3000	4500	4500	4500
5	Nominal torque (max. continuous torque)	mNm	66	123	71	116	116
6	Nominal current (max. continuous current)	A	1.2	2.4	2	3	3
33	Max. torque	mNm	154	154	154	154	154
34	Max. current	A	3.3	3.3	3.8	3.8	3.8
9	Max. efficiency	%	74	74	79	79	79
Characteristics							
35	Control variable	Speed	Speed	Speed	Speed	Speed	Speed
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}	0.33 ... 10.8	0.33 ... 10.8	0.33 ... 10.8
38	Scale speed set value input	rpm/V	125	125	600	600	600
39	Speed range	rpm	1250 ... 3500	1250 ... 3500	200 ... 6480	200 ... 6480	200 ... 6480
40	Max. acceleration	rpm/s	3000	3000	6000	6000	6000

Specifications

Thermal data	
17	Thermal resistance housing-ambient 5.8 (2.4) K / W
18	Thermal resistance winding-housing 4 K / W
19	Thermal time constant winding 27 s
20	Thermal time constant motor 290 (116) 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	193 gcm ²
24	Axial play at axial load < 7.0 N	0 mm
	> 7.0 N	0.14 mm
25	Radial play	preloaded
26	Max. axial load (dynamic)	6.8 N
27	Max. force for press fits (static)	95 N
	(static, shaft supported)	1000 N
28	Max. radial loading, 7.5 mm from flange	54 N

Other specifications

31	Weight of motor	260 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

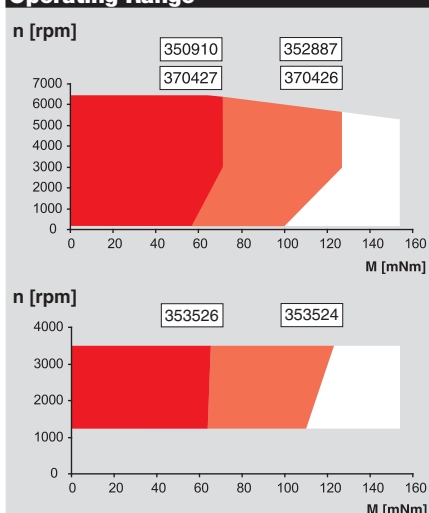
Connection 2 wire version (Cable AWG 18/24)

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 (Enable) or sense of direction change over (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

Overview on page 16 - 21

Planetary Gearhead

Ø42 mm
3 - 15 Nm
Page 237

Spur Gearhead

Ø45 mm
0.5 - 2.0 Nm
Page 239

