

# SPECIFICATION FOR APPROVAL

## CUSTOMER APPROVAL

**CONTENT:****SIGNATURE:****DATE:**

CUSTOMER: \_\_\_\_\_ HM065

PART NO.: \_\_\_\_\_ REV:    A0   

Please sign and return one copy.

All production units will be built according to this specification, The component specifications remain as same, its brand can be changed

### Manufacturer

Approved	Checked	Prepared	QA	Sales

Model No.: K12S120100G B55S68Unit Color:    BLACK   Input: 100-240V<sub>AC</sub> 50/60HzOutput: 12.0V<sub>DC</sub> 1.0A

Product Category: AC ADAPTOR

Description: ROHS

Dongguan Guanjin Electronics Technology Co.,Ltd

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## 2.0 Electrical performance

### 2.1 Input Characteristics:

Rated input voltage	100-240Vac
Operating range	90-264Vac
Rated input frequency	50-60Hz
Rated input current	<b>0.35A Max.</b>
Power consumption (no loading)	<b>0.1W Max.</b> (Input voltage 115V and 230V)
Primary current protection	An adequate internal fuse on the AC input line is provide.
Configuration	<u>2</u> Conductor

### 2.2 Output Characteristics:

2.2.1	Nominal dc output voltage	<b>12.0V</b>
2.2.2	Minimum load current	<b>0.0A</b>
2.2.3	Rating load current	<b>1.0A</b>
2.2.4	Rating output power	<b>12.0W</b>
2.2.5	Line regulation	The line regulation is less than $\pm 5\%$ while measuring at rated load and $\pm 10\%$ of input voltage changing.
2.2.6	Load regulation	The load regulation for output is less than $\pm 5\%$ , at measured output load from 10% to 100% rated load .
2.2.7	No load voltage range	<b>11.4-12.6V</b>
2.2.8	Ripple and noise	<b><math>\leq 240\text{mVp-p}</math></b>
		Full load Ripple and noise 240mVp-pmax. Measurement is done by 20MHZ bandwidth oscilloscope and the output Paralleled a 0.1 $\mu\text{F}$ ceramic capacitor and a 10 $\mu\text{F}$ electrolysis capacitor.(test under the Condition of rated input and rated output)
2.2.9	Average efficiency	Accord with energy level VI. Average efficiency <b>82.96%</b> minimum
		115V/60Hz and 230V/50Hz, output current from 100%, 75%, 50%, 25%.

2.2.10	Turn on delay time	Less than <b>5000 mS</b> . At nominal input AC voltage and full load
2.2.11	Rise time	The Supply shall have a start-up rise time of less than <b>100 mS</b> to rise to within regulation limits for all DC outputs.
2.2.12	Hold up time	<b>5 mS</b> minimum At nominal input AC voltage and full load
2.2.13	Output over-shoot	Less than <b>10%</b> of nominal voltage value
2.2.14	Protection function	
	Over current protection	At rated AC input, output current in the range of <u>   </u> / <u>   </u> , the power supply will protect

### 2.3 Dielectric Withstand Voltage (HI-POT):

Engineering test: This Adapter shall be applied 3000Vac for 60s between AC input terminal to DC output terminal and enclosure. The cutoff current is specified as 10 mA; Large cargo product testing: This Adapter shall be applied 3000Vac for 2s between AC input terminal to DC output terminal and enclosure. The cutoff current is specified as 10 mA

### 2.4 Insulation Resistance:

DC 500 V 30 MΩ min between input to output and enclosure.

### 2.5 Overload Test:

In an ambient temperature of 25°C applies a power source of rated input with the output load adjusted to 10% of rated output and rated continuously for 4 Hours, after turning off 60 minutes in normal temperature.

### 2.6 Humidity Test:

Temperature 45°C, 90~95% RH for 4 Hours after taken out from oven.

## 3.0 Mechanical Characteristics

### 3.1 Strain Relief Test:

Plug or SR, at their 30CM position applied a weight of 10 lbs, 1 minutes after the shift is less than 2MM.

### 3.2 Cord Bending Test:

The cord shall withstand a weight of 250 g, swinging from left to right at an angle of 120 degree, 40 cycle/min, 1000 times minimum. The cord shall be conductible.

