



# SPECIFICATION FOR APPROVAL

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

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

MODEL NO: HK-AB-120A250-CP6 PART NO: HKSC-160768

DESIGNED NO: 160768-0714 DATE: JUL.14th.2016

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](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



MODEL NO. :	HK-AB-120A250-CP6	PAGE NO. :	1 OF 12
PART NO. :	HKSC-160768	ISSUED DATE:	2016.07.14
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A0)

## CONTENTS

1. INTRODUCTION
2. INPUT REQUIREMENTS
3. OUTPUT REQUIREMENTS
4. EFFICIENCY
5. LINE REGULATION
6. HOLD UP TIME
7. TURN ON TIME
8. TEMPERATURE COEFFICIENT
9. DIELECTRIC STRENGTH (Hi-Pot) TEST
10. INSULATION RESISTANCE
11. PROTECTION
12. ENVIRONMENTAL CONDITIONS
13. EMI/ EMC
14. RELIABILITY AND QUALITY CONTROL
15. SAFETY
16. OVERALL DRAWING
17. USE SPECIFICATION
18. PACKING
19. MARKING
20. TEST REPORT

MODEL NO. :	HK-AB-120A250-CP6	PAGE NO. :	2 OF 12
PART NO. :	HKSC-160768	ISSUED DATE:	2016.07.14
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A0)

### 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

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: 2.5A

3.4 Output Ripple & Noise: 240mV 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

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.

MODEL NO. :	HK-AB-120A250-CP6	PAGE NO. :	3 OF 12
PART NO. :	HKSC-160768	ISSUED DATE:	2016.07.14
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A0)

**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 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 output overload shall provide automatic recovery for the output voltage.

**11.2.2 Short Circuit Protection: Auto Recovery.**

MODEL NO. :	HK-AB-120A250-CP6	PAGE NO. :	4 OF 12
PART NO. :	HKSC-160768	ISSUED DATE:	2016.07.14
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A0)

