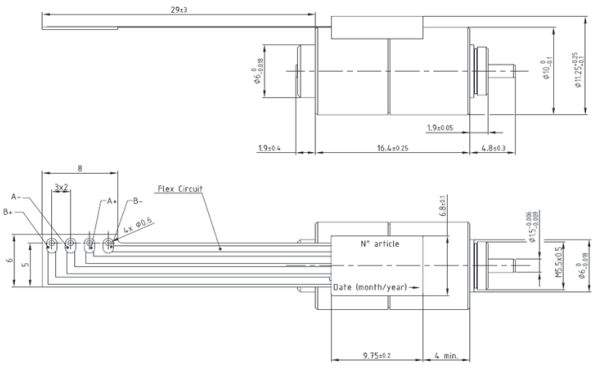
PH010 104 Ø10mm 2.1 mNm



Dimensions in mm

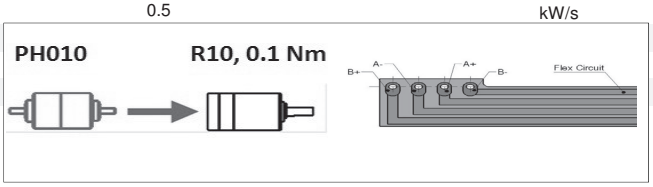
PH010 104

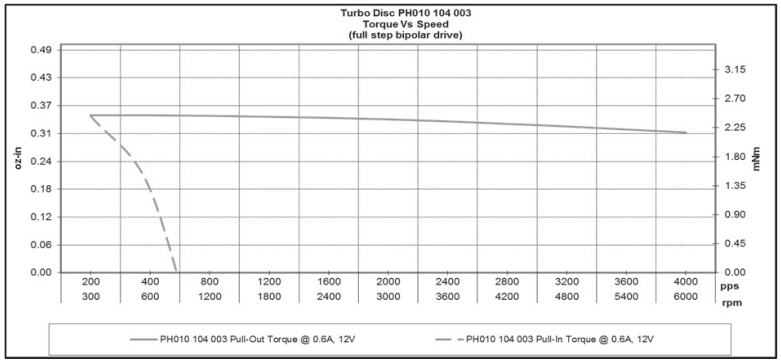
Electrical Data		PH010 104 020 02	PH010 104 010 02	PH010 104 003 02	
1	Resistance per Phase, typ	19.0	10.0	3.0	Ohms
2	Inductance per Phase, typ	8.4	4.2	1.3	mH
3	Nominal Phase Current (2 ph. On)	0.15	0.20	0.37	A
4	Nominal Phase Current (1 ph. On)	0.21	0.28	0.52	A
5	Back EMF Amplitude	1.58	1.18	0.64	V/kstep/s
Coil independent parameters					
6	Holding Torque, nominal current		2.1 (0.3)		mNm (oz-in)
7	Holding Torque, 1.5x nominal current (1)		3.16 (0.45)		mNm (oz-in)
8	Detent Torque		1 (0.14)		mNm (oz-in)
9	Rotor Inertia		0.070		$kgm^2 \times 10^{-7}$
10	Step Angle		9		Degree
11	Absolute Accuracy 2 ph. On, Full step mode		+/- 5%		% Full Step
12	Steps Per Revolution		40		
13	Ambient Temperature Range (operating)		-20 to 50 (-4 to 122)		℃ (℉)
14	Maximum Coil Temperature		130 (266)		℃ (℉)
15	Thermal Resistance Coil-ambient (2)		100		℃/W
16	Natural Resonance Frequency (nominal current)		276		Hz
17	Electrical Time Constant		0.42		ms
18	Angular Acceleration (nominal current)		301,758		rad/s^2
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

(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





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