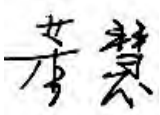
产品规格书

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/4
品名描述 Product Description	无刷直流振动马达 BLDC Vibration Motor		
型号Part No.	VW0825AB001G		
送样日期Date			
设计Designed by	审核Checked by	批准Approved by	
			
2026.06.11	2026.06.11	2026.06.11	

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1. Revision History

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	2019.03.18	/	产品颁布/ Release for Production	
A/1	2020.07.01	/	changed company name from JINLONG MACHINERY to VYBRONICS, changed part # from W0825AB001G to VW0825AB001G	Rebranding
A/2	2021.08.16	/	product specification engineering update	Engineering update
A/3	2023.04.05	/	Added 11-4 "Motor Usage" to Caution section	
A/4	2026.06.11	/	Updated 11-4 "Motor Usage" section	

2. Application

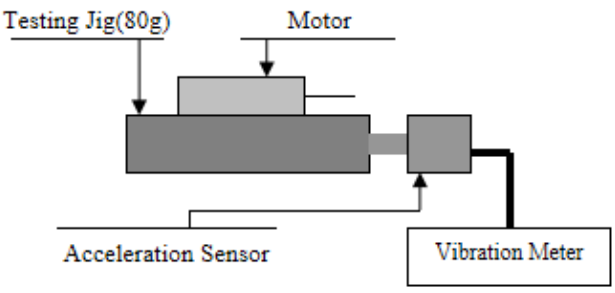
This specification applies to VW0825AB001G brushless type vibration motor.

3. Standard Operating Condition

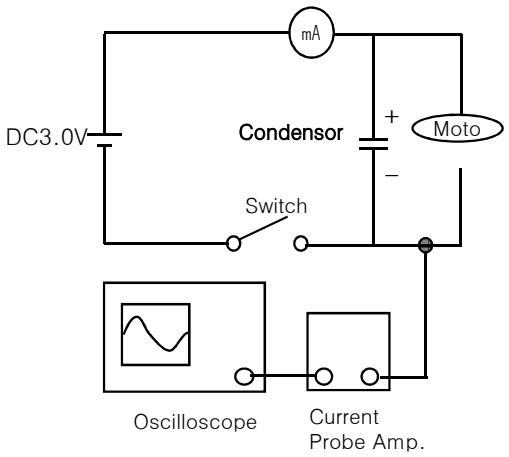
No.	Item	Specification
3-1	Operating Voltage Range	DC 2.7V ~ 3.3V
3-2	Storage Temperature Range	-30~+70℃
3-3	Operating Temperature	-20~+60℃ However, there is decrease of rated load speed of the section 7-3 at -20℃ compared to +25℃.
3-4	Operating Position	All Direction

4. Standard Measurement Condition

No.	Item	Specification
4-1	Temperature	20±5℃
4-2	Humidity	65%±15% RH
4-3	Measurement Voltage	DC3.0V
4-4	Measuring Method	



Standard Measurement State



Inspection Circuit Diagram

5. Judgment Environmental Condition

No.	Item	Specification
5-1	Temperature	20±5℃
5-2	Humidity	65%±15%RH

6. Test Tolerance

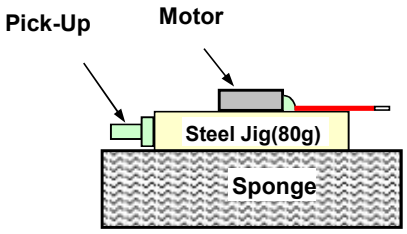
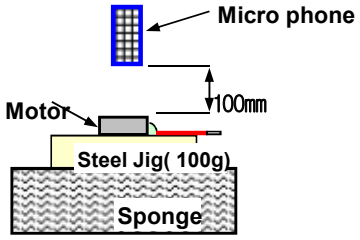
Test set-ups and equipment shall be capable of maintaining following condition, unless otherwise specified.

No.	Item	Specification
6-1	Room Temperature & Humid	20±15℃/65±20%RH
6-2	Test Chamber Temperature	Limits ±3℃
6-3	Voltage	Limits ±0.15V