### 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) J3000(H25) GB17625.1-2012; GB 9254-2008

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 IEC61000-4-5:2014

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

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

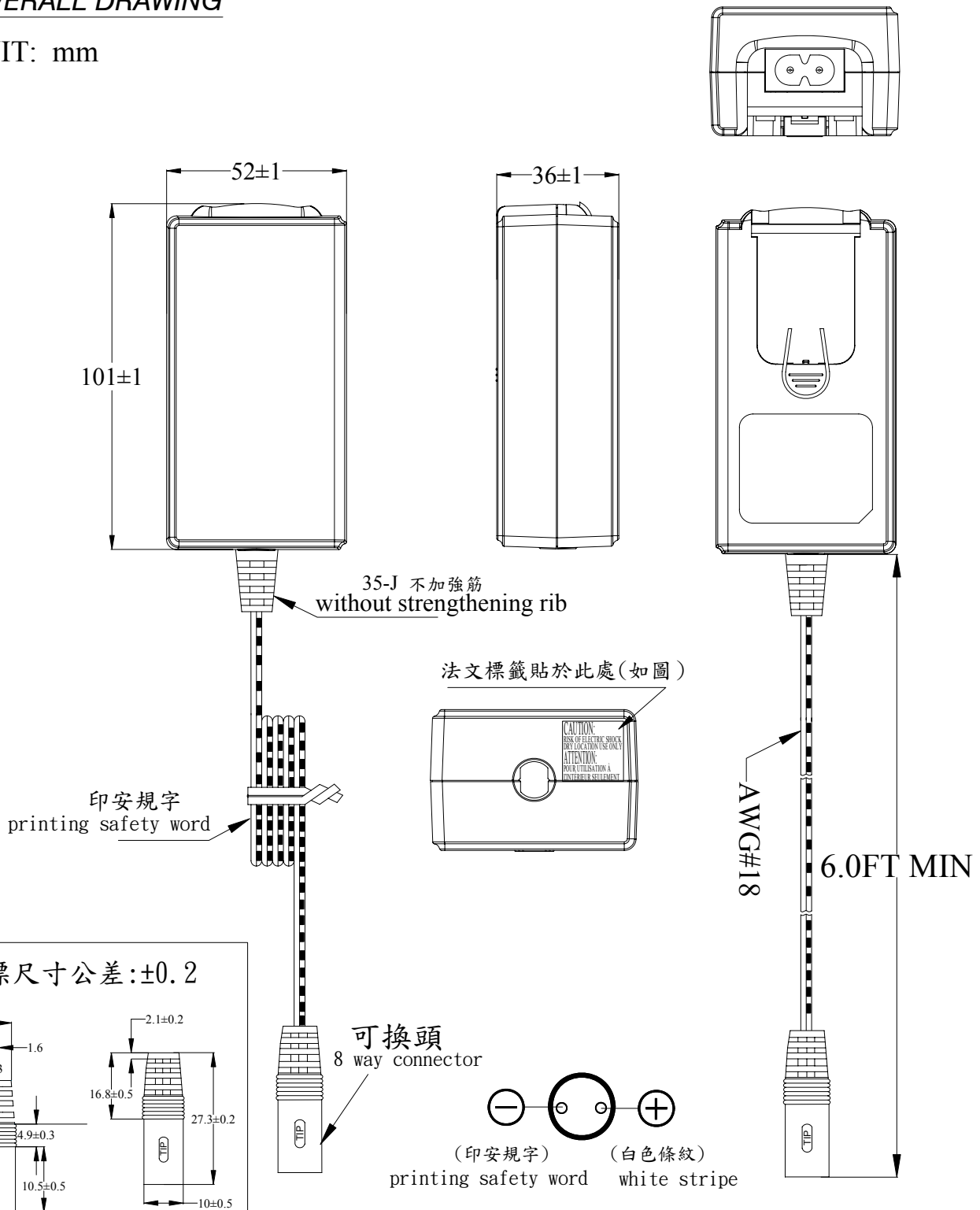
AS/NZS 60950.1:2015 GB4943.1-2011

J60950-1(H27)

MODEL NO. :	HK-AB-120A250-CP6	PAGE NO. :	5 OF 12
PART NO. :	HKSC-160768	ISSUED DATE:	2016.07.14
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A0)

