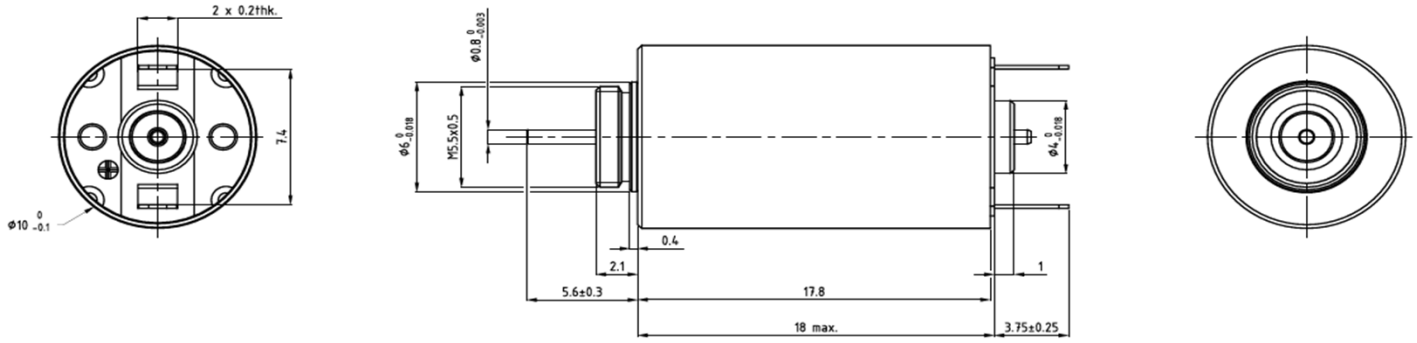
10NS61 Athlonix Precious metal commutation Ø10mm 0.9 mNm



10NS61 **** .5

Electrical Data	****	107C	105C	104C	
1 Nominal Voltage	V	3	6	9	Volt
2 No-Load Speed	n_0	10,100	10,400	10,700	rpm
3 No-Load Current	I_0	11.0	4.2	3.6	mA
4 Terminal Resistance	R	10.8	43.0	98.0	Ω
5 Output Power	$P_{2max.}$	0.7	0.7	0.7	W
6 Stall Torque	mNm	0.76 (0.11)	0.75 (0.11)	0.71 (0.1)	mNm (oz-in)
7 Efficiency	$\eta_{max.}$	64	68	64	%
8 Max continuous speed	$n_{e\ max.}$	12,000	12,000	12,000	rpm
9 Max continuous torque	$M_{e\ max.}$	0.9 (0.13)	0.9 (0.13)	0.85 (0.13)	mNm (oz-in)
10 Max continuous current	$I_{e\ max.}$	0.34	0.17	0.12	A
11 Back-EMF Constant	k_E	0.29	0.57	0.81	mV/rpm
12 Torque Constant	k_M	2.72	5.40	7.70	mNm/A
13 Motor Regulation	R/k^2	1,500.0	1,500.0	1,600.0	10^3/Nms
14 Friction Torque	T_F	0.02 (0.01)	0.02 (0.01)	0.02 (0.01)	mNm (oz-in)
15 Rotor Inductance	L	0.01	0.02	0.03	mH
16 Mechanical Time Constant	τ_m	7.3	7.3	8.1	ms
17 Rotor Inertia	J	0.05	0.05	0.05	$g.cm^2$
18 Thermal Resistance (rotor/body)	R_{th1} / R_{th2}	23/48	23/48	23/48	°C/W
19 Thermal Time Constant (rotor/stator)	τ_{w1}/t_{w2}	5/150	5/150	5/150	°C/W
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.:		With sleeve bearings			
at 3,000 rpm (2mm from bearing)	-radial	0.5 (1.8)			N (oz)
at 3,000 rpm	-axial	30 (107.9)			N (oz)
22 Shaft play:	-radial	<0.015 (0.0006)			mm (inch)
	-axial	0.100 (0.0039)			mm (inch)
23 Weight	g	16 (0.57)			g (oz)

Execution	
Gearbox	**Single Shaft**
R10	3