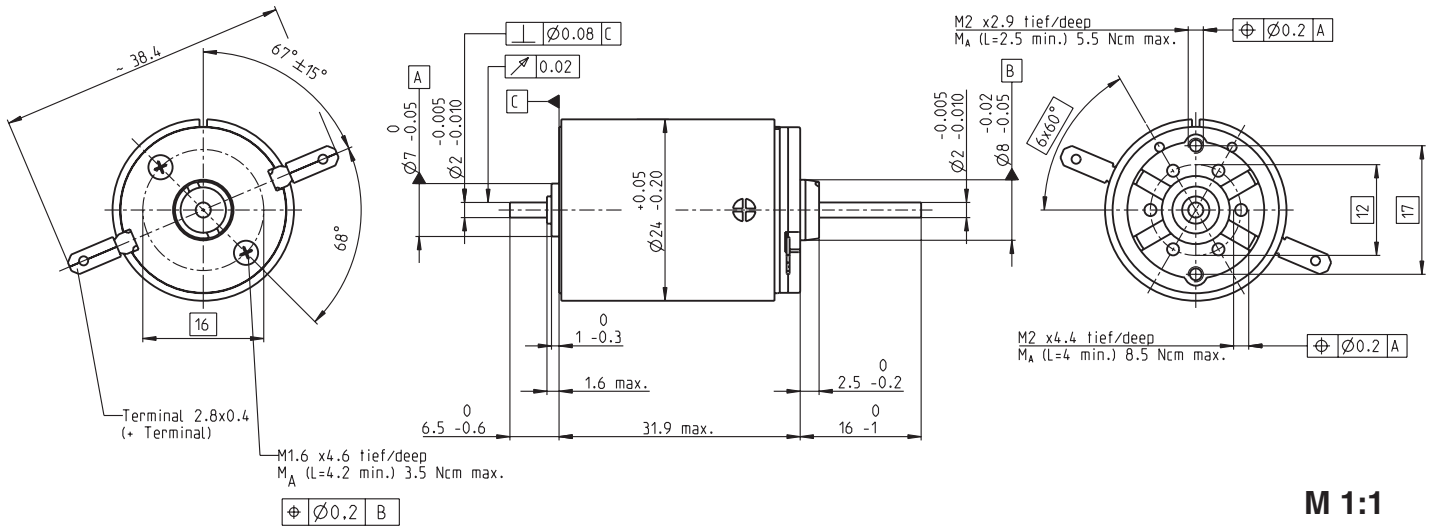


# RE-max 24 Ø24 mm, Precious Metal Brushes CLL, 6.5 Watt



M 1:1

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

Part Numbers											
220425	220426	220427	220428	220429	220430	220431	220432	220433	220434	220435	220437

Motor Data													
Values at nominal voltage													
1 Nominal voltage	V	6	9	9	12	12	15	18	24	30	36	48	48
2 No load speed	rpm	5480	5670	4980	5930	5350	5830	5670	6090	6160	5580	5280	4760
3 No load current	mA	18.7	13.1	10.9	10.5	9.04	8.18	6.55	5.45	4.43	3.2	2.22	1.92
4 Nominal speed	rpm	4190	4230	3540	4490	3890	4360	4190	4610	4670	4060	3730	3220
5 Nominal torque (max. continuous torque)	mNm	8.56	10.4	10.6	10.5	10.4	10.2	10.2	10.1	10	9.97	9.77	9.88
6 Nominal current (max. continuous current)	A	0.84	0.704	0.625	0.554	0.494	0.426	0.343	0.275	0.221	0.165	0.115	0.105
7 Stall torque	mNm	35.5	40.4	36.2	42.8	37.7	40.4	38.7	41.5	41.4	36.7	33.4	30.6
8 Starting current	A	3.42	2.68	2.11	2.23	1.77	1.65	1.28	1.11	0.894	0.599	0.387	0.32
9 Max. efficiency	%	86	87	86	87	86	87	86	87	87	86	86	85
<b>Characteristics</b>													
10 Terminal resistance	Ω	1.76	3.36	4.27	5.39	6.78	9.07	14	21.6	33.5	60.1	124	150
11 Terminal inductance	mH	0.0735	0.154	0.2	0.251	0.309	0.406	0.618	0.952	1.45	2.56	5.06	6.22
12 Torque constant	mNm/A	10.4	15.1	17.2	19.2	21.3	24.4	30.1	37.4	46.3	61.3	86.3	95.6
13 Speed constant	rpm/V	919	634	557	497	448	391	317	255	206	156	111	99.8
14 Speed / torque gradient	rpm/mNm	155	141	138	139	143	145	147	148	150	153	159	156
15 Mechanical time constant	ms	6.62	6.38	6.35	6.35	6.36	6.49	6.48	6.5	6.53	6.54	6.62	6.57
16 Rotor inertia	gcm <sup>2</sup>	4.07	4.32	4.38	4.36	4.26	4.27	4.2	4.21	4.16	4.1	3.97	4.01

