



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/1
品名描述 Product Description	圆柱直流马达 Cylindrical DC motor		
型号Part No.	VZ6CL2A0080001		
送样日期Date			
设计Designed by	审核Checked by	批准Approved by	
2020.07.01	2020.07.01	2020.07.01	

www.vybronic.com

sales@vybronic.com

1. General scope

1-1 The specifications apply to the coreless cylindrical permanent magnetic micro vibration motor DC model **VZ6CL2A0080001**.

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

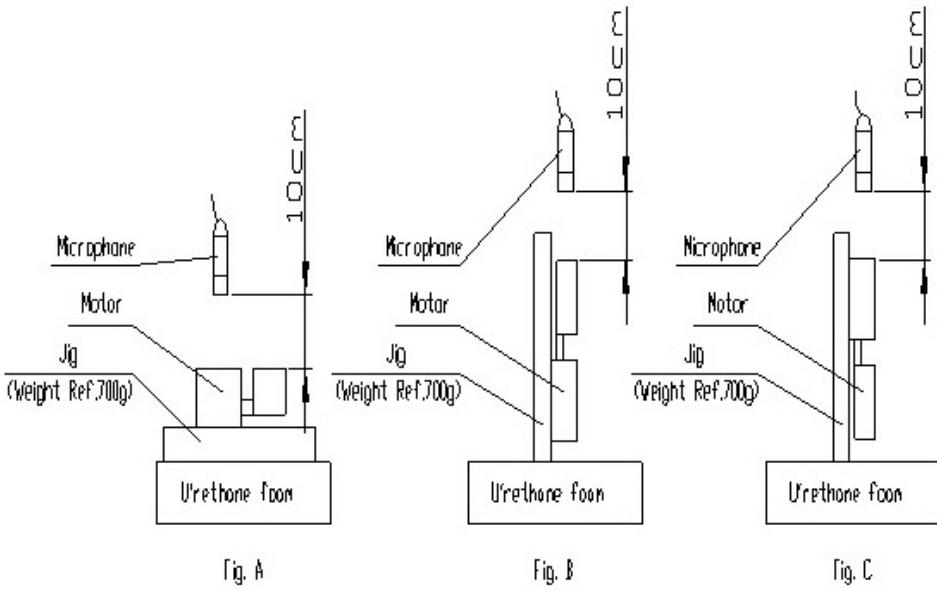
Items		Specifications	Condition & Remarks
3-1	Temperature	20±2°C	
3-2	Humidity	(63 ~ 67%) RH	
3-3	Motor position	Motor shaft horizontal	Lock the motor in a test fixture.

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.

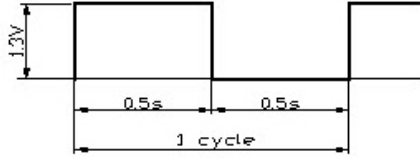
4. Mechanical specifications

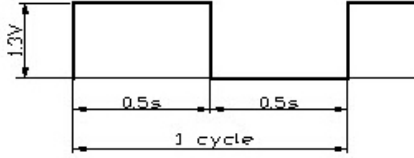
Items		Specifications	Condition & Remarks
4-1	Configuration	As specified in outline drawing	Outline drawing No: VZ6CL2A0080001 .
4-2	Appearance	There shall be no evidence of mechanical damage and shall not have inadequate corrosion, etc.	Visual examination: Inspection carried out on samples.
4-3	Shaft 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	1MΩ min	At DC 100V between the lead wires and motor body.
5-6	Terminal resistance	11Ω approx.	At 20°C.
	Mechanical noise	50db (A) max	
<p>At rated voltage and rated load (counterweight). Back ground noise 28 db (A) max. Measuring instruments: B & K Weight of jig: 700 g</p>			
5-7	 <p>Fig. A Fig. B Fig. C</p>		

6. Reliability Test

Items		Standard test conditions						Condition & Remarks
6-1	Life test							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±2°C						After 2 hours exposure in ordinary Motors shall be approved as specified in item 7-2.
		Time: 96hrs						
6-3	High temperature	Temperature: 85±2°C						
		Time: 96hrs						
6-4	High humidity exposure test	Temperature: 40±2°C						After 2 hours exposure in ordinary Motors shall be approved as specified in item 7-2.
		Humidity: 90 ~ 95% RH						
		Exposure time: 96hrs						
		Dry time: 4hrs						
		No condensation of moisture						
6-5	Vibration test	Displacement: 1.5mm (p-p)						After the test motors shall be approved as specified in item 7-2.
		Frequency: 10 ~ 55Hz						
		Period: 20 Mins log sweep (10 ~ 55 ~ 10Hz)						
		Direction: x, y, z						
		Time: Every 2 hours						
6-6	Free fall	Test state: Set the motor to the approximately 75 g (include the motor) weight of block drop the motor on the concrete floor.						After the test motors shall be approved as specified in item 7-2.
		Height: 1.5 m						
		Direction: ±x, ±y, ±z						
		Number of times: Twice each						

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	1) Rated speed: Initial data -30 % min.; Initial data +60 % max. 2) Rated current: Initial data ± 30 % max. 3) Insulation resistance: 1 M Ω min. 4) Starting voltage: 1.0 V DC max. 5) Current waveform: Normal
7-2	Table B	1) Rated speed: Initial data -30 % min.; Initial data +60 % max. 2) Rated current: Initial data ± 30 % max. 3) Starting voltage: 1.0 V DC max.

8. Matters to be paid attention to when using motor

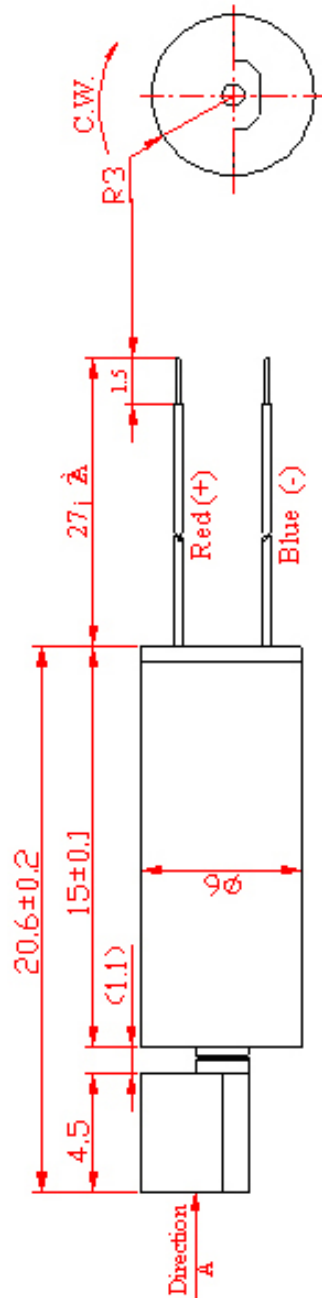
8-1 Please lay the motors carefully in transportation to avoid any damage to the motor body or its electric function because of collision.

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.

9. 外形图/Outline Drawing



10. 修改记录/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	2013.08.23	/	产品颁布/ Release for Production	
A/1	2020.07.01	/	changed company name from JINLONG MACHINERY to VYBRONICS, changed part # from Z6CL2A0080001 to VZ6CL2A0080001	Rebranding