



# SPECIFICATION FOR APPROVAL

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

DESCRIPTION: I.T.E. POWER SUPPLY      REV: (A1)

MODEL NO: HK-AP-090A067-CP      PART NO: HKSC-170076

DESIGNED NO: 170076-0207      DATE: MAR.25th.2017

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-AP-090A067-CP	PAGE NO. :	1 OF 14
PART NO. :	HKSC-170076	ISSUED DATE:	2017.03.25
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A1)

## 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. PACKING
18. MARKING
19. TEST REPORT

MODEL NO. :	HK-AP-090A067-CP	PAGE NO. :	2 OF 14
PART NO. :	HKSC-170076	ISSUED DATE:	2017.03.25
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A1)

## 1.0 INTRODUCTION

This document specifies a switching power supply with a output of +9V, 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: 0.2A Max

## 3.0 OUTPUT REQUIREMENTS

3.1 Output Voltage: +9V

3.2 Output Regulation: 8.55-9.45V

3.3 Output Load Range: 0-0.67A

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

4.0 EFFICIENCY:  $\geq 78.91\%$  @ 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.

MODEL NO. :	HK-AP-090A067-CP	PAGE NO. :	3 OF 14
PART NO. :	HKSC-170076	ISSUED DATE:	2017.03.25
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A1)

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.

MODEL NO. :	HK-AP-090A067-CP	PAGE NO. :	4 OF 14
PART NO. :	HKSC-170076	ISSUED DATE:	2017.03.25
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A1)

## 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

EN55032:2015

EN55014-1:2006+A1:2009+A2:2011

EN55014-2:2015

EN55022:2010

EN55024:2010+A1:2015

EN61000-3-2:2014

EN61000-3-3:2013

AS/NZS CISPR 32:2015

AS/NZS CISPR 14.1:2013

AS/NZS CISPR 14.2:2015

AS/NZS CISPR 22:2009+A1:

