



深圳市鸿颖源科技有限公司

Shenzhen Hong Yin Yuan Technology Co., Ltd..

产 品 规 格 书

PRODUCT SPECIFICATION

Product Name (产品名称): Vibration motor/振动马达

Product Model (产品型号): HYY4Z08V000-L45 (D2)

Customer name (客户名称)	
Item of customer (客户项目)	
Customer part no. (客户物码)	
Customer approved (客户承认)	

电话:0755-27435858

传真: 0755-27435778

Http:www.szhyy.cn

你们的满意是我们最大的追求!

拟 制 Drawn	梁 福	审 核 Check	李创维	批 准 Approve	梁又铸
--------------	-----	--------------	-----	----------------	-----

REVISED RECORD

修订记录

Issue 版本	Revision Content 修订内容	Drawn 拟制	Check 审核	Approved 批准	Date 日期
A	Release for production 产品颁布				2018. 12. 30

TABLE OF CONTENTS

目录表

NO.	CONTENTS (内容)	PAGE (页码)	NOTE (备注)
1	OPERATING SCOPE 适用范围	4	
2	USAGE AND STORAGE CONDITIONS 使用和存储条件	4	
3	MEASURING CONDITIONS 测试条件	4	
4	APPEARANCE REQUIREMENTS 外观要求	4	
5	MECHANICAL PERFORMANCE AND CHARACTERISTICS 机械性能与特性	5	
6	RELIABILITY TEST 可靠性试验	6	
7	OUTLINE DRAWING 外形图	8	
8	ENVIRONMENTAL MANAGEMENT MATERIALS 环境管理物质	8	
9	PACKAGING SPECIFICATION 包装规格	9	
10	CAUTIONS 注意事项	9	

1. Operating scope (适用范围)

This specifications apply to honggang micro-motor model HYY4Z08V000-L45 (D2) .

该产品规格书适用于鸿颖源 HYY4Z08V000-L45 (D2) 型微型马达。

2. Usage and storage conditions (使用和存储条件)

No	Items (项目)	specification (规定)
2-1	Rated voltage 额定电压	3.0V DC
2-2	Operating voltage 使用电压范围	2.0~3.4V DC
2-3	Motor position 电机位置	All direction(全方向)
2-4	Operating environment 使用环境	Temperature -20℃~60℃; Humidity: 10~90%RH / 温度: -20℃~60℃; 湿度: 10~90%RH。
2-5	Storage environment 存储环境	Temperature : -40℃~80℃; Humidity: 5~95%RH / 温度: -40℃~80℃; 湿度: 5~95%RH

3. MEASURING CONDITIONS (测试条件)

NO	ITEMS (项目)	specification (规定)
3-1	Temperature 温度	20±2℃
3-2	Humidity 湿度	(65±5%) RH
3-3	Rated Input Voltage 额定输入电压	3.0V DC

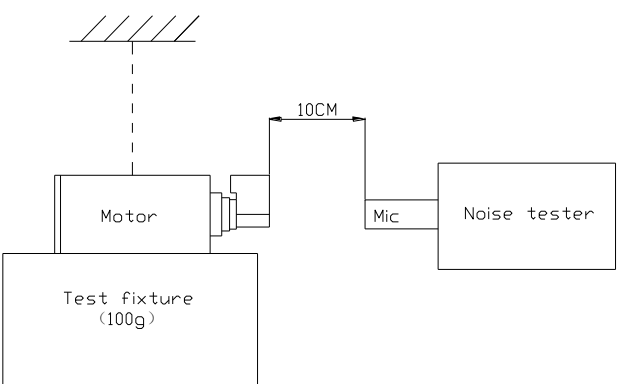
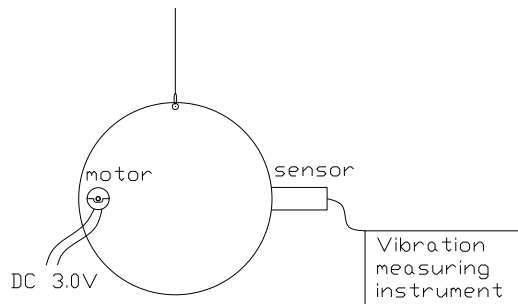
4. Appearance requirements (外观要求)

