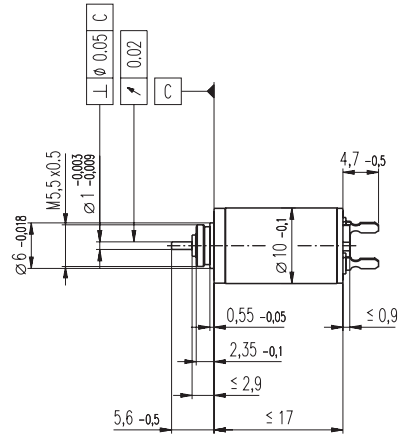
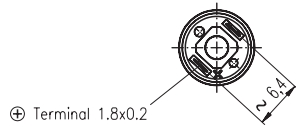


RE 10 \varnothing 10 mm, Precious Metal Brushes, 0.75 Watt, CE approved



M 1:1

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

Order Number

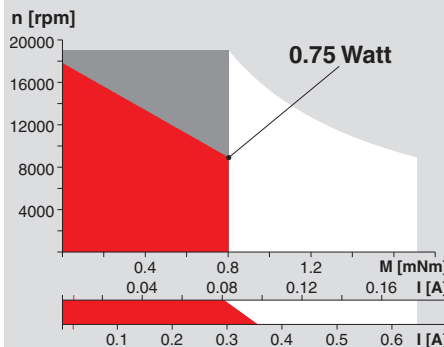
118382 118383 118384 118385 **118386** 118387 118388 118389 118390 118391

Motor Data		118382	118383	118384	118385	118386	118387	118388	118389	118390	118391
1	Assigned power rating	W	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
2	Nominal voltage	Volt	2.4	3.0	3.6	4.5	6.0	6.0	7.2	7.2	9.0
3	No load speed	rpm	10300	10400	9930	11300	13000	11400	11700	10600	10700
4	Stall torque	mNm	0.924	1.00	0.949	1.09	1.25	1.13	1.12	0.944	0.957
5	Speed / torque gradient	rpm / mNm	11600	10700	10800	10700	10700	10400	10800	11600	11900
6	No load current	mA	16	13	10	10	9	7	6	5	4
7	Starting current	mA	432	375	284	297	292	232	198	150	123
8	Terminal resistance	Ohm	5.55	8.00	12.7	15.2	20.6	25.8	36.4	47.9	72.9
9	Max. permissible speed	rpm	19000	19000	19000	19000	19000	19000	19000	19000	19000
10	Max. continuous current	mA	366	305	242	221	190	169	143	124	101
11	Max. continuous torque	mNm	0.716	0.747	0.742	0.745	0.745	0.759	0.743	0.716	0.707
12	Max. power output at nominal voltage	mW	243	265	240	315	416	330	337	254	261
13	Max. efficiency	%	66	67	66	68	69	68	68	66	67
14	Torque constant	mNm / A	2.14	2.67	3.34	3.67	4.27	4.88	5.68	6.28	7.75
15	Speed constant	rpm / V	4470	3570	2860	2600	2230	1960	1680	1520	1230
16	Mechanical time constant	ms	8	7	7	7	7	7	7	7	7
17	Rotor inertia	gcm ²	0.062	0.067	0.066	0.066	0.066	0.068	0.066	0.062	0.062
18	Terminal inductance	mH	0.05	0.07	0.11	0.14	0.18	0.24	0.33	0.40	0.61
19	Thermal resistance housing-ambient	K / W	46	46	46	46	46	46	46	46	46
20	Thermal resistance rotor-housing	K / W	20	20	20	20	20	20	20	20	20
21	Thermal time constant winding	s	3	3	3	3	3	3	3	3	3

Specifications

- Axial play 0.05 - 0.15 mm
- Max. **sleeve bearing** loads
 - axial (dynamic) 0.15 N
 - radial (4 mm from flange) 0.4 N
 - Force for press fits (static) 15 N
- Radial play **sleeve bearing** 0.012 mm
- Ambient temperature range -20 ... +65°C
- Max. rotor temperature +85°C
- Number of commutator segments 7
- Weight of motor 7 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

