



IDEALPOWER
experts in power conversion

SPECIFICATION FOR APPROVAL

CUSTOMER: _____

DESCRIPTION: SWITCHING POWER SUPPLY REV: (A3)

MODEL NO: HK-AP-120A050-CP PART NO: HKSC-170077

DESIGNED NO: 170077-0207 DATE: MAR.25th.2020

CUSTOMER APPROVED SIGNATURES			VENDOR APPROVED SIGNATURES		
					

Ideal Power, 14 Larks Way, Tree Beech Enterprise Park, Gunn, Barnstaple, Devon, England EX32 7NZ

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



SPECIFICATION CHANGE HISTORY

CUSTOMER		PART NO	HKSC-170077
MODEL NO		REV	(A3)
REV	DATE	DESCRIPTION	REMARKS
A0	17.02.07	新發行承認書. (New issue)	羅珍珍
A1	17.03.25	更新EMC標準. (update EMC standard)	羅珍珍
A2	19.09.16	依安規要求更新銘版上生產工廠代碼,從MMYYC改成MMYYYS.(As per safety requirement, update the production factory's code and change from MMYYC into MMYYS.)	陳冬婷
A3	20.03.25	將安規標準改為62368-1和更新銘板.(Change the Safety standard to 62368-1 and update the label.).	陳冬婷
SAFETY APPROVAL:		ENGINEER APPROVAL:	
		ELECTRICAL	STRUCTURAL
毛源龍		田青松	陳銘

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1.0 INTRODUCTION

This document specifies a switching power supply with a output of +12V, 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: 60A 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: +12V

3.2 Output Regulation: 11.4-12.6V

3.3 Output Load Range: 0-0.5A

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

4.0 EFFICIENCY: $\geq 78.88\%$ @ 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

EN 55032: 2015, Class B CISPR 32: 2012 (Ed 2.0)

EN 61000-3-2: 2014 EN 61000-3-3: 2013

IEC 61000-4-2: 2008 IEC 61000-4-3: 2006 +A1: 2007 +A2: 2010

IEC 61000-4-4: 2012 IEC 61000-4-5: 2014 IEC 61000-4-6: 2013

IEC 61000-4-8: 2009 IEC 61000-4-11: 2004 +A1: 2017

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 62368-1, Audio/video, Information and Communication Technology Equipment - Part 1: Safety Requirements

CSA C22.2 NO. 62368-1-14, Audio/video, Information and Communication Technology Equipment - Part 1: Safety Requirements

