



**HON-KWANG ELECTRIC CO., LTD.**

**HON-KWANG ELECTRIC (SHEN ZHEN) CO., LTD.**

**HON-KWANG ELECTRIC (KUN SHAN) CO., LTD.**

# FOR APPROVAL

CUSTOMER: 海康

DESCRIPTION: AC ADAPTOR

PART NO.: **HKKD-14038** **REV:A3**

MODEL NO: **HKKD-13002** TYPE: **EI-86**

DESIGNED NO: **14038-0815** DATE: **JAN.08.2019**

APPROVED SIGNATURES			

鳳冠電機股份有限公司  
鳳冠電機(深圳)有限公司  
鳳冠電機(昆山)有限公司

**鳳冠電機(昆山)有限公司**  
**HON-KWANG ELECTRIC (KUN SHAN) CO., LTD.**

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**1 ELECTRICAL PERFORMANCE**

1.1 Primary rated voltage and frequency:

**230VAC 50Hz**

1.2 Secondary rated voltage and current:

Winding	SECONDARY VOLTAGE		
	Loading(5000mA)	No Load	Ripple(Vrms)
Sec	<b>AC24V±1V</b>	<b>AC25.5V±1V</b>	<b>----mV Max</b>

1.3 Primary exciting current (I<sub>o</sub>):

**160mA** rms max, at input **230VAC50Hz** with no Load.

1.4 D.C Resistance Primary : **50ohmMAX**, measured at 25°C.

1.5 Temperature rise: **95°C** max on primary coil by the resistance method, and 50°C max on the surface of the case by the thermometer method at 25°C ambient, rated load condition.

1.6 Insulation resistance: 500VDC supplied, 100M ohms minimum between winding & core.

1.7 Hi-pot test:**3.75** KVAC for 1 minute or **4.5** KVAC for 1 second between input plug and output cord or case without breakdown. Sensitivity current 1.0mA.

1.8 Life test:

In an ambient temperature of 25°C, 90-95%R.H., applying a power source of **230 VAC 50 Hz** to primary, output with full load for 8 hours continuously, adaptor output normally and meet the requirement of item 1.7.

1.9 At the normal atmospheric temperature and humidity , products' expectancy equal capable to arrive at 35000hour min.

**2 MECHANICAL CHARACTERISTIS**

2.1 Impact test:

This impact is to be produced by dropping a steel sphere,51mm in diameter and weighing approximately 535g . from a height of 1.3m . The steel sphere is to strike the case in a location different from those in the other two impacts .After test .The unit should meet the item 1.7.

**Designed By:魏 紅**

**Reviewed By:李瑞艷 01/08**

**Approved By:**

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2.2 Strain relief test:

At normal position, applying a weight of 10 lbs to input plug, 20 lbs to output cord for 60 seconds each, there shall be no breakage displacement.

2.3 Bending test:

The plug and S/R should withstand weight of 200 gram, swinging from left to right at angle of 120 degree for 1000 cycles, and 40 cycles per minute. The cord shall be conductible.

**3 SAFETY STANDARD**

- UL1310/CUL ;  UL1950/CUL;  UL6500/CUL
- CSA-C22.2,NO223,M91
- TUV/GS/CE EN61558;  TUV/GS/CE EN60950;  TUV/GS/CE EN60065
- PSE
- CCC GB4943,GB9254;  CCC GB8898,GB9254;
- SAA  C-TICK
- BS/CE
- MEET CCC GB4943,GB9254

**4 INSULATION SYSTEM**

- CLASS A(105°C);  CLASS E(120°C);  CLASS B(130°C);  CLASS F(150°C);

**5 MECHANICAL REQUIREMENT**

5.1 Appearance:

Damage and rusting are not permitted.