AS/NZS CISPR 24.1:2013

AS/NZS 61000.3.2:2013

AS/NZS 61000.3.3:2012

## 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 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



# IDEALPOWER

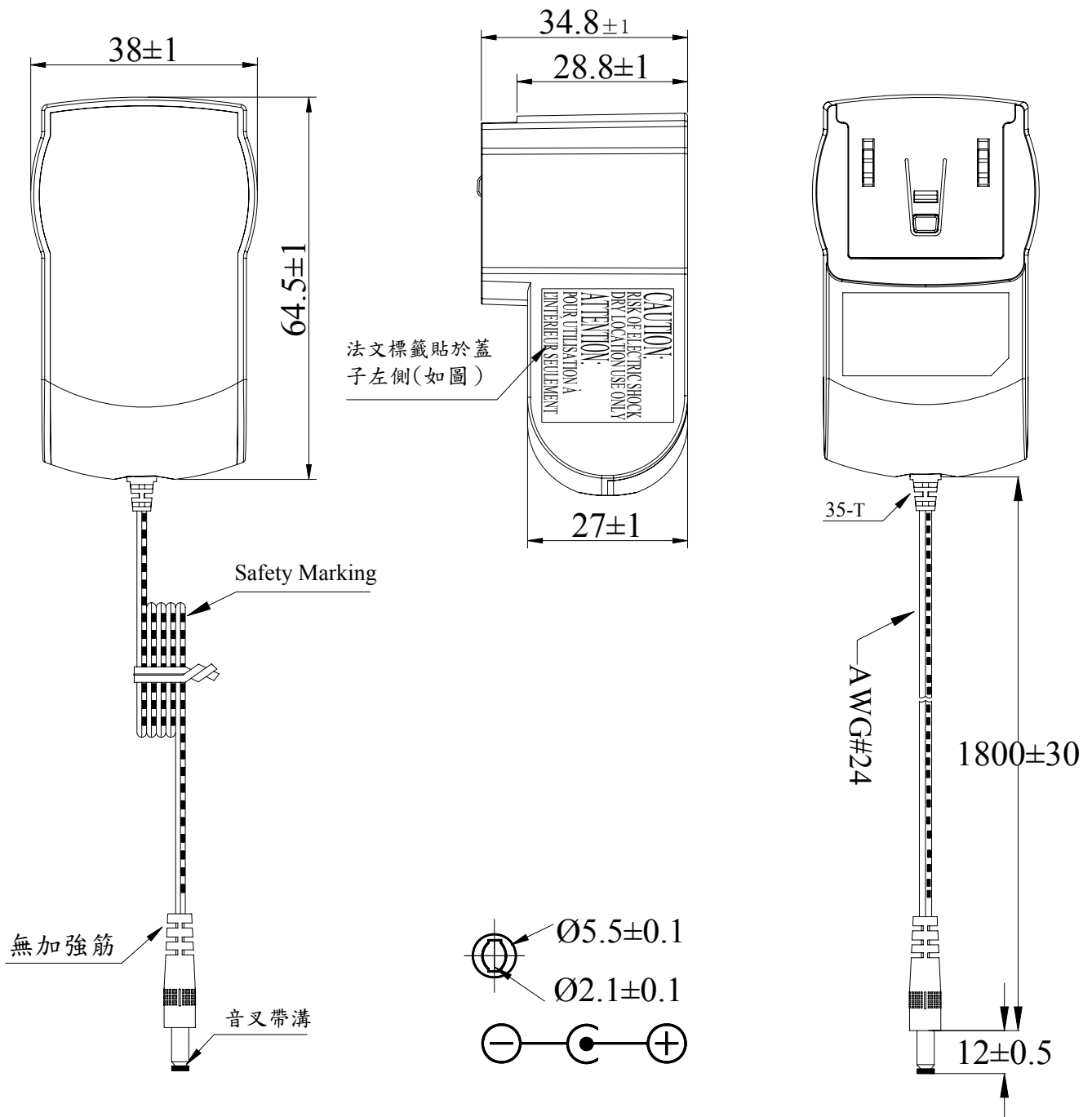
experts in power conversion

MODEL NO. :	HK-AP-090A067-CP	PAGE NO. :	5 OF 14
PART NO. :	HKSC-170076	ISSUED DATE:	2017.03.25
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A1)

## 16. OVERALL DRAWING

UNIT: mm

COLOR: BLACK



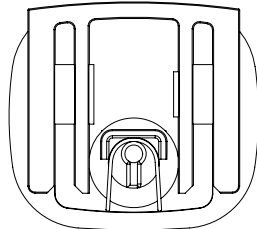
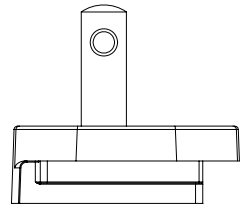
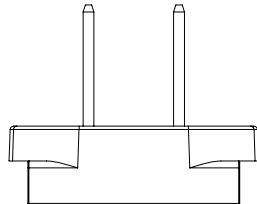
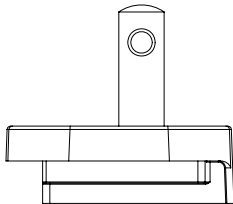
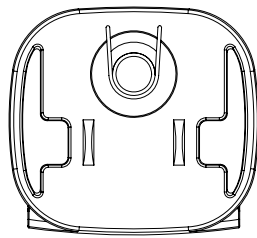


# IDEALPOWER

experts in power conversion

MODEL NO. :	HK-AP-090A067-CP	PAGE NO. :	6 OF 14
PART NO. :	HKSC-170076	ISSUED DATE:	2017.03.25
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A1)

UNIT: mm



## UL



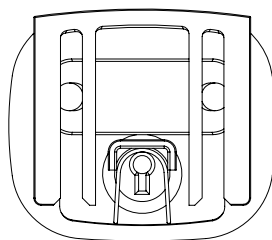
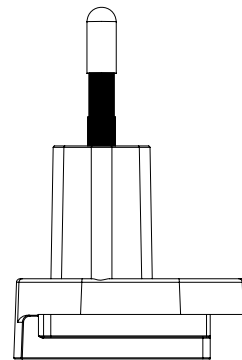
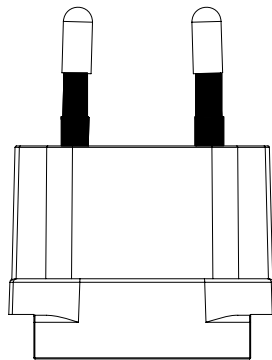
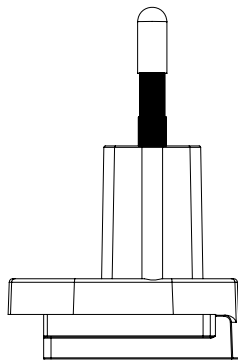
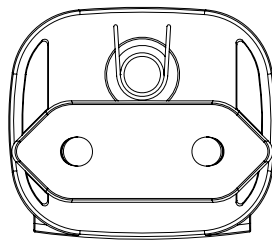


