

NO:

客 户: **F13026PP08**

CUSTOMER \_\_\_\_\_

# 承 认 书

## SPECIFICATION FOR APPROVAL

客户料号:

CUSTOMER PART NO \_\_\_\_\_

福佳型号: **FKS106HSC-1200500U (106H UL)**

FUJIA PART NO \_\_\_\_\_

品名规格: **12V 500mA 开关电源**

DESCRIPTION \_\_\_\_\_

编制日期: **2011-03-01 (能源五级)**

DATE \_\_\_\_\_



|                    |               |                |                          |  |
|--------------------|---------------|----------------|--------------------------|--|
| 制造商<br>MANUFACTURE |               |                | 客户承认<br>CUSTMOER APPROVR |  |
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| <b>刘秀红</b>         |               |                |                          |  |



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## 1 概述 /SCOPE

本规格书适合于 [FKS106HSC-120900500U](#) 认证型号的开关电源。

The purpose of the document is to specify the functional requirements of [FKS106HSC-1200500U](#) switching power supply.

## 2. 输入特性/ INPUT CHARACTERISTICS:

### 2.1 输入电压/ Input Voltage

额定输入电压/ Rated Input Voltage: 100-240Vac

可变输入电压/Variable input voltage : 90V—264Vac

### 2.2 输入电流/Input Current:

当输入额定电压 带额定负载时, 最大的输入交流电流 [0.25A](#)

[0.25A](#) max when input rated voltage and output rated load.

### 2.3 输入频率/ Input Frequency

额定频率/Rate Frequency:50/60Hz

调整频率/ Variation Frequency: 47-63Hz

### 2.4 浪涌电流/In-rush Current:

当输出为额定负载, 环境温度为 25℃,输入 240Vac 冷启动时的最大浪涌电流为 60A。

60 A mps Max Cold start at 240Vac input ,with rated load and 25℃ ambient.

### 2.5 AC 漏电流/ AC leakage Current:

当输入电压 240Vac 时, 最大的漏电流为 0.25mA

0.25mA Max .At 240Vac input

## 3. 输出特性/OUTPUT CHARACTERISTICS:

### 3.1 额定输出功率/Rated Output Power [6W](#)

### 3.2 负载特性/调整率 (Combined Load/line Regulation)

| 电压                   | 最小负载               | 最大负载                 | 负载调整                         | 空载输出电压                      |
|----------------------|--------------------|----------------------|------------------------------|-----------------------------|
| Voltage              | Min. Load          | Max Load             | Load Regulation              | Unload output voltage       |
| <a href="#">+12V</a> | <a href="#">0A</a> | <a href="#">0.5A</a> | <a href="#">11.4V- 12.6V</a> | <a href="#">12.0V-12.6V</a> |

### 3.3 效率/Efficiency:

V 级平均工作效率  $\geq 73.42\%$

当输入 115VAC 时, 平均效率  $\geq 73.42\%$ 。是输出额定负载的 25%,50%,75%,100%4 种情况下平均效率, 115VAC input, the average efficiency  $\geq 73.42\%$ 。 output rated load is 25%,50%,75%,100% 4 situations of average efficiency

当输入 230VAC 时, 平均效率  $\geq 73.42\%$ 。是输出额定负载的 25%,50%,75%,100%4 种情况下平均效率, 230VAC input, the average efficiency  $\geq 73.42\%$ 。 output rated load is 25%,50%,75%,100% 4 situations of average efficiency

### 3.4 空载待机功率/Unload standby Power: 0.3W Max

### 3.5 纹波和噪音/ Ripple And Noise

测试条件: 在额定电压及额定电流条件下, 使用带宽为 20MHz 的示波器连接到开关电源的输出端, 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 Rated voltage and nominal load ,The ripple and noise are as follows when measure with Max Bandwidth of 20MHz and parallel 47UF/0.1, crossed connected at testing point.

| 电压          | 电流           | 最大纹波最大噪音              |
|-------------|--------------|-----------------------|
| Voltage     | current      | Ripple And Noise(Max) |
| <u>+12V</u> | <u>500mA</u> | 120m Vp-p             |

### 3.6 启动延迟时间/ Turn On Delay Time:

当输入 100Vac 和输出最大负载时, 最大启动时间为 3S  
3 second Max .At 100Vac input and output Max. Load

### 3.7 上升时间/ Rise Time:

当输入 100Vac 和输出最大负载时最大时间为 100ms  
100ms Max. At 100Vac input and output Max. Load

### 3.8 保持时间/Hold Up Time :

当输入 100Vac 和输出最大负载时, 最小保持时间为 5ms  
5ms Min.at 100Vac input and output Max .Load.

