



M3x5 tief/deep Ф Ø0.2 A

M 1:2

Stock program Standard program

Special program (on request)

		448588	448589	448590	448591	448592
Motor Data (provisional)						
Values at nominal voltage		•				
1 Nominal voltage	V	9	18	24	42	48
2 No load speed	rpm	2850	2850	2780	2920	2690
3 No load current	mA	49.7	24.8	18.1	11	8.62
4 Nominal speed	rpm	2560	2580	2470	2640	2400
5 Nominal torque	mNm	87.8	87.8	88.2	87.6	87.6
6 Nominal current (max. continuous of	current) A	2.96	1.48	1.09	0.65	0.524
7 Stall torque	mNm	873	956	794	895	818
8 Stall current	Α	29	15.9	9.66	6.53	4.81
9 Max. efficiency	%	92	92	92	92	92
Characteristics						
10 Terminal resistance	Ω	0.311	1.14	2.49	6.43	9.97
11 Terminal inductance	mH	0.082	0.33	0.613	1.7	2.62
12 Torque constant	mNm/A	30.2	60.3	82.2	137	170
13 Speed constant	rpm/V	317	158	116	69.7	56.2
14 Speed/torque gradient	rpm/mNm	3.27	2.98	3.51	3.27	3.3
15 Mechanical time constant	ms	4.85	4.29	4.36	4.14	4.13
16 Rotor inertia	acm ²	142	137	119	121	120

Part Numbers

Operating Range Thermal data n [rpm] Continuous operation 17 Thermal resistance housing-ambient 18 Thermal resistance winding-housing 4.65 K/W In observation of above listed thermal resistance 1.93 K/W 25 W (lines 17 and 18) the maximum permissible winding 19 Thermal time constant winding 41.5 s20 Thermal time constant motor 21 Ambient temperature temperature will be reached during continuous 809 s -20...+85°C 448588 3000 operation at 25°C ambient. 22 Max. winding temperature +100°C = Thermal limit. 2000 Mechanical data (ball bearings) Short term operation 23 Max. speed 3330 rpm 1000 The motor may be briefly overloaded (recurring). 0.05 - 0.15 mm 0.025 mm 24 Axial play 25 Radial play Assigned power rating 5.6 N 110 N 1200 N 26 Max. axial load (dynamic) 80 M [mNm] 27 Max. force for press fits (static) (static, shaft supported) 40 60 100 10 2.0 3.0 4.0 I[Å] 28 Max. radial load, 5 mm from flange

Other specifications

29 Number of pole pairs 30 Number of commutator segments 31 Weight of motor 13 480 g

Values listed in the table are nominal. Explanation of the figures on page 90.

OptionPreloaded ball bearings

Modular System

511_Encoder MR 256-1024 CPT 518_Encoder HEDS 5540 521_Encoder HEDL 5540

Details on catalog page 44 Motor Control

532_ESCON Module 24/2 532_ESCON 36/2 DC 533_ESCON Module 50/5 535_ESCON 50/5 541_EPOS4 Micro 24/5 542_EPOS4 Module 24/1.5 542_EPOS4 Module 50/5 543_EPOS4 Compact 24/5 3-axes 544_EPOS4 Compact 24/1.5 545_EPOS4 Compact 50/5 547_EPOS4 50/5