EN 62368-1:2014+A11 BS EN 62368-1:2014+A11 AS/NZS 62368.1:2018



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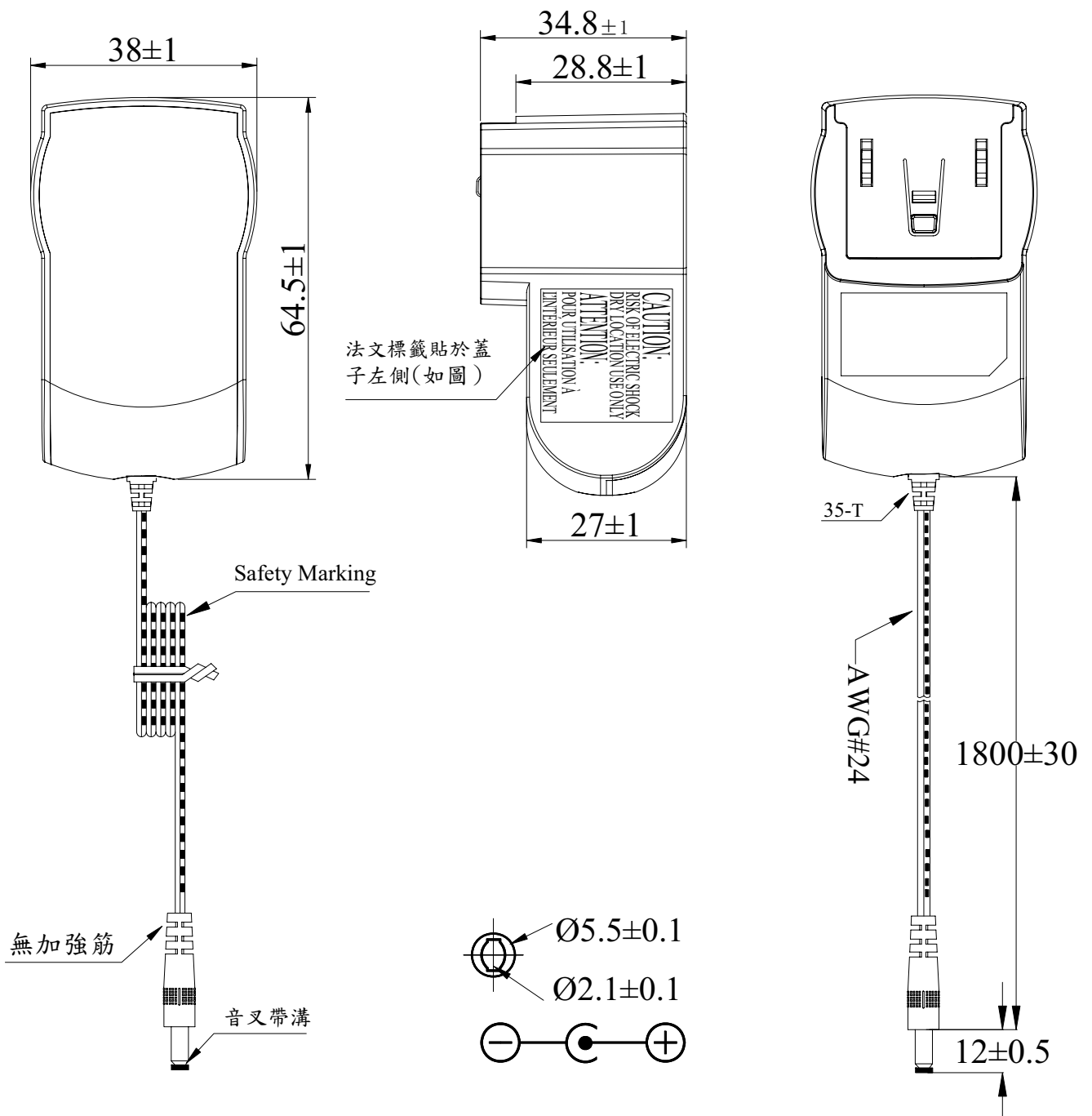
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16. OVERALL DRAWING

UNIT: mm

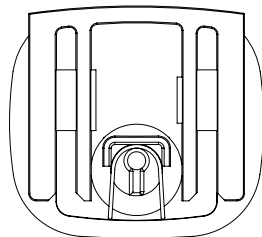
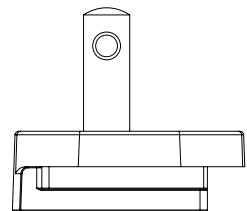
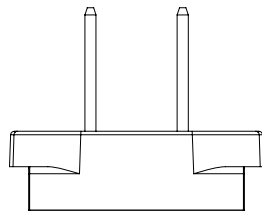
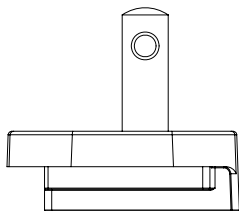
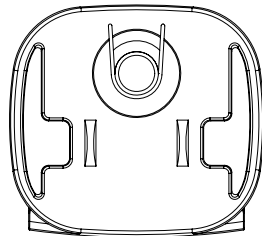
COLOR: BLACK





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UNIT: mm



UL

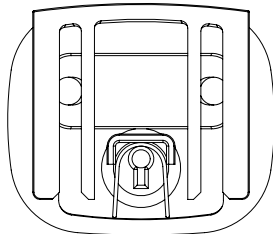
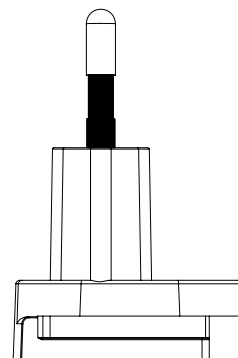
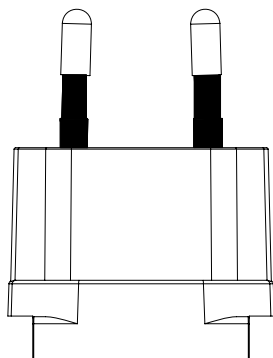
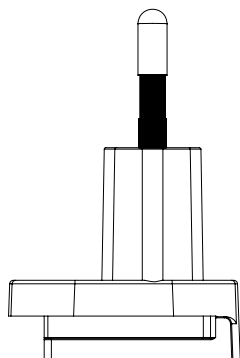
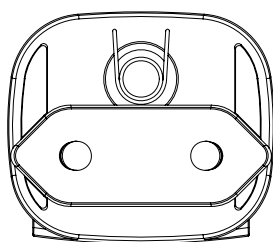


