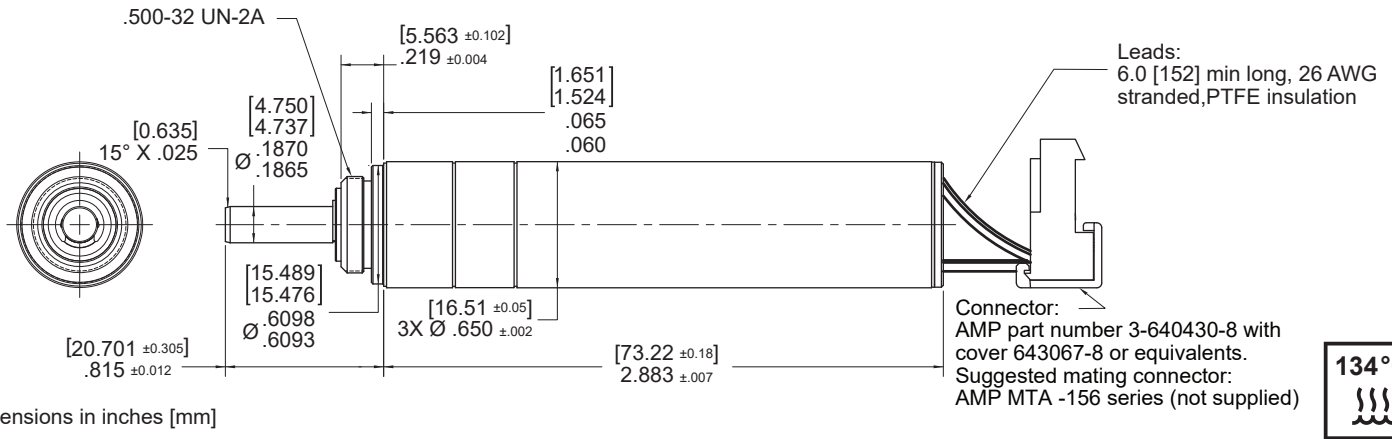


**B0614A4 Arthroscopic Joint Shaver High Speed Gearmotor**

Ø 0.65 inch • Brushless Slotted



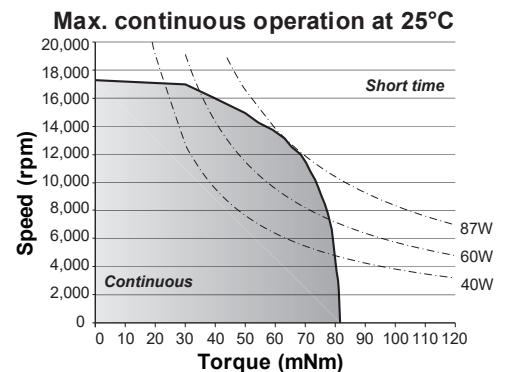
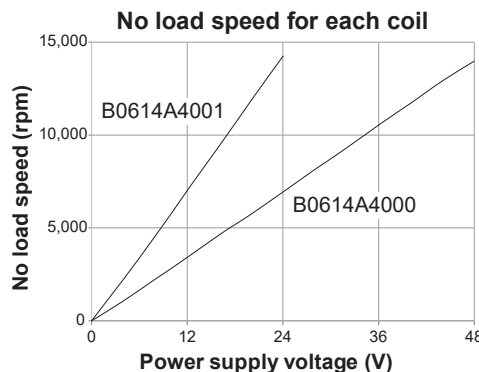
Dimensions in inches [mm]

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 <sup>1/2</sup> (oz-in/W <sup>1/2</sup> )
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	$\tau_m$	2.32	3.05	ms
16 Electrical Time Constant	$\tau_e$	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	$\tau_w$	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 <sup>2</sup> 10 <sup>-4</sup> (oz-in-sec <sup>2</sup> 10 <sup>-6</sup> )
26 Hall Sensor Electrical Phasing*	-	60	60	Electrical °
27 Autoclave Cycles	-	1000+	1000+	Cycles

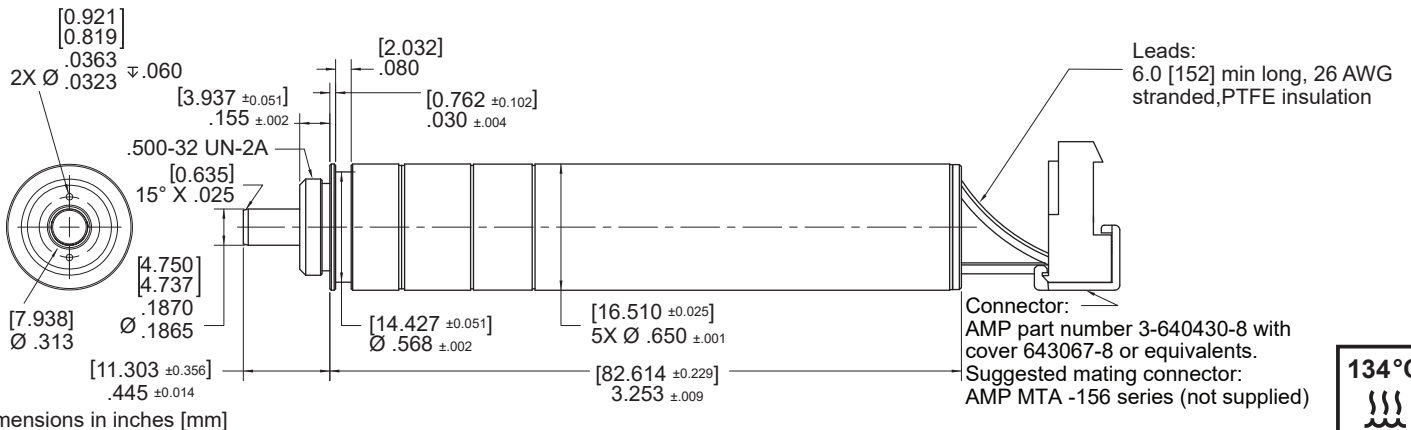
\*Also available without Hall sensors

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



**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	$n_o$	13,710	13,500	rpm
4 Typical No Load Current	$I_o$	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 <sup>1/2</sup> (oz-in/W <sup>1/2</sup> )
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-cm <sup>2</sup> 10 <sup>-4</sup> (oz-in-sec <sup>2</sup> 10 <sup>-6</sup> )
26 Hall Sensor Electrical Phasing*	-	60	60	Electrical °
27 Autoclave Cycles	-	1000+	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

