



LJ DEVICE CO., LTD.

力臻股份有限公司

LJ DEVICE CO., LTD.

零件規格書 / 承認書

SPECIFICATION FOR APPROVAL

CUSTOMER : _____

DESCRIPTION : _____ VIBRATOR _____

MODEL : _____ FG-Y6122540L27B _____

CUSTOMER PART NO : _____

APPROVED SIGNATURES

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Rev	Date	Description	Designed	Checked	Approved
A	2014/8/15	Release		Kevin	

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2009.07.09	说明书/Specification	编号/No "*****"	代码/code:0 3/9
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型号/ Part No.HI / [8344762N49D

1. 适用范围/ General Scope

本说明书适用于圆筒式永磁直流电机HI / [8344762N49D 型
This specification applies to cylindrical permanent-magnetic motors DC model
FG-Y6122540L27B

2. 使用条件/ Operating Conditions

项目/Item	规格/Specifications	条件·备注/Conditions & Remarks
2-1 额定电压 Rated voltage	3.0V DC	
2-2 额定负荷 Rated load	振子 Counterweight	见 10. 外形图 As specified in 10. Outline Drawing
2-3 旋转方向 Rotation	C.W/C.C.W (clockwise or counter clockwise)	
2-4 马达位置 Motor position	全方位 All position	
2-5 使用电压范围 Operating voltage	2.2~3.6V DC	
2-6 使用环境 Operating environment	-30 ~ 70℃, 常湿 /Ordinary Humidity:65±20%RH	无水气凝结 No condensation of moisture
2-7 保存环境 Storage environment	-40 ~ 80℃, 常湿 /Ordinary Humidity:65±20%RH	无水气凝结 No condensation of moisture

3. 测定条件/Measuring condition

项目/Item	规格/Specifications	条件·备注/Conditions & Remarks
3-1 温度 Temperature	20±2℃	
3-2 湿度 Humidity	(63%~67%) RH	
3-3 位置 Motor position	轴向水平 Motor shaft horizontal	将马达固定在试验台上 Lock the motor in a test fixture

标准测试条件为温度 20℃, 湿度 65%。如无疑异, 也可在温度 5~35℃、湿度 45~85%的条件下测试。马达测试时, 放置方向为轴向水平。/The measurement at 20 °C & 65%RH is standard. If the judgment is not questionable, recognize measurement at 5 °C to 35 °C & relative humidity 45 % to 85%. Direction of motor is shaft horizontal.

4. 机械要求/ Mechanical specification

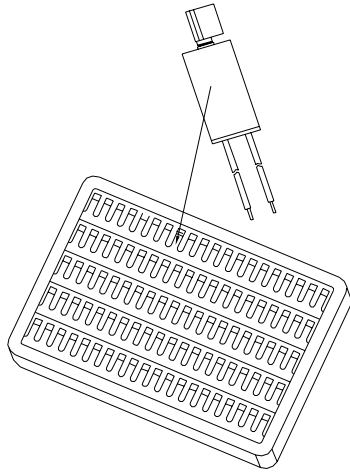
项目/Item	规格/Specifications	条件·备注/Conditions & Remarks
4-1 结构 Configuration	见 10. 外形图 As specified in 10. Outline Drawing	Outline drawing No: Z6DL2B0050001
4-2 外观 Appearance	不含有机机械损坏及不适当的浸蚀等。 There shall be no evidence of mechanical damage and shall not have inadequate corrosion and so on	目测 (容许范围根据样品外形) Visual examination(allowable extent is based on boundary sample)
4-3 轴向间隙 Shaft end play	0.1mm~0.3mm	
4-4 振子固定力 Holding strength of vibration weight	49N (5kgf) Min	