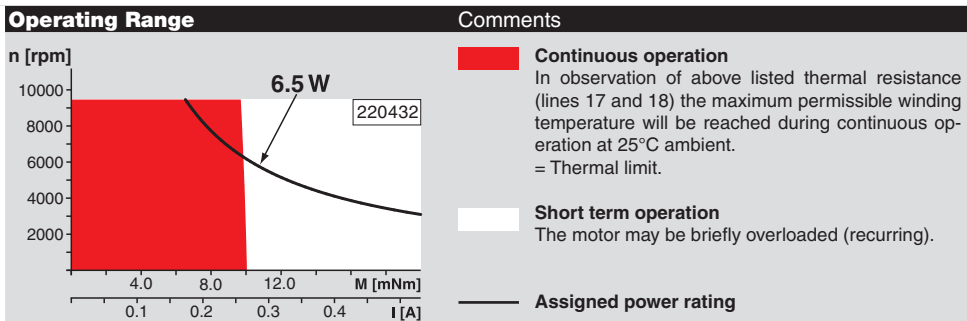
Specifications	
<b>Thermal data</b>	
17 Thermal resistance housing-ambient	24 K/W
18 Thermal resistance winding-housing	5.1 K/W
19 Thermal time constant winding	8.32 s
20 Thermal time constant motor	637 s
21 Ambient temperature	-30...+65°C
22 Max. permissible winding temperature	+85°C
<b>Mechanical data (sleeve bearings)</b>	
23 Max. permissible speed	9500 rpm
24 Axial play	0.05 - 0.15 mm
25 Radial play	0.012 mm
26 Max. axial load (dynamic)	1 N
27 Max. force for press fits (static) (static, shaft supported)	80 N
28 Max. radial load, 5 mm from flange	440 N

<b>Mechanical data (ball bearings)</b>	
23 Max. permissible speed	9500 rpm
24 Axial play	0.05 - 0.15 mm
25 Radial play	0.025 mm
26 Max. axial load (dynamic)	3.3 N
27 Max. force for press fits (static) (static, shaft supported)	45 N
28 Max. radial load, 5 mm from flange	440 N

<b>Other specifications</b>	
29 Number of pole pairs	1
30 Number of commutator segments	9
31 Weight of motor	71 g

Values listed in the table are nominal.  
Explanation of the figures on page 79.

- Option**
- Ball bearings in place of sleeve bearings
  - Pigtails in place of terminals
  - Without CLL



maxon Modular System		Overview on page 20–25																
<p><b>Planetary Gearhead</b> Ø22 mm 0.5 - 2.0 Nm Page 264</p> <p><b>Spur Gearhead</b> Ø38 mm 0.1 - 0.6 Nm Page 282</p> <p><b>Spindle Drive</b> Ø22 mm Page 299/300</p>		<p><b>Encoder MR</b> 32 CPT, 2 / 3 channels Page 316</p> <p><b>Encoder MR</b> 128 / 256 / 512 CPT, 2 / 3 channels Page 318</p>																
<p><b>Recommended Electronics:</b></p> <table border="0"> <tr> <td>ESCON 36/2 DC</td> <td>Page 342</td> </tr> <tr> <td>ESCON Module 50/5</td> <td>343</td> </tr> <tr> <td>ESCON 50/5</td> <td>344</td> </tr> <tr> <td>EPOS2 24/2</td> <td>350</td> </tr> <tr> <td>EPOS2 Module 36/2</td> <td>350</td> </tr> <tr> <td>EPOS3 70/10 EtherCAT</td> <td>357</td> </tr> <tr> <td>MAXPOS 50/5</td> <td>360</td> </tr> <tr> <td><b>Notes</b></td> <td><b>22</b></td> </tr> </table>		ESCON 36/2 DC	Page 342	ESCON Module 50/5	343	ESCON 50/5	344	EPOS2 24/2	350	EPOS2 Module 36/2	350	EPOS3 70/10 EtherCAT	357	MAXPOS 50/5	360	<b>Notes</b>	<b>22</b>	
ESCON 36/2 DC	Page 342																	
ESCON Module 50/5	343																	
ESCON 50/5	344																	
EPOS2 24/2	350																	
EPOS2 Module 36/2	350																	
EPOS3 70/10 EtherCAT	357																	
MAXPOS 50/5	360																	
<b>Notes</b>	<b>22</b>																	