

1、这是一款适用于以下国家地区的 12V 1A 电源适配器充电器。This is a 12V 1A power adapter charger for the following countries.

1.1、安规标准/ SAFETY STANDARD:

本电源应符合下列的标准：The green mode power supply shall be certified by the following international regulatory standards:

地区/Area	认证 Certificate	标准/Standard
中国 /CHINA	CCC	GB 17625.1-2022;GB 4943.1-2022;GB/T 9254.1-2021

电磁兼容性标准/EMC STANDARDS:

1.2 EMI 标准/EMI STANDARDS:

本电源供应器符合辐射及传导要求，满足 GB/T9254-2021，GB17625.1-2022

The power supply met the radiated and conducted emission requirements for GB/T9254-2021、GB17625.1-2022

1.3 EMS 标准/EMS STANDARDS:

本电源供应器满足 EMS 标准:GB4943.1-2022

The power supply meets EMS standards: GB4943.1-2022

2、INPUT CHARACTERIST / 输入特性:

2.1 输入电压范围可以从 90Vac 到 264Vac. INPUT VOLTAGE RANGE: 90Vac to 264Vac.

2.2 额定输入电压从 100Vac 到 240Vac. RATED INPUT VOLTAGE: 100Vac to 240Vac.

2.3 输入频率范围从 47Hz 到 63Hz. INPUT FREQUENCY RANGE: 47Hz to 63Hz.

2.4 额定输入频率从 50Hz 到 60Hz. INPUT FREQUENCY RANGE: 50Hz to 60Hz.

2.5 最大输入电流不超过 0.3A (输入条件 100-240Vac) INPUT CURRENT: 0.3Amax.
(I/P100-240Vac).

2.6 在标准开机条件下, 最大浪涌电流不超过 30A (输入条件 100-240Vac).

INRUSH CURRENT: 30A max. (at 100-240Vac input for a cold start at 25°C.)

3、Output Characteristics / 输出特性

测试项目 Test Item	电压范围Voltage Range	电流范围 currentRange	峰值电流 peak current
空载测试 No-load test	12-12.6V	0mA	N/A
负载测试 Load test	11.4-12.2V	0-1000mA	≦1100mA

3.1 纹波和噪音 Ripple and Noise:

测试条件:在额定电压及额定负载条件下, 使用示波器带宽为 20MHz 连接到充电器的输出端, 同时输出端并联一个 47uF 的电解电容和一个 0.1uF 的瓷片电容. Under nominal voltage and nominal load, the ripple and noise are as follows when measure with Max. Bandwidth of 20MHz and Parallel 47uF/0.1uF, crossed connected at testing point.

电压 / Voltage	最大纹波/最大噪音 / Ripple and Noise(Max.)
12 VDC	≦120mV p-p

3.2 启动延迟时间/Turn on delay time:

当输入 115Vac 和输出最大负载时, 最大启动时间为 3S.

3Second Max.at 115Vac input and output Max.load.

3.3 保持时间/Hold up time:

当输入 115Vac 和输出最大负载时, 最小保持时间为 5 mS .

5 mS Min.at 115Vac input and output Max.Load.

3.4 绝缘介电强度 (耐压) / ELECTRIC WITHSTANDING STRENGTH(HI-POT)

一次侧对二次侧: AC3000V/5mA 标准测试 1 分钟, 量产测试 3 秒钟

Primary toSecondary AC3000V/5mA , 1minute for type test. 3second for production.

3.5 过冲/Overshoot:

在电源开启或关闭的时候, 最大 10%. ; 10% Max. When power supply at turn or turn off.

4、保护特性/PROTECTION FEATURE:

4.1 过电流保护 / OVER—CURRENT PROTECTION:

在任何时候任何输入条件, 当输出操作在超载条件最大电源的 (5~10%) 时, 电源供应器将进入打嗝模式, 当故障被移走后, 电源要能自动恢复到正常。

The green mode power supply shall be hiccupped when any output operating in overload condition(set@ Max load5~10%) under any line condition for an indefinite period of time. The power supply shall be self — recovery when the fault condition is removed.

