



# 产品规格书

PRODUCT SPECIFICATION

客户名称Buyer Name	
客户料号Buyer Part No.	
客户承认签章 Buyers Approval & Signatures	

文件编号Spec No.		版本	A/3
品名描述 Product Description	扁平振动马达 Coin Vibration Motor		
型号Part No.	VC0625B001L		
送样日期Date			
设计Designed by	审核Checked by	批准Approved by	
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2021.09.09	2021.09.09	2021.09.09	

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**1. 适用范围/General Scope of Application**

本说明书适用于扁平式永磁直流电机 VC0625B001L 系列。

This specification applies to coin type permanent-magnetic motors DC model VC0625B001L.

**2. 使用条件/Operating Conditions**

序号 NO.	项目 Item	规格 Specifications
2-1	额定电压 Rated voltage	2.5V DC
2-2	使用电压范围 Operating voltage	2.0~3.5V DC
2-3	旋转方向 Rotation	CW (clockwise) or CCW (counter clockwise)
2-4	使用环境 Operating environment	-30~70°C,常湿/Ordinary Humidity:65±20%RH
2-5	保存环境 Storage environment	-40~80°C,常湿/Ordinary Humidity:65±20%RH

**3. 测定条件/Conditions of Measurement**

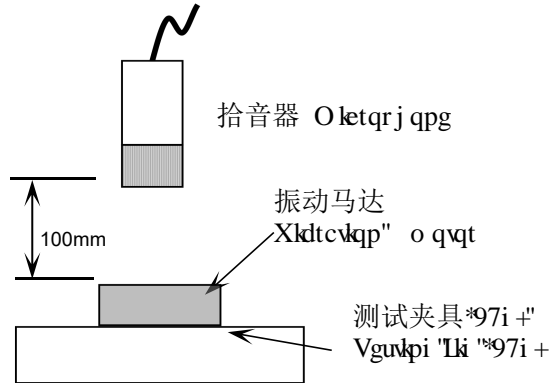
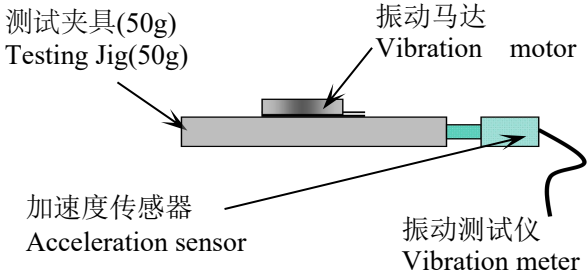
序号 NO.	项目 Item	规格 Specification
3-1	温度 Temperature	25±3°C
3-2	湿度 Humidity	65±20% RH
3-3	电源电压 Power supply	稳压直流电源 2.5V。 Constant Power supply 2.5V DC.

**4. 电气性能/Electrical Characteristics**

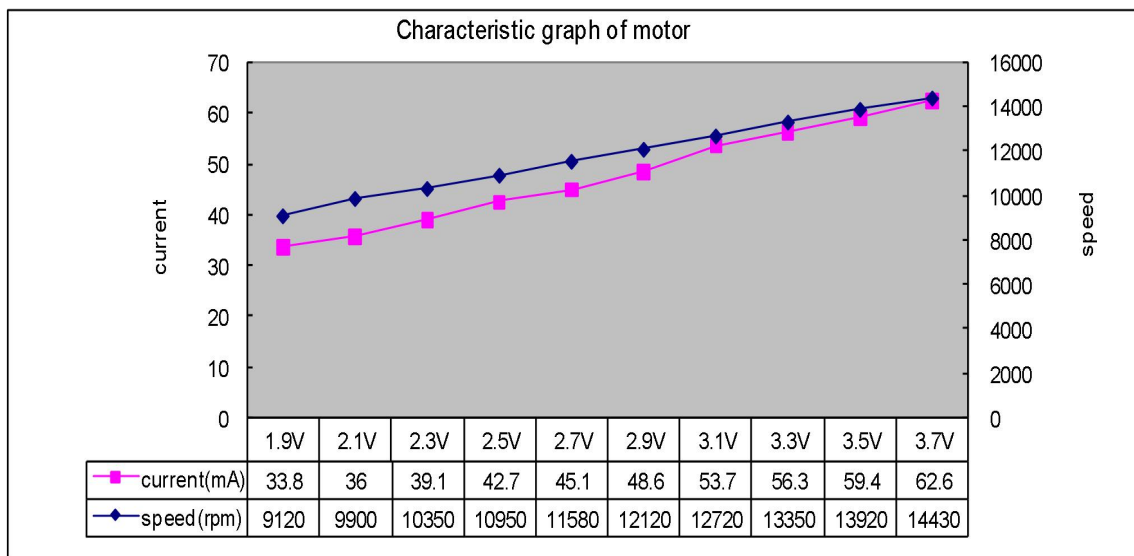
序号 NO.	项目 Item	规格 Specification	条件 Condition
4-1	额定转速 Rated speed	10000 rpm Min	额定电压下。 At rated voltage.
4-2	额定电流 Rated current	100mA Max	

