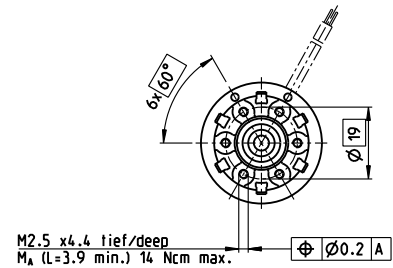
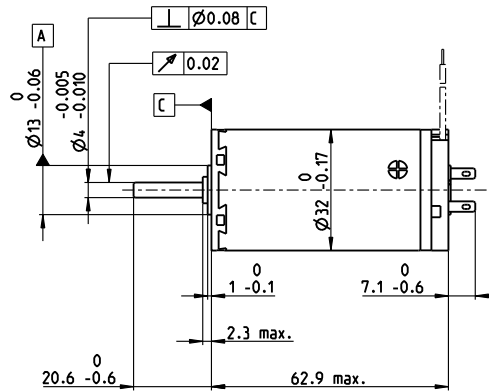
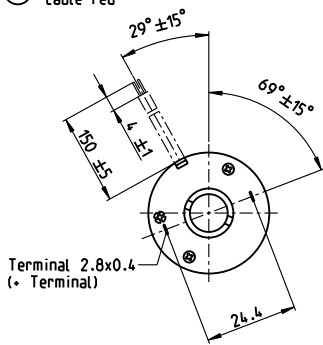


# A-max 32 Ø32 mm, Graphite Brushes, 15 Watt

Kabel AWG 22/7  
cable UL Style 1061

⊕ Kabel rot  
cable red



M 1:2

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

## Part Numbers

with terminals	236643	236644	236645	236646	236647	236648	236649	236650
with cables	353184	353185	353186	353187	353188	353189	353190	353191

## Motor Data

Values at nominal voltage		6	9	12	18	24	30	36	48
1 Nominal voltage	V	6	9	12	18	24	30	36	48
2 No load speed	rpm	5870	4940	4680	5280	5930	5870	5830	3870
3 No load current	mA	154	83.5	58.6	44.9	38.7	30.6	25.3	11.8
4 Nominal speed	rpm	4110	3090	2920	3590	4210	4160	4100	2090
5 Nominal torque (max. continuous torque)	mNm	36.5	35	37.2	38.3	37.3	37.5	37.1	37
6 Nominal current (max. continuous current)	A	3.95	2.12	1.6	1.23	1.01	0.806	0.66	0.328
7 Stall torque	mNm	127	95.3	101	122	130	130	127	81.6
8 Stall current	A	13.2	5.58	4.19	3.78	3.42	2.7	2.17	0.7
9 Max. efficiency	%	78	76	77	79	80	80	80	76
Characteristics									
10 Terminal resistance	Ω	0.454	1.61	2.86	4.76	7.03	11.1	16.6	68.6
11 Terminal inductance	mH	0.066	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	47.2	52.8	47	44	46	45.6	46.6	48.2
15 Mechanical time constant	ms	21.9	21.7	21.4	21.3	21.3	21.3	21.4	21.5
16 Rotor inertia	gcm <sup>2</sup>	44.2	39.2	43.5	46.2	44.2	44.6	43.8	42.6

## 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	17.8 s
20 Thermal time constant motor	791 s
21 Ambient temperature	-20...+85°C
22 Max. winding temperature	+125°C

Mechanical data (ball bearings)	
23 Max. 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 load, 5 mm from flange	32 N

Mechanical data (sleeve bearings)	
23 Max. speed	6000 rpm
24 Axial play	0.12 - 0.22 mm
25 Radial play	0.012 mm
26 Max. axial load (dynamic)	5.0 N
27 Max. force for press fits (static)	110 N
28 Max. radial load, 5 mm from flange	10.5 N

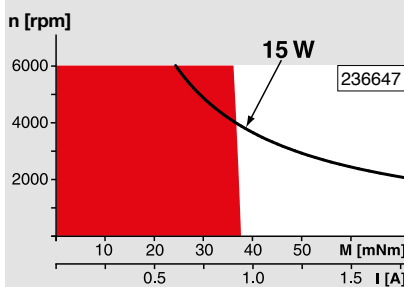
Other specifications	
29 Number of pole pairs	1
30 Number of commutator segments	13
31 Weight of motor	211 g

Values listed in the table are nominal.  
Explanation of the figures on page 64.

### 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.

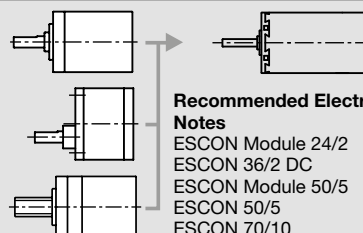
**Short term operation**  
The motor may be briefly overloaded (recurring).

— Assigned power rating

## maxon Modular System

Overview on page 28–36

- Planetary Gearhead**  
Ø32 mm  
0.75 - 6.0 Nm  
Page 342–344/346–347
- Spur Gearhead**  
Ø38 mm  
0.1 - 0.6 Nm  
Page 353
- Screw Drive**  
Ø32 mm  
Page 374–379



- Recommended Electronics:**
- Notes** Page 30
- ESCON Module 24/2 444
- ESCON 36/2 DC 444
- ESCON Module 50/5 445
- ESCON 50/5 447
- ESCON 70/10 447