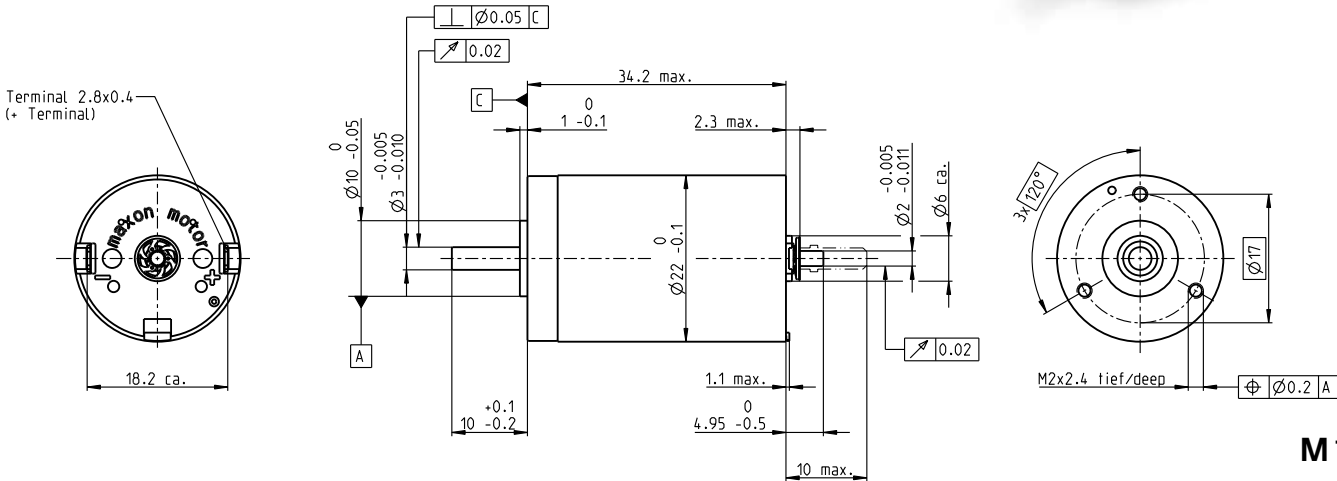


DCX 22 S Ø22 mm, graphite brushes, DC motor

Key data: 14/24 W, 15.3 mNm, 18 000 rpm



M 1:1

Motor data

1.	Nominal voltage	V	6	12	18	24	36	48
2.	No load speed	rpm	11400	12400	12400	12400	12200	12700
3.	No load current	mA	126	71.7	47.8	35.9	23.4	18.5
4.	Nominal speed	rpm	9700	10700	10800	10800	10500	10900
5.	Nominal torque	mNm	14.4	14.6	14.9	15.3	14.8	14.0
6.	Nominal current (max. continuous current)	A	3.00	1.65	1.12	0.869	0.552	0.406
7.	Stall torque	mNm	101	108	112	120	113	104
8.	Stall current	A	20.2	11.8	8.15	6.51	4.03	2.90
9.	Max. efficiency	%	85	85	85	86	85	84
10.	Terminal resistance	Ω	0.297	1.02	2.21	3.69	8.94	16.6
11.	Terminal inductance	mH	0.017	0.058	0.130	0.231	0.535	0.881
12.	Torque constant	mNm/A	5.01	9.18	13.8	18.4	28.0	35.9
13.	Speed constant	rpm/V	1910	1040	693	520	342	266
14.	Speed/torque gradient	rpm/mNm	113	116	111	104	109	123
15.	Mechanical time constant	ms	6.23	6.12	6.08	6.07	6.22	6.01
16.	Rotor inertia	gcm ²	5.27	5.05	5.22	5.55	5.44	4.67

Thermal data

17.	Thermal resistance housing-ambient	K/W	16	Operating range				
18.	Thermal resistance winding-housing	K/W	7	n [rpm] Winding 18 V				
19.	Thermal time constant winding	s	20					
20.	Thermal time constant motor	s	528					
21.	Ambient temperature ball bearings	°C	-40...+100					
22.	Max. winding temperature	°C	125					

Mechanical data ball bearings

23.	Max. speed	rpm	18 000	■ Continuous operation ■ Continuous operation with reduced thermal resistance R_{th2} 50% □ Intermittent operation
24.	Axial play	mm	0...0.1	
	Preload	N	2.5	
25.	Radial play	mm	0.02	
26.	Max. axial load (dynamic)	N	2.5	
27.	Max. force for press fits (static)	N	30	
	(shaft supported)	N	440	
28.	Max. radial load [mm from flange]	N	16 [5]	

Mechanical data sleeve bearings

23.	Max. speed	rpm	18 000	Gear 390_GPX 22 A/C 391_GPX 22 LN/LZ 392_GPX 22 HP 394_GPX 22 UP 396_GPX 26 A/C 397_GPX 26 LN/LZ 398_GPX 26 HP	Stages [opt.] 1-2 [3-4] 1-2 [3-4] 2-3 [4] 1-4 3 3 4	Sensor 507_ENX 10 EASY/QUAD 508_ENX 10 EASY XT 509_ENX 16 EASY 510_ENX 16 EASY XT 511_ENX 16 EASY Abs. 512_ENX 16 EASY Abs. XT 518_ENX 22 EMT	Motor Control 550_ESCON Module 24/2 550_ESCON 36/2 DC 551_ESCON Module 50/5 553_ESCON 50/5 557_ESCON2 Nano 24/2 557_ESCON2 Micro 60/5 563_EPOS4 Micro 24/5
24.	Axial play	mm	0...0.2				
	Preload	N	0				
25.	Radial play	mm	0.02				
26.	Max. axial load (dynamic)	N	0.1				
27.	Max. force for press fits (static)	N	80				
	(shaft supported)	N	440				
28.	Max. radial load [mm from flange]	N	3 [5]				

Other specifications

29.	Number of pole pairs		1	Configuration Bearing: Ball bearings preloaded/sleeve bearings Commutation: Precious metal brushes with or without CLL/ graphite brushes/EMI filter 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				
30.	Number of commutator segments		9					
31.	Weight of motor	g	66					
32.	Typical noise level	dBA	41					