4-3	起动电压 Starting voltage	2.0V DC Max	在最小起动电压下启动。 Motor is rotating at minimum starting voltage.
4-4	绝缘电阻 Insulation resistance	10MΩ Min	在 100V 直流下，导线和机壳间。 At DC 100V between lead wire and case.
4-5	端子阻抗 Terminal resistance	相接触/Phase contact: 23±20% 相串联/Phase senrial: 45±20% 相并联/Phase parallel: 12±20%	在 25℃ 下。 At 25℃

**5. 机械性能/Mechanical Characteristics**

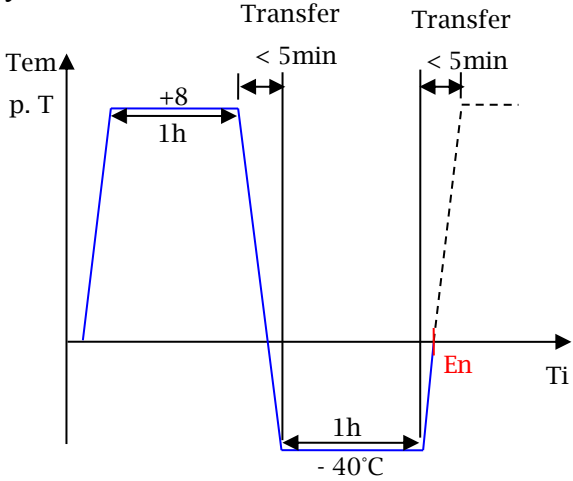
序号 NO.	项目 Item	规格 Specification
5-1	底盖偏转强度 Bracket Deflection strength	9.8N 以上 9.8N or more.
5-2	机械噪音 Mechanical noise	 <p>背景噪音：不大于 25dB. Back ground noise 25dB (Max).</p> <p>额定小于50 分贝. / 50dB (A) Max.</p>
5-3	动量 Vibration Strength	 <p>马达：被固定/Motor : be fixed. 额定电压:DC 2.5V/Rated voltage : DC 2.5V .</p> <p>Grms 0.3 Min Gp 0.4 Min</p>

6. 马达特性图/Characteristic Graph Of Motor



7. 信赖性试验/ Reliability Tests

序号 NO.	项目 Item	规格 Specification	判定标准 Judgment
7-1	寿命 Lifetime	额定电压/ Rated voltage: 2.5V DC 试验模式/ Test mode: 1s On, 1s Off, as one cycle. 循环次数/ Test cycle: 100,000 cycles	常温常湿下放置 2h后, 马达应符合项 8-1 的要求。After 2 hours exposure in ordinary temperature and humidity, motors shall be approved as specified in item 8-1.
7-2	低温储存 Low temperature exposure	温度/Temperature: $-40\pm 2^{\circ}\text{C}$ 时间/Time: 96h	
7-3	高温储存 High temperature Exposure	温度/Temperature: $+80\pm 2^{\circ}\text{C}$ 时间/Time: 96h	

