

SPECIFICATION FOR APPROVAL

产品确认书

PRODUCTION NO./档序号: CB-S240200-07A

CUSTOMER / 客户:

ARTICLE / 品名: 24V 2A SLA Battery Charger

MODEL NO. / 机种型号: CB2942000

PARAMETER / 规格: 29.4V /2A

CERTIFICATION /认证: CE, RoHS

ISSUE DATE / 发行日期: 2022/3/25

Please to sign back after you confirm

承认书确认后请回签一份

CUSTOMER AUTHORIZED 客户确认		
Approved by	Checked by	Prepared by

SUPPLIER AUTHORIZED 供方确认		
Approved by	Checked by	Prepared by
王工	何胜	何胜

***Thank you for your support,we will treasure the opportunity to cooperate with you**

感谢您的支持，我们十分珍惜每次合作机会

***Supply qualified and safe power supply, and be enterprise with honesty and responsibility**

提供实用安全的电源，做诚信负责的企业

Rev. 版本	Description of change/ 变更内容描述		Changed Date 日期	Approved
	Before(变更前)	After/变更后		
Rev 01	Original Release(初次发行)		2022/3/25	王工

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1. SAFETY STANDARD / 安规标准

1.1 The green mode power supply shall be certified by the following international regulatory standards 充电器应符合下列的国际标准：

安规/Safety	国家Country	标准/Standard
RoHS		
CE	EURO	EN 60335

2. INPUT FEATURE / 输入特性

2.1 Input voltage range: 90Vac to 264Vac. 输入电压范围可以从90Vac到264Vac.

2.2 Rated input voltage: 100Vac to 240Vac. 额定输入电压从100Vac到240Vac.

2.3 Input frequency range: 47Hz to 63Hz. 输入频率范围从47Hz到63Hz.

2.4 Input current: 1.5A max.&100-240Vac. 最大输入电流1.5A(输入条件100-240Vac)

2.5 Input inrush current: 30A max. at 100-240Vac input for a cold start at 25℃.在准开机条件下, 最大浪涌电流不超过30A (输入条件100-240Vac).

2.6 Efficiency: higher than 88% at 100-240Vac input under fully loaded. 效率高于86% (输入100-240Vac 在输出满载条件)

2.7 No load input power dissipation / 输入空载功率损耗: Input 115Vac or 230Vac, output no load, the input power loss is less than 0.25W. 输入115/230V交流, 在空载时, 输入功耗小于0.25W.

3. OUTPUT/输出特性

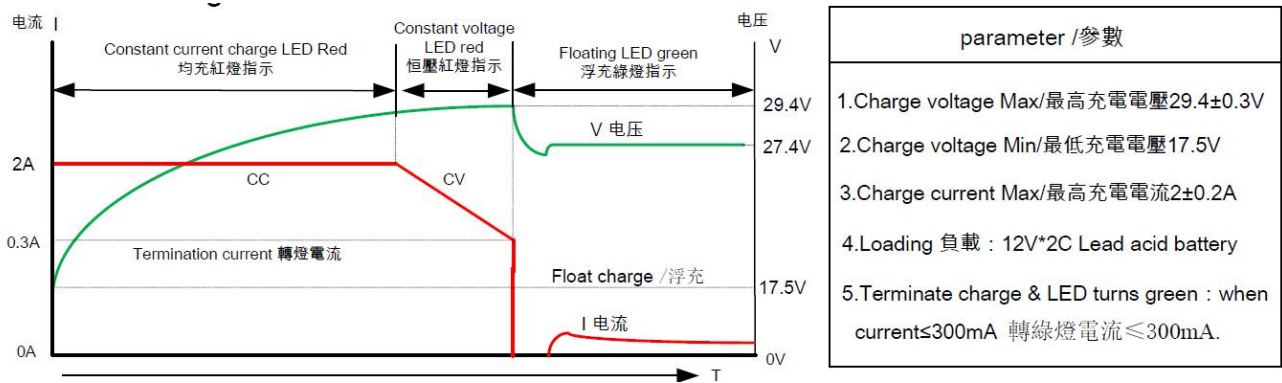
ITEM 项目	充电标准电压 STD Charging Volt	充电标准电流 STD Charing Current
24V SLA Charger	29.4V	2000mA

The float charging current when LED in green is not more than 300mA.

