



IDEAL POWER
IDEAL POWER SOLUTIONS

SPECIFICATION FOR APPROVAL

Ideal Power

CUSTOMER: _____

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

HKSC-070395EP

MODEL NO: HK-CP12-A12 PART NO: ROHS Compliance

DESIGNED NO: 070395-0323 DATE: JUN.09th.2011

CUSTOMER APPROVED SIGNATURES			VENDOR APPROVED SIGNATURES		
					



IDEAL POWER
IDEAL POWER SOLUTIONS

SPECIFICATION CHANGE HISTORY

CUSTOMER		Ideal Power	PART NO	HKSC-070395EP
MODEL NO		HK-CP12-A12	REV	(A2)
REV	DATE	DESCRIPTION		REMARKS
A1	07.06.16	修改英規頭直接裝在整流器上		陶月花
A2	11.06.09	變更：能效等級改為五等級製作，並將承認書更新為最新版。		汪章
SAFETY APPROVAL:		ENGINEER APPROVAL:		
		ELECTRICAL	STRUCTURAL	
張偉松		孫平凡	李曉豐	

MODEL NO. :	HK-CP12-A12	PAGE NO. :	1 OF 12
PART NO. :	HKSC-070395EP	ISSUED DATE:	2011.06.09
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A2)

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

MODEL NO. :	HK-CP12-A12	PAGE NO. :	2 OF 12
PART NO. :	HKSC-070395EP	ISSUED DATE:	2011.06.09
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A2)

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 : 0.3W Max

2.3 Input In-rush Current: 50A Max

2.4 Input Current: 0.8A Max

3.0 OUTPUT REQUIREMENTS

3.1 Output Voltage: +12V

3.2 Output Regulation: 11.4V~12.6V

3.3 Output Load Range: 0~1.0A

3.4 Output Ripple & Noise: 120mV Max @20MHz bandwidth with
22UF/50V capacitance and 104/50V ceramic capacitor.

4.0 EFFICIENCY: $\geq 77.85\%$ @average of 25/50/75/100% loads 115&230VAC input

5.0 LINE REGULATION: 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-CP12-A12	PAGE NO. :	3 OF 12
PART NO. :	HKSC-070395EP	ISSUED DATE:	2011.06.09
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A2)

8.0 TEMPERATURE COEFFICIENT: 0.05%/°C

9.0 DIELECTRIC STRENGTH (Hi-Pot) TEST

9.1 Finished product withstands AC 3.0KV, for 2 second, 4mA Max primary to secondary.

9.2 Finished product withstands AC 3.0KV, for 2 second, 4mA Max primary to case.

10.0 INSULATION RESISTANCE

Primary to secondary: 50MOHM to 500VDC.

11.0 PROTECTION

11.1 Input Protection

The switching power supply has a 1 Amps inner current fuse to protect itself.

11.2 Output Protection

11.2.1 Output Current:

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

11.2.2 Short Circuit Protection: Auto Recovery.

11.2.3 Over Voltage Protection: 15V ±1V

MODEL NO. :	HK-CP12-A12	PAGE NO. :	4 OF 12
PART NO. :	HKSC-070395EP	ISSUED DATE:	2011.06.09
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A2)

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 15B AS/NZS 55022/55024

(1)EN55022(EN61000-3-2. EN61000-3-3)

(2)EN55024(IEC61000-4-2. IEC61000-4-3. IEC61000-4-4.

IEC61000-4-6. IEC61000-4-8. IEC61000-4-11.)

