

1. 适用范围/General

本说明书适用于扁平式永磁直流电机 C1034 系列。

This specification applies to coin permanent-magnetic motors DC model C1034 series

2. 使用条件/Operating condition

项目/Item		规格/Specification
2-1	额定电压 Rated voltage	3.0V DC
2-2	使用电压范围 Operating voltage	2.5~4.0V DC
2-3	旋转方向 Rotation	CW(clockwise) or CCW(contrary clockwise)
2-4	使用环境 Operating environment	-20~+60°C, Ordinary Humidity
2-5	保存环境 Storage environment	-30~+70°C, Ordinary Humidity

3. 测定条件/Measuring condition

项目/Item		规格/Specification
3-1	温度 Temperature	25±3°C
3-2	湿度 Humidity	65±20% RH
3-3	气压 Air pressure	1013±40 hPa
3-4	电流 Current	稳压直流电流 Stabilized DC current

项目/Item		规格/Specification	条件/Condition
4-1	额定转速 Rated speed	9,000rpm	额定电压下 At rated voltage
4-2	额定电流 Rated current	80mA Max	
4-3	起动电流 Starting current	120mA Max	
4-4	起动电压 Starting voltage	2.3V DC Max	在最小起动电压下起动 Motor is rotating at min starting voltage.
4-5	绝缘电阻 Insulation resistance	10MΩ Min	在 100V 直流下, 导线和机壳间 At DC 100V between lead wire and case.

4. 初期电气性能/Electrical initial characteristics


5. 机械性能/Mechanical characteristics

项目/Item	规格/Specification
5-1 底盖偏转强度 Bracket deflection strength	9.8N 以上 9.8N or more
5-2 机械噪音 Mechanical noise	小于 50 分贝. A 计权 50dB(A) Max 在额定电压下。 At rated voltage 背景噪音: 不大于 28dB. A 计权 Back ground noise 28dB(A) Max

6. 耐久性能/Durability characteristics

项目/Item	规格/Specification	判定标准/Judgment
6-1 寿命 Life	<p>试验循环 /Test cycle: 50,000 cycles</p>	<p>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.</p>

项目/Item		规格/Specification		判定标准/Judgment
6-2	低温放置 Low temp exposure	温度 时间	/Temperature : -30°C /Time : 96h	在常温常湿下放置 4h 后, 马达应符合项 7-2 的要求。 After 4 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 时间	/Temperature : +70°C /Time : 96h	
6-4	湿度放置 Humidity exposure	温度 湿度 放置时间 无水气凝结	/Temperature : +40°C /Humidity : 95%RH / Exposure time : 96h /No condensation of moisture	
6-5	振动 Vibration	频率 加速度 周期 条件	/Frequency:10 ~ 55Hz /Acceleration :22m/s ² /Period:10min 范围内 (10~55~10Hz) /10 Minutes log sweep (10~55~10Hz) /Condition :在样机中, 在 3 个垂直的轴方向每个方向做 10 分钟的测试。 /This motion shall be applied for a period of 10 minutes in each of 3 mutuallyperpend axis	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 高度 方向 次数 冲击	/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. /Height :1.5m /Direction :±x. ±y. ±z /Number of times:每个方向 3 次/Each 3 times /Shock: 29420m/s ² 相当 /Equivalent (3000G)	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 stock test	 <p>试验循环 /Test cycle :15 cycles</p>	<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>
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7. 要求/Requirements

项目/Item		判定基准 / Requirements	
7-1	表 A Table A	1) 额定转速/Rated speed 2) 额定电流/Rated current 3) 起动电压/Starting voltage 4) 绝缘电阻/Insulation resistance 5) 端阻/Terminal resistance :	:不低于初始值-30%; 不高于初始值+50% data-30% Initial Min data+50% Initial Max : 不低于初始值-30%; 不高于初始值+50% data-30% Initial Min data+50% Initial Max :不大于 2.5V 直流电压 2.5V DC Max :大于 10M Ω 10M Ω Min 不大于初始值 \pm 15% /Initial data \pm 15% Max
7-2	表 B Table B	1) 额定转速/Rated speed 2) 额定电流/Rated current 3) 起动电压/Starting voltage 4) 端阻/Terminal resistance :	: 不大于初始值 \pm 20% /Initial data \pm 20% Max :不大于初始值 \pm 20% /Initial data \pm 20% Max :不大于 2.5V 直流电压 2.5V DC Max 不大于初始值 \pm 15% /Initial data \pm 15% Max

8. 使用时注意事项/Matters to be paid attention to when using motor

8-1 必须按照规格书标准使用,否则性能和寿命都将受到相当地减少, 必须注意电压的使用范围。
Unless it is used in accordance with the specifications ,the performance and life may be considerably reduced . Due attention should be paid to voltage and range for use .