### 3.9 过充/ Overshoot:

在电源开启或关闭的时候, 最大 15%  
15% Max. When power supply on or turn off.

## 4. 保护功能/ PROTECTION FUNCTION:

### 4.1 短路电路保护/Short circuit protection:

电源供给器在短路解除后能正常恢复工作。

The Power Supply will be auto recovered when short circuit faults remove.

### 4.2 过流保护/ Over current Protection:

过流故障排除后，电源将自动回复正常工作。

The power supply will be auto recovered when over current faults remove.

### 4.3 过压保护/ Over Voltage Protection:

当输出电压超过额定电压的 120%-150%时，电源将保护，故障排除后能恢复正常工作。

The power supply will auto recovered when the voltage over 120%-150% rate voltage.

## 5. 环境要求/ENVIRONMENTAL REQUIREMENTS

### 5.1 工作温度/Operating Temperature

0°C -- +40°C,满载，正常工作。

0°C to +40°C ,Full Load, Normal Operation.

### 5.2 储存温度/Storage temperature

带外壳 :-10°C -- +55°C

With enclosure:-10°C to+55°C

### 5.3 工作湿度/Relative Humidity:

5%(0°C)~90%(40°C) ,72 小时，满载，正常工作。

5%(0°C)~90%(40°C) 72h Full Load , Normal operating.

### 5.4 振动/ Vibration:

#### 5.4.1 测试标准：国际电工电子委员会

Operating: IEC 721-3-3 3M3

5~9Hz,A=1.5mm

加速度 (9~200Hz,Acceleration 5m/s)

#### 5.4.2. 运输 (Transportation) :

IEC 721-3-2 2M2

5~9Hz, A=3.5mm

9~200Hz ,加速度 Acceleration=5 m/s<sup>2</sup>

200~500Hz ,加速度 acceleration=15 m/s<sup>2</sup>

#### 5.4.3. 轴向振动/ Axes,10 cycles per axis :

在测试过程中不能出现永久性损坏。

No permanent damage occur during testing.

在电源开启和关闭后，样机能够恢复到最初条件。

The product has to restore to its original situation after power off/on

## 6. 机械特性/ MECHANICAL CHARACTERISTICS

### 6.1 跌落实验/ Dropping Testing ,

产品从一米高处跌落到木板上无损伤。

The product to be dropped from 1 meter height to a concrete floor no breakage.

### 6.2 摇摆实验/Cable Flexing Testing

DC 引线吊重 200 克， 摇摆角 60 度，最少能承受 2000 次，弯曲速度每分 40 次，不会出现损伤。

The DC cord shall with weight of 200g,it swings at angle 60 deg ,2000cycle

Time min Bending speed: 40cycle per minute shall to be no breakage to the code

## 7. 安全标准 SAFETY STANDARD ,

### 7.1 安全:符合标准 IEC60065,EN60065, UL60065,GB8898。

Safety Accord with IEC60065, EN60065, UL60065,GB8898。

注：相应的 AC 插脚对应相应国家的标准，如 CE 即对应为 EN60065,3000Vac。

Note :AC pins corresponsding corresponding corponding to national standards,such as the CE that corresponds to EN60065 ;3000Vac。