7-4	湿度放置 High Humidity exposure	温度/Temperature: +40±3℃ 湿度/Humidity: 90%~95%RH 放置时间/ Exposure time: 96h 无水气凝结/ No condensation of moisture	
7-5	振动 Vibration	全振幅/Displacement: 1.5mm (p-p) 频率/Frequency: 10~55Hz 加速度/Acceleration: 22m/s <sup>2</sup> 周期/Period: 10 分钟范围内 (10~55~10Hz)/ 10 Minutes log sweep(10~55~10Hz) 条件/Condition: 在样机中, 在 3 个垂直的轴方向每个方向做 10 分钟的测试。Samples shall be applied for a period of 10 minutes in three axial directions.	
7-6	自然跌落 Free fall	试验状态/Test mode: 将马达固定在约 100±10 克 (包括马达本身) 的物体上, 落向水泥地面。Set the motor to a fixture of approx. 100g (include the motor) and drop it onto the concrete floor. 高度/Height: 1.5m 方向/Direction: ±x, ±y, ±z 次数/Number of times: 每个方向 3 次/ Each 3 times	常温常湿下放置 2h 后, 马达应符合项 8-1 的要求。 After 2 hours exposure in ordinary temperature and humidity, motors shall be approved as specified in item 8-1.
7-7	热冲击 Thermal shock	测试模式/ Test mode: 1 hour at -40℃, 1 hour at +85℃, as one cycle. Transfer time between extreme temperatures: <5 分/5 min 循环次数 /Test cycle: 15 cycles 	

**8. 判定基准/ Judgments After Reliability Tests**

序号 NO.	项目 Item	判定基准 Requirements
8-1	表 A Table A	1)额定转速/Rated speed: 不低于初始值-30%; 不高于初始值+50%/ No lower than -30% of initial data; No more than +50% of initial data. 2)额定电流/Rated current: 不低于初始值-30%; 不高于初始值+50% No lower than -30% of initial data; No more than +50% of initial data. 3)端阻/Terminal resistance: 不大于初始值±15% No more than +15% of initial data; No less than -15% of initial data. 4)起动电压/Starting voltage: 不大于 2.0V 直流电压 2.0V DC Max

**9. 使用时注意事项/ Cautions for Use**

9-1 必须按照规格书标准使用，否则性能和寿命都将受到相当减少，必须注意电压的使用范

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.

9-2 建议马达在六个月内使用，不要在以下环境中使用及保存：

-高温和高湿的场所；

-腐蚀性气体,如：H<sub>2</sub>S、SO<sub>2</sub>、NO<sub>2</sub>、Cl<sub>2</sub>；

-生锈场所。

Advice uses this motor within 6 months as avoiding as possible.

Avoid use or save the motor in the following environment.

-High temperature and high humidity area

-Corrosive gas such as H<sub>2</sub>S, SO<sub>2</sub>, NO<sub>2</sub>, Cl<sub>2</sub>.

-Dusty area.

9-3 注意处理马达的工作环境，避免含铁质等物体被马达吸住，否则马达将会产生噪声，性能会降低，从而减少产品可靠性。

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.

9-4 应确信本产品不会与相关标准、法律、政令相背。

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

9-5 拿马达时，要轻拿轻放。

To handle the motor, hold the motor case softly.

