

# 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.: K120A2400500E1 B55S68Unit Color:   BLACK  Input:   100-240V<sub>AC</sub> 50/60Hz  Output:   24.0V<sub>DC</sub> 5.0A  

Product Category: AC ADAPTOR      Description: ROHS

Dongguan Guanjin Electronics Technology Co.,Ltd

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## 1.0 HISTORY REVISION

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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>2.0A Max.</b>
Power consumption (no loading)	<b>0.21W Max.</b> (Input voltage 115V and 230V)
Primary current protection	An adequate internal fuse on the AC input line is provide.
Configuration	<u>1</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>5.0A</b>
2.2.4	Rating output power	<b>120.0W</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>22.8-25.2V</b>
2.2.8	Ripple and noise	<b><math>\leq 300\text{mVp-p}</math></b>
		Full load Ripple and noise 300mVp-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>88.00%</b> minimum
		115V/60Hz and 230V/50Hz, output current from 100%, 75%, 50%, 25%.

2.2.10	Turn on delay time	<b>3000 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> / , 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 35±2°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 400 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. (For reference only)

## 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  $-20^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$  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:** 300g Max.

## 6.0 Safety & EMC:

**6.1 Safety Standard:** EN62368-1:2014/A11:2017 AS/NZS62368.1:2018 UL62368-1:2014

**6.2 EMCStandard:** EN55032:2015, EN55035:2017 AS/NZS55032:2015 FCC Part15

**7.0 MTBF:** <MIL-HDBK-217F>

The design and construction of this power supply shall exhibit a minimum mean time between failure of 50000 hours full rated load operation at  $20\text{--}25^{\circ}\text{C}$ .

## 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 ):

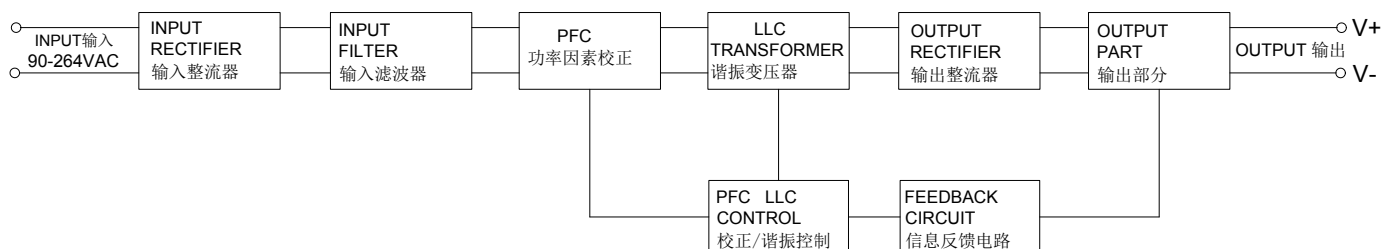
#### 8.2.1 FOR INDOOR USE ONLY

( POUR UTILISATION À L'INTÉRIEUR SEULEMENT )

