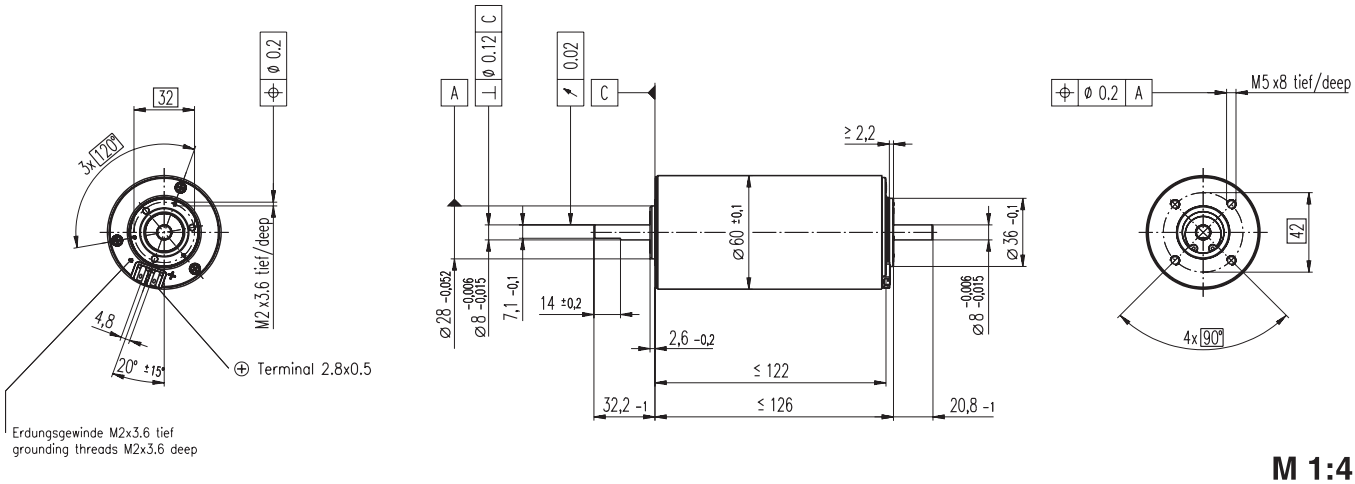
F 2260 ∅60 mm, Graphite Brushes, 80 Watt



M 1:4

Stock program
Standard program
Special program (on request)

Order Number

2260. ... -51.216-200 (Insert winding number)

Winding number			880	881	882	883	884	885	886	887	888	889	890
Motor Data													
	Values at nominal voltage												
1	Nominal voltage	V	15.0	18.0	18.0	24.0	24.0	24.0	36.0	42.0	48.0	48.0	48.0
2	No load speed	rpm	3950	3300	2640	2840	2630	2220	2690	2570	2670	2360	1800
3	No load current	mA	563	367	278	226	206	168	140	113	103	89.1	64.6
4	Nominal speed	rpm	3560	2900	2230	2440	2220	1810	2290	2160	2260	1950	1380
5	Nominal torque (max. continuous torque)	mNm	195	231	253	258	262	280	277	279	279	284	302
6	Nominal current (max. continuous current)	A	6.20	4.97	4.31	3.52	3.30	2.96	2.35	1.93	1.75	1.57	1.27
7	Stall torque	mNm	2820	2370	1890	2050	1860	1660	2010	1860	1940	1690	1360
8	Starting current	A	82.0	47.3	30.2	26.2	22.0	16.6	16.1	12.2	11.5	8.88	5.42
9	Max. efficiency	%	78	79	78	79	79	78	81	80	81	80	79
	Characteristics												
10	Terminal resistance	Ω	0.183	0.38	0.596	0.917	1.09	1.44	2.24	3.45	4.17	5.40	8.86
11	Terminal inductance	mH	0.0662	0.140	0.219	0.342	0.399	0.56	0.875	1.31	1.59	2.03	3.50
12	Torque constant	mNm / A	34.4	50.0	62.5	78.2	84.4	100	125	153	169	191	250
13	Speed constant	rpm / V	278	191	153	122	113	95.4	76.3	62.3	56.5	50.1	38.2
14	Speed / torque gradient	rpm / mNm	1.48	1.45	1.45	1.43	1.46	1.38	1.37	1.40	1.40	1.42	1.35
15	Mechanical time constant	ms	21.2	20.2	20.0	19.5	19.4	19.2	18.8	18.7	18.6	18.6	18.6
16	Rotor inertia	gcm²	1370	1330	1310	1300	1270	1330	1310	1270	1270	1260	1310

Specifications

Thermal data

17	Thermal resistance housing-ambient	3.4 K / W
18	Thermal resistance winding-housing	1.1 K / W
19	Thermal time constant winding	72.5 s
20	Thermal time constant motor	2210 s
21	Ambient temperature	-20 ... +100°C
22	Max. permissible winding temperature	+125°C

Mechanical data (Preloaded ball bearings)

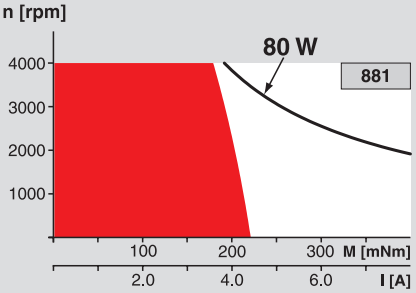
23	Max. permissible speed	4000 rpm
24	Axial play at axial load < 15 N	0 mm
	> 15 N	0.01 - 0.15 mm
25	Radial play	preloaded
26	Max. axial load (dynamic)	15 N
27	Max. force for press fits (static)	400 N
	(static, shaft supported)	10000 N
28	Max. radial loading, 5 mm from flange	100 N

Other specifications

29	Number of pole pairs	2
30	Number of commutator segments	26
31	Weight of motor	1300 g

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

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.

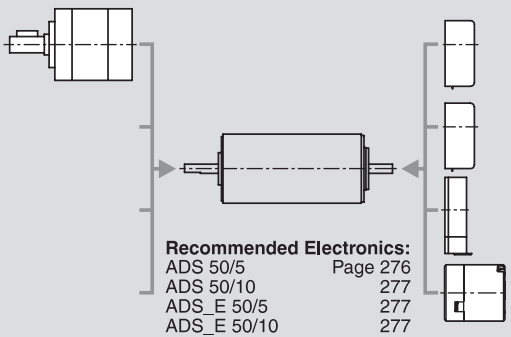
Short term operation
The motor may be briefly overloaded (recurring).

Assigned power rating

maxon Modular System

Overview on page 16 - 21

Planetary Gearhead
∅62 mm
8 - 50 Nm
Page 249



Recommended Electronics:

ADS 50/5	Page 276
ADS 50/10	277
ADS_E 50/5	277
ADS_E 50/10	277
EPOS 24/5	294
EPOS2 50/5	295
EPOS P 24/5	297
Notes	**18**

Encoder HEDS 5540
500 CPT,
3 channels
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Encoder HEDL 5540
500 CPT,
3 channels
Page 265

Encoder HEDS 6540
1000 CPT,
3 channels
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Brake AB 28
∅40 mm
24 VDC, 0.4 Nm
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