



Model No.
NFP-C1020B344F

1. Application

This article regulates the relevant technical requirements and test methods of model NFP-C1020B344F Coin Vibration Motor.

2. Operating Conditions

NO.	Item	Specification
2-1	Rated voltage	3.0V DC
2-2	Operating voltage	2.7~3.3V DC
2-3	Rotation	CW (clockwise) or CCW (counter clockwise)
2-4	Operating environment	-20~60°C, Ordinary Humidity: 65±20%RH
2-5	Storage environment	-30~70°C, Ordinary Humidity: 65±20%RH

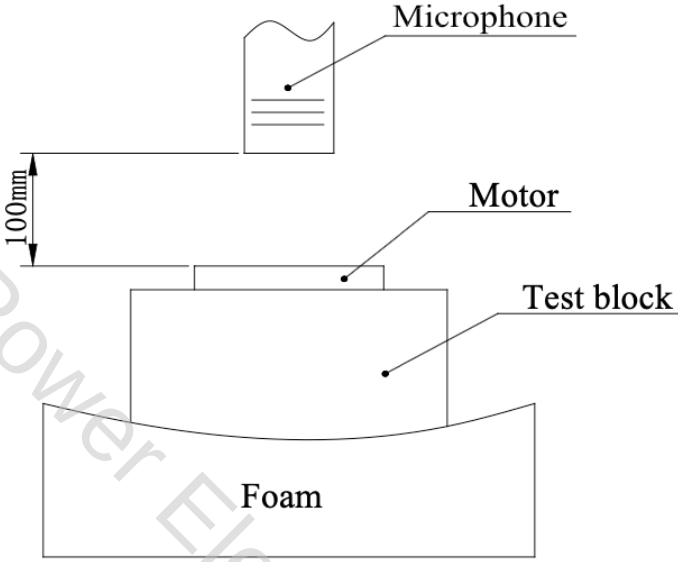
3. Conditions of Measurement

NO.	Item	Specification
3-1	Temperature	25±3 °C
3-2	Humidity	65±20% RH
3-3	Power supply	Constant Power supply 3.0V DC

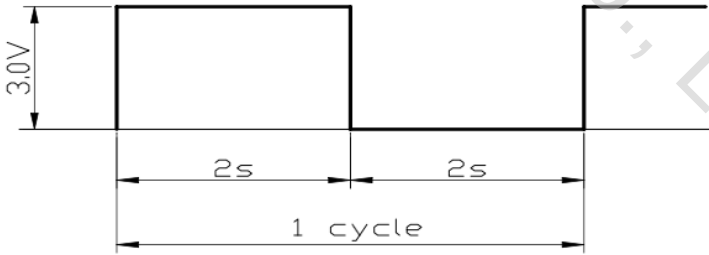
4. Electrical Characteristics

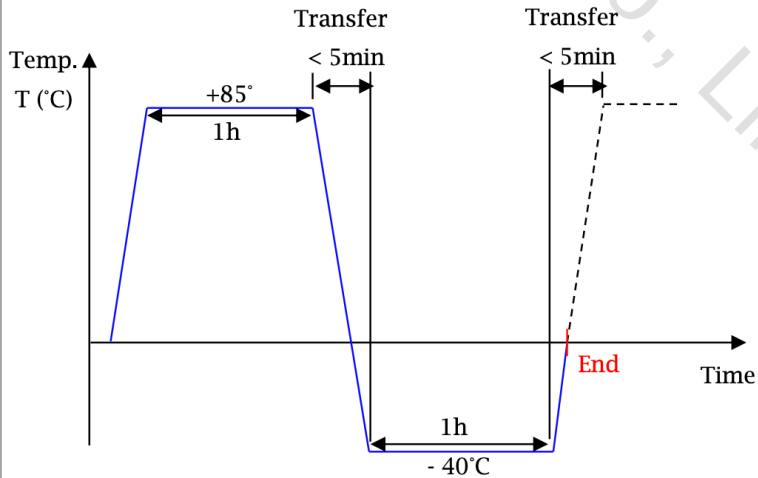
NO.	Item	Specification	Condition
4-1	Rated speed	9000rpm Min.	At rated voltage
4-2	Rated current	90mA Max.	
4-3	Starting current	120mA Max.	Motor is rotating at minimum starting voltage
4-4	Starting voltage	2.3V DC Max.	
4-5	Insulation resistance	10MΩ Min.	At DC 100V between lead wire and case
4-6	Terminal resistance	31Ω±15% (single posture) 59Ω±15% (double posture)	At 25°C

