

# 规格书

## Electrical Specification

Description/产品名称: ADAPTER

Model No./产品型号: LS-PW24W-12V2A

Specification/产品规格: 12V2A

Revision/版本: A0



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## E. C. LIST/变更履历表

| Rev.<br>版本 | Description of Change/变更内容描述   |           | Changde         | ECN No. |
|------------|--------------------------------|-----------|-----------------|---------|
|            | Before/变更前                     | Afret/变更后 | Date/日期         |         |
| <b>A0</b>  | <b>Original Release (初次发行)</b> | ---       | <b>2014.5.8</b> | ---     |
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## 1. SCOPE

The document detail the electrical,mechanical and environmental specifications of a Adapter POWER, the power supply provide 18.0 W (continuous output power ).output.

资料详细描述了一款 18.0W(连续输出功率), 输出电源的电气, 结构及环境等要求.

The power supply shall meet the **RoHS** requirement.

此款电源符合 **RoHS** 要求.

### 1.1. Description

- SMPS Adaptor(Wall mount)/插墙式适配器
- SMPS Adaptor(Desk-top)/桌面型适配器
- Open Frame/开放式结构
- SMPS Unit(With Case)/带铝壳型
- Others/其他

## 2. Input Characteristics/输入特性

### 2.1. Input Voltage & Frequency/输入电压与频率

The range of input voltage is from 90Vac to 264Vac single phase.

输入电压范围: 从 90Vac 到 264Vac, 单相输入.

|                      | Minimum/最小 | Nominal/额定值   | Maximun/最大 |
|----------------------|------------|---------------|------------|
| Input Voltage/输入电压   | 90Vac      | 100Vac-240Vac | 264Vac     |
| Input Frequency/输入频率 | 47Hz       | 60Hz/50Hz     | 63Hz       |

### 2.2. Input AC Current/AC 输入电流

0.6Amax. @ 100-264Vac input & Full load/满载

### 2.3.Inrush Current (cold start)/浪涌电流(冷启动)

10Amax. @ 264Vac input

### 2.4.Efficiency(Normal)/效率(额定输入)

82.2 % min. @ (type83% at input 110Vac)& Full load/(在 110Vac 输入,典型效率 83%)&满载

82.7% min. @ (type83% at input 230Vac)& Full load/(在 230Vac 输入,典型效率 83%)&满载

### 3. Output Characteristics/输出特性

#### 3.1. Static Output Characteristics<Vo & R+N>/静态输出

| Input Voltage<br>输入电压 | Input power<br>输入功率 | Rated Output<br>额定输出电压 | No Load<br>空载 | Output Range<br>输出范围 | Ripple and Noise<br>Range<br>纹波与噪音 |
|-----------------------|---------------------|------------------------|---------------|----------------------|------------------------------------|
| AC110V                | ≤0.3W               | +5V                    | 0.0A          | 11.4-12.6V           | ≤100mVp-p                          |
| AC230V                | ≤0.3W               | +5V                    | 0.0A          | 11.4-12.6V           | ≤100mVp-p                          |

#### 3.2 Output Voltage/Cuttent /输出电压/电流

| Input Voltage<br>输入电压 | Output Voltage<br>输出电压 | Output Current<br>输出电流 | Ripple and Noise Range<br>纹波与噪音 |
|-----------------------|------------------------|------------------------|---------------------------------|
| AC115V                | 11.4-12.6V             | 0-2A                   | ≤150mVp-p                       |
| AC230V                | 11.4-12.6V             | 0-2A                   | ≤150mVp-p                       |

#### 3.3 Turn-on Delay Time/开机延迟时

5.0S max. @ 100Vac to 240Vac input & Full load/满载

#### 3.4 Hold-up Time/关机维持时间

6mS min. @ Full load & 115Vac/60Hz input turn off at worst case/在最差情况关机  
10mS min. @ Full load & 230Vac/50Hz input turn off at worst case/在最差情况关机

#### 3.5 Rise Time/上升时间

50mS max. @ Rated load/额定负载

#### 3.6 Fall Time/下降时间

50mS max. @ Full load/满载

#### 3.7 Output Overshoot/Undershoot/输出电压过冲/欠冲

10%max. When the power on or off/当电源开/关机最大过冲 10%.

#### 3.8 Output Load Transient Response/输出负载瞬态响应

Output voltage within 11.4V-12.6V for load step from 20% to 80%, R/S: 0.5A/Us, frequency: 100Hz

输出电压在 11.4V-12.6V 之间, 负载变化: 从 20%到 80%, 斜率: 0.5uS, 频率: 100Hz

## 4. Protection Requirements/保护要求

### 4.1. Short Circuit Protection/短路保护

The input power shall decrease when the output rail short, the power supply shall no damage, and shall be self-recovery when the fault condition is removed

当输出短路时，产品输入功率降低且不会损伤，当短路情况解除后，产品将会自动恢复正常

### 4.2. Over Current Protection /过流保护

Over current protection with auto recovery function. Current limit: 4A(max.).

