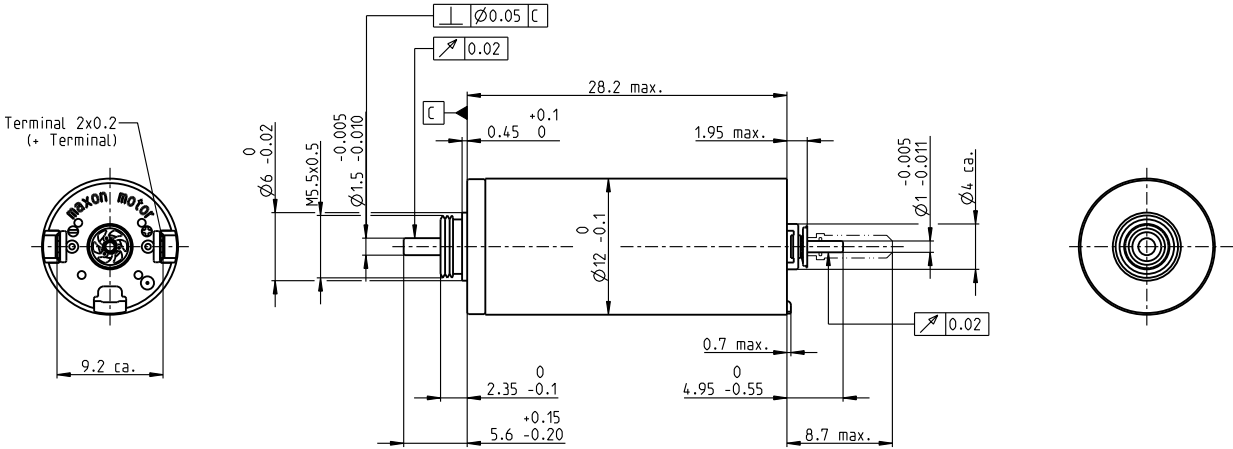


DCX 12 L Ø12 mm, precious metal brushes, DC motor

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



M 3:2

Motor data

		V	3	4.5	6	9	12	18
1. Nominal voltage	V		3	4.5	6	9	12	18
2. No load speed	rpm	8810	8820	8810	8820	8810	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

		K/W	31	10.3	10.1	194	12000	10000	8000	6000	4000	2000	0
17. Thermal resistance housing-ambient	K/W	31											
18. Thermal resistance winding-housing	K/W	10.3											
19. Thermal time constant winding	s	10.1											
20. Thermal time constant motor	s	194											
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	12000	0...0.1	0.5	0.015	0.5	8.8	120	1.5 [5]
23. Max. speed	rpm	12000								
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								
28. Max. radial load [mm from flange]	N	1.5 [5]								

Mechanical data sleeve bearings

23_	Max. speed	rpm	12 000	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

		g	16	44
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