# IDEALPOWER

experts in power conversion

MODEL NO. :	HK-AP-090A067-CP	PAGE NO. :	7 OF 14
PART NO. :	HKSC-170076	ISSUED DATE:	2017.03.25
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A1)

UNIT: mm

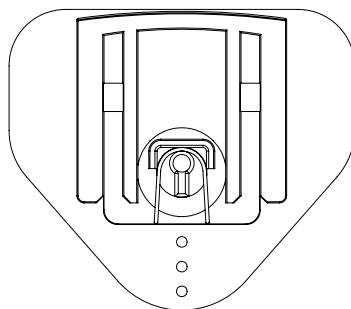
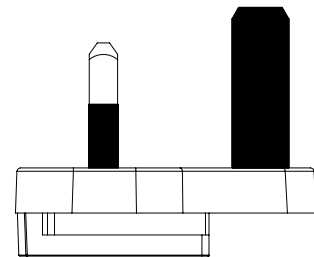
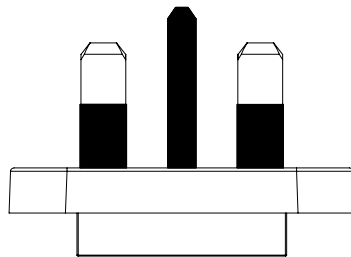
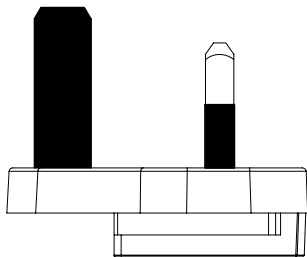
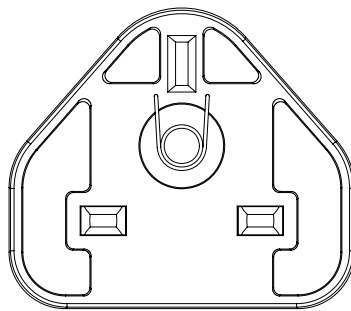


## TUV



MODEL NO. :	HK-AP-090A067-CP	PAGE NO. :	8 OF 14
PART NO. :	HKSC-170076	ISSUED DATE:	2017.03.25
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A1)

UNIT: mm



UK

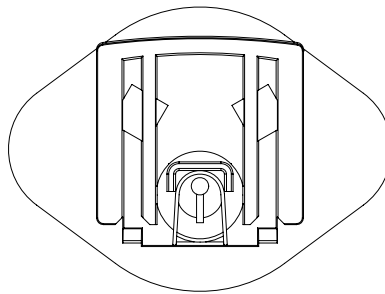
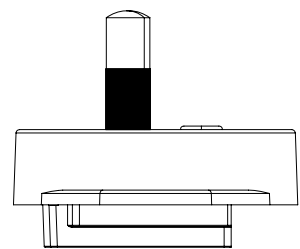
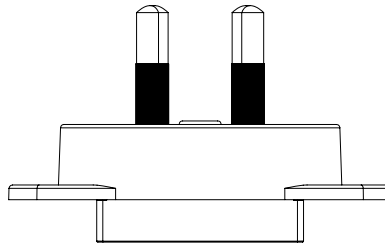
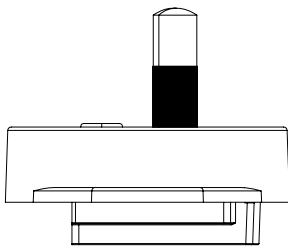
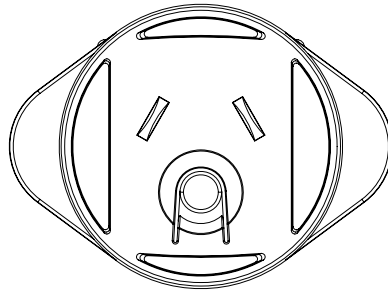


# IDEALPOWER

experts in power conversion

MODEL NO. :	HK-AP-090A067-CP	PAGE NO. :	9 OF 14
PART NO. :	HKSC-170076	ISSUED DATE:	2017.03.25
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A1)

