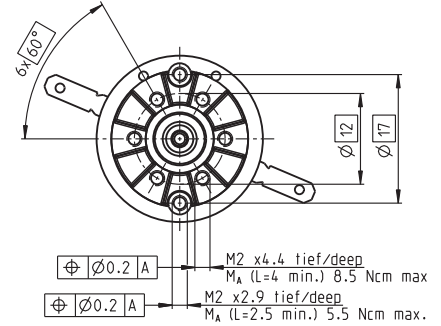
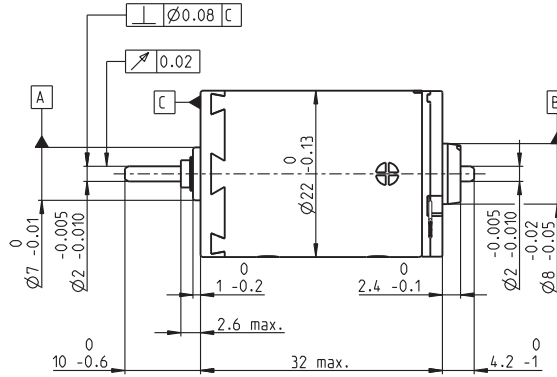
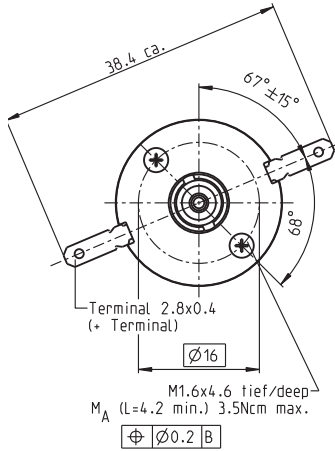


DC-max 22 S Precious Metal Brushes

DC motor Ø22 mm



5/9.6 W 10.4 mNm 9000 rpm



M 1:1

Motor Data

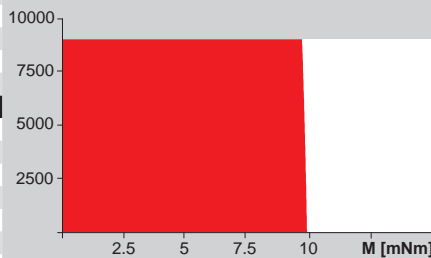
1_	Nominal voltage	V	6	12	24
2_	No load speed	rpm	5500	5900	5100
3_	No load current	mA	13.6	7.49	3.07
4_	Nominal speed	rpm	4280	4240	3440
5_	Nominal torque (max. continuous torque)	mNm	8.60	10.4	10.4
6_	Nominal current (max. continuous current)	A	0.840	0.543	0.236
7_	Stall torque	mNm	39.0	36.9	32.3
8_	Stall current	A	3.75	1.91	0.721
9_	Max. efficiency	%	88	88	88
10_	Terminal resistance	Ω	1.60	6.28	33.3
11_	Terminal inductance	mH	0.119	0.413	2.21
12_	Torque constant	mNm/A	10.4	19.3	44.8
13_	Speed constant	rpm/V	919	494	213
14_	Speed/torque gradient	rpm/mNm	141	160	159
15_	Mechanical time constant	ms	8.44	8.36	8.39
16_	Rotor inertia	gcm ²	5.70	4.98	5.05

Thermal data

17_	Thermal resistance housing-ambient	K/W	20
18_	Thermal resistance winding-housing	K/W	6
19_	Thermal time constant winding	s	16.8
20_	Thermal time constant motor	s	538
21_	Ambient temperature	°C	-30...65
22_	Max. winding temperature	°C	85

Operating Range

n [rpm] Winding 12 V



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

Mechanical data ball bearings

23_	Max. speed	rpm	9000
24_	Axial play	mm	0.05...0.15
	Preload	N	0
25_	Radial play	mm	0.025
26_	Max. axial load (dynamic)	N	3.3
27_	Max. force for press fits (static) (static, shaft supported)	N	45
28_	Max. radial load [mm from flange]	N	420
		N	12.3 [5]

Mechanical data sleeve bearings

23_	Max. speed	rpm	9000
24_	Axial play	mm	0.15...0.05
	Preload	N	0
25_	Radial play	mm	0.012
26_	Max. axial load (dynamic)	N	1
27_	Max. force for press fits (static) (static, shaft supported)	N	80
28_	Max. radial load [mm from flange]	N	420
		N	2.8 [5]

maxon Modular System

maxon gear	Stages	maxon sensor	maxon motor control
130_GPX 22 A/C	1-2	146_ENX 10 QUAD	416_ESCON Module 24/2
131_GPX 22 LN/LZ	1-2	146_ENX 10 EASY	416_ESCON 36/2 DC
134_GPX 26 A/C	3		424_EPOS2 24/2 (DC/EC)
135_GPX 26 LN/LZ	3		424_EPOS2 Module 36/2
			435_MAXPOS 50/5

Other specifications

29_	Number of pole pairs		1
30_	Number of commutator segments		9
31_	Weight of motor	g	53.8

Configuration

Bearing: Sleeve bearings/ball bearings
 Commutation: Precious metal brushes with CLL/Graphite Brushes
 Shaft front/back: Length
 Electric connection: Terminals/cable