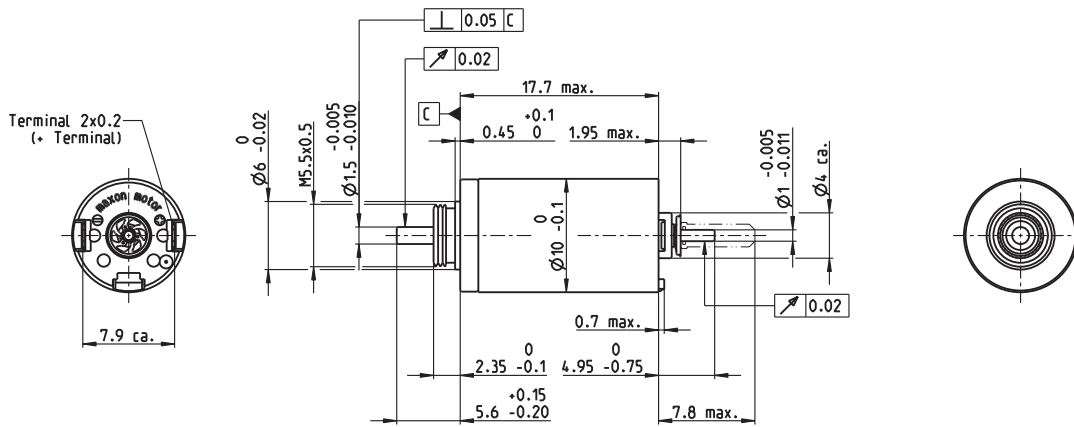


DCX 10 S Precious Metal Brushes

DC motor Ø10 mm



1/1.4 W 0.9 mNm 14300 rpm



M 3:2

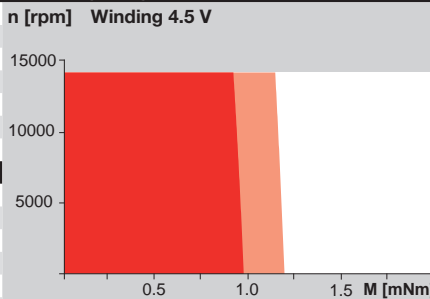
Motor Data

1_	Nominal voltage	V	1.5	3	4.5	6	9	12
2_	No load speed	rpm	12800	13100	12700	12700	12700	12700
3_	No load current	mA	84.9	44.2	28.3	21.2	14.1	10.6
4_	Nominal speed	rpm	4580	4750	4320	4150	3970	3930
5_	Nominal torque (max. continuous torque)	mNm	0.911	0.94	0.936	0.919	0.902	0.898
6_	Nominal current (max. continuous current)	A	0.924	0.49	0.316	0.233	0.152	0.114
7_	Stall torque	mNm	1.47	1.52	1.47	1.41	1.36	1.35
8_	Stall current	A	1.39	0.742	0.463	0.335	0.215	0.16
9_	Max. efficiency	%	58	58	58	57	56	56
10_	Terminal resistance	Ω	1.08	4.04	9.72	17.9	41.8	74.9
11_	Terminal inductance	mH	0.019	0.073	0.173	0.307	0.692	1.23
12_	Torque constant	mNm/A	1.05	2.05	3.16	4.22	6.33	8.44
13_	Speed constant	rpm/V	9050	4660	3020	2260	1510	1130
14_	Speed/torque gradient	rpm/mNm	9230	9170	9260	9610	9960	10000
15_	Mechanical time constant	ms	7.41	7.35	7.37	7.38	7.43	7.43
16_	Rotor inertia	gcm ²	0.077	0.077	0.076	0.073	0.071	0.071

Thermal data

17_	Thermal resistance housing-ambient	K/W	37.6
18_	Thermal resistance winding-housing	K/W	22.0
19_	Thermal time constant winding	s	4.69
20_	Thermal time constant motor	s	156
21_	Ambient temperature ball bearings	°C	-40...+85
21_	Ambient temperature sleeve bearings	°C	-30...+85
22_	Max. winding temperature	°C	100

Operating Range



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

Mechanical data ball bearings

23_	Max. speed	rpm	14300
24_	Axial play	mm	0...0.1
	Preload	N	0.5
25_	Radial play	mm	0.015
26_	Max. axial load (dynamic)	N	0.5
27_	Max. force for press fits (static)	N	8.8
	(static, shaft supported)	N	120
28_	Max. radial load [mm from flange]	N	1.5 [5]

Mechanical data sleeve bearings

23_	Max. speed	rpm	14300
24_	Axial play	mm	0...0.15
	Preload	N	0
25_	Radial play	mm	0.015
26_	Max. axial load (dynamic)	N	0.1
27_	Max. force for press fits (static)	N	30
	(static, 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	6.3
32_	Typical noise level	dBA	35

maxon Modular System

maxon gear	Stages	maxon sensor	maxon motor control
115_GPX 10 A	1-5	146_ENX 10 EASY 146_ENX 10 QUAD	416_ESCON Module 24/2 416_ESCON 36/2 DC 424_EPOS2 24/2 (DC/EC) 424_EPOS2 Module 36/2

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