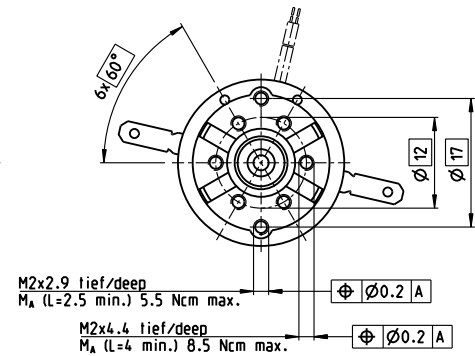
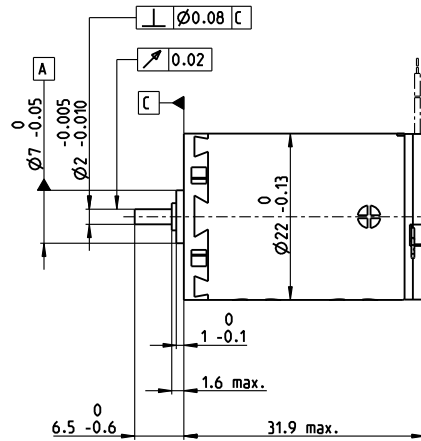
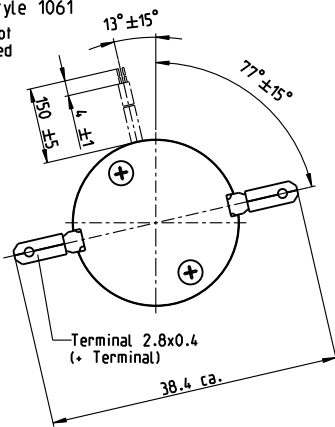


A-max 22 Ø22 mm, precious metal brushes CLL, 5 watt

Kabel AWG 24/7
cable UL Style 1061
Kabel rot
cable red



A-max

M 1:1

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

Part Numbers

with terminals	110117	110119	110120	110121	110122	110123	110124	110125	110126	110127	110128	110129
with cables	139838	218799	238798	202413	258367	137255	134267	134666	267423	137476	310003	342390

Motor Data

Values at nominal voltage		6	9	9	12	12	15	18	24	30	36	48	48
1 Nominal voltage	V	6	9	9	12	12	15	18	24	30	36	48	48
2 No load speed	rpm	9630	9970	8760	10400	9400	10300	9970	10700	10800	9800	9280	8370
3 No load current	mA	29.5	20.8	16.8	16.8	14.2	13.1	10.4	8.81	7.18	5.06	3.47	2.93
4 Nominal speed	rpm	7390	7300	6100	7770	6700	7530	7220	7970	8070	7000	6420	5520
5 Nominal torque (max. continuous torque)	mNm	4.81	6.22	6.3	6.24	6.18	6.1	6.05	6.02	5.98	5.94	5.83	5.9
6 Nominal current (max. continuous current)	A	0.84	0.745	0.661	0.586	0.523	0.451	0.362	0.291	0.234	0.175	0.122	0.111
7 Stall torque	mNm	20.1	22.9	20.5	24.3	21.4	22.9	22	23.5	23.5	20.8	19	17.4
8 Stall current	A	3.42	2.68	2.11	2.23	1.77	1.65	1.28	1.11	0.894	0.599	0.387	0.32
9 Max. efficiency	%	83	84	83	84	83	83	83	83	83	83	82	82
Characteristics													
10 Terminal resistance	Ω	1.76	3.36	4.27	5.39	6.78	9.07	14	21.6	33.5	60.1	124	150
11 Terminal inductance	mH	0.106	0.222	0.288	0.362	0.445	0.584	0.89	1.37	2.1	3.68	7.29	8.95
12 Torque constant	mNm/A	5.9	8.55	9.73	10.9	12.1	13.9	17.1	21.2	26.2	34.8	48.9	54.3
13 Speed constant	rpm/V	1620	1120	981	875	790	689	558	450	364	274	195	176
14 Speed/torque gradient	rpm/mNm	482	438	430	432	443	451	458	459	465	474	494	486
15 Mechanical time constant	ms	20.5	19.8	19.7	19.7	19.8	20.2	20.1	20.2	20.3	20.3	20.5	20.4
16 Rotor inertia	gcm ²	4.07	4.32	4.37	4.36	4.26	4.27	4.2	4.2	4.16	4.09	3.97	4.01

Specifications

- Thermal data**
- 17 Thermal resistance housing-ambient: 20 K/W
 - 18 Thermal resistance winding-housing: 6.0 K/W
 - 19 Thermal time constant winding: 10.2 s
 - 20 Thermal time constant motor: 31.3 s
 - 21 Ambient temperature: -30...+65°C
 - 22 Max. winding temperature: +85°C

- Mechanical data (sleeve bearings)**
- 23 Max. speed: 16000 rpm
 - 24 Axial play: 0.05 - 0.15 mm
 - 25 Radial play: 0.012 mm
 - 26 Max. axial load (dynamic): 1 N
 - 27 Max. force for press fits (static): 80 N
 - 28 Max. radial load, 5 mm from flange: 2.8 N

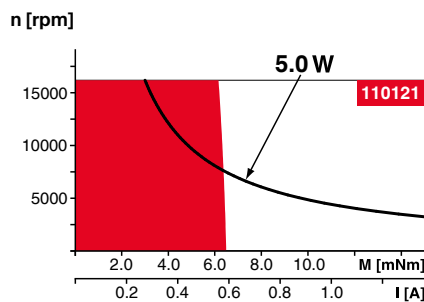
- Mechanical data (ball bearings)**
- 23 Max. speed: 16000 rpm
 - 24 Axial play: 0.05 - 0.15 mm
 - 25 Radial play: 0.025 mm
 - 26 Max. axial load (dynamic): 3.3 N
 - 27 Max. force for press fits (static): 45 N
 - 28 Max. radial load, 5 mm from flange: 12.3 N

- Other specifications**
- 29 Number of pole pairs: 1
 - 30 Number of commutator segments: 9
 - 31 Weight of motor: 54 g
 - CLL = Capacitor Long Life

Values listed in the table are nominal.
Explanation of the figures on page 82.

- Option**
- Ball bearings in place of sleeve bearings
 - Without CLL

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

Details on catalog page 38

Planetary Gearhead

Ø22 mm
0.1-0.6 Nm
Page 382

Planetary Gearhead

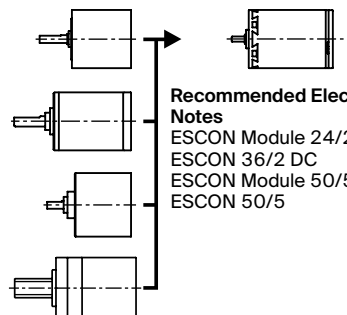
Ø22 mm
0.5-2.0 Nm
Page 383/385

Spur Gearhead

Ø24 mm
0.1 Nm
Page 389

Screw Drive

Ø22 mm
Page 424/425



Recommended Electronics:

Notes	Page 38
ESCON Module 24/2	500
ESCON 36/2 DC	500
ESCON Module 50/5	501
ESCON 50/5	503