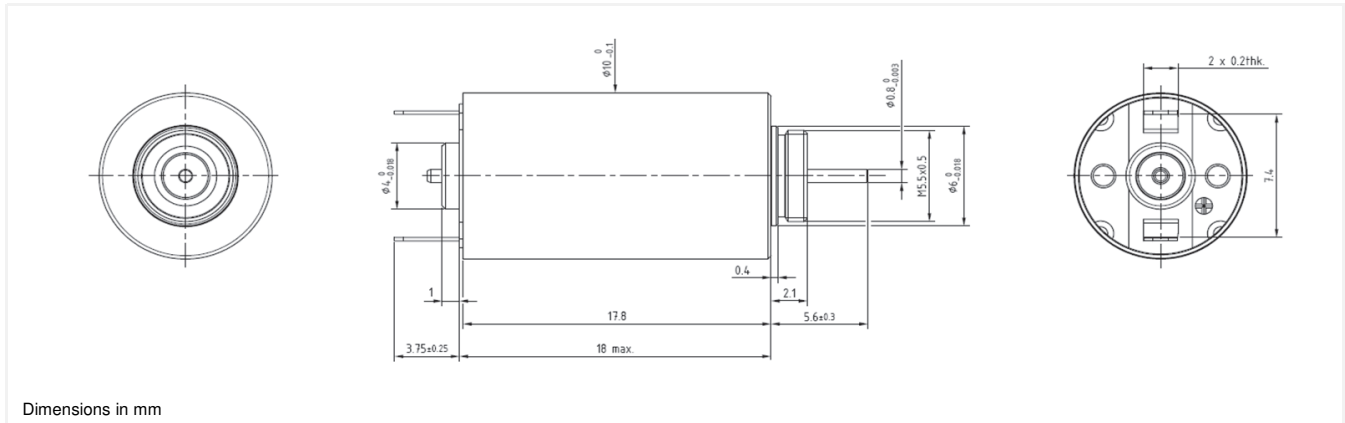


10NS61 Athlonix™

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	η_{max}	64	68	64	%
8 Max Continuous Speed	$n_{e max}$	10,000	10,000	10,000	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	t_m	7.3	7.3	8.1	ms
17 Rotor Inertia	J	0.05	0.05	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 $^{\circ}C$ to 85 $^{\circ}C$ (-22 $^{\circ}F$ to 185 $^{\circ}F$)		$^{\circ}C$ ($^{\circ}F$)
	rotor		100 $^{\circ}C$ (212 $^{\circ}F$)		$^{\circ}C$ ($^{\circ}F$)
21 Shaft Load Max.:			With sleeve bearings		
(2 mm from bearing)	-radial		0.5 (1.8)		N (oz)
	-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