4. Work Status of LED indicator/LED灯工作状态显示

-  Red light:charging
-  Green light:charged full/disconnect

5. CHARGING CURVE/充电曲线图：



6. PROTECTION FEATURE / 保护特性

6.1 Over Current Protection / 过电流保护:

The green mode power supply shall be hiccup when any output operating in overload condition (set @ Max load 100-180%) under any line condition for an indefinite period of time. The power supply shall be self-recovery when the fault condition is removed. 在任何时候任何输入条件，当输出操作在超载条件最大充电器的（100 ~ 180%）时，充电器将进入打嗝模式，当故障被移走后，充电器要能自动恢复到正常

6.2 Short Circuit Protection / 输出短路保护:

The power supply shall be hiccup and no damage shall occur when any output operating in a short circuit condition under any line condition for an indefinite period of time. The power supply shall be self-recovery when the fault condition is removed. 在任何时候，任何输入条件下，当输出操作在短路情况下，充电器将进入打嗝模式，当故障消失后，充电器要能自动恢复正常。

6.3 Over Voltage&Over Load / 过压和过载保护

The charger shall not damage when over voltage and over load happened, and the charger will be self-recovery when the fault is removed. 过压和过载问题解除，电源恢复正常。

6.4 Reverse Polarity Protection / 防反接保护

The charger should have Anti reverse charging function. When the plug connects reversely, the charging stops and LED is in GREEN. 防反接保护，当充电插对接反，会停止充电，LED灯绿色。

6.5 Anti Discharging Function / 防倒灌功能

The charger should have Anti discharging function. When no AC power of 100-240VAC, and the charger is connected with the battery, the battery doesn't discharge and LED is off. 防倒灌功能。当没有AC输入，充电器连接电池，电池不放电，灯不亮。

7. ENVIRONMENTAL CONDITONS ENVIRONMENTAL / 环境条件

7.1 Operating / 操作条件:

The power supply shall be capable of operating continuously in any mode without

performance deterioration in the following environmental conditions.在下列环境条件下，充电器要能够连续操作在各种模式，且不能造成性能的退化。

- a. Operation Temperature: $-20^{\circ}\text{C} \sim 55^{\circ}\text{C}$ 工作测度: $-20^{\circ}\text{C} \sim 55^{\circ}\text{C}$
- b. Relative Humidity: 10% ~ 90% 相对湿度: 10% ~ 90%
- c. Vibration: 1.0mm, 10 – 25Hz, 15 minutes per cycle for each axis (X, Y, Z)
- d. Cooling: The power supply will operate with convection cooling. Blocking of vents must not cause damage to the power supply. 充电器将操作在对流冷却的环境下，即使将通风口阻塞充电器也不允许有任何损伤发生。

7.2 Non Operating / 非操作条件:

The power supply shall be capable of withstanding the following environmental conditions extended periods of time, without standing electrical or mechanical damage and subsequent operational deficiencies:

充电器要能够长期的经受下列的环境条件，且不允许有电气级机械方面的损伤和并发的操 作的缺失

- 1) Storage Temperature: $-30^{\circ}\text{C} \sim 70^{\circ}\text{C}$ 储存温度: $-30^{\circ}\text{C} \sim 70^{\circ}\text{C}$
- 2) Relative Humidity: 10% ~ 90%相对湿度: 10% ~ 90%
- 3) Color of case and cable / 外壳及线材颜色: **Black / 黑色**
- 4) Vibration and Shock / 振动和冲击

The power supply shall be designed to withstand normal transportation vibration per MIL-STD -810D, method 514 and procedures X, as it's mounted in the chassis assembly and packed for shipping. 充电器出货的包装设计，均要能承受正常运输的振动，并符合 MIL-STD-810D方法514 和程序 X.

- 5) Dropping Testing / 跌落试验: X-Y-Z direction 100cm,one time with each direction X-Y-Z三个方向高度1m每个方向各一次。

8. EMC STANDARDS / 电磁兼容性标准

8.1 EMI standards / EMI 标准

The power supply met the radiated and conducted emission requirements for FCC CLASS B, EN55022 CLASS B. 本充电器符合辐射及传导要求，满足FCC CLASS B, EN55022 CLASS B.

