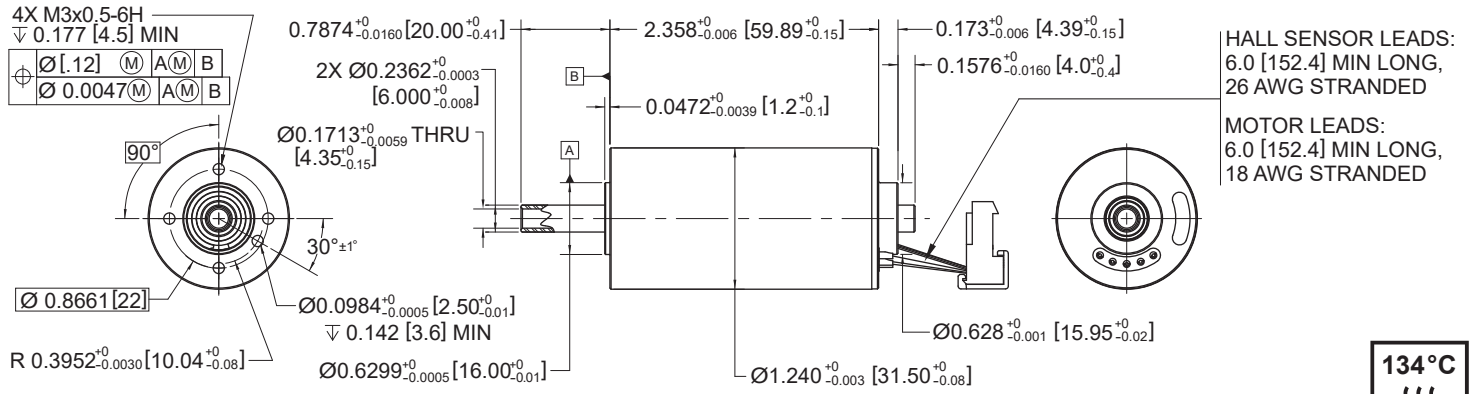


B1210N1023 Large Bone Orthopedic Drill/Wire Driver

Ø 1.24 inch • Brushless Slotted • 14.4 V



Dimensions in inches [mm]

Electrical Data	Symbol	SMX B1210N1023	Unit
1 Nominal Voltage	U _N	14.4	Volt
2 Optimization Direction	-	Bi-Directional	-
3 No Load Speed	n ₀	15,700	rpm
4 Typical No Load Current	I ₀	760	mA
5 Max. Continuous Mechanical Power (@25°C)	P _{max}	130.4	W
6 Max. Continuous Current	I _{cs}	11.3	A
7 Max. Continuous Torque	T _{cs}	95.9 (13.58)	mNm (oz-in)
8 Back EMF Constant	k _E	0.93	V/1000 rpm
9 Torque Constant	k _T	8.88 (1.26)	mNm/A (oz-in/A)
10 Motor Regulation	R/k ²	976	10 ³ /Nms
11 Peak Torque	T _{pk}	1660.8 (235.2)	mNm (oz-in)
12 Motor Constant	k _M	32.01 (4.53)	mNm/W ^{1/2} (oz-in/W ^{1/2})
13 Line to Line Resistance	R _L	0.077	ohms
14 Inductance Phase to Phase	L	0.045	mH
15 Mechanical Time Constant	τ _m	1.39	ms
16 Electrical Time Constant	τ _e	0.584	ms

General Data			
17 Gearhead Ratio	-	N/A	Ratio
18 Ambient Working Temperature Range	-	25 (77)	°C (°F)
19 Max Operating Temperature Range	-	155 (311)	°C (°F)
20 Radial Static Force w/o Shaft Support (max)	-	80.28	lbs
21 Axial Static Force w/o Shaft Support (max)	-	27.17	lbs
22 Thermal Resistance	R _{th}	8.7	°C/W
23 Thermal Time Constant	τ _w	975	s
24 Weight	-	267 (9.42)	g (oz)
25 Rotor Inertia	J _m	133 (189)	kg-cm ² 10 ⁻⁴ (oz-in-sec ² 10 ⁻⁶)
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

