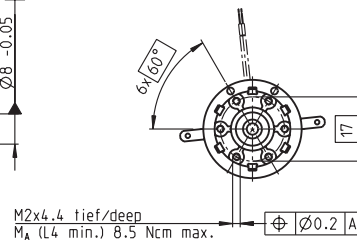
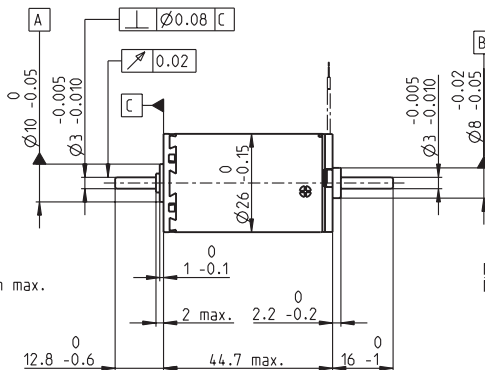
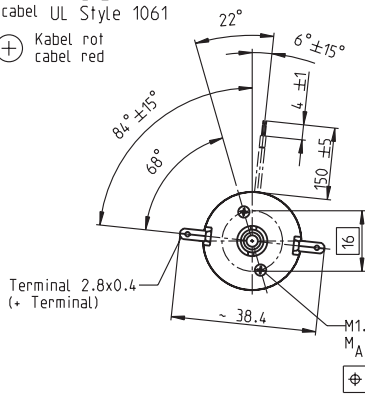


A-max 26 Ø26 mm, Graphite Brushes, 6 Watt

Kabel AWG 24/7
cabel UL Style 1061

⊕ Kabel rot
cabel red



M 1:2

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

Order Number

with terminals	110946	110947	110948	110949	110950	110951	110952	110953	110954	110955	110956	110957
with cables	353143	353144	353145	353146	353147	353148	353149	353150	353151	353152	353153	353154

Motor Data

Values at nominal voltage

		7.2	9.0	12.0	12.0	18.0	18.0	24.0	24.0	30.0	36.0	42.0	48.0
1 Nominal voltage	V	7.2	9.0	12.0	12.0	18.0	18.0	24.0	24.0	30.0	36.0	42.0	48.0
2 No load speed	rpm	9270	10000	10000	8300	8260	7410	8590	7870	8810	8440	8170	6240
3 No load current	mA	118	104	76.8	59.7	39.2	34.0	30.8	27.6	25.4	20.0	16.4	10.3
4 Nominal speed	rpm	7160	7620	7600	5590	5640	4790	5880	5100	6210	5850	5550	3550
5 Nominal torque (max. continuous torque)	mNm	6.73	7.97	11.1	13.0	13.6	13.8	13.1	12.9	13.7	13.8	13.7	13.7
6 Nominal current (max. continuous current)	A	1.08	1.08	1.08	1.03	0.708	0.642	0.532	0.481	0.452	0.365	0.300	0.201
7 Stall torque	mNm	38.2	39.7	52.7	43.8	45.6	41.0	43.5	38.1	47.9	46.4	43.7	32.6
8 Starting current	A	5.50	4.90	4.80	3.29	2.25	1.82	1.67	1.34	1.51	1.16	0.911	0.455
9 Max. efficiency	%	67	69	73	72	74	73	74	73	75	75	75	72

Characteristics

		1.31	1.84	2.50	3.65	8.00	9.91	14.4	17.9	19.9	31.0	46.1	106
10 Terminal resistance	Ω	1.31	1.84	2.50	3.65	8.00	9.91	14.4	17.9	19.9	31.0	46.1	106
11 Terminal inductance	mH	0.101	0.138	0.254	0.372	0.862	1.07	1.42	1.69	2.13	3.35	4.85	10.8
12 Torque constant	mNm / A	6.94	8.09	11.0	13.3	20.2	22.5	26.0	28.3	31.8	39.9	48.0	71.6
13 Speed constant	rpm / V	1380	1180	869	718	472	423	367	337	300	239	199	133
14 Speed / torque gradient	rpm / mNm	260	268	198	197	186	186	203	213	188	186	191	197
15 Mechanical time constant	ms	33.4	30.5	27.9	27.1	25.4	25.2	24.9	24.9	24.5	24.3	24.2	24.2
16 Rotor inertia	gcm ²	12.3	10.9	13.5	13.2	13.0	12.9	11.7	11.2	12.5	12.5	12.1	11.7

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	12.4 s
20 Thermal time constant motor	660 s
21 Ambient temperature	-30 ... +85°C
22 Max. permissible winding temperature	+125°C

Mechanical data (ball bearings)

23 Max. permissible 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) (static, shaft supported)	75 N / 1200 N
28 Max. radial loading, 5 mm from flange	20.5 N

Mechanical data (sleeve bearings)

23 Max. permissible 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) (static, shaft supported)	80 N / 1200 N
28 Max. radial loading, 5 mm from flange	5.5 N

Other specifications

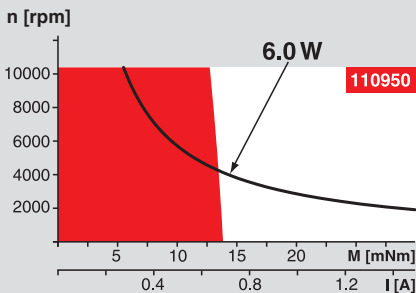
29 Number of pole pairs	1
30 Number of commutator segments	13
31 Weight of motor	100 g

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

Ø26 mm
0.5 - 2.0 Nm
Page 228

Spur Gearhead

Ø30 mm
0.07 - 0.2 Nm
Page 229

Planetary Gearhead

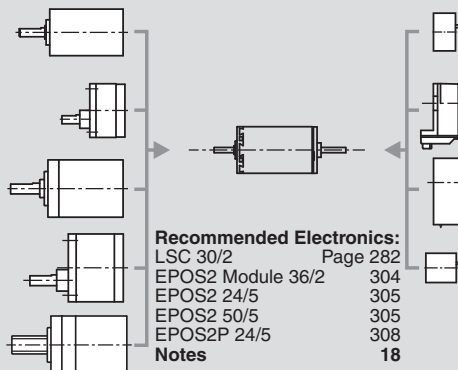
Ø32 mm
0.4 - 6.0 Nm
Page 230 / 231 / 233

Spur Gearhead

Ø38 mm
0.1 - 0.6 Nm
Page 237

Spindle Drive

Ø32 mm
Page 249 / 250 / 251



Encoder MR

128 - 1000 Imp.,
3 channels
Page 262

Encoder Enc

22 mm
100 Imp., 2 channels
Page 265

Encoder HED_ 5540

500 Imp.,
3 channels
Page 267 / 269

Encoder MEnc

Ø13 mm
16 Imp., 2 channels
Page 275

Recommended Electronics:

LSC 30/2	Page 282
EPOS2 Module 36/2	304
EPOS2 24/5	305
EPOS2 50/5	305
EPOS2P 24/5	308
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