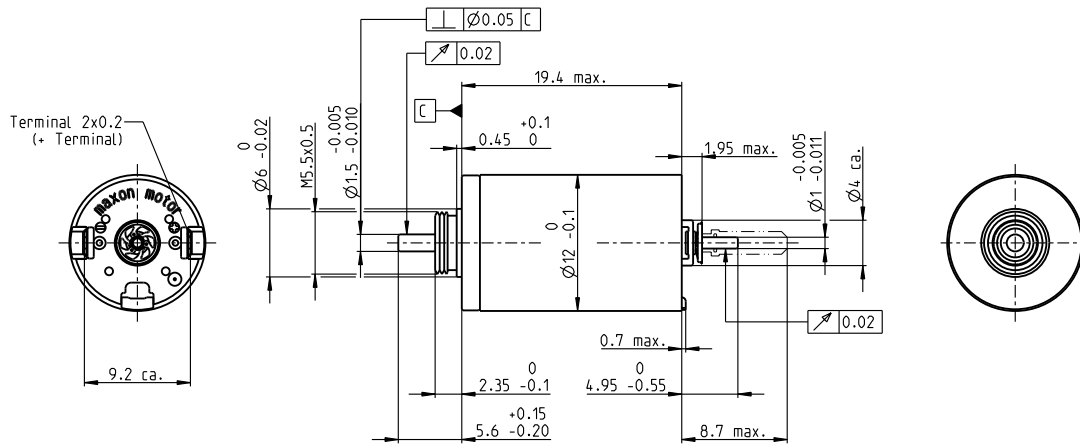


DCX 12 S Ø12 mm, precious metal brushes, DC motor

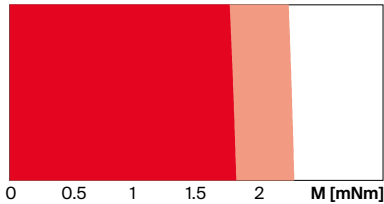
Key data: 1.6/2 W, 2.0 mNm, 13000 rpm



DCX



M 3:2

Motor data								
1_	Nominal voltage	V	3	4.5	6	9	12	
2_	No load speed	rpm	9090	9000	9100	9010	9020	
3_	No load current	mA	31.8	20.9	15.9	10.5	7.88	
4_	Nominal speed	rpm	3760	3620	3870	3700	3620	
5_	Nominal torque	mNm	1.92	1.9	1.95	1.92	1.88	
6_	Nominal current (max. continuous current)	A	0.655	0.427	0.332	0.216	0.159	
7_	Stall torque	mNm	3.35	3.25	3.46	3.33	3.21	
8_	Stall current	A	1.09	0.701	0.566	0.36	0.261	
9_	Max. efficiency	%	69	69	70	69	69	
10_	Terminal resistance	Ω	2.74	6.42	10.6	25	46	
11_	Terminal inductance	mH	0.0724	0.166	0.29	0.664	1.17	
12_	Torque constant	mNm/A	3.06	4.63	6.12	9.26	12.3	
13_	Speed constant	rpm/V	3120	2060	1560	1030	775	
14_	Speed/torque gradient	rpm/mNm	2800	2860	2700	2780	2890	
15_	Mechanical time constant	ms	8.37	8.32	8.31	8.33	8.33	
16_	Rotor inertia	gcm ²	0.286	0.278	0.293	0.286	0.275	
Thermal data			Operating range					
17_	Thermal resistance housing-ambient	K/W	35	n [rpm] Winding 4.5 V				
18_	Thermal resistance winding-housing	K/W	14.4					
19_	Thermal time constant winding	s	718					
20_	Thermal time constant motor	s	146					
21_	Ambient temperature ball bearings	°C	-40...+85					
	Ambient temperature sleeve bearings	°C	-30...+85					
22_	Max. winding temperature	°C	100					
Mechanical data ball bearings								
23_	Max. speed	rpm						13000
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
	(shaft supported)	N						120
28_	Max. radial load [mm from flange]	N	1.5 [5]					
Mechanical data sleeve bearings			Modular system			Details on catalog page 40		
23_	Max. speed	rpm	13000	Gear	Stages [opt.]	Sensor	Motor Control	
24_	Axial play	mm	0...0.15	374_GPX 12 A/C	1-4	507_ENX 10 EASY	550_ESCON Module 24/2	
	Preload	N	0	375_GPX 12 LN/LZ	1-4	507_ENX 10 QUAD	550_ESCON 36/2 DC	
25_	Radial play	mm	0.015	376_GPX 12 HP	2-4	508_ENX 10 EASY XT	557_ESCON2 Nano 24/2	
26_	Max. axial load (dynamic)	N	0.1	378_GPX 14 A/C	3-4		564_EPOS4 Module 24/1.5	
27_	Max. force for press fits (static)	N	30	379_GPX 14 LN/LZ	3-4		566_EPOS4 Compact 24/1.5	
	(shaft supported)	N	120	380_GPX 14 HP	4			
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	40	Configuration				