



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

DESCRIPTION: I.T.E. POWER SUPPLY REV: (A0)

MODEL NO: HK-AY-120A200-DH PART NO: HKSC-160981

DESIGNED NO: 160981-0922 DATE: SEP.22th.2016

CUSTOMER APPROVED SIGNATURES			VENDOR APPROVED SIGNATURES		
					



## SPECIFICATION CHANGE HISTORY

CUSTOMER		PART NO		HKSC-160981
MODEL NO		HK-AY-120A200-DH	REV	(A0)
REV	DATE	DESCRIPTION		REMARKS
A0	16.09.22	新發行承認書.		羅珍珍
SAFETY APPROVAL:		ENGINEER APPROVAL:		
		ELECTRICAL		STRUCTURAL
		歐陽建瓊	王令彬	王霖鵬
張偉松				

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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 In-rush Current: 50A Max

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

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

2.5 Input Current: 0.8A Max

## 3.0 OUTPUT REQUIREMENTS

3.1 Output Voltage: +12V

3.2 Output Regulation: 11.4-12.6V

3.3 Output Load Range: 0-2.0A

3.4 Output Ripple & Noise: 200mV Max @20MHz bandwidth with  
10UF/50V capacitance and 104/50V ceramic capacitor.

4.0 EFFICIENCY:  $\geq 86.2\%$  @average of 25/50/75/100% loads 115&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 UP 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

9.1 Primary to Secondary :AC 3000Vrms, 4 mA , 1 minute for type test, 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 2 Amps current fuse 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

CISPR 22:2008(Ed 6.0)AS/NZS CISPR 22:2009+A1:2010; CISPR 24:2010(Ed

2.0)AS/NZS CISPR 24:2013

EN55022:2010/AC:2011 IEC61000-4-3:2006/A1:2007/A2:2010

EN61000-3-2:2014 IEC61000-4-4:2012

EN61000-3-3:2013 IEC61000-4-5:2014

EN55024:2010 IEC61000-4-6:2013

IEC61000-4-2:2008 IEC61000-4-8:2009

IEC61000-4-11:2004

## 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 safety standards:

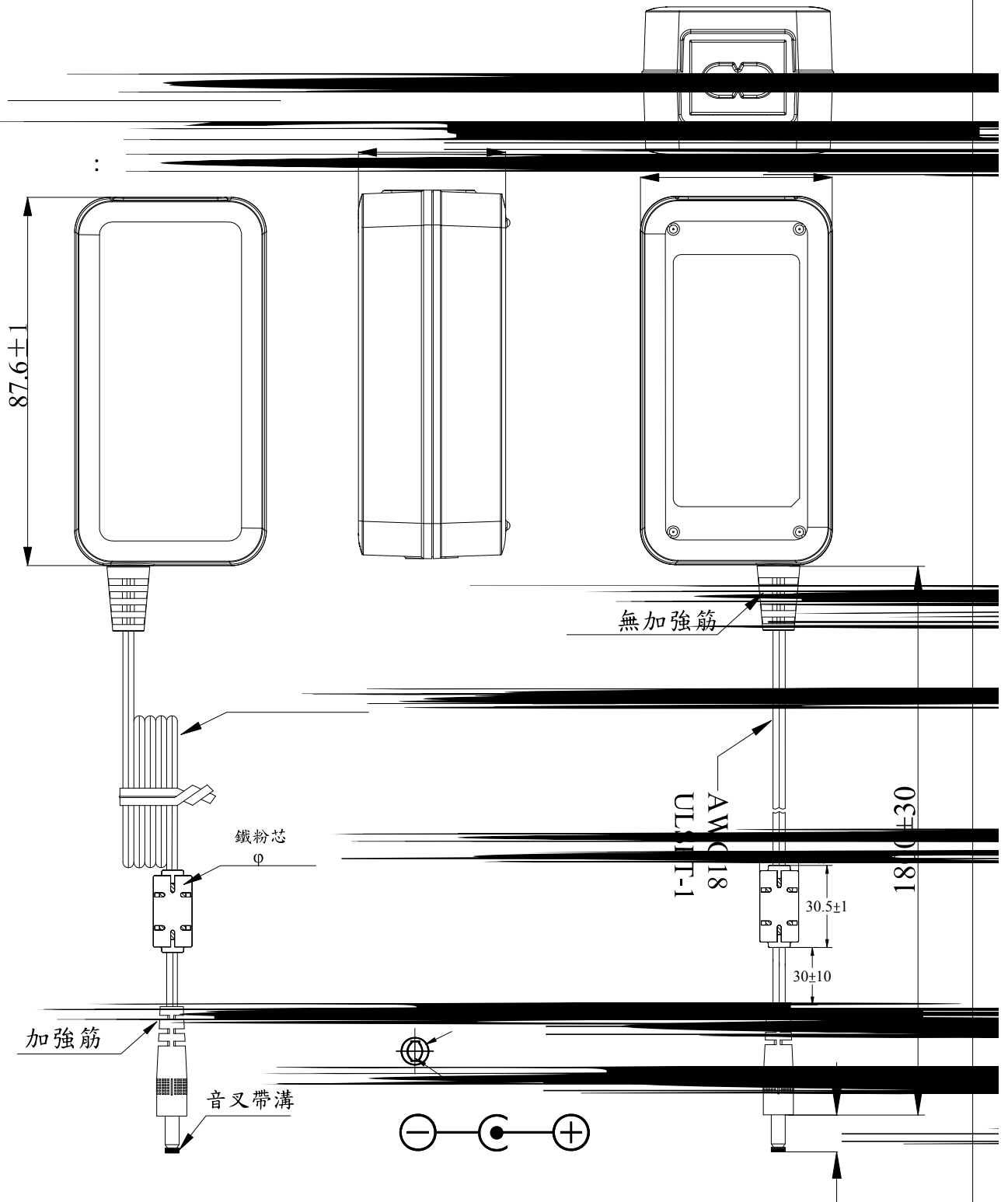
UL 60950-1, 2nd Edition, 2014-10-14 CSA C22.2 NO.60950-1-07, 2nd Edition, 2014-10