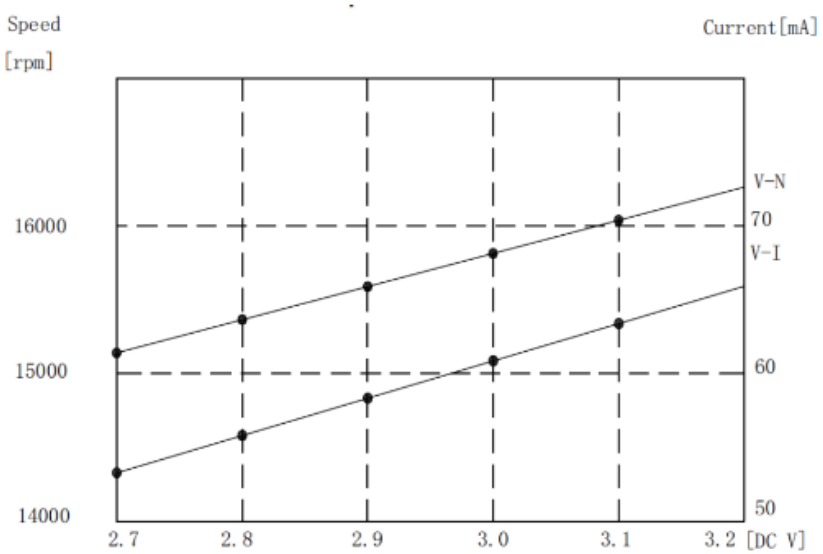
7. Electrical Characteristics

No.	Item	Test Condition	Specification
7-1	Rated Voltage		DC 3.0V
7-2	Rotating Direction	[Red Wire (+), Black Wire(-)]	CW
7-3	Rated Load Speed	It is based on the standard measurement condition of the section 4.	14,000 ± 3,500 rpm
7-4	Rated Load Current	It is based on the standard measurement condition of the section 4.	90 ㎃ max
7-5	Starting Current	It is based on the standard measurement condition of the section 4.	175 ㎃ max
7-6	Starting Voltage	Motor On/Off test based on the standard measurement condition of the section 4-1, 4-2, and 4-4.	DC 2.5 V max
7-7	Insulation Voltage	Measured between terminal and case with DC100V Megger.	

8. Mechanical Characteristics

No.	Item	Test Condition	Specification
8-1	Vibration Force	 - Motor shall be fixed on Jig by adhesive tape.	It is referred to the rated load speed of the section 7-3 (reference) (0.4 G MIN)
8-2	Mechanical Noise	 - Background Noise : 24dB MAX - Motor shall be fixed on Jig by adhesive tape.	50dB MAX
8-3	Weight		about 0.95g

9.Characteristic Graph



10. Reliability Test

<table>
<tr><th>No.</th><th>Item</th><th>Test Condition</th><th>Specification</th></tr>
<tr><td>10-1</td><td>Room Temperature & Humidity Life Test</td><td>
<table>
<tr><td>Item</td><td>Room Temp. & Humi. L/T</td></tr>
<tr><td>Voltage</td><td>DC 3.0V</td></tr>
<tr><td>Temperature</td><td>20±5℃</td></tr>
<tr><td>Humidity</td><td>65±15% RH</td></tr>
<tr><td>Life cycles</td><td>1,000,000 cycles</td></tr>
<tr><td>Duty Cycle</td><td>0.5 sec ON /0.5 sec OFF</td></tr>
</table>
Motor shall be fixed on Jig by adhesive tape.
(Refer to the section 4-4)
</td><td>-Rated Load Speed: Initial value +40, -20%
-Rated Load Current: Initial value±30%
-The others:
Conform to the section 7-6 and 7-7.</td></tr>
<tr><td>10-2</td><td>Low Temperature Storage Performance</td><td>Exposed to -40℃ for 96 hours and then room temperature for 4 hours.</td><td rowspan="3">-Rated Load Speed: Initial value±30%
-Rated Load Current: Initial value ±30%
-The others:
-Conform to the section 7-6 and 7-7.
-No scar, rust, stain, or deformation by visual inspection.</td></tr>
<tr><td>10-3</td><td>High Temperature Storage Performance</td><td>Exposed to +85℃ for 96 hours and then room temperature for 4 hours.</td></tr>
<tr><td>10-4</td><td>High Temperature and Humidity Storage Performance</td><td>Exposed to +60℃, 95%RH for 96 hours and then room temperature for 4 hours.</td></tr>
<tr><td>10-5</td><td>Thermal Shock Test</td><td>Total 100cycles at -40℃ and +85℃ for 30 minutes each (1cycle=1 H)
Temperature Change Time < 5min
Motor shall be measured after exposure at room temperature for 4 hours.</td><td></td></tr>
</table>

10. Reliability Test

No.	Item	Test Condition	Specification
10-6	Drop Test	Dummy set (about 150g) motor shall be dropped onto concrete plate . 3 times each side of 6 directions from a height of 150 cm, total 18 times.	-Rated Load Speed: Initial value±30% -Rated Load Current: Initial value ±30% -The others: -Conform to the section 7-6 and 7-7. -No scar, rust, stain, or deformation by visual inspection.
10-7	Vibration Test	1) Dummy set motor shall be subjected to sine wave of 10Hz~500Hz each of 2 hours. acceleration : 1 . 5 mm or 1 4 . 7 ㎧² Direction : x,y,z (each 15 minutes) 2) Dummy set motor shall be subjected to sine wave of 33.2Hz each of 3 hours. acceleration : 43.2㎧² Direction : x,y,z (each 15 minutes)	

