

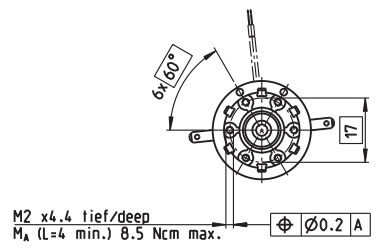
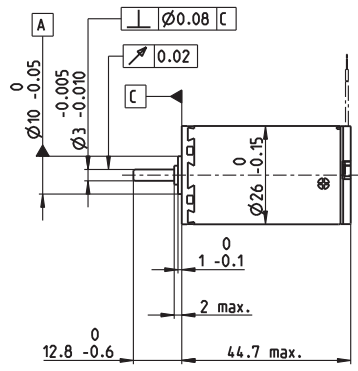
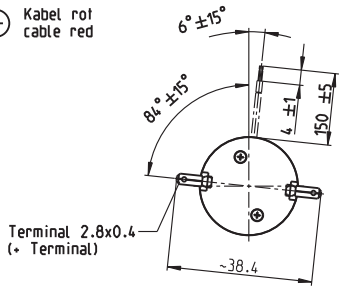
# A-max 26 Ø26 mm, Graphite Brushes, 11 Watt

High Power

maxon A-max

Kabel AWG 24/7  
cable UL Style 1061

⊕ Kabel rot  
cable red



M 1:2

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

## Part Numbers

with terminals	110935	110936	110937	110938	110939	110940	110941	110942	110943	110944	110945
with cables	139852	353166	353167	353168	353169	206344	353171	314214	202893	353174	353175

Motor Data																						
Values at nominal voltage																						
1 Nominal voltage	V	6	7.2	12	15	18	24	30	36	42	48	48										
2 No load speed	rpm	9740	10400	8190	8450	8040	8890	7050	7280	7880	7470	6010										
3 No load current	mA	143	130	57	47.5	37.1	31.7	18.9	16.4	15.5	12.7	9.66										
4 Nominal speed	rpm	9210	9700	6720	6620	6080	6910	5000	5230	5840	5390	3900										
5 Nominal torque (max. continuous torque)	mNm	5.48	6.26	14.2	17.4	18.7	18.4	18.2	18.2	18.1	17.8	17.9										
6 Nominal current (max. continuous current)	A	1.08	1.08	1.08	1.08	0.919	0.749	0.47	0.404	0.373	0.305	0.247										
7 Stall torque	mNm	102	96.4	80.2	80.5	77.1	83.3	63	65.2	70.3	64.5	51.4										
8 Stall current	A	17.4	14.7	5.79	4.8	3.64	3.26	1.57	1.4	1.4	1.06	0.684										
9 Max. efficiency	%	83	82	81	81	81	82	80	80	80	80	78										
Characteristics																						
10 Terminal resistance	Ω	0.345	0.49	2.07	3.13	4.94	7.36	19.1	25.8	30.1	45.1	70.2										
11 Terminal inductance	mH	0.04	0.051	0.227	0.333	0.529	0.77	1.9	2.58	2.99	4.34	6.68										
12 Torque constant	mNm/A	5.84	6.57	13.9	16.8	21.2	25.5	40.1	46.7	50.3	60.6	75.2										
13 Speed constant	rpm/V	1640	1450	689	569	451	374	238	205	190	158	127										
14 Speed / torque gradient	rpm/mNm	96.6	109	103	106	105	108	113	113	113	117	119										
15 Mechanical time constant	ms	14.6	14.7	14.6	14.7	14.7	14.7	14.9	14.9	14.9	15	15										
16 Rotor inertia	gcm <sup>2</sup>	14.4	12.9	13.6	13.2	13.3	13.1	12.5	12.6	12.5	12.2	12.1										

## Specifications

**Thermal data**

17 Thermal resistance housing-ambient	13.2 K/W
18 Thermal resistance winding-housing	3.2 K/W
19 Thermal time constant winding	12.5 s
20 Thermal time constant motor	473 s
21 Ambient temperature	-30...+85°C
22 Max. winding temperature	+125°C

**Mechanical data (ball bearings)**

23 Max. speed	10400 rpm
24 Axial play	0.1 - 0.2 mm
25 Radial play	0.025 mm
26 Max. axial load (dynamic)	5 N
27 Max. force for press fits (static)	75 N
28 Max. radial load, 5 mm from flange	20 N

**Mechanical data (sleeve bearings)**

23 Max. speed	10400 rpm
24 Axial play	0.1 - 0.2 mm
25 Radial play	0.012 mm
26 Max. axial load (dynamic)	1.7 N
27 Max. force for press fits (static)	80 N
28 Max. radial load, 5 mm from flange	5.5 N

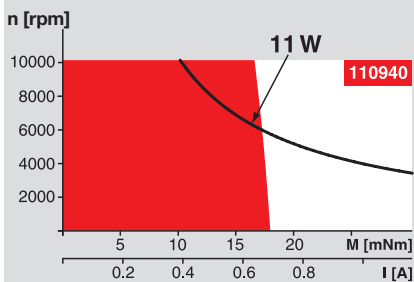
**Other specifications**

29 Number of pole pairs	1
30 Number of commutator segments	13
31 Weight of motor	117 g

Values listed in the table are nominal.  
Explanation of the figures on page 151.

**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 20–27

### Planetary Gearhead

Ø26 mm  
0.75 - 4.5 Nm  
Page 336

### Spur Gearhead

Ø30 mm  
0.07 - 0.2 Nm  
Page 337

### Planetary Gearhead

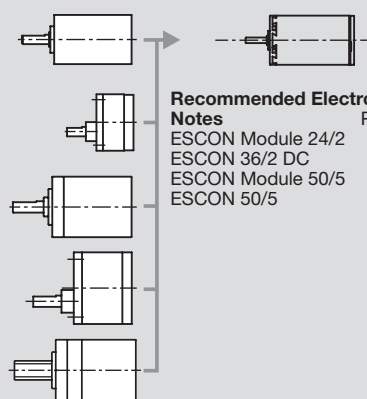
Ø32 mm  
0.75 - 6.0 Nm  
Page 338/339/342

### Spur Gearhead

Ø38 mm  
0.1 - 0.6 Nm  
Page 348

### Spindle Drive

Ø32 mm  
Page 370–372



### Recommended Electronics:

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ESCON Module 24/2	416
ESCON 36/2 DC	416
ESCON Module 50/5	417
ESCON 50/5	418