### 3.3 Drop Test:

Product shall be dropped from a height of 80cm, onto 1cm thickness dry wood Surface 1 times from 3 different surface.

## 4.0 Environmental:

### 4.1 Operating Temperature and Humidity Range:

Operate over the temperature range of 0°C to 45°C , 20% to 90% relative humidity no condensation.

### 4.2 Storage Temperature and Humidity Range

The operation specified herein will not be adversely affected if stored or transported within the temperature limits of -20°C to +70°C with relative humidity up to 90% no condensation.

**5.0 Surface Structure:**

**5.1 Appearance: Rift, dirty etc. are not permitted.**

**5.2 Outline: Dimension and express as drawing**

**5.3 Net Weight: 100g Max.**

**6.0 Safety & EMC:**

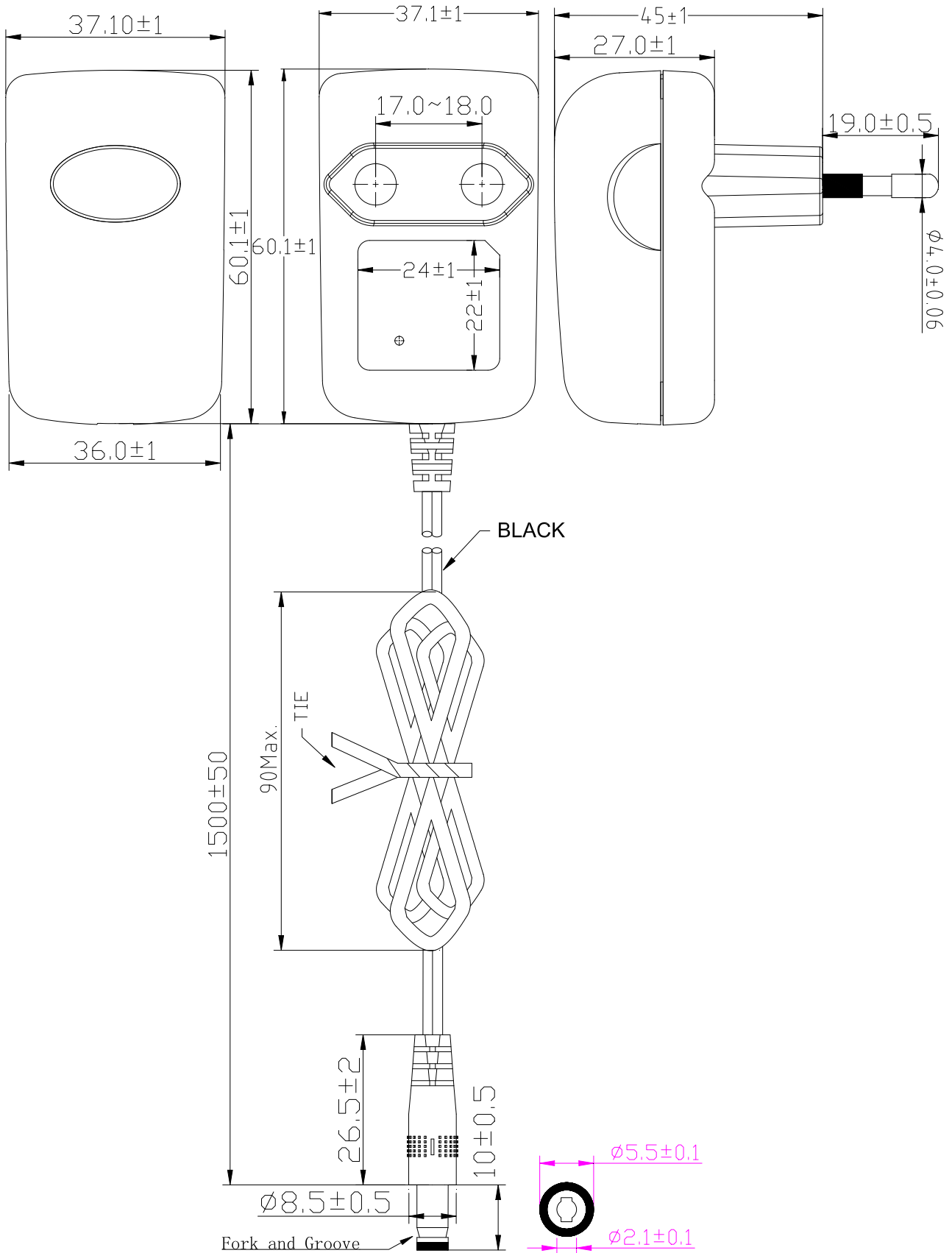
**6.1 Safety Standard :EN62368-1:2014/A11:2017**

**6.2 EMC Standard : EN55032:2015,EN55035:2017**

**7.0 MTBF:**

The design and construction of this power supply shall exhibit a minimum mean time between failure of 35000 hours full rated load operation at 20--25°C.