### 7.2 高压/ DIELECTRIC STRENGTH Hi-Pot

初级对次级/ Primary to secondary, **2000Vac/5mA/5S.**

### 7.3 绝缘阻抗/ Insulation resistance:

初级对次级/ Primary to secondary :10M $\Omega$  Min at 500V DC

## 8. EMC 标准/EMC STANDARD

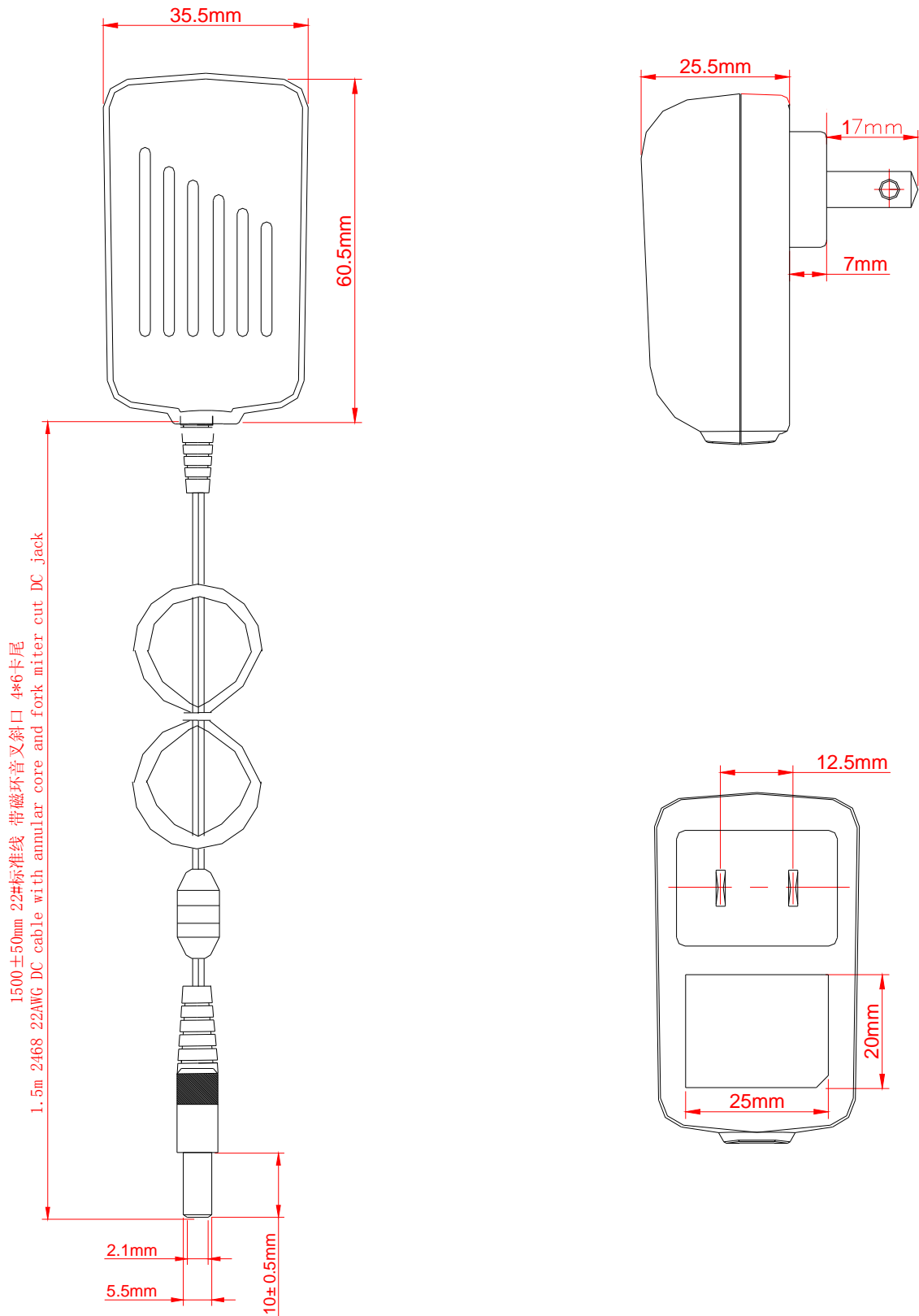
EMC---EN55022/EN55024/GB9254-1998 (CISPR 22)