8.2 EMS standards /EMS 标准

The power supply shall meet the following EMS standard 本充电器满足下列EMS标准

- 8.2.1 EN61000-4-2: 1995 / A1: 1998 Electrostatic Discharge(ESD)

8.2.2 EN61000-4-3: 1996 / A1: 1998 Radiated Electromagnetic Fields(RS)

8.2.3 EN61000-4-4: 1995 Electrical Fast Transient / Burst(EFT)

8.2.4 EN61000-4-5: 1995 Lighting Surge Attachment. Line to
Neutral: 2KV

9. RELIABILITY AND QUALITY CONTROL / 可靠性及质量控制

9.1 Burn-in / 老化

The power supply shall undergo a minimum of 4 hours Burn-in test under full load at 40°C ~ ±5°C.
充电器应在40°C ~ ±5°C和满载条件下老化4 小时。

9.2 Components derating / 元件温度要求

Semiconductor junction temperatures shall not exceed the manufacture's maximum thermal rating 半导体温度不允许超过其制造商要求的最大温度值。

9.3 STANDING STRENGTH(HI-POT) / 绝缘介电强度 (耐压)

Primary to Secondary AC3000V, 10mA, 1 minute for type test, 3 second for production.

初级到次级: AC3000V, 10mA标准测试1分钟, 量产测试3分钟。

10. WEIGHT / 重量

The weight of the power supply shall be about 220g 充电器的重量大约为 220g

11. MECHANICAL REQUIREMENT / 结构参数

The power supply size: L114xW51xH33mm. 外壳尺寸: L114xW51xH33mm

12. INSULATION RESISTANCE / 绝缘阻抗

Input to output: 50M OHM(500VDC)输入对输出50兆欧姆(500VDC)

13. LEAKAGE CURRENT / 漏电流

The leakage current shall be less than 0.25mA for class II when power supply is operated maximum input voltage and maximum load.

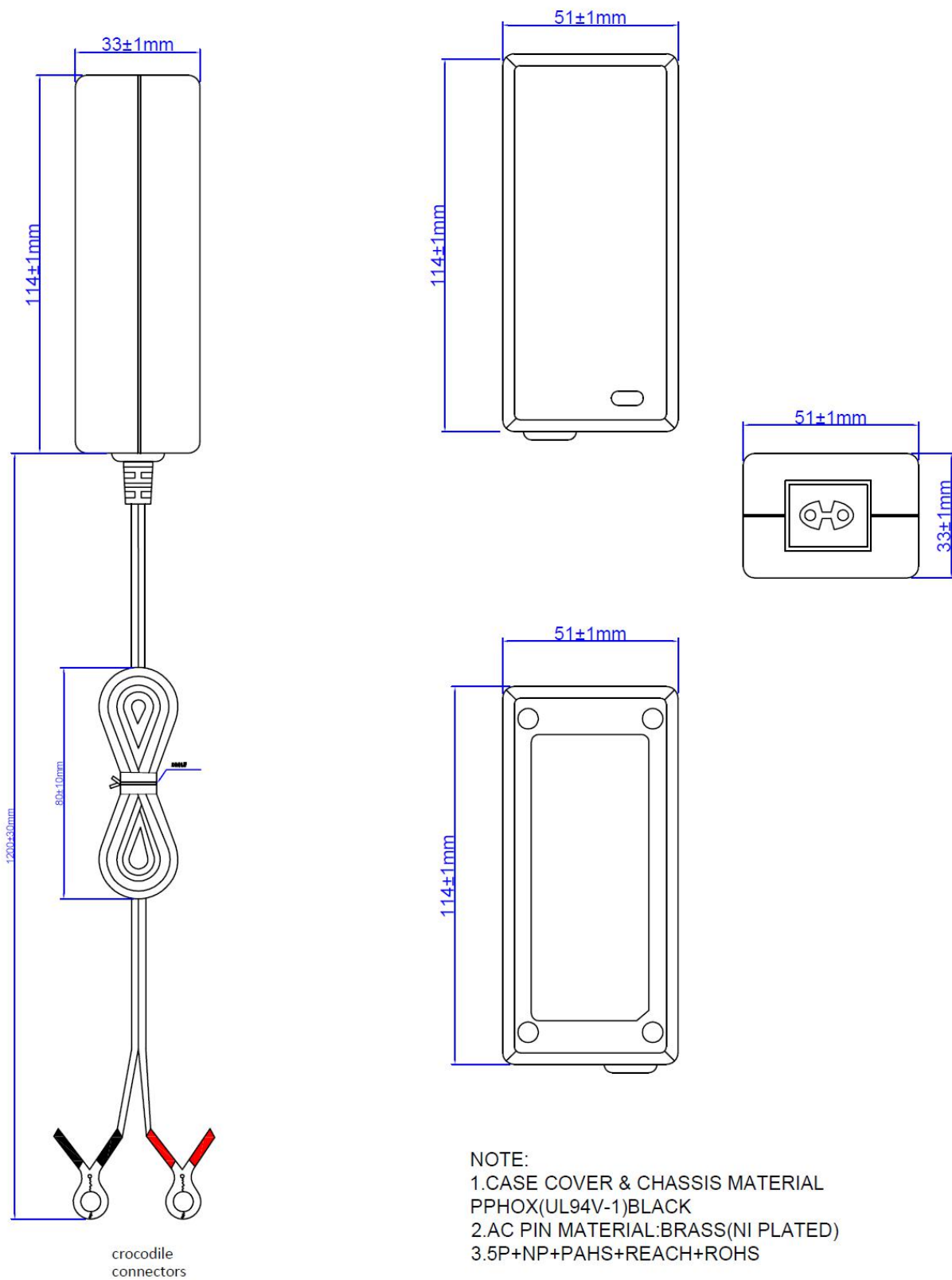
当充电器操作在最大输入及最大负载情况下, 其漏电流应小于0.25mA, 满足class II等级。