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:

UL60950-1 (First Edition) CAN/CSA-C22.2 No.950-95

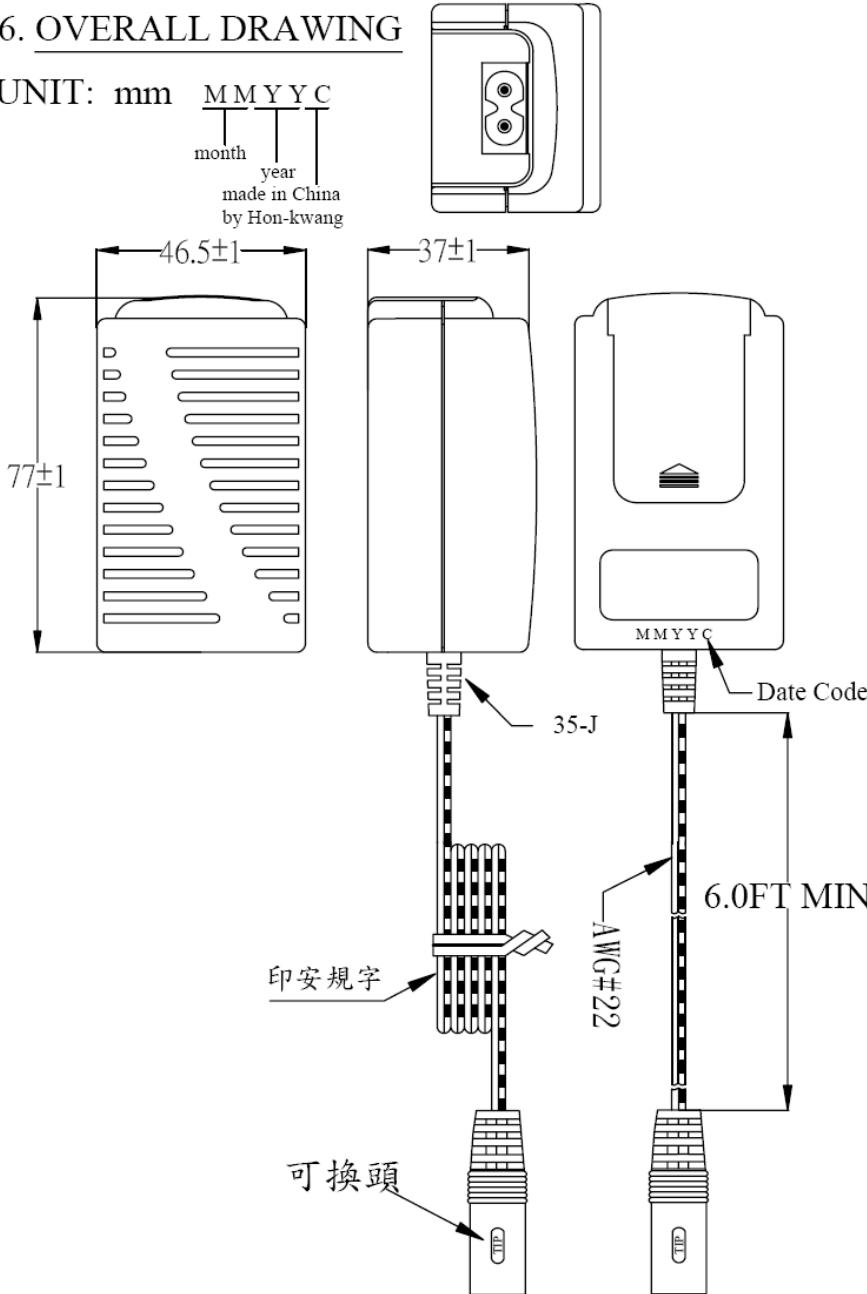
IEC60950-1: 2001, EN60950-1: 2001 AS/NZS60950-1

MODEL NO. :	HK-CP12-A12	PAGE NO. :	5 OF 12
PART NO. :	HKSC-070395EP	ISSUED DATE:	2011.06.09
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A2)

