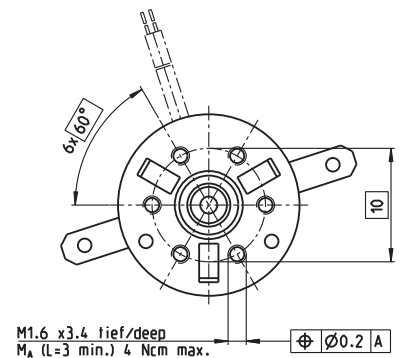
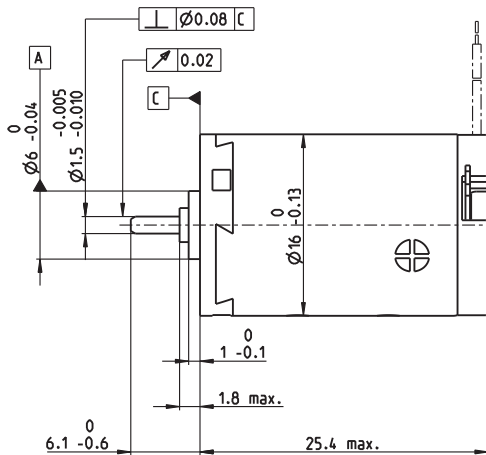
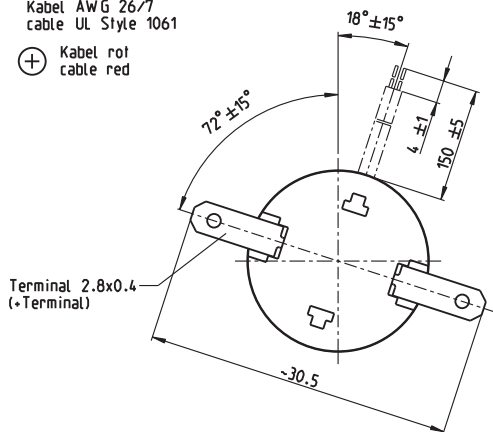


A-max 16 Ø16 mm, Graphite Brushes, 2 Watt

Kabel AWG 26/7
cable UL Style 1061

⊕ Kabel rot
cable red



M 1.5:1

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

Article Numbers

with terminals	110061	110062	110063	110064	110065	110066	110067	110068	110069	110070
with cables	139821	352853	352854	352855	325083	352856	205903	352857	266076	352858

Motor Data

Values at nominal voltage			1.5	3	6	9	12	14	15	18	21	30
1	Nominal voltage	V	1.5	3	6	9	12	14	15	18	21	30
2	No load speed	rpm	10200	11600	9520	11700	11700	11700	11100	11100	11500	10800
3	No load current	mA	226	129	53.3	43.1	32.3	27.7	24.7	20.6	18.2	12
4	Nominal speed	rpm	8670	7860	3240	5470	5430	5470	4840	4790	5080	4170
5	Nominal torque (max. continuous torque)	mNm	0.646	1.35	2.45	2.41	2.39	2.41	2.4	2.38	2.33	2.29
6	Nominal current (max. continuous current)	A	0.72	0.72	0.494	0.393	0.293	0.253	0.224	0.186	0.162	0.105
7	Stall torque	mNm	4.93	4.51	4.02	4.82	4.76	4.81	4.53	4.47	4.48	4.03
8	Starting current	A	3.76	1.97	0.721	0.7	0.519	0.45	0.377	0.31	0.275	0.164
9	Max. efficiency	%	54	54	52	56	56	56	55	55	55	53
Characteristics												
10	Terminal resistance	Ω	0.399	1.52	8.32	12.8	23.1	31.1	39.8	58	76.2	183
11	Terminal inductance	mH	0.017	0.0519	0.306	0.467	0.831	1.13	1.42	2.05	2.61	6.01
12	Torque constant	mNm/A	1.31	2.29	5.57	6.88	9.17	10.7	12	14.4	16.3	24.7
13	Speed constant	rpm/V	7290	4170	1720	1390	1040	893	795	663	587	387
14	Speed / torque gradient	rpm/mNm	2220	2770	2560	2600	2630	2600	2630	2670	2750	2880
15	Mechanical time constant	ms	24.6	23.8	23.3	23.3	23.4	23.4	23.5	23.4	23.5	23.9
16	Rotor inertia	gcm ²	1.06	0.82	0.868	0.859	0.849	0.859	0.852	0.838	0.816	0.793

Specifications

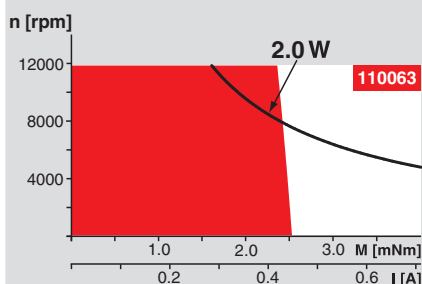
Thermal data		
17	Thermal resistance housing-ambient	29.8 K/W
18	Thermal resistance winding-housing	5.5 K/W
19	Thermal time constant winding	3.55 s
20	Thermal time constant motor	165 s
21	Ambient temperature	-30...+85°C
22	Max. permissible winding temperature	+125°C
Mechanical data (sleeve bearings)		
23	Max. permissible speed	11900 rpm
24	Axial play	0.05 - 0.15 mm
25	Radial play	0.012 mm
26	Max. axial load (dynamic)	0.8 N
27	Max. force for press fits (static)	35 N
28	Max. radial loading, 5 mm from flange	1.4 N
Mechanical data (ball bearings)		
23	Max. permissible speed	11900 rpm
24	Axial play	0.05 - 0.15 mm
25	Radial play	0.025 mm
26	Max. axial load (dynamic)	2.2 N
27	Max. force for press fits (static)	30 N
28	Max. radial loading, 5 mm from flange	7.8 N
Other specifications		
29	Number of pole pairs	1
30	Number of commutator segments	7
31	Weight of motor	21 g

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

Option

Ball bearings in place of sleeve 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

Spur Gearhead

Ø16 mm
0.01 - 0.1 Nm
Page 212 - 215

Planetary Gearhead

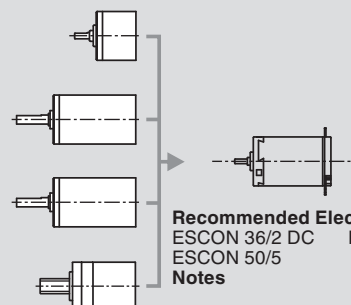
Ø16 mm
0.06 - 0.18 Nm
Page 216

Planetary Gearhead

Ø16 mm
0.1 - 0.6 Nm
Page 217/218

Spindle Drive

Ø16 mm
Page 251/252



Recommended Electronics:
ESCON 36/2 DC Page 292
ESCON 50/5 Page 292
Notes 18