9-6 钢板面或边缘有少许锈斑是允许的。

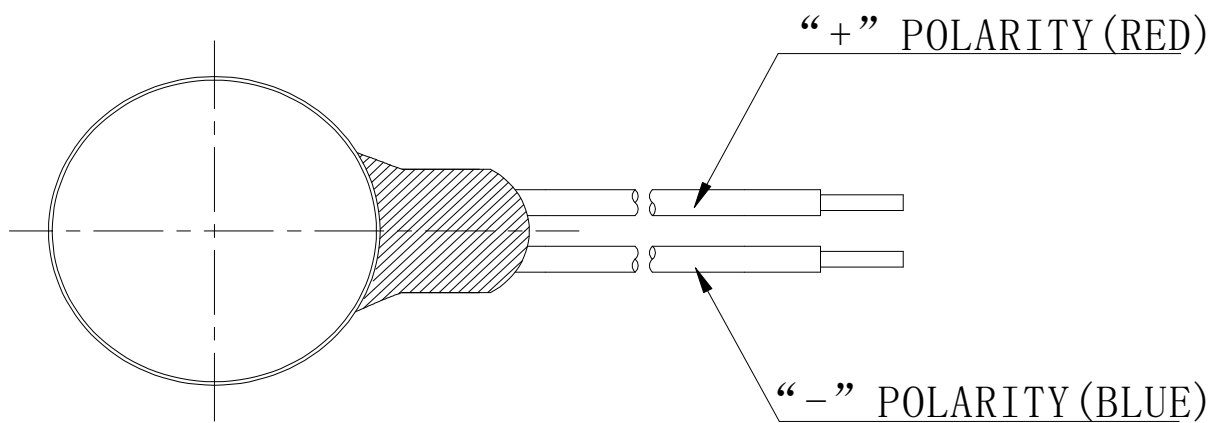
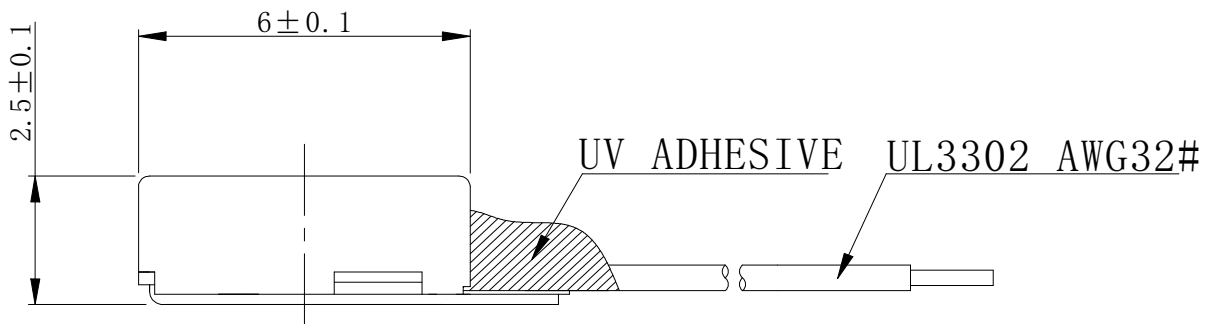
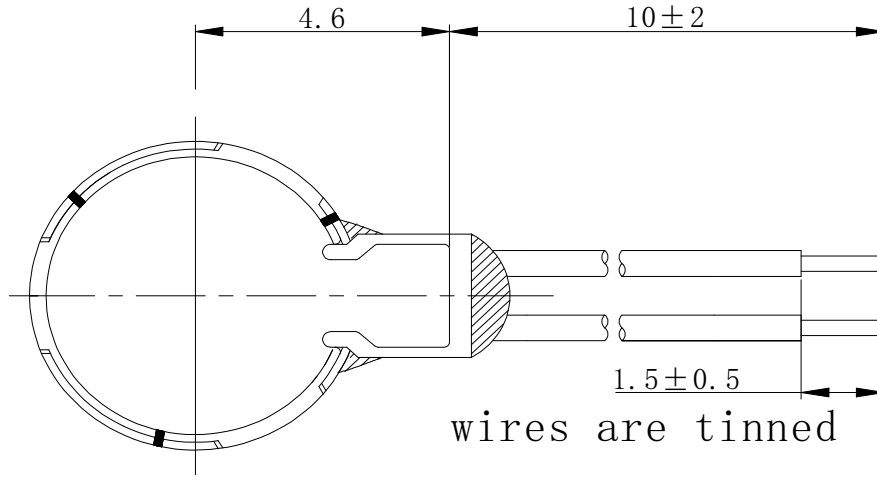
Rust of plate (steel) and similar edge should be OK.

9-7 我司遵循持续发展的策略，在不预先通知的情况下，有对产品（部品）进行修改和改进的权利，当然这些都不会影响马达的特性及使用功能。

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.



10. 外形图/Outline Drawings



## 11. 包装/Packing



吸塑盒尺寸(长:250mm 宽:210mm 高:11mm)  
Tray dimension (L:250mm W:210mm  
H:11mm)  
每个吸塑盒放 100 只  
100 Pcs per tray

内箱尺寸(260mm 宽:215mm 高:80mm) Inner-  
box dimension (L:260mm W:215mm H:80mm)  
每 11 个吸塑盒捆在一起,数量为 1000 只,装  
入内箱  
Put into inner-box 11 tray together  
with tape 1000 Pcs per 11 tray .

4 个内箱装入外箱, 数量共 4000 只; Put 4  
inner-box into outer-box, total 4000 Pcs.  
外箱尺寸: (450mm 宽:280mm 高:180mm)  
Outer-box dimension:  
(L:450mm W:280mm H:180mm)

**12. 更改记录/ Records of Revision**

修改号 Rev. No.	日期 Rev. Date	页码 Page No.	修改项目 Revised Item	更改原因 Reason
A/0	2019.11.01	/	产品颁布/ Release for Production	
A/1	2020.07.01	/	changed company name from JINLONG MACHINERY to VYBRONICS, changed part # from C0625B001L to VC0625B001L	Rebranding
A/2	2021.01.20	/	Added Characteristic Graph Of Motor	
A/3	2021.09.09	/	额定电压、启动电压调整/ Rated Voltage and Starting Voltage adjustment	Engineering Change