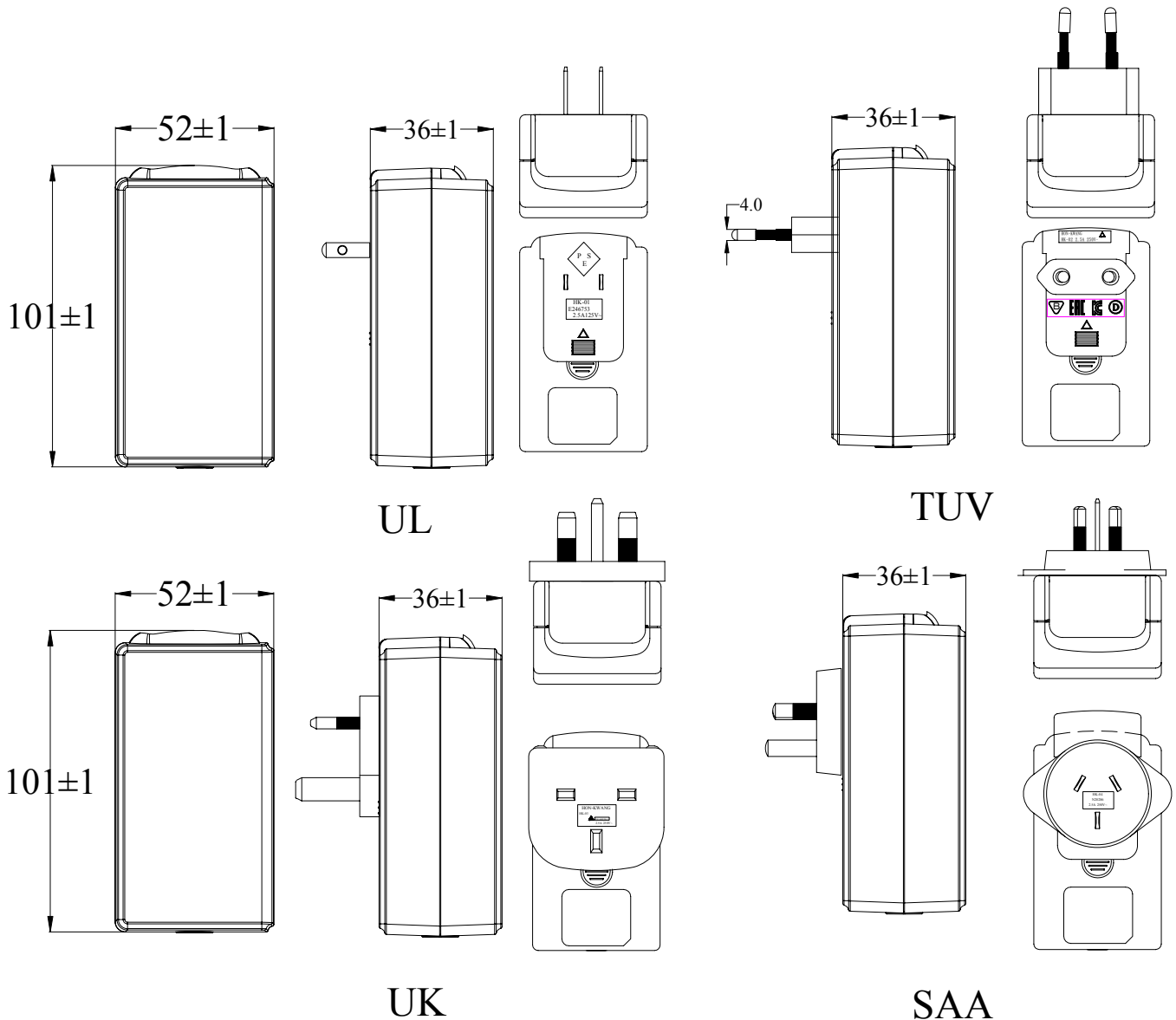
**16. OVERALL DRAWING**

UNIT: mm



MODEL NO. :	HK-AB-120A250-CP6	PAGE NO. :	6 OF 12
PART NO. :	HKSC-160768	ISSUED DATE:	2016.07.14
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A0)

