

# SPECIFICATION FOR APPROVAL

<b>CUSTOMER APPROVAL</b>	
<b>CONTENT:</b>	
<b>SIGNATURE:</b>	<b>DATE:</b>

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.: K48V240200G B55S68                      Unit Color: BLACK

Input: 100-240V<sub>AC</sub> 50/60Hz                      Output: 24.0V<sub>DC</sub> 2.0A

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>1.2A 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>24.0V</b>
2.2.2	Minimum load current	<b>0.0A</b>
2.2.3	Rating load current	<b>2.0A</b>
2.2.5	Rating output power	<b>48.0W</b>
2.2.6	Line regulation	The line regulation is less than $\pm 5\%$ while measuring at rated load and $\pm 10\%$ of input voltage changing.
2.2.7	Load regulation	The load regulation for output is less than $\pm 5\%$ , at measured output load from 10% to 100% rated load .
2.2.8	No load voltage range	<b>22.8-25.2V</b>
2.2.9	Ripple and noise	<b><math>\leq 200\text{mVp-p}</math></b>
		Full load Ripple and noise 200mVp-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)
2.2.10	Average efficiency	Accord with energy level VI. Average efficiency <b>87.77%</b> minimum
		115V/60Hz and 230V/50Hz, output current from 100%, 75%, 50%, 25%.

2.2.11	Turn on delay time	Less than <b>3000 mS</b> . At nominal input AC voltage and full load
2.2.12	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.
2.2.13	Hold up time	<b>5 mS</b> minimum At nominal input AC voltage and full load
2.2.14	Output over-shoot	Less than <b>10%</b> of nominal voltage value
2.2.15	Protection function	
	Over current protection	At rated AC input, output current in the range of <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 40°C, 90~95% RH for 4 Hours after taken out from oven.

## 3.0 Mechanical Characteristics

### 3.1 Strain Relief Test:

Distance plug or 30CM SR position to impose a 10 pound weight, 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 35°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:** 230g 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 Others:

### 8.1 Instructions:

This power unit is intended to be correctly orientated in a vertical or floor mount position.

## 8.2 CAUTION ( ATTENTION )

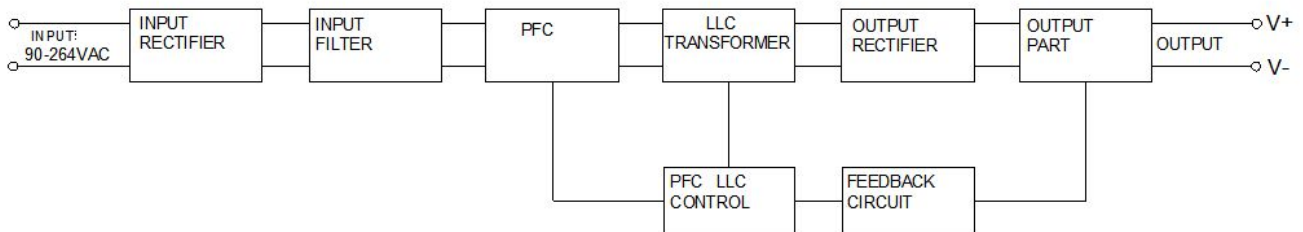
### 8.2.1 FOR INDOOR USE ONLY

( POUR UTILISATION À L'INTÉRIEUR SEULEMENT )

