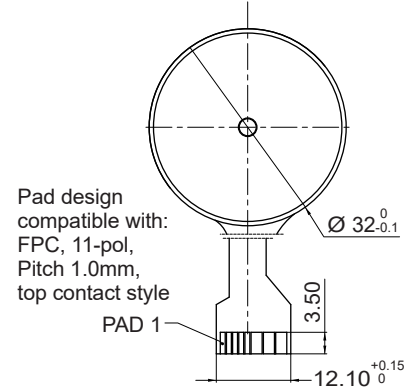
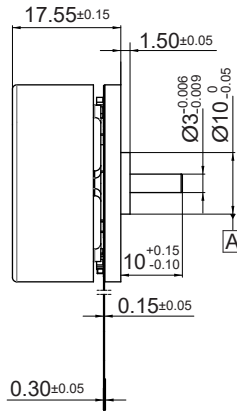
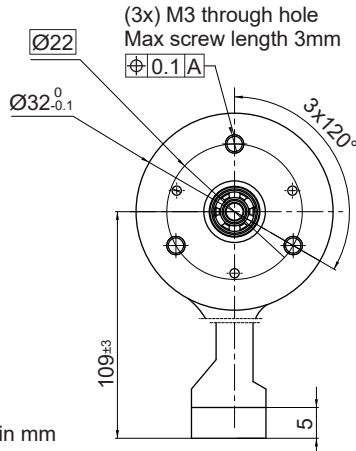


32ECF

Ø 32 mm • 8-pole • 32 W



Dimensions in mm

Electrical Data	Symbol	32ECF17.6 8B xxx		Unit
		49	190	
1 Nominal Voltage	U_N	12	24	Volt
2 Optimization Direction	-	Symmetrical	Symmetrical	-
3 No Load Speed	n_0	5,050	2,610	rpm
4 Typical No Load Current	I_0	85	17	mA
5 Max. Continuous Mechanical Power (@25°C)	P_{max}	32	32	W
6 Max. Continuous Current	$I_{e max}$	1.43	0.37	A
7 Max. Continuous Torque	$M_{e max}$	32.9 (4.66)	32.9 (4.66)	mNm (oz-in)
8 Back EMF Constant	k_E	2.52	9.68	V/1000 rpm
9 Torque Constant	k_M	22.95	88.19	mNm/A
10 Motor Regulation	R/k^2	3.0	3.1	$10^3/Nms$
11 Motor Regulation	$k/R^{1/2}$	18.3 (2.59)	18.0 (2.55)	mNm/W ^{1/2} (oz-in/W ^{1/2})
12 Internal Resistance - phase to phase	R_I	1.58	24.00	ohms
13 Line to Line Resistance at Connectors	R_L	1.64	24.06	ohms
14 Inductance Phase to Phase	L	0.79	12.27	mH
15 Mechanical Time Constant	τ_m	11.2	11.5	ms
16 Electrical Time Constant	τ_e	0.50	0.51	ms

General Data			
17 Maximum Motor Speed	n_{max}	10,000	rpm
18 Ambient Working Temperature Range	-	-30 to +85 (-22 to +185)	°C (°F)
19 Ambient Storage Temperature Range	-	-40 to +85 (-30 to +185)	°C (°F)
20 Ball Bearings Preload	-	6	N
21 Axial Static Force w/o Shaft Support (max)	-	34	N
22 Maximum Winding Temperature	-	125 (257)	°C (°F)
23 Thermal Resistance	R_{th}	11	°C/W
24 Thermal Time Constant	τ_w	110	s
25 Weight	-	52 (1.83)	g (oz)
26 Rotor Inertia	J	37.2	g-cm ²
27 Hall Sensor Electrical Phasing*	-	120	Electrical °

*Also available without Hall sensors

Pad Allocation	
Pad 1	2.5 to 5.5V DC
Pad 2	Hall sensor 3
Pad 3	Hall sensor 1
Pad 4	Hall sensor 2
Pad 5	GND
Pad 6	Phase 3
Pad 7	Phase 2
Pad 8	Phase 1

