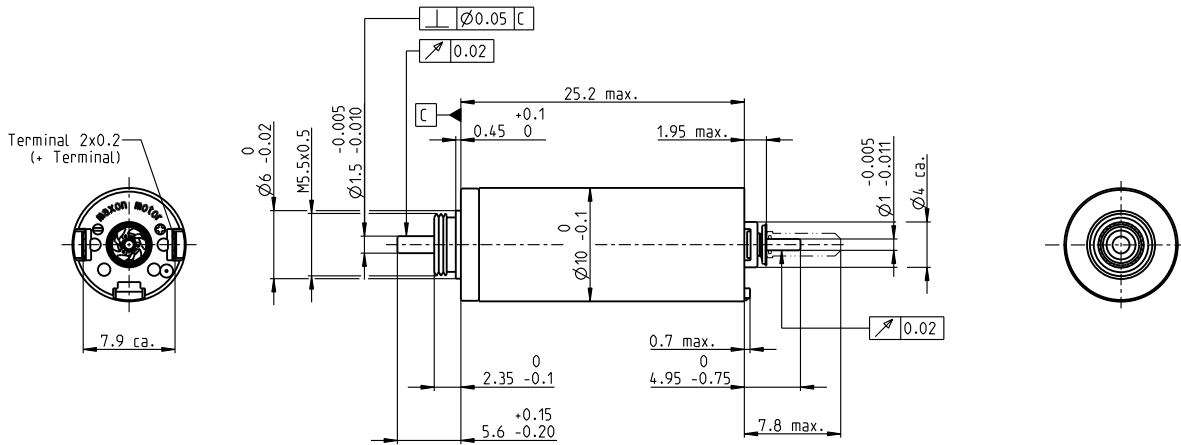


DCX 10 L Ø10 mm, precious metal brushes, DC motor

Key data: 1.5/3 W, 2.2 mNm, 14300 rpm



M 3:2

Motor data

1_	Nominal voltage	V	1.5	3	4.5	6	9	12
2_	No load speed	rpm	11600	12200	12000	12200	12000	11300
3_	No load current	mA	72.1	38.7	25.2	19.3	12.6	8.71
4_	Nominal speed	rpm	9230	6930	7110	6640	6780	5980
5_	Nominal torque	mNm	1.04	2.05	2.2	1.94	2.06	2.03
6_	Nominal current (max. continuous current)	A	0.924	0.922	0.648	0.436	0.304	0.211
7_	Stall torque	mNm	5.13	4.81	5.45	4.32	4.8	4.36
8_	Stall current	A	4.23	2.09	1.55	0.937	0.682	0.439
9_	Max. efficiency	%	75	75	77	74	75	74
10_	Terminal resistance	Ω	0.355	1.44	2.9	6.4	13.2	27.3
11_	Terminal inductance	mH	0.005	0.020	0.045	0.078	0.181	0.362
12_	Torque constant	mNm/A	1.21	2.31	3.52	4.61	7.04	10.0
13_	Speed constant	rpm/V	7870	4140	2710	2070	1360	960
14_	Speed/torque gradient	rpm/mNm	2300	2590	2240	2880	2550	2640
15_	Mechanical time constant	ms	3.68	3.57	3.54	3.58	3.56	3.59
16_	Rotor inertia	gcm²	0.153	0.132	0.151	0.119	0.134	0.130

Thermal data

17_	Thermal resistance housing-ambient	K/W	36.5	Operating range				
18_	Thermal resistance winding-housing	K/W	10.6	n [rpm] Winding 4.5 V				
19_	Thermal time constant winding	s	3.94					
20_	Thermal time constant motor	s	151					
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	14300					
24_	Axial play	mm	0...0.1					
25_	Radial play	mm	0.015					
26_	Max. axial load (dynamic)	N	0.5					
27_	Max. force for press fits (static)	N	8.8					
27_	(shaft supported)	N	120					
28_	Max. radial load [mm from flange]	N	1.5 [5]					

Mechanical data sleeve bearings

23_	Max. speed	rpm	14300	Gear 373_GPX 10 A	Stages [opt.] 1-5	Sensor 507_ENX 10 EASY 507_ENX 10 QUAD 508_ENX 10 EASY XT	Motor Control	
24_	Axial play	mm	0...0.15				550_ESCON Module 24/2	550_ESCON 36/2 DC
	Preload	N	0					
25_	Radial play	mm	0.015				557_ESCON2 Nano 24/2	564_EPOS4 Module 24/1.5
26_	Max. axial load (dynamic)	N	0.1					566_EPOS4 Compact 24/1.5
27_	Max. force for press fits (static)	N	30					
	(shaft supported)	N	120					
28_	Max. radial load [mm from flange]	N	0.8 [5]					

Other specifications

29_	Number of pole pairs		1
30_	Number of commutator segments		7
31_	Weight of motor	g	11
32_	Typical noise level	dBA	37

Configuration

Bearing: Sleeve bearings/ball bearings preloaded
 Commutation: Precious metal brushes with or without 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