

FOR MESSRS :  

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**PB-FREE**

# DOCUMENTATION FOR APPROVAL


**PRODUCT** : 60W Switching Mode Power Supply**MODEL NAME** : TEKA060-1205000**COSTOMER MODEL NAME** :  

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APPROVED	REFERENCE

( PLEASE RETURN ONE OF THESE TO US IMMEDIATELY WITH YOUR SIGNATURE FOR APPROVAL )

KANG JIN CO., LTD

TESTED BY	CHECKED BY	APPROVED BY
		

P/NO	TEKA060-1205000	REV NO. : 0
ITEM	Switching Mode Power Supply	DATE : 2013.09.10

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## 1. Revision History

DATE	PURPOSE	PAGE	CONTENTS OF ALTERATION

P/NO	TEKA060-1205000	REV NO. : 0
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## 2. SCOPE

ITEM	P/NO	POWER	FRAME
SMPS	TEKA060-1205000	60W	Desk-Top

## 3 . Electrical Performance

### 3-1 Input Characteristics

#### 3-1-1 Input Voltage & Frequency

ITEM	Reliable Voltage(AC)	Rated Voltage(AC)	Reliable Frequency	Rated Frequency
SPEC	90~264Vac	100~240Vac	47~63Hz	50/60Hz

#### 3-1-2 Input AC Current

- Input rated Voltage, Output rated load , Input AC Current 1.4A Maximum
- Input rated Voltage , Output no load , Input AC Current 0.06A Maximum

#### 3-1-3 Inrush Current

- Input 264Vac , Output rated load , Maximum cold start  
Inrush Current 80A Peak

#### 3-1-4 NO- Load Loss Power

- Input Rated Voltage, Output no load , Maximum loss Power 0.3Watts

#### 3-1-5 Average Efficiency

- Input 115Vac/230Vac and 100% 75% 50% 25% Rated Load condition  
Average Efficiency ( $\eta$ ): 84% MIN

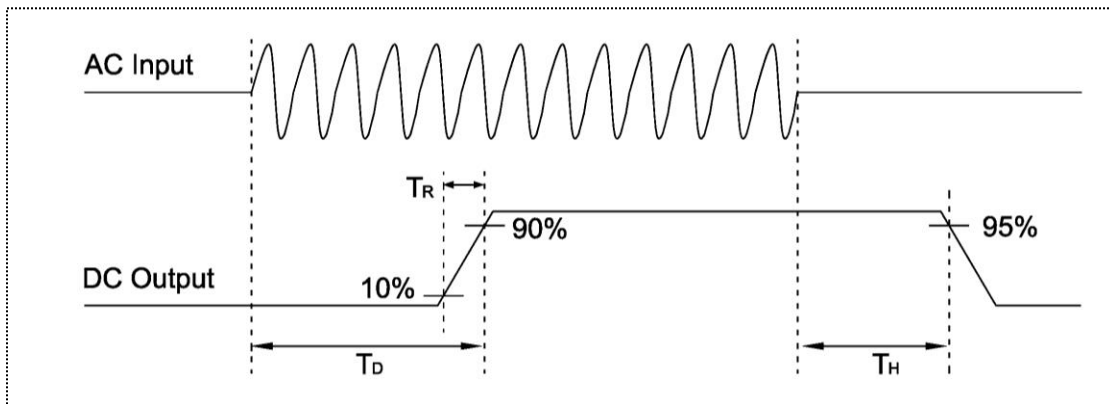
### 3-2 Output Characteristics

#### 3-2-1 Static Output Voltage & Ripple Current

Output Rated Voltage	Output Voltage Range	Output Current ( continuous)	Ripple Current
12V	11.2V~12.8V	0A~5A	300mV P-P

#### ☞ Ripple Current Test

- Measurement is done by 20MHz bandwidth oscilloscope and the output paralleled a 0.1uF ceramic capacitor and a 10uF electrolysis capacitor



#### 3-2-2 Turn-On Delay Time( $T_D$ )

- The maximum cold start turn-on delay shall not exceed 3 second at input 100~240Vac And the rated load condition