NO	Items (项目)	Requirements (要求)	Note (备注)
4-1	Shape structure size 外形结构尺寸	According to the outline drawing 依照外形图	See outline drawing 详见外形图

4-2	Appearance 外观	No distortion、rust、stain, etc. 无变形、锈蚀、污迹等	Visual examination 目视检查
-----	------------------	--	----------------------------

5. Mechanical performance and characteristics (机械性能与特性)

NO	Items (项目)	Specifications (规定)	Conditions (条件)
5-1	Rated speed 额定转速	12000±1000rpm	Input rated voltage: 3.0V DC 输入额定电压: 3.0V DC
5-2	Rated current 额定电流	90mA (MAX)	
5-3	Starting voltage 起动电压	2.0V DC (MAX)	Any position of the motor rotor 马达转子的任一位置
5-4	Insulation resistance 绝缘强度	10MΩ (MIN)	Load 100V DC voltage between lead wire (or Leaf spring) and motor housing for 1 minute 在导线芯(或弹簧片)和马达机身之间加载 100V 直流电压 1 分钟。
5-5	resistance valu 电阻值	40±20%Ω	AT 20°C
5-6	Weight 重量	0.8±0.15g	Use digital display electronic scale to measure (使用数显电子秤测量)
5-7	Mechanical noise 机械噪音	50dB-A (MAX)	1. Test input voltage: 30.V DC 测试输入电压: 3.0V DC 2. Background noise 30db-A (MAX) / 背景噪音最大为 30dB-A. 3. The motor is fixed in the middle position of the test fixture, The distance between the motor and the noise tester is 10cm 马达固定在测试夹具的中间位置, 与噪音测试仪相距 10cm 4. Hang the jig in the air 夹具悬吊在空中

			
5-8	Vibration quantity 振动量	$\geq 0.7G$	1. Test input voltage: 3.0V DC 测试输入电压: 3.0V DC 2. The motor is fixed on a circular aluminum block with a diameter of 50*18mm. The weight of the aluminum block is about 100g, and the vibration probe is fixed on the edge of the aluminum block (see below). 电机固定在直径为 50×18mm 的圆形铝块上, 铝块的重量约为 100g, 振动探头固定在铝块的边缘上 (见下图)。
			

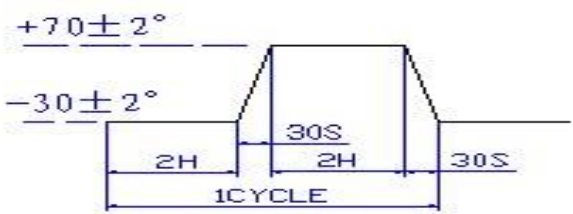
6. Reliability test (可靠性试验)

NO	Items (项目)	Specifications (规定)	Judgment (判定)
6-1	Life test 寿命试验	Rated Input Voltage (输入电压): 3.0V DC, Temperature (温度): 20°C±2°C Humidity (湿度): 65±5%RH Lock the motor in a test fixture (shaft horizontal) 电机固定在试验夹具中 (输出轴水平) Test model (试验方式): 2S NO 1S OFF Test time (试验时间): 96h	After the test, motors shall be satisfy with specified in item 6-8 试验结束后, 马达应满足 6-8 中规定的要求。

PRODUCT SPECIFICATION

Model: HYY4Z08V000-L45 (D2)

