



# SPECIFICATION FOR APPROVAL

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

DESCRIPTION: I.T.E. POWER SUPPLY      REV: (A2)

MODEL NO: HK-AB-120A250-D56 PART NO: HKSC-160363

DESIGNED NO: 160363-0317      DATE: JUL.14th.2017

CUSTOMER APPROVED SIGNATURES			VENDOR APPROVED SIGNATURES		



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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: 50A 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: 0-2.5A

3.4 Output Ripple & Noise: 120mV Max @20MHz bandwidth with  
10UF/50V capacitance and 104/50V ceramic capacitor.

4.0 EFFICIENCY:  $\geq 86.94\%$  @ 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

9.1 Primary to Secondary :AC 3000 Vrms ,4mA,1minute 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 inner current fuse to protect itself.

### 11.2 Output Protection

#### 11.2.1 Output Current:

Overload conditions shall decrease the output voltage. Removal of an outputoverload 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 J55022(H22) GB17625.1-2012; GB 9254-2008

EN55032:2015 IEC61000-4-3:2006/A1:2007/A2:2010

EN61000-3-2:2014 IEC61000-4-4:2012 CNS 13438 (095/06/01年版)

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

EN55024:2010+A1:2015

IEC61000-4-2:2008 IEC61000-4-6:2013

IEC61000-4-8:2009

IEC61000-4-11:2004

CISPR 32:2015(Ed2.0) AS/NZS CISPR 32:2015;

CISPR 24:2010+A1:2015(Ed2.1)

## 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

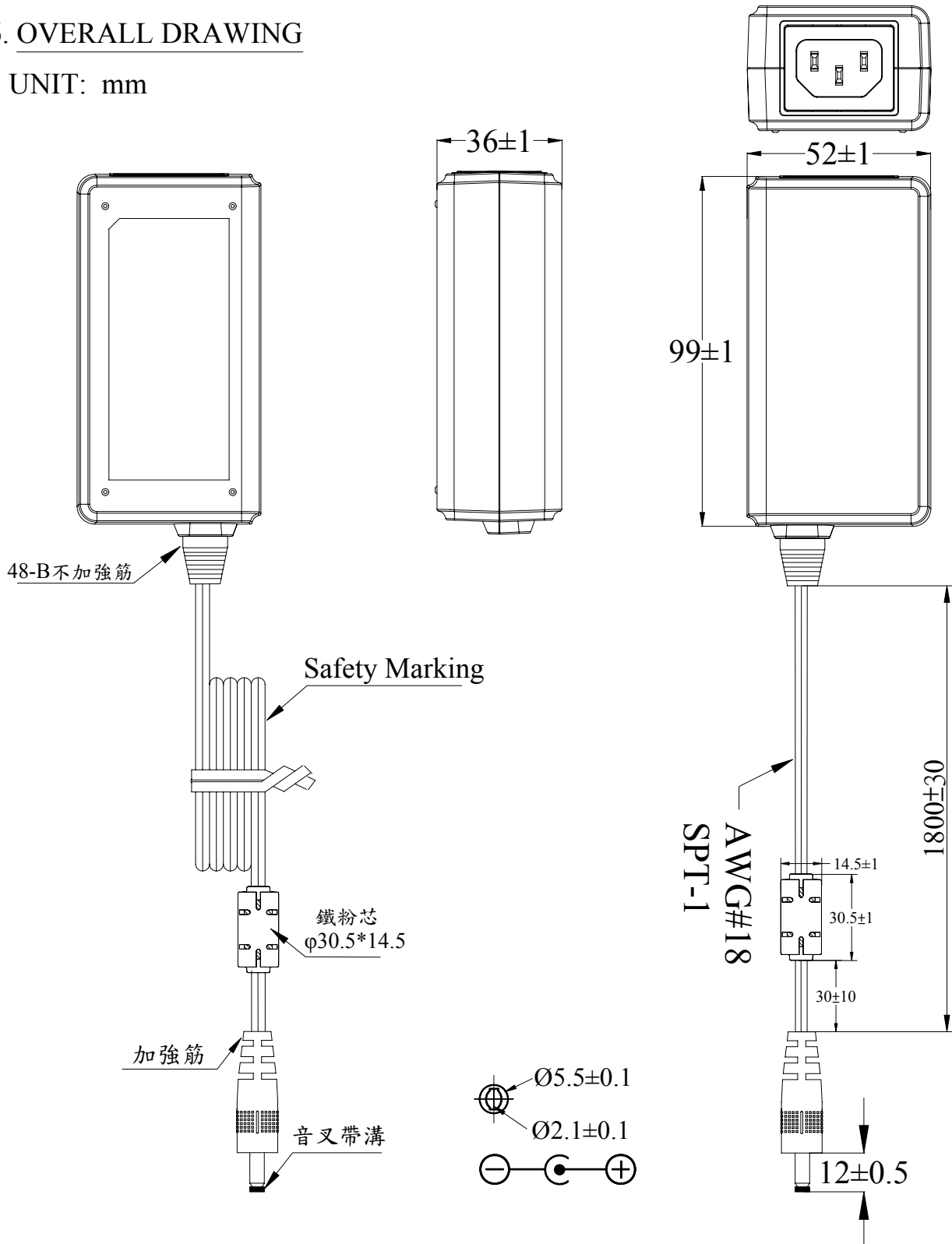
AS/NZS 60950.1:2015 GB4943.1-2011 J60950-1(H27)