#### 3-2-4 Output Rise Time ( $T_R$ )

- Input 100Vac/230Vac and rated load , The rise time Shall not exceed 100mS That the output voltage rise from 10% to 90% rated voltage

#### 3-2-3 Hold-Up Time( $T_H$ )

- The maximum turn-off hold-up time shall be least 10mS at input 115Vac
- The maximum turn-off hold-up time shall be least 20mS at input 230Vac And the rated load condition

#### 3-2-5 Output Overshoot /Under Shoot

- When the power on or off ,Output voltage shall not exceed  $\pm 6\%$

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## 4 Protection Requirements

### 4-1 Over Current Protection

- The power supply shall protect itself from any over current condition and shall be self-recovery when the fault condition is removed
- The maximum output current shall be 110%~230% rate output current

### 4-2 Short Circuit Protection

- Shorting of output will not casus power supply to damage or any safety hazard the power supply shall resume normal operation after the short is removed

## 5. Environmental Requirements

### 5-1 Temperature

- Storage Temperature ( Non- operating ) : - 10 to 60 °C
- Operating Temperature Limits : 0 to 40 °C

### 5-2 Relative Humidity

- Storage Humidity (Non-operating) : 10% to 80% RH( Non-condensing)
- Operating Humidity Limits : 0% to 85% RH (Non-condensing)

### 5-3 Vibration

- 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

### 5-4 Drop in

- Height : 1m ; the product should be fell off on the hardwood with the thickness of 20mm , and the hardwood shall be put on the base of cement or on the ground without flexibility , Apply two times on all surface

## 6. Reliability Requirements

### 6-1 Burn- In Test

Load Condition	100% LOAD , 40°C ±5°C
Input Voltage	100~240Vac
Test Time	4 Hours

### 6-2 Life / Power on Hours

- The Power Supply must be designed to operate more than 10,000 Hours ( about 1 year for 24-hour -operating a day ) at an ambient temperature of 25°C And Full load condition
- ☞ For more long operation recommend using below 80% of max load

## 7. EMI Standards

AS/NZS CISPR 22:2009

EN 55022:20006 + A1:2007

FCC Par15

## 8. Safety Standards

### 8-1 Regulatory Standards

TYPE	Country	Standard	Status
CE	Europe	60950	PASS
UL	United States	60950	PASS
KC	Korea	60950	PASS

### 8-2 Hi-pot

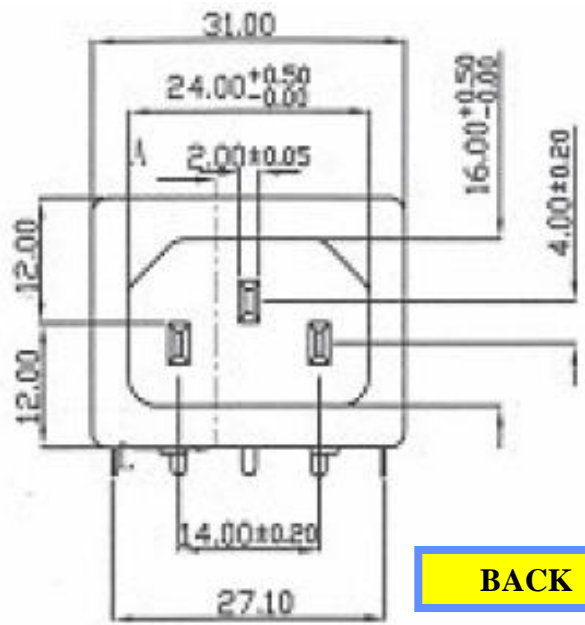
- The leakage( Cutoff ) current :10mA
- Primary to Secondary : 1.5KVac 50Hz , 1 minute
- Mass Production : 1.8KVac 50Hz , 2 seconds at Primary to GND