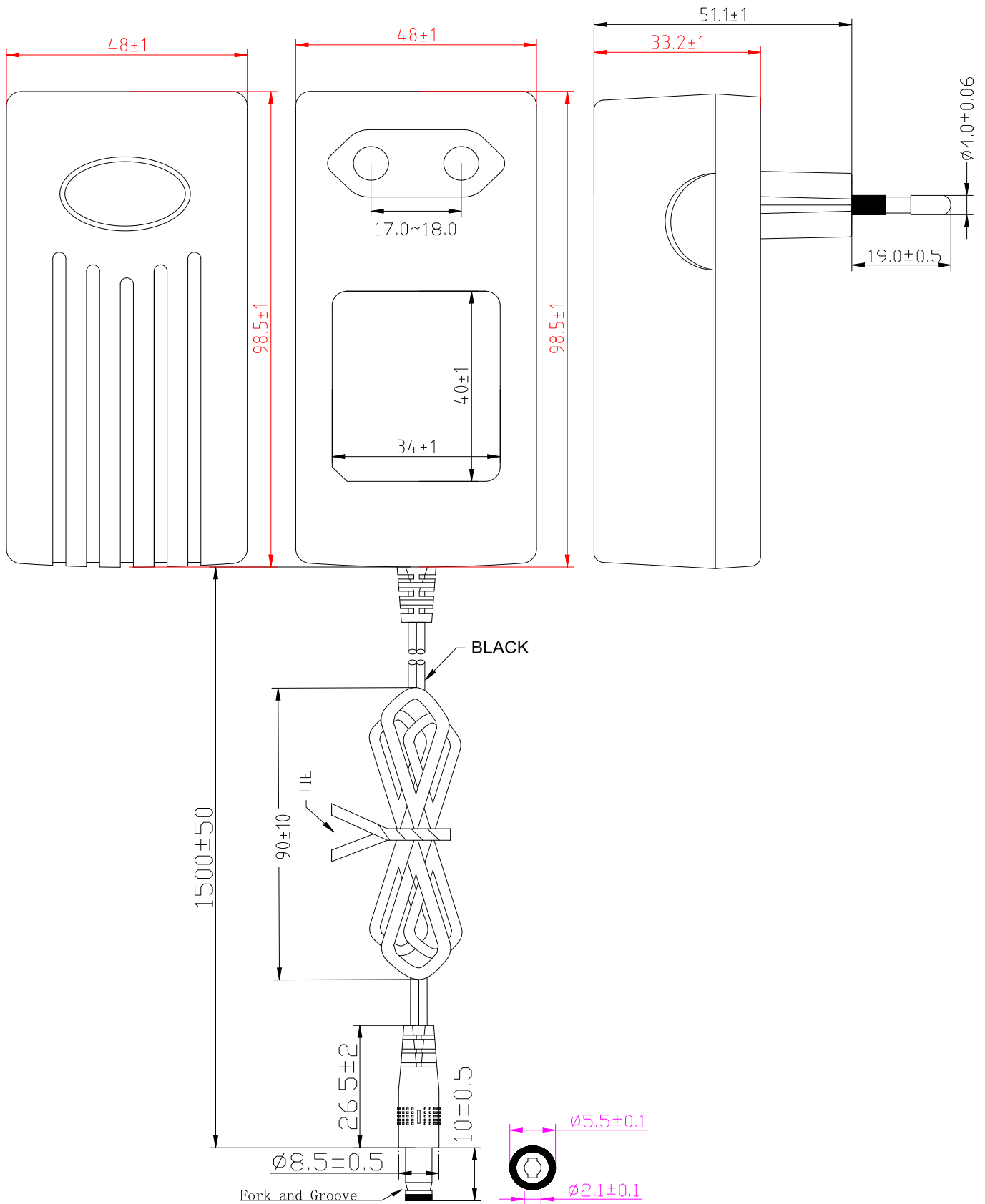
### 8.2.2 RISK OF FIRE OR ELECTRIC SHOCK

( RISQUES D'INCENDIE OU DE CHOC ÉLECTRIQUES )

