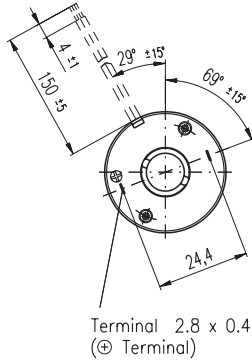


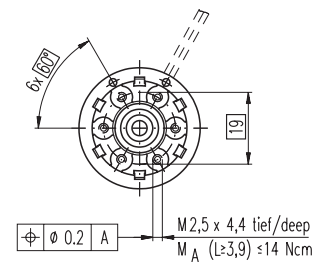
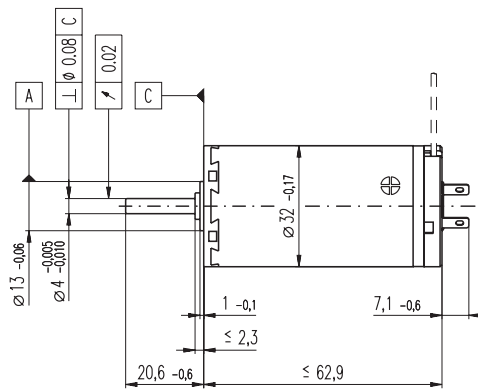
# A-max 32 Ø32 mm, Graphite Brushes, 15 Watt

Kabel AWG 22/7  
cable UL Style 1061

⊕ Kabel rot  
cable red



Terminal 2.8 x 0.4  
(⊕ Terminal)



## M 1:2

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

with terminals  
with cables

### Order Number

<b>236643</b>	<b>236644</b>	<b>236645</b>	<b>236646</b>	<b>236647</b>	<b>236648</b>	<b>236649</b>	<b>236650</b>
353184	353185	353186	353187	353188	353189	353190	353191

### Motor Data

Values at nominal voltage										
1	Nominal voltage	V	6.0	9.0	12.0	18.0	24.0	30.0	36.0	48.0
2	No load speed	rpm	5830	4930	4670	5270	5930	5870	5830	3870
3	No load current	mA	153	83.2	58.4	44.8	38.6	30.5	25.2	11.7
4	Nominal speed	rpm	3800	2980	2860	3550	4180	4140	4090	2080
5	Nominal torque (max. continuous torque)	mNm	31.4	33.1	36.0	37.5	36.7	37.1	36.8	36.9
6	Nominal current (max. continuous current)	A	3.42	2.02	1.55	1.21	0.998	0.798	0.656	0.328
7	Stall torque	mNm	99.7	87.4	95.9	118	127	128	125	81.3
8	Starting current	A	10.4	5.12	3.98	3.66	3.34	2.66	2.15	0.698
9	Max. efficiency	%	75	75	77	79	80	80	80	76
Characteristics										
10	Terminal resistance	Ω	0.577	1.76	3.02	4.92	7.19	11.3	16.7	68.8
11	Terminal inductance	mH	0.0657	0.209	0.416	0.739	1.04	1.66	2.43	9.71
12	Torque constant	mNm / A	9.58	17.1	24.1	32.2	38.2	48.2	58.3	117
13	Speed constant	rpm / V	996	559	396	297	250	198	164	81.9
14	Speed / torque gradient	rpm / mNm	59.9	57.6	49.5	45.5	47.1	46.3	47.1	48.4
15	Mechanical time constant	ms	27.6	23.5	22.4	21.8	21.7	21.5	21.5	21.5
16	Rotor inertia	gcm <sup>2</sup>	43.9	39.0	43.3	45.9	44.0	44.4	43.6	42.4

### Specifications

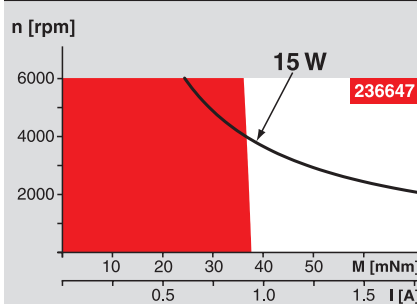
Thermal data		
17	Thermal resistance housing-ambient	7.5 K / W
18	Thermal resistance winding-housing	2.1 K / W
19	Thermal time constant winding	17.7 s
20	Thermal time constant motor	791 s
21	Ambient temperature	-20 ... +85°C
22	Max. permissible winding temperature	+125°C
Mechanical data (ball bearings)		
23	Max. permissible speed	6000 rpm
24	Axial play	0.12 - 0.22 mm
25	Radial play	0.025 mm
26	Max. axial load (dynamic)	7.6 N
27	Max. force for press fits (static)	110 N
28	Max. radial loading, 5 mm from flange	32 N
Mechanical data (sleeve bearings)		
23	Max. permissible speed	6000 rpm
24	Axial play	0.12 - 0.22 mm
25	Radial play	0.025 mm
26	Max. axial load (dynamic)	5.0 N
27	Max. force for press fits (static)	110 N
28	Max. radial loading, 5 mm from flange	10.5 N
Other specifications		
29	Number of pole pairs	1
30	Number of commutator segments	13
31	Weight of motor	211 g

Values listed in the table are nominal.  
Explanation of the figures on page 49.

### Option

Sleeve bearings in place of ball bearings

### Operating Range



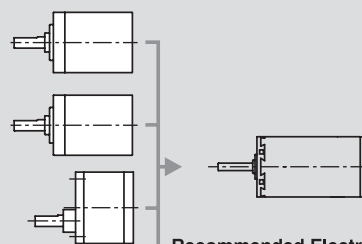
### Comments

- 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**  
Ø32 mm  
0.75 - 4.5 Nm  
Page 239
- Planetary Gearhead**  
Ø32 mm  
1.0 - 6.0 Nm  
Page 241
- Spur Gearhead**  
Ø38 mm  
0.1 - 0.6 Nm  
Page 243



**Recommended Electronics:**  
LSC 30/2 Page 276  
ADS 50/5 276  
ADS\_E 50/5 277  
Notes 18