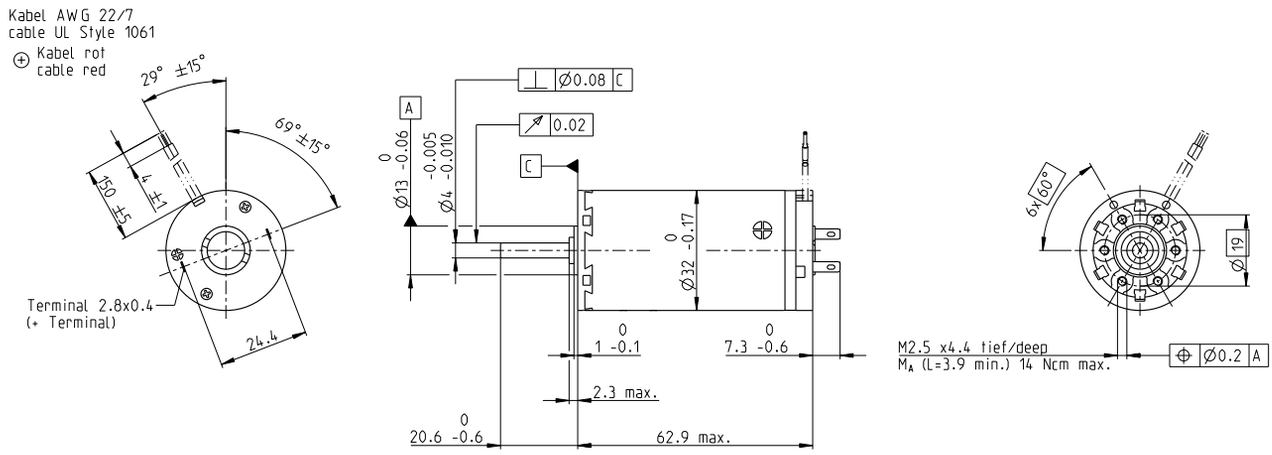
A-max 32 ∅32 mm, graphite brushes, 20 watt



M 1:2

Stock program
Standard program
Special program (on request)

Part numbers

with terminals	236659	236660	236661	236662	236663	236664	236665
with cables	353230	353231	353232	262500	341970	353233	353234

Motor data								
Values at nominal voltage								
1 Nominal voltage	V	6	9	12	24	30	36	42
2 No load speed	rpm	4880	5000	4670	6460	6160	5860	5650
3 No load current	mA	123	84.2	58.2	42.8	32.3	25.3	20.8
4 Nominal speed	rpm	3400	3480	3170	5060	4740	4430	4210
5 Nominal torque	mNm	44.5	43.1	44	45.5	45.1	45.4	45
6 Nominal current (max. continuous current)	A	3.96	2.62	1.87	1.33	1.01	0.804	0.659
7 Stall torque	mNm	153	146	140	212	197	189	178
8 Stall current	A	13.2	8.57	5.77	6.02	4.27	3.24	2.54
9 Max. efficiency	%	80	80	80	84	83	83	83
Characteristics								
10 Terminal resistance	Ω	0.454	1.05	2.08	3.99	7.02	11.1	16.6
11 Terminal inductance	mH	0.06	0.13	0.264	0.556	0.954	1.52	2.22
12 Torque constant	mNm/A	11.6	17	24.3	35.2	46.1	58.2	70.4
13 Speed constant	rpm/V	825	562	394	271	207	164	136
14 Speed/torque gradient	rpm/mNm	32.4	34.8	33.8	30.8	31.6	31.3	31.9
15 Mechanical time constant	ms	15	14.9	14.7	14.6	14.6	14.6	14.7
16 Rotor inertia	gcm²	44.2	40.8	41.7	45.3	44.2	44.6	43.8

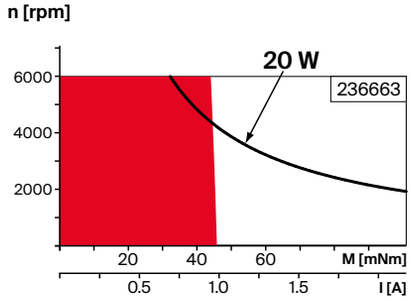
Specifications

Thermal data	
17 Thermal resistance housing-ambient	7.5 K/W
18 Thermal resistance winding-housing	2.1 K/W
19 Thermal time constant winding	17.8 s
20 Thermal time constant motor	521 s
21 Ambient temperature	-20...+85°C
22 Max. winding temperature	+125°C
Mechanical data (ball bearings)	
23 Max. speed	6000 rpm
24 Axial play	0.12 - 0.22 mm
25 Radial play	0.025 mm
26 Max. axial load (dynamic)	7.6 N
27 Max. force for press fits (static)	110 N
28 Max. radial load, 5 mm from flange	32 N
Mechanical data (sleeve bearings)	
23 Max. speed	6000 rpm
24 Axial play	0.12 - 0.22 mm
25 Radial play	0.012 mm
26 Max. axial load (dynamic)	5 N
27 Max. force for press fits (static)	110 N
28 Max. radial load, 5 mm from flange	10.5 N
Other specifications	
29 Number of pole pairs	1
30 Number of commutator segments	13
31 Weight of motor	240 g

Values listed in the table are nominal.
Explanation of the figures on page 94.

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

Modular system

Details on catalog page 48

Gear
426_GP 32 BZ
428_GP 32 A
429_GP 32 C
474–482_GP 32 S

Motor Control
550_ESCON Module 24/2
550_ESCON 36/2 DC
551_ESCON Module 50/5
553_ESCON 50/5
553_ESCON 70/10
557_ESCON2 Nano 24/2
557_ESCON2 Micro 60/5

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