4.2 输出短路保护/ SHORT CIRCUIT PROTECTION:

在任何时候, 任何输入条件下, 当输出操作在短路情况下, 电源供应器将进入打嗝模式, 当故障消失后, 电源要能自动恢复正常。The power supply shall be hiccupped 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.

5、环境条件/ENVIRONMENTAL CONDITIONS:

5.1 操作条件/ OPERATING: 在下列环境条件下, 电源供应器要能够连续操作在各种模式, 且不能造成性能的退化。The power supply shall be capable of operating continuously in any mode without performance deterioration in the following environmental conditions.

5.1.1 环境温度: $-10^{\circ}\text{C}\sim 35^{\circ}\text{C}$ 。Ambient Temperature: $-10^{\circ}\text{C}\sim 35^{\circ}\text{C}$

5.1.2 相对湿度: $10\%\sim 80\%$ Relative Humidity: $10\%\sim 80\%$

5.2 振动/Vibration

测试标准: 国际电工电子委员会

Operating: IEC 721-3-3 3M35~9Hz, A=1.5mm 加速度: ($9\sim 200\text{Hz}$, Acceleration $5\text{m}/\text{S}^2$)

5.3 冷却/Cooling: 电源供应器将操作在自然对流冷却的环境下, 即使将通风口阻塞电源也不允许有任何损伤发生。The power supply will operate with convection cooling. Blocking of vents must not cause damage to The power supply.

6、储存条件/Storage conditions: 电源供应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。The power supply shall be capable of withstanding the following environmental conditions extended periods of time, without sustaining electrical or mechanical damage and subsequent operational deficiencies:

6.1.1 储存温度: $-10^{\circ}\text{C}\sim 35^{\circ}\text{C}$ 。Storage Temperature: $-10^{\circ}\text{C}\sim 35^{\circ}\text{C}$

6.1.2 相对湿度: $10\%\sim 80\%$ 。Relative Humidity: $10\%\sim 80\%$

6.2.3 振动和冲击/Vibration and Shock: 电源供应器装配及出货的包装设计, 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。The power supply shall be designed to withstand normal transportation vibration per

MIL-STD-810D, method 514 and procedures X, as it is mounted in the chassis assembly and packed for shipping.

7、可靠性及质量控制/RELIABILITY AND QUALITY CONTROL:

7.1 MTBF 平均无故障时间: 在 25℃条件下, 平均无故障时间 20000 小时。

20,000 hour Power on at 25 °C

7.2 老化/BURN-IN

电源应在 35℃±5℃ 和满载条件下老化 2-4 小时。The power supply shall undergo a minimum of 2-4 hours Burn-In test under full load at 35℃±5℃

7.3 组件温度要求/COMPONENT DERATING: 半导体结温不允许超过其制造商要求的最大温度值。The temperature of the semiconductor junction is not allowed to exceed the maximum temperature required by its manufacturer.

8、符合节能 6 级以上标准, 测试标准如下/ Energy Saving (Level VI) :

平均效率高于 78.88% (输入 100-240Vac, 输出 (25%, 50%, 75%&100%负载)); Higher than 78.88% at 100-240Vac (Input and output (25%, 50%, 75%&100% load.)

8.1 CEC Test Report (CEC Table U-2 Standards for Power Supplies Effective July 1, 2008)

8.2 EUP Test Report (COMMISSION REGULATION (EC) No 278/2009)

8.3 MEPS (AS/NZS 4665.2-2005)

9、绝缘阻抗/INSULATION RESISTANCE:

输入对输出 100 兆欧姆 (500VDC) Input to output: 100M Ohm(500VDC)

10、漏电流/LEAKAGE CURRENT: 当电源供应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。The leakage current shall be less than 0.25mA for ClassII when power supply is operated maximum input voltage and maximum load.

