



**IDEALPOWER**  
experts in power conversion

## SPECIFICATION FOR APPROVAL

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

DESCRIPTION: I.T.E. POWER SUPPLY REV: (A1)

MODEL NO: HK-AP-050A120-CP PART NO: HKSC-170074

DESIGNED NO: 170074-0207 DATE: MAR.21th.2017

CUSTOMER APPROVED SIGNATURES			VENDOR APPROVED SIGNATURES		
					

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Web: [www.idealpower.co.uk](http://www.idealpower.co.uk) email: [sales@idealpower.co.uk](mailto:sales@idealpower.co.uk) TEL +44 (0) 845 2603400 Fax +44 (0) 845 2603401

## SPECIFICATION CHANGE HISTORY

CUSTOMER		PART NO	HKSC-170074	
MODEL NO		HK-AP-050A120-CP	REV	(A1)
REV	DATE	DESCRIPTION		REMARKS
A0	17.02.07	新發行承認書.(New issue)		羅珍珍
A1	17.03.21	更新EMC.(Update EMC standard)		羅珍珍
SAFETY APPROVAL:		ENGINEER APPROVAL:		
		ELECTRICAL	STRUCTURAL	
張偉松		歐陽建瓊	沈保良	

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## 1.0 INTRODUCTION

This document specifies a switching power supply with a output of +5V, and electronic process. The switching power supply will provide power for technology equipments including electrical business equipment. The adaptor meets the requirement of lead free and RoHS.

## 2.0 INPUT REQUIREMENTS

2.1 Input Voltage Range: 100(-10%)VAC to 240(+10%)VAC

2.2 Input Frequency Range: 47 Hz to 63 Hz

2.3 Input Power Consumption at no-load : 0.1W Max

2.4 Input In-rush Current: 50A Max

Test condition will be tested after No load operating for 30min then measure it.

2.5 Input Current: 0.2A Max

## 3.0 OUTPUT REQUIREMENTS

3.1 Output Voltage: +5V

3.2 Output Regulation: 4.75-5.25V

3.3 Output Load Range: 0-1.2A

3.4 Output Ripple & Noise: 300mV Max @20MHz bandwidth with 10UF/50V capacitance and 104/50V ceramic capacitor.

4.0 EFFICIENCY:  $\geq 75.00\%$  @ average of 25/50/75/100% loads 115V&230VAC input

Test condition will be tested after full load operating for 30min then measure it.

5.0 LINE REGULATION:  $\pm 2\%$  maximum

6.0 HOLD UP TIME: 10ms Min at 110VAC full load.

7.0 TURN ON TIME: 2S Max at 110VAC full load.



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8.0 TEMPERATURE COEFFICIENT: 0.05%/°C

9.0 DIELECTRIC STRENGTH (Hi-Pot) TEST

Primary to Secondary : AC 3.0 KVrms, 4mA, 1 minute for type, 2 second for production test.

10.0 INSULATION RESISTANCE

Primary to secondary: 50M OHM to 500VDC.

11.0 PROTECTION

11.1 Input Protection

The switching power supply has a 10 ohm fusing resistor to protect itself.

11.2 Output Protection

11.2.1 Output Current:

Overload conditions shall decrease the output voltage. Removal of an output overload shall provide automatic recovery for the output voltage.

11.2.2 Short Circuit Protection: Auto Recovery.



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## 12.0 ENVIRONMENTAL CONDITIONS

The switching power supply can withstand the following environmental conditions:

12.1 Storage Temperature: -20°C ~ +70°C

Relative Humidity: 10% ~ 95%

12.2 Operation Temperature: 0°C ~ 40°C

Relative Humidity: 10% ~ 95%

## 13.0 EMI / EMC

The switching power supply has approved by the following standards:

FCC PART 15 Class B	AS/NZS CISPR 32:2015
EN55032:2015	AS/NZS CISPR 14.1:2013
EN55014-1:2006+A1:2009+A2:2011	AS/NZS CISPR 14.2:2015
EN55014-2:2015	AS/NZS CISPR 22:2009+A1:2010
EN55022:2010	AS/NZS CISPR 24.1:2013
EN55024:2010+A1:2015	AS/NZS 61000.3.2:2013
EN61000-3-2:2014	AS/NZS 61000.3.3:2012
EN61000-3-3:2013	

## 14.0 RELIABILITY AND QUALITY CONTROL

### 14.1 Burn-in

The burn-in test will be performed at least 2 hours at 40 centigrade degrees under full load condition.

