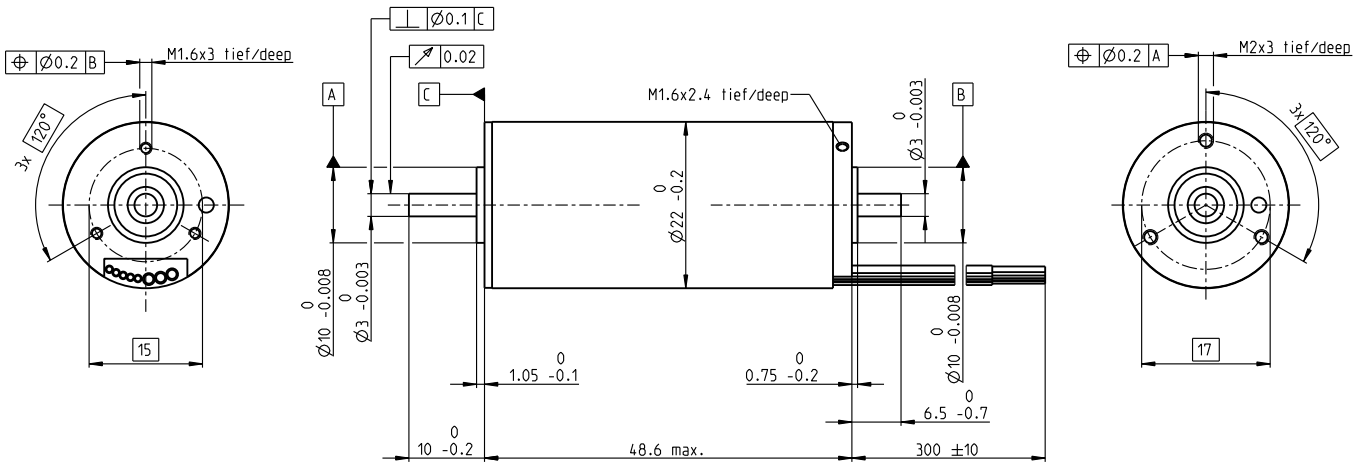


EC-4pole 22 Ø22 mm, brushless, 90 watt

High Power

EC-4pole



M 1:1

- Stock program
- Standard program
- Special program (on request)

Part Numbers					
323217	323218	323219	323220	327739	

Motor Data						
Values at nominal voltage						
1 Nominal voltage	V	18	24	36	48	48
2 No load speed	rpm	16300	16300	16300	16300	6900
3 No load current	mA	218	164	109	81.8	20.7
4 Nominal speed	rpm	14900	15000	14900	14900	5550
5 Nominal torque (max. continuous torque)	mNm	43.7	45.1	43.7	42.6	43.9
6 Nominal current (max. continuous current)	A	4.32	3.34	2.16	1.58	0.679
7 Stall torque	mNm	588	639	612	586	234
8 Stall current	A	55.8	45.5	29.1	20.9	3.55
9 Max. efficiency	%	88	89	88	88	85
Characteristics						
10 Terminal resistance phase to phase	Ω	0.323	0.527	1.24	2.3	13.5
11 Terminal inductance phase to phase	mH	0.0283	0.0503	0.113	0.201	1.11
12 Torque constant	mNm/A	10.5	14	21.1	28.1	66
13 Speed constant	rpm/V	907	680	453	340	145
14 Speed/torque gradient	rpm/mNm	27.8	25.5	26.7	27.9	29.7
15 Mechanical time constant	ms	1.61	1.48	1.55	1.62	1.72
16 Rotor inertia	gcm ²	5.54	5.54	5.54	5.54	5.54

Specifications	Operating Range	Comments
Thermal data 17 Thermal resistance housing-ambient 12.2 K/W 18 Thermal resistance winding-housing 1.19 K/W 19 Thermal time constant winding 5.12 s 20 Thermal time constant motor 482 s 21 Ambient temperature -20...+100°C 22 Max. winding temperature +155°C	Mechanical data (preloaded ball bearings) 23 Max. speed 25000 rpm 24 Axial play at axial load < 3.0 N 0 mm > 3.0 N 0.14 mm 25 Radial play preloaded 26 Max. axial load (dynamic) 4 N 27 Max. force for press fits (static) (static, shaft supported) 53 N 1000 N 28 Max. radial load, 5 mm from flange 16 N	

maxon Modular System		Details on catalog page 42	
29 Number of pole pairs	2	Planetary Gearhead	ENX 22 EMT
30 Number of phases	3	Ø22 mm	65 536 turns, Multi Turn, p. 457
31 Weight of motor	125 g	2.0 - 3.4 Nm	Encoder 16 EASY
		Page 387	128 - 1024 CPT, 3 channels, Page 464
		Planetary Gearhead	Encoder 16 EASY XT
		Ø32 mm	128 - 1024 CPT, 3 channels, Page 466
		1.0 - 6.0 Nm	Encoder 16 EASY Absolute
		Page 398	4096 steps, Single Turn, Page 468
		Screw Drive	Encoder 16 EASY Absolute XT
		Ø32 mm	4096 steps, Single Turn, Page 470
		Page 426-434	Encoder 16 RIO
			1024 - 32 768 CPT, 3 channels, Page 481
			Encoder AEDL 5810
			1024 - 5000 CPT, 3 channels, Page 484
			Encoder HEDL 5540
			500 CPT, 3 channels, Page 491