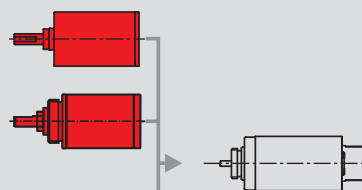
- Recommended operating range**
- Continuous operation**
In observation of above listed thermal resistances (lines 19 and 20) the maximum permissible rotor temperature will be reached during continuous operation at 25°C ambient.
= Thermal limit.
- Short term operation**
The motor may be briefly overloaded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

Details on page 49

maxon Modular System

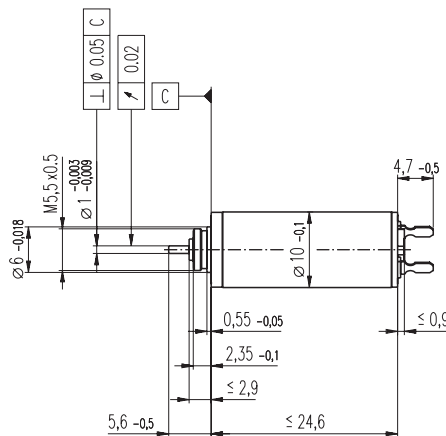
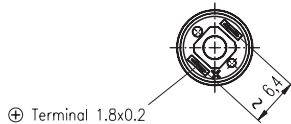
Overview on page 17 - 21

- Planetary Gearhead**
 \varnothing 10 mm
0.005 - 0.1 Nm
Details page 191
- Planetary Gearhead**
 \varnothing 10 mm
0.01 - 0.15 Nm
Details page 192



Recommended Electronics:
LSC 30/2 page 251
Notes 17

RE 10 \varnothing 10 mm, Precious Metal Brushes, 1.5 Watt, $\text{C}\epsilon$ approved



M 1:1

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

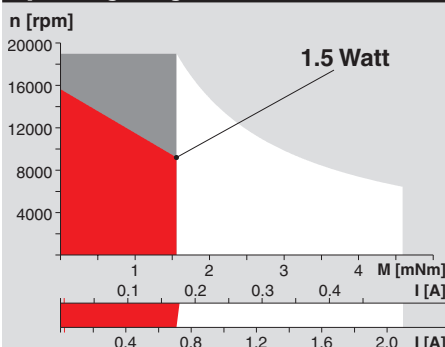
Order Number

		118392	118393	118394	118395	118396	118397	118398	118399	118400
Motor Data										
1	Assigned power rating	W	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
2	Nominal voltage	Volt	3.0	3.0	4.5	4.5	6.0	6.0	9.0	12.0
3	No load speed	rpm	13000	10700	12800	10600	12400	9880	12200	11100
4	Stall torque	mNm	3.12	2.52	3.03	2.47	3.01	2.61	3.08	2.83
5	Speed / torque gradient	rpm / mNm	4250	4340	4290	4370	4180	3860	4010	3980
6	No load current	mA	24	19	16	12	11	8	7	6
7	Starting current	mA	1440	963	919	619	660	458	444	371
8	Terminal resistance	Ohm	2.08	3.11	4.90	7.27	9.09	13.1	20.3	24.3
9	Max. permissible speed	rpm	19000	19000	19000	19000	19000	19000	19000	19000
10	Max. continuous current	mA	710	580	462	379	339	282	227	208
11	Max. continuous torque	mNm	1.54	1.52	1.53	1.51	1.55	1.61	1.58	1.59
12	Max. power output at nominal voltage	mW	1050	699	1000	673	962	665	971	810
13	Max. efficiency	%	76	75	76	74	76	75	76	77
14	Torque constant	mNm / A	2.16	2.62	3.30	3.99	4.56	5.69	6.95	7.63
15	Speed constant	rpm / V	4410	3650	2890	2400	2100	1680	1370	1250
16	Mechanical time constant	ms	4	4	4	4	4	4	4	4
17	Rotor inertia	gcm ²	0.098	0.096	0.096	0.094	0.098	0.105	0.101	0.102
18	Terminal inductance	mH	0.02	0.03	0.04	0.06	0.08	0.12	0.18	0.21
19	Thermal resistance housing-ambient	K / W	38	38	38	38	38	38	38	38
20	Thermal resistance rotor-housing	K / W	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
21	Thermal time constant winding	s	2	2	2	2	2	2	2	2

