

MOONS'

LINEAR NON-CAPTIVE STEPPING MOTOR SPECIFICATION

MOONS' MODEL

25LN024L8-00803

4611120001683



REV	DESCRIPTION	DATE
A	FIRST ISSUED	2016.3.21

SHANGHAI MOONS' ELECTRIC CO., LTD.

North Minhang Industrial Park District
168 Mingjia Rd.
Shanghai, China

1. RATED CHARACTERISTICS AND CONDITIONS

NO.	ITEM	SPECIFICATION	REMARK
1.1	Rated Voltage	24 V DC	
1.2	Constant Current	0.5 A/Phase	Chopper Driver IC
1.3	Phase Number	Two (2)	Phases A&B
1.4	Excitation Method	Bipolar Full-Step	
1.5	Step Angle	15°	Full-Step
1.6	Bearing System	Two(2) Ball Bearings	
1.7	Insulation Class	Class B	
1.8	Linear Step Travel	0.0508 mm	Full-Step
1.9	Shaft Stroke	20 mm min.	

2. ELECTRICAL CHARACTERISTICS

NO.	ITEM	SPECIFICATION	REMARK
2.1	Resistance per Phase	8.5Ω ± 7%	@ 25°C
2.2	Inductance per Phase A/B	6.0 mH ±20%	1 kHz 1V rms
2.3	Pull/Push Force	20 N min.	600 pps Full-Step@ 25°C
2.4	Holding Force	40 N min.	Two Phases On@0.125A
2.5	Step Accuracy	± 7%(As Of Motor)	@1 pps Full-Step
2.6	Insulation Resistance	100MΩ min.	Case-lead DC500V
2.7	Dielectric Strength	Leak Current 3mA max.	Case-lead AC600V 1 sec.
2.8	Temperature Rise	45°C max. 300 pps Full-Step	On 100x200x2r Al Plate

Safety Standard: Conform to EA&MSL (Japan), UL, CSA, TUV, RoHS

3. MECHANICAL CHARACTERISTICS

NO.	ITEM	SPECIFICATION	REMARK
3.1	Outline Dimension	As Attached Outline Drawing	
3.2	Rated Net Weight	(45g) ^{reference}	
3.3	Uni-directional Accuracy	0.12 mm max	With 35N Shaft-in Load
3.4	Axial Shaft Play	0.15 mm max.	

4. OPERATING CONDITIONS

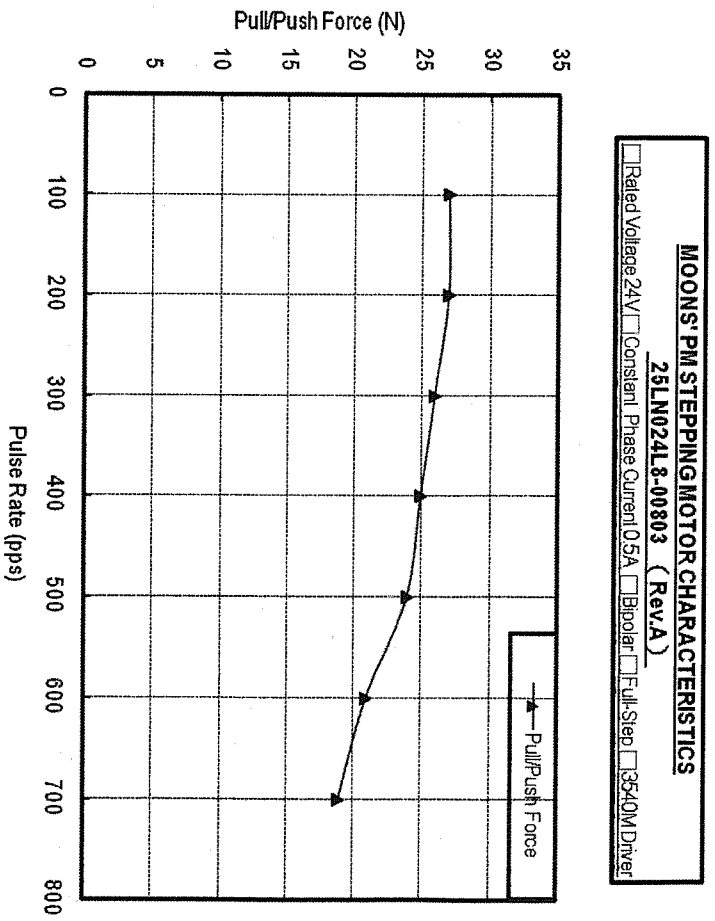
NO.	ITEM	SPECIFICATION	REMARK
4.1	Operating Temperature	-20°C ~ +65°C	
4.2	Operating Humidity	20 ~ 90%RH	No Condensation
4.3	Storage Temperature	-40°C ~ +85°C	
4.4	Storage Humidity	20 ~ 90%RH	No Condensation

