



Dimensions in mm.

Electrical Data	P010 064		Unit
	020 21	003 21	
1 Nominal Voltage	19.0	3.0	Ohms
2 No-Load Speed	13.7	1.8	mH
3 No-Load Current	0.15	0.37	A
4 Terminal Resistance	0.21	0.52	A
5 Rotor Inertia	2.20	0.94	V/kstep/s
General Data			
6 Holding Torque, nominal current	1.8 (0.25)		mNm (oz-in)
7 Holding Torque, 1.5x nominal current (1)	2.5 (0.35)		mNm (oz-in)
8 Detent Torque	0.9 (0.13)		mNm (oz-in)
9 Rotor Inertia	0.070		kgm <sup>2</sup> x 10 <sup>-7</sup>
10 Step Angle	15		Degree
11 Absolute Accuracy 2 ph. On, Full step mode	+/- 5%		% Full Step
12 Steps Per Revolution	24		
13 Ambient Temperature Range (operating)	-20 to 50 (-4 to 122)		°C (°F)
14 Maximum Coil Temperature	130 (266)		°C (°F)
15 Thermal Resistance Coil-ambient (2)	100		°C/W
16 Natural Resonance Frequency (nominal current)	200		Hz
17 Electrical Time Constant	0.60		ms
18 Angular Acceleration (nominal current)	260,000		rad/s <sup>2</sup>
19 Bearing Type	Ball		
20 Dielectric Withstanding Voltage	500 VRMS for 5 seconds		VAC
21 Radial Shaft Play	30 @ 2N		µm
22 Axial Shaft Play	40 @ 2N		µm
23 Maximum Radial Shaft Load	2.5 (9)		N (oz)
24 Maximum Axial Shaft Load (3)	2.5 (9)		N (oz)
25 Weight	9 (0.32)		g (oz)
26 Power Rate (nominal current)	0.5		kW/s

Notes:

1. Measured with 1 phase ON. The max coil temperature must be respected
2. Motor unmounted
3. Shaft must be supported when press-fitting a pulley or pinion