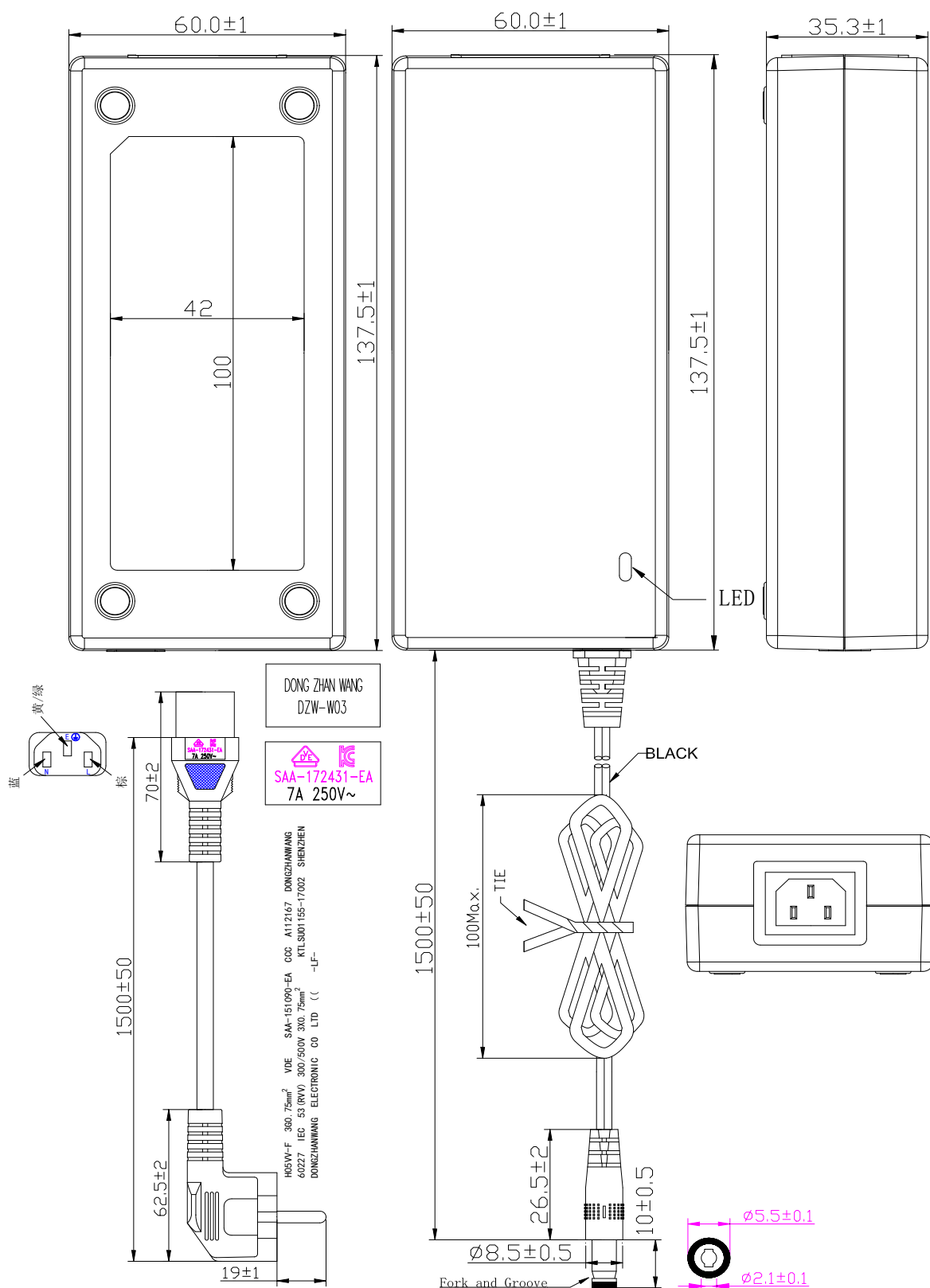
#### 8.2.2 RISK OF FIRE OR ELECTRIC SHOCK

( RISQUES D'INCENDIE OU DE CHOC ÉLECTRIQUES )

