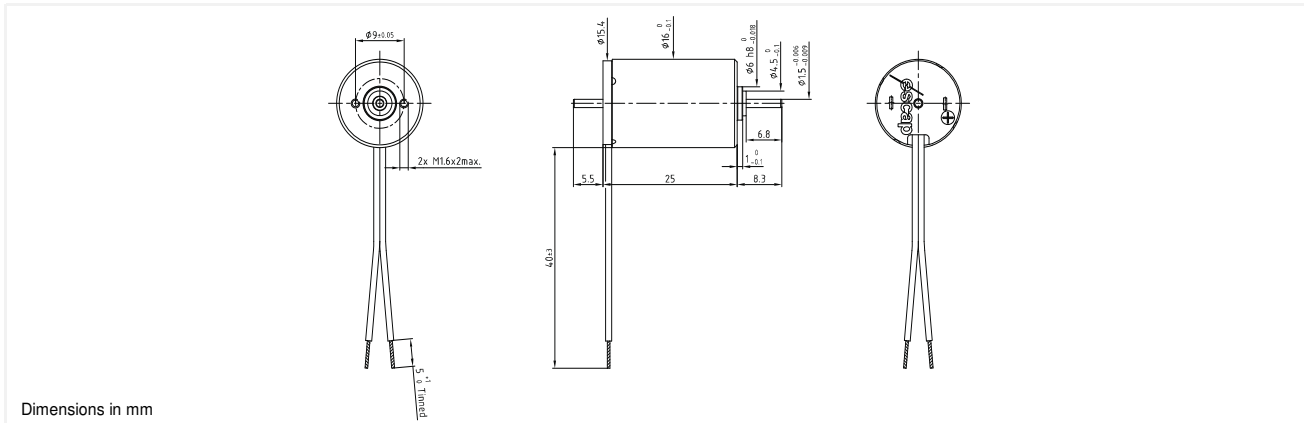


16NS78 Athlonix™

Precious metal commutation

Ø16mm

2.6 mNm



Dimensions in mm

16NS78 **** .1

Electrical Data	****	213E	212F	
1 Nominal Voltage	V	6	7.5	Volt
2 No-Load Speed	n_0	10,280	10,865	rpm
3 No-Load Current	I_0	25.0	18.0	mA
4 Terminal Resistance	R	7.5	12.2	Ω
5 Output Power	$P_{2\text{max}}$	1.7	1.6	W
6 Stall Torque	mNm	4.3	3.9	mNm (oz-in)
7 Efficiency	η_{max}	68	69	%
8 Max Continuous Speed	$n_e \text{ max.}$	10,000	10,000	rpm
9 Max Continuous Torque	$M_e \text{ max.}$	2.6 (0.34)	2.4 (0.34)	mNm (oz-in)
10 Max Continuous Current	$I_e \text{ max.}$	0.50	0.38	A
11 Back-EMF Constant	k_E	0.57	0.67	mV/rpm
12 Torque Constant	k_M	5.40	6.40	mNm/A
13 Motor Regulation	R/k^2	255.0	300.0	$10^3/\text{Nms}$
14 Friction Torque	T_F	0.12 (0.02)	0.12 (0.02)	mNm (oz-in)
15 Rotor Inductance	L	0.15	0.23	mH
16 Mechanical Time Constant	t_m	12.8	15.0	ms
17 Rotor Inertia	J	0.50	0.50	g.cm^2
General Data				
18 Thermal Resistance (rotor/body)	$R_{\text{th1}} / R_{\text{th2}}$	13/38		$^{\circ}\text{C}/\text{W}$
19 Thermal Time Constant (rotor/stator)	t_{w1}/t_{w2}	7/400		S
20 Operating Temperature Range:	motor	-30 $^{\circ}\text{C}$ to 85 $^{\circ}\text{C}$ (-22 $^{\circ}\text{F}$ to 185 $^{\circ}\text{F}$)		$^{\circ}\text{C}$ ($^{\circ}\text{F}$)
	rotor	100 $^{\circ}\text{C}$ (212 $^{\circ}\text{F}$)		$^{\circ}\text{C}$ ($^{\circ}\text{F}$)
21 Shaft Load Max.:		With sleeve bearings		
(5mm from bearing)	-radial	1.5 (5.4)		N (oz)
	-axial	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	19 (0.68)		g (oz)

Execution Table		
Gearbox	Single Shaft	MR2
B16	3	Upon request
BA16	3	Upon request
R16	Upon request	Upon request

