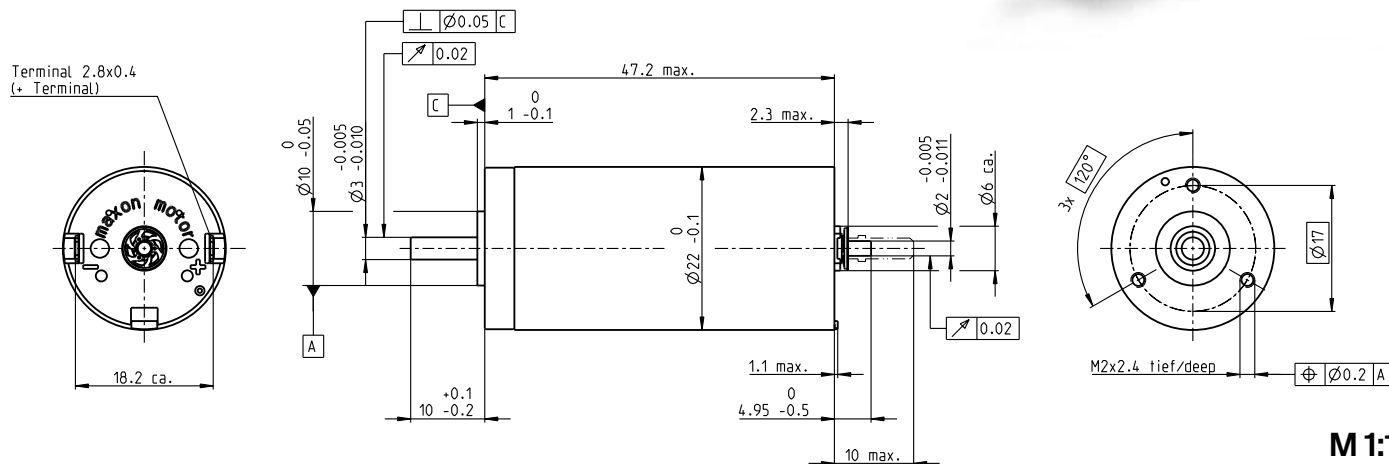


DCX 22 L Ø22 mm, precious metal brushes, DC motor

Key data: 11/20 W, 29.8 mNm, 7160 rpm



DCX



M 1:1

Motor data								
1. Nominal voltage	V	6	9	12	18	24	36	48
2. No load speed	rpm	5870	5870	4980	5740	5060	6020	5220
3. No load current	mA	51.0	34	20.0	16.4	10.2	8.82	5.36
4. Nominal speed	rpm	5380	5210	4000	4780	4070	5040	4180
5. Nominal torque	mNm	14.1	21.4	29.5	29.8	29.2	29.2	27.8
6. Nominal current (max. continuous current)	A	1.50	1.50	1.30	1.01	0.655	0.520	0.322
7. Stall torque	mNm	170	191	150	178	150	180	140
8. Stall current	A	17.5	13.1	6.54	5.97	3.31	3.16	1.60
9. Max. efficiency	%	89	90	89	90	89	90	89
10. Terminal resistance	Ω	0.343	0.687	1.84	3.01	7.25	11.4	29.9
11. Terminal inductance	mH	0.035	0.078	0.192	0.326	0.746	1.19	2.80
12. Torque constant	mNm/A	9.73	14.6	22.9	29.9	45.2	57.0	87.6
13. Speed constant	rpm/V	981	654	416	320	211	168	109
14. Speed/torque gradient	rpm/mNm	34.6	30.8	33.3	32.2	33.9	33.5	37.3
15. Mechanical time constant	ms	3.28	3.17	3.14	3.13	3.14	3.14	3.17
16. Rotor inertia	gcm ²	9.06	9.82	9.00	9.26	8.85	8.94	8.12

Thermal data			Operating range	
17. Thermal resistance housing-ambient	K/W	13.6	n [rpm]	Winding 18 V
18. Thermal resistance winding-housing	K/W	4.57		
19. Thermal time constant winding	s	22	20000	15000
20. Thermal time constant motor	s	646		
21. Ambient temperature ball bearings	°C	-40...+85	15000	10000
22. Ambient temperature sleeve bearings	°C	-30...+85		
22. Max. winding temperature	°C	100	10000	5000

Mechanical data ball bearings			M [mNm]	
23. Max. speed	rpm	7160		
24. Axial play	mm	0...0.1	0 10 30 50	
25. Radial play	mm	0.02		
26. Max. axial load (dynamic)	N	2.5	0 10 30 50	
27. Max. force for press fits (static)	N	30		
28. Max. radial load [mm from flange]	N	16 [5]	0 10 30 50	

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

Mechanical data sleeve bearings			Modular system		Details on catalog page 40	
23. Max. speed	rpm	7160	Gear	Stages [opt.]	Sensor	Motor Control
24. Axial play	mm	0...0.2				
25. Radial play	mm	0.02	390_GPX 22 A/C	1-2 [3-4]	507_ENX 10 EASY/QUAD	550_ESCON Module 24/2
26. Max. axial load (dynamic)	N	0.1	391_GPX 22 LN/LZ	1-2 [3-4]	508_ENX 10 EASY XT	550_ESCON 36/2 DC
27. Max. force for press fits (static)	N	80	392_GPX 22 HP	2-3 [4]	509_ENX 16 EASY	551_ESCON Module 50/5
28. Max. radial load [mm from flange]	N	3 [5]	394_GPX 22 UP	1-4	510_ENX 16 EASY XT	553_ESCON 50/5
			396_GPX 26 A/C	3	511_ENX 16 EASY Abs.	557_ESCON2 Nano 24/2
			397_GPX 26 LN/LZ	3	512_ENX 16 EASY Abs. XT	557_ESCON2 Micro 60/5
			398_GPX 26 HP	4	518_ENX 22 EMT	563_EPOS4 Micro 24/5
					519_ENX 16 RIO	564_EPOS4 Module 24/1.5
					535_ENC 30 HEDS 5540	564_EPOS4 Module 50/5
					538_ENC 30 HEDL 5540	565_EPOS4 Compact 24/5 3-axes

Other specifications			Configuration	
29_ Number of pole pairs		1	535_ENC 30 HEDS 5540	564_EPOS4 Module 24/1.5
30_ Number of commutator segments		9	538_ENC 30 HEDL 5540	565_EPOS4 Compact 24/5 3-axe
31_ Weight of motor	g	95		566_EPOS4 Compact 24/1.5
32_ Typical noise level	dBA	52		567_EPOS4 Compact 50/5

Shaft front/back: Length/diameter/flat face
Electric connection: Terminals or cable/
alignment of connection/cable length/connector type