14. MAJOR MEASURE EQUIPMENT / 主要测量设备; VERIFIED BY THE THIRD LAB/外校

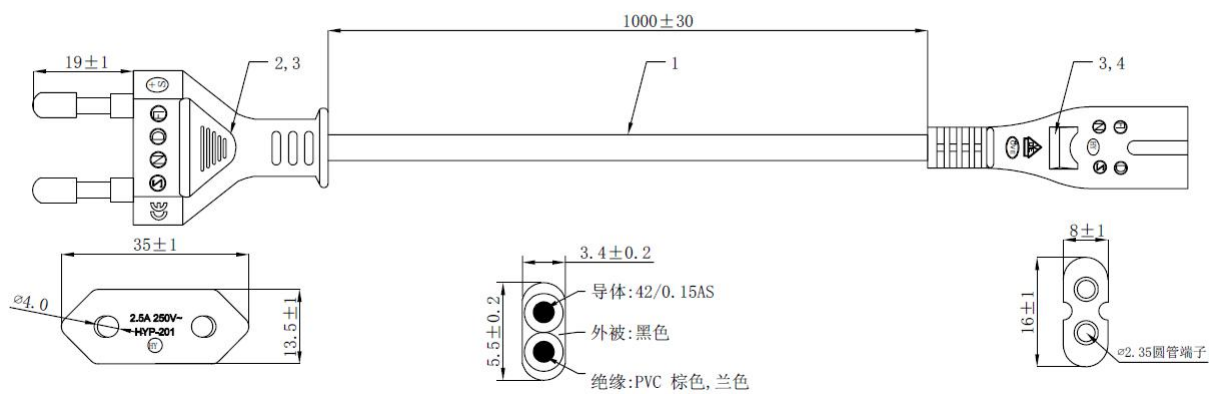
- 1) AC SOURCE / 交流输入充电器: AFC – 500W,校准频次: 1次/年
- 2) POWER METER / 充电器功率计: CHROMA 2100,校准频次: 1次/年
- 3) ELECTRONIC LOAD / 电子负载: PRODIGIT 3310C,校准频次: 1次/年
- 4) OSCILLOSCOPE / 存储示波器: TDS-2012B,校准频次: 1次/年
- 5) DIGITAL MULTIMETER / 数字式万用表: Fluke 4.5,校准频次: 1次/年
- 6) DC POWER / 直流输入充电器: WYK – 6030,校准频次: 1次/年

- 7) HI – POT TESTER / 耐压测试仪: LANKE 7112,校准频次: 1次/年
 8) INSULATION RASISTANCE TESTER / 绝缘电阻表: YD2681A,校准频次: 1次/年

