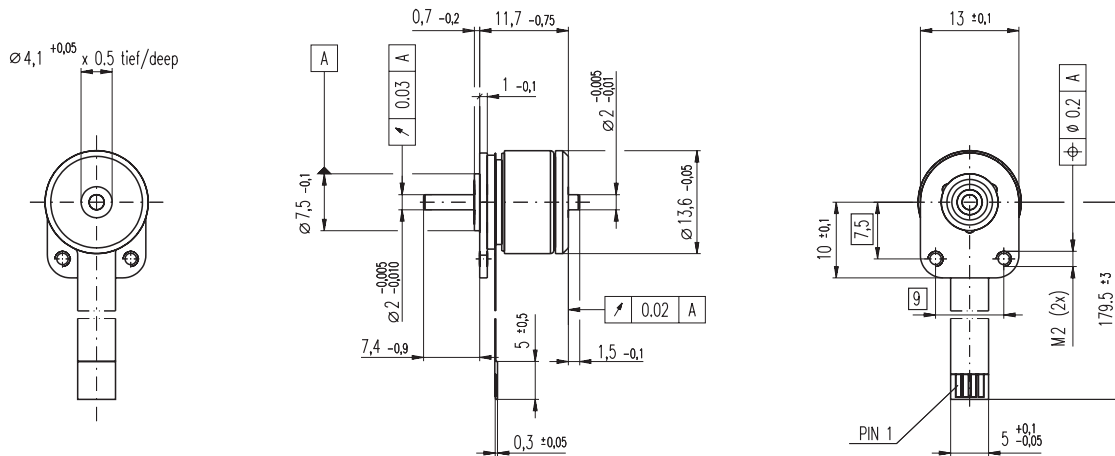


EC 14 flat $\varnothing 13.6$ mm, brushless, 1.5 Watt



M 1:1

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

Order Number

sensorless 339251 339252 **236679** 339253

Motor Data (provisional)

Values at nominal voltage		339251	339252	236679	339253	
1	Nominal voltage	V	6.0	12.0	18.0	24.0
2	No load speed	rpm	21200	22100	21000	21200
3	No load current	mA	173	93.8	57.4	43.2
4	Nominal speed	rpm	10200	10700	9960	10200
5	Nominal torque (max. continuous torque)	mNm	1.67	1.59	1.61	1.67
6	Nominal current (max. continuous current)	A	0.796	0.404	0.257	0.199
7	Stall torque	mNm	3.54	3.42	3.36	3.54
8	Starting current	A	1.50	0.764	0.474	0.374
9	Max. efficiency	%	45	44	44	45
Characteristics						
10	Terminal resistance phase to phase	Ω	4.01	15.7	38.0	64.1
11	Terminal inductance phase to phase	mH	0.107	0.428	0.962	1.71
12	Torque constant	mNm / A	2.36	4.47	7.08	9.45
13	Speed constant	rpm / V	4040	2130	1350	1010
14	Speed / torque gradient	rpm / mNm	6860	7500	7230	6860
15	Mechanical time constant	ms	79.1	86.3	83.3	79.1
16	Rotor inertia	gcm ²	1.10	1.10	1.10	1.10

Specifications

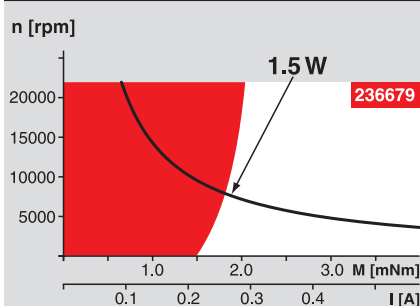
Thermal data		
17	Thermal resistance housing-ambient	7.92 K / W
18	Thermal resistance winding-housing	11 K / W
19	Thermal time constant winding	1.33 s
20	Thermal time constant motor	33.6 s
21	Ambient temperature	-40 ... +100°C
22	Max. permissible winding temperature	+125°C
Mechanical data (preloaded ball bearings)		
23	Max. permissible speed	22000 rpm
24	Axial play at axial load < 1.5 N	0 mm
	> 1.5 N	0.14 mm preloaded
25	Radial play	
26	Max. axial load (dynamic)	1.3 N
27	Max. force for press fits (static) (static, shaft supported)	10 N
		200 N
28	Max. radial loading, 5 mm from flange	1.8 N
Other specifications		
29	Number of pole pairs	4
30	Number of phases	3
31	Weight of motor	8.5 g

Values listed in the table are nominal.

Connection

Pin 1	Motor winding 1
Pin 2	Motor winding 2
Pin 3	Motor winding 3
Pin 4	neutral point
Adapter	Order number
see p. 299	220310
Connector	Article number
AMP	487951-4
MOLEX	52207-0490
MOLEX	52089-0410

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

Recommended Electronics:
DECS 50/5 Page 284
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