

产 品 规 格 书

SPECIFECATION FOR PRODUCT

品 名 _____ 圆柱直流振动马达 _____

PARTNAME

型 号 _____ 4.6*4.8 圆柱马达 _____

SPECIFICATLON

客 户 _____

VENDOR

承认日期 _____ 2013-10-17 _____

APPROVED DATE

客 户 承 认 栏

制 作	审 核	批 准
林建飞	何春海	张巍

产品规格书/SPECIFICATION

NAME/名称 CYLINDRICAL DC MOTOR 圆柱直流振动马达	MODEL/型号 KSM0408 Y	Rev. No./版本号: 1 Date/制定日期: 2012-4-20
---	-----------------------	---

1. SCOPE 适用范围

THIS SPECIFICATION IS APPLIED TO MODEL KSM0408Y DC MOTOR WITH MOVING-COIL ARMATURE.

本规格书适用于 KSM0408Y 型空心杯电枢永磁式直流电机。

2. OPERATING CONDITION 使用条件

NO.序号	ITEM 项目	SPECIFICATION 规格
2-1	RATED VOLTAGE 额定电压	3.0V DC 3.0 伏, 直流
2-2	OPERATING VOLTAGE 使用电压范围	2.4~3.5DC 2.4~3.5 伏, 直流
2-3	RATED LOAD 额定负荷	见附图
2-4	DIRECTION 旋转方向	CW,/CCW 顺时针/逆时针
2-5	OPERATING ENVIRONMENT 使用环境	-20~60℃ ≤90% RH
2-6	STORING ENVIRONMENT 储存环境	-40~85℃ ≤90% RH (NO CONDENSATION OF MOISTURE) (无凝露)

3. MEASURING CONDITION 测试条件

NO.序号	ITEM 项目	SPECIFICATION 规格
3-1	TEMPERATURE 温度	20±2℃
3-2	HUMIDITY 湿度	60±5% RH
3-3	MOTOR POSITION 电机体位	SHAFT HORIZONTAL 轴伸水平

ALL DATA SHALL BE BASED ON THE MEASUREMENT UNDER THE TEMPERATURE 20±2℃ AND HUMIDITY 60±5% RH, HOWEVER THE RANGER OF TEMPERATURE 5~35℃ AND HUMIDITY 45~85% RH IF THERE IS NO PROBLEM ABOUT JUDGEMENT.

所有的数据在温度 20±2℃, 湿度 60±5% RH 的条件下测定。在对判定不发生异议时, 也可在温度 5~35℃, 湿度 45~85% RH 的环境下测试。

4. MECHANICAL CHARACTERISTICS 机械特性

NO.序号	ITEM 项目	SPECIFICATION 规格	CONDITION/REMARK 条件、备注

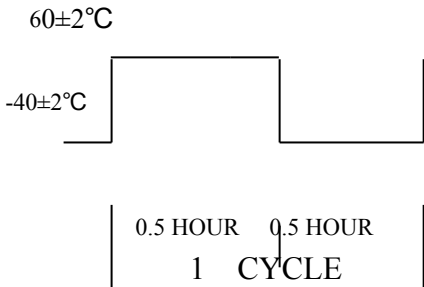
4-1	DIMENTION 外形尺寸	AS SPECIFIED IN OUTLINE DRAWING 参照外形图	
4-2	APPEARANCE 外观	THERE SHALL BE NO EVIDENCE OF MECHANICAL DAMAGE AND CORROSION 无机械损伤、无锈蚀	VISUAL EXAMINATION 目视检查
4-3	END PLAY 轴向间隙	0.06~0.4mm	
4-4	WEIGHT 重量	2.0g(AP.PROX./约)	

5. ELECTRICAL CHARATERISTICS 电气特性

NO.序号	ITEM 项目	SPECIFICATION 规格	CONDITION / REMARK 条件、备注
5-1	RATED SPEED 额定转速	12500±2000rpm	AT RATED VOLTAGE AND NO LOAD 额定电压，无负荷.
5-2	RATED CURRENT 额定电流	85mA MAX	
5-3	STARTING CURRENT 起动电流	100mA MAX	AT RATED VOLTAGE AND STARTING INSTANTANEOUS CURRENT 额定电压，起动的瞬间电流
5-4	STARTING VOLTAGE 起动电压	2.0V DC MAX	AT STEP VOLTAGE AND ANY POSITION OF ROTOR 在任一位置，电压缓慢上调
5-5	LEAD WIRE RESISTANCE 引脚间电阻	28±10%Ω (APPROX/约)	AT 20℃
5-6	INSULATION RESISTANCE 绝缘电阻	10MΩ MIN	BY MEGOHMMETER (100V), BETWEEN LEAD WIRE AND CASE 兆欧表 100V，电机引脚与外壳间
5-7	NOISE 噪声	55 dB (A) MAX	
		AT RATED VOLTAGE 额定电压下 BACK GROUND NOISE 背景噪声: 30 dB (A) MAX FIX THE MOTOR IN A TEST FIXTURE (SHAFT HORIZONTAL) 电机固定在测试架上 (电机轴水平) SUSPENSORY METHOD 悬挂方式 MICROPHONE IS FACED TO THE ECCENTRIC SHAFT AND RECEDES BY 10cm 拾音器沿轴向正对露轴，距离 10cm	