## 9.0 WORKING MANUAL& BLOCK DIAGRAM:




## 10.0 Appearance Drawing(Unit:mm) :



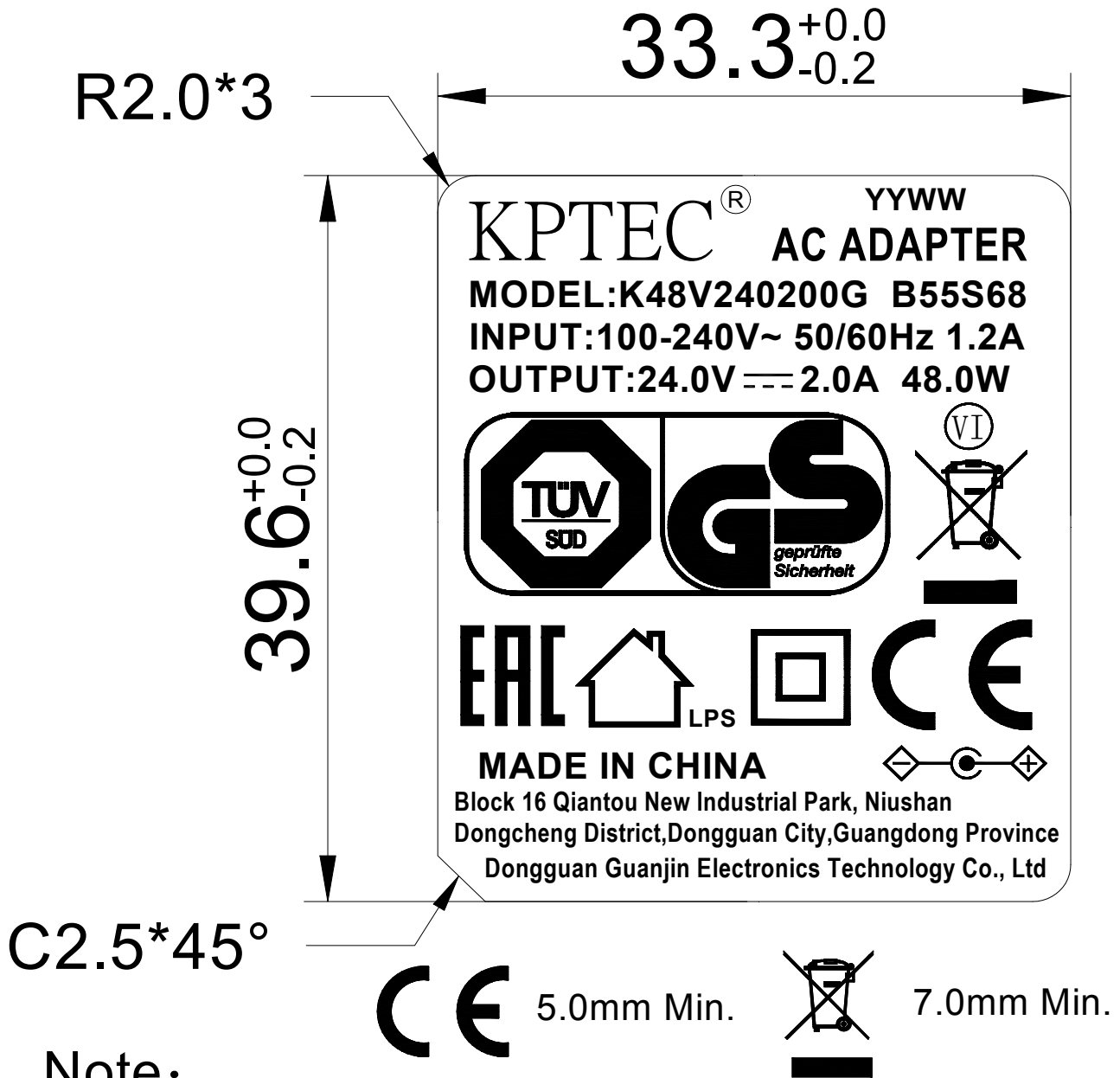
### NOTE: (mm)

1) WIRE TYPE:VW-1 2468 80°C 300V L=1500mm 2C 22AWG BLACK

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

3) THE POLARITY : 

