



Model No. NFP-FLAT-C1030SC

1. Application

This article regulates the relevant technical requirements and test methods of model NFP-FLAT-C1030SC Coin Vibration Motor.

2. Operating Conditions

PARAMETER	SPECIFICATION
Rated voltage	2.0V DC
Operating voltage	1.7 ~2.3V DC
Rotation	CW (clockwise) or CCW (counter clockwise)
Operating environment	-30~70°C /Ordinary Humidity:65±20%RH
Storage environment	-40~80°C /Ordinary Humidity:65±20%RH

3. Conditions of Measurement

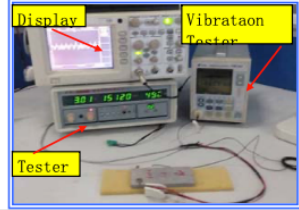
PARAMETER	SPECIFICATION
Temperature	25±3°C
Humidity	65±10% RH
Power supply	Constant Power supply 2.0V DC

4. Electrical Characteristics

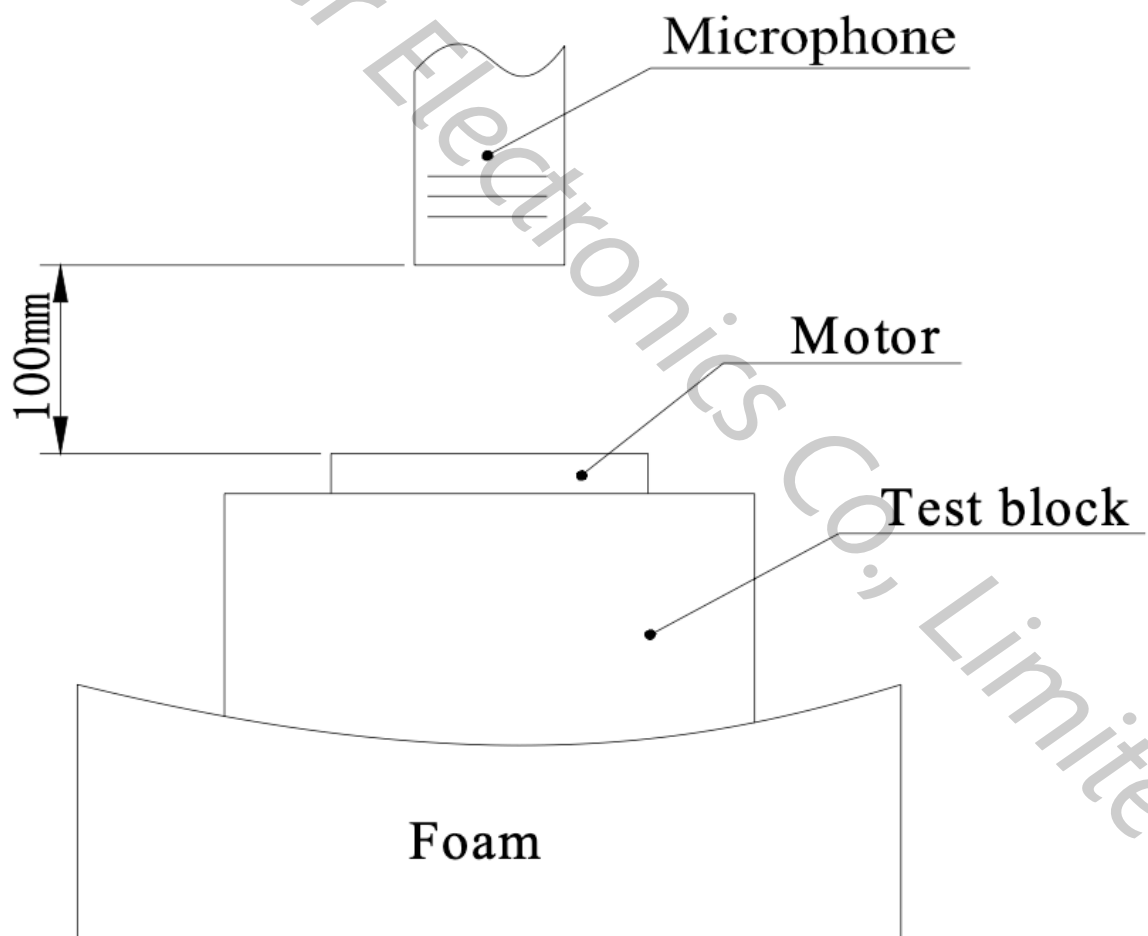
PARAMETER	SPECIFICATION	CONDITION
Rated speed	12000±3000rpm	At rated voltage
Rated current	70mA Max	
Starting current	150mA Max	Motor is rotating at minimum starting voltage.
Starting voltage	1.1V DC Max	
Insulation resistance	10MΩ Min	At DC 100V between lead wire and case.
Terminal resistance	17Ω±15%(single posture) 34Ω±15%(compose posture)	At 25°C

