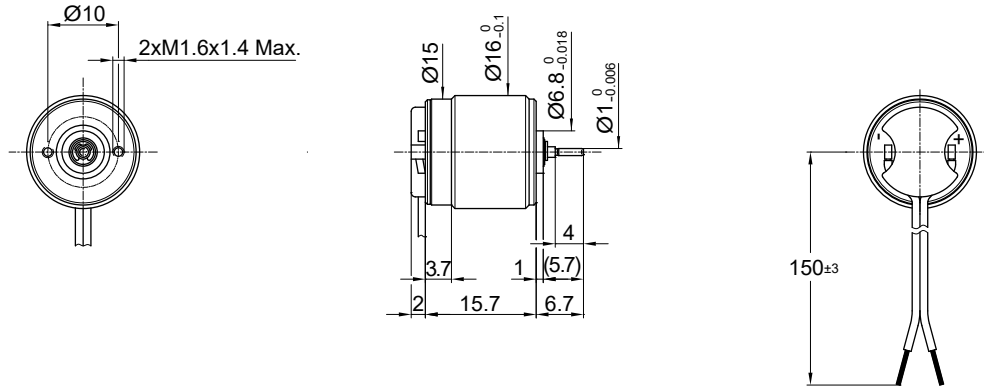


16C18

Ø 16 mm • Precious metal commutation • 1.12 mNm



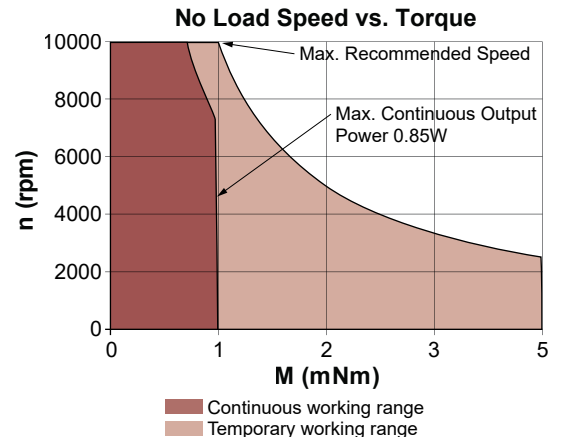
Dimensions in mm.

Electrical Data	Symbol	16C18 .... 67					Unit
		115	210	207	205	204	
1 Nominal Voltage	V	1.5	4	6	12	15	Volt
2 No-Load Speed	$n_0$	15,300	14,700	15,700	16,200	16,000	rpm
3 No-Load Current	$I_0$	74.8	23.0	18.4	10.4	6.9	mA
4 Terminal Resistance	R	1.2	7.5	18.0	65.0	162.0	Ω
5 Output Power	$P_{2max}$	0.7	0.8	0.7	0.8	0.7	W
6 Stall Torque	mNm	1.1	1.3	1.1	1.2	0.8	mNm (oz-in)
7 Efficiency	$\eta_{max}$	57	63	59	58	53	%
8 Max Continuous Speed	$n_{e,max}$	10,000	10,000	10,000	10,000	10,000	rpm
9 Max Continuous Torque	$M_{e,max}$	0.98 (0.15)	1.12 (0.15)	1 (0.15)	1 (0.14)	0.79 (0.11)	mNm (oz-in)
10 Max Continuous Current	$I_{e,max}$	1.19	0.48	0.31	0.16	0.10	A
11 Back-EMF Constant	$k_E$	0.09	0.26	0.36	0.70	0.87	mV/rpm
12 Torque Constant	$k_M$	0.88	2.48	3.44	6.68	8.30	mNm/A
13 Motor Regulation	$R/k^2$	1555.0	1220.0	1520.0	1460.00	2350.00	10 <sup>3</sup> /Nms
14 Friction Torque	$T_F$	0.07 (0.02)	0.06 (0.01)	0.06 (0.01)	0.07 (0.02)	0.06 (0.01)	mNm (oz-in)
15 Rotor Inductance	L	20.00	150.00	250.00	1000.00	1000.00	mH
16 Mechanical Time Constant	$\tau_m$	48.0	50.0	41.0	60.0	63.0	ms
17 Rotor Inertia	J	0.31	0.41	0.27	0.41	0.27	g-cm <sup>2</sup>

General Data				
18 Thermal Resistance (rotor/body)	$R_{th1}/R_{th2}$	15/40		°C/W
19 Thermal Time Constant (rotor/stator)	$t_{W1}/t_{W2}$	4/230		S
20 Operating Temperature Range:	motor	-30°C to 85°C (-22°F to 185°F)		°C (°F)
	rotor	100°C (212°F)		°C (°F)
21 Shaft Load Max.: (5 mm. from bearing)	-radial -axial	With sleeve bearings		
		1.5 (5.4)		N (oz)
		100 (359.6)		N (oz)
22 Shaft Play:	-radial	<0.03 (0.0012)		mm (inch)
	-axial	0.15 (0.0059)		mm (inch)
23 Weight	g	14 (0.49)		g (oz)
24 Commutation Segment	-	5		segment

Execution Table

Gearbox	Single Shaft	F16
B16	67	76
BA16	67	76
R16	30	76



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