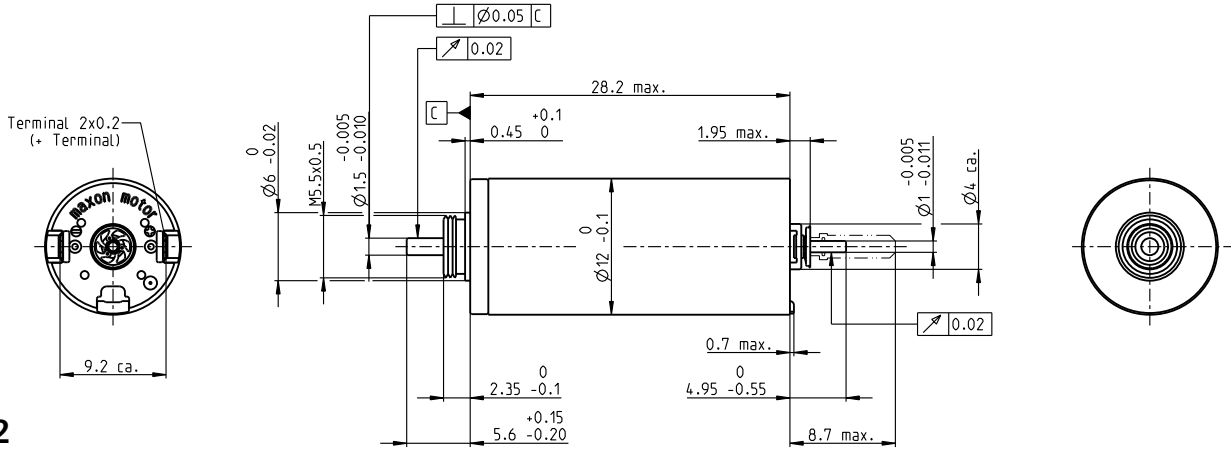


DCX 12 L Ø12 mm, precious metal brushes, DC motor

Key Data: 2.5/4.8 W, 4.2 mNm, 12000 rpm



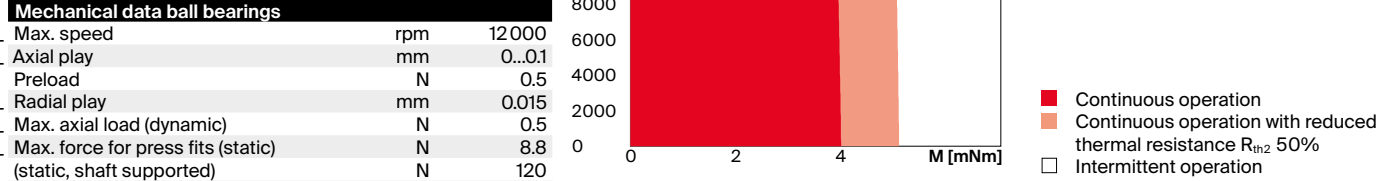
DCX



M 3:2

Motor Data							
1_ Nominal voltage	V	3	4.5	6	9	12	18
2_ No load speed	rpm	8810	8820	8810	8820	8810	8810
3_ No load current	mA	31.3	20.9	15.7	10.4	7.83	5.22
4_ Nominal speed	rpm	6230	5640	5540	5750	5560	5540
5_ Nominal torque	mNm	2.88	4.02	3.88	4.13	3.89	3.87
6_ Nominal current (max. continuous current)	A	0.924	0.851	0.616	0.437	0.309	0.205
7_ Stall torque	mNm	9.9	11.2	10.5	11.9	10.6	10.5
8_ Stall current	A	3.08	2.32	1.63	1.23	0.824	0.543
9_ Max. efficiency	%	81	82	82	83	82	82
10_ Terminal resistance	Ω	0.975	1.94	3.68	7.29	14.6	33.1
11_ Terminal inductance	mH	0.031	0.071	0.125	0.282	0.502	1.13
12_ Torque constant	mNm/A	3.22	4.83	6.44	9.66	12.9	19.3
13_ Speed constant	rpm/V	2970	1980	1480	989	741	494
14_ Speed/torque gradient	rpm/mNm	898	793	846	746	839	848
15_ Mechanical time constant	ms	4.55	4.43	4.4	4.37	4.38	4.39
16_ Rotor inertia	gcm ²	0.484	0.533	0.496	0.559	0.498	0.495

Thermal data		Operating Range	
17_ Thermal resistance housing-ambient	K/W	31	n [rpm] Winding 4.5 V
18_ Thermal resistance winding-housing	K/W	10.3	
19_ Thermal time constant winding	s	10.1	14000
20_ Thermal time constant motor	s	194	12000
21_ Ambient temperature ball bearings	°C	-40...+85	10000
21_ Ambient temperature sleeve bearings	°C	-30...+85	8000
22_ Max. winding temperature	°C	100	6000



Mechanical data ball bearings			Modular System			Details on catalog page 36		
23_ Max. speed	rpm	12000	Gear	Stages [opt.]	Sensor	Motor Control		
24_ Axial play	mm	0...0.1				360_GPX 12 A/C	1-4	473_ENX 10 EASY
Preload	N	0.5	361_GPX 12 LN/LZ	1-4	473_ENX 10 QUAD	532_ESCON 36/2 DC		
25_ Radial play	mm	0.015	362_GPX 12 HP	2-4	474_ENX 10 EASY XT	542_EPOS4 Module 24/1.5		
26_ Max. axial load (dynamic)	N	0.5	364_GPX 14 A/C	3-4		544_EPOS4 Compact 24/1.5		
27_ Max. force for press fits (static)	N	8.8	365_GPX 14 LN/LZ	3-4				
(static, shaft supported)	N	120	366_GPX 14 HP	4				
28_ Max. radial load [mm from flange]	N	1.5 [5]						

Other specifications		
29_ Number of pole pairs		1
30_ Number of commutator segments		7
31_ Weight of motor	g	16
32_ Typical noise level	dBA	44

Configuration
 Bearing: Sleeve bearings/ball bearings preloaded
 Commutation: Precious metal brushes with CLL
 Flange front/back: Standard flange/Flange with thread holes/no flange
 Shaft front/back: Length
 Electric connection: Terminals or cable/cable length/connector type