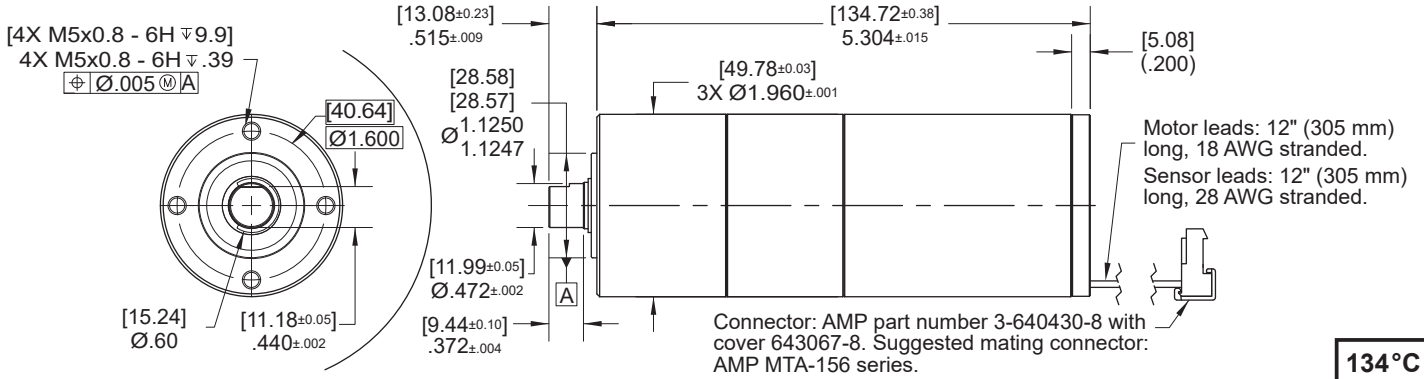
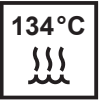


**B2010A4 Bone Mill Surgical Gearmotor**

Ø 2 inch • Brushless Slotted



Dimensions in inches [mm]



Electrical Data	Symbol	B2010A4000	Unit
1 Nominal Voltage	$U_N$	40.0	Volt
2 Optimization Direction	-	Symmetrical	-
3 No Load Speed	$n_0$	290	rpm
4 Typical No Load Current	$I_0$	1010	mA
5 Max. Continuous Mechanical Power (@25°C)	$P_{max}$	180	W
6 Max. Continuous Current	$I_{cs}$	6.42	A
7 Max. Continuous Torque	$T_{cs}$	6526.6 (923.4)	mNm (oz-in)
8 Back EMF Constant	$k_E$	146.6	V/1000 rpm
9 Torque Constant	$k_T$	1067.2 (151.3)	mNm/A (oz-in/A)
10 Motor Regulation	$R/k^2$	0.483	$10^3/Nms$
11 Peak Torque	$T_{pk}$	76'966 (10'898)	mNm (oz-in)
12 Motor Constant	$k_M$	71.1 (10.1)	mNm/W <sup>1/2</sup> (oz-in/W <sup>1/2</sup> )
13 Line to Line Resistance	$R_L$	0.550	ohms
14 Inductance Phase to Phase	$L$	0.430	mH
15 Mechanical Time Constant	$\tau_m$	4.14	ms
16 Electrical Time Constant	$\tau_e$	0.782	ms

General Data			
17 Gearhead Ratio	-	25:1	Ratio
18 Ambient Working Temperature Range	-	30 to +135 (-22 to +275)	°C (°F)
19 Max Winding Temperature	-	155 (311)	°C (°F)
20 Radial Static Force w/o Shaft Support (max)	-	205 (912)	lbs (N)
21 Axial Static Force w/o Shaft Support (max)	-	98.2 (437)	lbs (N)
22 Thermal Resistance	$R_{th}$	3.81	°C/W
23 Thermal Time Constant	$\tau_w$	1109	s
24 Weight	-	1495 (52.73)	g (oz)
25 Rotor Inertia	$J_m$	3601.9 (0.051)	kg-cm <sup>2</sup> 10 <sup>-4</sup> (oz-in-sec <sup>2</sup> 10 <sup>-6</sup> )
26 Hall Sensor Electrical Phasing*	-	60	Electrical °
27 Autoclave Cycles	-	1000+	Cycles

\*Also available without Hall sensors

Wire	Description
Blue	Phase A
Brown	Phase B
Violet	Phase C
Red	4.5 to 24 Vdc
Yellow	Sensor 1
Orange	Sensor 2
White	Sensor 3
Black	GND