### 14.2 MTBF

When the operation is complying with this specification, the switching power supply's MTBF will be 50,000 hours at 25 centigrade degrees.

## 15.0 SAFETY

The switching power supply has approved by the following standards:

UL 60950-1, 2nd Edition, 2014-10-14  
CSA C22.2 NO.60950-1-07, 2nd Edition, 2014-10  
EN60950-1:2006+A11+A1+A12+A2 BS EN60950-1:2006+A2  
AS/NZS 60950.1:2015



# IDEALPOWER

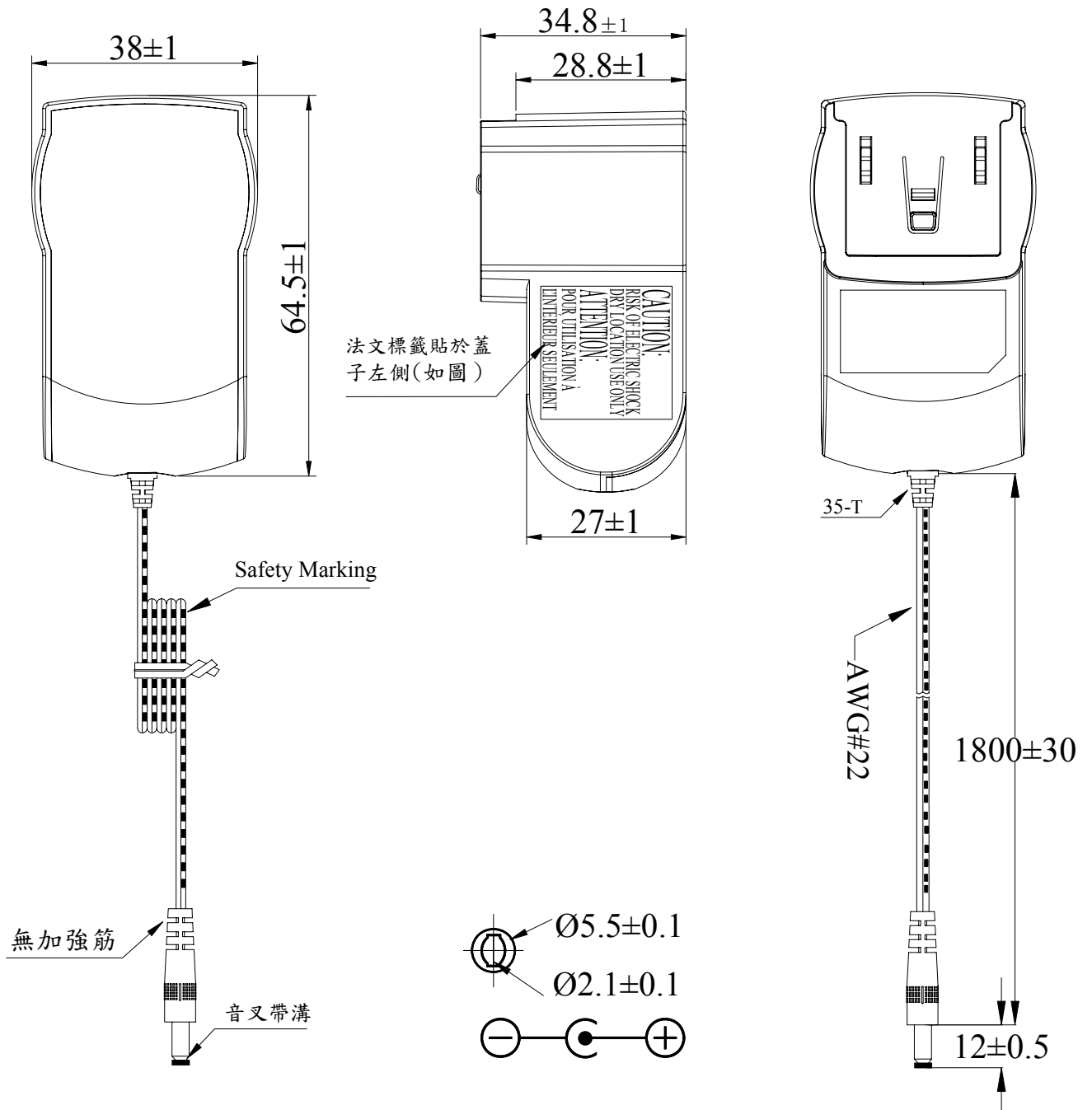
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## 16. OVERALL DRAWING