## 9. 体积/VOLUME: L×W×H

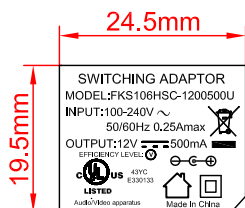
长 60.8mm ×宽 35.6mm×高 25.9mm

## 10. 重量/ Weight: 50g ±5g

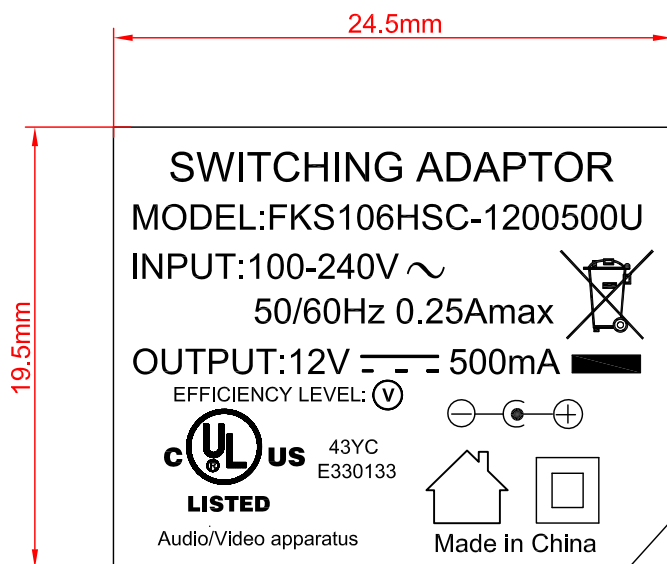
11 外观图/OUTLOOK DRAWING (公差/Common difference: +/-0.2mm)



## 12. 铭牌/LABEL:



比例/Scale: 1:1



比例/Scale: 3:1

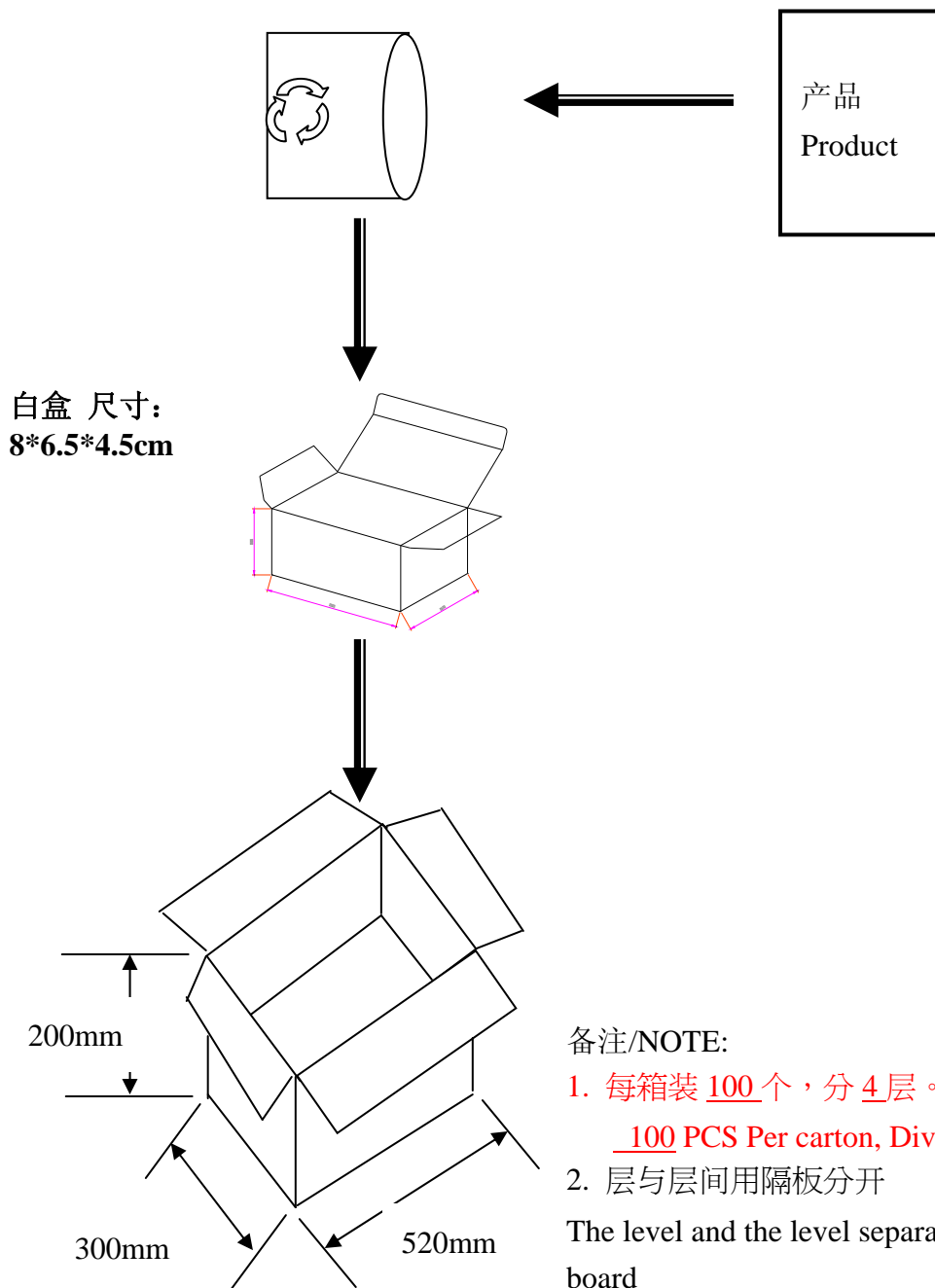
### 备注/Note:

1. 材料/Material : PVC 环保/ ROHS.
2. 印刷/Printing : 黑底白字/ black ground White character
3. 尺寸/Size:(W)24.5+/-0.2mm(H)19.5+/-0.2mm
4. 厚度/Thickness:0.15mm



### 13 包装图示 PACKING

PE-LD 04



备注/NOTE:

1. 每箱装 100 个，分 4 层。

100 PCS Per carton, Divided into 4 floor.

2. 层与层间用隔板分开

The level and the level separates with the partition board

3. PE 袋尺寸: 205X140MM 带环保标志。

PE bag size: 205X140MM , With the environmental protection symbol.

## 14 样品测试报告 SAMPLES TEST REPORT

| No. | 测试项目<br>Test Item                    | 单位<br>Unit  | 标准值<br>Spec. | Sample No. <u>171449</u> |           | Sample No. <u>171450</u> |           |
|-----|--------------------------------------|---|--------------|--------------------------|-----------|--------------------------|-----------|
|     |                                      |   |              | 115V/60Hz                | 230V/50Hz | 115V/60Hz                | 230V/50Hz |
| 1   | 空载输入电流<br>Unload input current       | mA  | 25           |                          |           |                          |           |
| 2   | 空载输入功率<br>Unload input Power         | W   | 0.3          |                          |           |                          |           |
| 3   | 额定负载输入电流<br>Rated load input current | mA  | 250          |                          |           |                          |           |
| 4   | 额定负载输入功率<br>Rated load input power   | W   | 10           |                          |           |                          |           |
| 5   | 空载输出电压<br>Unload output voltage      | V   | 12.0-12.6    |                          |           |                          |           |
| 6   | 额定负载输出电压<br>Rated output voltage     | V   | 11.4-12.6    |                          |           |                          |           |
| 7   | 额定输出电流<br>Rated output current       | mA  | 500          |                          |           |                          |           |
| 38  | 输出纹波和噪声<br>Output ripple & noise     | mV p-p  | 120          |                          |           |                          |           |
| 9   | 平均效率<br>Average Efficiency           | %   | 73.42        |                          |           |                          |           |
| 10  | 跌落实验<br>Drop test                    | OK  |              |                          |           |                          |           |
| 11  | 老化试验<br>Burn-in test                 | Input voltage : 220V 50HZ Rated output current<br>25°C, Burn-in 12h |              |                          |           | OK                       |           |
| 12  | 介电强度<br>Hi-pot test                  | Input to output: 2000Vac/5mA/5s ,<br>Cut off current<5mA            |              |                          |           | OK                       |           |

测试员/TEST \_\_\_\_\_ 审核/CHECKDE \_\_\_\_\_ 批准/APPROVED \_\_\_\_\_