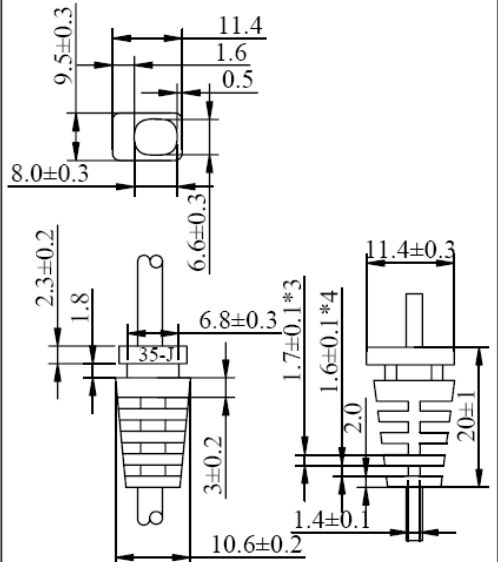
16. OVERALL DRAWING

UNIT: mm

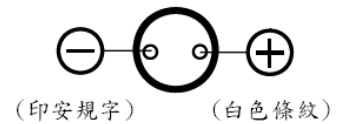
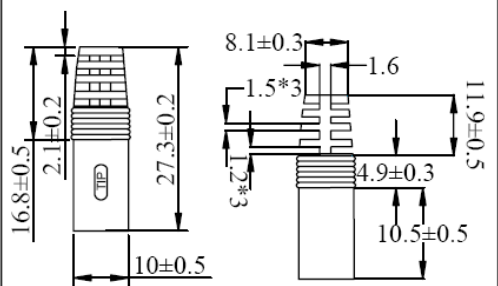
MMYYC
 month year
 made in China
 by Hon-kwang