11.0 Nameplate(Unit:mm) :

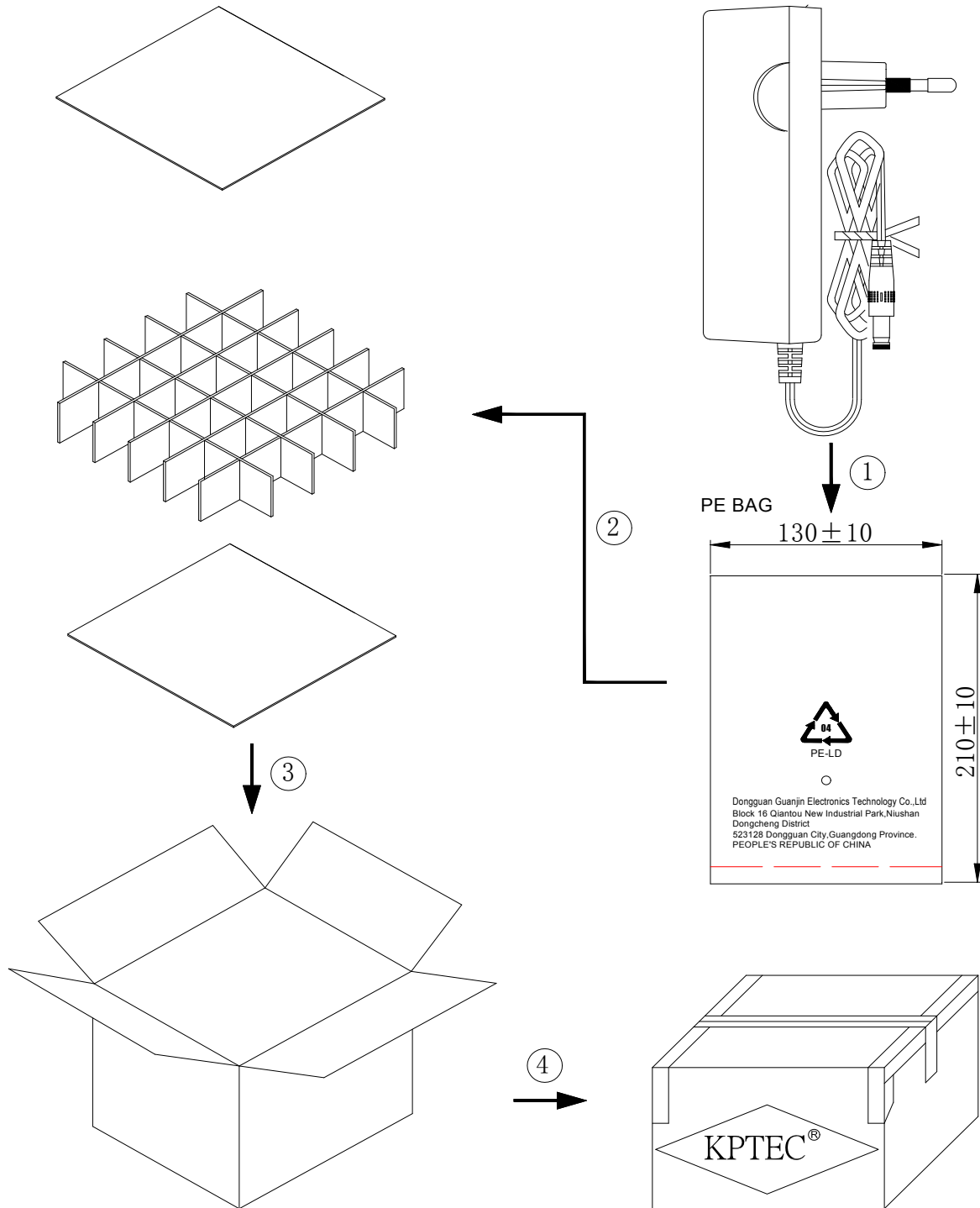


Note:

- 1) The inscription board for radium carving
- 2) "YYWW" expressed the production cycle:  
"YY" the year, "WW" the week.



## 12. 0Packing Drawing(Unit:mm) :



**NOTE: A case of 60 PCS, a total of 2 layers, 30 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.**

**5) Environmental protection requirement: 94/62/EC.**

**6) 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.**