The response time	65Ms Max	Reach 50% of the rated speed measurement
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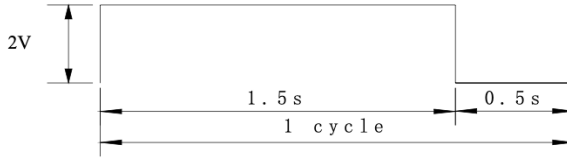
5. Mechanical Characteristics

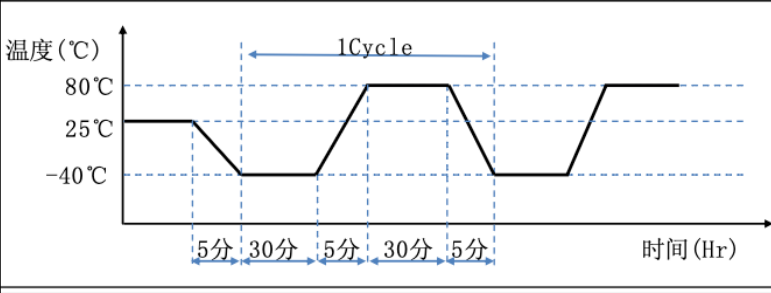
PARAMETER	SPECIFICATION
Bracket Deflection strength	9.8N or more
Using dummy set(100g) Equipment:PV-90B Sensor:VM-83 Input voltage : 2.0V Vibrations: 0.5G(AVG.)	
Mechanical noise	50dB (A) Max

At rated voltage
Back ground noise 28dB (A) Max



6. Reliability Tests

PARAMETER	SPECIFICATION	JUDGMENT
Lifetime	Rated voltage: 2.0V DC Test mode: 1.5s On, 0.5s Off, as one cycle Test cycle: 200,000 cycles 	After the test, motors shall be approved as specified in item 11-1
Low temperature exposure	Temperature: -40°C Time: 96h	After 2 hours exposure in ordinary temperature and humidity, motors shall be approved as specified in item 11-2
High temperature exposure	Temperature: +85°C Time: 96h	
High humidity exposure	Temperature: +80°C Humidity: 80%RH Exposure time: 96h No condensation of moisture	
Vibration	Displacement: 1.5mm(p-p) Frequency: 10~55Hz Acceleration: 22m/s² Period: 10Minutes log sweep (10~55~10Hz) Condition: Sample shall be applied for a period of 10 minutes in three axial directions	After the test motors shall be approved as specified in item 11-2
Free fall	Set the motor to a fixture of approx.100g (include the motor) and drop it onto the concrete floor Height: 1.5m Direction: 6 faces 4 corners Number of times: Each 3 times	
Tumble test	Installed in a 150g dummy jig, dropped from a height of 1m onto an iron plate. Performed at 8rpm.	

Thermal shock	Test mode: 30 hour at -40°C, 30 hour at +85°C, as one cycle. Transfer time between extreme temperatures: < 5min Test cycle: 24 cycles 	After 2 hours exposure in ordinary temperature and humidity, motors shall be approved as specified in item 11-2
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7. Judgments after Reliability Tests

PARAMETER	SPECIFICATION
Table A	1) Rated speed: No lower than -30% of initial data; No more than +50% of initial data. 2) Rated current: No lower than -30% of initial; No more than +50% of initial data. 3) Terminal resistance: No more than +15% of initial data; No less than -15% of initial data. 4) Starting voltage: 1.5V DC Max 5) Insulation resistance: 10MΩ Min
Table B	1) Rated speed: No more than +20% of initial data; No less than -20% of initial data. 2) Rated current: No more than +20% of initial data; No less than -20% of initial data. 3) Starting voltage: 1.5V DC Max 4) Terminal resistance: No more than +15% of initial data; No less than -15% of initial data.

8. Cautions for Use

PARAMETER	SPECIFICATION
Unless it is used in accordance with the specifications, the performance and life may be considerably reduced. Due attention should be paid to voltage and range for use. Advice uses this motor within 6 months as avoiding as possible. Avoid use or save the motor in the following environment. 1. High temperature and high humidity area 2. Corrosive gas such as H₂S, SO₂, NO₂, Cl₂. 3. Dusty area.	

