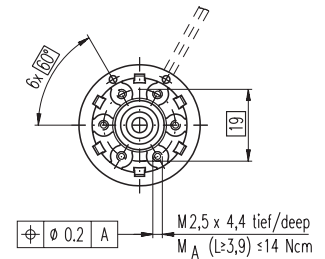
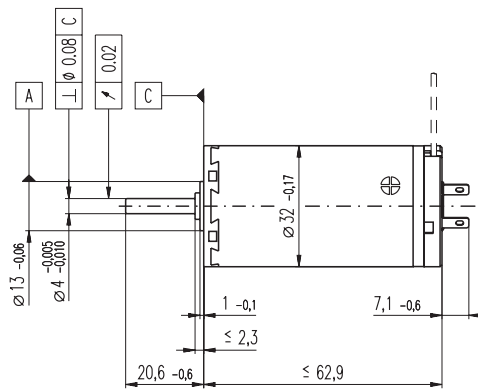
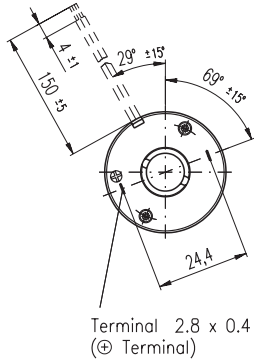


# A-max 32 Ø32 mm, Graphite Brushes, 20 Watt

HighPower

Kabel AWG 22/7  
cable UL Style 1061

⊕ Kabel rot  
cable red



M 1:2

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

## Order Number

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

## Motor Data

Values at nominal voltage									
1	Nominal voltage	V	6.0	9.0	12.0	24.0	30.0	36.0	42.0
2	No load speed	rpm	4850	4980	4660	6460	6160	5850	5650
3	No load current	mA	122	83.8	58.0	42.7	32.2	25.2	20.7
4	Nominal speed	rpm	3140	3350	3100	5020	4710	4420	4200
5	Nominal torque (max. continuous torque)	mNm	38.4	40.0	42.1	44.4	44.4	45.0	44.7
6	Nominal current (max. continuous current)	A	3.43	2.43	1.79	1.30	0.994	0.796	0.655
7	Stall torque	mNm	120	129	131	205	193	186	177
8	Starting current	A	10.4	7.62	5.39	5.81	4.18	3.19	2.51
9	Max. efficiency	%	77	79	80	83	83	83	83
Characteristics									
10	Terminal resistance	Ω	0.577	1.18	2.23	4.13	7.17	11.3	16.7
11	Terminal inductance	mH	0.0601	0.129	0.264	0.555	0.953	1.52	2.22
12	Torque constant	mNm / A	11.6	17.0	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	41.1	39.1	36.1	31.9	32.2	31.8	32.3
15	Mechanical time constant	ms	18.9	16.6	15.7	15.0	14.8	14.8	14.7
16	Rotor inertia	gcm <sup>2</sup>	43.9	40.6	41.4	45.0	44.0	44.4	43.6

## 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	17.7 s
20	Thermal time constant motor	900 s
21	Ambient temperature	-20 ... +85°C
22	Max. permissible winding temperature	+125°C
Mechanical data (ball bearings)		
23	Max. permissible 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 loading, 5 mm from flange	32 N

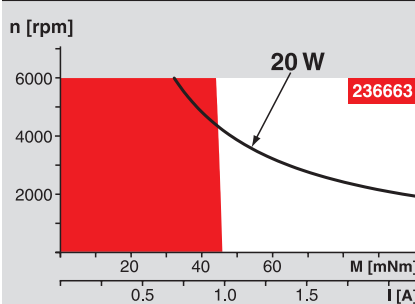
Mechanical data (sleeve bearings)		
23	Max. permissible speed	6000 rpm
24	Axial play	0.12 - 0.22 mm
25	Radial play	0.025 mm
26	Max. axial load (dynamic)	5.0 N
27	Max. force for press fits (static)	110 N
28	Max. radial loading, 5 mm from flange	10.5 N
Other specifications		
29	Number of pole pairs	1
30	Number of commutator segments	13
31	Weight of motor	240 g

Values listed in the table are nominal.  
Explanation of the figures on page 49.

### 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

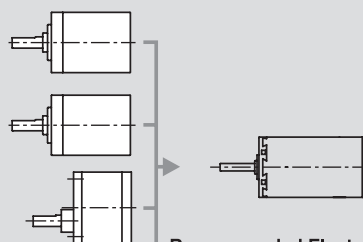
## maxon Modular System

Overview on page 16 - 21

**Planetary Gearhead**  
Ø32 mm  
0.75 - 4.5 Nm  
Page 239

**Planetary Gearhead**  
Ø32 mm  
1.0 - 6.0 Nm  
Page 241

**Spur Gearhead**  
Ø38 mm  
0.1 - 0.6 Nm  
Page 243



**Recommended Electronics:**  
LSC 30/2 Page 276  
ADS 50/5 276  
ADS\_E 50/5 277  
Notes 18