6.RELIABILITY 可靠性

NO. 序号	ITEM 项目	TEST CONDITION 试验条件	REQUIREMENTS 判定基准
6-1	LIFE	ENVIRONMENT/环境条件:	THE MOTOR SHALL

	寿命	ORDINARY AND HUMIDITY 常温常湿 TEST STATE 试验状态: FIX THE MOTOR IN A TEST FIXTURE (SHAFT HORIZONTAL) 将电机固定在测试装置上(电机轴水平) VOLTAGE 电压: 1.5V 1CYCLE 一个周期: 0.5 sec. ON, 0.5 sec. OFF NUMBER OF CYCLES 循环次数: 300, 000 CYCLES	BE APPROVED AS SPECIFIED IN ITEM 7-1 试验结束后, 电机应满足 7-1 的规定
6-2	LOW TEMP. EXPOSURE 低温放置	TEMPERATURE 温度: $-30\pm 2^{\circ}\text{C}$ TIME 时间: 300 HOURS	AFTER TEST AND AFTER 2 HOURS EXPOSURE IN ORDINARY TEMPERATURE AND HUMIDITY, THE MOTOR SHALL BE APPROVED AS SPECIFIED IN ITEM 7-2 试验后, 在常温常湿条件下放置 2 小时后, 电机应满足 7-2 的规定
6-3	HIGH TEMP. EXPOSURE 高温放置	TEMPERATURE 温度: $80\pm 2^{\circ}\text{C}$ TIME 时间: 300 HOURS	
6-4	HUMIDITY EXPOSURE 湿度放置	TEMPERATURE 温度: $60\pm 2^{\circ}\text{C}$ HUMIDITY 湿度: $90\pm 5\%$ RHh TIME 时间: 300 HOURS	
6-5	THERMAL SHOCK 温度变化	 <p>TEST CYCLES 循环周期数: 20 CYCLES</p>	
6-6	VIBRATION 振动	DISPLACEMENT (P-P) 全振幅: 1.5mm FREQUENCY 频率: $10\sim 55\sim 10\text{Hz}$ MINUTELY SWEEP 连续 DIRECTION 方向: x, y, z TIME 时间: EACH 2H 每一方向	AFTER TEST, THE MOTOR SHALL BE APPROVED AS SPECIFIED IN ITEM 7-3 试验结束后, 电机应满足 7-3 的规定
6-7	FREE FALL 自由跌落	TEST STATE 试验状态: THE MOTOR IS SET INTO THE BOX APPROXIMATELY WEIGHT 100g AND FALL FREE ON THE CONCRETE FLOOR 将电机 放在重 100g 的盒子里, 自由地跌落至混凝土地 面上 DIRECTION 方向: x, y, z HIGH 高度: 1 m TIMES 次数: EACH 3 TIMES	

7.REQUIREMENTS 要求

NO.序号	REQUIREMENTS 要求
7-1	1) RATED SPEED 额定转速: INITIAL DATA 7000 rpm MIN 2) RATED CURRENT 额定电流: INITIAL DATA 初始值+30%MAX 3) INSULATION RESISTANCE 绝缘电阻: 2MΩ MIN
7-2	1) RATED SPEED 额定转速: INITIAL DATA 初始值±30%MAX 2) RATED CURRENT 额定电流: INITIAL DATA 初始值+30%MAX
7-3	1) RATED SPEED 额定转速: INITIAL DATA 初始值±30%MAX 2) RATED CURRENT 额定电流: INITIAL DATA 初始值+35%MAX

8.CAUTIONS/注意事项

8-1 STORAGE/储存

AVOID STORING IN HIGH TEMPERATURE, HIGH HUMIDITY AND CORROSIVE GAS ENVIRONMENT, NOT TO BE STORED WITHOUT RUNNING FOR MORE THAN 6 MONTHS

应避免存放在高温、高湿以及腐蚀性气体的环境中，连续存放不应超过6个月。

8-2 SOLDERING /焊接

TO AVOID DAMAGE THE LEAD WIRES, SOLDERING SHOULD BE COMPLETED WITHIN 2-3 SECONDS.

焊接应在在 2-3 秒内完成，以免损坏引线。

9. 马达外型图