5. Mechanical Characteristics

NO.	Item	Specification
5-1	Bracket deflection strength	9.8N or more
5-2	Mechanical noise	50dB (A) Max.
	At rated voltage Back ground noise 28dB(A)Max 	

6. Reliability Tests

NO.	Item	Specification	Judgment
6-1	Lifetime	Rated voltage: 3.0V DC Test mode: 2s On, 2s Off, as one cycle Test cycle: 50,000 cycles 	After the test, motors shall be approved as specified in item 7-1.
6-2	Low temperature exposure	Temperature: -30°C Time: 96h	After 4 hours exposure in ordinary temperature and humidity, motors shall be approved as specified in item 7-2.

NO.	Item	Specification	Judgment
6-3	High temperature Exposure	Temperature: +70°C Time: 96h	After 4 hours exposure in ordinary temperature and humidity, motors shall be approved as specified in item 7-2.
6-4	High humidity exposure	Temperature: +40°C Humidity: 95%RH Exposure time: 96h NO condensation of moisture	
6-5	Vibration	Displacement: 1.5mm (p-p) Frequency: 10~55Hz Acceleration: 22m/S ² Period: 10 Minutes log sweep (10~55~10Hz) Condition: Samples shall be applied for a period of 10 minutes in three axial directions.	After the test motors shall be approved as specified in item 7-2.
6-6	Free fall	Test mode: Set the motor to a fixture of approx. 100g (include the motor) and drop it onto the concrete floor. Height: 1.5m Direction: ±x, ±y, ±z Number of times: Each 3 times	After the test motors shall be approved as specified in item 7-2.
6-7	Thermal shock	Test mode: 1 hour at -40°C, 1 hour at +85°C, as one cycle. Transfer time between extreme temperatures: <5min Test cycle: 15 cycles 	After 4 hours exposure in ordinary temperature and humidity, Motors shall be approved as specified in item 7-2.