5.2 Dimension: as overall drawing.

**6 ENVIRONMENTAL CONDITION**

6.1 Operating temperature range: -10°C ~+40°C

6.2 Storage temperature range: -5°C ~+60°C

6.3 Operation humidity range: 30~85% RH

**7 INSPECTION ON LINE**

7.1 The test items for each product

7.1.1 Primary exciting current

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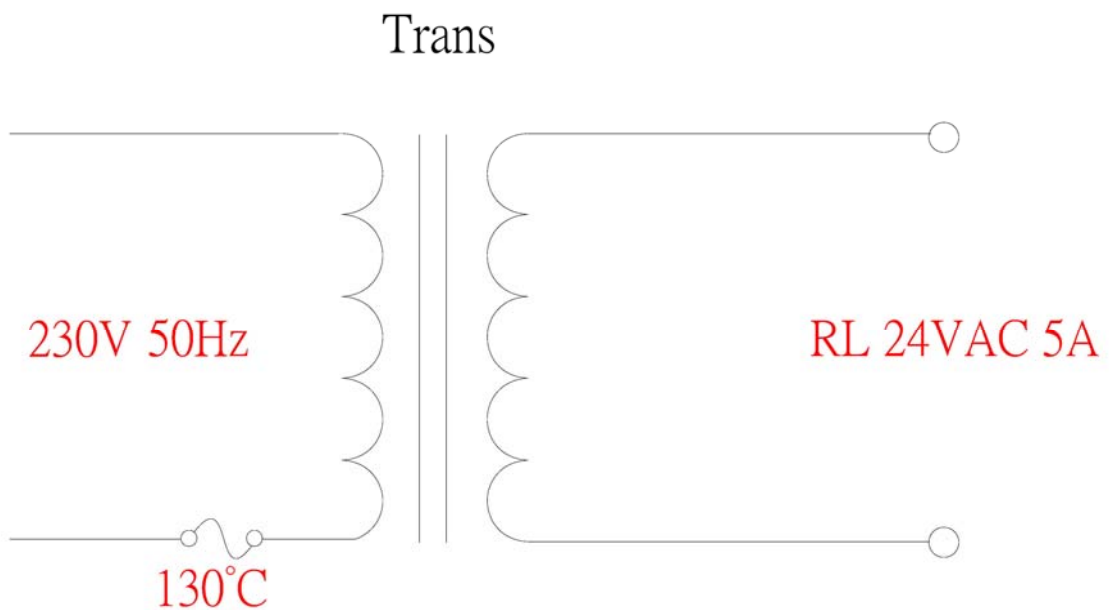
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- 7.1.2 Output voltage
- 7.1.3 Foreign mass by shock
- 7.1.4 Polarity of output plug
- 7.1.5 Hi-pot test
- 7.1.6 Appearance
- 7.2 The test item for part of products
  - 7.2.1 Hum operating at rated load
  - 7.2.2 Insulation test, Hi-pot test
  - 7.2.3 Drop test
  - 7.2.4 Pulling force test
  - 7.2.5 Appearance inspect

