

## 1. Electrical Characteristics

### 1.1 Input Requirements

33770076  
AC 1205

|                                              |            |
|----------------------------------------------|------------|
| 额定输入电压<br>Rated Input Voltage                | AC230V /   |
| 额定输入频率<br>Rated Input Frequency              | 50Hz /     |
| 最大空载电流<br>Max. Exciting Current (no loading) | 50mA max / |
| 最大铁损<br>Maximum Input Core Loss              | N/A /      |

### 1.2 Output Requirements

|                                |                    |
|--------------------------------|--------------------|
| 输出电压<br>Output Voltage         | AC12.0V $\pm$ 5% / |
| 负载电流<br>Rated Load Current     | 500mA /            |
| 空载电压<br>No Load Voltage        | AC13.5V $\pm$ 5% / |
| 纹波电压<br>Maximum Ripple Voltage | ---                |

## 2. Security Test

### 2.1 Hi-Pot Test / 高压测试:

2.1.1 Standard: 3750 VAC 50 Hz 5 mA 1 minute between input to output & case(or core).

标准: 输入对输出 & 外壳(或铁芯)承受高压: 3750 VAC 50 Hz 5 mA 1 min.

2.1.2 Line production test: 4200 VAC 50 Hz 3 mA 1 second between input to output & case (or core); 2000 VAC 50 Hz 3 mA 1 second between output to core.

生产线测试: 输入对输出 & 外壳(或铁芯)承受高压: 4200 VAC 50 Hz 3 mA 1 second.  
输出对铁芯承受高压: 2000 VAC 50 Hz 3 mA 1 second.

## 2.2 Insulation Test / 绝缘测试:

DC 500 V 100 MΩ min between input to output plug and case(or core).

输入对输出 & 外壳(或铁芯)施加 DC 500 V, 绝缘电阻最小 100 MΩ.

## 2.3 Temperature Rise / 温升测试:

AC input 240 V 50 Hz, output rated load 500 mA(AC) shall not exceed 95 K on input coil (by resistance method), at ambient temperature  $25^{\circ}\text{C} \pm 3^{\circ}\text{C}$ .

在室温  $25^{\circ}\text{C} \pm 3^{\circ}\text{C}$  的情况下测试, 输入 AC 240 V 50 Hz, 输出额定负载 500 mA, 输入线圈温升不超过 95 K(依照电阻法计算).

## 2.4 Induced voltage / 高电压高频率测试:

All secondary open, primary should withstand 440 V AC 400 Hz for 15 second without breakdown.

全部次级打开, 初级要在 15 秒内经受住 440 V AC 400 Hz 而不损坏.

## 2.5 Overload Test / 过载测试:

In an ambient temperature of 25 °C applies a power source of rated input with the output load adjusted to 5% of rated output and rated continuously for 4 hours, after turning off 60 minutes in normal temperature, shall meet item 2.1 ~ 2.2.

环境温度为  $25^{\circ}\text{C}$  的情况下, 适配器不间断工作 4 小时, 且额定输入及输出有 5% 调整率; 断开电后恢复 60 分钟, 需满足 2.1~2.2 的要求。

## 2.6 Life Test / 寿命试验:

In an ambient temperature of  $40^{\circ}\text{C}$ , 90~95% R.H., reliability humidity applied a power source of rated input with rated load and operated continuously for 8 hours, after taken out from oven. Shall meet item 2.1 ~ 2.2.

在温度为  $40^{\circ}\text{C}$ 、湿度为 90~95% 的环境下, 额定输入负载工作 8 小时, 取出烤箱后需满足 2.1~2.2 的要求。

## 2.7 Humidity Test / 湿度测试:

Temperature  $40 \pm 2$  °C, 90~95% R.H. for 48 hours, after taken out from oven. Shall meet 2.1.

在  $40 \pm 2^{\circ}\text{C}$ , 湿度 90~95% 的环境下, 放置 48 小时, 取出烤箱后需满足 2.1 的要求

## 2.8 Caution(Attention) / 警示 (注意):

RISK OF ELECTRIC SHOCK DRY LOCATION USE ONLY (POUR UTILISATION À L'INTÉRIEUR SEULEMENT).

