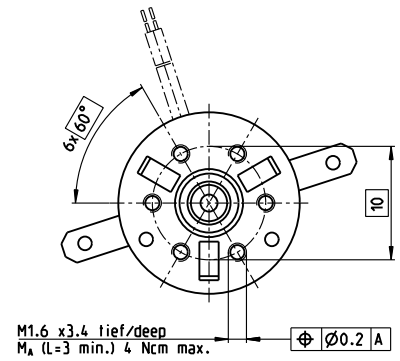
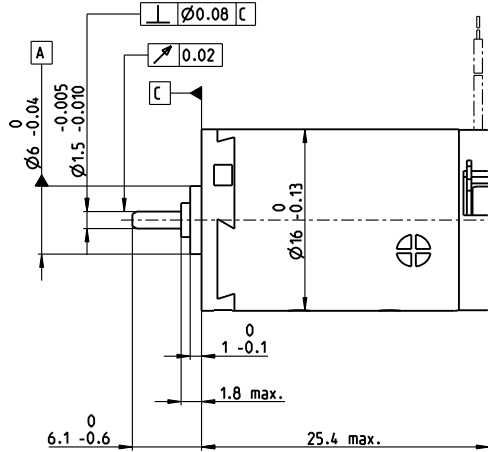
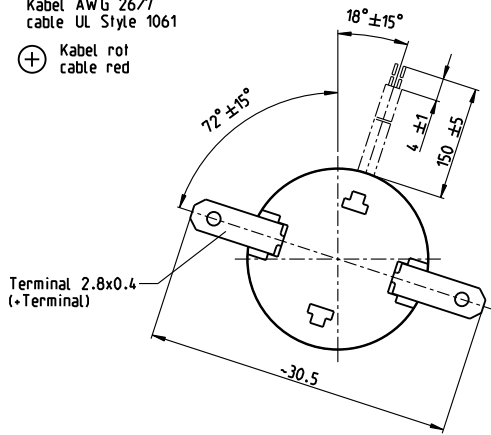


A-max 16 \varnothing 16 mm, graphite brushes, 2 watt

Kabel AWG 26/7
cable UL Style 1061

⊕ Kabel rot
cable red



A-max

M 3:2

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

Part 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		V	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	11500	9360	11500	11500	11500	11000	10900	11300	10500	
3 No load current	mA	282	164	65.6	54.6	41	35.1	31.1	25.9	23	15	
4 Nominal speed	rpm	9010	8060	3280	5510	5460	5500	4860	4810	5100	4180	
5 Nominal torque	mNm	0.579	1.29	2.42	2.36	2.34	2.35	2.35	2.33	2.28	2.24	
6 Nominal current (max. continuous current)	A	0.72	0.72	0.495	0.394	0.293	0.253	0.224	0.186	0.162	0.105	
7 Stall torque	mNm	5.36	4.65	4.05	4.84	4.78	4.82	4.54	4.48	4.49	4.04	
8 Stall current	A	4.1	2.03	0.727	0.704	0.521	0.451	0.378	0.311	0.276	0.164	
9 Max. efficiency	%	54	51	49	52	52	52	51	51	50	48	
Characteristics												
10 Terminal resistance	Ω	0.366	1.48	8.25	12.8	23	31.1	39.7	57.9	76.1	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	2040	2690	2540	2580	2620	2590	2630	2660	2750	2880	
15 Mechanical time constant	ms	22.6	23.1	23.1	23.2	23.3	23.3	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. winding temperature	+125°C

Mechanical data (sleeve bearings)	
23 Max. speed	11 900 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	11 900 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

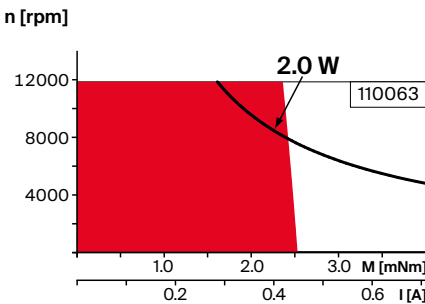
Other specifications	
29 Number of pole pairs	1
30 Number of commutator segments	7
31 Weight of motor	21 g

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

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**

Modular System

Gear	
401_GS 16 K	
402_GS 16 A	
403_GS 16 V	
404_GS 16 VZ	
405_GP 16 A	
406_GP 16 C	
447-449_GP 16 S	

Details on catalog page 44

Motor Control	
532_ESCON Module 24/2	
532_ESCON 36/2 DC	