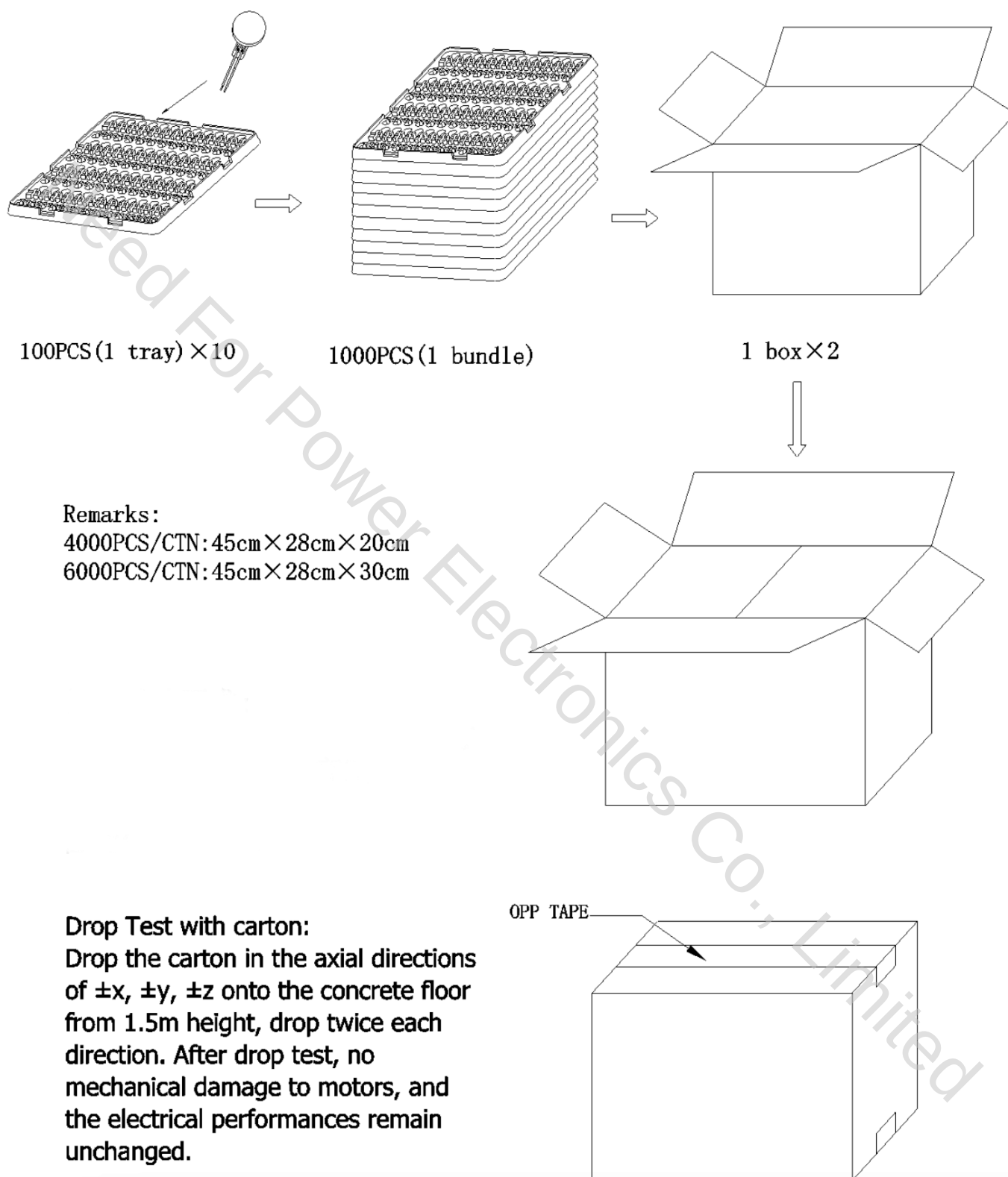
7. Judgments after Reliability Tests

NO.	Item	Requirements
7-1	Table A	Rated speed: No lower than -30% of initial data; No more than +50% of initial data. Rated current: No lower than -30% of initial data; No more than +50% of initial data. Terminal resistance: No more than +15% of initial data; No less than -15% of initial data. Starting voltage: 2.5V DC Max. Insulation resistance: 10MΩ Min.
7-2	Table B	Rated speed: No more than +20% of initial data; No less than -20% of initial data. Rated current: No more than +20% of initial data; No less than -20% of initial data. Starting voltage: 2.5V DC Max. Terminal resistance: No more than +15% of initial data; No less than -15% of initial data.

8. Cautions for Use

NO.	Item
8-1	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.
8-2	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 H ₂ S, SO ₂ , NO ₂ , Cl ₂ 3) Dusty area
8-3	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.
8-4	Please confirm enough no problems of standards and laws and ordinances on your cellular phone.
8-5	To handle the motor, hold the motor case softly.
8-6	Rust of plate (steel) and similar edge should be OK.
8-7	Our company follows the sustainable developing strategy, and have the right to make changes and improvements to our product without giving notice in advance. Of course, these changes and improvements will not affect the characteristics and function of the motor.

9. Packing Requirements



10. Outline Drawing

