



*12VDC 2 AMP*  
*Inspired LED Item 4822*

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## 1. 描述 (DESCRIPTION)

本电源是将 100Vac ~240Vac 交流输入电压转换成稳定的直流电压，输出功率为 24W，额定输出电压，电流分别如下表所示。This is general purpose AC/DC adapters which convert 100Vac ~240Vac to a stabilized DC voltage, output power is 24W, rated output voltage and current as follows:

Table 1 Model list 产品目录

Model	Output Voltage	Output Current	Input Voltage	Notes
ETSA25-120200WU	12V	2A	100Vac~240Vac	

## 2. 电气规格 (ELECTRICAL SPECIFICATION)

### 2.1 输入 (Input)

Input voltage range 输入电压范围	90Vac~264Vac
Normal voltage range 额定输入电压范围	100Vac~240Vac
Input frequency range 频率范围	47Hz~63Hz
Rated input frequency 额定频率	50Hz/60Hz
Max. input ac current 最大输入电流	0.8Amax. at full load condition
Inrush current (cold start) 浪涌电流	Input, 115Vac/60Hz: 30A peak Input, 230Vac/50HZ: 45A peak
Efficiency (full load) 效率 (额定负载)	78% min. at 115Vac/60HZ&230Vac/50HZ.
Efficiency (Average) 效率 (25%, 50%, 75%, 100%负载下效率平均值)	79% min. at 115Vac/60HZ&230Vac/50HZ.
No-load power (High Input Voltage) 空载功耗 (最高输入电压)	Less than 0.5W

Table1

### 2.2 输出 (Output)

#### 2.2.1 额定输出 (Rated Output)

Output Voltage (Vdc)	Output Voltage Limit (+/-5%)	Output Ripple&Noise (mVp-p)	Output Current (mA)
12	11.4~12.6V	200mV@25℃	0~2000

Table2

Notes: Ripple Voltage is measured with oscilloscope with bandwidth 20MHz. A 47uF E-cap and 0.1uF ceramic-cap shall be connected to the output in parallel.

### 2.2.2 输出动态响应 (Output Transient Response)

Voltage Tolerance Limit	Slew Rate	Load Change
NC	0.2A/uS	Min. to 50% load and 50% to Max. load
NC	0.2A/uS	Min. load to Max. load

Table3

Note: Transient response measurements shall be made with a load changing repetition rate of 50Hz to 10kHz.

### 2.2.3 输出保持时间 (DC Output Hold-Up Time)

Output Voltage	115Vac	230Vac
Vo	NC	NC

Table4

Note: All of dc output at full load.

### 2.2.4 输出超调 (DC Output Overshoot At Turn On & Turn Off)

Output (V)	Over shoot voltage (V)	
	Turn on	Turn off
Vo	NC	NC

Table5

Note: All of dc output current from Min. to Max.

### 2.2.5 输出延迟时间 (Time between AC input and 10%DC output )

Output Voltage	110Vac&Full Load	230Vac&Full Load
Vo	NC	NC

Table6

### 2.2.6 输出上升时间 (DC output voltage rise time)

Output Voltage	110Vac&Full Load	230Vac&Full Load
Vo	NC	NC

Table7

Note: The output voltages shall rise from 10% to 90% of their output voltage.

## 3. 保护功能 (PROTECTION)

### 3.1 短路保护 (Short Circuit Protection)

Shorting of output will not cause power supply to damage, or any safety hazard. The power supply shall resume normal operation after the short is removed.

### 3.2 输入保护 (Input Protection)

The power supply has a T2A/250V fuse to protect itself.

#### 4. 可靠性 (RELIABILITY)

MTBF: >25 kHours at 25 °C

#### 5. 环境特性 (ENVIRONMENTAL)

##### 5.1 气候条件规格 (Climatic Specifications)

Operating temperature : 0°C~40°C

Operating humidity : 0%~90% (Non-condensing)

Operation Altitude : to 10,000ft.

Storage Temperature : -20°C~70°C

Storage Humidity : 0%~95% (Non-condensing)

Storage Altitude : to 20,000ft.

Cooling Method :Convection

#### 6. 安全标准

##### 6.1 绝缘阻抗

Input To Output 输入/输出	DC500V 10M $\Omega$ min (at room temperature)
Input To Case 输入/壳	DC500V 10M $\Omega$ min (at room temperature)
Output To Case 输出/壳	Non Isolated

##### 6.2 绝缘耐压

Input To Output 输入/输出	3000Vac 50Hz 1minute $\leq$ 10mA
Input To Case 输入/壳	3000Vac 50Hz 1minute $\leq$ 10mA
Output To Case 输出/壳	Non Isolated

在输入端对输出端及输入端对外壳间施加了 3KV 电压, 并且测试中施加在绝缘上的电压是在 1s 内由 0V 逐渐上升到规定值, 然后保持 60s 电流灵敏度设置在 10mA。经过以上测试, 电源应不发生电气及机械上的异常。

When AC voltage of 3KV is applied, and the voltage applied to the insulation under test is gradually raised from zero to the prescribed voltage in 1s, and held at that value for 60s between the input and output and between the input and housing, the current sensitivity shall be less than 10mA. After this test, the adapter shall exhibit no electrical and mechanical abnormalities.