### 8.0 Appearance Drawing(Unit:mm) :



**NOTE: (mm)**

1) WIRE TYPE: VW-1 2468 80°C 300V L=1500mm 2C 24AWG BLACK

2) DC PLUG SIZE: 5.5\*2.1\*10MM

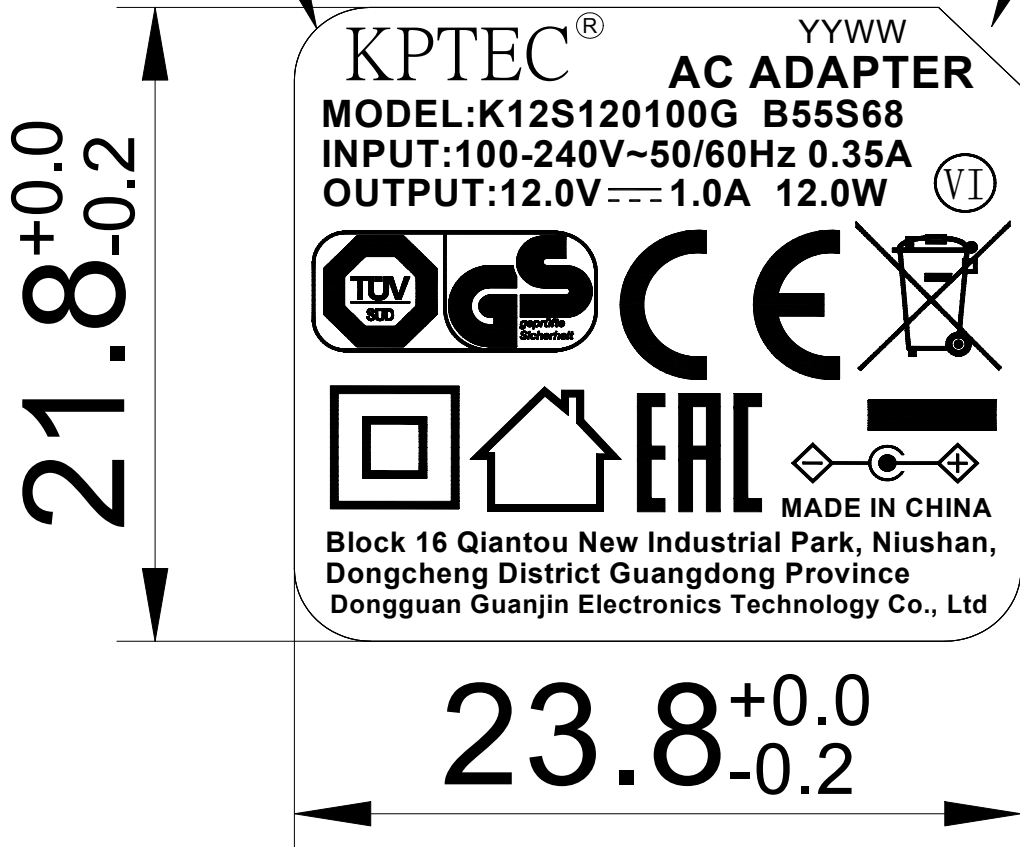
3) THE POLARITY:



9.0 Nameplate(Unit:mm) :

R2.5\*3

C2.8\*45°



5.0mm Min.



