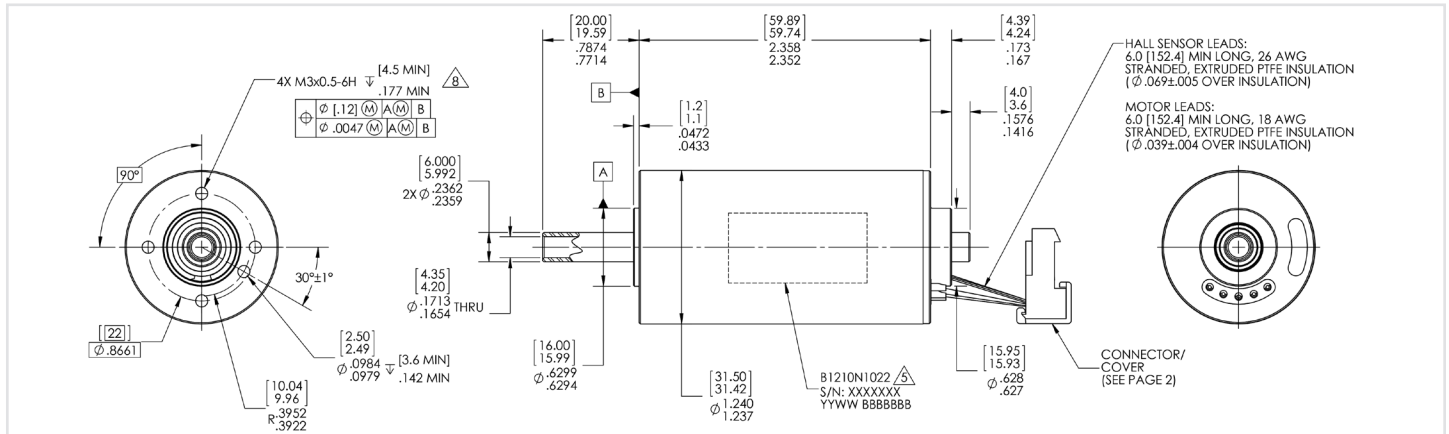


Large Bone Orthopedic Cannulated Drill (31.5mm, 12V, 82.1mNm)

Ø1.2in



B1210N1022

Electrical Data		Part Number	B1210N1022	Units
1	Nominal Voltage	U_N	12	Volt
2	Max No-Load Current (±50%)	I_{nl}	1060	mA
3	No-Load Speed	W_{nl}	15,887	rpm
4	Resistance - Phase to Phase	R	0.055	ohm
5	Continuous Stall Torque	T_{cs}	82.1 (11.6)	mNm (oz-in)
6	Continuous Stall Current	I_{cs}	13.3	A
7	Peak Torque for 1s	T_{pk}	1562 (221.3)	mNm (oz-in)
8	Peak Current	I_{pk}	217.0	A
9	Back EMF Constant	K_e	0.754	v/1000 rpm
10	Torque Constant	K_t	7.2 (1.02)	mNm/A (oz.-in/A)
11	Motor Regulation $R/K_t \wedge 2$	-	1.061	10 ³ /Nms
12	Motor Regulation $K_t/R \wedge 2$	-	30.7	mNm/W ^{1/2}
13	Inductance - Phase to Phase	L	0.029	mH @1Khz
General Data				
14	Thermal Resistance (winding to ambient)	R_{th}	8.7	°C/W
15	Thermal Time Constant	t_w	975	s
16	Mechanical Time Constant	t_m	2.11	ms
17	Electrical Time Constant	t_e	0.53	ms
18	Rotor Inertia	J	133 (189)	kgm ² 10 ⁻⁶ (oz-in-sec ² 10 ⁻⁶)
19	Max Winding Temperature	-	155 (311)	°C (°F)
20	Shaft Load Max.: radial (static)	-	149.8 (33.7)	N (lb)
21	axial (static)	-	372.8 (83.8)	N (lb)
22	Mass	M	263 (9.3)	g (oz)
23	Length L	L	65.3 (2.57)	mm (in)
24	Tolerances	-	Tolerances on all values ±10% unless otherwise specified.	

CONNECTOR WIRING		
PIN #	LEAD COLOR	FUNCTION
1	BLUE	PHASE A
2	BROWN	PHASE B
3	VIOLET	PHASE C
4	RED	+4.5 TO 24VDC
5	YELLOW	HALL 1
6	ORANGE	HALL 2
7	WHITE	HALL 3
8	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