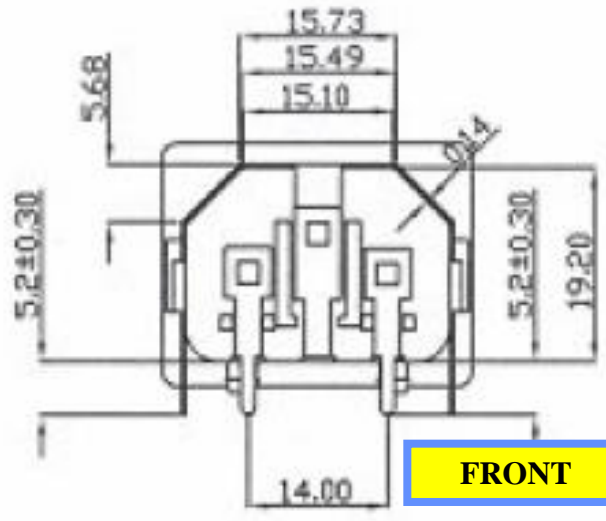
P/N0	PF-120500	REV NO. : 0
ITEM	Switching Mode Power Supply	DATE : 2013.09.25

## 9. Connection

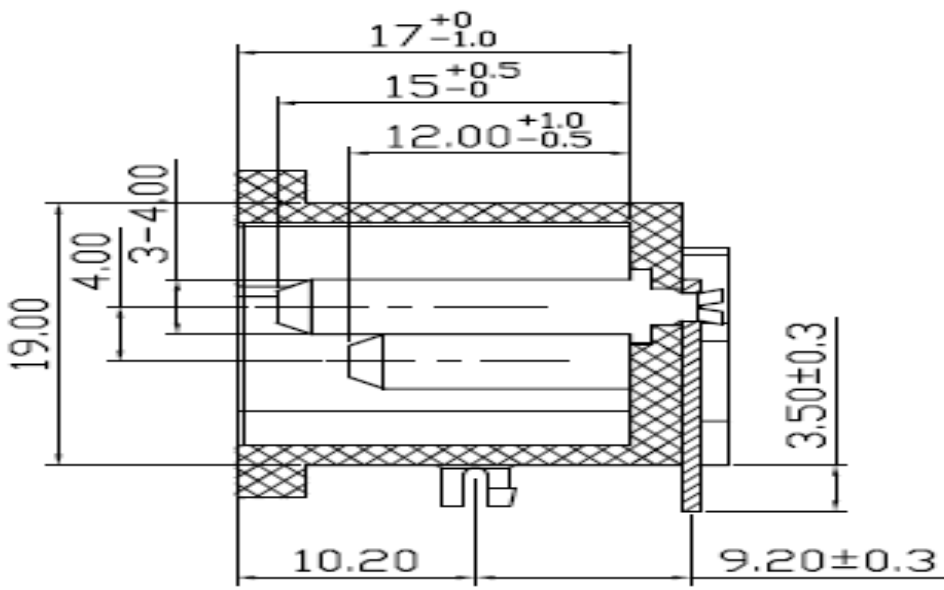
### 9-1. AC Socket And AC Plug ( 3 Pin AC Socket)



