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规格书
SPECIFICATION

客 户 信 息	客户名称/Customer	
	客户料号/Part No.	
	客户承认签章 Customer Approved Signatures	

文件编号/Spec No.	KOTL-B-749	
品名/Description	圆柱直流马达/Cylindrical DC motor	
型号/Part No.	Z4TL2B124064X	
设计/Designed	审核/Checked	批准/Approved
2009.05.15	2009.05.15	2009.05.15

规格书内容/Contents

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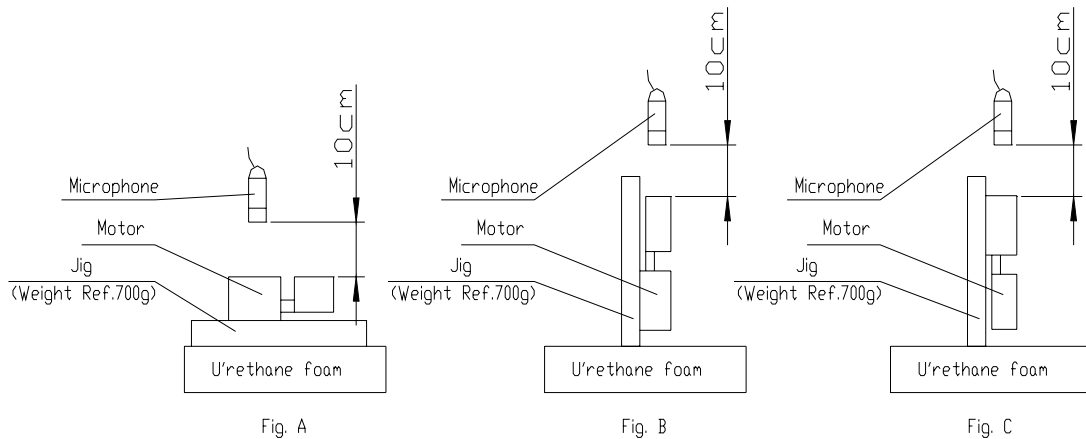
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<p>1. 适用范围/ General Scope 本规格书适用于圆筒式永磁直流电机 Z4TL2B124064X 型 This specification applies to cylindrical permanent-magnetic motors DC model Z4TL2B124064X</p> <p>2. 使用条件/Operating Conditions</p>																																												
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5.性能特征/Performance and characteristics

项目/Item		规格/ Specifications	条件·备注/ Conditions & Remarks
5-1	额定转速 Rated speed	15,000±2500 rpm	在额定电压和额定负载（振子）下。 At rated voltage and rated load (Counterweight).
5-2	额定电流 Rated current	80 mA Max	
5-3	堵转电流 Stall current	105 mA Max	在额定电压下。 At rated voltage
5-4	起动电压 Starting voltage	2.0V DC Max	在额定负载（振子）下电枢的任意位置。 At rated load (Counterweight) any position of rotor.
5-5	绝缘电阻 Insulation resistance	1MΩ Min	在 100V 直流下，端子和机壳间 At DC 100V between Terminal and case.
5-6	端子阻抗 Terminal resistance	35Ω (±20%)	在 20℃ 下 At 20℃
机械噪音 Mechanical noise		50dB(A)Max	

在额定电压、额定负载（振子）下
背景噪音：不大于 28dB.A 计权
测试仪器：B&k
夹具重量：700g
At rated voltage and rated load (Counterweight).
Back ground noise 28dB(A) Max
Measuring instruments: B&k
Weight of jig:700g

