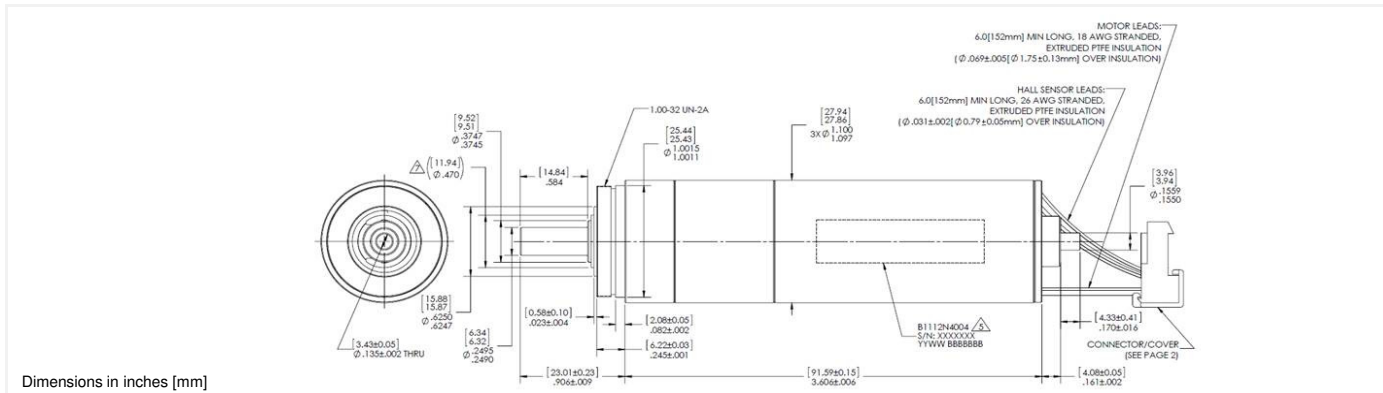


LARGE BONE DRILL – Brushless Slotted

Ø 1.1 in.



B1112N4004

Electrical Data	Part Number	B1112N4004	Units
1 Nominal Voltage	U_N	14.4	Volt
2 Max No-Load Current (±50%)	I_{nl}	900	mA
3 No-Load Speed	W_{nl}	957	rpm
4 Resistance - Phase to Phase	R	0.117	ohm
5 Continuous Stall Torque	Tcs	923.4 (130.8)	mNm (oz-in)
6 Continuous Stall Current	Ics	9.29	A
7 Peak Torque for 1s	Tpk	14276 (2017.2)	mNm (oz-in)
8 Peak Current	Ipk	123.0	A
9 Back EMF Constant	K_b	14.990	v/1000 rpm
10 Torque Constant	K_t	116.0 (16.4)	mNm/A (oz.-in/A)
11 Motor Regulation R/Kt ²	-	0.0087	10 ³ /Nms
12 Motor Regulation Kt/R ^{1/2}	-	339.0	mNm/W ^{1/2}
13 Inductance - Phase to Phase	L	0.061	mH @1Khz
General Data			
14 Thermal Resistance (winding to ambient)	R_{th}	8.3	°C/W
15 Thermal Time Constant	t_w	900	s
16 Mechanical Time Constant	t_m	1.85	ms
17 Electrical Time Constant	t_e	0.52	ms
18 Rotor Inertia	J	84.74 (120.0)	kgm ² 10 ⁻⁸ (oz-in-sec ² 10 ⁻⁶)
19 Max Winding Temperature	-	155 (311)	°C (°F)
20 Shaft Load Max.: radial (static)	-	101.31 (22.77) , @ 5mm from front of bearing	N (lb)
axial (static)	-	55.34 (12.44)	N (lb)
21 Mass	M	350 (12.4)	g (oz)
22 Length L	L	91.6 (3.61)	mm (in)
23 Tolerances	-	Tolerances on all values ±10% unless otherwise specified.	

Lead color	Function
Blue	Phase A
Brown	Phase B
Violet	Phase C
Red	4.5 to 24 vdc
Yellow	Hall 1
Orange	Hall 2
White	Hall 3
Black	Supply RTN

Notes

- Three phase motor with Wye connections
- Designed for sterilization in an autoclavable
- Hall sensors: supply voltage 4.5V - 24V
- Typical housing material 303 SS
- Typical shaft material 17-4 PH
- Motor is RoHS Compliant
- Above parameters specified for 25 Deg C ambient temperature