Specifications

- Axial play 0.05 - 0.15 mm
- Max. **sleeve bearing** loads
 - axial (dynamic) 0.15 N
 - radial (4 mm from flange) 0.4 N
 - Force for press fits (static) 15 N
- Radial play **sleeve bearing** 0.012 mm
- Ambient temperature range -20 ... +65°C
- Max. rotor temperature +85°C
- Number of commutator segments 7
- Weight of motor 10 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

- 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).
- 118400 Motor with high resistance winding
118392 Motor with low resistance winding

Details on page 49

maxon Modular System

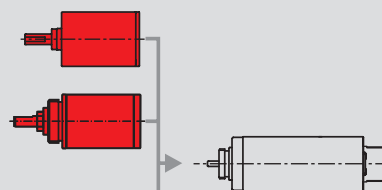
Overview on page 17 - 21

Planetary Gearhead

\varnothing 10 mm
0.005 - 0.1 Nm
Details page 191

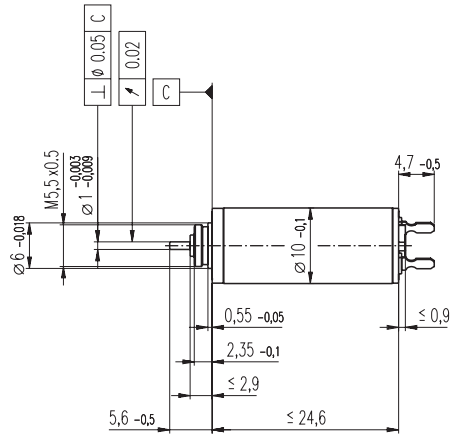
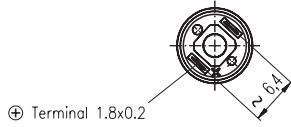
Planetary Gearhead

\varnothing 10 mm
0.01 - 0.15 Nm
Details page 192



Recommended Electronics:
LSC 30/2 page 251
Notes 17

RE 10 \varnothing 10 mm, Precious Metal Brushes, 1.5 Watt, CE approved



M 1:1

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

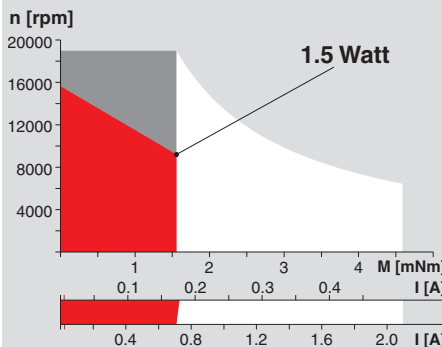
Order Number

		118392	118393	118394	118395	118396	118397	118398	118399	118400
Motor Data										
1	Assigned power rating	W	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
2	Nominal voltage	Volt	3.0	3.0	4.5	4.5	6.0	6.0	9.0	12.0
3	No load speed	rpm	13000	10700	12800	10600	12400	9880	12200	11100
4	Stall torque	mNm	3.12	2.52	3.03	2.47	3.01	2.61	3.08	2.83
5	Speed / torque gradient	rpm / mNm	4250	4340	4290	4370	4180	3860	4010	3980
6	No load current	mA	24	19	16	12	11	8	7	6
7	Starting current	mA	1440	963	919	619	660	458	444	371
8	Terminal resistance	Ohm	2.08	3.11	4.90	7.27	9.09	13.1	20.3	24.3
9	Max. permissible speed	rpm	19000	19000	19000	19000	19000	19000	19000	19000
10	Max. continuous current	mA	710	580	462	379	339	282	227	208
11	Max. continuous torque	mNm	1.54	1.52	1.53	1.51	1.55	1.61	1.58	1.59
12	Max. power output at nominal voltage	mW	1050	699	1000	673	962	665	971	810
13	Max. efficiency	%	76	75	76	74	76	75	76	77
14	Torque constant	mNm / A	2.16	2.62	3.30	3.99	4.56	5.69	6.95	7.63
15	Speed constant	rpm / V	4410	3650	2890	2400	2100	1680	1370	1250
16	Mechanical time constant	ms	4	4	4	4	4	4	4	4
17	Rotor inertia	gcm ²	0.098	0.096	0.096	0.094	0.098	0.105	0.101	0.102
18	Terminal inductance	mH	0.02	0.03	0.04	0.06	0.08	0.12	0.18	0.21
19	Thermal resistance housing-ambient	K / W	38	38	38	38	38	38	38	38
20	Thermal resistance rotor-housing	K / W	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
21	Thermal time constant winding	s	2	2	2	2	2	2	2	2