**8 NET WEIGHT. (  $g \pm 5\%$  )**

**9 Products & parts with Lead-free solder. It meet RoHS**

**10 CIRCUIT DIAGRAM:**

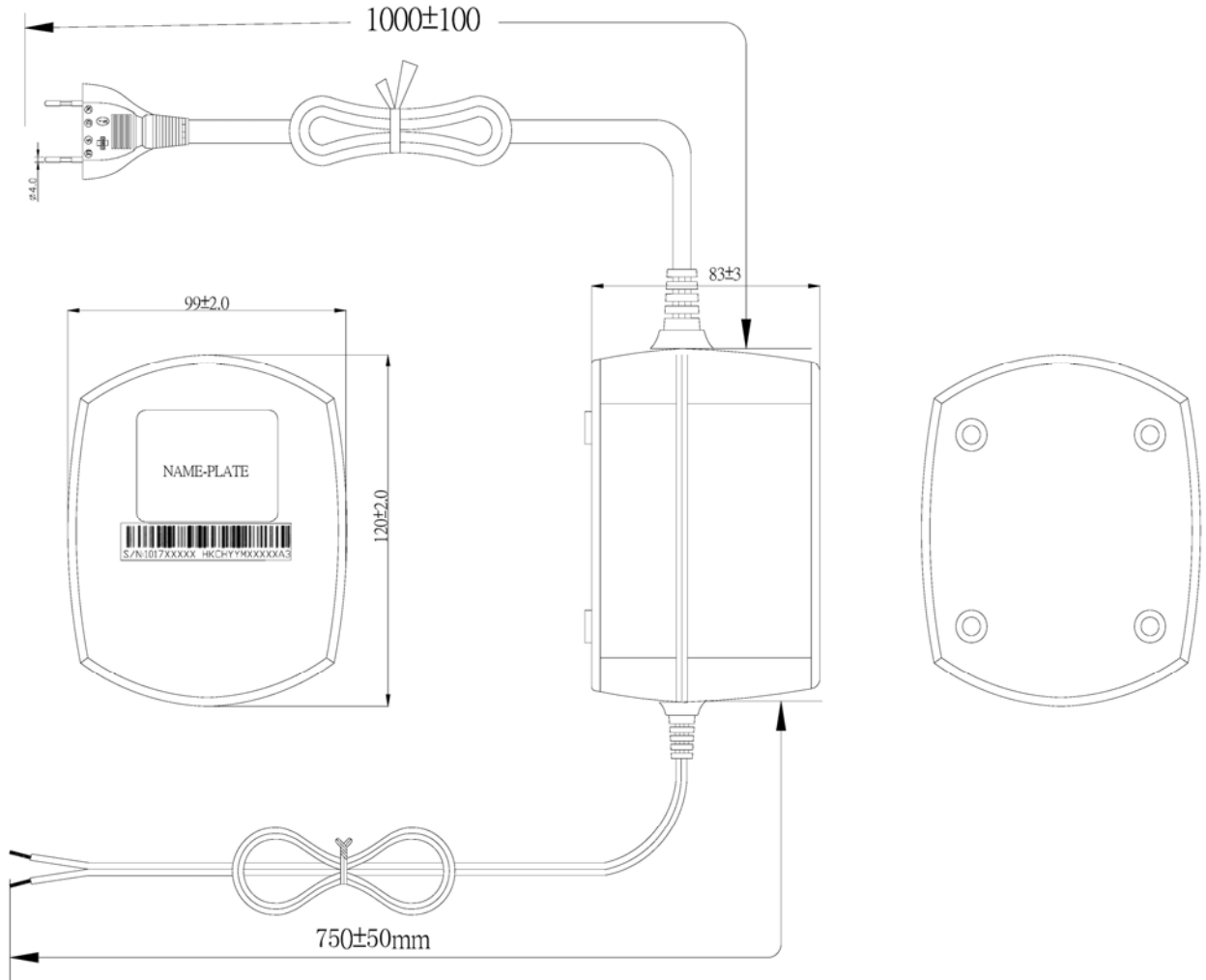


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**11, OVERALL DRAWING.**

UNIT:mm



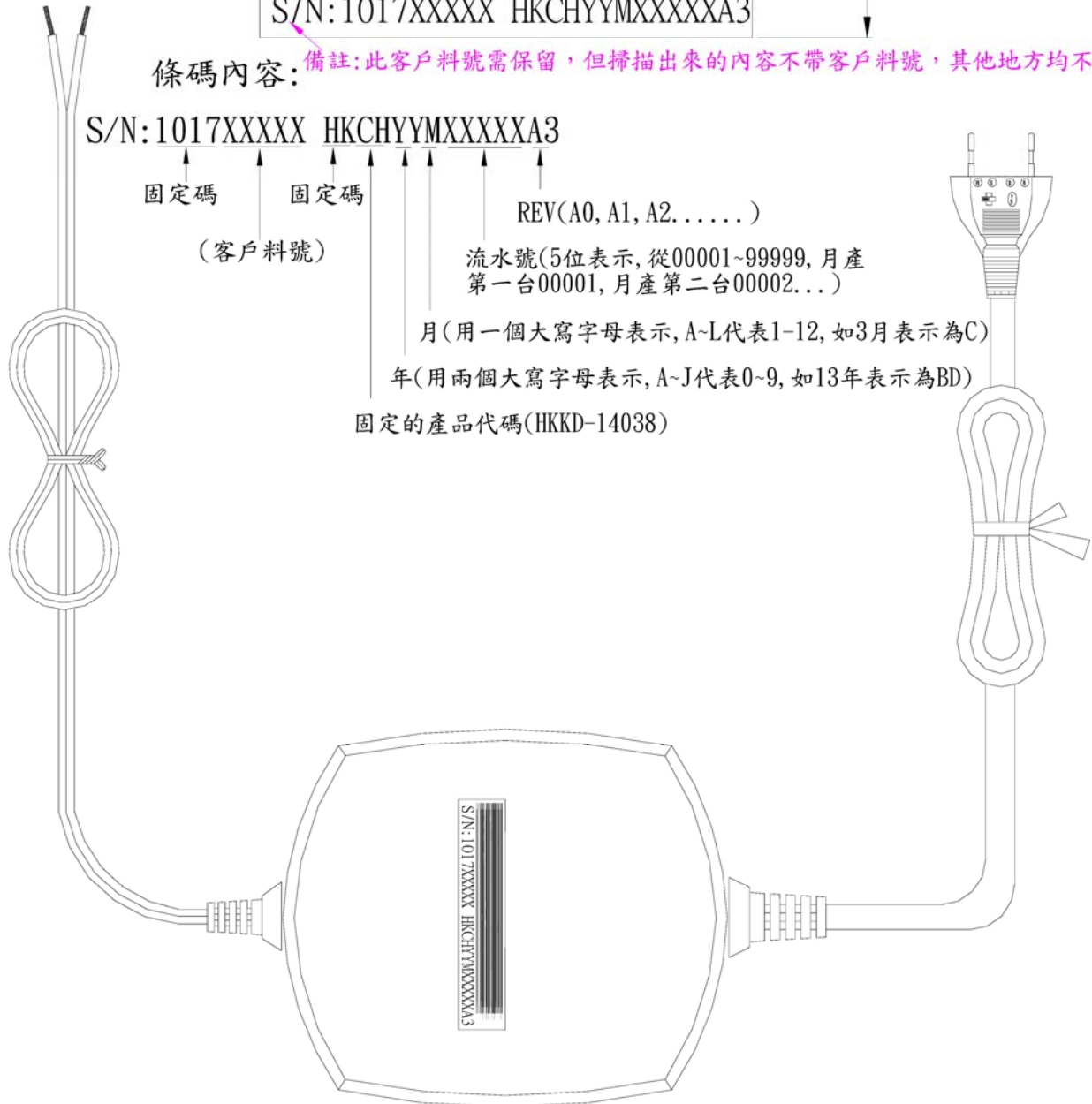
# 鳳冠電機(昆山)有限公司

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條碼內容: 備註:此客戶料號需保留,但掃描出來的內容不帶客戶料號,其他地方均不變



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**12, ADAPTOR MATERIAL LIST**

Item	Description	Raw Material	SPEC.	Manufacturer
1	ENCLOSURE	主物料 ■ Noryl(SE-100J)	V-1,95°C	SABICINNOVATIVEPLASTICSUSLLC(E121562)
		備選物料 ■ PC940	V-0,130°C	SABICINNOVATIVEPLASTICSUSLLC(E121562)
		■ Noryl(SE-1)	V-1,110°C	SABICINNOVATIVEPLASTICSUSLLC(E121562)
2	■ TRANSFORMER	TYPE:EI-86*55	—————	HON KWANG ELECTRIC (KUN SHAN) CO., LTD. Or Equ