未注標尺寸公差: ± 0.2

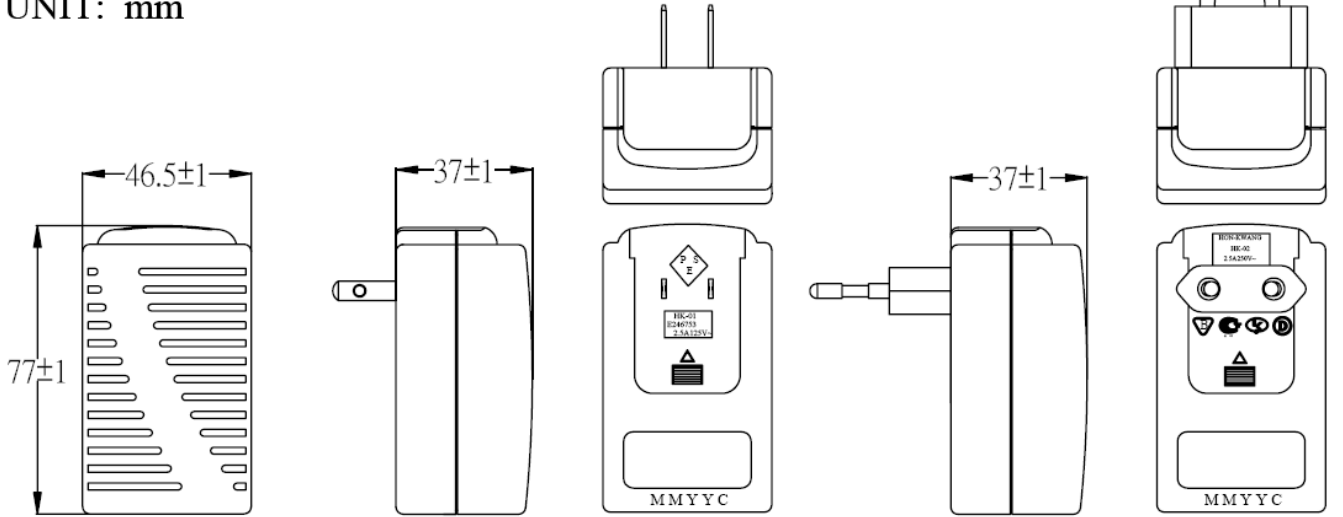


未注標尺寸公差: ± 0.2



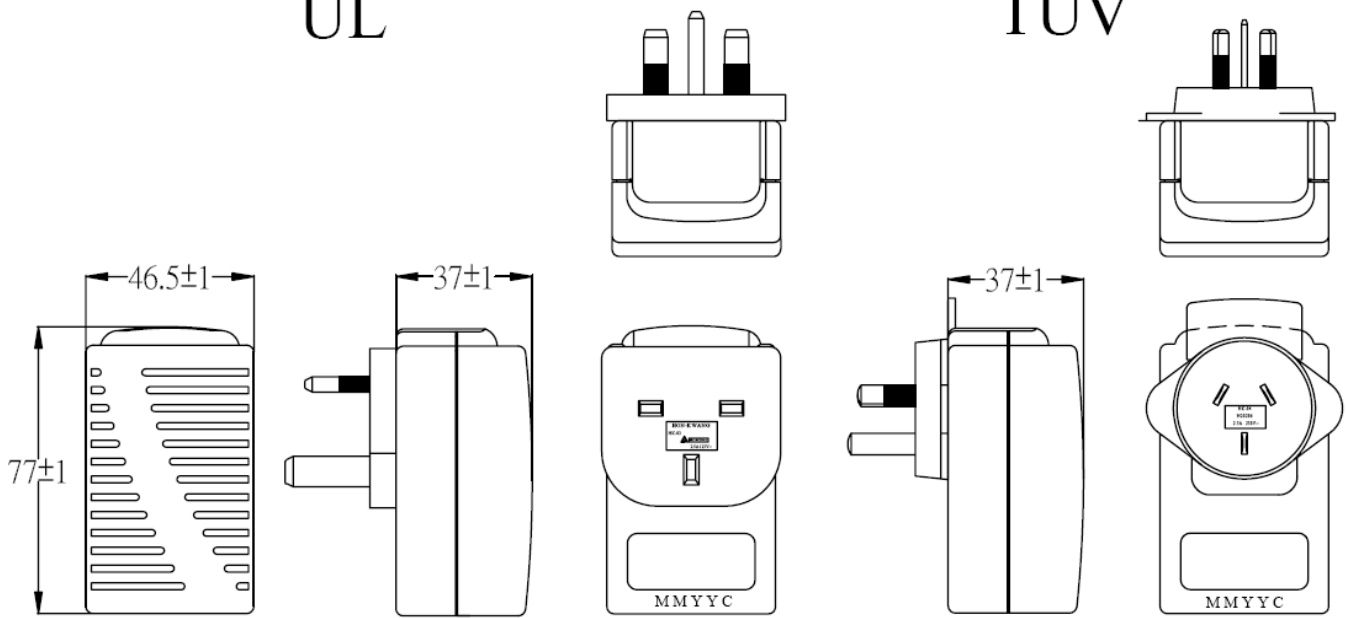
MODEL NO. :	HK-CP12-A12	PAGE NO. :	6 OF 12
PART NO. :	HKSC-070395EP	ISSUED DATE:	2011.06.09
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A2)

