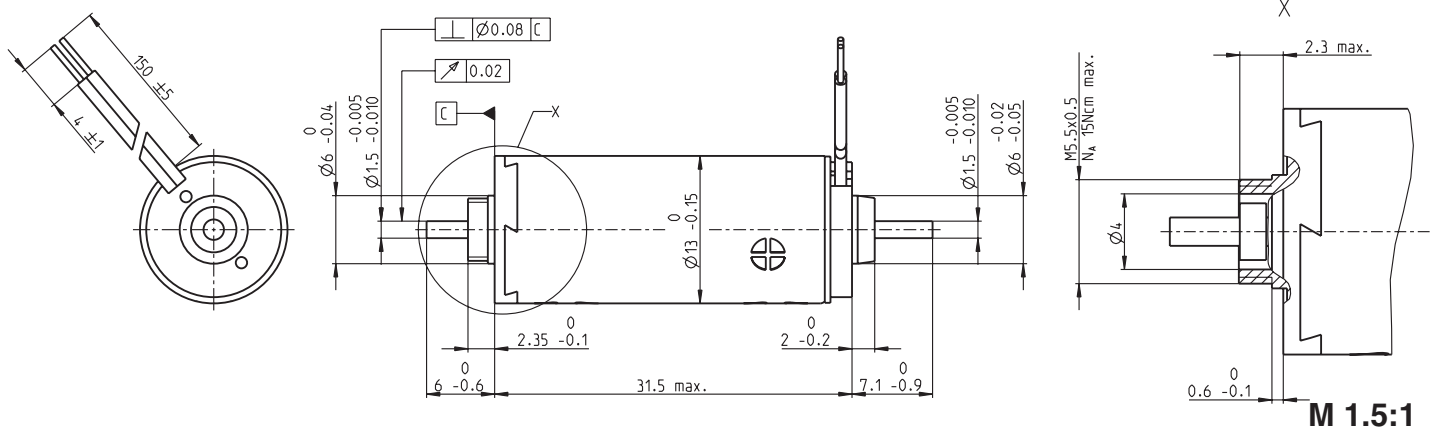


# RE-max 13 $\varnothing$ 13 mm, Precious Metal Brushes CLL, 2 Watt

Kabel AWG 28/7  
cabel UL Style 1061

⊕ Kabel rot  
cabel red



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

## Order Number

268351 268353 268355 268356 **268357** 268358 268359 268360 268361 268362 **268363** 268364 268365 268366 **268367**

