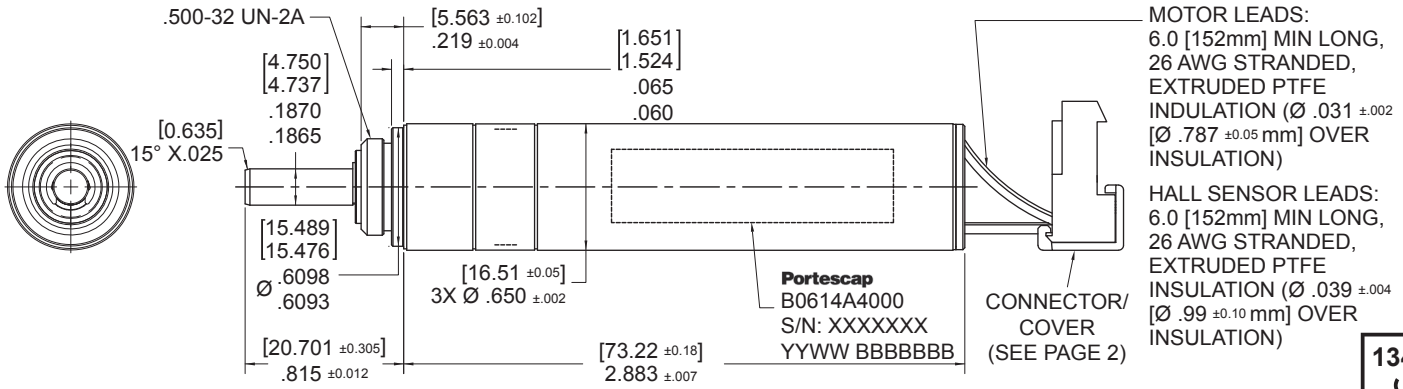


B0614A4 - Arthroscopic Joint Shaver High speed gearmotor

Ø 0.65 inch • Brushless Slotted

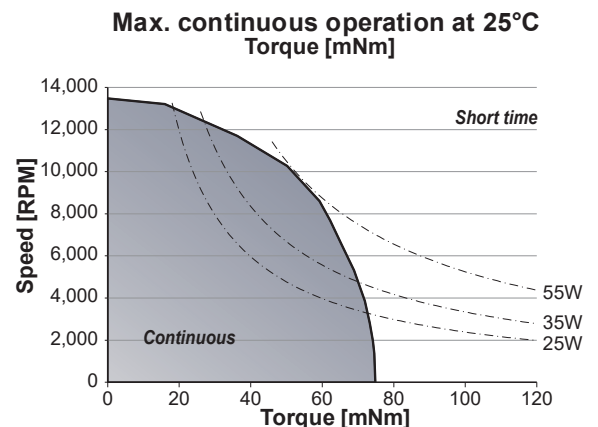
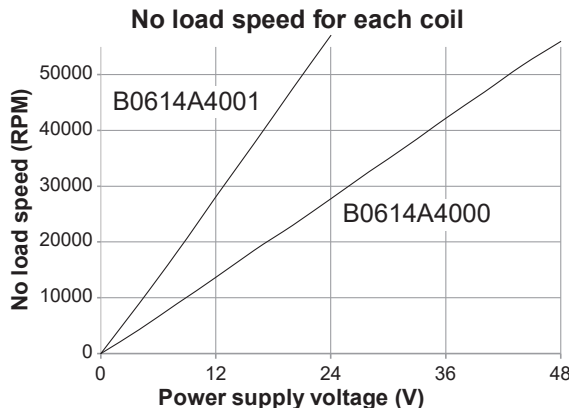


Dimensions in inches [mm]

Electrical Data	Symbol	B0614A4000	B0614A4001	Unit
1 Nominal Voltage	U_N	48.0	24.0	Volt
2 Optimization Direction	-	Bi-Directional	Bi-Directional	-
3 No Load Speed	n_0	13,710	13,500	rpm
4 Typical No Load Current	I_0	417	663	mA
5 Max. Continuous Mechanical Power (@25°C)	P_{max}	112.2	96.1	W
6 Max. Continuous Current	I_{cs}	2.86	4.95	A
7 Max. Continuous Torque	T_{cs}	81.48 (11.54)	71.0 (10.1)	mNm (oz-in)
8 Back EMF Constant	k_E	3.48	1.75	V/1000 rpm
9 Torque Constant	k_T	29.9 (4.24)	15.1 (2.1)	mNm/A (oz-in/A)
10 Motor Regulation	R/k^2	0.941	1.239	$10^3/Nms$
11 Peak Torque	T_{pk}	1705.1 (241.5)	1286.1 (182.1)	mNm (oz-in)
12 Motor Constant	k_M	32.6 (4.62)	28.4 (4.02)	mNm/W ^{1/2} (oz-in/W ^{1/2})
13 Line to Line Resistance	R_L	0.842	0.281	ohms
14 Inductance Phase to Phase	L	0.13	0.038	mH
15 Mechanical Time Constant	T_M	2.32	3.05	ms
16 Electrical Time Constant	T_E	0.154	0.135	ms