## 9.0 WORKING MANUAL& BLOCK DIAGRAM:



**10.0 Appearance Drawing(Unit:mm):**



**NOTE: (mm)**

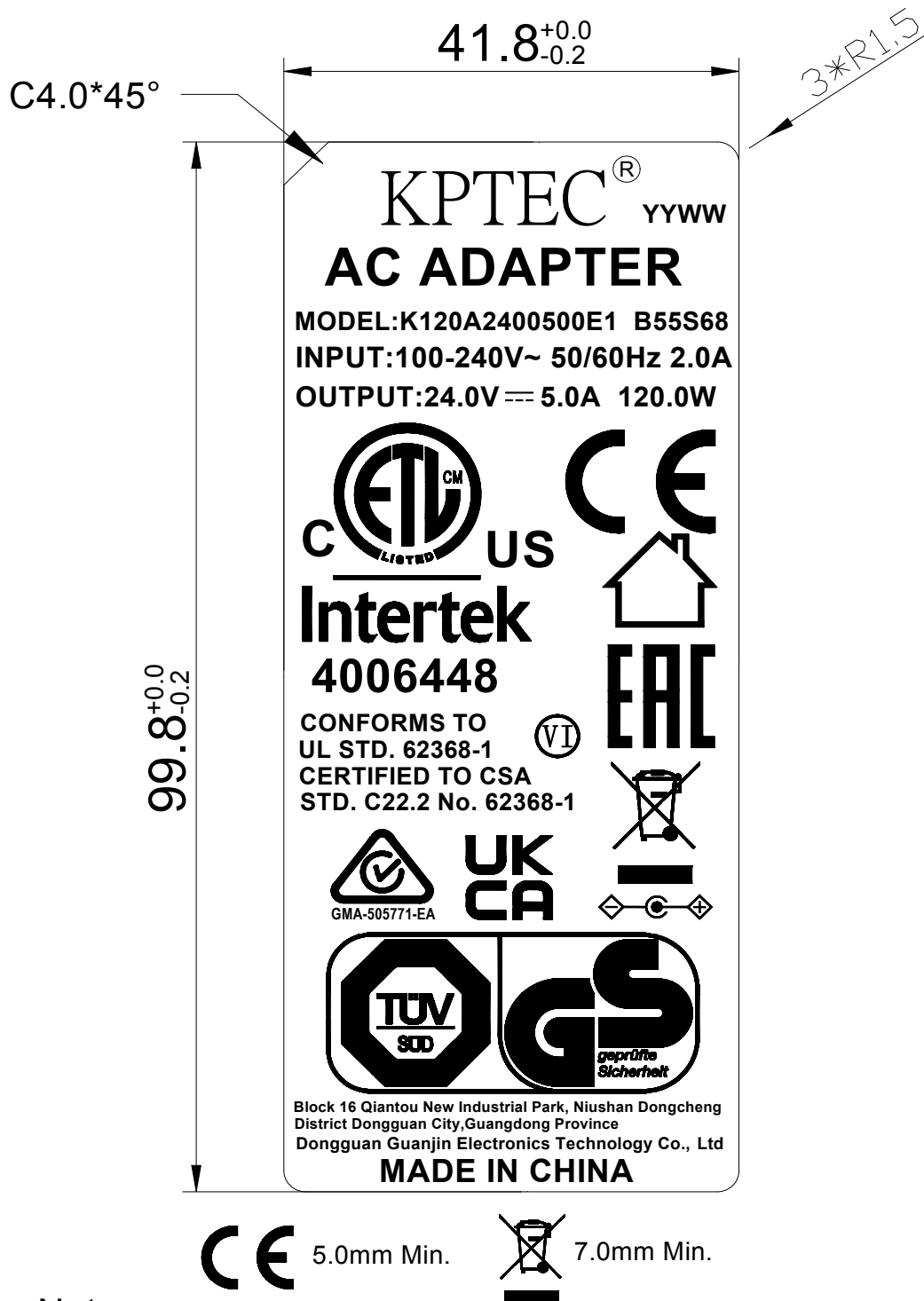
- 1) WIRE TYPE: VW-1 2468 80°C 300V L=1500mm 2C 18AWG BLACK**