3	■ NAME PLATE	0.1mm Thickness Labels are printed	50#不變色消 銀龍+OPP	SHANGHAI DALI PRENTING CO.,LTD.(MH27955) KUNSHAN FUSHAN PRINTING CO., LTD(MH28031) KUNSHAN DAVID PRINTING & STATIONARY CO., LTD.(MH25092) Or Equ.
4	OUTPUT CORD	AWG#16/ SPT-2 /105°C 2*1.31 mm <sup>2</sup>	PVC	SHENZHEN DONG JU WIRE&CABLE CO.,LTD. (E189674) LINKISS CO., LTD.( E202584) XINYA ELECTRONIC CO.,LTD.(E170689) Or Equ.
5	OUTPUT PLUG	剝焊 10mm	—————	HON KWANG ELECTRIC (KUN SHAN) CO., LTD. Or Equ
6	INPUT BLADES	4.0 mm Thickness nickel plated copper..	VDE TYPE	SHANG HAI HANK ELECTRONICS INDUSTRIAL CO., LTD. Or Equ.
7	INPUT CORD	H03VVH2-F 2*0.75mm <sup>2</sup>	—————	APOLLO WIRE&CABLE CO.,LTD (E72332) MINTAK ELECTRONIC CO.,LTD HONGSHANCHUANG ELECTRONIC CO,LTD Or Equ.
8	HEAT SHRINKABLE TUBING	Φ6X25mm 125°C/600V CB-HFT	—————	DA SHENG HEAT SHRINKABLE MATERIAL CO.,LTD(E203831) Or Equ.