11. Caution

No.	Item	Specification
11-1	Operating Range	- When using on the operating condition different from a standard, a problem can be generated to the performance and the life of a product.
11-2	Storage	- Temperature 5~30℃, Humidity 60% Max.
11-3	Motor Handling	- To handle the motor, hold the case softly. - Do not bring a magnetized object or attracted object by the magnet of motor, or such object may deteriorate a performance of motor. - At the time of power input short to the motor due to mis-operating, Drive IC of the motor inside can be damaged. To avoid this problem, please add capacitor of 2uF or more between the power line in parallel with the motor. - Supplying voltage more than DC4.5V can make IC out of function.
11-4	Motor Usage	Motor must be installed in device within 6 months of our ship date. For best reliability, it is recommended that the motor be exercised by powering it up for 3 seconds when the device is powered on. A characteristic of all brushless coin motors is that if they are left unused for a long time, you may need to tap the motor in order to start and restore it to normal operation.

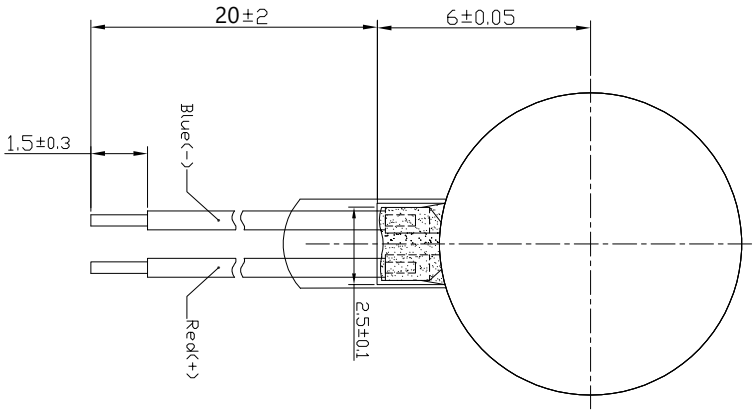
12. Specificification Change

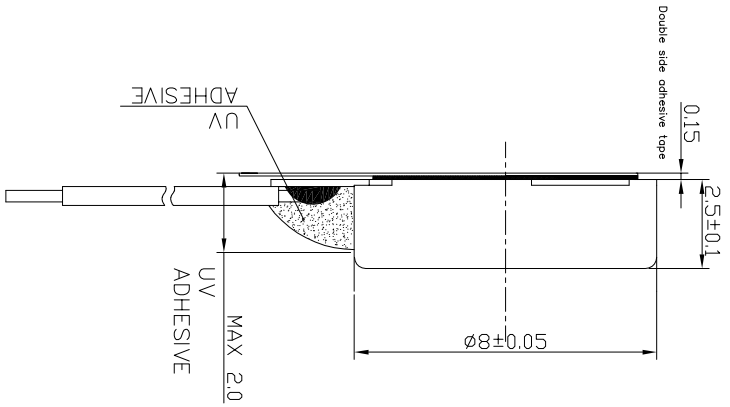
Even when there is any change to this specification, change application report which has the information of details of the change, lot of product, and etc shall be presented to customer before that change being carried out. And mutal discussion may be necessary before the change being corried out.
Revision history shall be recorded on to the specification sheet when the change record and approval may be required.

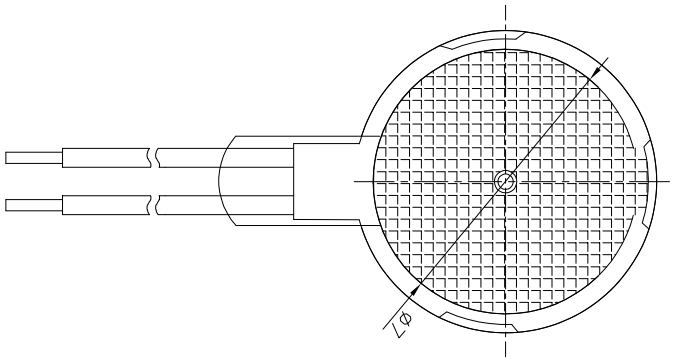
13. Safety standard

Not applicable

14. Specification Draw







技术要求/ Technical requirements:

1. 额定电压 Rated voltage: 3.0V
2. 额定电流 Rated current: 90 mA Max
3. 额定转速 Rated speed: *14000±3500rpm*
4. 起动电压 Starting voltage: 2.5V Max
5. 绝缘电阻 Insulation resistance: ≥10MΩ
6. 导线规格 Wire SPEC: AWG#32 UL3302
7. 未注公差 Unmarked tolerance: ±0.2mm