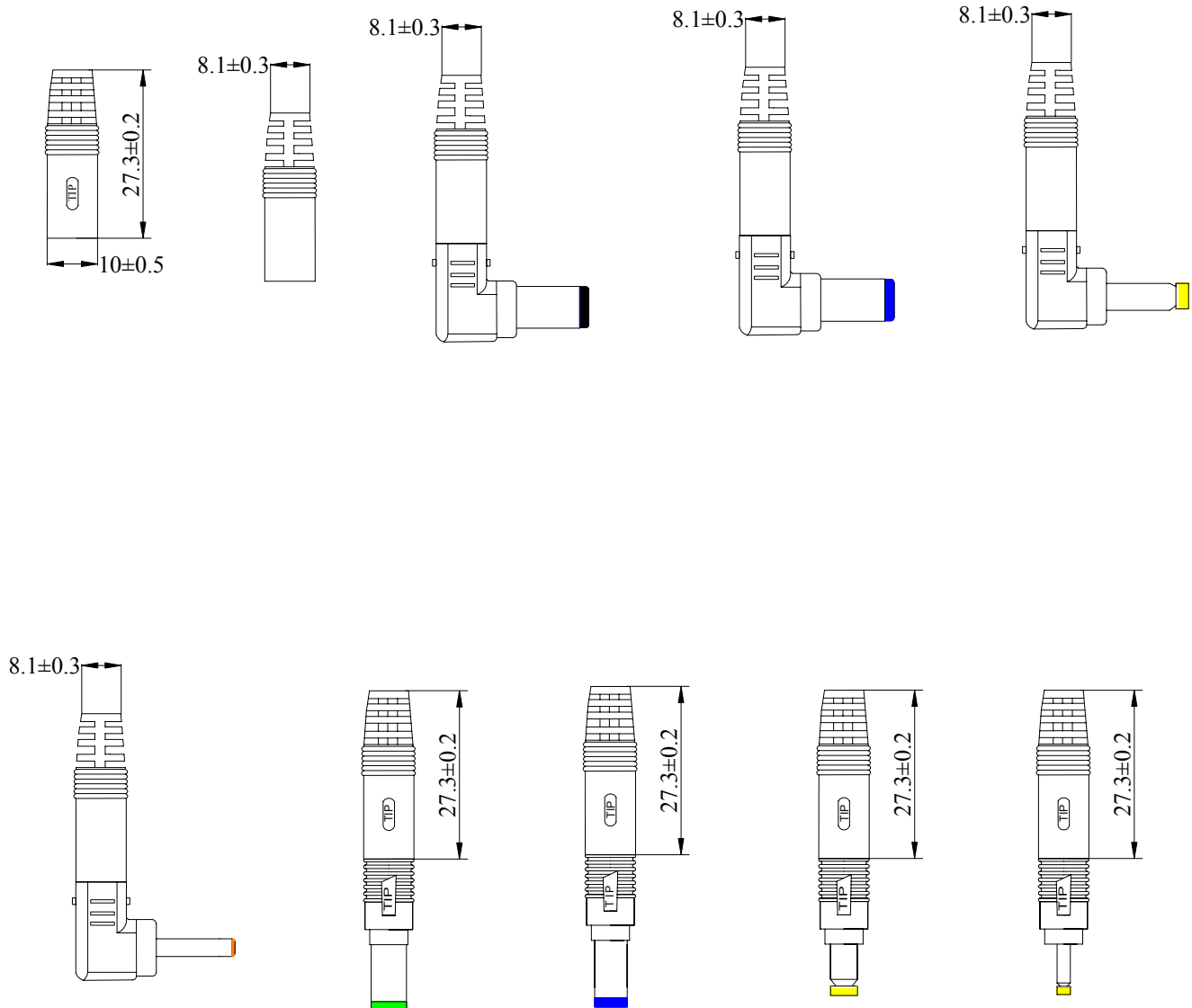
UNIT: mm





MODEL NO. :	HK-AB-120A250-CP6	PAGE NO. :	7 OF 12
PART NO. :	HKSC-160768	ISSUED DATE:	2016.07.14
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A0)