**BACK**



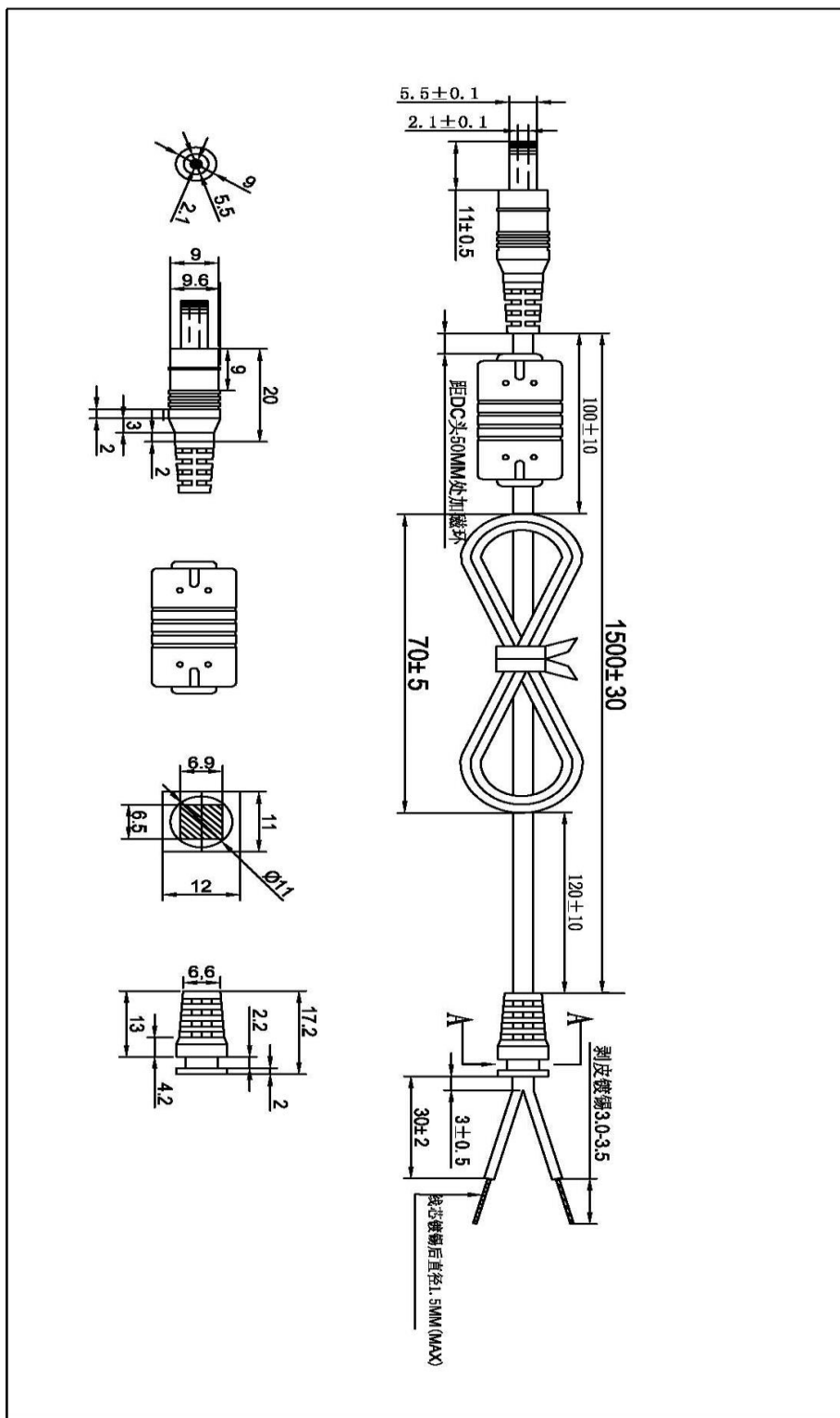
**FRONT**



**SIDE**

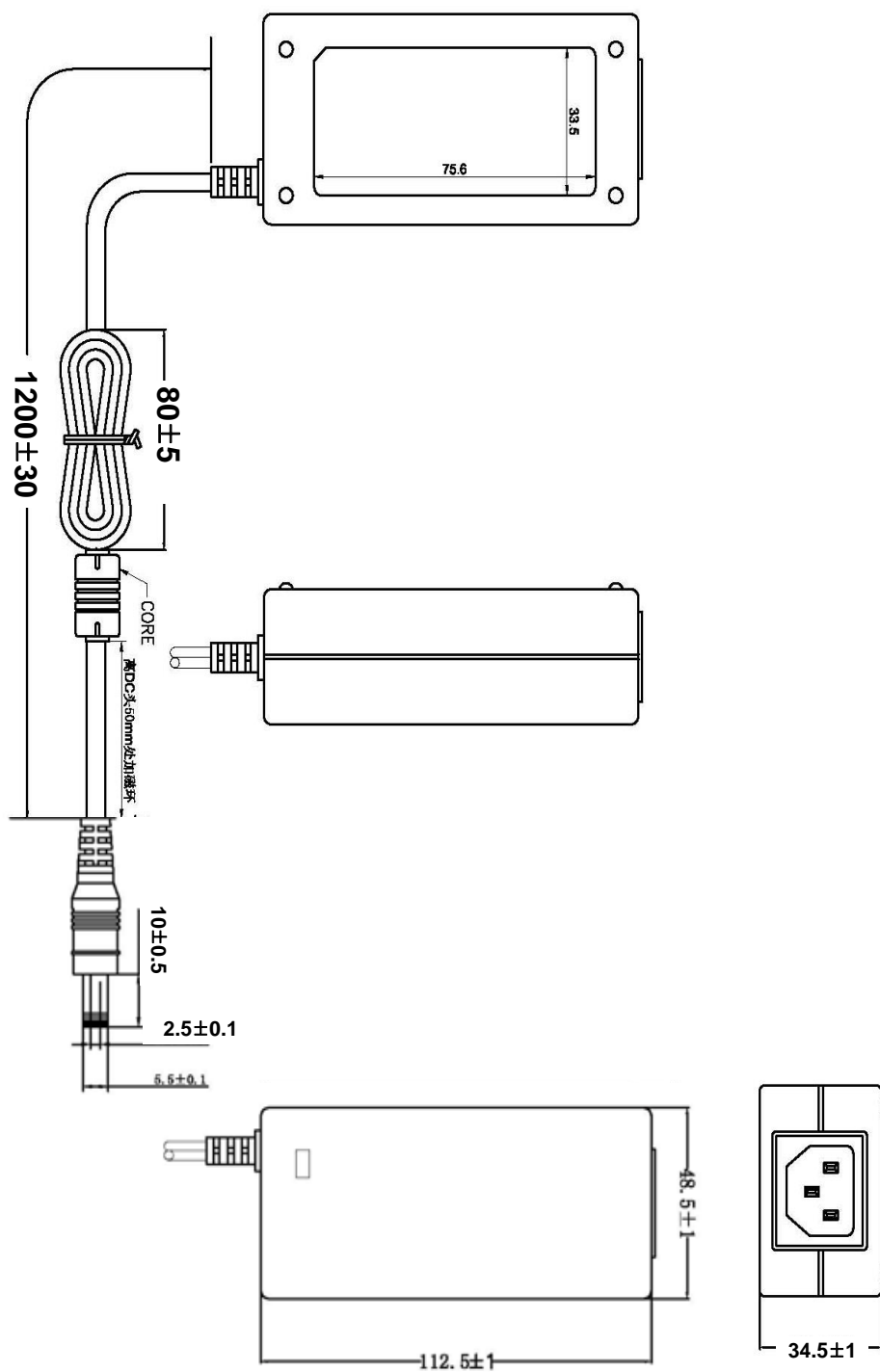