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UNIT: mm



TUV

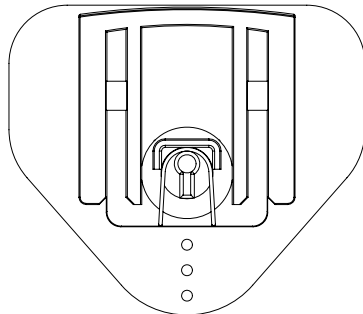
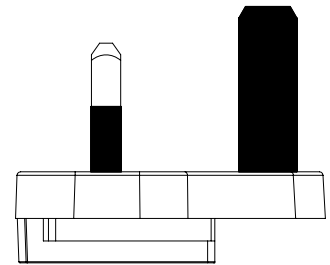
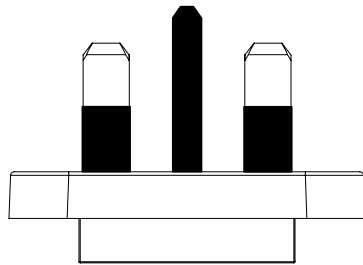
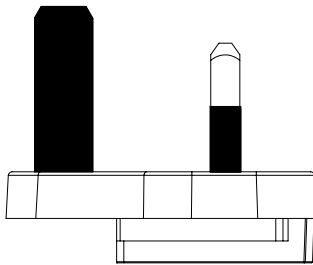
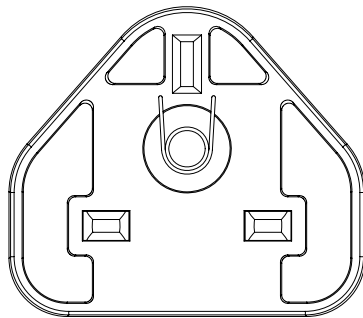


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UNIT: mm



UK

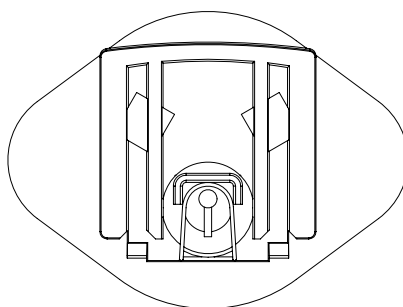
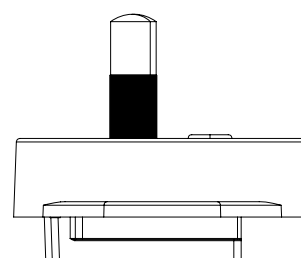
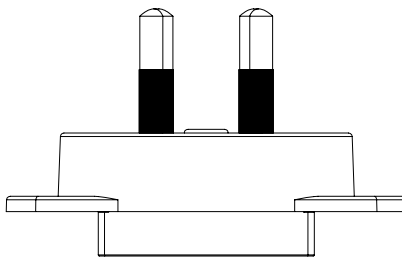
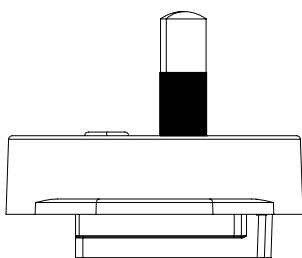
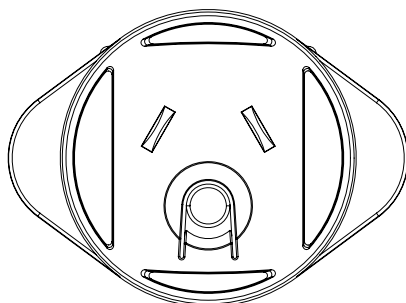