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**13,TRANSFORMER MATERIAL LIST:**

Item	Description	Type	Spec	Manufacturer
15	■ CORE	silicon steel Lamination EI-86 型	HN 5050	SHANGAI HUATENG METAL PROCESSING CO.,LTD SHANGHAIBOURGEOISLEICONGPREC-CSIEN MECHANICS & DIES CO., LTD Or Equ.
16	BOBBIN	護套 ■ Nylon(Zytel 101L)	V-2 130°C	E I DUPONT DE NEMOURS&CO INC(E41938)
		線架 ■ FR50	V-0 130°C	
17	SEC.OUTWRAP	0.05mmX2Turns polyester tape.	P206F(b) PZ282	CHYUN YIN TAPE CO.,LTD(E81174) JINGJIANGYAHUA PRESSURE SENSITIVE(E165111) Or Equ.
18	■ SEC.WINDING	Polyurethane enamelled copper wire. Model:1.3UEW2	MW75C 130°C	CHANG ZHOU DAYANG WIRE & CABLE CO.,LTD (E158909) Or Equ.
19	■ PRI. WINDING	Polyurethane enamelled copper wire. Model:0.55UEW2	MW75C 130°C	CHANG ZHOU DAYANG WIRE & CABLE CO.,LTD (E158909) Or Equ.
20	PRI.OUTWRAP	(1) 0.05mmx2Turns polyester	P206F(b) PZ282	CHYUN YIN TAPE CO.,LTD(E81174) JINGJIANG YAHUA PRESSURE SENSITIVE(E165111)
		(2) 0.50mmx1Layer press board	ADON-IS	FUJI PAPER CO LTD(E58317) Or Equ.
21	PRI.WRAP	(1) 0.05mmx2Turns polyester	P206F(b) PZ282	CHYUN YIN TAPE CO.,LTD(E81174) JINGJIANG YAHUA PRESSURE SENSITIVE(E165111)
		(2) 0.50mmx1Layer press board	ADON-IS	FUJI PAPER CO LTD(E58317) Or Equ.
22	PRI.LEAD WIRE FIXED	(1) 0.05mmx2Turns polyester	P206F(b) PZ282	CHYUN YIN TAPE CO.,LTD(E81174) JINGJIANG YAHUA PRESSURE SENSITIVE(E165111)
		(2) 0.40mm thickness PVC	ADON-IS	FUJI PAPER CO LTD (E58317)Or Equ.
23	PRI.CROSSOVER	0.18mmX1Layer acetate cloth tape	AC-403-1	CHYUN YIN TAPE CO.,LTD(E81174) JINGJIANG YAHUA PRESSURESENSITIVE(E165111) Or Equ.
24	PRI.LEAD WIRE	TB3502B	————	DONGGUAN DONGSHEN ELECTRONICMETAL CO.,LTD. Or Equ.
25	THERMAL PROTECTOR	130°C ± 5°C 1A/250V	————	NECSCHOTT COMPONENTS CORP.(E71747) JOINT FORCE METAL RESEARCH&CO LTD.(E142267) UCHHIHASHI ESTEC CO LTD.(E50082) AUPO ELECTRONIC CO LTD.(E140847) . Xiamen Set Electronic Co.,Ltd(E214712) Or Equ.