UNIT: mm



UL

TUV

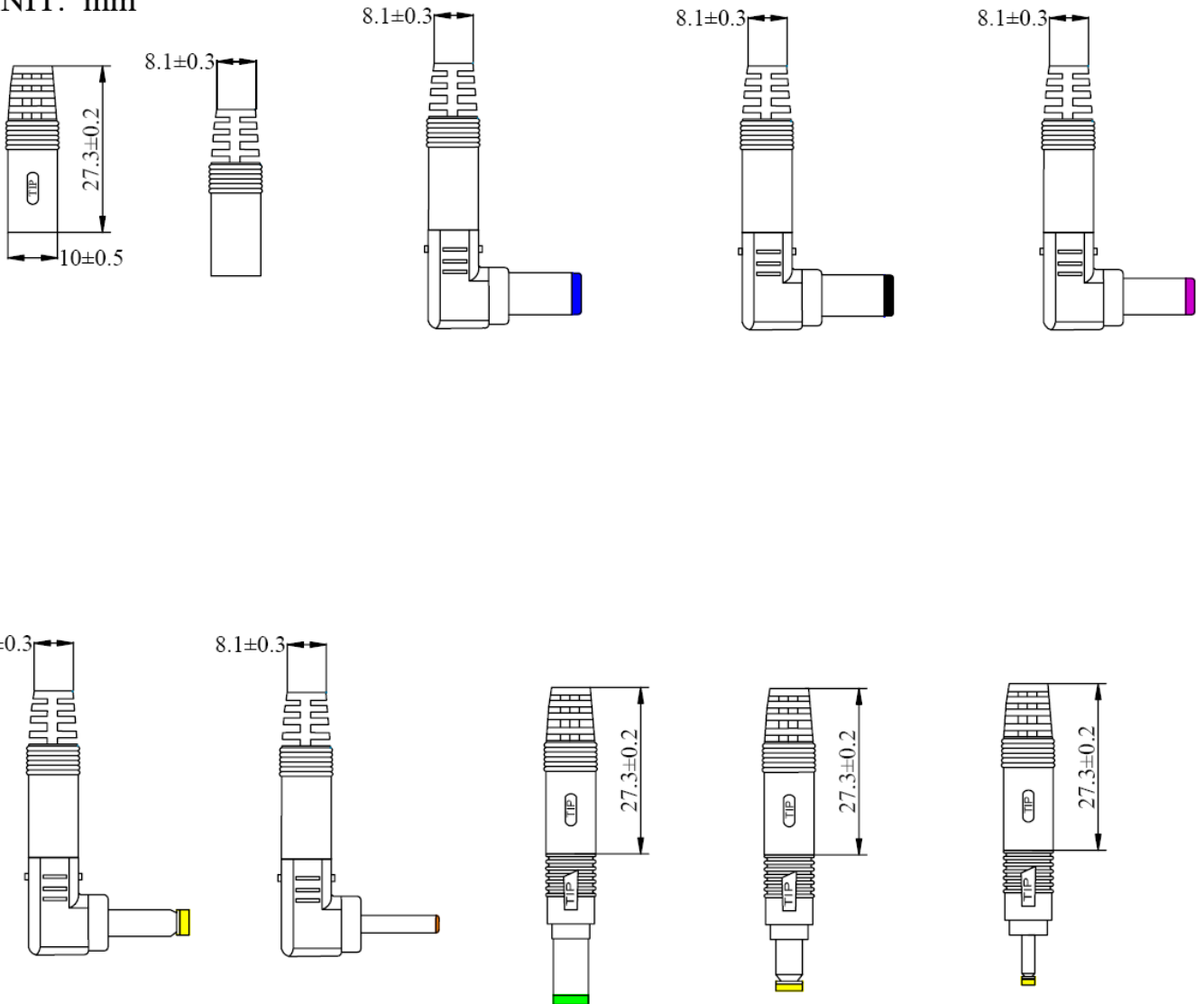


UK

SAA

MODEL NO. :	HK-CP12-A12	PAGE NO. :	7 OF 12
PART NO. :	HKSC-070395EP	ISSUED DATE:	2011.06.09
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A2)