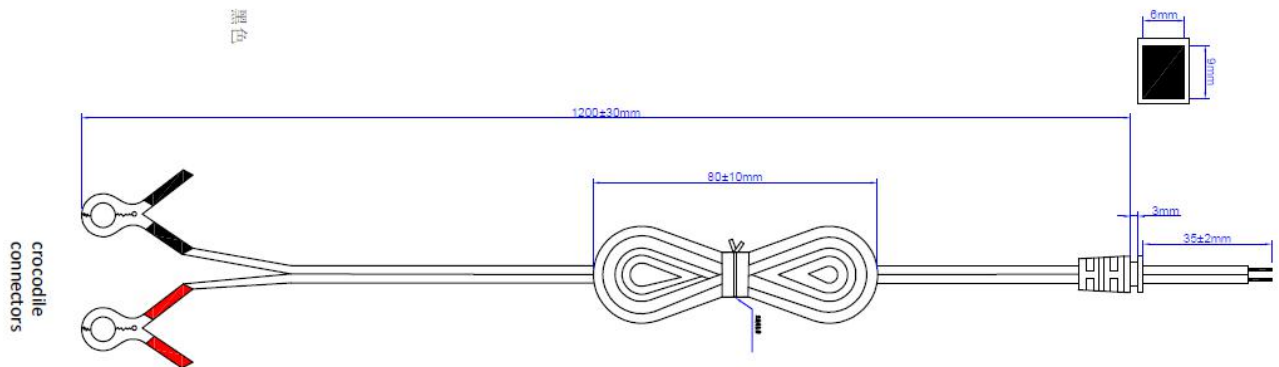
15. PRODUCT OUTLINE DIMENSION / 产品外观尺寸(mm)



13. AC/DC CORD / 输入/输出 线材

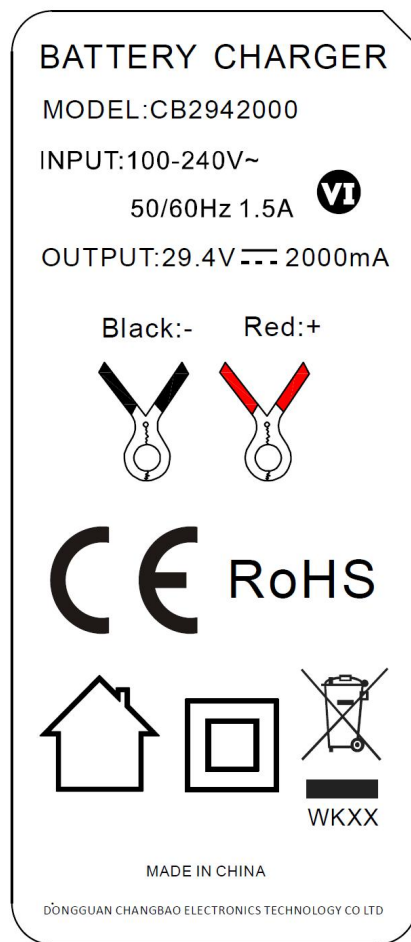


注:
1. I112468 AWG20/2C 80° C 300V 黑色
2. 符合ROHS

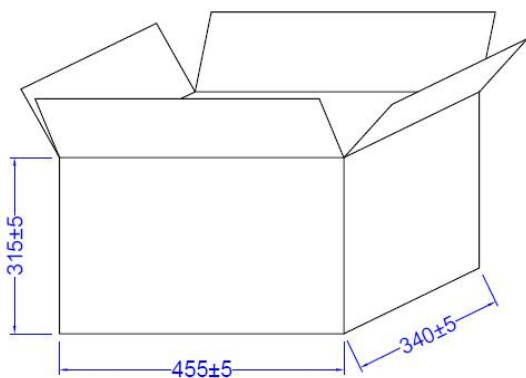


The length is 50mm

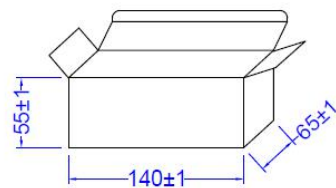
14. RATING LABEL / 铭牌



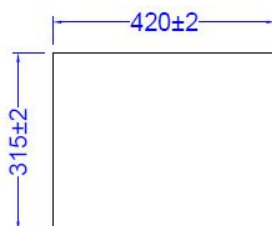
15. Packing / 包装



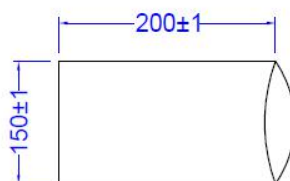
1. 外箱
2. 材质: K=K
3. 1PC外箱装80PCS产品



1. 小白盒
2. 材质: 250克+E坑 白色
3. 用量: 1PC对应1PC产品



1. 隔板
2. 材质: B33
3. 一个外箱配2PCS隔板



1. 材质: 透明PE袋
2. 用量, 1PC对应1PC产品