**AC cable: H05VV-F 3\*0.75MM2 300/300V, one side is 3PIN Tail, another side is EU 3pin plug, L=1500MM black**

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

- 3) THE POLARITY:** 

## 11.0 Nameplate(Unit:mm) :

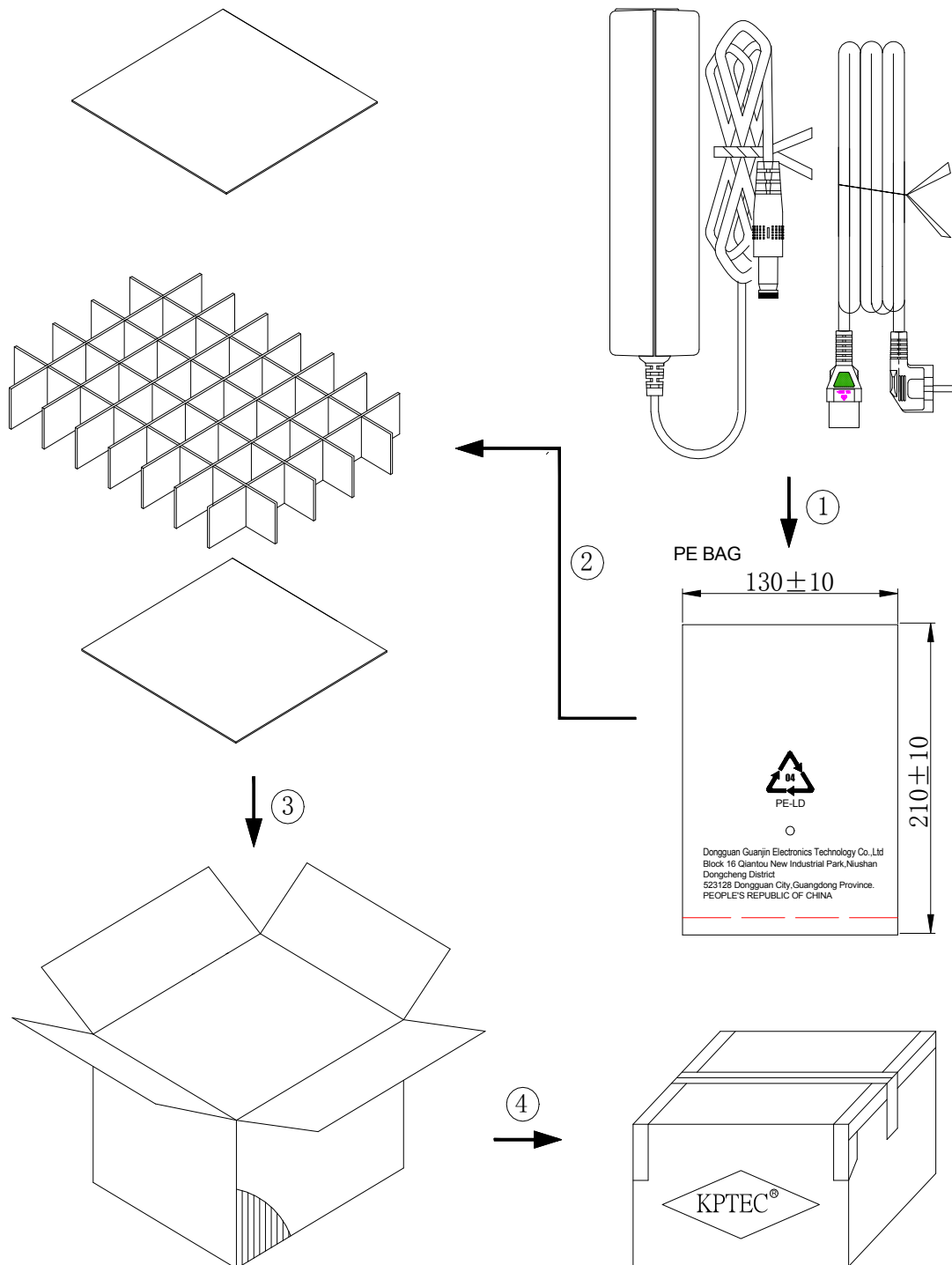


Note:

- 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 40 PCS, a total of 1 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.**

**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.**