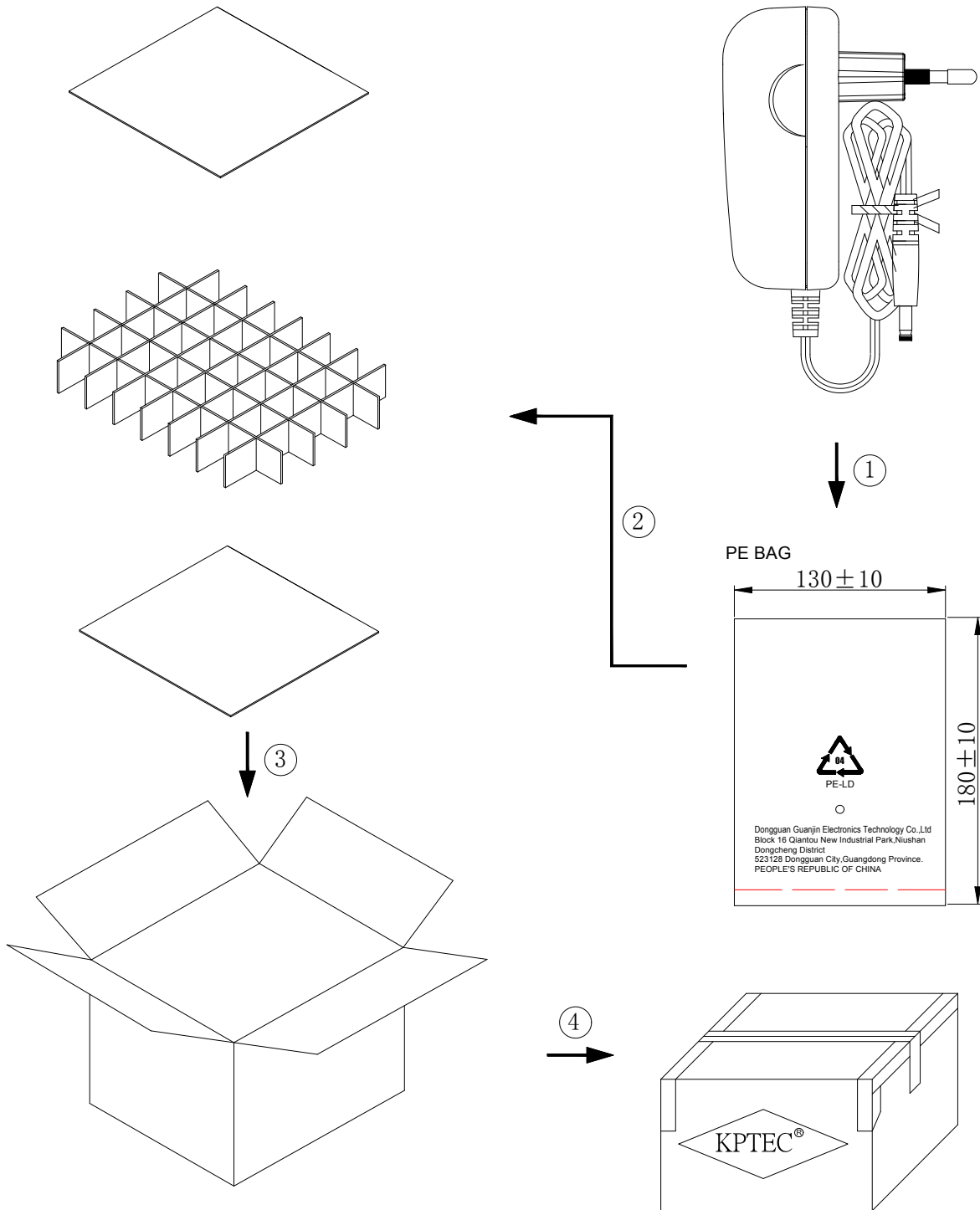
7.0mm Min.

Note:

- 1) Material: PET, Conform to ROHS
- 2) Color: WHITE characters BLACK background
- 3) "YYWW" expressed the production cycle:  
"YY" the year, "WW" the week.



**10 Packing Drawing(Unit:mm) :**



**NOTE: A case of 120 PCS, a total of 3 layers, 40 PCS/layer.**

**1) Cardboard and Corrugated Board Material: B=C**

**2) PE Bag Material :0.03mm**

**3) Outer Carton Material: A=B**

**4) Anlistatig: No requirement.**

**1.Environmental protection requirement: 94/62/EC.**

**2. We will select cardboard packing if customer don't specify packing type.**

**7)The sample package for temporary packaging, the big goods packaging as shown above packaging.**