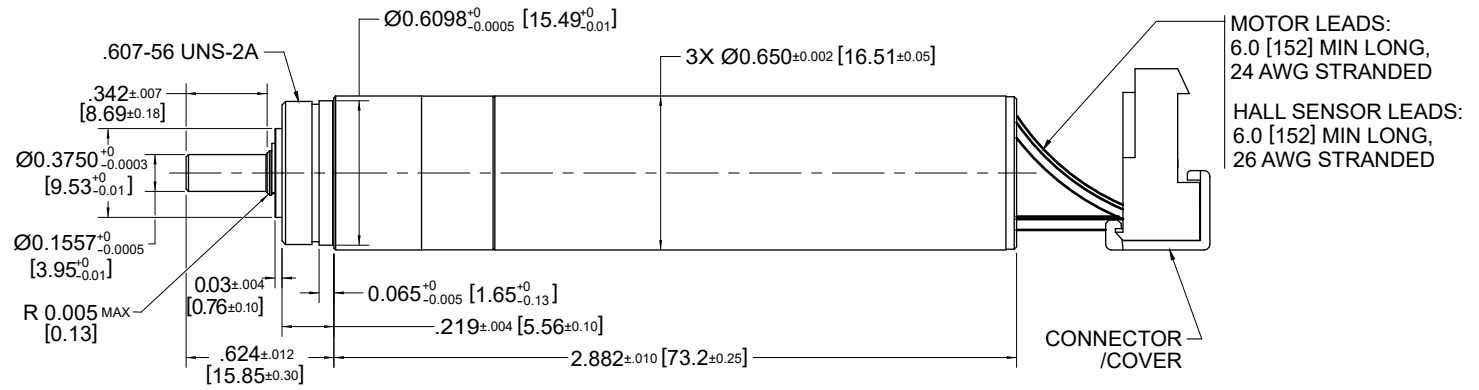


B0614H4041 Arthroscopic Shaver

Ø 0.65 inch • Brushless Slotted • 24 V



Dimensions in inches [mm]

Electrical Data		Symbol	SMX B0614H4041	Unit
1	Nominal Voltage	U_N	24.0	Volt
2	Optimization Direction	-	Bi-Directional	-
3	No Load Speed	n_0	7,353	rpm
4	Typical No Load Current	I_0	645	mA
5	Max. Continuous Mechanical Power (@25°C)	P_{max}	83.4	W
6	Max. Continuous Current	I_{cs}	4.37	A
7	Max. Continuous Torque	T_{cs}	116.7 (16.5)	mNm (oz-in)
8	Back EMF Constant	k_E	3.26	V/1000 rpm
9	Torque Constant	k_T	28.1 (4.0)	mNm/A (oz-in/A)
10	Motor Regulation	R/k^2	460	$10^3/Nms$
11	Peak Torque	T_{pk}	1846 (261.4)	mNm (oz-in)
12	Motor Constant	k_M	46.77 (6.66)	mNm/W ^{1/2} (oz-in/W ^{1/2})
13	Line to Line Resistance	R_L	0.361	ohms
14	Inductance Phase to Phase	L	0.05	mH
15	Mechanical Time Constant	T_m	2.55	ms
16	Electrical Time Constant	T_e	0.139	ms

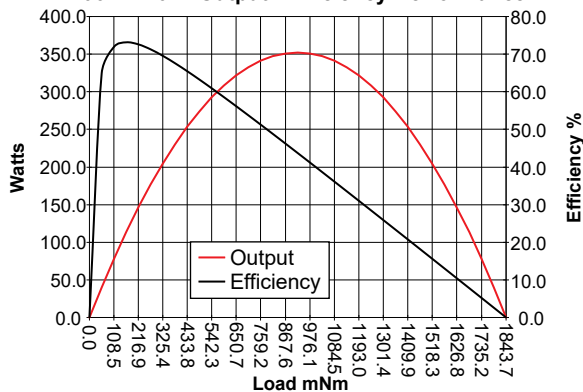
General Data		Symbol	SMX B0614H4041	Unit
17	Gearhead Ratio	-	6:1	Ratio
18	Ambient Working Temperature Range	-	25 (77)	°C (°F)
19	Max Operating Temperature Range	-	155 (311)	°C (°F)
20	Radial Static Force w/o Shaft Support (max)	-	15.25	lbs
21	Axial Static Force w/o Shaft Support (max)	-	19.17	lbs
22	Thermal Resistance	R_{th}	12.5	°C/W
23	Thermal Time Constant	T_w	950	s
24	Weight	-	106 (3.74)	g (oz)
25	Rotor Inertia	J_m	12.6 (17.8)	kg-cm ² 10 ⁻⁴ (oz-in-sec ² 10 ⁻⁶)
26	Hall Sensor Electrical Phasing	-	60	Electrical °
27	Autoclave Cycles	-	1000+	Cycles

Notes:

- Three phase motor with Wye connections
- Hall sensors: supply voltage 4.5 V - 24 V
- Typical housing material 303 SS
- Motor type has been designed and tested to achieve the stated number of autoclave cycles
- Above parameters specified for 25° C ambient temperature
- Typical shaft material 17-4 PH

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

B0614H4041 Output - Efficiency Performance



B0614H4041 Speed - Current Performance