8-2 建议马达在六个月内内使用,不要在以下环境中使用及保存:

1. 高温和高湿的场所;
2. 腐蚀性气体,如: H₂S、SO₂、NO₂、Cl₂;
3. 生锈场所。

Advice use this motor within 6 months as avoiding as possible.

Avoid use or save the motor in the following environment.

1. High temperature and high humidity area
2. Corrosive gas such as H₂S、SO₂、NO₂、Cl₂
3. Dusty area .
- 4.

8-3 注意处理马达的工作环境,避免含铁质等物体被马达吸住,否则马达将会产生噪声,性能会降低,从而减少产品可靠性。

Due attention must be paid to the handling and working environments because such objects as iron powder if attracted by the motor magnet,will cause noise,characteristic deterioration thus reducing the reliability.

8-4 应确信本产品不会与相关标准、法律、政令相背。

Please confirm enough no problem of standards and laws and ordinances on your cellular.

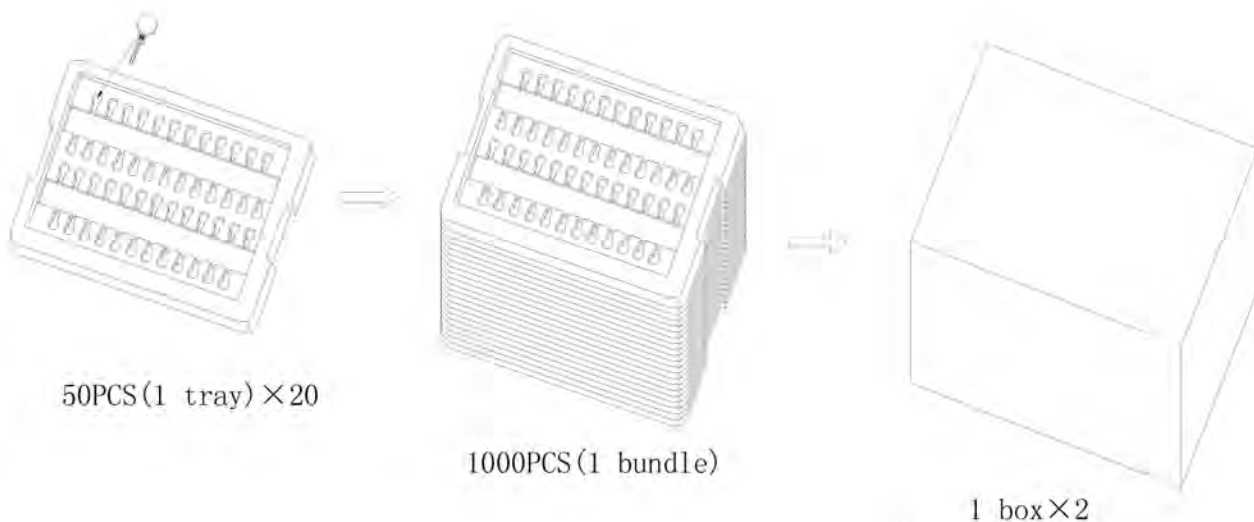
8-5 拿马达时,要轻拿轻放。

To handle the motor ,hold the motor case softly.

8-6 钢板面或边缘有少许锈斑是允许的。

Rust of plate(steel) and similar edge should be OK.

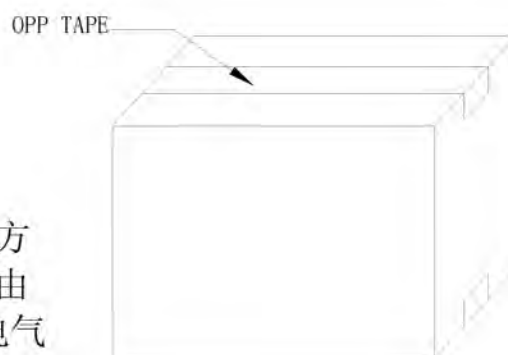
扁平系列马达包装 Pack drawing of coin type



Remarks:

2000PCS/CTN: 41.5cm \times 27cm \times 16cm

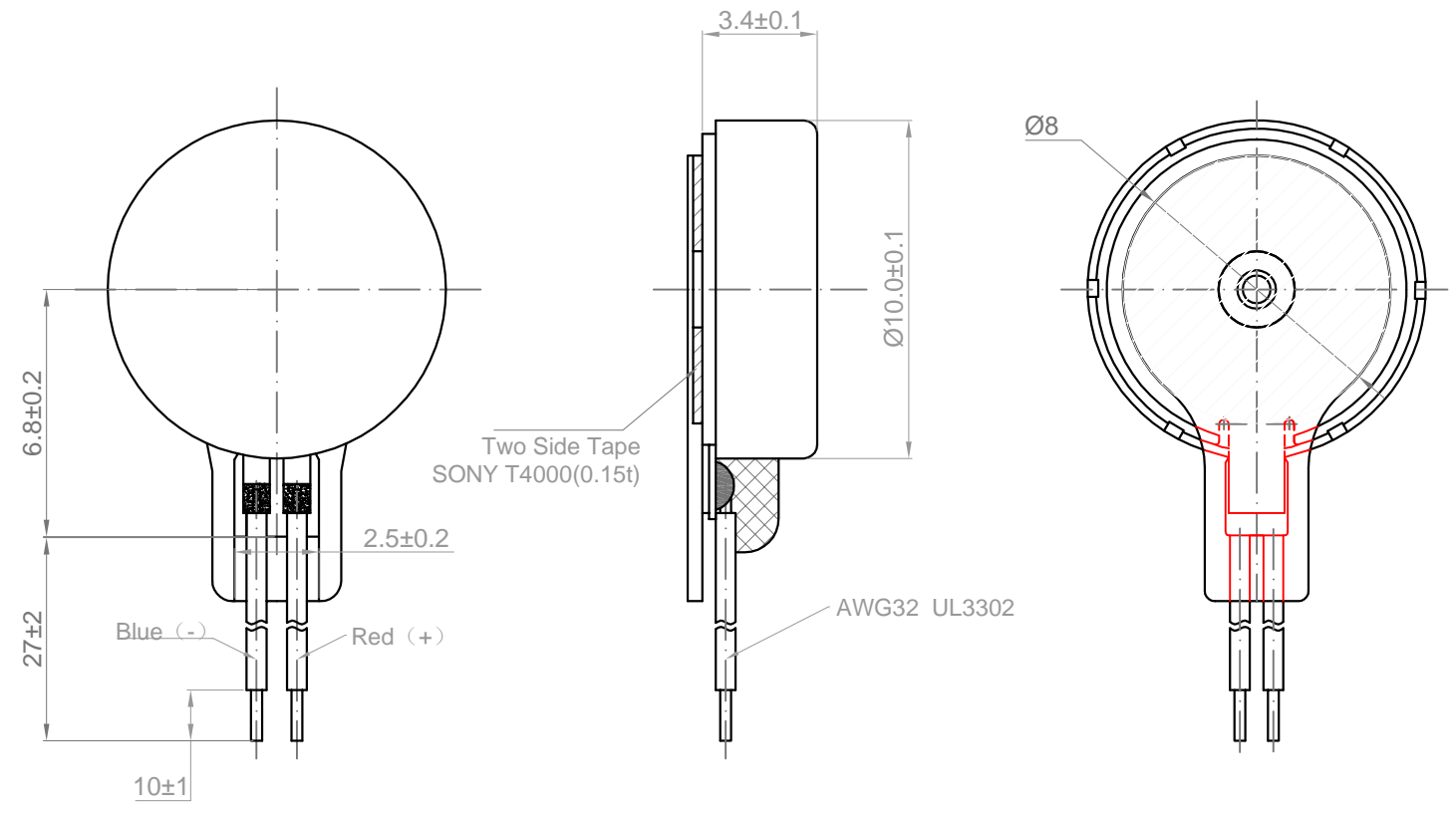
4000PCS/CTN: 41.5cm \times 27cm \times 31.5cm



包装试验要求:

沿外包装箱 $\pm x$, $\pm y$ 和 $\pm z$ 方向, 距水泥地面 1.5m 高度, 各自由跌落 2 次, 马达应无机械损伤, 电气性能仍符合标准要求。

Rev.	Description	Date
01	Release for Production	09/04/2012



NO.	Item	Specification	NO.	Item	Specification
1	Rated Voltage	3.0VDC	7	Insulation resistance	10MΩMin
2	Operating voltage	2.7~3.3VDC	8	Terminal resistance	32Ω±15%(single posture)
3	Starting voltage	2.3VDC			
4	Starting Current	120mA Max			
5	Rated Speed	9000±10%RPM			
6	Rated Current	80mA Max			

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Checked					
Eng Appr.					
Mfg Appr.					
Q.A.					
PN	2189476		Size : A4	Weight(Kg):	Unit: mm
			Scale: 10:1		Sheet 1of 1