

MOONS'

LINEAR NON-CAPTIVE STEPPING MOTOR SPECIFICATION

MOONS' MODEL
25LN024L8-00804
4611120001705



REV	DESCRIPTION	DATE
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SHANGHAI MOONS' ELECTRIC CO., LTD.

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1. RATED CHARACTERISTICS AND CONDITIONS

NO.	ITEM	SPECIFICATION	REMARK
1.1	Rated Voltage	3.3 V DC	
1.2	Constant Current	0.29 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	0.0254 mm	Full-Step
1.9	Shaft Stroke	48mm min.	

2. ELECTRICAL CHARACTERISTICS

NO.	ITEM	SPECIFICATION	REMARK
2.1	Resistance per Phase	$8.5\Omega \pm 7\%$	@ 25°C
2.2	Inductance per Phase A/B	5.0 mH $\pm 15\%$ reference	1 kHz 1V rms
2.3	Pull/Push Force	15 N min.	200 pps Full-Step@ 25°C
2.4	Holding Force	25 N min.	Two Phases On@0.3A
2.5	Step Accuracy	$\pm 7\%$ (As Of Motor)	@1 pps Full-Step
2.6	Insulation Resistance	100M Ω 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 100x200x2t 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

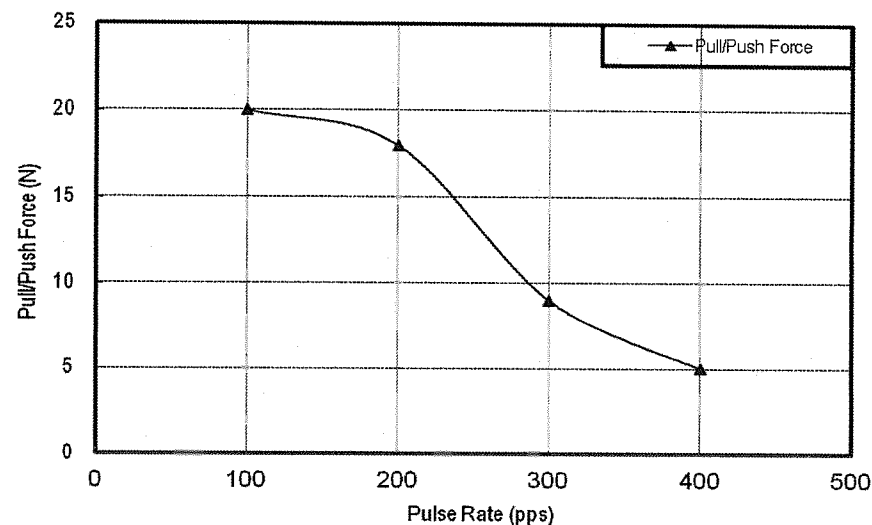
5. RELIABILITY AND WARRANTY

NO.	SPECIFICATION	REMARKS
5.1	Satisfactory Electrical & Mechanical Characteristics	1. Vibration Test at Package 2. 0 ~ 100 Hz Sweep for 5 Minutes 3. 1.5 mm, 3 Directional Amplitude for 30 Minutes
5.2	Satisfactory Electrical & Mechanical Characteristics	1. Shock Test at Package 2. 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.

MOONS' PM STEPPING MOTOR CHARACTERISTICS
25LN024L8-00804 (Rev.A)
☐ Rated Voltage 3.3V ☐ Constant Phase Current 0.29A ☐ Bipolar ☐ Full-Step ☐ A4980M Driver



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