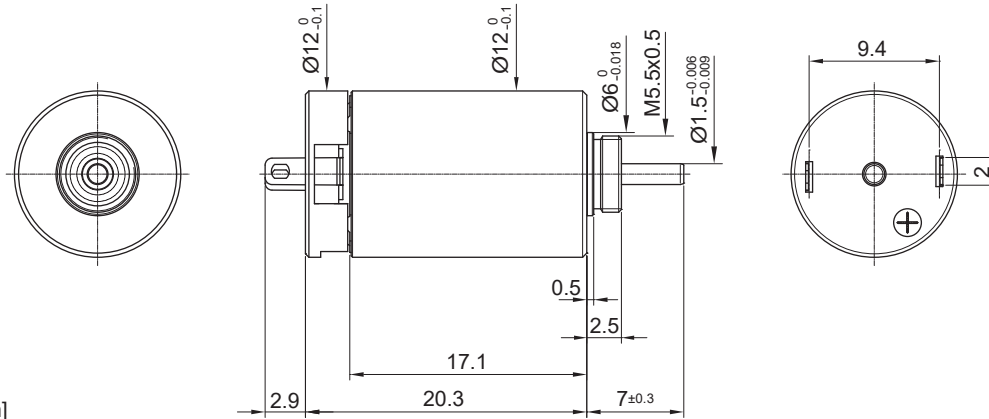


12GS88 Athlonix™

Ø 12 mm • Precious metal commutation • 1.5 mNm



Dimensions in inches [mm]

Electrical Data	Symbol	12GS881007		Unit
		210E	208F	
1 Nominal Voltage	V	3	6	Volt
2 No-Load Speed	n_0	7,280	9,000	rpm
3 No-Load Current	I_0	14.0	12.0	mA
4 Terminal Resistance	R	7.4	20.6	Ω
5 Output Power	P_{2max}	1.2	1.1	W
6 Stall Torque	mNm	1.54 (0.22)	1.78 (0.26)	mNm (oz-in)
7 Efficiency	η_{max}	66	64	%
8 Max Continuous Speed	$n_{e max}$	10,000	10,000	rpm
9 Max Continuous Torque	$M_{e max}$	1.51 (0.21)	1.45 (0.21)	mNm (oz-in)
10 Max Continuous Current	$I_{e max}$	0.41	0.25	A
11 Back-EMF Constant	k_E	0.40	0.64	mV/rpm
12 Torque Constant	k_M	3.80	6.10	mNm/A
13 Motor Regulation	R/k^2	512.0	550.0	$10^3/Nms$
14 Friction Torque	T_F	0.07 (0.01)	0.07 (0.01)	mNm (oz-in)
15 Rotor Inductance	L	0.09	0.25	mH
16 Mechanical Time Constant	τ_m	9.7	12.0	ms
17 Rotor Inertia	J	0.19	0.21	g-cm ²

General Data			
18 Thermal Resistance (rotor/body)	R_{th1}/R_{th2}	14/66	$^{\circ}C/W$
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.: (5 mm from bearing)		With sleeve bearings	
	-radial	1.5 (5.4)	N (oz)
	-axial	150 (539.5)	N (oz)
22 Shaft Play:	-radial	<0.03 (0.0012)	mm (inch)
	-axial	0.15 (0.0059)	mm (inch)
23 Weight	g	13.5 (0.48)	g (oz)
24 Commutation Segment	-	9	segment

Execution Table

Gearbox	Single Shaft	MR2
R10	Upon Request	Upon Request
R13	Upon Request	Upon Request

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