UNIT: mm

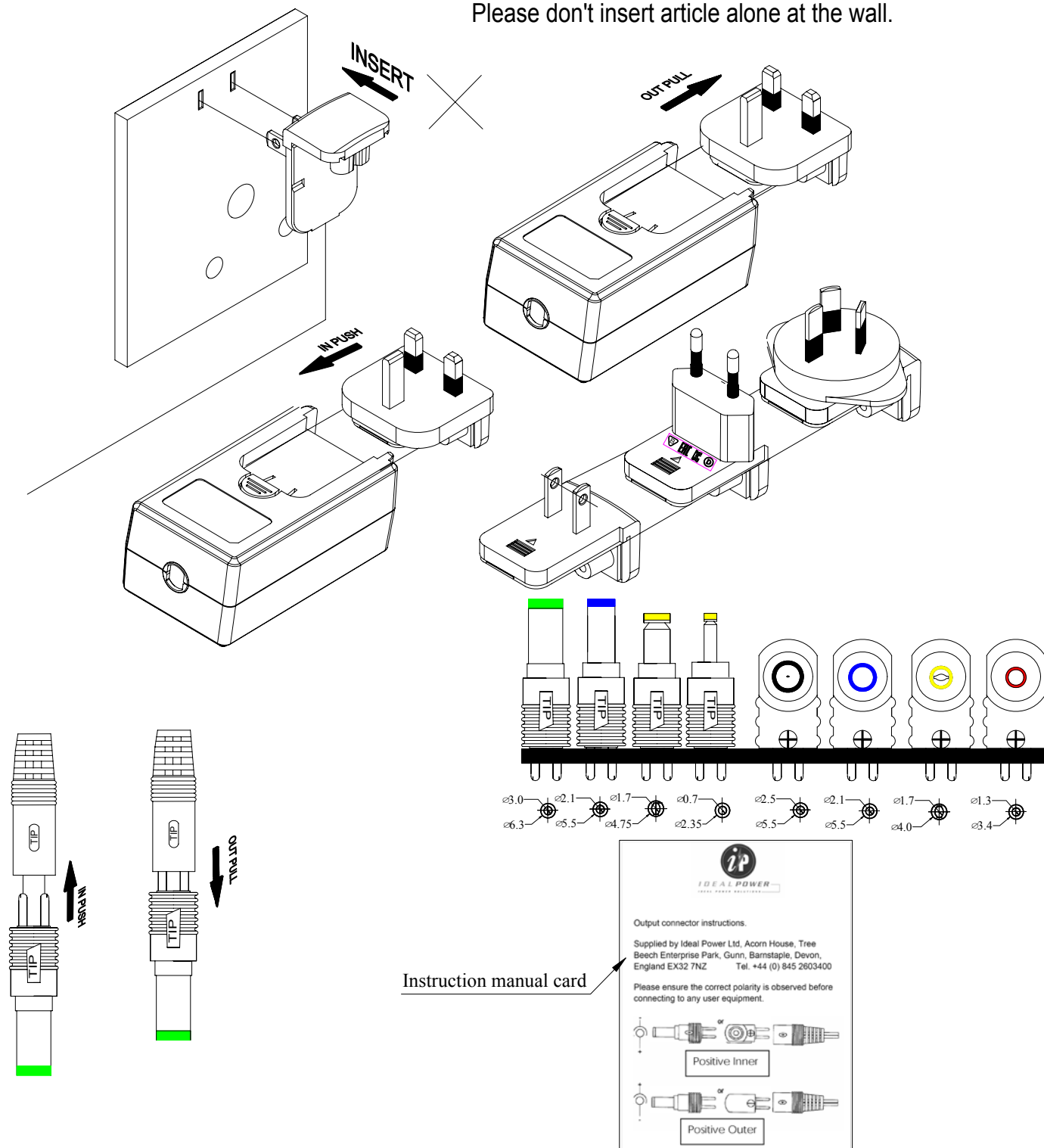


MODEL NO. :	HK-AB-120A250-CP6	PAGE NO. :	8 OF 12
PART NO. :	HKSC-160768	ISSUED DATE:	2016.07.14
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A0)

### 17. USE SPECIFICATION

### WARNING!

Please don't insert article alone at the wall.



MODEL NO. :	HK-AB-120A250-CP6	PAGE NO. :	9 OF 12
PART NO. :	HKSC-160768	ISSUED DATE:	2016.07.14
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A0)

## 17. PACKING

### 17.1 Inner Box

UNIT: mm

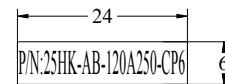
BOX(  Normal BOX  Corrugated BOX)

Length:145

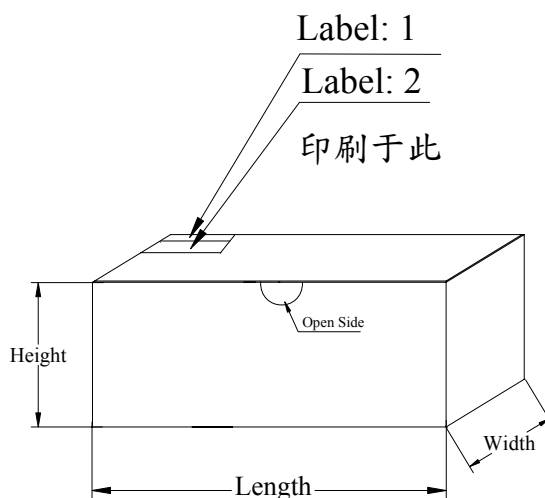
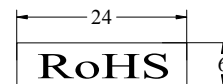
Width:75