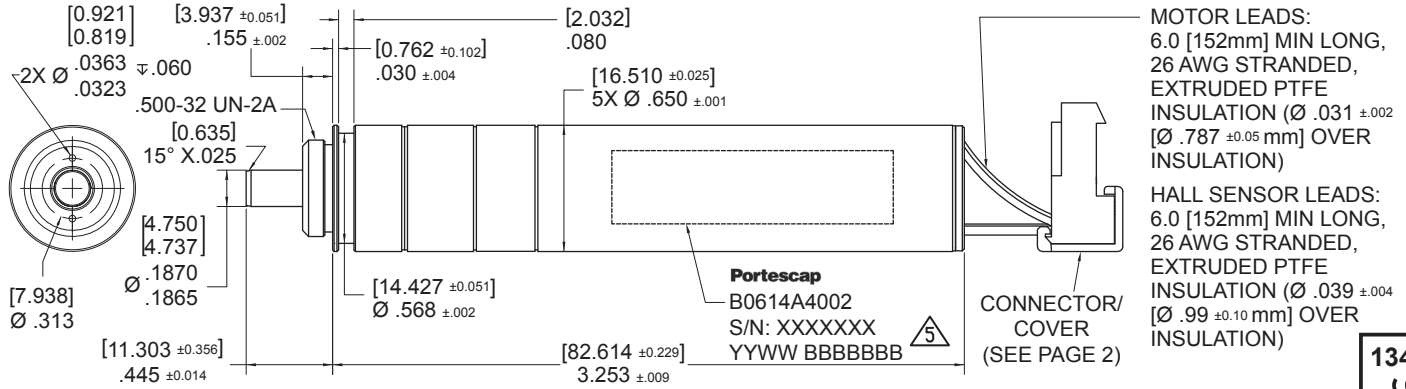
General Data		B0614A4000	B0614A4001	Unit
17 Gearhead Ratio	-	4:1	4:1	Ratio
18 Ambient Working Temperature Range	-	-30 to +135 (-22 to +275)	-30 to +135 (-22 to +275)	°C (°F)
19 Maximum Winding Temperature	-	155 (311)	155 (311)	°C (°F)
20 Radial Static Force w/o Shaft Support (max)	-	13.01 (58)	13.01 (58)	lbs (N)
21 Axial Static Force w/o Shaft Support (max)	-	7.3 (32.5)	7.3 (32.5)	lbs (N)
22 Thermal Resistance	R_{th}	12.5	12.5	°C/W
23 Thermal Time Constant	T_w	950	950	s
24 Weight	-	106 (3.74)	106 (3.74)	g (oz)
25 Rotor Inertia	J_m	12.6 (17.8)	12.6 (17.8)	kg-cm ² 10 ⁻⁴ (oz-in-sec ² 10 ⁻⁶)
26 Hall Sensor Electrical Phasing	-	60	60	Electrical °
27 Autoclave Cycles	-	1000+	1000+	Cycles

Wire	Description
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



B0614A4 - Arthroscopic Joint Shaver High speed gearmotor with sealed shaft

Ø 0.65 inch • Brushless Slotted



Dimensions in inches [mm]

Electrical Data	Symbol	B0614A4002	B0614A4003	Unit
1 Nominal Voltage	U_N	48.0	24.0	Volt
2 Optimization Direction	-	Bi-Directional	Bi-Directional	-
3 No Load Speed	n_0	13,710	13,500	rpm
4 Typical No Load Current	I_0	483	933	mA
5 Max. Continuous Mechanical Power (@25°C)	P_{max}	112.2	96.1	W
6 Max. Continuous Current	I_{cs}	2.86	4.95	A
7 Max. Continuous Torque	T_{cs}	81.48 (11.54)	71.0 (10.1)	mNm (oz-in)
8 Back EMF Constant	k_E	3.48	1.75	V/1000 rpm
9 Torque Constant	k_T	29.9 (4.24)	15.1 (2.1)	mNm/A (oz-in/A)
10 Motor Regulation	R/k^2	0.941	1.239	$10^3/Nms$
11 Peak Torque	T_{pk}	1705.1 (241.5)	1286.1 (182.1)	mNm (oz-in)
12 Motor Constant	k_M	32.6 (4.62)	28.4 (4.02)	$mNm/W^{1/2}$ (oz-in/ $W^{1/2}$)
13 Line to Line Resistance	R_L	0.842	0.281	ohms
14 Inductance Phase to Phase	L	0.13	0.038	mH
15 Mechanical Time Constant	T_M	2.32	3.05	ms
16 Electrical Time Constant	T_E	0.154	0.135	ms

General Data				
17 Gearhead Ratio	-	4:1	4:1	Ratio
18 Ambient Working Temperature Range	-	-30 to +135 (-22 to +275)	-30 to +135 (-22 to +275)	°C (°F)
19 Maximum Winding Temperature	-	155 (311)	155 (311)	°C (°F)
20 Radial Static Force w/o Shaft Support (max)	-	13.01 (58)	13.01 (58)	lbs (N)
21 Axial Static Force w/o Shaft Support (max)	-	7.3 (32.5)	7.3 (32.5)	lbs (N)
22 Thermal Resistance	R_{th}	12.5	12.5	°C/W
23 Thermal Time Constant	T_w	950	950	s
24 Weight	-	115 (4.05)	115 (4.05)	g (oz)
25 Rotor Inertia	J_m	12.6 (17.8)	12.6 (17.8)	$kg\cdot cm^2 \cdot 10^{-4}$ (oz-in-sec ² 10^{-6})
26 Hall Sensor Electrical Phasing	-	60	60	Electrical °
27 Autoclave Cycles	-	1000+	1000+	Cycles

Wire	Description
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

