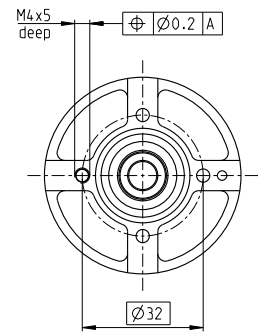
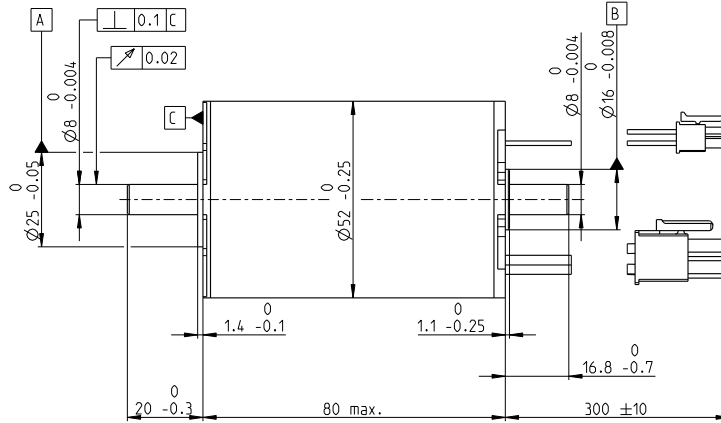
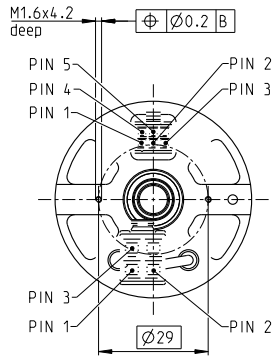


EC-i 52 Ø52 mm, brushless, 420 Watt

Ventilated

NEW

EC-i



alignment of cables relative to mounting holes ±10°

M 1:2

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

Part Numbers

	667064	667065	667066	633919
with Hall sensors				

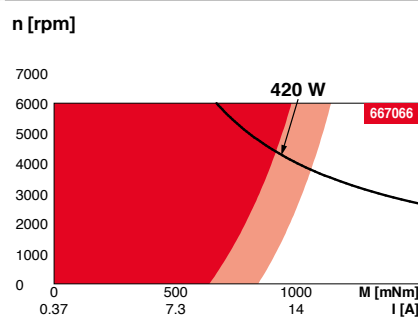
Motor Data

Values at nominal voltage		18	24	36	48
1 Nominal voltage	V	18	24	36	48
2 No load speed	rpm	4450	4860	5010	5090
3 No load current	mA	829	707	493	379
4 Nominal speed	rpm	3470	3800	3920	3990
5 Nominal torque (max. continuous torque)	mNm	896	964	1040	1010
6 Nominal current (max. continuous current)	A	20.8	18.1	13.2	9.87
7 Stall torque ¹	mNm	10300	12800	15600	15300
8 Stall current	A	269	274	229	171
9 Max. efficiency	%	89.3	90.2	91	90.9
Characteristics					
10 Terminal resistance phase to phase	Ω	0.0668	0.0876	0.157	0.281
11 Terminal inductance phase to phase	mH	0.0826	0.123	0.261	0.45
12 Torque constant	mNm/A	38.2	46.7	68	89.2
13 Speed constant	rpm/V	250	204	140	107
14 Speed/torque gradient	rpm/mNm	0.436	0.383	0.325	0.337
15 Mechanical time constant	ms	0.776	0.681	0.578	0.599
16 Rotor inertia	gcm ²	170	170	170	170

Specifications

- Thermal data**
- 17 Thermal resistance housing-ambient 1.77 K/W
 - 18 Thermal resistance winding-housing 0.34 K/W
 - 19 Thermal time constant winding 12.2 s
 - 20 Thermal time constant motor 667 s
 - 21 Ambient temperature -40...+100°C
 - 22 Max. winding temperature +155°C
- Mechanical data (preloaded ball bearings)**
- 23 Max. speed 6000 rpm
 - 24 Axial play at axial load < 9.0 N 0 mm
 - > 9.0 N 0.14 mm
 - 25 Radial play preloaded 0.12 mm
 - 26 Max. axial load (dynamic) 150 N
 - 27 Max. force for press fits (static) (static, shaft supported) 6000 N
 - 28 Max. radial load, 5 mm from flange 110 N

Operating Range



Comments

- Continuous operation**
In observation of above listed thermal resistance (lines 17 and 18) the maximum permissible winding temperature will be reached during continuous operation at 25°C ambient.
= Thermal limit.
- Short term operation**
The motor may be briefly overloaded (recurring).
- Assigned power rating**

Other specifications

- 29 Number of pole pairs 8
 - 30 Number of phases 3
 - 31 Weight of motor 752 g
- Values listed in the table are nominal.

Connection motor (Cable AWG 16)

red	Motor winding 1	Pin 1
black	Motor winding 2	Pin 2
white	Motor winding 3	Pin 3
	N.C.	Pin 4

Connector Article number

Molex 171692-0104

Connection sensor (Cable AWG 26)

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 Article number

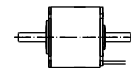
Molex 430-25-0600

Wiring diagram for Hall sensors see p. 49

¹Calculation does not include saturation effect (p. 61/168)

maxon Modular System

Details on catalog page 36



Recommended Electronics:

Notes	Page 36
ESCON 70/10	489
EPOS4 Mod./Comp. 50/15	497
EPOS4 70/15	501

Encoder 16 EASY

128 - 1024 CPT, 3 channels
Page 450

Encoder 16 EASY XT

128 - 1024 CPT, 3 channels
Page 452

Encoder 16 EASY Absolute

4096 steps
Page 454

Encoder 16 EASY Absolute XT

4096 steps
Page 456

Encoder 16 RIO

1024 - 32768 CPT, 3 channels
Page 467