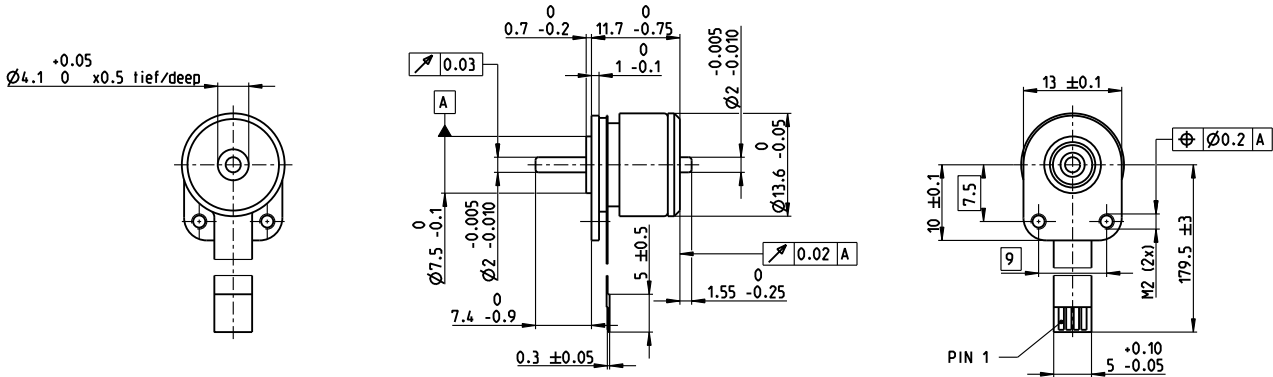


**EC 14 flat**  $\varnothing 13.6$  mm, brushless, 1.5 Watt



**M 1:1**

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

**Part Numbers**

	sensorless	339251	339252	236679	339253
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Motor Data		339251	339252	236679	339253
<b>Values at nominal voltage</b>					
1 Nominal voltage	V	6	12	18	24
2 No load speed	rpm	20000	20100	19900	20000
3 No load current	mA	156	78.1	51.7	38.9
4 Nominal speed	rpm	9600	9680	9390	9590
5 Nominal torque (max. continuous torque)	mNm	1.8	1.83	1.74	1.81
6 Nominal current (max. continuous current)	A	0.794	0.402	0.256	0.199
7 Stall torque	mNm	3.79	3.87	3.6	3.8
8 Stall current	A	1.5	0.764	0.474	0.374
9 Max. efficiency	%	49	49	48	49
<b>Characteristics</b>					
10 Terminal resistance phase to phase	Ω	4.01	15.7	38	64.1
11 Terminal inductance phase to phase	mH	0.107	0.428	0.962	1.71
12 Torque constant	mNm/A	2.53	5.06	7.6	10.1
13 Speed constant	rpm/V	3770	1890	1260	942
14 Speed/torque gradient	rpm/mNm	5980	5860	6270	5960
15 Mechanical time constant	ms	68.9	67.5	72.3	68.6
16 Rotor inertia	gcm <sup>2</sup>	1.1	1.1	1.1	1.1

<b>Specifications</b>	<b>Operating Range</b>	<b>Comments</b>
<p><b>Thermal data</b></p> <p>17 Thermal resistance housing-ambient 11.6 K/W</p> <p>18 Thermal resistance winding-housing 11.3 K/W</p> <p>19 Thermal time constant winding 1.37 s</p> <p>20 Thermal time constant motor 49.2 s</p> <p>21 Ambient temperature -40...+100°C</p> <p>22 Max. winding temperature +125°C</p> <p><b>Mechanical data (preloaded ball bearings)</b></p> <p>23 Max. speed 22000 rpm</p> <p>24 Axial play at axial load &lt; 1.5 N 0 mm</p> <p>&gt; 1.5 N 0.14 mm preloaded</p> <p>25 Radial play 1.3 N 1.3 N</p> <p>26 Max. axial load (dynamic) 18 N</p> <p>27 Max. force for press fits (static) (static, shaft supported) 200 N</p> <p>28 Max. radial load, 5 mm from flange 3.4 N</p> <p><b>Other specifications</b></p> <p>29 Number of pole pairs 4</p> <p>30 Number of phases 3</p> <p>31 Weight of motor 8 g</p> <p>Values listed in the table are nominal.</p>	<p>n [rpm]</p> <p><b>1.5 W</b></p> <p><b>236679</b></p> <p>M [mNm]</p> <p>I [A]</p>	<p><b>█ Continuous operation</b> 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.</p> <p><b>□ Short term operation</b> The motor may be briefly overloaded (recurring).</p> <p><b>— Assigned power rating</b></p>

**maxon Modular System** Overview on page 20–27

- |   |   |
|---|---|
| <p><b>Connection</b></p> <p>Pin 1 Motor winding 1</p> <p>Pin 2 Motor winding 2</p> <p>Pin 3 Motor winding 3</p> <p>Pin 4 neutral point</p> <p><b>Adapter</b> Part number</p> <p>see p. 438 220310</p> <p><b>Connector</b> Part number</p> <p>Tyco 84953-4</p> <p>Molex 52207-0433</p> <p>Molex 52089-0419</p> | <p><b>Recommended Electronics:</b></p> <p>Notes Page 26</p> <p>ESCON Mod. 50/4 EC-S 417</p> |
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