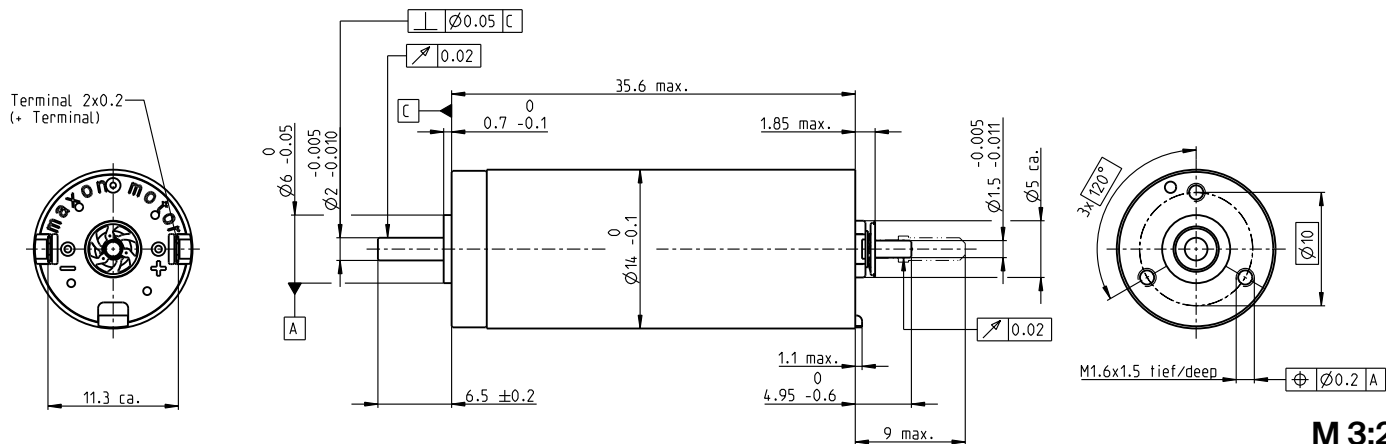


DCX 14 L Ø14 mm, precious metal brushes, DC motor

Key Data: 3/5 W, 6.3 mNm, 8680 rpm



DCX

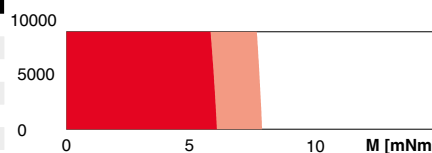


M 3:2

Motor Data									
1_	Nominal voltage	V	3	4.5	6	9	12	18	24
2_	No load speed	rpm	7720	7740	7740	7740	7740	7730	7740
3_	No load current	mA	73.6	49.1	36.8	24.5	18.4	12.2	9.2
4_	Nominal speed	rpm	5770	5160	5140	5200	5200	5040	5150
5_	Nominal torque (max. continuous torque)	mNm	4.12	6.29	6.23	6.37	6.38	6.01	6.24
6_	Nominal current (max. continuous current)	A	1.2	1.2	0.889	0.605	0.454	0.286	0.223
7_	Stall torque	mNm	16.5	19.1	18.8	19.6	19.7	17.5	18.9
8_	Stall current	A	4.52	3.49	2.57	1.79	1.35	0.799	0.647
9_	Max. efficiency	%	76	77.7	77.6	78	78.1	77	77.7
10_	Terminal resistance	Ω	0.664	1.29	2.33	5.02	8.9	22.5	37.1
11_	Terminal inductance	mH	0.0252	0.0567	0.101	0.227	0.403	0.908	1.61
12_	Torque constant	mNm/A	3.65	5.47	7.3	10.9	14.6	21.9	29.2
13_	Speed constant	rpm/V	2620	1740	1310	872	654	436	327
14_	Speed/torque gradient	rpm/mNm	476	411	418	400	399	449	415
15_	Mechanical time constant	ms	4.14	4.06	4.05	4.04	4.05	4.1	4.09
16_	Rotor inertia	gcm²	0.831	0.942	0.926	0.966	0.97	0.872	0.939

Thermal data								
17_	Thermal resistance housing-ambient	K/W	22.2	Operating Range				
18_	Thermal resistance winding-housing	K/W	8.63	n [rpm] Winding 9 V				
19_	Thermal time constant winding	s	10.3					
20_	Thermal time constant motor	s	226					
21_	Ambient temperature ball bearings	°C	-40...+85					
21_	Ambient temperature sleeve bearings	°C	-30...+85					
22_	Max. winding temperature	°C	100					

Mechanical data ball bearings								
23_	Max. speed	rpm	8680					
24_	Axial play	mm	0...0.1					
25_	Radial play	mm	0.015					
26_	Max. axial load (dynamic)	N	0.8					
27_	Max. force for press fits (static)	N	18					
27_	(static, shaft supported)	N	300					
28_	Max. radial load [mm from flange]	N	10 [5]					



■ Continuous operation
■ Continuous operation with reduced thermal resistance R_{th2} 50%
■ Intermittent operation

Mechanical data sleeve bearings								
23_	Max. speed	rpm	8680	maxon Modular System				
24_	Axial play	mm	0...0.2					
25_	Radial play	mm	0.015					
26_	Max. axial load (dynamic)	N	0.1					
27_	Max. force for press fits (static)	N	60					
27_	(static, shaft supported)	N	300					
28_	Max. radial load [mm from flange]	N	2 [5]					

Other specifications								
29_	Number of pole pairs		1					
30_	Number of commutator segments		7					
31_	Weight of motor	g	26					
32_	Typical noise level	dBA	44					

Configuration
 Bearing: Ball bearings preloaded/sleeve bearings
 Commutation: Precious metal brushes with CLL/graphite brushes
 Flange front/back: Standard flange/configurable flange/no flange
 Shaft front/back: Length/diameter/flat face
 Electric connection: Terminals or cable/alignment of connection/cable length/connector type

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