EN60950-1:2006+A11+A1+A12+A2 BS EN60950-1:2006+A2

AS/NZS 60950.1:2015



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## 17. PACKING

### 17.1 Inner Box

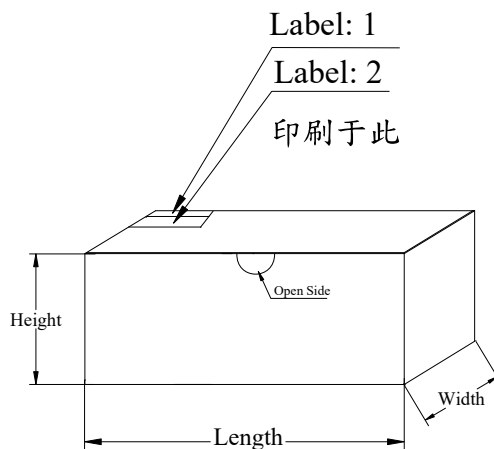
UNIT: mm

BOX (
  Normal BOX
  Corrugated BOX)

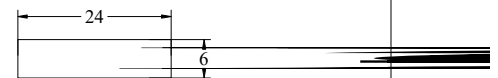
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Width: 50

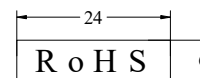
Height: 48



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.

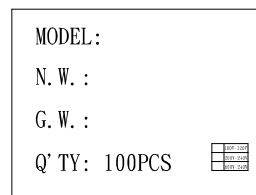
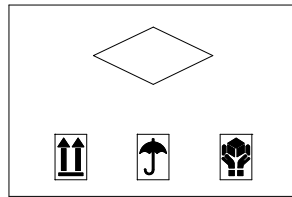


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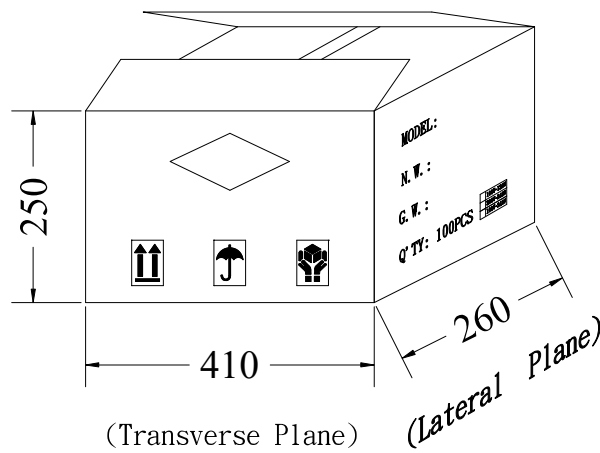
## 17. PACKING

### 17.2 Carton

UNIT: mm



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





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壓花底上光

month  
year  
made in China  
by Hon-kwang



60YM E202402  
c UL US  
LISTED



BS EN 60950-1

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ID 0000019930

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+0.0  
-0.2