## Motor Data

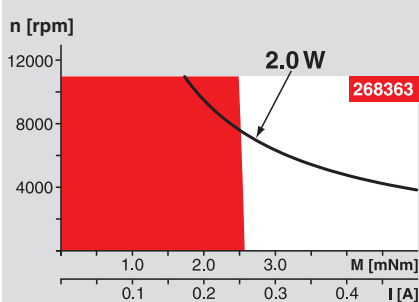
Values at nominal voltage			1.5	1.5	1.8	2.4	3.0	3.0	3.6	4.2	4.8	6.0	7.2	9.0	10.0	12.0	15.0
1	Nominal voltage	V	1.5	1.5	1.8	2.4	3.0	3.0	3.6	4.2	4.8	6.0	7.2	9.0	10.0	12.0	15.0
2	No load speed	rpm	6560	6070	6380	7170	7100	6300	6810	6620	6490	6820	6600	6640	6840	7030	7160
3	No load current	mA	43.8	39.8	35.3	30.8	24.3	20.9	19.2	15.9	13.5	11.5	9.20	7.42	6.95	5.99	4.91
4	Nominal speed	rpm	5440	4730	4750	5210	4660	3530	3650	3140	3150	3410	3170	3230	3410	3620	3700
5	Nominal torque (max. continuous torque)	mNm	0.941	1.02	1.18	1.42	1.82	2.06	2.30	2.64	2.75	2.69	2.68	2.69	2.67	2.69	2.64
6	Nominal current (max. continuous current)	A	0.480	0.480	0.480	0.480	0.480	0.480	0.480	0.457	0.408	0.336	0.270	0.218	0.201	0.173	0.139
7	Stall torque	mNm	5.57	4.70	4.71	5.26	5.35	4.76	5.01	5.09	5.40	5.45	5.24	5.32	5.40	5.61	5.53
8	Starting current	A	2.59	2.03	1.78	1.68	1.35	1.07	1.01	0.856	0.779	0.660	0.511	0.418	0.394	0.350	0.281
9	Max. efficiency	%	76	74	74	75	75	74	75	75	76	76	75	75	76	76	76
Characteristics			0.578	0.738	1.01	1.43	2.22	2.81	3.56	4.91	6.16	9.09	14.1	21.5	25.4	34.3	53.3
10	Terminal resistance	$\Omega$	0.578	0.738	1.01	1.43	2.22	2.81	3.56	4.91	6.16	9.09	14.1	21.5	25.4	34.3	53.3
11	Terminal inductance	mH	0.0157	0.0182	0.0237	0.0334	0.0534	0.0675	0.0834	0.120	0.163	0.232	0.356	0.549	0.638	0.872	1.31
12	Torque constant	mNm / A	2.15	2.31	2.64	3.14	3.96	4.46	4.95	5.94	6.94	8.26	10.2	12.7	13.7	16.0	19.6
13	Speed constant	rpm / V	4450	4130	3610	3040	2410	2140	1930	1610	1380	1160	933	751	697	596	486
14	Speed / torque gradient	rpm / mNm	1200	1320	1380	1390	1350	1350	1380	1330	1220	1270	1280	1270	1290	1270	1320
15	Mechanical time constant	ms	8.56	8.25	7.96	7.73	7.53	7.47	7.45	7.36	7.27	7.29	7.28	7.27	7.27	7.28	7.33
16	Rotor inertia	gcm <sup>2</sup>	0.682	0.597	0.550	0.532	0.532	0.528	0.514	0.530	0.567	0.546	0.542	0.546	0.538	0.545	0.531

## Specifications

- Thermal data**
- 17 Thermal resistance housing-ambient 37 K / W
  - 18 Thermal resistance winding-housing 10 K / W
  - 19 Thermal time constant winding 6.93 s
  - 20 Thermal time constant motor 444 s
  - 21 Ambient temperature -20 ... +65°C
  - 22 Max. permissible winding temperature +85°C
- Mechanical data (sleeve bearings)**
- 23 Max. permissible speed 11000 rpm
  - 24 Axial play 0.05 - 0.15 mm
  - 25 Radial play 0.014 mm
  - 26 Max. axial load (dynamic) 0.8 N
  - 27 Max. force for press fits (static) 35 N
  - 27 (static, shaft supported) 140 N
  - 28 Max. radial loading, 5 mm from flange 1.4 N

- Other specifications**
- 29 Number of pole pairs 1
  - 30 Number of commutator segments 7
  - 31 Weight of motor 24 g
- CLL = Capacitor Long Life  
Alignment of the electronic connections not specified.
- Values listed in the table are nominal.  
Explanation of the figures on page 49.

## Operating Range

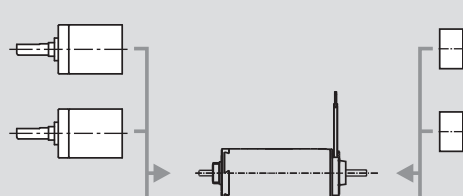


## Comments

- 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

- Planetary Gearhead**  
 $\varnothing$ 13 mm  
0.05 - 0.15 Nm  
Page 208
- Planetary Gearhead**  
 $\varnothing$ 13 mm  
0.2 - 0.35 Nm  
Page 209



## Overview on page 16 - 21

- Encoder MR**  
16 Imp.,  
2 channels  
Page 255
- Encoder MR**  
64 - 256 Imp.,  
2 channels  
Page 256 / 257

**Recommended Electronics:**  
LSC 30/2 Page 282  
EPOS2 Module 36/2 304  
**Notes 18**