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6. 可靠性/Reliability								
项目/Item		规格/Specification					判定标准/Judgment	
6-1	寿命 Life time						<p>在常温常湿下放置 2h 后, 马达应符合项 7-1 的要求。 After 2 hours exposure in ordinary temperature and humidity, Motors shall be approved as specified in item 7-1.</p>	
		位置 Position	电压 Volt	负荷 Load	温度 Temp	湿度 Humi		寿命 Life
		轴水平 Horizon	额定 Rated	重量 Weight 振子	20°C	65%		200,000 Cycles
6-2	低温放置 Low temp exposure	温度 /Temperature: $-40\pm 2^{\circ}\text{C}$ 时间 /Time: 96h					<p>在常温常湿下放置 2h 后, 马达应符合项 7-2 的要求。 After 2 hours exposure in ordinary temperature and humidity, Motors shall be approved as specified in item 7-2.</p>	
6-3	高温放置 High temp. Exposure	温度 /Temperature: $60\pm 2^{\circ}\text{C}$ 时间 /Time: 96h						
6-4	湿度放置 Humidity exposure	温度 /Temperature: $40\pm 2^{\circ}\text{C}$ 湿度 /Humidity: 90~95%RH 放置时间 /Exposure time: 96h 无水气凝结/No condensation of moisture						
6-5	振动 Vibration	频率 /Frequency: 10 ~ 55 ~ 10Hz 全振幅 /Displacement: 1.5mm (p-p) 加速度 /Acceleration: 22m/s^2 周期 /Period: 20min 完成 10~55~10Hz /20 Minutes log sweep 10~55~10Hz 方向 /Direction: x, y, z 时间 /Time: 每个方向 2h /Each 2 hours					<p>测试结果应符合项 7-2 的要求。 After the test motors shall be approved as specified in item 7-2.</p>	
6-6	自然跌落 Free fall	试验状态/Test state: 将马达固定在约 75 克 (包括马达本身) 的物体上, 落向水泥地面。 Set the motor to the approximately 75 g (include the motor) weight of block drop the motor on the concrete floor. 高度 /Height: 1.5m 方向 /Direction: 6 个面 / 6 faces 次数 /Number of times: 每个面 2 次 / Twice 2 each					<p>测试结果应符合项 7-2 的要求。 After the test motors shall be approved as specified in item 7-2.</p>	
6-7	热冲击 Heat shock test	试验循环 /Test cycle :20 cycles 					<p>在常温常湿下放置 2h 后, 马达应符合项 7-2 的要求。 After 2 hours exposure in ordinary temperature and humidity, Motors shall be approved as specified in item 7-2.</p>	

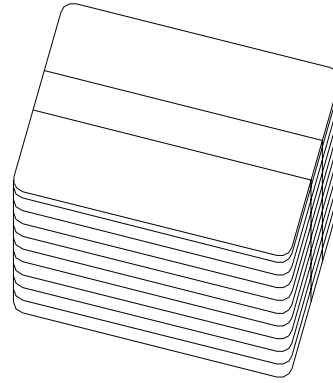
9. 包装/Packaging

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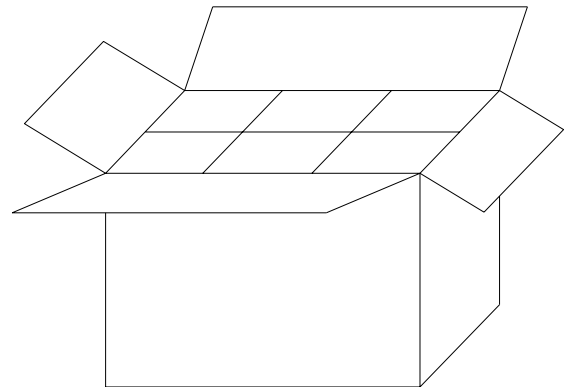
圆柱马达包装



100PCS (1 tray) × 10



1000PCS (1 bundle) × 6



包装试验要求

1. 标准

- (1) 整箱重量小于等于9kg的, 跌落高度设定为75cm.
- (2) 整箱重量大于9kg但小于等于23kg的, 跌落高度设定为60cm.

2. 试验方法:

跌落要求为六面三棱一角.

