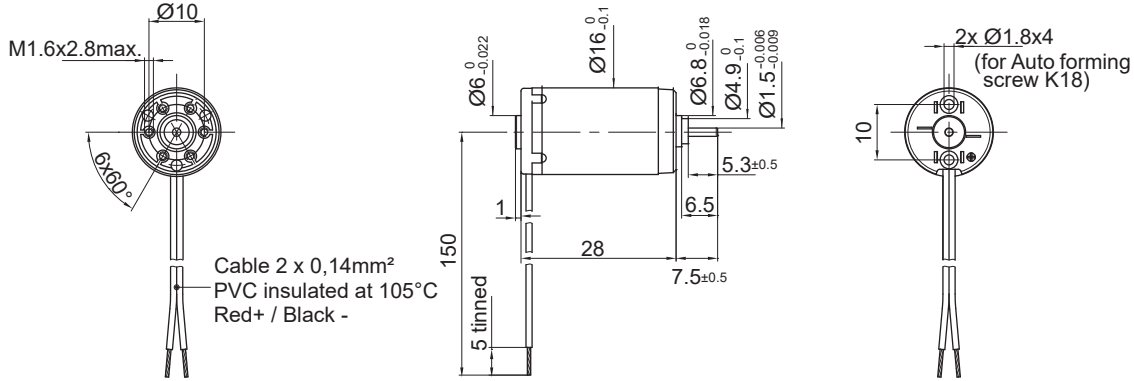


**16G88**

Ø 16 mm • Precious metal commutation • 5.8 mNm



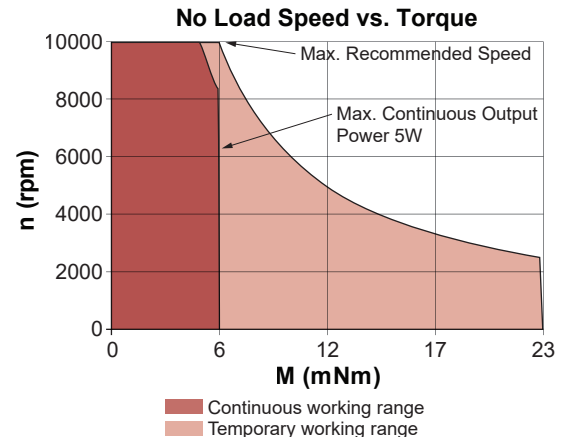
Dimensions in inches [mm]

Electrical Data	Symbol	16G88 .... 1						Unit
		220P	214E	213E	211E	210E	205E	
1 Nominal Voltage	V	3	8	9	12	15	32	Volt
2 No-Load Speed	$n_0$	11,025	9,250	7,980	8,690	9,000	8,150	rpm
3 No-Load Current	$I_0$	45.0	10.0	8.0	6.5	5.5	2.0	mA
4 Terminal Resistance	R	0.5	5.4	7.6	13.0	19.5	135.0	Ω
5 Output Power	$P_{2max}$	4.1	4.2	4.6	4.2	4.2	2.5	W
6 Stall Torque	mNm	16 (2.27)	12.1 (1.72)	12.7 (1.8)	12.1 (1.72)	12.2 (1.73)	8.8 (1.25)	mNm (oz-in)
7 Efficiency	$\eta_{max}$	83	84	84	84	84	82	%
8 Max Continuous Speed	$n_{e,max}$	10,000	10,000	10,000	10,000	10,000	10,000	rpm
9 Max Continuous Torque	$M_{e,max}$	5.5 (0.76)	5.3 (0.76)	5.8 (0.83)	5.4 (0.77)	5.4 (0.77)	4.8 (0.68)	mNm (oz-in)
10 Max Continuous Current	$I_{e,max}$	2.20	0.66	0.55	0.42	0.35	0.13	A
11 Back-EMF Constant	$k_E$	0.27	0.86	1.12	1.37	1.65	3.90	mV/rpm
12 Torque Constant	$k_M$	2.58	8.20	10.70	13.10	15.80	37.20	mNm/A
13 Motor Regulation	$R/k^2$	75.1	80.3	66.4	75.75	78.11	97.55	10 <sup>3</sup> /Nms
14 Friction Torque	$T_F$	0.12 (0.02)	0.08 (0.02)	0.09 (0.02)	0.09 (0.02)	0.09 (0.02)	0.07 (0.01)	mNm (oz-in)
15 Rotor Inductance	L	0.01	0.12	0.15	0.26	0.40	1.70	mH
16 Mechanical Time Constant	$\tau_m$	6.0	6.4	5.3	6.1	5.8	7.8	ms
17 Rotor Inertia	J	0.80	0.80	0.80	0.80	0.74	0.80	g-cm <sup>2</sup>

General Data				
18 Thermal Resistance (rotor/body)	$R_{th1}/R_{th2}$	8/35		°C/W
19 Thermal Time Constant (rotor/stator)	$t_{W1}/t_{W2}$	6/500		S
20 Operating Temperature Range:	motor	-30°C to 85°C (-22°F to 185°F)		°C (°F)
	rotor			100°C (212°F)
21 Shaft Load Max.: (5 mm from bearing)	-radial -axial	With sleeve bearings		
		1.5 (5.4)	100 (359.6)	N (oz) N (oz)
22 Shaft Play:	-radial	<0.03 (0.0012)		mm (inch)
	-axial	0.15 (0.0059)		mm (inch)
23 Weight	g	24 (0.85)		g (oz)
24 Commutation Segment	-	9		segment

**Execution Table**

Gearbox	Single Shaft	MR2
B16	5	Upon Request
BA16	5	Upon Request
R16	1	Upon Request



► Motor shaft rotates CW when seen from motor front face when +ve and -ve supply is given to respective terminals.