UNIT: mm

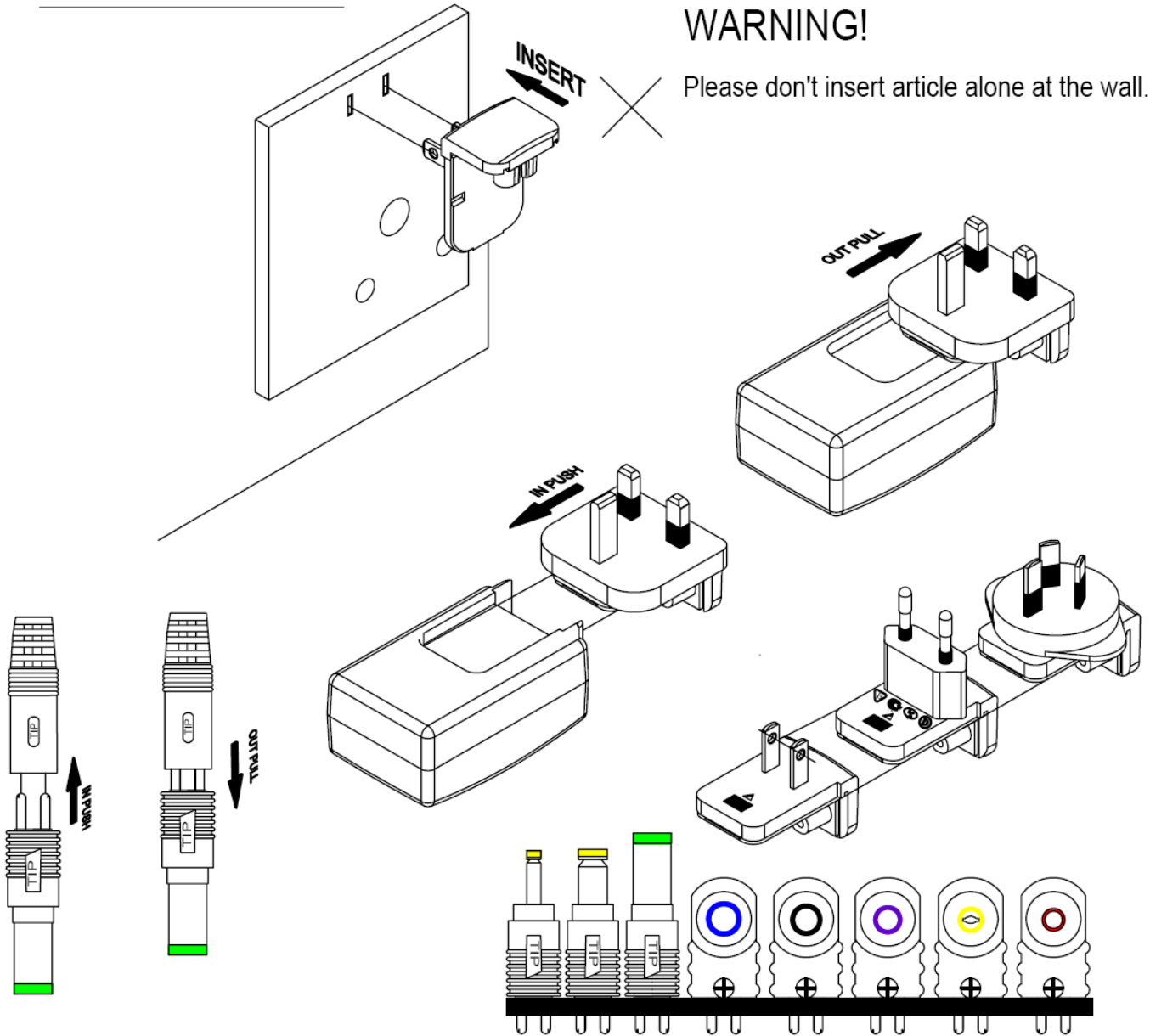


MODEL NO. :	HK-CP12-A12	PAGE NO. :	8 OF 12
PART NO. :	HKSC-070395EP	ISSUED DATE:	2011.06.09
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A2)

17. USE SPECIFICATION

WARNING!

Please don't insert article alone at the wall.