触电危险, 仅用于干燥环境下使用。

### 3. Mechanical Characteristics:

#### 3.1 Strain Relief Test / 拉力测试:

Plug and cord, at their normal position applied a weight of 20lbs to input plug, 10 lbs to output cord, for 60 seconds each, there shall be no broken of lead or other damage result.

输入插头能承受 20lbs 的拉力, 输出线能承受 10lbs 的拉力, 无任何损坏。

#### 3.2 Drop Test / 落地测试:

Products shall be dropped form a height of 0.75 m, onto 1cm thickness dry wood surface 3 times, after shall no abnormal condition happen, and insulation test 10 MΩ min.

产品从 0.75 米高度落下, 落在 1 cm 厚的干木板上跌落 3 次, 产品无异常; 绝缘测试最小为 10 MΩ.

#### 3.3 Cord Bending Test / 摇摆测试:

The cord shall withstand a weight of 200 g, it swings from left to right at an angle of 120 degree(total), 40 cycle/min, 300 times minimum. The cord shall be conductible.

输出线悬挂 200 克重量, 以 120 度、40 周/分钟 左右摇摆最小 300 次, 输出线无异常。

### 4. Reliability / 耐用度:

The design and construction of this power supply shall exhibit a minimum mean time between Failure of 25,000 hours full rated load operation 25 °C.

适配器的设计和结构在环境温度为 25 °C 的情况下, 带额定负载, 可至少工作 25000 小时。

### 5. Insulation System / 绝缘等级:

☐ CLASS A (105°C)

☐ CLASS E (110°C)

★ CLASS B (130°C)

☐ CLASS F (155°C)

### 6. Environmental Condition / 环境:

6.1 Operating temperature range / 工作温度范围: -20°C ~ +40°C

6.2 Operating humidity range / 工作湿度范围: 30 ~ 85% R.H

6.3 Storage temperature range / 储藏温度范围: -20°C ~ +80°C

### 7. DC Resistance: Ambient temperature 25 ± 5 °C.

7.1 Primary / 初级: 537 ± 20% Ω (ref)

7.2 Secondary / 次级: 4.1 ± 20% Ω (ref)

### 8. NET WEIGHT / 净重: 273 (g)(ref.)

9. INSPECTION ON LINE / 生产线检查:

9.1 The test items for each product / 全检测试项目:

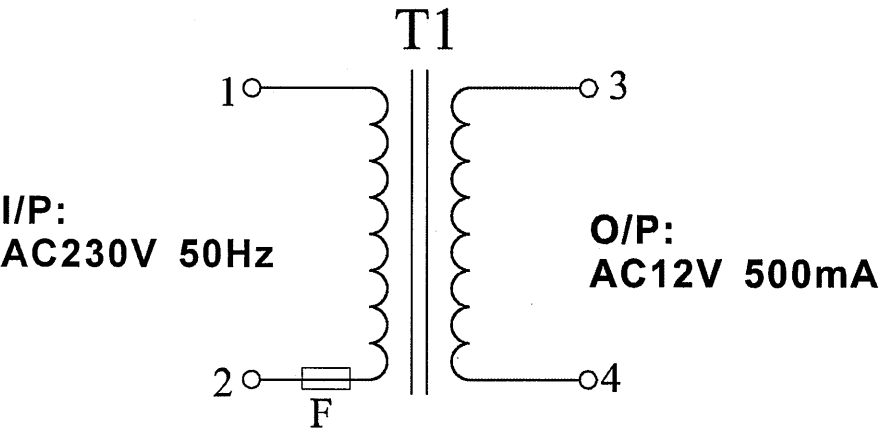
- ★Primary exciting current
- ☆Core loss
- ★Output voltage
- ★Input current and power at rated load
- ★Noise
- ★Polarity of output plug
- ★Hi-pot test
- ★Appearance
- ☆Ripple voltage