UNIT: mm

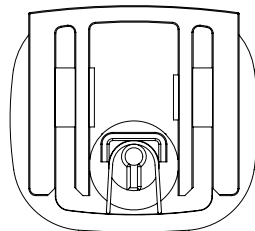
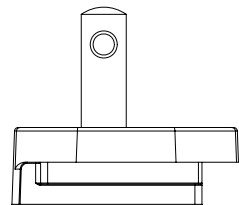
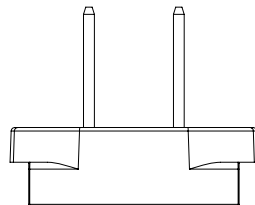
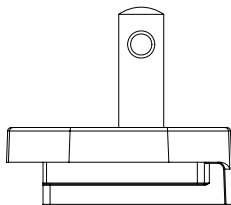
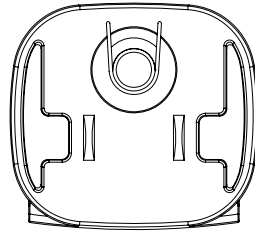
COLOR: BLACK





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UNIT: mm



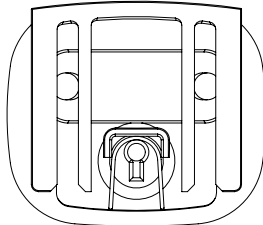
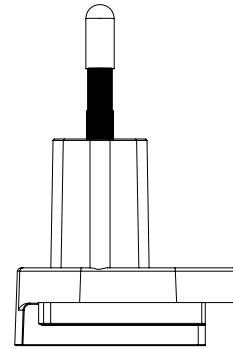
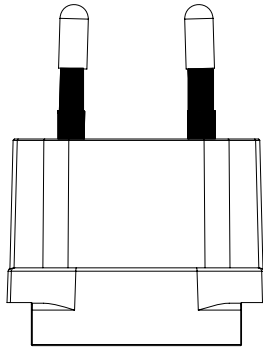
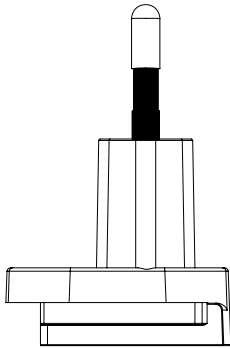
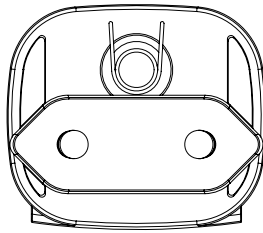
UL





