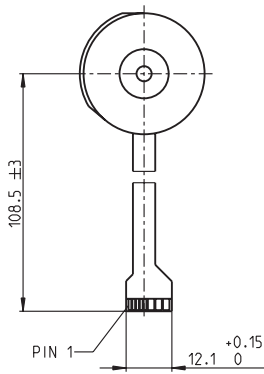
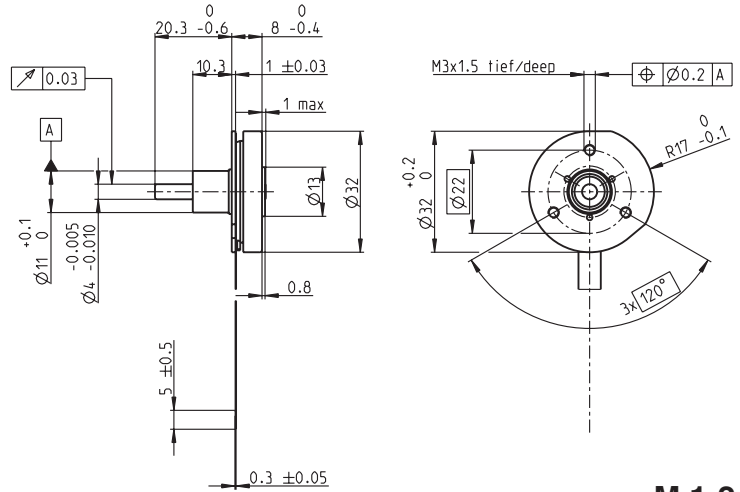
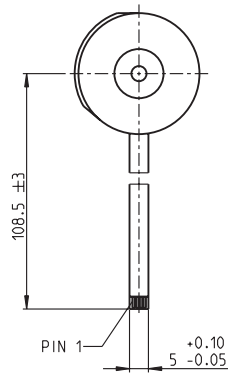


EC 32 flat $\varnothing 32$ mm, brushless, 6 Watt

A with Hall sensors



B sensorless



M 1:2

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

Order Number

A with Hall sensors	339259	200187	339260	339261
B sensorless	339263	200138	339264	339265

Motor Data

Values at nominal voltage		6.0	9.0	12.0	24.0
1 Nominal voltage	V	6.0	9.0	12.0	24.0
2 No load speed	rpm	9210	8380	7970	9310
3 No load current	mA	186	107	75.6	46.2
4 Nominal speed	rpm	4030	3710	3240	4500
5 Nominal torque (max. continuous torque)	mNm	7.35	8.74	7.92	9.38
6 Nominal current (max. continuous current)	A	1.33	0.915	0.609	0.399
7 Stall torque	mNm	15.5	19.0	15.7	22.8
8 Starting current	A	2.73	2.00	1.19	0.995
9 Max. efficiency	%	55	60	57	62
Characteristics					
10 Terminal resistance phase to phase	Ω	2.20	4.50	10.1	24.1
11 Terminal inductance phase to phase	mH	0.378	1.06	2.04	6.19
12 Torque constant	mNm / A	5.67	9.50	13.2	23.0
13 Speed constant	rpm / V	1680	1010	724	416
14 Speed / torque gradient	rpm / mNm	651	476	551	437
15 Mechanical time constant	ms	94.8	69.3	80.3	63.6
16 Rotor inertia	gcm ²	13.9	13.9	13.9	13.9

Specifications

- Thermal data**
- 17 Thermal resistance housing-ambient 6.28 K / W
 - 18 Thermal resistance winding-housing 5.83 K / W
 - 19 Thermal time constant winding 3.35 s
 - 20 Thermal time constant motor 16.8 s
 - 21 Ambient temperature -40 ... +100°C
 - 22 Max. permissible winding temperature +125°C
- Mechanical data (preloaded ball bearings)**
- 23 Max. permissible speed 12000 rpm
 - 24 Axial play at axial load < 5.0 N 0 mm
 - > 5.0 N typ. 0.6 mm
 - 25 Radial play preloaded 4.8 N
 - 26 Max. axial load (dynamic) 50 N
 - 27 Max. force for press fits (static) (static, shaft supported) 1000 N
 - 28 Max. radial loading, 7.5 mm from flange 5.5 N

Other specifications

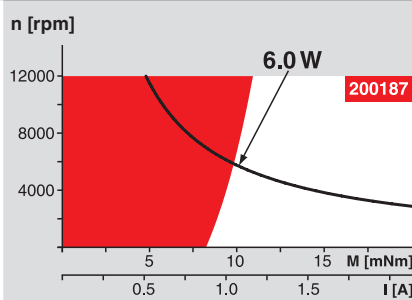
- 29 Number of pole pairs 4
- 30 Number of phases 3
- 31 Weight of motor 32 g

Values listed in the table are nominal.

Connection	with Hall sensors	sensorless
Pin 1	3.5 ... 24 VDC	Motor winding 1
Pin 2	Hall sensor 3	Motor winding 2
Pin 3	Hall sensor 1	Motor winding 3
Pin 4	Hall sensor 2	neutral point
Pin 5	GND	
Pin 6	Motor winding 3	
Pin 7	Motor winding 2	
Pin 8	Motor winding 1	
Adapter	Order number	Order number
see p. 310	220300	220310
Connector	Article number	Article number
TYCO	1-84953-1	84953-4
MOLEX	52207-1185	52207-0485
MOLEX	52089-1119	52089-0419

Pin for design with Hall sensors:
 FPC, 11-pol, Pitch 1.0 mm, top contact style
 Wiring diagram for Hall sensors see p. 29

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**

maxon Modular System

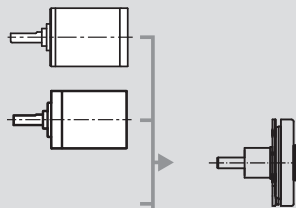
Overview on page 16 - 21

Planetary Gearhead

$\varnothing 22$ mm
 0.5 - 1.0 Nm
 Page 222

Planetary Gearhead

$\varnothing 22$ mm
 0.5 - 2.0 Nm
 Page 224



Recommended Electronics:

DECS 50/5	Page 289
DEC 24/1	289
DEC 24/3	290
DEC Module 24/2	290
DEC 50/5	291
DEC Module 50/5	291
DECV 50/5	297
EPOS2 Module 36/2	304
EPOS 24/1	304
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