9.2 The test item for part of products / 抽检测试项目:

- ★Hum operating at rated load
- ☆D.C. Resistance
- ★Insulation test
- ★Life test
- ★Drop test

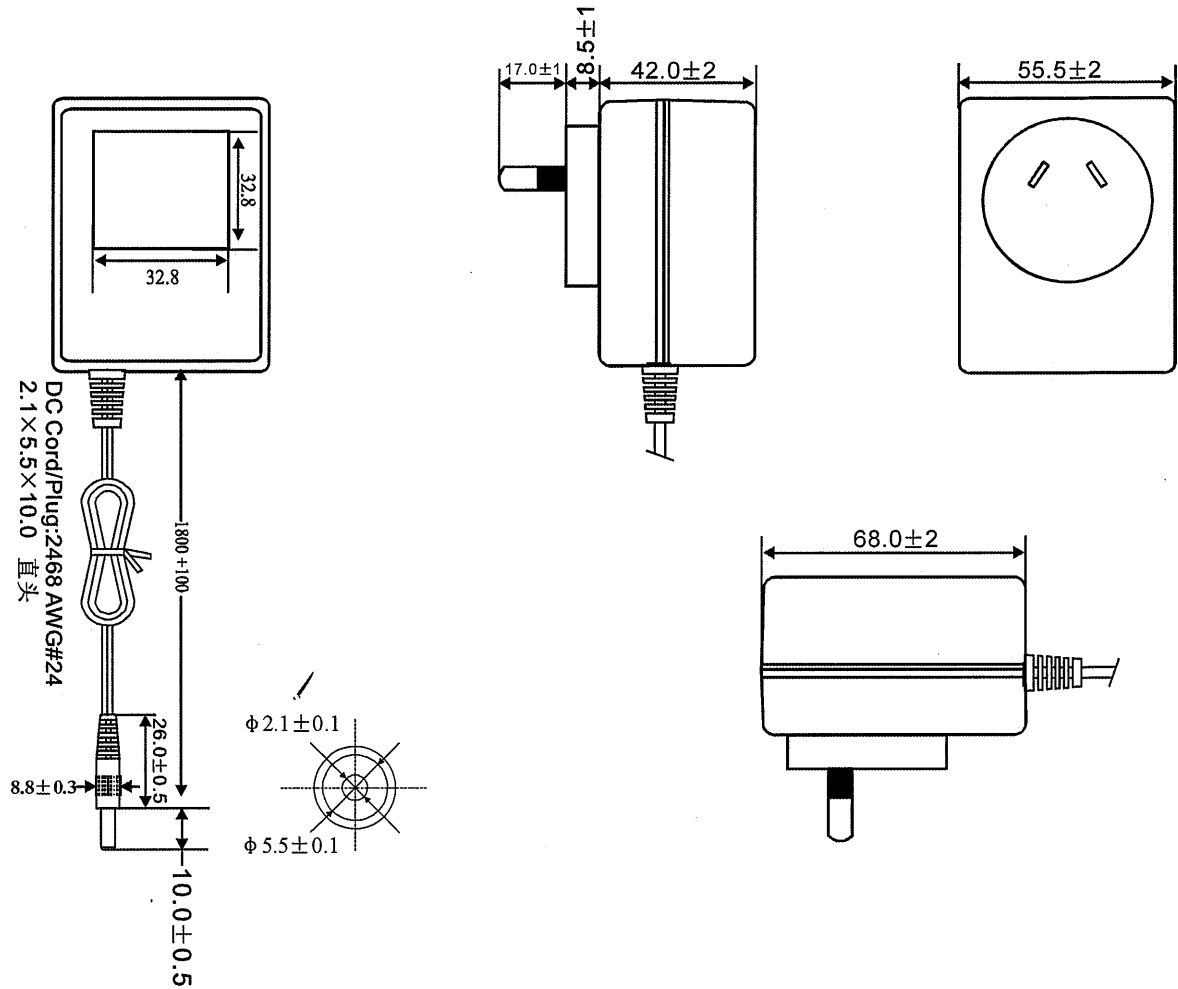
9.3 Other for Customer / 其它:

10. Circuit Diagram / 电路图:



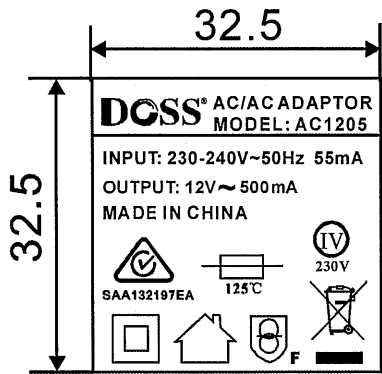
| Symbol | Part Name    | Specification  | Symbol | Part Name | Specification |
|--------|--------------|----------------|--------|-----------|---------------|
| T1     | Transformer  | EI-41          |        |           |               |
| F      | Thermal-Link | 125℃ 250VAC 2A |        |           |               |
|        |              |                |        |           |               |
|        |              |                |        |           |               |

11. Outline And Dimensions / 外形与尺寸:



1

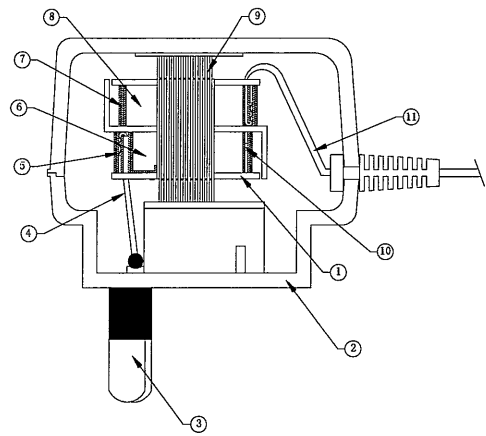
12. Nameplate(Unit: mm) / 铭牌:



- NOTES:
- 1.MATERIAL: PVC
  - 2.THICKNESS:0.25
  - 3.COLOUR:SILVER BACKGROUND BLACK WORD

备注: 铭牌按客户要求!

13. Internal Construction / 剖面图:



14. Material List / 材料表:

| No | Part Name            | Type                      | Manufacturer                                                 | UL No.  |  |
|----|----------------------|---------------------------|--------------------------------------------------------------|---------|--|
| 1  | Bobbin               | A3k(a) PA 66 125℃ V-2     | Basf Aktiengesellschaft (H&H manufacture)                    | E41871  |  |
| 2  | Enclosure            | SE100(f1)(b)<br>PPO BLACK | Chi Mei Corporation                                          | E56070  |  |
| 3  | AC Plug              | AC250V 10A,               | Yuen fung plastic manufacturing factory co.,ltd              | ----    |  |
| 4  | Primary Leads        | 1672 #22 VW-1 105℃        | Zhong Shan Dong Feng Fu Sheng Wire Cable Factory             | E236761 |  |
|    |                      |                           | Dong Guang Hu Men Wan Tong Electric Wire Factory             | E218585 |  |
| 5  | Pri. Insulation Tape | JY25-A 130℃               | Jingjiang Jingyi Adhesive Product Co Ltd                     | E246950 |  |
|    |                      | 24D 130℃                  | Foshan Inder Adhesive Products Co Ltd Or Equivalent          | E212612 |  |
| 6  | Primary Winding      | MW75#                     | Shangrao Wire Factory Of Jiangxi Xinxin Industrial Co Ltd    | E229727 |  |
|    |                      | MW79#                     | Shanghai Zhongma Magnetic Wire Co Or Equivalent              | E226756 |  |
| 7  | Sec. Insulation Tape | JY25-A 130℃               | Jingjiang Jingyi Adhesive Product Co Ltd                     | E246950 |  |
|    |                      | 24D 130℃                  | Foshan Inder Adhesive Products Co Ltd Or Equivalent          | E212612 |  |
| 8  | Secondary Winding    | MW75#                     | Shangrao Wire Factory Of Jiangxi Xinxin Industrial Co Ltd    | E229727 |  |
|    |                      | MW79#                     | Shanghai Zhongma Magnetic Wire Co Or Equivalent              | E226756 |  |
| 9  | Core                 | SILICON STEEL<br>H50/0.5A | Shenzheng wei sheng indu strial co., ltd.                    | ---     |  |
|    |                      |                           | Zhongshan Nafang Electronic Factory Or Equivalent            | ---     |  |
| 10 | Thermal-Link         | 125℃ 250V 2A              | Xiamen Set Electronics Co.Ltd                                | E214712 |  |
|    |                      |                           | Hong hu blue light electronic co., ltd. Or Equivalent        | E239646 |  |
| 11 | Output Cord          | 2468 #24<br>2.1x5.5x10 直头 | Zhong Shan Dong Feng Fu Sheng Wire Cable Factory             | E236761 |  |
|    |                      |                           | Zhongshan Dongfeng Zhoushishenlong<br>Electronic Wire Co Ltd | E257280 |  |
|    |                      |                           |                                                              |         |  |
|    |                      |                           |                                                              |         |  |
|    |                      |                           |                                                              |         |  |

