



Lead color	Function
Blue	Phase A
Violet	Phase B
Brown	Phase C
Red	4.5 to 24 vdc
Yellow	Hall 1
Orange	Hall 2
White	Hall 3
Black	Supply RTN

.8125-32 UN-2A	
MAJOR DIAMETER (THEORETICAL)	.8125
THREADS PER INCH	32
THREAD ANGLE	(60°)
PITCH DIAMETER	.7911/.7874
MINOR DIAMETER	.7776/.7671

[*] denotes millimeters. specification subject to change without notice

		Motor length and winding options									
		B0906		B0909		B0912					
		-N024A-R00	-N024B-R00	-N024A-R00	-N024B-R00	-N024A-R00	-N024B-R00			Units	
1	Nominal Voltage	24		24		24				Volt	
2	Max No-Load Current	465	245	408	215	610	290			mA	
3	No-Load Speed	47,920	23,720	47,860	23,930	53,630	24,005			rpm	
4	Resistance - Phase to Phase	0.39	1.50	0.22	0.89	0.15	0.67			Ω	
5	Continuous Stall Torque	16.4 (2.32)	16.8 (2.38)	26.5 (3.76)	26.3 (3.72)	30.1 (4.26)	31.8 (4.51)			mNm (oz-in)	
6	Continuous Stall Current	3.53	1.79	5.61	2.78	7.04	3.34			A	
7	Peak Torque	297 (42.1)	154 (21.9)	538.8 (76.3)	265 (37.6)	723.1 (102.4)	356 (50.4)			mNm (oz-in)	
8	Peak Current	61.0	15.7	109.0	26.7	160.0	35.5			A	
9	Back EMF Constant	0.51	1.03	0.52	1.04	0.47	1.05			v/1000 rpm	
10	Torque Constant	4.87 (0.69)	9.8 (1.39)	4.94 (0.70)	9.89 (1.40)	4.49 (0.64)	10.0 (1.42)			mNm/A (oz.-in/A)	
11	Motor regulation R/Kt ²	-	16.4	15.6	9.0	7.4	6.7			10 ³ /Nms	
12	Motor regulation Kl/R½	-	7.8	8.0	10.5	10.5	11.6			mNm/W½	
13	Inductance - Phase to Phase	L	0.078	0.31	0.053	0.22	0.032	0.160			mH @1Khz
General Data											
14	Thermal Resistance (winding to ambient)	R _{th}	13.8		10.8		9.8			°C/W	
15	Thermal Time Constant	τ _w	844		894		1142			s	
16	Mechanical Time Constant	τ _m	3.16	2.98	2.28	2.31	2.38	2.13			ms
17	Electrical time constant	τ _e	0.20	0.21	0.24	0.25	0.21	0.24			ms
18	Rotor Inertia	J	12.67 (17.94)		16.80 (23.80)		20.96 (29.68)			kgm ² 10 ⁻⁸ (oz-in-sec ² 10 ⁻⁶)	
19	Max winding temperature	-			155 (311)					°C (°F)	
20	Shaft Load max.: radial (static)	-			138 (31)					N (lb)	
	axial (static)	-			156(35)					N (lb)	
21	Mass	M	65.6 (2.32)		80.54 (2.84)		87.73 (3.09)			g (oz)	
22	Length L	L	39.4 (1.553)		47.8 (1.883)		56.2 (2.213)			mm (in)	
23	Tolerances	-	Tolerances on all values ±10% unless otherwise specified.								

Notes

- Three phase motor with Wye connections
- Gearbox option: Size 9 Planetary
- Autoclavable versions available
- Hall sensors: supply voltage 4.5V - 24V
- Above parameters specified for 25 Deg C ambient temperature
- Sensorless option available on request
- Typical housing material 303 SS
- Typical shaft material 17-4 PH
- Motor is RoHS Compliant