当输出电流大于 3.2 安培时，过流保护，当输出电流恢复正常时，产品将会自动恢复正常

## 5. Environment Rquirements/环境要求

### 5.1. Operating Temperature and Relative Humidity/操作温/湿度要求

-35°C to +60°C

10%RH to 100%RH

### 5.2. Storage Temperature and Relative Humidity/存储温/湿度要求

-40°C to +80°C

5%RH to 100%RH non-condensing @ Sea level shall be low 10,000 feet/低于 10,000 英尺

### 5.3. Vibration/振动

10 to 300Hz sweep at a constant acceleration of 1.0G(Breadth:3.5mm) for 1Hour for each of The Perpendicular axes X,Y,Z

扫描频率:10 to 300Hz,加速度:1.0G(位移:3.5mm),X,Y,Z 三垂直坐标轴向各振动 1 小时

## 6. Reliability Requirements/可靠性要求

### 6.1. Burn-in/煲机

The power supply shall under go a minimum of 4 Hours burn-in test at 40°C ± 5°C under full load condition 产品至少要在 40°C ± 5°C 的环境下及满载条件下煲机 4 小时

### 6.2. MTBF Qualification/平均间隔故障时间估算

The MTBF shall be at least 50,000hours at 25°C, Full load and nominal input condition

平均间隔故障时间:至少 50,000 小时, 25°C 环境及额定输入与满载条件下

## 7. EMI/EMS Standards/EMI/EMS 标准

### 7.1. EMI Standards/EMI 标准

|              |         |
|--------------|---------|
| GB 9254-2008 | EN55022 |
| GB 4943-2001 | EN60950 |

## 8. Safety Standards/安规标准

### 8.1. Primary to Secondary: 3000Vac 5mA Max / 60second(3 second for production)

初次对次级:3000Vac / 5mA Max 60 秒(生产时高压测试时间:3 秒)

### Primary to Earth: 1500Vac 5mA Max / 60second(3 second for production)

初次对地: 1500Vac / 5mA Max 60 秒(生产时高压测试时间:3 秒)

### Secondary to Earth: 1500Vac 5mA Max / 60second(3 second for production)

次级对地: 1500Vac / 5mA Max 60 秒(生产时高压测试时间:3 秒)

### 8.2. Leakage Current/泄漏电流

0.75mA max. at 264Vac/50Hz

### 8.3. Insulation Resistance/绝缘阻抗

50M  $\Omega$  min. at primary to secondary add 500Vdc test voltage.

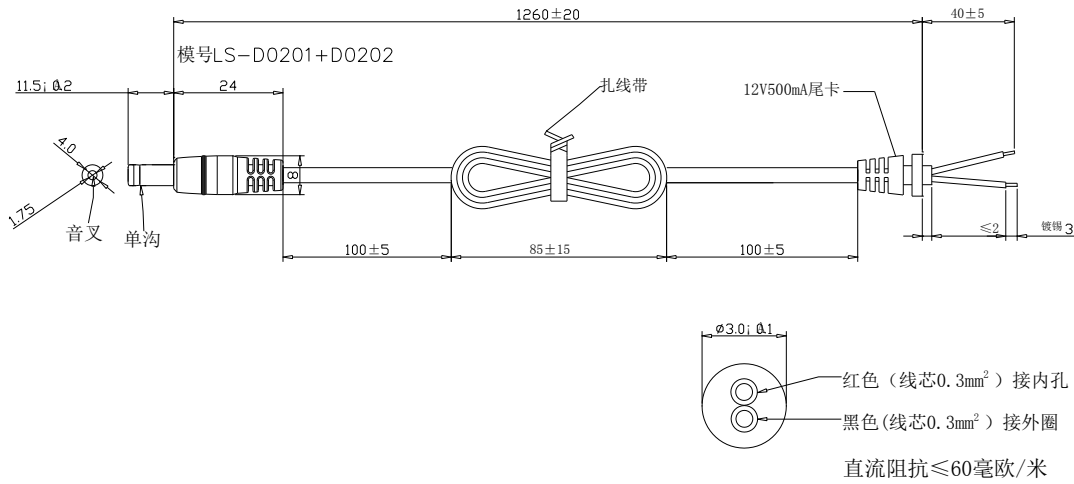
在初级与次级间加 500Vdc 进行绝缘测试, 最小绝缘阻抗 50M  $\Omega$ .

9. Mach. Outline Drwaing/外观示意图

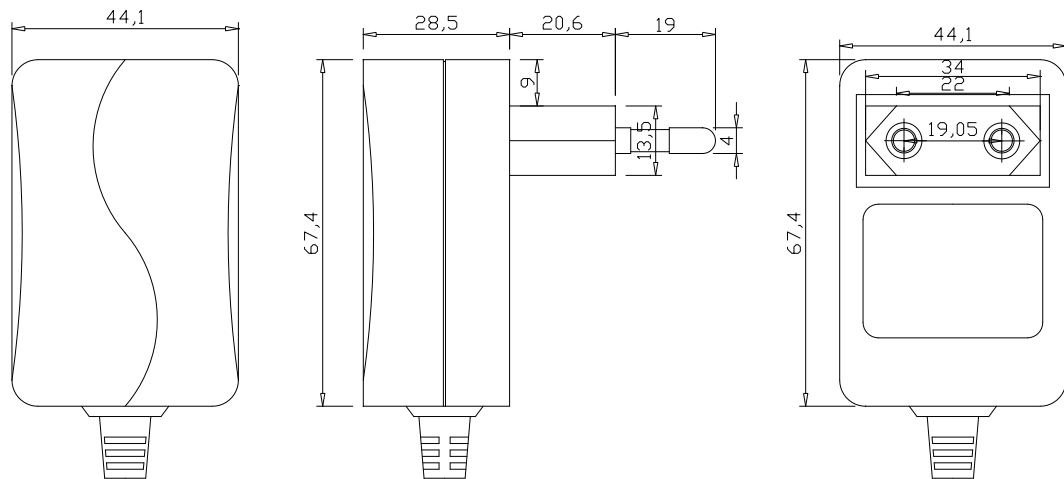




10.DC Cord/DC 短线



11.Product figure frame picture/外壳尺寸图



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