# 16. Sample Test Report / 样品测试:

| 测试项目<br>Test item               | 规格<br>SPECIFICATION          | 1    | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---------------------------------|------------------------------|------|---|---|---|---|---|---|---|---|----|
| 输入电压<br>Input voltage           | AC <u>230</u> V <u>50</u> Hz | 230  |   |   |   |   |   |   |   |   |    |
| 激磁电流<br>Exciting current        | AC <u>50</u> mA max          | 22.5 |   |   |   |   |   |   |   |   |    |
| 初级负载电流<br>Primary Load Current  | AC <u>70</u> mA max          | 36.5 |   |   |   |   |   |   |   |   |    |
| 输出空载电压<br>Sec. Voltage(no load) | AC <u>13.5</u> V $\pm 5\%$   | 13.5 |   |   |   |   |   |   |   |   |    |
| 输出负载电压<br>Sec. Load voltage     | AC <u>12.0</u> V $\pm 5\%$   | 12.0 |   |   |   |   |   |   |   |   |    |
| 输出额定电流<br>Sec rated current     | AC <u>500</u> mA             | 500  |   |   |   |   |   |   |   |   |    |
| 纹波电压<br>Vp-p voltage            | ---                          | ---  |   |   |   |   |   |   |   |   |    |
| 高压测试<br>Hi-pot Input to output  | AC <u>3750</u> V 5 mA 1min   | OK   |   |   |   |   |   |   |   |   |    |
| 落地测试<br>Drop test               | <u>0.75</u> m for 3 times    | OK   |   |   |   |   |   |   |   |   |    |

备注:

REMARK:

## SINGLE VOLTAGE EXTERNAL POWER SUPPLY TEST REPORT

### Test result

Model No. : AC1205

Tested at : 230 VAC, 50Hz

Sample output rating :12 VAC, 0.5A

### Minimum Efficiency in Active mode (Level IV)

|                                                   | No Load | Active power values |        |        |        |         |
|---------------------------------------------------|---------|---------------------|--------|--------|--------|---------|
| Percent of nameplate current                      | 0%      | 25%                 | 50%    | 75%    | 100%   | Average |
| d.c. output current (A)                           | 0       | 0.125               | 0.25   | 0.375  | 0.5    |         |
| d.c. output voltage (V)                           | 9.8     | 12.97               | 12.4   | 11.9   | 11.4   |         |
| d.c. output power(W)                              | 0       | 1.62125             | 3.1    | 4.4625 | 5.7    |         |
| a.c. input current (mA)                           | 3       |                     |        |        |        |         |
| a.c. input voltage(V)                             | 230     | 230                 | 230    | 230    | 230    |         |
| a.c. input power (W)                              | 0.19    | 2.63                | 4.3    | 6      | 7.6    |         |
| Efficiency                                        | 0       | 61.64%              | 72.09% | 74.38% | 75.00% | 70.80%  |
| Average active mode efficiency limit: $\geq 66\%$ |         |                     |        |        |        |         |
| No load power limit:N/A                           |         |                     |        |        |        |         |

