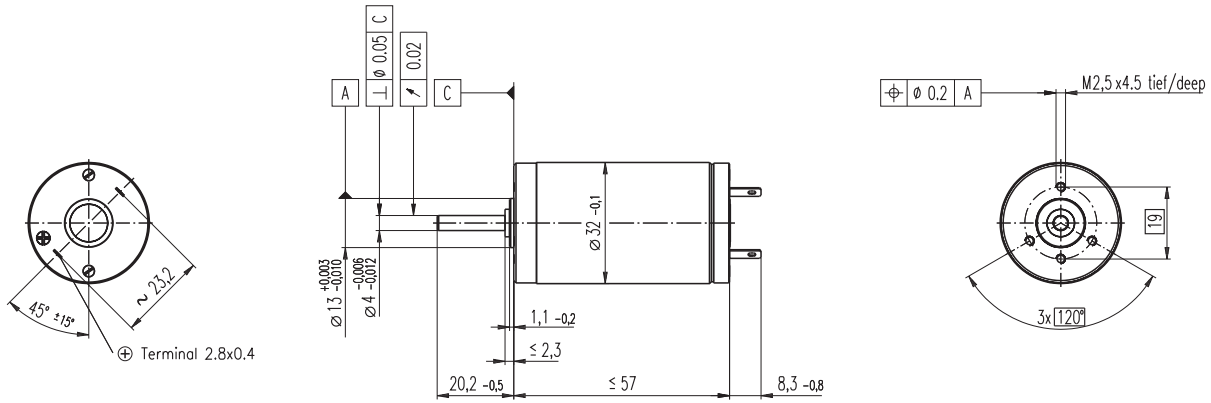


S 2332 Ø32 mm, Graphite Brushes, 15 Watt

NRND See page 13
Not recommended for New Design

maxon special program



M 1:2

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

Part Numbers

2332. ... -12.216-200 (Insert winding number)

Winding number

960 963 964 965 966 967 968 969 970 971 972 973

Motor Data		Winding number											
Values at nominal voltage													
1 Nominal voltage	V	6	9	12	12	12	18	24	30	36	42	48	48
2 No load speed	rpm	5810	5310	6650	5870	4880	5380	5750	6000	5710	5270	4860	3950
3 No load current	mA	110	63.9	65.0	54.6	42.4	32.1	26.3	22.3	17.3	13.3	10.4	7.96
4 Nominal speed	rpm	4560	3780	5040	4230	3250	3880	4280	4530	4250	3790	3370	2440
5 Nominal torque (max. continuous torque)	mNm	13.2	22.7	24.3	25.9	26.5	28.6	29.1	28.9	29.3	29.2	29.3	29.4
6 Nominal current (max. continuous current)	A	1.50	1.50	1.50	1.40	1.19	0.939	0.763	0.633	0.508	0.399	0.323	0.263
7 Stall torque	mNm	89.1	91.1	116	104	85.6	109	119	122	118	106	97.1	78.2
8 Starting current	A	9.45	5.79	6.87	5.42	3.72	3.46	3.02	2.59	1.97	1.41	1.04	0.682
9 Max. efficiency	%	73	77	79	79	78	81	82	82	82	81	81	80
Characteristics													
10 Terminal resistance	Ω	0.635	1.56	1.75	2.21	3.22	5.21	7.94	11.6	18.2	29.8	46.1	70.3
11 Terminal inductance	mH	0.0883	0.246	0.283	0.363	0.526	0.985	1.54	2.22	3.53	5.64	8.65	13.1
12 Torque constant	mNm/A	9.43	15.7	16.9	19.1	23.0	31.5	39.3	47.2	59.6	75.3	93.3	115
13 Speed constant	rpm/V	1010	607	566	500	415	303	243	202	160	127	102	83.3
14 Speed/torque gradient	rpm/mNm	68.3	60.0	58.7	57.9	58.2	50.2	49.0	49.6	49.1	50.3	50.6	51.1
15 Mechanical time constant	ms	23.6	17.2	16.4	16.0	15.5	14.6	14.3	14.1	14.0	13.9	13.8	13.8
16 Rotor inertia	gcm ²	33.0	27.4	26.7	26.4	25.5	27.9	27.8	27.2	27.1	26.4	26.1	25.9

Specifications

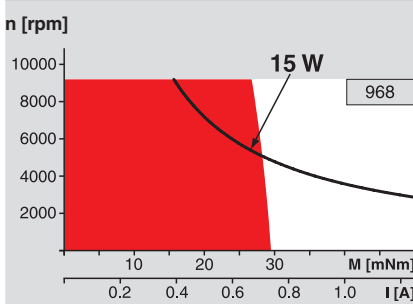
Thermal data	
17 Thermal resistance housing-ambient	12.5 K/W
18 Thermal resistance winding-housing	1.9 K/W
19 Thermal time constant winding	10.9 s
20 Thermal time constant motor	1030 s
21 Ambient temperature	-20...+100°C
22 Max. permissible winding temperature	+125°C
Mechanical data (ball bearings)	
23 Max. permissible speed	9200 rpm
24 Axial play	0.05 - 0.15 mm
25 Radial play	0.025 mm
26 Max. axial load (dynamic)	5.6 N
27 Max. force for press fits (static)	113 N
28 Max. radial loading, 5 mm from flange	28 N

Other specifications	
29 Number of pole pairs	1
30 Number of commutator segments	13
31 Weight of motor	230 g

Values listed in the table are nominal.
Explanation of the figures on page 71.

Option
Sleeve bearings in place of ball bearings
Pigtails in place of terminals

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 20 - 25

Planetary Gearhead

Ø32 mm
0.75 - 4.5 Nm
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