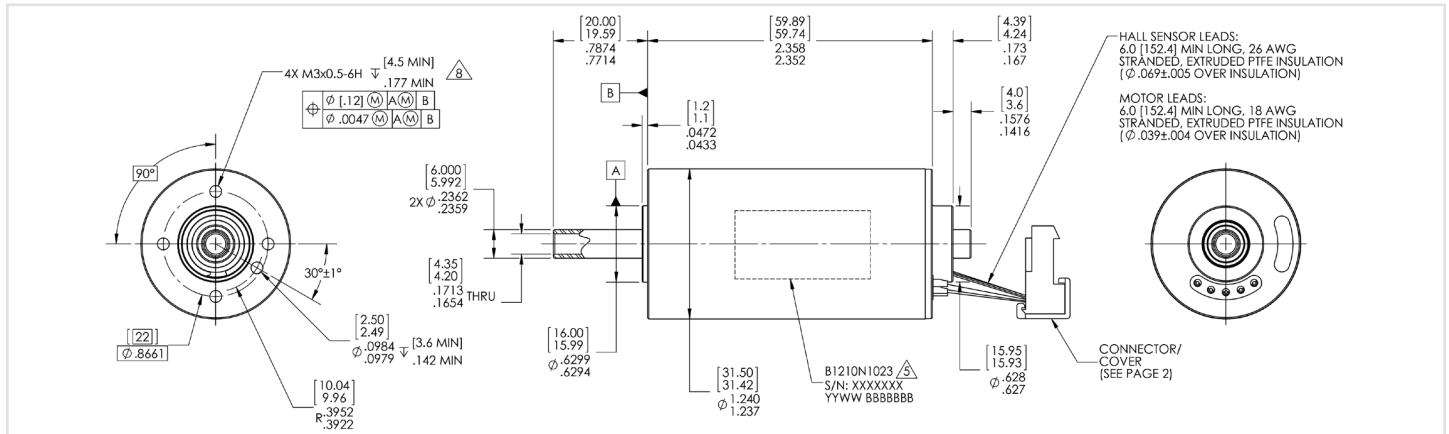


Large Bone Orthopedic Cannulated Drill (31.5mm, 14.4V, 88mNm)

Ø1.2in



B1210N1023

Electrical Data		Part Number	B1210N1023	Units
1	Nominal Voltage	U_N	14.4	Volt
2	Max No-Load Current (±50%)	I_{nl}	850	mA
3	No-Load Speed	W_{nl}	15,245	rpm
4	Resistance - Phase to Phase	R	0.075	ohm
5	Continuous Stall Torque	Tcs	88 (12.5)	mNm (oz-in)
6	Continuous Stall Current	Ics	11.4	A
7	Peak Torque for 1s	Tpk	1720 (243.6)	mNm (oz-in)
8	Peak Current	Ipk	191.0	A
9	Back EMF Constant	K_e	0.940	v/1000 rpm
10	Torque Constant	K_t	9.01 (1.28)	mNm/A (oz.-in/A)
11	Motor Regulation R/Kt ²	-	0.9239	10 ³ /Nms
12	Motor Regulation Kt/R ^{1/2}	-	32.9	mNm/W ^{1/2}
13	Inductance - Phase to Phase	L	0.046	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	1.84	ms
17	Electrical Time Constant	t_e	0.61	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

