

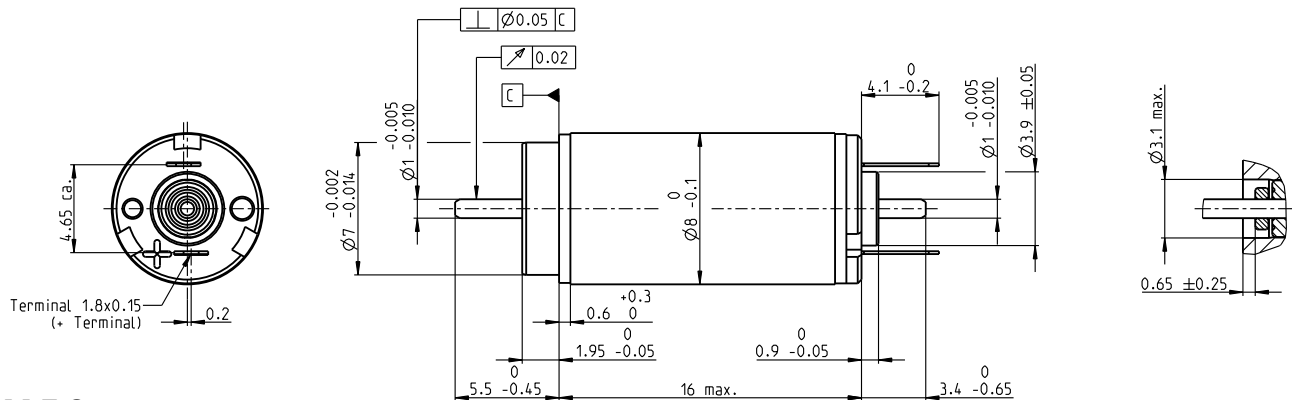
DCX 8 M Precious Metal Brushes

DC motor Ø8 mm



DCX

Key Data: 0.5/1.0 W, 0.65 mNm, 17300 rpm



M 5:2

Motor Data

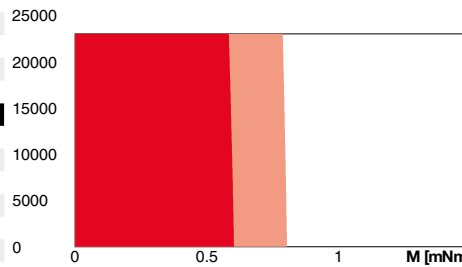
1. Nominal voltage	V	2.4	4.2	6	7.2	9	12
2. No load speed	rpm	11500	11700	11000	11900	11900	12900
3. No load current	mA	11.9	6.93	4.51	4.12	3.3	2.74
4. Nominal speed	rpm	4780	4950	4190	4820	5190	5800
5. Nominal torque (max. continuous torque)	mNm	0.653	0.649	0.641	0.62	0.652	0.614
6. Nominal current (max. continuous current)	A	0.345	0.199	0.13	0.113	0.0949	0.0728
7. Stall torque	mNm	1.13	1.14	1.05	1.06	1.17	1.13
8. Stall current	A	0.581	0.34	0.207	0.187	0.166	0.13
9. Max. efficiency	%	74	74	73	73	74	74
10. Terminal resistance	Ω	4.13	12	29	38.5	54.3	92.2
11. Terminal inductance	mH	0.014	0.0411	0.0941	0.117	0.183	0.276
12. Torque constant	mNm/A	1.95	3.360	5.08	5.67	7.07	8.71
13. Speed constant	rpm/V	4900	2850	1880	1680	1350	1100
14. Speed/torque gradient	rpm/mNm	10400	10500	10700	11400	10400	11600
15. Mechanical time constant	ms	4.17	4.15	4.18	4.24	4.15	4.28
16. Rotor inertia	gcm ²	0.038	0.0379	0.0372	0.035	0.038	0.035

Thermal data

17. Thermal resistance housing-ambient	K/W	101
18. Thermal resistance winding-housing	K/W	16.9
19. Thermal time constant winding	s	2.31
20. Thermal time constant motor	s	162
21. Ambient temperature ball bearings	°C	-30...+85
21. Ambient temperature sleeve bearings	°C	-30...+85
22. Max. winding temperature	°C	100

Mechanical data ball bearings

23. Max. speed	rpm	17300
24. Axial play	mm	0...0.1
Preload	N	0.5
25. Radial play	mm	0.012
26. Max. axial load (dynamic)	N	0.1
27. Max. force for press fits (static)	N	8.8
(static, shaft supported)	N	100
28. Max. radial load [mm from flange]	N	0.6 [5]



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

Mechanical data sleeve bearings

23. Max. speed	rpm	17300
24. Axial play	mm	0.02...0.1
Preload	N	0
25. Radial play	mm	0.012
26. Max. axial load (dynamic)	N	0.1
27. Max. force for press fits (static)	N	10
(static, shaft supported)	N	100
28. Max. radial load [mm from flange]	N	0.4 [5]

Other specifications

29. Number of pole pairs		1
30. Number of commutator segments		5
31. Weight of motor	g	4.4
32. Typical noise level	dBA	-

Configuration

Bearing: Sleeve bearings/ball bearings preloaded
 Commutation: Precious metal brushes with or without CLL
 Flange front/back: Standard flange
 Shaft front/back: Length
 Electric connection: Terminals or cables (encoder always with Flex)

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