

Minebea-Matsushita Motor Corporation **eMINEBEA.COM** 

### **Applications**

Head Drive for Floppy Disk Drive Pick Up Drive for CD Pick Up Drive for DVD

### **Reference Characteristics**

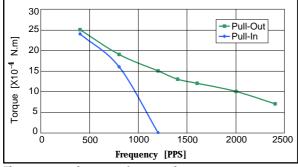
Moter Size	PL15S-020		
Number of Steps per Rotation	20		
Drive Method	2-2 PHASE		
Drive Circuit	BIPOLAR CONST. VOLT.		
Drive Voltage	5[V]		
Coil Resistance/Phase	10[Ω]		
Magnet Material	Nd-Fe-B bonded magnet (MS70		
Holding Torque	30[X10 <sup>-4</sup> N.m]		
Maximum PULL-IN Frequency	1450[PPS]		

### **Typical Torgue Characteristics**

Driver Frequency	400[PPS]	1400[PPS]	
PULL-OUT Torque	25[X10 <sup>-4</sup> N.m]	13[X10 <sup>-4</sup> N.m]	

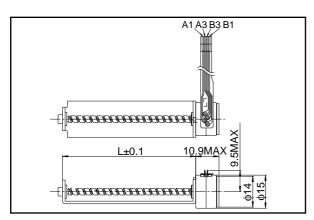
## **Torque Characteristics**

### PL LEAD SCREW TYPE(at 5[V],10[ ])



These torque values are reference only. Heat radiation conditions and temperature rise effect by duty are different on each equipment, therefore please select by diff are considering the heat conditions in the actual equipment.

### **Dimensions**



# PL15S-020 **PM Motor** PL Type

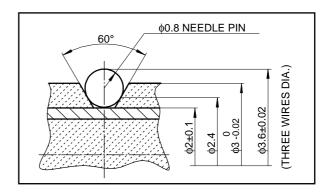
Switching Sequence (Viewed from Lead Screw Side)

▲ CW	TERMINAL STEP	A1	A2	B1	B3	
	1	I	+	+	-	
	2	1	+	-	+	
	3	+	-	-	+	1 U
	4	+	-	+	_	

# Lead Screw Spec

OUTSIDE DIA.	φ3
MINOR DIA.	φ2
PITCH DIA.	φ2.4
РІТСН	3.0
LEAD ANGLE	21°41" 49'
LEAD DIRECTION	<b>RIGHT-HAND SINGLE THREAD</b>
SIMPLE PITCH ERROR	0.020
<b>CUMULATIVE PITCH ERROR</b>	0.030

### Detail of Screw



Performance values shown on this website are representative. Motor design and specifications are subject to change without notice.