Height:65

Label: 1



Label: 2



**Material:A卡400磅(0.53t)White**

### NOTICE:

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

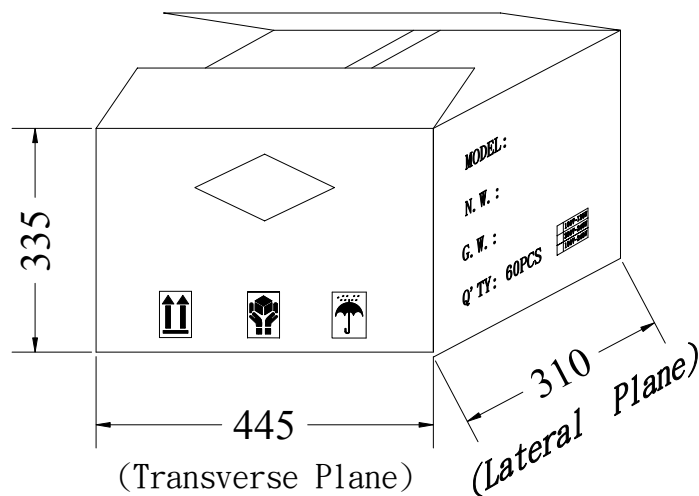
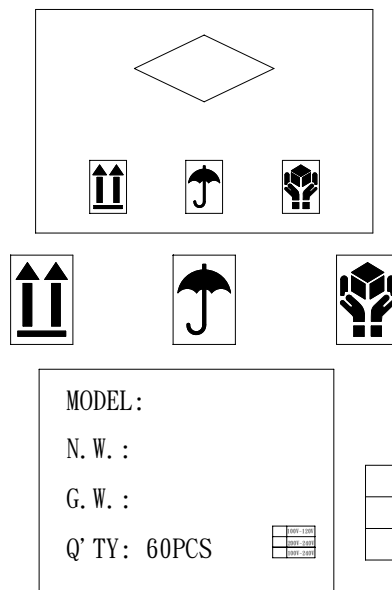
注意:樣品使用的小白盒尺寸可能與此圖面尺寸不同,此圖面尺寸是用于生產時的包裝.

MODEL NO. :	HK-AB-120A250-CP6	PAGE NO. :	10 OF 12
PART NO. :	HKSC-160768	ISSUED DATE:	2016.07.14
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A0)

**17. PACKING**

**17.2 Carton**

UNIT: mm



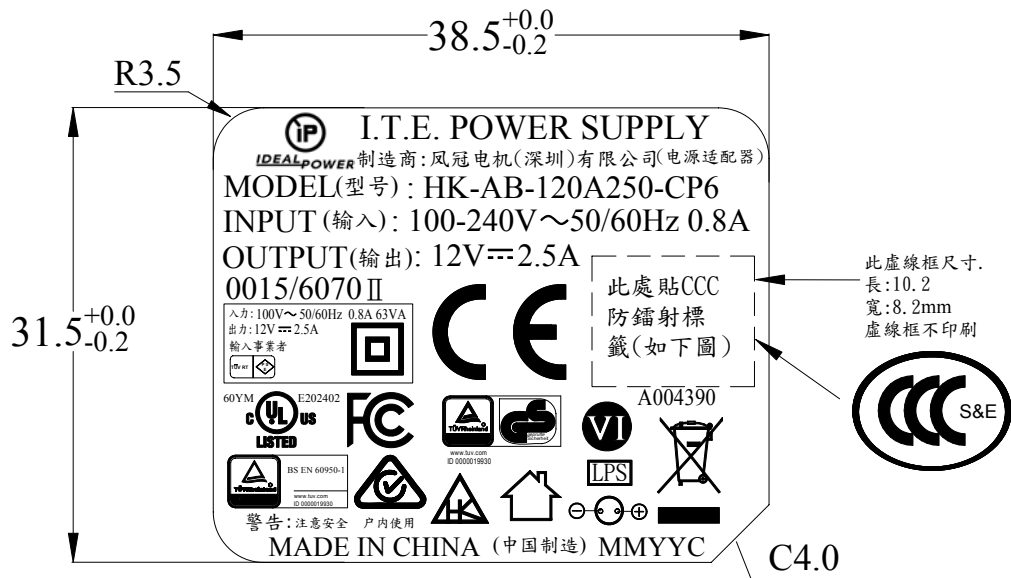
MODEL NO. :	HK-AB-120A250-CP6	PAGE NO. :	11 OF 12
PART NO. :	HKSC-160768	ISSUED DATE:	2016.07.14
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A0)

### 18. MARKING

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

UNIT: mm

MMYYC  
 month year  
 made in China  
 by Hon-kwang



法文標籤貼於CASE上

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