MODEL NO. :	HK-CP12-A12	PAGE NO. :	9 OF 12
PART NO. :	HKSC-070395EP	ISSUED DATE:	2011.06.09
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A2)

18. PACKING

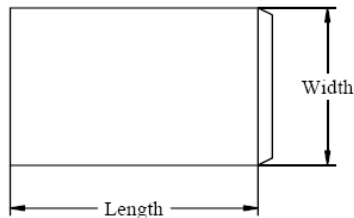
18.1 Inner Box

UNIT: mm

PE BAG

Length :

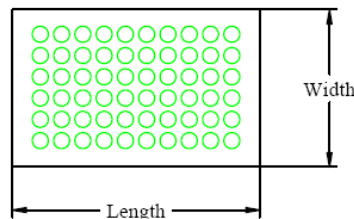
Width :



BUBBLE BAG

Length:

Width:

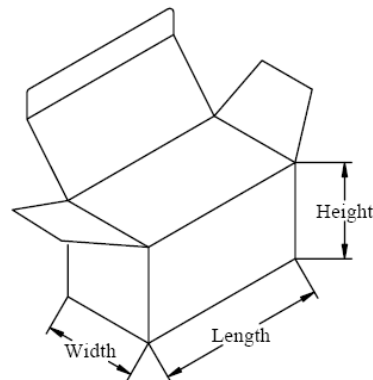


BOX(Normal BOX Corrugated BOX)

Length: 143

Width: 70

Height: 60



NOTICE:

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

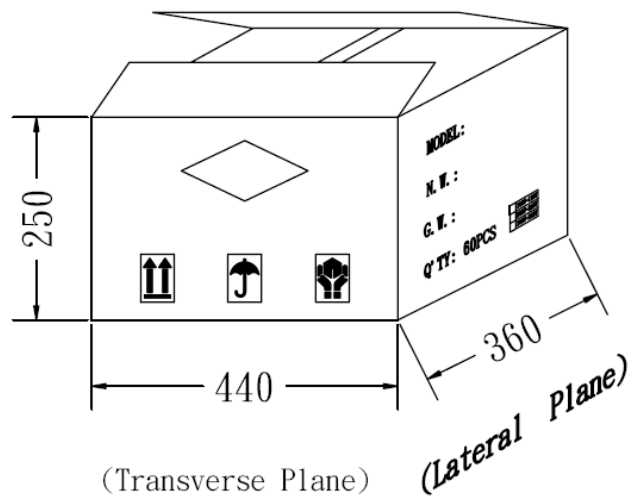
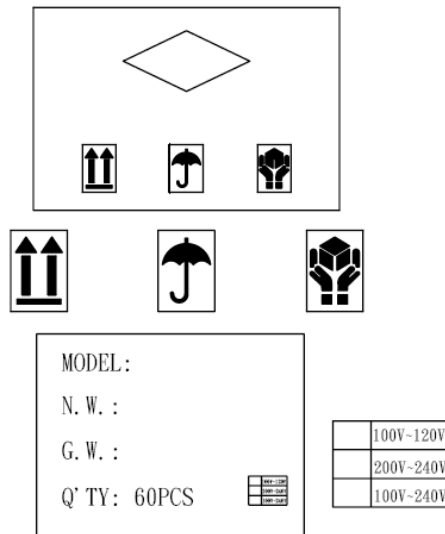
注意: 樣品使用的小白盒尺寸可能與此圖面尺寸不同, 此圖面尺寸是用于生產時的包裝。

MODEL NO. :	HK-CP12-A12	PAGE NO. :	10 OF 12
PART NO. :	HKSC-070395EP	ISSUED DATE:	2011.06.09
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A2)

18. PACKING

18.2 Carton

UNIT: mm



MODEL NO. :	HK-CP12-A12	PAGE NO. :	11 OF 12
PART NO. :	HKSC-070395EP	ISSUED DATE:	2011.06.09
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A2)

19. MARKING

0.2mm 變色龍 NAME-PLATE:SILVER CHARACTERS BLACK BACKGROUND.

UNIT: mm