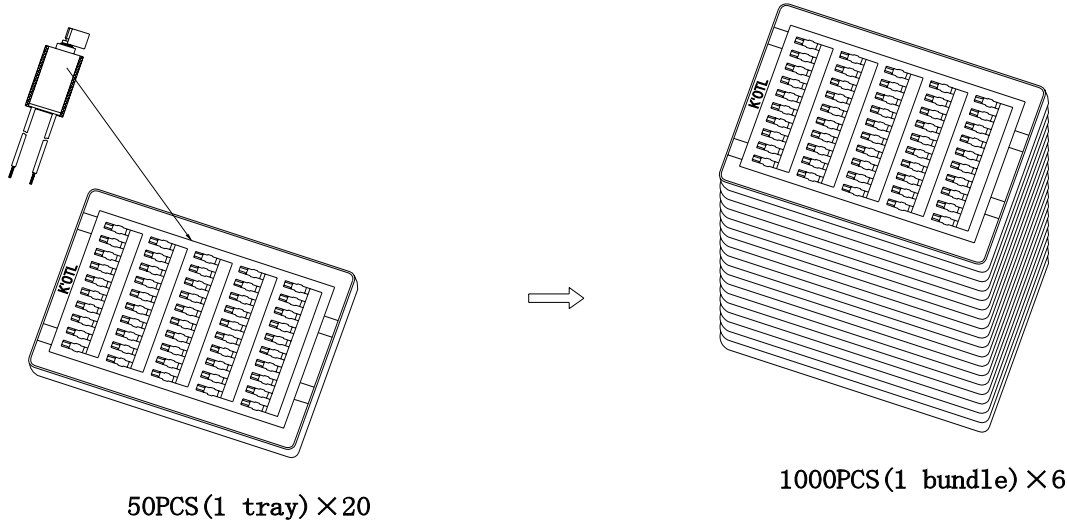
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6. 可靠性/Reliability									
项目/Item		规格/ Specifications						判定标准/Judgment	
6-1 寿命 Life time								试验后, 马达应符合项 7-1 的要求。 After the test, motors shall be approved as specified in item 7-1.	
		位置 Position	电压 Volt	负荷 Load	温度 Temp	湿度 Humi	寿命 Life		
		轴水平 Horizon	额定 Rated	振子 Weight	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						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.	
6-3 高温放置 High temp. Exposure		温度 /Temperature: $80\pm 2^{\circ}\text{C}$ 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		全振幅 /Displacement : 1.5mm (p-p) 频率 /Frequency: 10 ~ 55Hz 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						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.	
6-6 自然跌落 Free fall		试验状态/Test state: 将马达固定在约 100 克 (包括马达本身) 的物体上, 落向水泥地面。 Set the motor to the approximately 100g (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						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.	
6-7 热冲击 Heat shock test		试验循环 /Test cycle :20 cycles 						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.	

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4mm(L型) 圆柱马达包装 Packaging drawing of 4mm cylindrical motor



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.

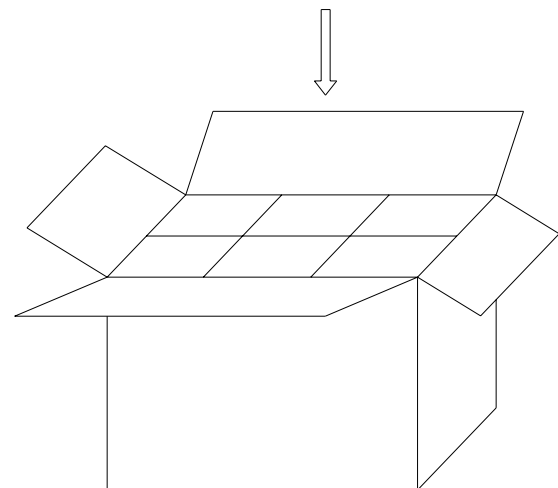
2. Test Methods:

Dropping requirement is 6 faces, 3 arsis, 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 arsis: Choose any 3 arsis which make up of the same the angle, the dropping sequence is the longest arsis, middle arsis, shortest arsis. Total 3 times.
- (3) 1 angle: Point to the angle which is made up with the 3 arsis 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: 23.5cm × 17cm × 27cm
- 2000PCS/CTN: 33.5cm × 23.5cm × 27cm
- 4000PCS/CTN: 46.5cm × 33.5cm × 27cm
- 6000PCS/CTN: 50.5cm × 46.5cm × 27cm