##### 6.3 漏电流

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.



#### 6.4 安全标准 (Safety Standard)

- \* UL60950
- \* CCC (GB4943-1995)
- \* EN60950

### 7 电磁兼容性 (EMC-SPECIFICATION)

#### 7.1 电磁干扰 (Emi)

The power supply shall compliance with the following Criterion:

1) 传导干扰度 (Conduction Emission) :

- \*EN55022, CLASS B
- \*GB9254, CLASS B
- \*FCC PART15 CLASS B

2) 辐射干扰度 (Radiated Emission ) :

- \*EN55022, CLASS B
- \*GB9254, CLASS B
- \*FCC PART15 CLASS B

#### 7.2 电磁抗扰 (Ems)

The power supply shall compliance with the following Criterion:

1) 静电抗扰度 (Esd)

- \*EN61000-4-2 8KV , CRITERIA B

2) 脉冲群抗扰度 (Eft)

- \*EN61000-4-4 1KV

3) 雷击浪涌 (Surge)

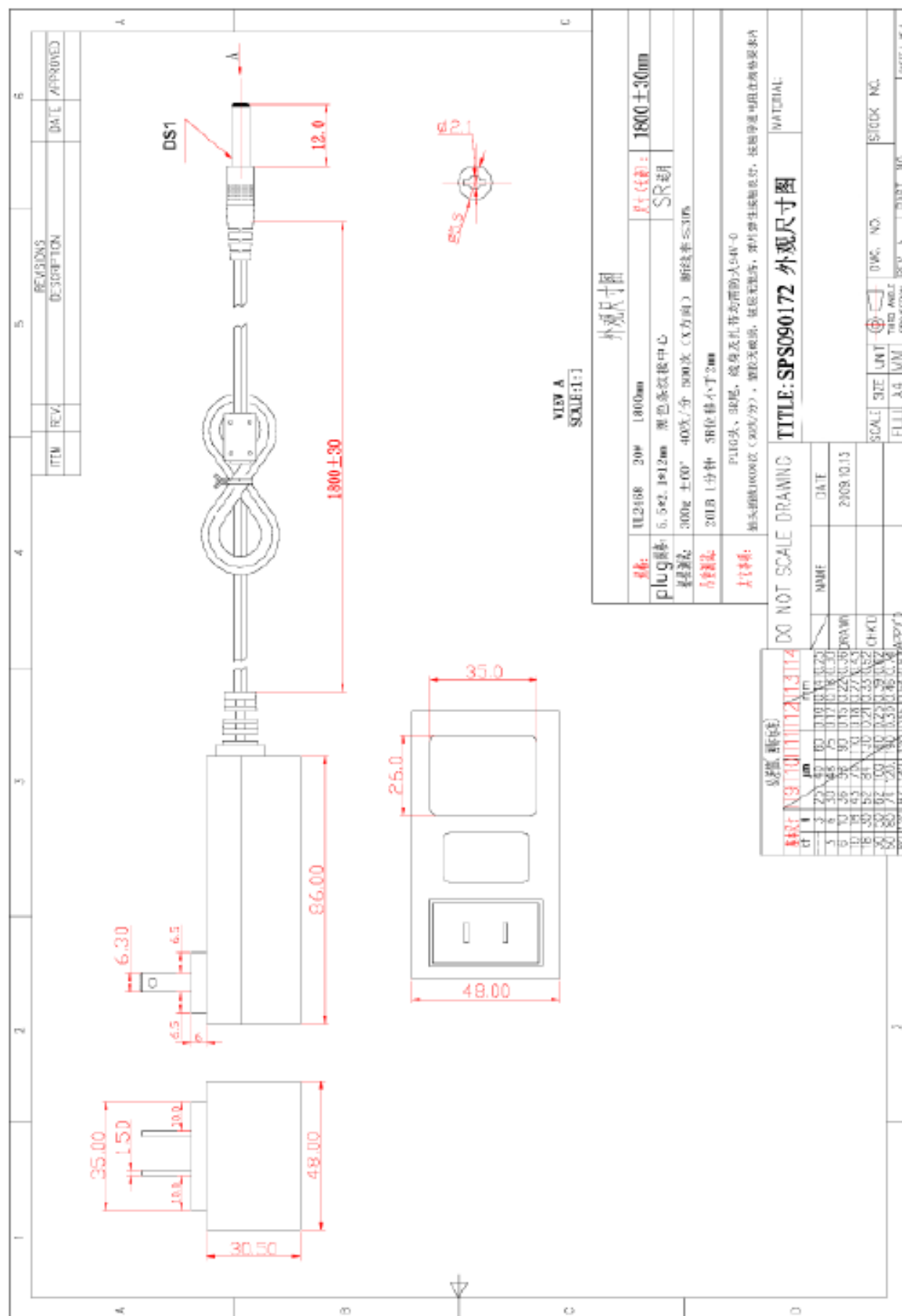
- \*EN61000-4-5 1.0KV / 2KV

### 8. 机械规格 (MECHANICAL SPECIFICATIONS)

#### 8.1 Weight 重量

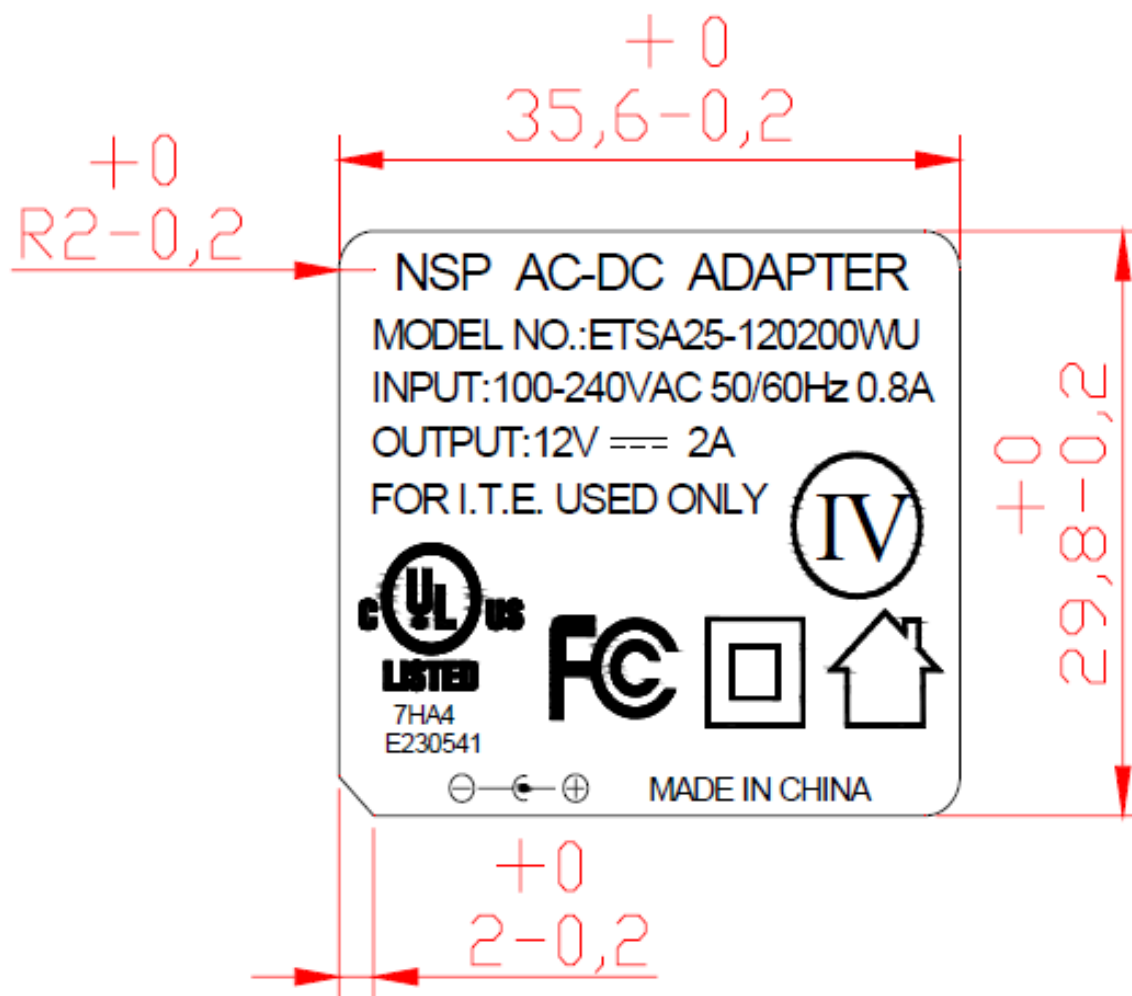
产品的重量大约为 220 g. The weight of the product supply shall be about 220 g.

9. 外观图 (CASA DRAWING)



Inspired LED 830 Stewart Drive Sunnyvale, Ca 94085 (650)743-4087  
www.inspiredLED.com

10. 铭牌 (NAMEPLATE)





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