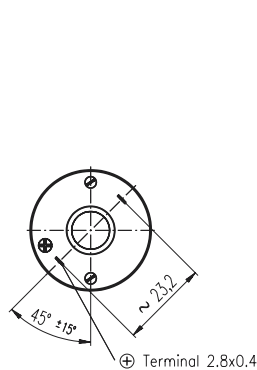
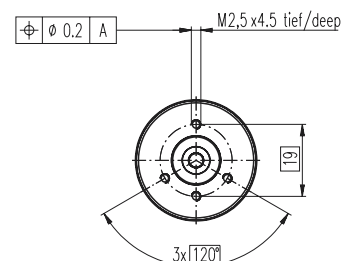
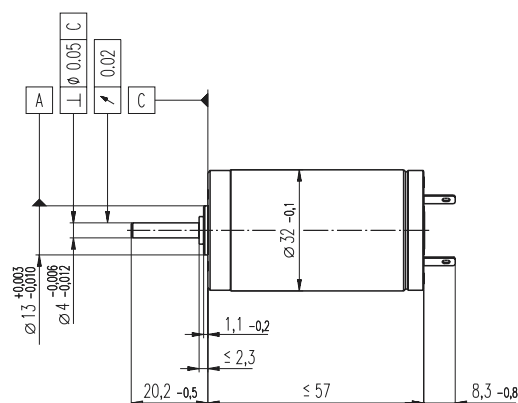


S 2332 Ø32 mm, Graphite Brushes, 15 Watt, CE approved



M 1:2



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

Order Number

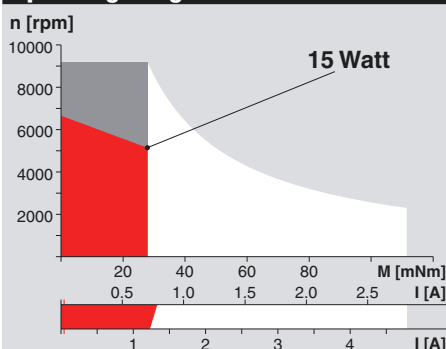
2332. ... -12.216-200 (Insert winding number)

Winding number		960	963	964	965	966	967	968	969	970	971	972	973			
Motor Data																
1	Assigned power rating	W	15	15	15	15	15	15	15	15	15	15	15			
2	Nominal voltage	Volt	6.0	9.0	12.0	12.0	12.0	18.0	24.0	30.0	36.0	42.0	48.0			
3	No load speed	rpm	5810	5310	6650	5870	4880	5380	5750	6000	5710	5270	4860	3950		
4	Stall torque	mNm	89.1	91.1	116	104	85.6	109	119	122	118	106	97.1	78.2		
5	Speed / torque gradient	rpm / mNm	68.2	60.0	58.8	57.9	58.2	50.2	49.0	49.6	49.1	50.3	50.6	51.1		
6	No load current	mA	110	64	65	55	42	32	26	22	17	13	10	8		
7	Starting current	mA	9450	5790	6860	5420	3720	3460	3020	2590	1970	1410	1040	682		
8	Terminal resistance	Ohm	0.635	1.56	1.75	2.21	3.22	5.21	7.94	11.6	18.2	29.9	46.1	70.4		
9	Max. permissible speed	rpm	9200	9200	9200	9200	9200	9200	9200	9200	9200	9200	9200	9200		
10	Max. continuous current	mA	1500	1500	1500	1470	1230	968	786	652	520	408	328	266		
11	Max. continuous torque	mNm	14.1	23.6	25.3	28.0	28.3	30.5	30.9	30.8	31.0	30.7	30.6	30.5		
12	Max. power output at nominal voltage	mW	11700	11700	18900	15100	10400	14800	17500	18900	17300	14400	12200	7990		
13	Max. efficiency	%	73	77	79	79	78	81	82	82	82	81	81	80		
14	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		
15	Speed constant	rpm / V	1010	607	566	500	415	303	243	202	160	127	102	83.3		
16	Mechanical time constant	ms	23	17	16	15	15	14	14	13	13	13	13	13		
17	Rotor inertia	gcm ²	32.0	26.4	25.7	25.4	24.5	26.7	26.6	25.9	25.9	25.1	24.8	24.5		
18	Terminal inductance	mH	0.09	0.25	0.28	0.36	0.53	0.98	1.54	2.22	3.53	5.64	8.65	13.10		
19	Thermal resistance housing-ambient	K / W	13	13	13	13	13	13	13	13	13	13	13	13		
20	Thermal resistance rotor-housing	K / W	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9		
21	Thermal time constant winding	s	13	10	10	10	10	10	10	10	10	10	10	10		

Specifications

- Axial play 0.05 - 0.15 mm
- Max. **ball bearing** loads
 - axial (dynamic) 5.6 N
 - not preloaded 2.4 N
 - preloaded 28 N
 - radial (5 mm from flange) 113 N
- Press-fit force (static) 113 N
- Radial play **ball bearing** 0.025 mm
- Ambient temperature range -20 / +100°C
- Max. rotor temperature +125°C
- Number of commutator segments 13
- Weight of motor 230 g
- Values listed in the table are nominal. For applicable tolerances (see page 43). For additional details please use the maxon selection program on the enclosed CD-Rom.

Operating Range



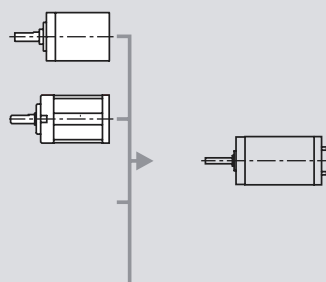
Comments

- **Recommended operating range**
- Continuous operation**
In observation of above listed thermal resistances (lines 19 and 20) the maximum permissible rotor temperature will be reached during continuous operation at 25°C ambient.
= Thermal limit.
- Short term operation**
The motor may be briefly overloaded (recurring).
- **968** Motor with high resistance winding
- 966** Motor with low resistance winding

maxon Modular System

Planetary Gearhead
Ø32 mm
0.75 - 4.5 Nm
Details page 184

Planetary Gearhead
Ø32 mm
0.4 - 2.0 Nm
Details page 189



- Options: Our standard program includes sleeve bearings in place of ball bearings and pigtails in place of solder terminals.