UNIT :mm

## 9-2 OUTPUT CONNECTOR

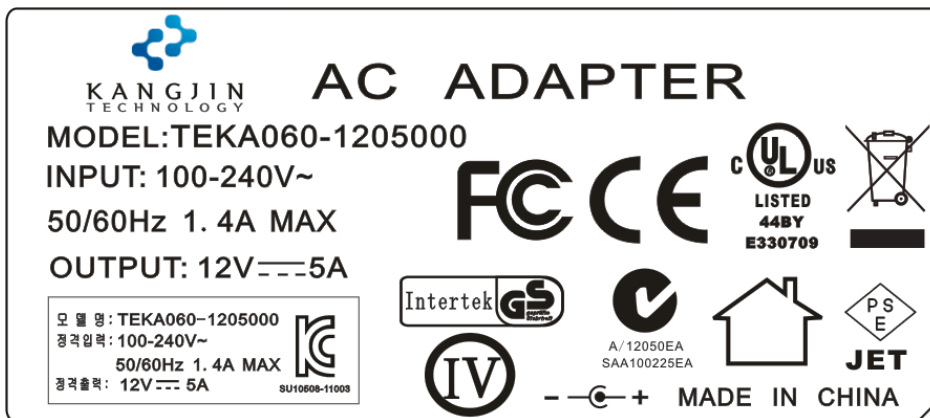
- 2.5  $\phi$  DC JACK (Inner Diameter)