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UNIT: mm

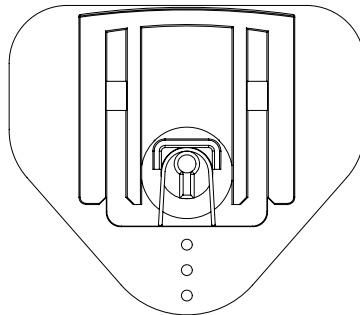
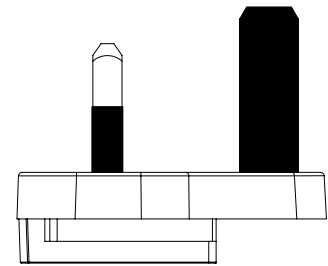
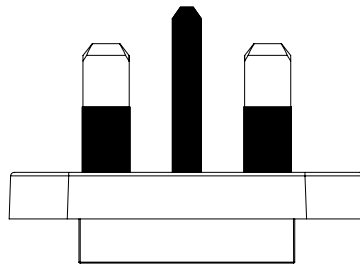
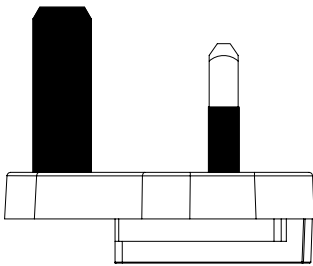
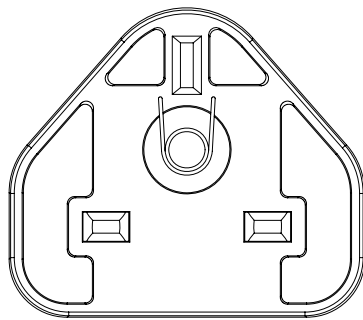


TUV



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UNIT: mm

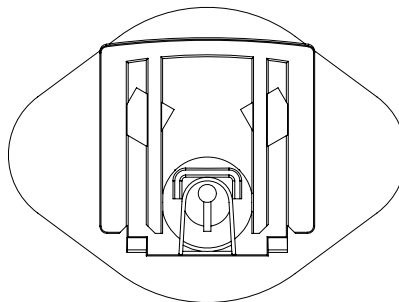
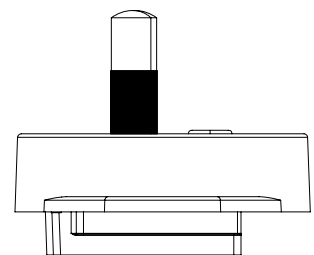
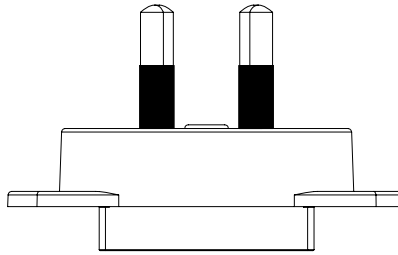
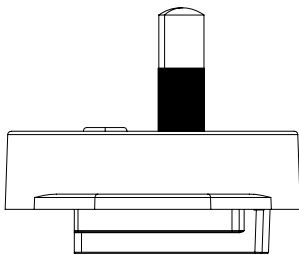
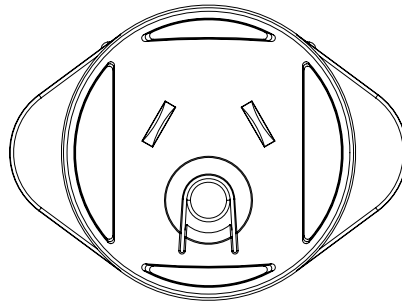