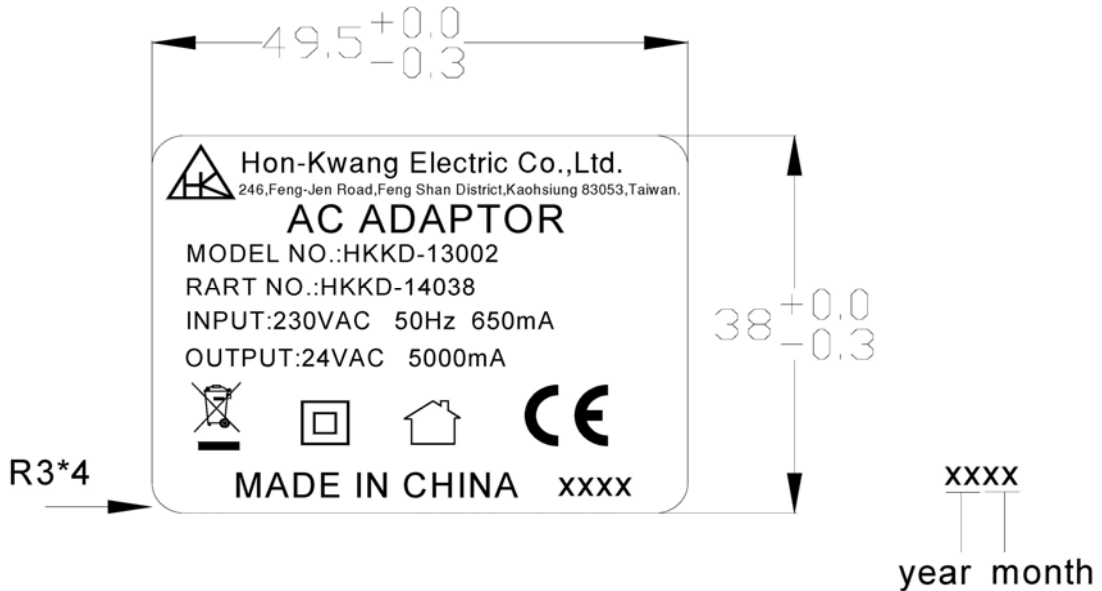
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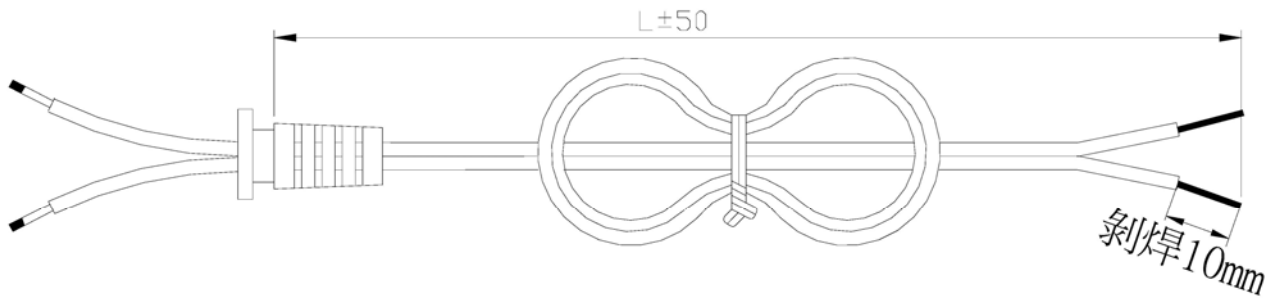
**14, NAMEPLATE DRAWING.**

Material: 0.1mm thickness min

Print Color: Black Word on Silver Base



**15, DC CABLE LIST.**



Output Plug: 剝焊 10±2 mm

Output Cord: 16#AWG x 2C; L=750mm ◆ SPT-2 105°C 2\*1.31 mm<sup>2</sup>

TYPE: ◆ Flexible cord ◆ UL2468 VW-1 ◆ XT-WIRE ◆ SPT-1 60°C

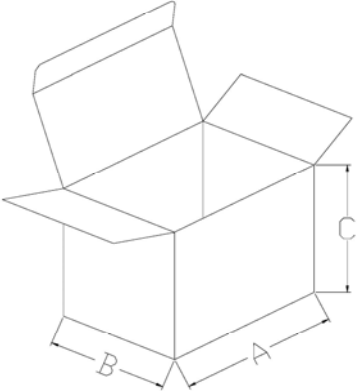
Polarize: ◆ ⊖ — C — ⊕ ◆ ⊕ — C — ⊖

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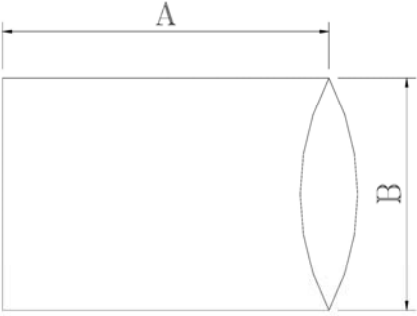
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**17,PACKAGE(SELECT)**

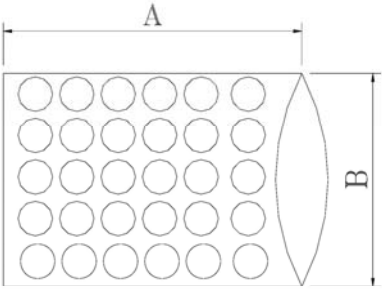
**INNER BOX.** (  Normal box;  Corrugated box)

<p>1,SIZE: A*B*C=-*-*- (mm)          Tolerance: ±2.0          2,MATERIAL:400pounds          3,COLOR:white</p>	
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**PE BAG**

<p>1,SIZE:A*B=--mm*--mm</p>	
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**BUBBLE BAG**

<p>1,SIZE:A*B=260mm*220mm</p>	
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