

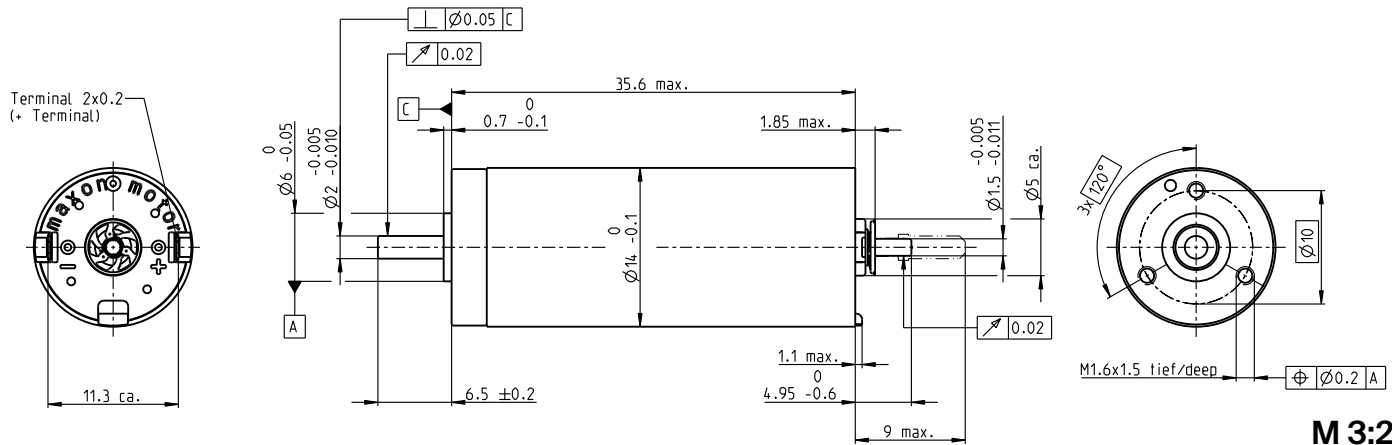
DCX 14 L Graphite Brushes

DC motor Ø14 mm



Key Data: 6/10 W, 6.9 mNm, 17000 rpm

DCX



M 3:2

Motor Data

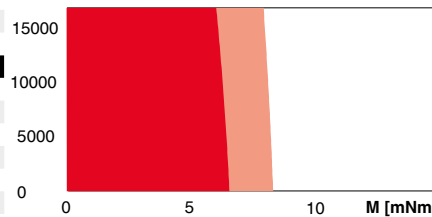
		V	4.5	6	9	12	18	24
1. Nominal voltage	V		4.5	6	9	12	18	24
2. No load speed	rpm		11600	10400	11700	10300	11600	10300
3. No load current	mA		73.9	46.4	37	23.2	18.5	11.6
4. Nominal speed	rpm		8460	7430	8750	7370	8760	7300
5. Nominal torque (max. continuous torque)	mNm		6.36	6.96	6.88	6.91	6.94	6.66
6. Nominal current (max. continuous current)	A		1.81	1.31	0.974	0.651	0.492	0.314
7. Stall torque	mNm		23.5	24.8	27.8	24.7	28.5	22.9
8. Stall current	A		6.45	4.53	3.8	2.26	1.95	1.05
9. Max. efficiency	%		79.5	80.8	81.4	80.1	81.3	80.1
10. Terminal resistance	Ω		0.698	1.33	2.37	5.31	9.21	22.9
11. Terminal inductance	mH		0.0252	0.0567	0.101	0.227	0.403	0.908
12. Torque constant	mNm/A		3.65	5.47	7.3	10.9	14.6	21.9
13. Speed constant	rpm/V		2620	1740	1310	872	654	436
14. Speed/torque gradient	rpm/mNm		500	422	424	423	413	456
15. Mechanical time constant	ms		4.35	4.17	4.11	4.28	4.19	4.17
16. Rotor inertia	gcm ²		0.831	0.942	0.926	0.966	0.97	0.872

Thermal data

		K/W	22.2	8.63	10.3	226	20000	15000	10000	5000	0
17. Thermal resistance housing-ambient	K/W		22.2	8.63	10.3	226	20000	15000	10000	5000	0
18. Thermal resistance winding-housing	K/W		8.63	10.3	226	20000	15000	10000	5000	0	
19. Thermal time constant winding	s		10.3	226	20000	15000	10000	5000	0		
20. Thermal time constant motor	s		226	20000	15000	10000	5000	0			
21. Ambient temperature ball bearings	°C		-40...+100	-30...+100	125						
21. Ambient temperature sleeve bearings	°C		-40...+100	-30...+100	125						
22. Max. winding temperature	°C		125								

Mechanical data ball bearings

		rpm	17000	0...0.1	0.8	0.015	0.8	18	300	10 [5]
23. Max. speed	rpm		17000	0...0.1	0.8	0.015	0.8	18	300	10 [5]
24. Axial play	mm		0...0.1	0.8	0.015	0.8	18	300	10 [5]	
25. Radial play	mm		0.015	0.8	18	300	10 [5]			
26. Max. axial load (dynamic)	N		0.8	18	300	10 [5]				
27. Max. force for press fits (static)	N		18	300	10 [5]					
27. (static, shaft supported)	N		300	10 [5]						
28. Max. radial load [mm from flange]	N		10 [5]							



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

Mechanical data sleeve bearings

		rpm	15000	0...0.2	0.1	0.015	0.1	60	300	2 [5]
23. Max. speed	rpm		15000	0...0.2	0.1	0.015	0.1	60	300	2 [5]
24. Axial play	mm		0...0.2	0.1	0.015	0.1	60	300	2 [5]	
25. Radial play	mm		0.015	0.1	60	300	2 [5]			
26. Max. axial load (dynamic)	N		0.1	60	300	2 [5]				
27. Max. force for press fits (static)	N		60	300	2 [5]					
27. (static, shaft supported)	N		300	2 [5]						
28. Max. radial load [mm from flange]	N		2 [5]							

Other specifications

29. Number of pole pairs		1
30. Number of commutator segments		7
31. Weight of motor	g	26
32. Typical noise level	dBA	40

maxon Modular System

		Stages [opt.]		
maxon gear			maxon sensor	maxon motor control
328_GPX 14 A/C	1-2 [3-4]		433_ENX 10 EASY	486_ESCON Module 24/2
329_GPX 14 LN/LZ	1-2 [3-4]		433_ENX 10 QUAD	486_ESCON 36/2 DC
330_GPX 14 HP	2-3 [4]		434_ENX 10 EASY XT	498_EPOS4 Mod./Comp. 24/1.5
331_GPX 16 A/C	3-4			
332_GPX 16 LN/LZ	3-4			
333_GPX 16 HP	4			

Configuration

Bearing: Ball bearings preloaded/sleeve bearings
 Commutation: Precious metal brushes with CLL/graphite brushes
 Flange front/back: Standard flange/configurable flange/no flange
 Shaft front/back: Length/diameter/flat face
 Electric connection: Terminals or cable/alignment of connection/cable length/connector type