UK



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UNIT: mm



**SAA**

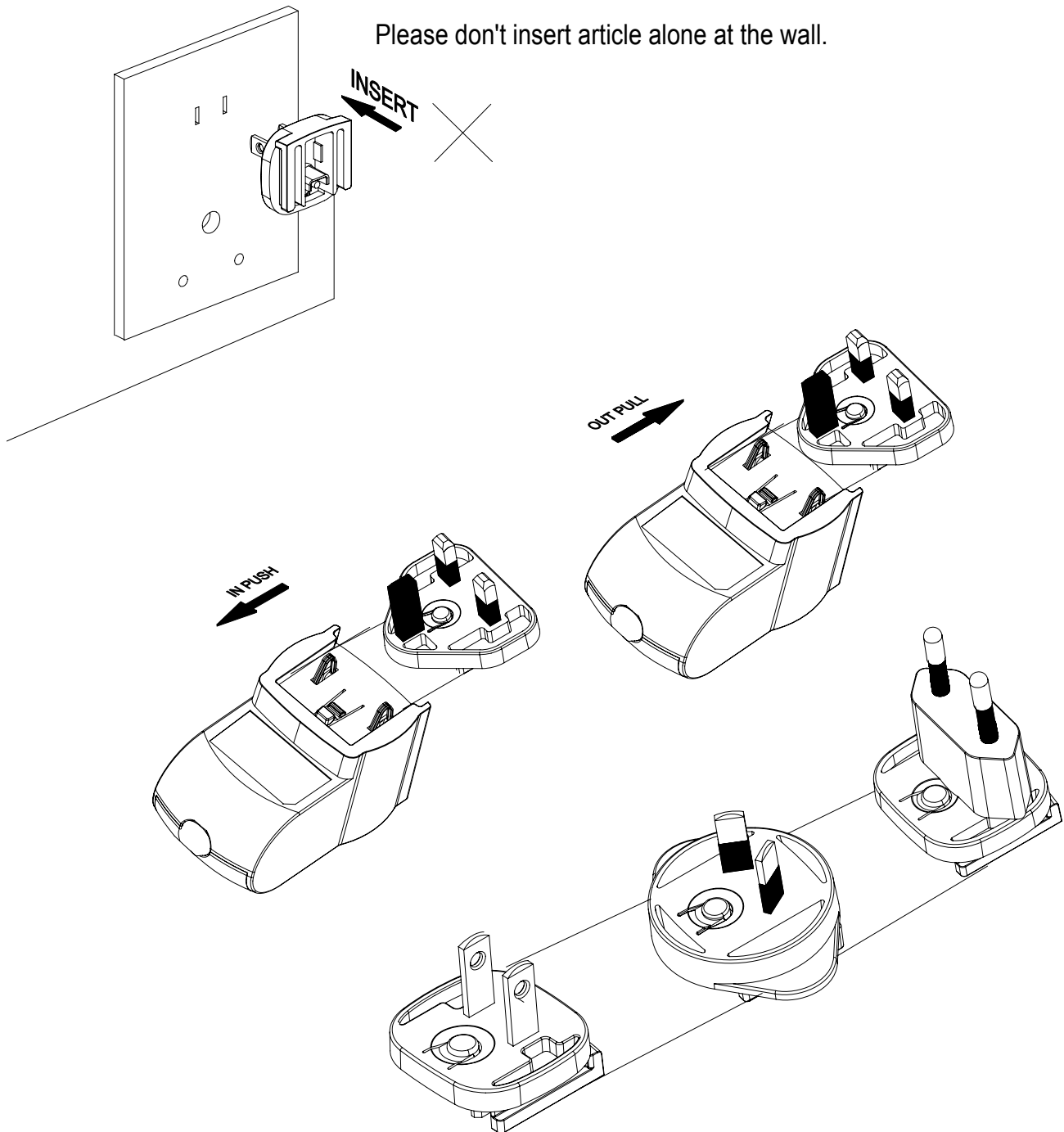


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UNIT: mm

### WARNING!

Please don't insert article alone at the wall.





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## 17. PACKING

### 17.1 Inner Box

UNIT: mm

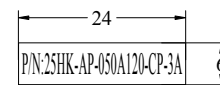
■ BOX( ■ Normal BOX □ Corrugated BOX)

Length: 82

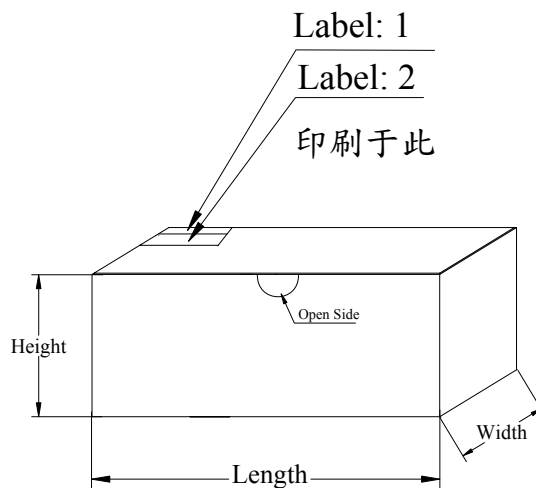
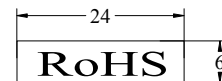
Width: 85

Height: 55

Label: 1



Label: 2



### NOTICE:

Its probably different from the white box of the sample and the figure dimension.  
The white box is used to pack during product.