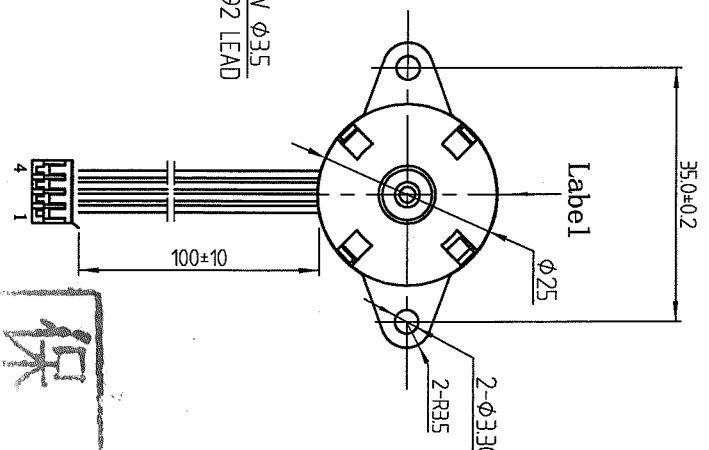
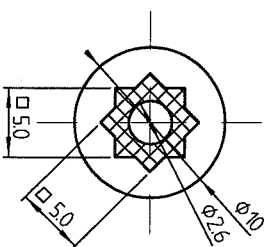
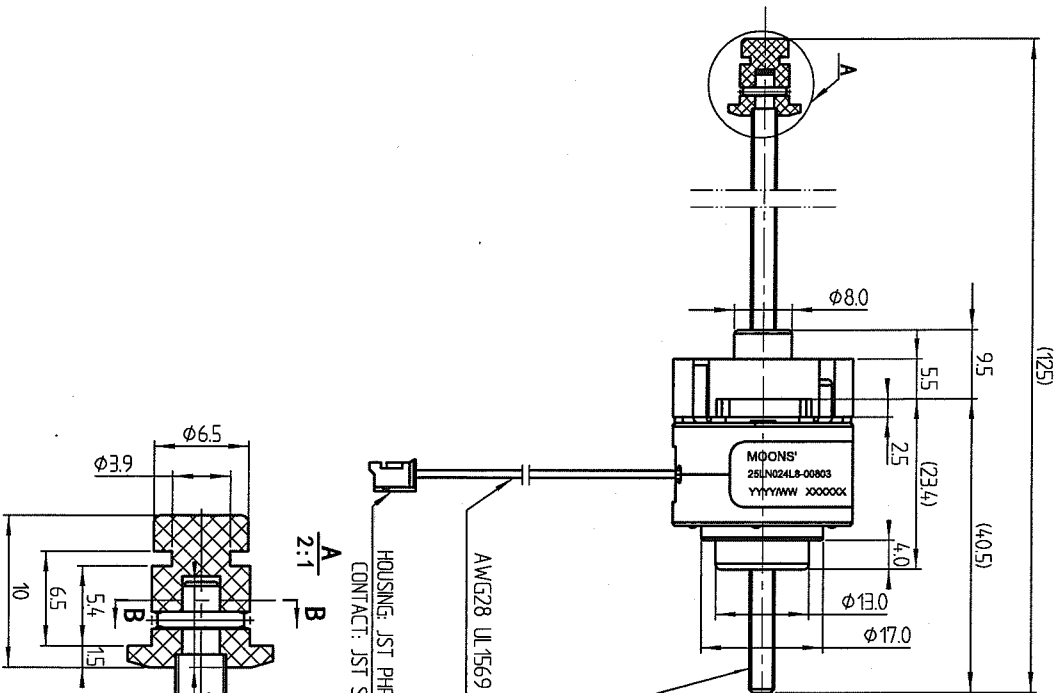
5. RELIABILITY AND WARRANTY

NO.	SPECIFICATION	REMARKS
5.1	Satisfactory Electrical & Mechanical Characteristics	<ol style="list-style-type: none"> Vibration Test at Package 0 ~ 100 Hz Sweep for 5 Minutes 1.5 mm, 3 Directional Amplitude for 30 Minutes
5.2	Satisfactory Electrical & Mechanical Characteristics	<ol style="list-style-type: none"> Shock Test at Package 30 G, 3 Directions each for 1 time

6. REMARKS

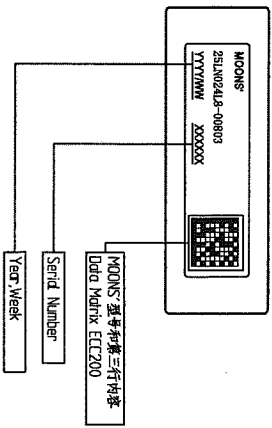
6.1	An abnormal operation may extremely shorten the performance or service life.
6.2	Do not hold the motor by lead.
6.3	The motor is subject to change for improving the performance within the range satisfying its specification.





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CONNECTOR PIN LOCATION			
PIN NO.	COLOR	EXTEND →	← RETRACT
		(SEEN FROM FLANGE SIDE)	
1	BLACK	ON	ON
2	BROWN	ON	ON
3	RED	ON	ON
4	ORANGE	ON	ON



单位 Unit: 毫米 mm		比例 Scale: 1:1	
第一角画法			
未注线性与角度尺寸公差			
Tolerances for linear and angular dimensions			
without individual tolerance indications			
GB/T 1804-m eqv ISO 2768-1-m			
未注形状与位置尺寸公差			
Geometrical tolerance for features without			
individual tolerance indications			
GB/T 1184-K eqv ISO 2768-2:K			
Rev.	更改记录 Record for Changing	Date	UNLESS OTHERWISE SPECIFIED
A	原始版本Original revision	16.03.21	
备注 Remarks		TYPE 251N02418-00803	