



DIMENSIONS: MILLIMETERS
INCHES

42S048D

Electrical Data	42S048D1U Unipolar	42S048D2U Unipolar	42S048D1B Bipolar	42S048D2B Bipolar	
1 Operating Voltage	5	12	5	12	VDC
2 Resistance per Phase, ± 10%	12.5	75.0	12.5	75.0	Ohms
3 Inductance per Phase, typ	6.4	34.1	10.4	58.0	mH
4 Rated Current per Phase *	0.40	0.16	0.40	0.16	A
Coil independent parameters					
5 Holding Torque, MIN *	50.8 (7.2)	50.8 (7.2)	60 (8.5)	60 (8.5)	mNm (oz-in)
6 Detent Torque, Max	12 (1.7)	12 (1.7)	12 (1.7)	12 (1.7)	mNm (oz-in)
7 Rotor inertia	9.5 (0.0519)	9.5 (0.0519)	9.5 (0.0519)	9.5 (0.0519)	(gcm ²) (oz-in-s ²)
8 Step Angle	7.5	7.5	7.5	7.5	Degree
9 Absolute accuracy 2 ph. On, Full step	± .5	± .5	± .5	± .5	Degree
10 Steps per Revolution	48	48	48	48	
11 Ambient Temp Range (operating)	-20 to +70 (-4 to +158)	-20 to +70 (-4 to +158)	-20 to +70 (-4 to +158)	-20 to +70 (-4 to +158)	°C (°F)
12 Maximum Coil Temperature	130 (266)	130 (266)	130 (266)	130 (266)	°C (°F)
13 Bearing Type	Sintered Bronze Sleeve	Sintered Bronze Sleeve	Sintered Bronze Sleeve	Sintered Bronze Sleeve	
14 Insulation Resistance at 500 VDC	100	100	100	100	Mohms
15 Dielectric Withstanding Voltage	650 for 2 seconds	650 for 2 seconds	650 for 2 seconds	650 for 2 seconds	VAC
16 Weight	88 (3.1)	88 (3.1)	88 (3.1)	88 (3.1)	g (oz)
17 Leadwire	AWG 28, UL 3265	AWG 28, UL 3265	AWG 28, UL 3265	AWG 28, UL 3265	

All Motor Data Values at 20°C Unless Otherwise Specified

* Energize at Rated Current, 2 Phase On