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UNIT: mm



SAA



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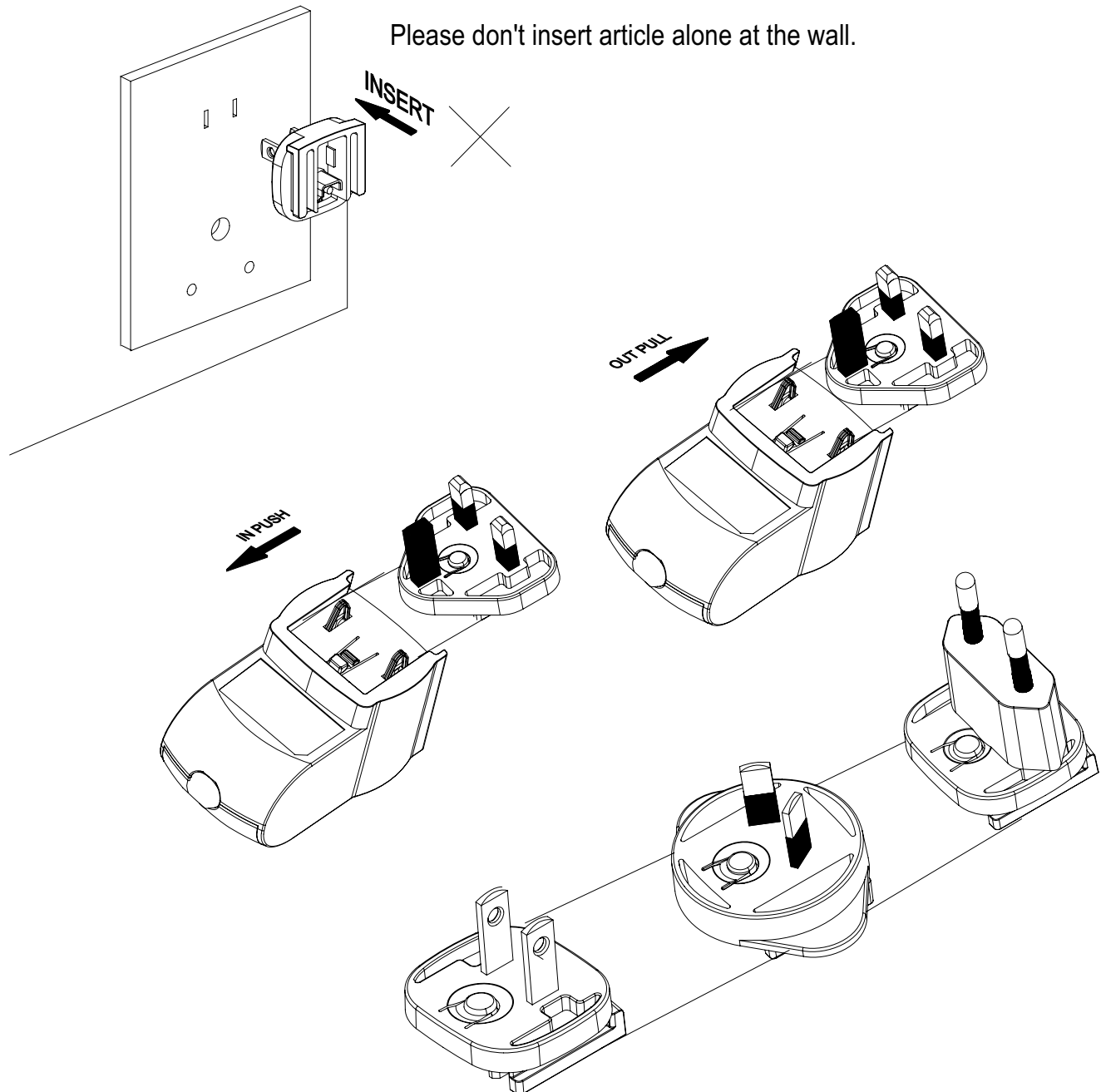
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17. USE SPECIFICATION

UNIT: mm

WARNING!

Please don't insert article alone at the wall.





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18. PACKING

18.1 Inner Box

UNIT: mm

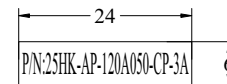
■ BOX(■ Normal BOX □ Corrugated BOX)

Length: 82

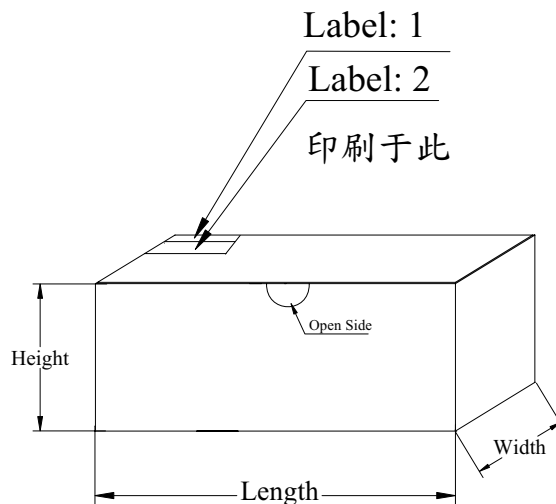
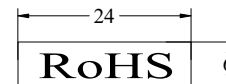
Width: 85

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.

