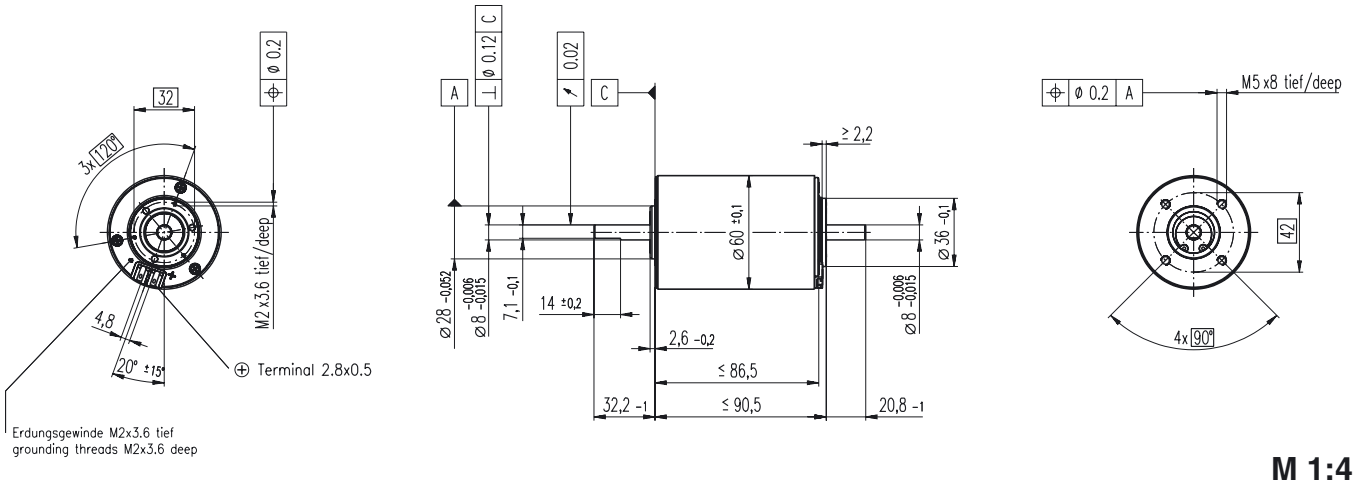
F 2260 ∅60 mm, Graphite Brushes, 40 Watt



M 1:4

Stock program
Standard program
Special program (on request!)

Order Number

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

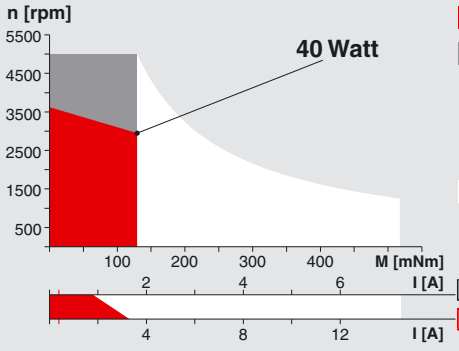
Winding number			811	812	813	814	815	816	817	818	810	819	820
Motor Data													
1	Assigned power rating	W	40	40	40	40	40	40	40	40	40	40	40
2	Nominal voltage	Volt	18.0	18.0	24.0	30.0	36.0	36.0	36.0	48.0	48.0	48.0	48.0
3	No load speed	rpm	4500	3450	3660	4270	4580	3630	2950	3190	2590	2090	1630
4	Stall torque	Nm	0.870	0.707	0.758	0.868	0.916	0.733	0.591	0.633	0.514	0.407	0.312
5	Speed / torque gradient	rpm / mNm	5.41	5.11	5.01	5.07	5.14	5.10	5.17	5.19	5.21	5.34	5.48
6	No load current	mA	387	283	225	215	194	147	117	95	75	60	46
7	Starting current	A	23.8	14.8	12.6	13.4	12.6	7.97	5.24	4.53	3.00	1.93	1.16
8	Terminal resistance	Ohm	0.755	1.21	1.91	2.25	2.87	4.52	6.87	10.6	16.0	24.9	41.2
9	Max. permissible speed	rpm	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
10	Max. continuous current	A	3.30	2.67	2.16	1.99	1.77	1.43	1.17	0.945	0.771	0.621	0.484
11	Max. continuous torque	mNm	120	127	130	130	129	132	132	132	132	131	130
12	Max. power output at nominal voltage	W	98.2	61.2	70.4	94.4	107	67.8	44.4	51.6	33.9	21.5	12.8
13	Max. efficiency	%	73	72	73	75	75	74	71	73	70	67	64
14	Torque constant	mNm / A	36.5	47.6	60.3	65.0	73.0	92.0	113	140	171	211	268
15	Speed constant	rpm / V	262	201	158	147	131	104	84.8	68.4	55.7	45.3	35.6
16	Mechanical time constant	ms	36	36	35	35	34	34	34	34	34	34	34
17	Rotor inertia	gcm²	638	666	665	651	638	641	630	623	620	604	589
18	Terminal inductance	mH	0.23	0.39	0.63	0.73	0.92	1.46	2.18	3.36	5.05	7.66	12.40
19	Thermal resistance housing-ambient	K / W	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
20	Thermal resistance rotor-housing	K / W	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
21	Thermal time constant winding	s	73	76	76	74	73	73	72	71	71	69	67

Specifications

- Axial play at axial load < 15 N ≤ 0.1 mm
  > 15 N 0.1 - 0.15 mm
  Axial play for motor combinations with encoder is limited to max. 0.15 mm
- Preloaded **ball bearings**
  Preload strength min. 15 N
- Max. **ball bearing** loads
  axial (dynamic) 15 N
  radial (5 mm from flange) 100 N
  Force for press fits (static) 400 N
  (static, shaft supported) 10 000 N
- Radial play **ball bearing** 0.05 mm
- Ambient temperature range -20 ... +100°C
- Max. rotor temperature +125°C
- Number of commutator segments 26
- Weight of motor 790 g
- 2 pole permanent magnet
- 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 Details on page 49



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.

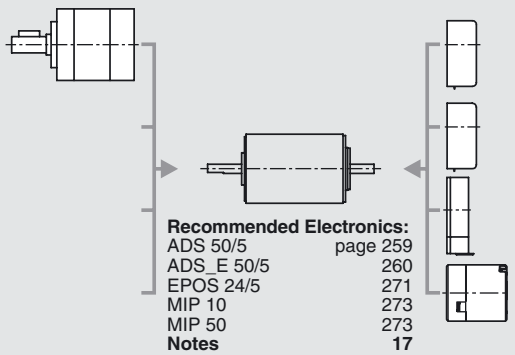
Short term operation
The motor may be briefly overloaded (recurring).

818 Motor with high resistance winding
811 Motor with low resistance winding

maxon Modular System

Overview on page 17 - 21

Planetary Gearhead
∅62 mm
8 - 50 Nm
Details page 229



Recommended Electronics:

ADS 50/5	page 259
ADS_E 50/5	260
EPOS 24/5	271
MIP 10	273
MIP 50	273
Notes	**17**

Encoder HEDS 5540
500 CPT,
3 channels
Details page 243

Encoder HEDL 5540
500 CPT,
3 channels
Details page 245

Encoder HEDS 6540
1000 CPT,
3 channels
Details page 248

Brake AB
∅40 mm
24 VDC, 0.4 Nm
Details page 279