11、主要测量设备 /MAJOR MEASURE EQUIPMENT:

序号	设备名称	型号	本次使用
1	AC SOURCE / 交流输入电源	AFC - 500W	√
2	POWER METER / 电源功率计	JK-8731	√
3	ELECTRONIC LOAD / 电子负载仪	JT6111	√
4	OSCILLOSCOPE / 存储示波器	DS2072A	√
5	DIGITAL MULTIMETER / 数字式万用表	Fluke 15B	√
6	HI - POT TESTER / 耐压测试仪	RK2670A	√

产品外观尺寸 / PRODUCT OUTLINE DIMENSION

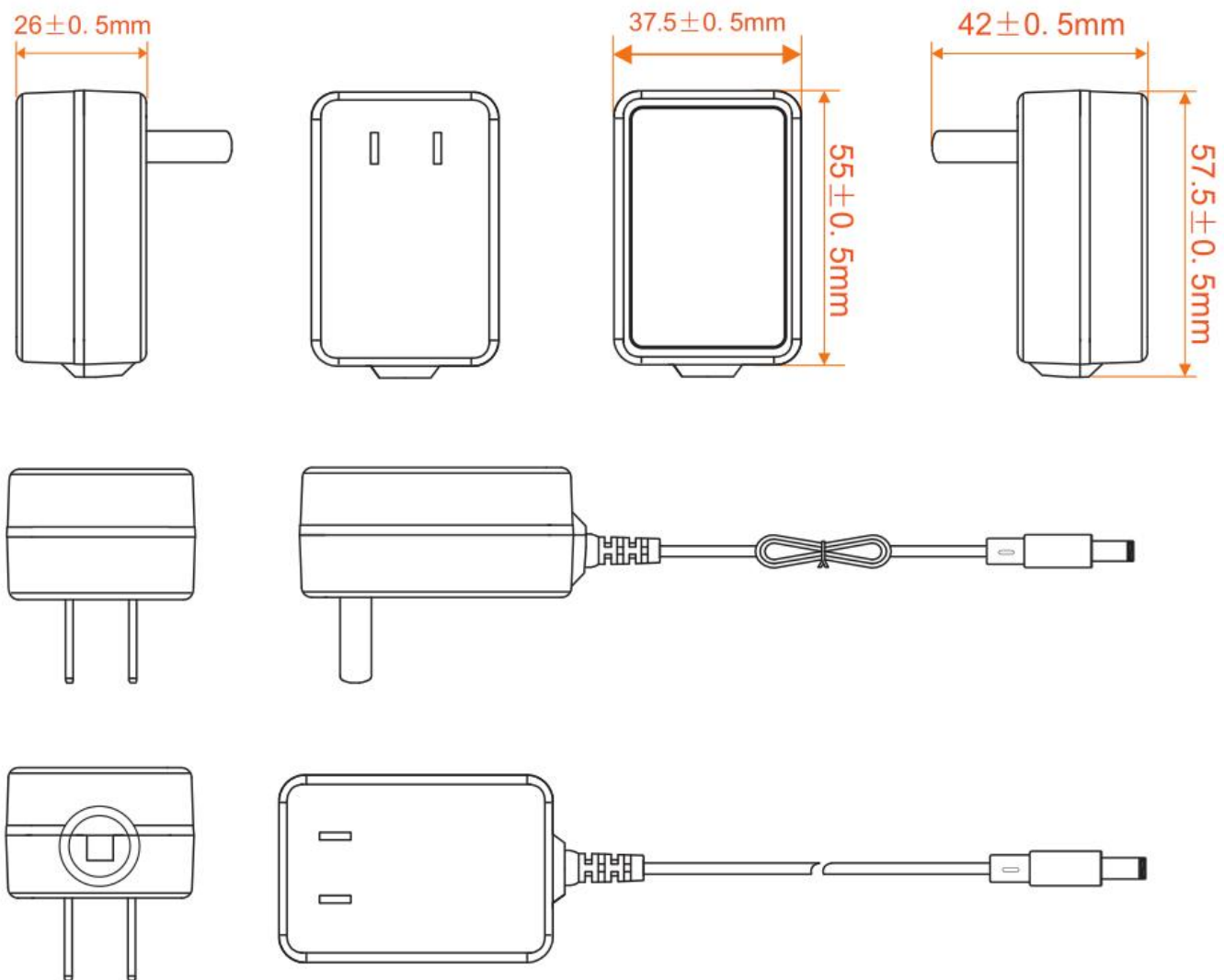
结构参数 / MECHANICAL REQUIREMENT:

