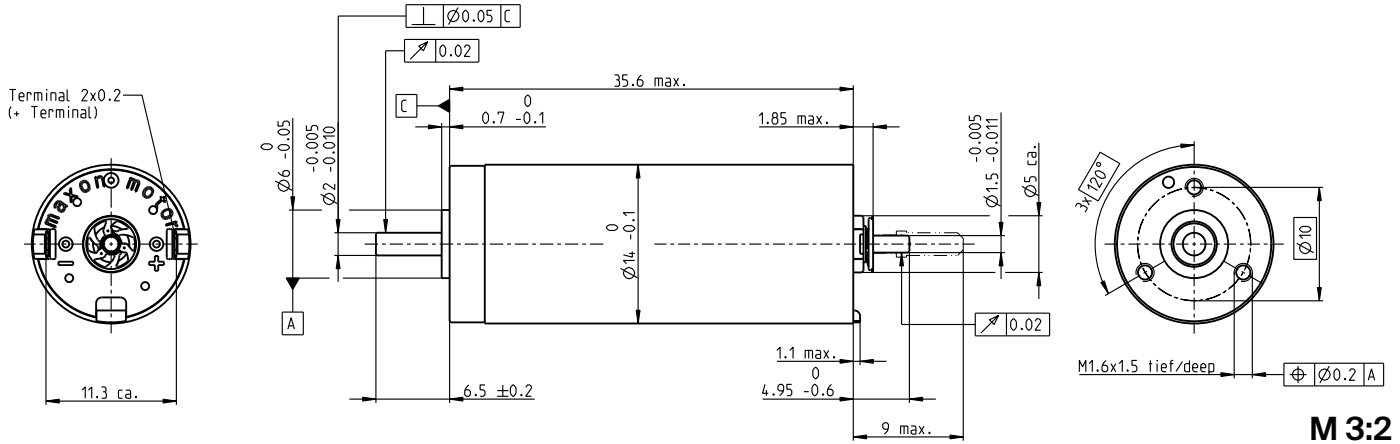


DCX 14 L Ø14 mm, precious metal brushes, DC motor

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



DCX



M 3:2

Motor Data

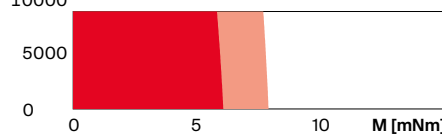
	V	3	4.5	6	9	12	18	24
1_ Nominal voltage	V	3	4.5	6	9	12	18	24
2_ No load speed	rpm	7720	7740	7740	7740	7740	7730	7740
3_ No load current	mA	73.6	49.1	36.8	24.5	18.4	12.2	9.2
4_ Nominal speed	rpm	5770	5160	5140	5200	5200	5040	5150
5_ Nominal torque	mNm	4.12	6.29	6.23	6.37	6.38	6.01	6.24
6_ Nominal current (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	gcm ²	0.831	0.942	0.926	0.966	0.97	0.872	0.939

Thermal data

	K/W	s	°C	°C	°C
17_ Thermal resistance housing-ambient	K/W	22.2			
18_ Thermal resistance winding-housing	K/W	8.63			
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

	rpm	mm	N	N	N	N
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

	rpm	mm	N	N	N	N
23_ Max. speed	rpm	8680				
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