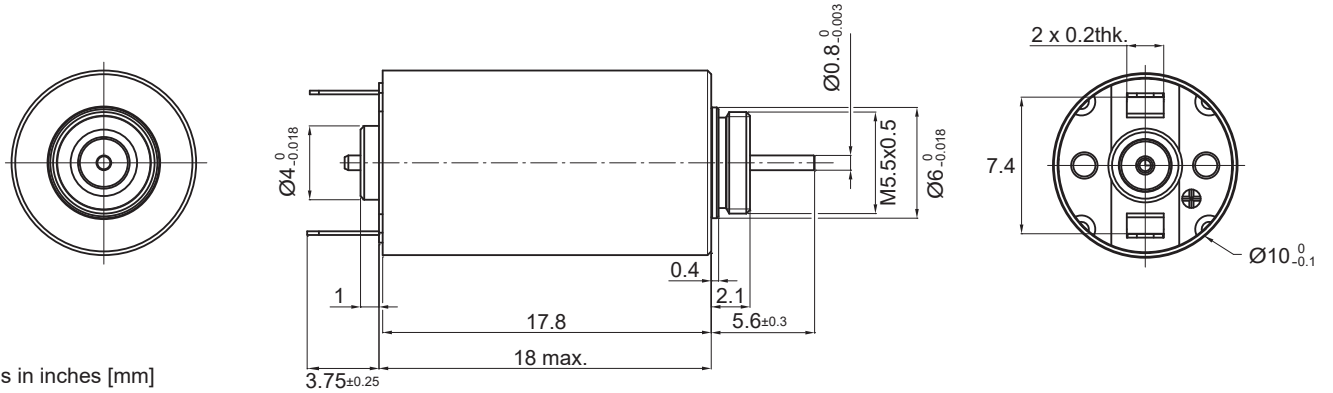


10NS61 Athlonix™

Ø 10 mm • Precious metal commutation • 0.9 mNm



Dimensions in inches [mm]

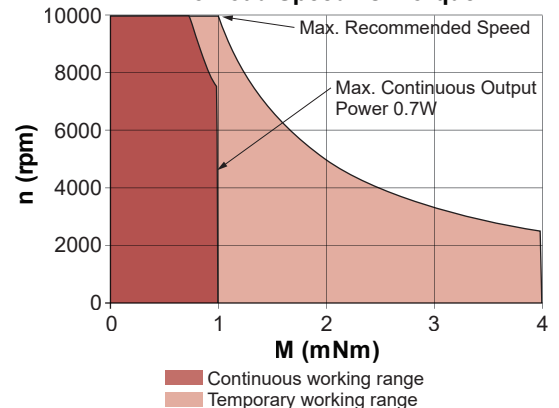
Electrical Data	Symbol	10NS615 107C	Unit
1 Nominal Voltage	V	3	Volt
2 No-Load Speed	n_0	10,100	rpm
3 No-Load Current	I_0	11.0	mA
4 Terminal Resistance	R	10.8	Ω
5 Output Power	$P_{2max.}$	0.7	W
6 Stall Torque	mNm	0.76 (0.11)	mNm (oz-in)
7 Efficiency	$h_{max.}$	64	%
8 Max Continuous Speed	$n_{e max.}$	10,000	rpm
9 Max Continuous Torque	$M_e max.$	0.9 (0.13)	mNm (oz-in)
10 Max Continuous Current	$I_e max.$	0.34	A
11 Back-EMF Constant	k_E	0.29	mV/rpm
12 Torque Constant	k_M	2.72	mNm/A
13 Motor Regulation	R/k ²	1,500.0	10 ³ /Nms
14 Friction Torque	T_F	0.02 (0.01)	mNm (oz-in)
15 Rotor Inductance	L	0.01	mH
16 Mechanical Time Constant	τ_m	7.3	ms
17 Rotor Inertia	J	0.05	g-cm ²

General Data			
18 Thermal Resistance (rotor/body)	R_{th1}/R_{th2}	23/48	$^{\circ}C/W$
19 Thermal Time Constant (rotor/stator)	t_{W1}/t_{W2}	5/150	S
20 Operating Temperature Range:	motor	-30°C to 85°C (-22°F to 185°F)	$^{\circ}C (^{\circ}F)$
	rotor	100°C (212°F)	$^{\circ}C (^{\circ}F)$
21 Shaft Load Max.: (2 mm from bearing)	-radial	0.5 (1.8)	N (oz)
	-axial	30 (107.9)	N (oz)
		With sleeve bearings	
22 Shaft Play:	-radial	<0.015 (0.0006)	mm (inch)
	-axial	0.100 (0.0039)	mm (inch)
23 Weight	g	7 (0.25)	g (oz)
24 Commutation Segments	-	9	segments

Execution Table

Gearbox	Single Shaft
R10	3

No Load Speed vs. Torque



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