外型尺寸: L57.5*W37.5*H42mm

The power supply size: L57.5*W37.5*H42mm

颜色 COLOUR: 黑色 BLACK ✓

白色 WHITE



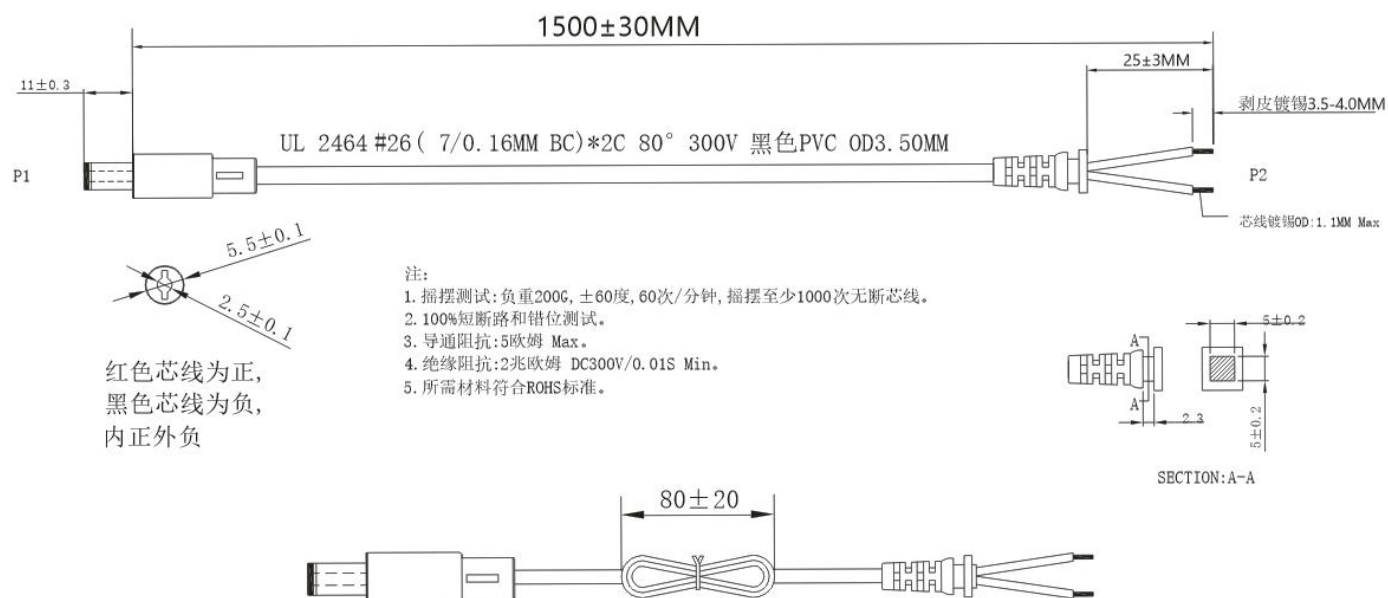
Unit / 单位:mm (误差±0.5mm)

重量/ WEIGHT: 电源的净重大约为 75g

The net weight of the power supply is about 75 g

DC CORD / 线 材

单位 UNIT: mm



Package Drawing/包装示意图

