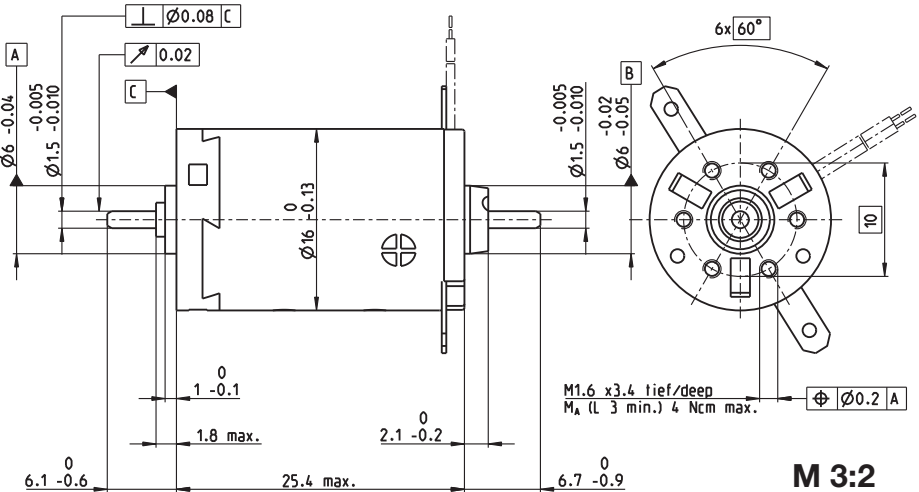
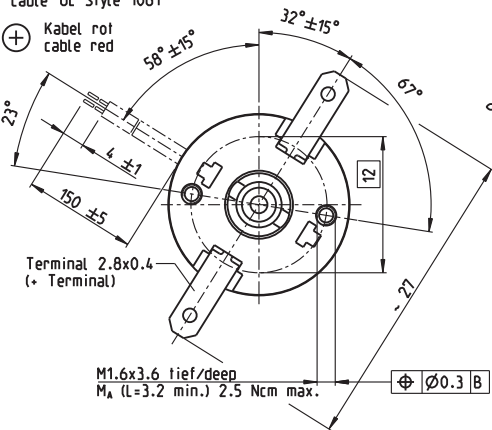


A-max 16 Ø16 mm, Precious Metal Brushes CLL, 1.2 Watt

Kabel AWG 26/7
cable UL Style 1061

⊕ Kabel rot
cable red



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

Part Numbers

with terminals	110051	110052	110053	110054	110055	110056	110057	110058	110059	110060
with cables	139823	352825	352826	352827	352828	352829	352830	352831	352832	352833

Motor Data

Values at nominal voltage		1.2	2.4	6	7.2	9	12	15	18	18	30
1 Nominal voltage	V	1.2	2.4	6	7.2	9	12	15	18	18	30
2 No load speed	rpm	8560	9730	10000	9740	9120	10400	11600	11600	10300	11300
3 No load current	mA	73.9	44.1	18.3	14.7	10.8	9.69	8.99	7.49	6.34	4.33
4 Nominal speed	rpm	7170	6310	4540	4200	3530	4900	6090	6050	4580	5500
5 Nominal torque (max. continuous torque)	mNm	0.694	1.29	2.18	2.17	2.16	2.16	2.13	2.12	2.09	2.04
6 Nominal current (max. continuous current)	A	0.6	0.6	0.407	0.327	0.244	0.21	0.185	0.153	0.134	0.0862
7 Stall torque	mNm	3.83	3.61	4.03	3.86	3.57	4.13	4.54	4.48	3.84	4.04
8 Stall current	A	2.93	1.58	0.723	0.561	0.39	0.386	0.378	0.311	0.236	0.164
9 Max. efficiency	%	71	70	71	71	70	71	72	72	71	71
Characteristics											
10 Terminal resistance	Ω	0.41	1.52	8.3	12.8	23.1	31.1	39.7	57.9	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	2280	2770	2560	2590	2620	2600	2630	2670	2750	2880
15 Mechanical time constant	ms	25.3	23.7	23.2	23.3	23.3	23.3	23.4	23.3	23.4	23.8
16 Rotor inertia	gcm ²	1.06	0.818	0.866	0.857	0.847	0.857	0.85	0.836	0.814	0.791

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...+65°C
22 Max. winding temperature	+85°C

Mechanical data (sleeve bearings)

23 Max. speed	11 000 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) (static, shaft supported)	35 N / 280 N
28 Max. radial load, 5 mm from flange	1.4 N

Mechanical data (ball bearings)

23 Max. speed	11 000 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) (static, shaft supported)	30 N / 280 N
28 Max. radial load, 5 mm from flange	7.8 N

Other specifications

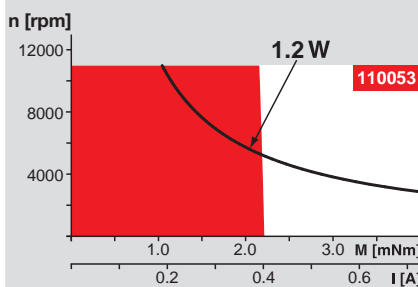
29 Number of pole pairs	1
30 Number of commutator segments	7
31 Weight of motor	22 g

CLL = Capacitor Long Life

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

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

Spur Gearhead

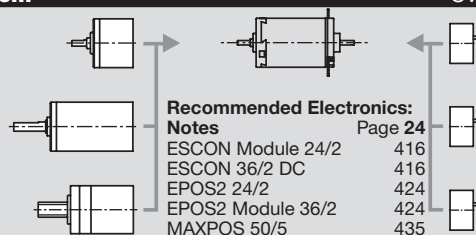
Ø16 mm
0.01 - 0.1 Nm
Page 319-322

Planetary Gearhead

Ø16 mm
0.1 - 0.6 Nm
Page 323/324

Spindle Drive

Ø16 mm
Page 365-367



Recommended Electronics:

Notes	Page 24
ESCON Module 24/2	416
ESCON 36/2 DC	416
EPOS2 24/2	424
EPOS2 Module 36/2	424
MAXPOS 50/5	435

Overview on page 20-27

Encoder MR

32 CPT,
2 / 3 channels
Page 388

Encoder MR

128 / 256 / 512 CPT,
2 / 3 channels
Page 390

Encoder MEnc

Ø13 mm
16 CPT, 2 channels
Page 409