Specifications

- Axial play 0.05 - 0.15 mm
- Max. **sleeve bearing** loads
 - axial (dynamic) 0.15 N
 - radial (4 mm from flange) 0.4 N
 - Force for press fits (static) 15 N
- Radial play **sleeve bearing** 0.012 mm
- Ambient temperature range -20 ... +65°C
- Max. rotor temperature +85°C
- Number of commutator segments 7
- Weight of motor 10 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

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).

118400 Motor with high resistance winding

118392 Motor with low resistance winding

Details on page 49

maxon Modular System

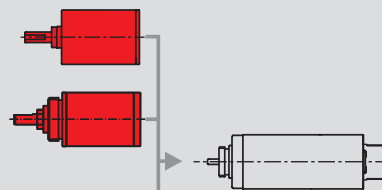
Overview on page 17 - 21

Planetary Gearhead

\varnothing 10 mm
0.005 - 0.1 Nm
Details page 191

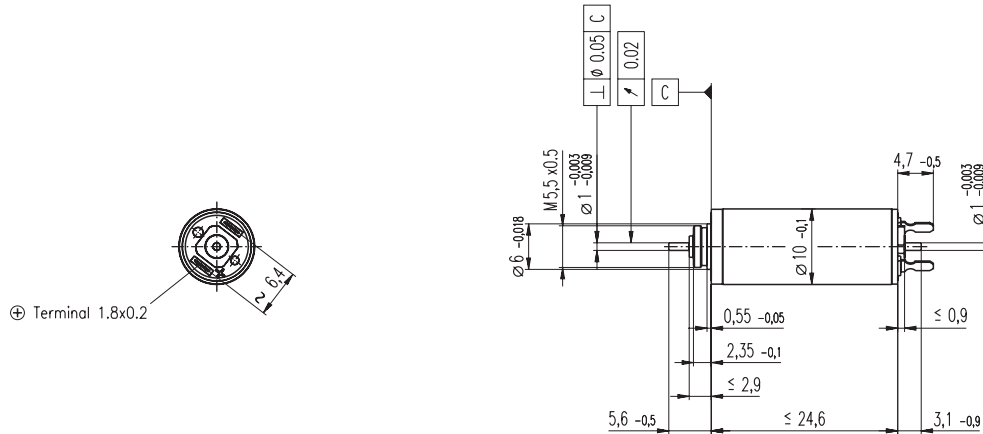
Planetary Gearhead

\varnothing 10 mm
0.01 - 0.15 Nm
Details page 192



Recommended Electronics:
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Notes 17

RE 10 \varnothing 10 mm, Precious Metal Brushes, 1.5 Watt, CE approved



M 1:1

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

Order Number

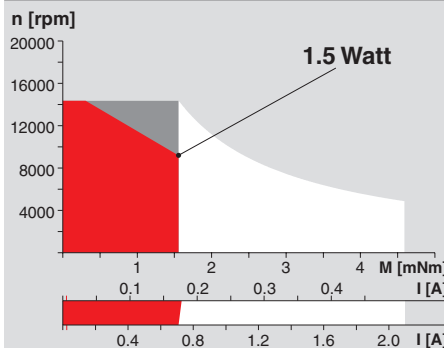
256096 256097 256099 256100 **256101** 256102 256103 256104 256105