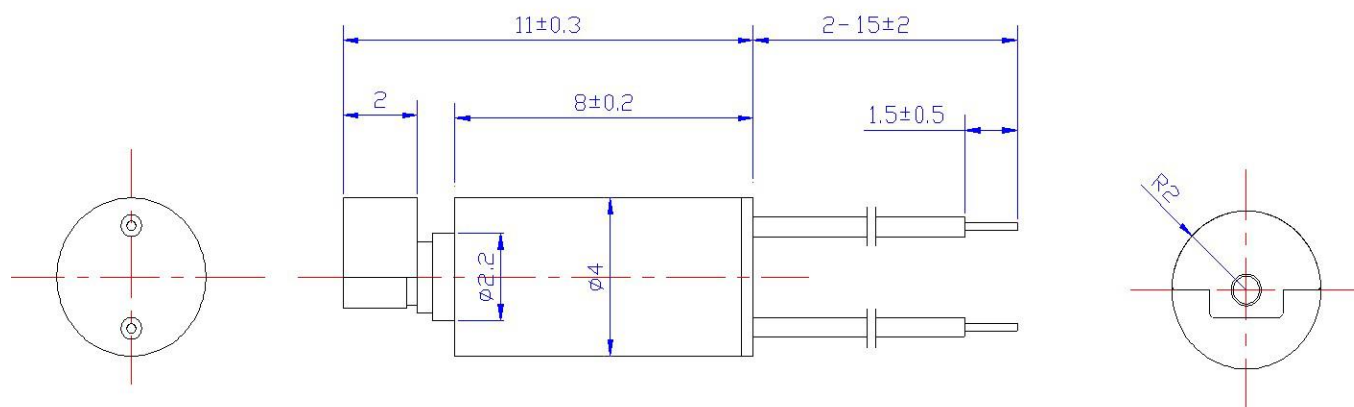
Document NO.: 20180712-01

6-2	Low temp Storage 低温存放试验	Temperature (温度): $-40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ Test time (试验时间): 96 hours	After the test, After 2 hours placed in ordinary temperature and humidity, motors shall be satisfy with specified in item 6-8 试验结束后, 在常温常湿中放置 2 小时后, 马达应满足 6-8 项中规定的要求
6-3	High temp storage 高温存放试验	Temperature (温度): $85^{\circ}\text{C} \pm 2^{\circ}\text{C}$ Test time (试验时间): 96 hours	
6-4	Humidity storage 湿度存放试验	Temperature (温度): $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ Humidity (湿度): 90~95%RH Test time (试验时间): 96 hours	
6-5	Temperature shock 温度冲击	 Test duration (试验持续时间): 4CYCLES Transition times (转换时间): 30S	
6-6	Vibration test 振动试验	Total peak amplitude (全振幅): 1.5mm (P-P) Frequency (频率): 60Hz Period (周期): 10-55-10Hz Direction (方向): X, Y, Z Test time (试验时间): 10 minutes at each stage (每个阶段 10 分钟)	After the test, motors shall be satisfy with specified in item 6-8 试验结束后, 马达应满足 6-8 中规定的要求。
6-7	Drop test 跌落试验	The motor is fixed in a fixture about 100g, and falls freely to the Cement Floor. 马达放在大约 100g 重的夹具中, 并自由落到水泥地板上。 Fall Height (跌落高度): 1.5m Direction (方向): $\pm X$, $\pm Y$, $\pm Z$ Fall Times (跌落次数): 2 times per plane (每一平面 2 次)	
6-8	Rated current 额定电流	Shall not exceed 90mA. 不超过 90mA	
	Rated speed 额定转速	No more than $\pm 40\%$ of the initial value. 不超过初始值的 $\pm 40\%$ 。	

Starting voltage 起动电压	The maximum starting voltage is not more than 2.4V (DC) 最大起动电压不超过 2.4V (DC)。
resistance value 电阻值	The change of resistance value should be within $\pm 10\%$ of the initial value. 电阻值的变化应在初始值的 $\pm 10\%$ 以内。

7. Outline drawing (外形图)

1. 额定电压: DC3V
2. 额定电流: 90mA (MAX)
3. 额定转速: 12000 ± 1000 RPM
4. 启动电压: DC2V (MAX)
5. 端子阻抗: $80 \pm 20\% \Omega$
6. 旋转方向: CW/CCW
7. 轴向间隙: 0.05-0.3mm
8. 符合 ROHS 要求。



HARDNESS	ANGLE 3rd	TOLERANCE $\pm 0.1 / \pm 0.5$	MATERIAL	SCALE 10/1	DATE 050517
DESIGNED BY LMQ	CHECKED BY XMY	APPROVED BY XZH	深圳市鸿颖源科技有限公司 HYY4Z08V000-L45 (D2)		