CNS 14336-1(099/09/30年版)

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## 16. OVERALL DRAWING

UNIT: mm



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## 17. PACKING

### 17.1 Inner Box

UNIT: mm

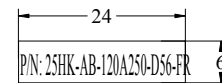
BOX(
  Normal BOX
  Corrugated BOX)

Length: 120

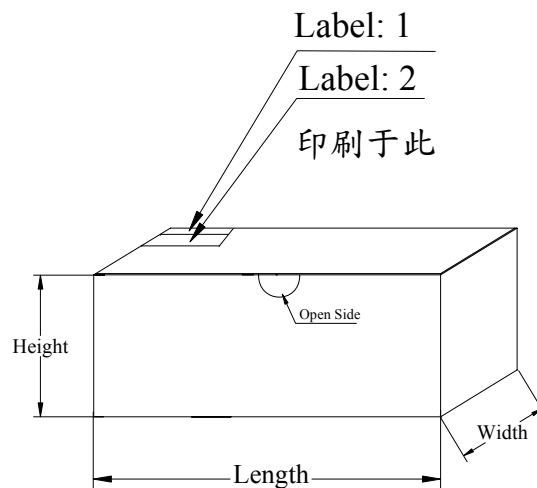
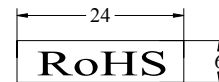
Width: 60

Height: 52

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.

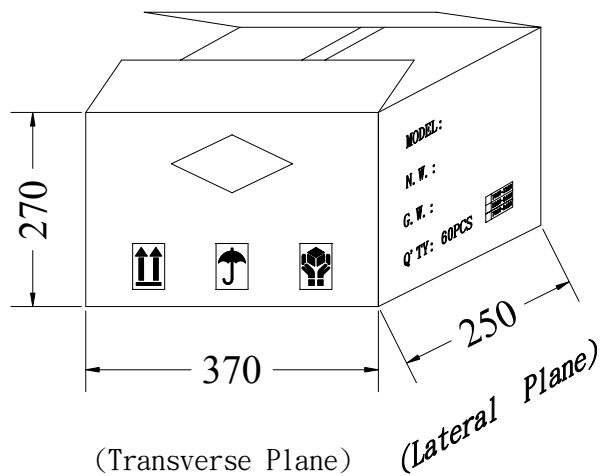
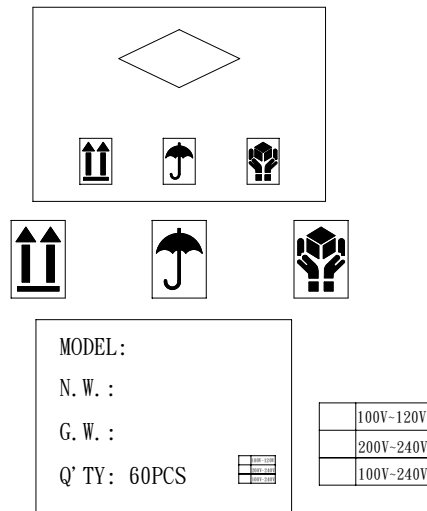


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## 17. PACKING

### 17.2 Carton

UNIT: mm



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### 18. MARKING

■ 200# CPC 合成紙+上光 NAME-PLATE: WHITE CHARACTERS BLACK BACKGROUND.

UNIT: mm    M M Y Y C  
                   |    |    |    |  
                   month year  
                   made in China  
                   by Hon-kwang

