



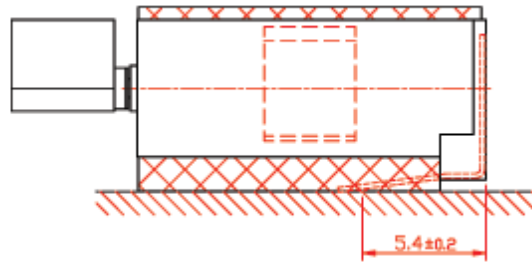
# JinLong Machinery

VibratorMotor.com

# KOTL

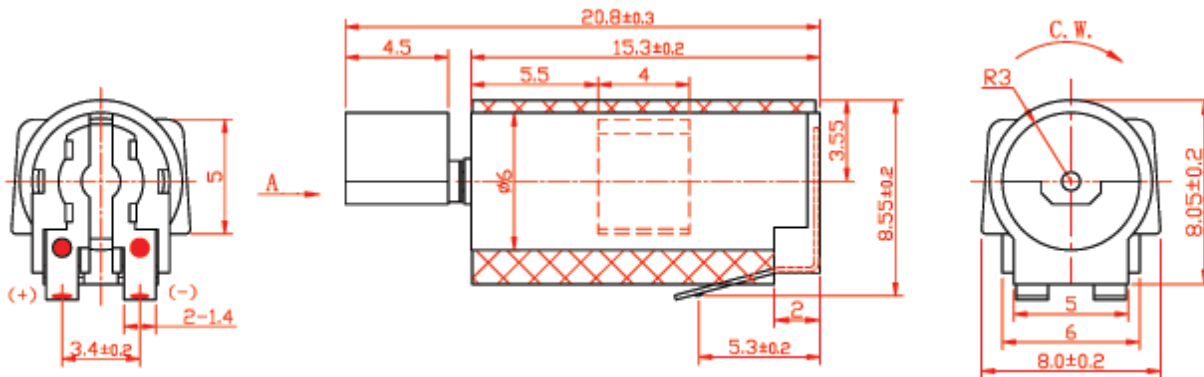
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## Part No. **Z6CH1A008235**



### Technical Requirements:

1. Rated voltage: 1.3V
2. Rated current: 80mA Max
3. Rated speed: 7,500 ± 2000rpm
4. Stall current: 145mA Max
5. Terminal resistance: 11Ω(±20%)
6. Starting voltage: 1.0V Max
7. Shaft end play: 0.1~0.3mm
8. Overall length is measured after counterweight being pressed against body in direction A. (Shaft end play is not included.)
9. Unmarked tolerance: ± 0.1mm



## 1. General scope

1-1 The specifications apply to the coreless cylindrical permanent magnetic micro vibration motor DC model **Z6CH1A008235**.

## 2. Operating conditions

Items	Specifications	Condition & Remarks
2-1 Rated voltage	1.3V DC	
2-2 Rated load	Counterweight	As specified in the outline drawing.
2-3 Rated speed	7500±2000rpm	
2-4 Rotation	C.W. (clockwise)	
2-5 Motor position	All positions	
2-6 Operating voltage	0.9 ~ 1.6V DC	
2-7 Operating conditions	-30 ~ 70°C, ordinary humidity	No condensation of moisture.
2-8 Storage conditions	-40 ~ 80°C, ordinary humidity	No condensation of moisture.

### 3. Measuring conditions

Items	Specifications	Condition & Remarks
3-1 Temperature	20±2° C	
3-2 Humidity	(63 ~ 67%) RH	
3-3 Motor position	Motor shaft horizontal	Lock the motor in a test fixture.

All data are based on the measuring conditions: Temperature, 20°C and Humidity, 65% RH.

However, the ranges of temperature 5~35°C and humidity 45~85 %RH are to be applicable as long as no problems.

