

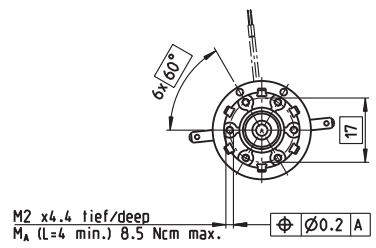
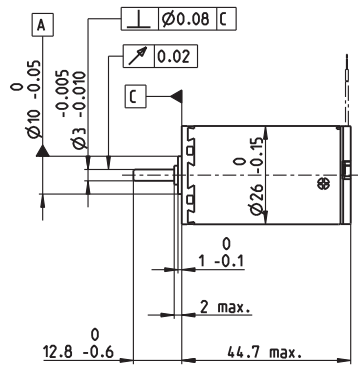
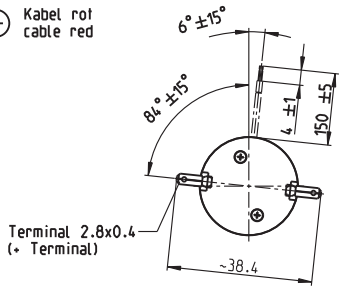
# A-max 26 Ø26 mm, Graphite Brushes, 11 Watt

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		6	7.2	12	15	18	24	30	36	42	48	48
1	Nominal voltage	V	6	7.2	12	15	18	24	30	36	42	48
2	No load speed	rpm	9740	10400	8190	8450	8040	8890	7050	7280	7880	6010
3	No load current	mA	143	130	57	47.5	37.1	31.7	18.9	16.4	15.5	9.66
4	Nominal speed	rpm	9210	9700	6720	6620	6080	6910	5000	5230	5840	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
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
7	Stall torque	mNm	102	96.4	80.2	80.5	77.1	83.3	63	65.2	70.3	64.5
8	Stall current	A	17.4	14.7	5.79	4.8	3.64	3.26	1.57	1.4	1.4	1.06
9	Max. efficiency	%	83	82	81	81	81	82	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
11	Terminal inductance	mH	0.0402	0.0509	0.227	0.333	0.529	0.77	1.9	2.58	2.99	4.34
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
13	Speed constant	rpm/V	1640	1450	689	569	451	374	238	205	190	158
14	Speed / torque gradient	rpm/mNm	96.6	109	103	106	105	108	113	113	113	117
15	Mechanical time constant	ms	14.6	14.7	14.6	14.7	14.7	14.7	14.9	14.9	14.9	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	12.1

## Specifications

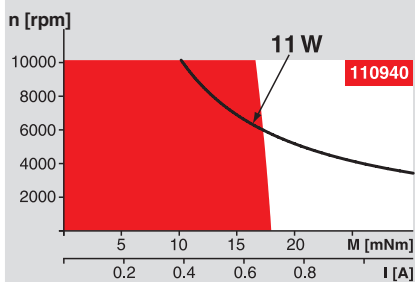
Thermal data		
17	Thermal resistance housing-ambient	13.2 K/W
18	Thermal resistance winding-housing	3.2 K/W
19	Thermal time constant winding	13.8 s
20	Thermal time constant motor	473 s
21	Ambient temperature	-30...+85°C
22	Max. winding temperature	+125°C
Mechanical data (ball bearings)		
23	Max. speed	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	20.5 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 79.

### 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 20–25

### Planetary Gearhead

Ø26 mm  
0.75 - 4.5 Nm  
Page 270

### Spur Gearhead

Ø30 mm  
0.07 - 0.2 Nm  
Page 271

### Planetary Gearhead

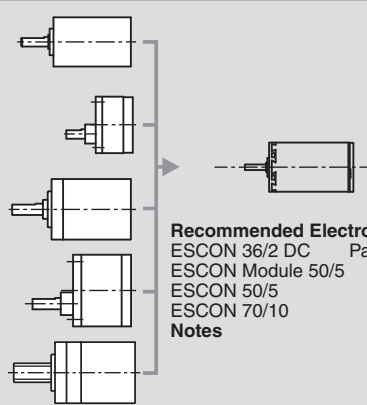
Ø32 mm  
0.75 - 6.0 Nm  
Page 272/273/276

### Spur Gearhead

Ø38 mm  
0.1 - 0.6 Nm  
Page 282

### Spindle Drive

Ø32 mm  
Page 301–303



### Recommended Electronics:

ESCON 36/2 DC	Page 342
ESCON Module 50/5	343
ESCON 50/5	344
ESCON 70/10	344
<b>Notes</b>	<b>22</b>