Motor Data		256096	256097	256099	256100	256101	256102	256103	256104	256105
1 Assigned power rating	W	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
2 Nominal voltage	Volt	2.4	3.0	4.5	4.5	6.0	7.2	9.0	10.0	12.0
3 No load speed	rpm	10400	10700	12800	10600	12400	11900	12200	12300	12500
4 Stall torque	mNm	2.49	2.52	3.03	2.47	3.01	3.13	3.08	3.14	3.24
5 Speed / torque gradient	rpm / mNm	4250	4340	4290	4370	4180	3860	4010	3980	3930
6 No load current	mA	22	19	16	12	11	9	7	7	6
7 Starting current	mA	1150	963	919	619	660	549	444	412	360
8 Terminal resistance	Ohm	2.08	3.11	4.90	7.27	9.09	13.1	20.3	24.3	33.3
9 Max. permissible speed	rpm	14300	14300	14300	14900	14300	14300	14300	14300	14300
10 Max. continuous current	mA	710	580	462	379	339	282	227	208	177
11 Max. continuous torque	mNm	1.54	1.52	1.53	1.51	1.55	1.61	1.58	1.58	1.59
12 Max. power output at nominal voltage	mW	669	699	1000	673	962	962	971	1000	1050
13 Max. efficiency	%	75	75	76	74	76	77	76	77	77
14 Torque constant	mNm / A	2.16	2.62	3.30	3.99	4.56	5.69	6.95	7.63	9.00
15 Speed constant	rpm / V	4410	3650	2890	2400	2100	1680	1370	1250	1060
16 Mechanical time constant	ms	4	4	4	4	4	4	4	4	4
17 Rotor inertia	gcm ²	0.098	0.096	0.096	0.094	0.098	0.105	0.101	0.102	0.103
18 Terminal inductance	mH	0.02	0.03	0.04	0.06	0.08	0.12	0.18	0.21	0.30
19 Thermal resistance housing-ambient	K / W	38	38	38	38	38	38	38	38	38
20 Thermal resistance rotor-housing	K / W	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
21 Thermal time constant winding	s	2	2	2	2	2	2	2	2	2

Specifications

- Axial play 0.05 - 0.15 mm
- Max. **sleeve bearing** loads
 - axial (dynamic) 0.15 N
 - radial (4 mm from flange) 0.4 N
 - Force for press fits (static) 15 N
- Radial play **sleeve bearing** 0.012 mm
- Ambient temperature range -20 ... +65°C
- Max. rotor temperature +85°C
- Number of commutator segments 7
- Weight of motor 10 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

- **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).

- 256105 Motor with high resistance winding
- 256096 Motor with low resistance winding

Details on page 49

maxon Modular System

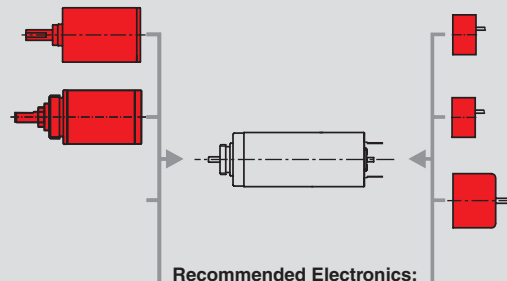
Overview on page 17 - 21

Planetary Gearhead

\varnothing 10 mm
0.005 - 0.1 Nm
Details page 191

Planetary Gearhead

\varnothing 10 mm
0.01 - 0.15 Nm
Details page 192



- Digital MR Encoder**
16 CPT,
2 channels
Details page 226
- Digital MR Encoder**
64 / 128 / 256 CPT,
2 channels
Details page 227
- Digital Magnetic Encoder**
 \varnothing 10 mm
12 CPT, 2 channels
Details page 244

Recommended Electronics:
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EPOS 04/1 page 201