### 4. Mechanical specifications

Items	Specifications	Condition & Remarks
4-1 Configuration	As specified in outline drawing	Outline drawing No: <b>Z6CH1A008235</b> .
4-2 Appearance	There shall be no evidence of mechanical damage and shall not have inadequate corrosion, etc.	Visual examination: Inspection carried out on samples.
4-3 Shaft end play	0.1 ~ 0.3mm	
4-4 Weight of motor	2.86g approx.	
4-5 Holding strength of vibration weight	49N (5kgf)	

### 5. Performance and characteristics

Items	Specifications	Condition & Remarks
5-1 Rated speed	7500±2000rpm	At rated voltage and rated load (vibration weight).
5-2 Rated current	80mA max	
5-3 Stall current	145mA max	At rated voltage.
5-4 Starting voltage	0.75V DC max	At rated load (vibration weight) any position of rotor.
5-5 Insulation resistance	1M• min	At DC 100V between the lead wires and motor body.
5-6 Terminal resistance	11• approx.	At 20°C.

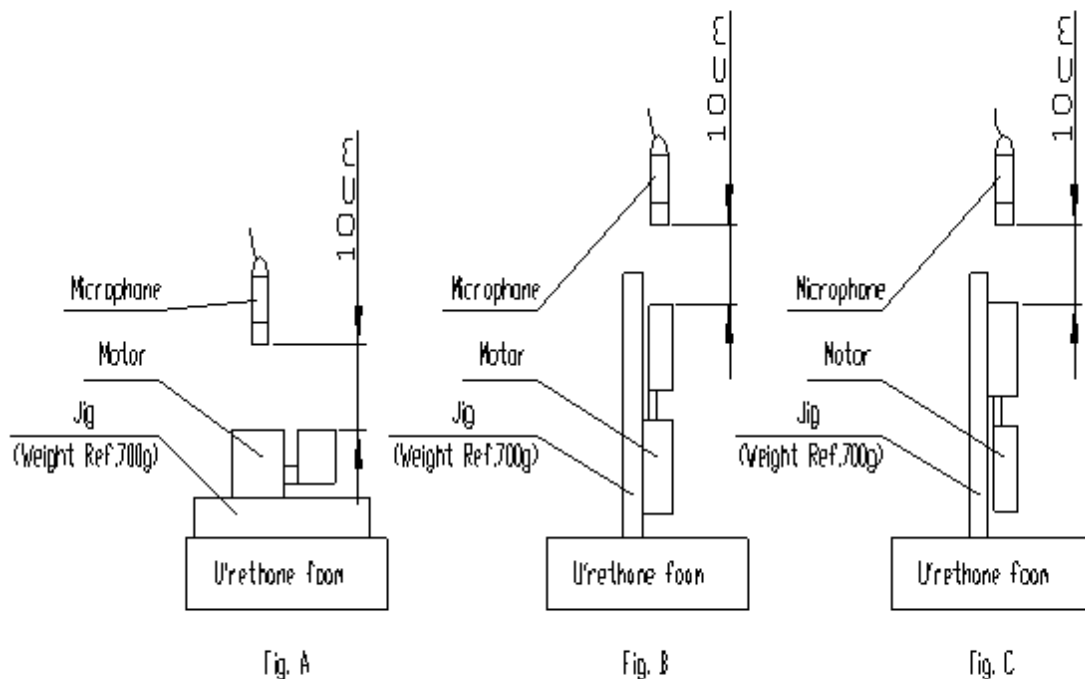
Mechanical noise 50db (A) max

At rated voltage and rated load (counterweight).

Back ground noise 28 db (A) max.