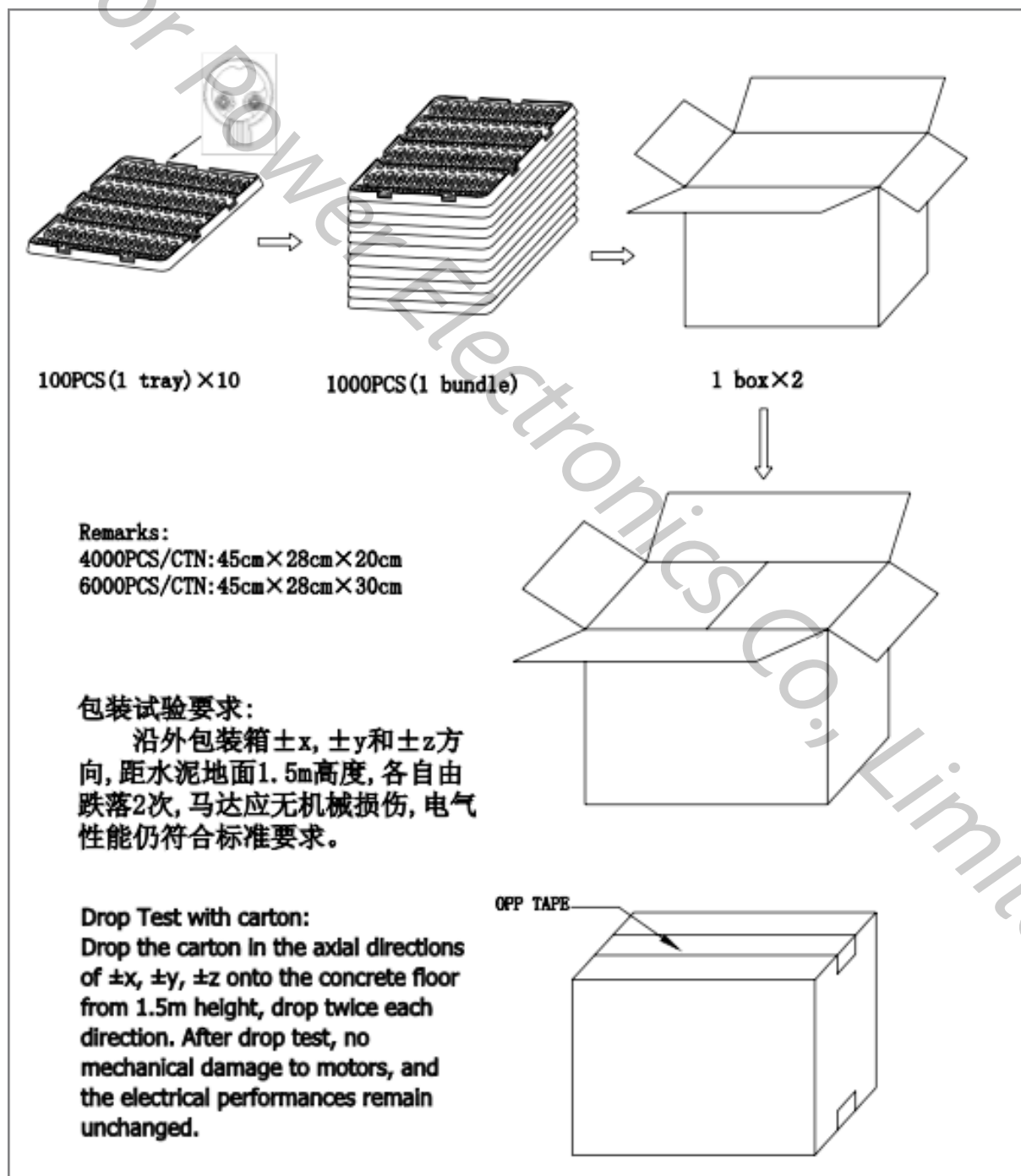
Due attention must be paid to the handling and working environments because such objects as iron powder if attracted by the motor magnet, will cause noise, characteristic deterioration thus reducing the reliability.

Please confirm enough no problems of standards and laws and ordinances on your cellular phone.

To handle the motor, hold the motor case softly.

Rust of plate (steel) and similar edge should be OK.

9. Packing



10. Outline Drawing