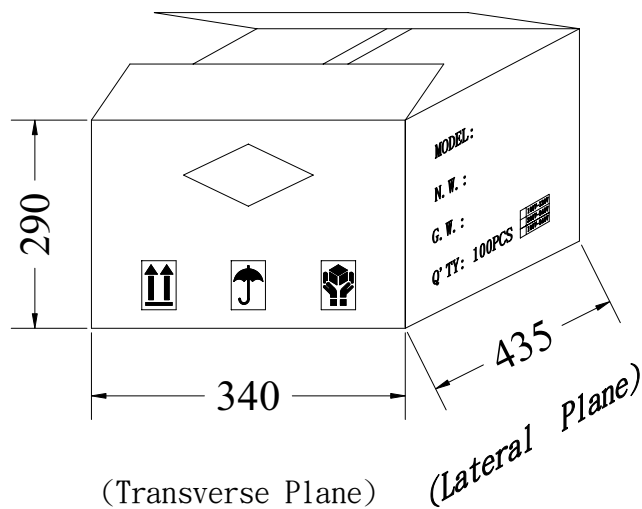
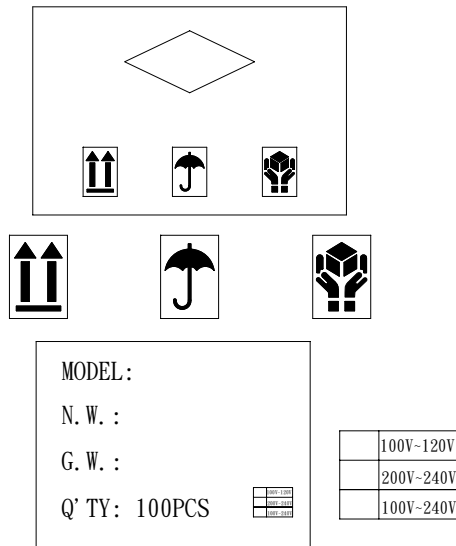


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18. PACKING

18.2 Carton

UNIT: mm





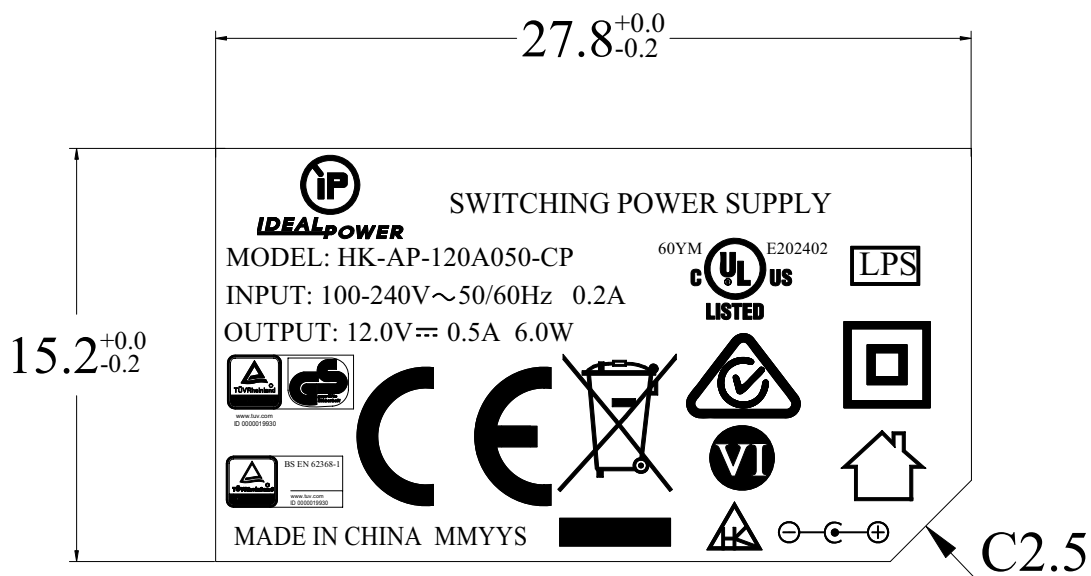
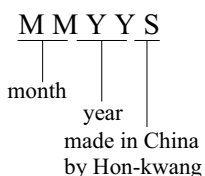
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19. MARKING

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.