## 10. Mechanical Drawing

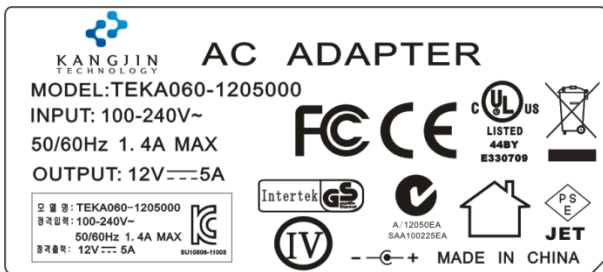
- 112.5(L)\* 48.5(W)\*34.5(H)mm



### 11. Nameplate Drawing



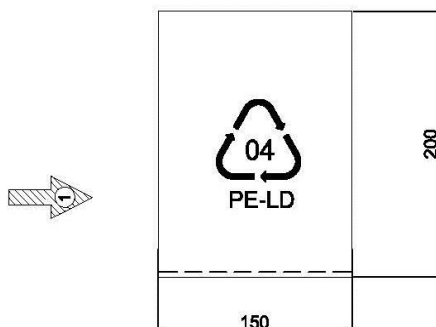
SIZE : 75.5\*33.5\*0.3MM  
Tolerance : + - 0.1mm



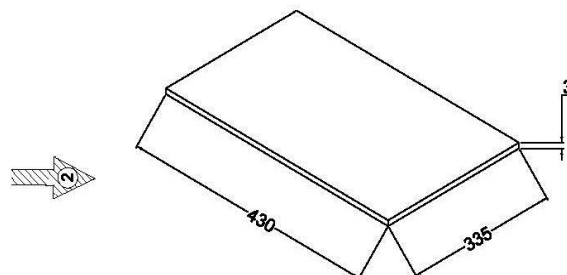
NOTE:

Material : PVC+MYLAR FILM

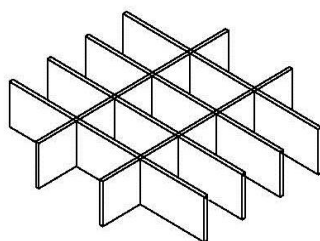
## 12. PACKING



PE袋: 150\*200\*0.02MM



平板 430\*335\*3MM B3C

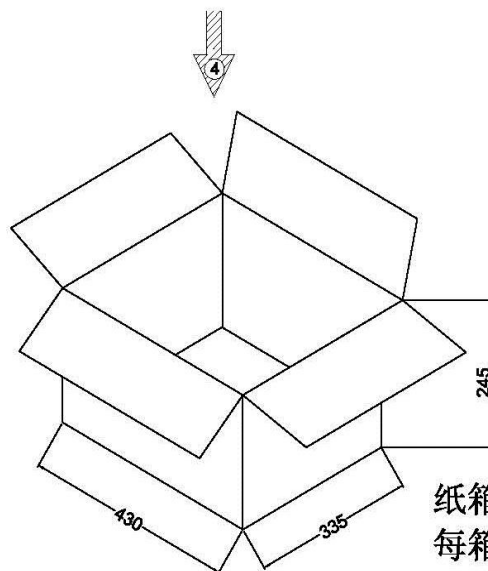


刀卡1: (63\*5+20) 335\*56mm

4刀卡 B=B

刀卡2: (138\*3+15) 429\*56mm

2刀卡 B=B



纸箱: 430\*335\*245MM A=B 普通;  
每箱装4层, 5块平板;

BOX SIZE & Quantity

SIZE : 430(L)\*335(W)\*245(H)mm

Quantity : 15\*4=60EA