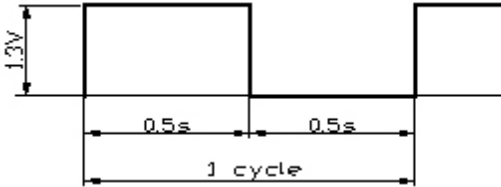
Measuring instruments: B & K

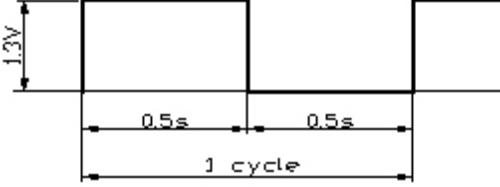
Weight of jig: 700 g



5-7

## 6. Reliability Test

Items	Standard test conditions	Condition & Remarks															
6-1 Life test	 <table border="1" data-bbox="261 779 1258 877"> <thead> <tr> <th>Position</th> <th>Voltage</th> <th>Load</th> <th>Temperature</th> <th>Humidity</th> <th>Life</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Horizontal</td> <td rowspan="2">Rated</td> <td rowspan="2">Counter weight</td> <td>20 °C</td> <td>65 %</td> <td>200,000 cycles</td> </tr> <tr> <td>40 °C</td> <td>90 %</td> <td>40,000 cycles</td> </tr> </tbody> </table>	Position	Voltage	Load	Temperature	Humidity	Life	Horizontal	Rated	Counter weight	20 °C	65 %	200,000 cycles	40 °C	90 %	40,000 cycles	After 2 hours exposure in ordinary Motors shall be approved as specified in item 7-1.
Position	Voltage	Load	Temperature	Humidity	Life												
Horizontal	Rated	Counter weight	20 °C	65 %	200,000 cycles												
			40 °C	90 %	40,000 cycles												
6-2 Low temperature	Temperature: $-40 \pm 2^{\circ}\text{C}$ Time: 96hrs																
6-3 High temperature	Temperature: $85 \pm 2^{\circ}\text{C}$ Time: 96hrs																
6-4 High humidity exposure test	Temperature: $40 \pm 2^{\circ}\text{C}$ Humidity: 90 ~ 95% RH Exposure time: 96hrs Dry time: 4hrs No condensation of moisture	After 2 hours exposure in ordinary Motors shall be approved as specified in item 7-2.															
6-5 Vibration test	Displacement: 1.5mm (p-p) Frequency: 10 ~ 55Hz Period: 20 Mins log sweep (10 ~ 55 ~ 10Hz) Direction: x, y, z Time: Every 2 hours	After the test motors shall be approved as specified in item 7-2.															

6-6	Free fall	<p>Test state: Set the motor to the approximately 75 g (include the motor) weight of block drop the motor on the concrete floor.                  Height: 1.5 m                  Direction: <math>\pm x</math>, <math>\pm y</math>, <math>\pm z</math>                  Number of times: Twice each</p>	<p>After the test motors shall be approved as specified in item 7-2.</p>
6-7	Heat stock test	<p>Test cycle: 5 cycles</p> 	<p>After the test motors shall be approved as specified in item 7-2.</p>

**7. Post environmental**

Items	Requirements
7-1 Table A	<ol style="list-style-type: none"> <li>1) Rated speed: Initial data -30 % min.; Initial data +60 % max.</li> <li>2) Rated current: Initial data <math>\pm 30</math> % max.</li> <li>3) Insulation resistance: 1 M<math>\Omega</math> min.</li> <li>4) Starting voltage: 1.0 V DC max.</li> <li>5) Current waveform: Normal</li> </ol>
7-2 Table B	<ol style="list-style-type: none"> <li>1) Rated speed: Initial data -30 % min.; Initial data +60 % max.</li> <li>2) Rated current: Initial data <math>\pm 30</math> % max.</li> <li>3) Starting voltage: 1.0 V DC max.</li> </ol>

**8. Matters to be paid attention to when using motor**

- 8-1 Please lay the motors carefully in transportation to avoid any damage to the motor body or its electric function because of collision.
- 8-2 Please do not leave the motors in the environment of high temperature, high humidity and gas that will cause rust and corrosion. Please don't store the motors for over 6 months.
- 8-3 Please do not lock the motor shaft when the electric power is supplied.
- 8-4 Please do not touch the weights when motor is rotating.