注意: 樣品使用的小白盒尺寸可能與此圖面尺寸不同, 此圖面尺寸是用于生產時的包裝。

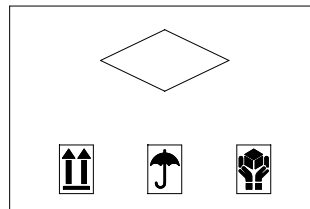


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17. PACKING

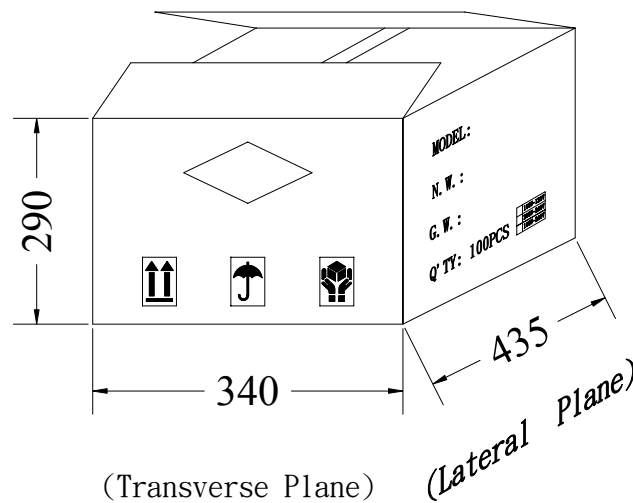
17.2 Carton

UNIT: mm



MODEL :  
N. W. :  
G. W. :  
Q' TY: 100PCS

	100V-120V
	200V-240V
	100V-240V



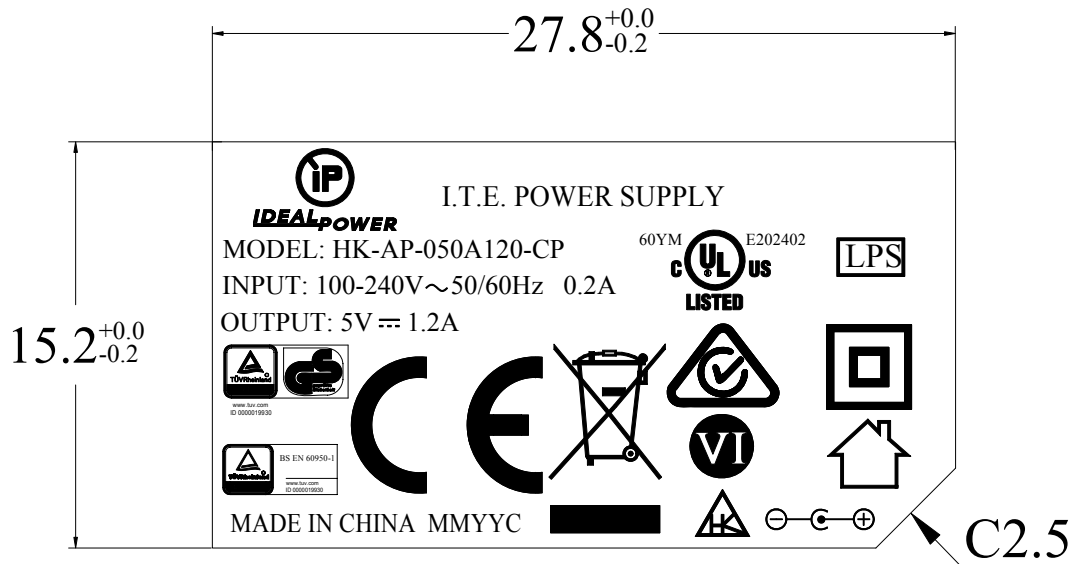
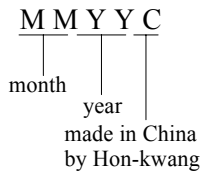


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18. MARKING

100# CPC 壓花底+上光 NAME-PLATE:WHITE CHARACTERS BLACK BACKGROUND.

UNIT: mm



法文標籤貼於CASE上

銅板紙表面上光 NAME-PLATE: BLACK CHARACTERS WHITE BACKGROUND.