8. Environmental management materials (环境管理物质)

8.1 The product should be in compliance with ROHS requirement. (本产品符合 ROHS 指令要求)

*Cadmium and Compound 100ppm Max. (镉及其化合物最大 100ppm)

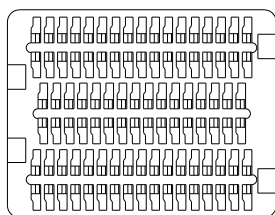
* Lead and Compound 1000ppm Max. (铅及其化合物最大 1000ppm)

* Hydrargyrum and Compound 1000ppm Max. (汞及其化合物最大 1000ppm)

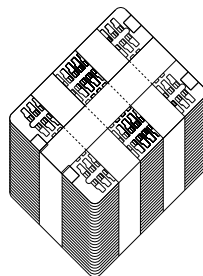
* +6 Chromium and Compound: 1000ppm Max. (六价铬及其化合物最大 1000ppm)

* PBB and Compound 1000ppm Max. (多溴联苯及其化合物最大 1000ppm)

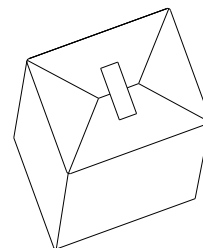
9. Packaging specification (包装规范)



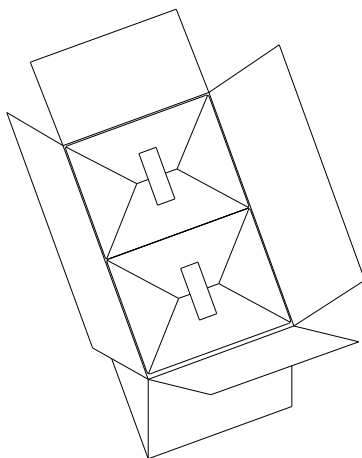
每个吸塑盒
装100只马达



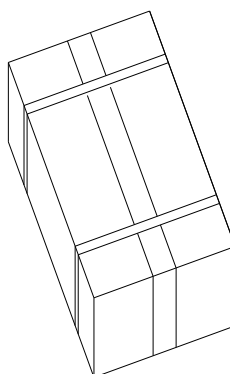
(1-2.5)K 马达叠
在一起，在上面加
盖后用胶带打捆。



将打捆好的马达装入塑料
袋，然后用胶带封口。



(2-10)K 马达装入外箱



用胶带封好外箱，然
后用打包带加固捆紧

马达外箱规格表

装入数量	长 (mm)	宽 (mm)	高 (mm)
2000	235	185	120
3000	235	185	170
4000	235	185	225
5000	350	235	150
10000	350	235	275

10. Caution (注意事项)

1). Please pay attention to the voltage range of the motor. And the use of the provisions of this standard. Otherwise the service life and performance of the motor will be affected.

请注意马达电压使用范围，并在本标准规定内使用，否则马达使用寿命和性能将会受到影响。

2). Motor can not be stored in high temperature, high humidity and corrosive gas environment.

马达不能存放在高温、高湿度和腐蚀性气体环境中。

3). Please use the motor within 6 months, If it exceeds the storage period, you need to re check and confirm it.

请在6个月内使用马达，如果超过存储周期，则需要重新检查和确认。

4). The casing surface with a small amount of rust is allowed.

机壳表面有少量锈迹是允许的。

5). Please note that motor can not be used in high temperature, high humidity, corrosive gas and strong magnetic environment, otherwise the motor performance will be reduced

请注意，马达不能在高温、高湿度、腐蚀性气体及强磁环境中环境中使用，否则会降低马达性能。

6). The force applied to the motor housing should be less than 3kgf, otherwise the motor performance will be affected.

施加在马达机壳上的力应小于3kgf，否则会影响马达性能。

7). In the process of transportation turnover and installation, it should be handled gently to avoid damaging motor due to collision.

在运输周转及安装使用过程中应轻拿轻放，以避免马达因碰撞受到损坏。