

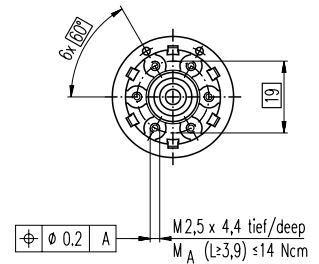
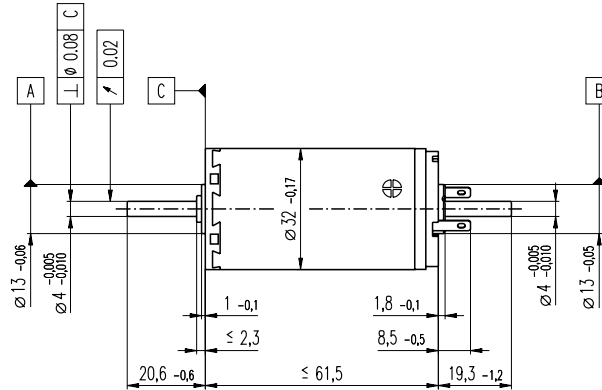
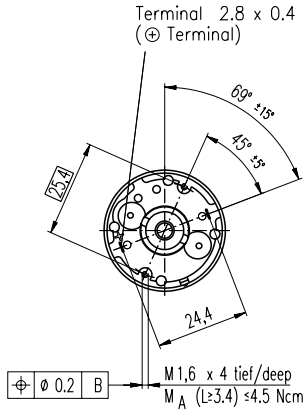
A-max 32 \varnothing 32 mm, Graphite Brushes, 15 Watt

Farnell Codes

415 8726 - base - 236653

415 8738 - base - 236655

maxon A-max



M 1:2

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

Order Number

236651 236652 236653 236654 236655 236656 236657 236658

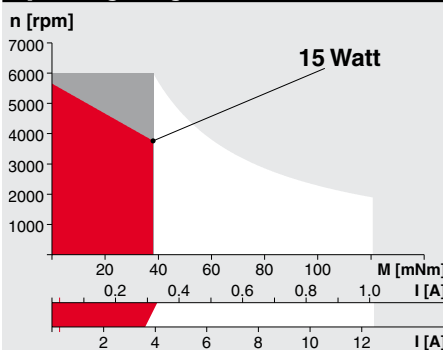
Motor Data

		236651	236652	236653	236654	236655	236656	236657	236658
1 Assigned power rating	W	15	15	15	15	15	15	15	15
2 Nominal voltage	Volt	6.0	9.0	12.0	18.0	24.0	30.0	36.0	48.0
3 No load speed	rpm	5710	4830	4590	5200	5860	5800	5760	3800
4 Stall torque	mNm	100.0	88.2	96.8	119	129	129	126	82.1
5 Speed / torque gradient	rpm / mNm	59.5	57.0	49.1	45.0	46.6	45.9	46.6	47.9
6 No load current	mA	295	163	115	87	74	59	49	24
7 Starting current	mA	10500	5160	4010	3690	3370	2680	2170	704
8 Terminal resistance	Ohm	0.573	1.75	2.99	4.88	7.13	11.2	16.6	68.2
9 Max. permissible speed	rpm	6000	6000	6000	6000	6000	6000	6000	6000
10 Max. continuous current	mA	3610	2070	1580	1240	1020	817	671	331
11 Max. continuous torque	mNm	34.6	35.5	38.2	39.8	39.1	39.4	39.1	38.6
12 Max. power output at nominal voltage	mW	13900	10600	11200	15700	19200	19200	18600	7890
13 Max. efficiency	%	67	67	68	71	72	73	72	67
14 Torque constant	mNm / A	9.59	17.1	24.1	32.2	38.2	48.3	58.3	117
15 Speed constant	rpm / V	996	559	396	297	250	198	164	81.9
16 Mechanical time constant	ms	26	22	21	21	20	20	20	20
17 Rotor inertia	gcm ²	42.4	37.4	41.4	43.8	41.9	42.1	41.3	40.0
18 Terminal inductance	mH	0.07	0.21	0.42	0.74	1.05	1.67	2.44	9.75
19 Thermal resistance housing-ambient	K / W	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
20 Thermal resistance rotor-housing	K / W	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
21 Thermal time constant winding	s	17	15	17	18	17	17	17	16

Specifications

- Axial play 0.12 - 0.22 mm
- Max. **ball bearing** loads
 - axial (dynamic) 7.6 N
 - radial (5 mm from flange) 32.0 N
 - Force for press fits (static) 110 N
 - (static, shaft supported) 2000 N
- Max. **sleeve bearing** loads
 - axial (dynamic) 5 N
 - radial (5 mm from flange) 10.5 N
 - Force for press fits (static) 110 N
 - (static, shaft supported) 2000 N
- Radial play **ball bearing** 0.025 mm
- Radial play **sleeve bearing** 0.012 mm
- Ambient temperature range -20 ... +85°C
- Max. rotor temperature +125°C
- Number of commutator segments 13
- Weight of motor 213 g
- Values listed in the table are nominal. For applicable tolerances see page 43. For additional details please use the maxon selection program on the enclosed CD-Rom.

Operating Range



Comments

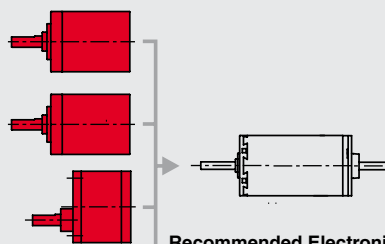
- Recommended operating range**
- Continuous operation**
In observation of above listed thermal resistances (lines 19 and 20) the maximum permissible rotor temperature will be reached during continuous operation at 25°C ambient. = Thermal limit
- Short term operation**
The motor may be briefly overloaded (recurring).
- 236658** Motor with high resistance winding
- 236651** Motor with low resistance winding

Details on page 49

maxon Modular System

Overview on page 17 - 21

- Planetary Gearhead**
 \varnothing 32 mm
0.75 - 4.5 Nm
Details page 196
- Planetary Gearhead**
 \varnothing 32 mm
1.0 - 6.0 Nm
Details page 198
- Spur Gearhead**
 \varnothing 38 mm
0.1 - 0.6 Nm
Details page 200



- Digital MR Encoder**
256 - 1024 CPT,
3 channels
Details page 213
- Digital Encoder**
HP HEDS 5540
500 CPT, 3 channels
Details page 217
- Digital Encoder**
HP HEDL 5540
500 CPT, 3 channels
Details page 219

- Recommended Electronics:**
page 231
- LSC 30/2 233
 - ADS 50/5 234
 - ADS_E 50/5 234
 - MIP 10 245
 - Notes 17