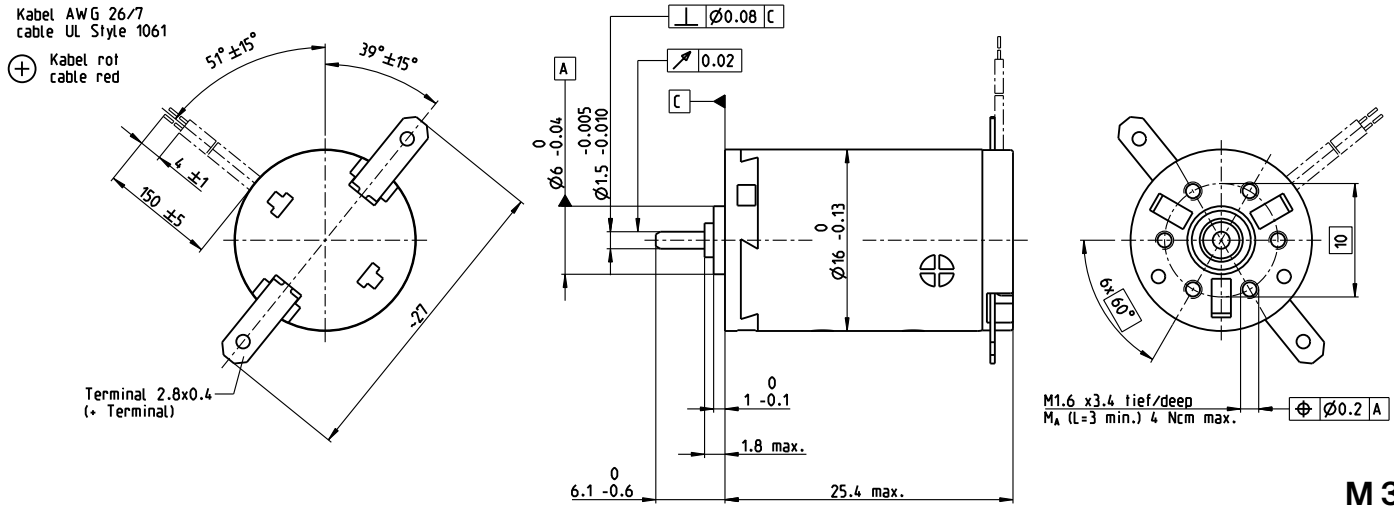


A-max 16 $\varnothing 16$ mm, precious metal brushes CLL, 2 watt



A-max

M 3:2

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

		Part Numbers									
with terminals		110041	110042	110043	110044	110045	110046	110047	110048	110049	110050
with cables		139820	352815	134844	231379	220514	304672	352823	352816	260678	352817

Motor Data												
Values at nominal voltage												
1 Nominal voltage	V	1.5	3	6	9	12	15	18	21	24	30	
2 No load speed	rpm	10800	11000	10100	12300	12300	13200	14100	13700	13800	11400	
3 No load current	mA	61.4	38.1	13.9	12.7	9.54	8.57	7.99	6.53	5.83	3.37	
4 Nominal speed	rpm	9360	8810	4530	6700	6660	7590	8480	8040	8120	5480	
5 Nominal torque	mNm	0.712	1.3	2.22	2.19	2.17	2.17	2.15	2.14	2.11	2.08	
6 Nominal current (max. continuous current)	A	0.6	0.6	0.408	0.327	0.243	0.209	0.185	0.153	0.134	0.0864	
7 Stall torque	mNm	4.79	4.51	4.03	4.82	4.77	5.16	5.44	5.22	5.12	4.04	
8 Stall current	A	3.66	1.97	0.723	0.702	0.52	0.482	0.453	0.362	0.315	0.164	
9 Max. efficiency	%	76	75	75	76	76	76	76	76	76	74	
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	0.052	0.306	0.467	0.83	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	23.8	23.2	23.3	23.3	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	

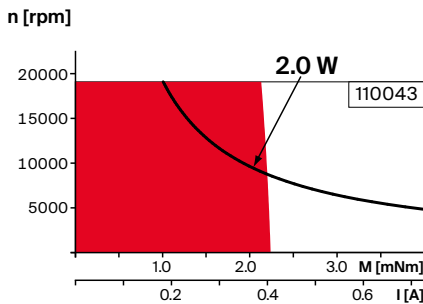
Specifications	Operating Range	Comments
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- Thermal data**
- 17 Thermal resistance housing-ambient 29.8 K/W
 - 18 Thermal resistance winding-housing 5.5 K/W
 - 19 Thermal time constant winding 3.55 s
 - 20 Thermal time constant motor 165 s
 - 21 Ambient temperature -30...+65°C
 - 22 Max. winding temperature +85°C

- Mechanical data (sleeve bearings)**
- 23 Max. speed 19 000 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) 35 N
 - 28 Max. radial load, 5 mm from flange 1.4 N

- Mechanical data (ball bearings)**
- 23 Max. speed 19 000 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) 30 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 21 g
- CLL = Capacitor Long Life



- 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**

Modular System	Details on catalog page 44
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Gear	Motor Control
401_GS 16 K	532_ESCON Module 24/2
402_GS 16 A	532_ESCON 36/2 DC
403_GS 16 V	
404_GS 16 VZ	
405_GP 16 A	
406_GP 16 C	
447-449_GP 16 S	

Values listed in the table are nominal.
Explanation of the figures on page 90.

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