- (1) 六面: 先从最大两面跌, 然后是中间大小的两面, 最后跌最小的两面, 一共六次.
- (2) 三棱: 指任选三条同一角的棱, 跌落秩序: 最长棱, 中间长度, 最短的, 一共三次.
- (3) 一角: 指上一步三条棱所组成的角, 跌落一次.

3. 判定基准

经过跌落试验后, 产品外观、性能无不良.

Package Test Requirement:

1. Criteria

- (1) The weight of the whole carton less than 9kg, the dropping height is 75cm.
- (2) The weight of the whole carton more than 9kg and less than 23kg, the dropping height is 60cm.

2. Test Methods:

Dropping requirement is 6 faces, 3 arris, 1 angle.

- (1) 6 faces: First dropping with two biggest faces, then dropping with another two middle faces, at last dropping with two smallest faces, once per face, total 6 faces.
- (2) 3 arris: Choose any 3 arris which make up of the same the angle, the dropping sequence is the longest arris, middle arris, shortest arris. Total 3 times.
- (3) 1 angle: Point to the angle which is made up with the 3 arris in the above step. Dropping for 1 time.

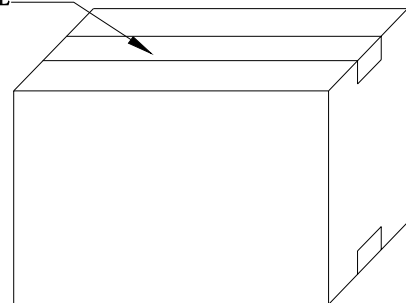
3. Judgement Criterion

After drop test, no evidence of damage on the appearance and performance.

Remarks:

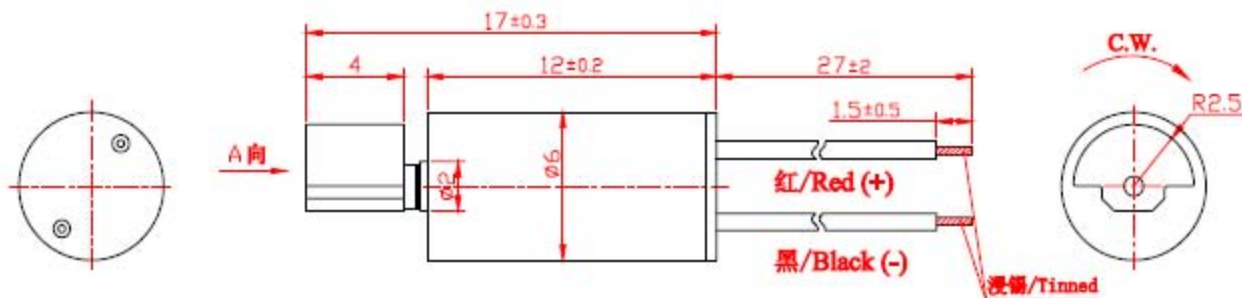
- 1000PCS/CTN: 24cm × 17.5cm × 27.5cm
- 2000PCS/CTN: 34cm × 24cm × 27.5cm
- 4000PCS/CTN: 47cm × 34cm × 27.5cm
- 6000PCS/CTN: 54cm × 47cm × 27.5cm

OPP TAPE



技术要求/Technic requirement

1. 额定电压/Rated voltage: 3.0V
2. 额定电流/Rated current: 70mA Max
3. 额定转速/Rated speed: 11000 ± 2500 rpm
4. 堵转电流/Stall current: 125mA Max
5. 端子阻抗/Terminal resistance: $30\Omega (\pm 20\%)$
6. 起动电压/Starting voltage: 1.7V Max
7. 轴向间隙/Shaft end play: 0.1~0.3mm
8. 导线规格/Lead spec: AWG30 UL1571
9. 所有尺寸为A向压紧后的尺寸(不包括轴向间隙)
/Overall length is measured after counterweight
being pressed against body in direction A.
(Shaft end play is not included.)
10. 未注线性公差为/Unmarked tolerance: ± 0.1 mm



備(選)用件登記

底圖總號

簽字

日期

外形圖

FG-Y6122540L27B