UNIT: mm



## SAA



# IDEALPOWER

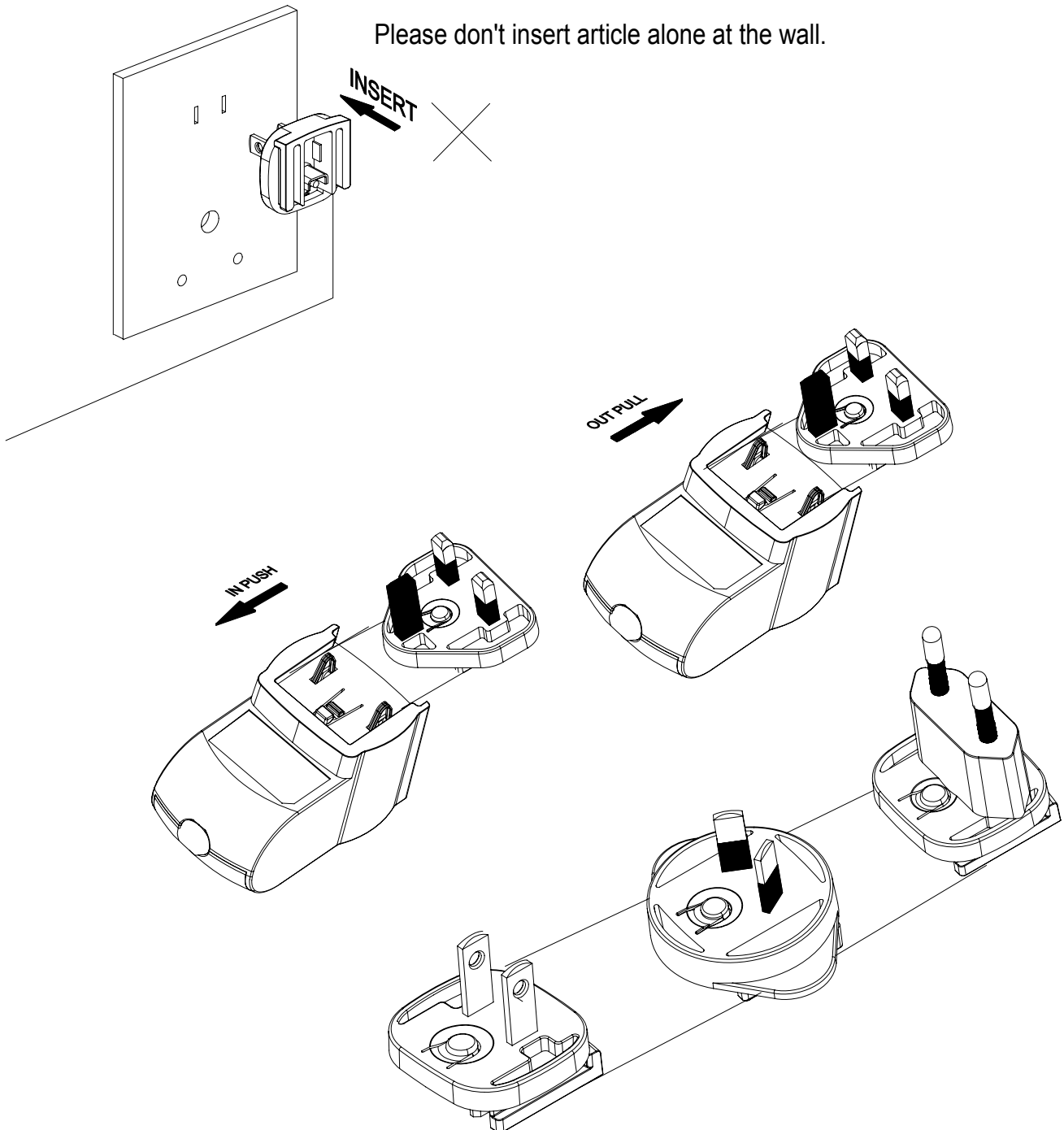
experts in power conversion

MODEL NO. :	HK-AP-090A067-CP	PAGE NO. :	10 OF 14
PART NO. :	HKSC-170076	ISSUED DATE:	2017.03.25
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A1)

UNIT: mm

## WARNING!

Please don't insert article alone at the wall.





MODEL NO. :	HK-AP-090A067-CP	PAGE NO. :	11 OF 14
PART NO. :	HKSC-170076	ISSUED DATE:	2017.03.25
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A1)

## 17. PACKING

### 17.1 Inner Box

UNIT: mm

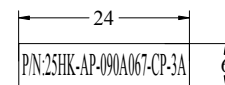
BOX(  Normal BOX  Corrugated BOX)

Length: 82

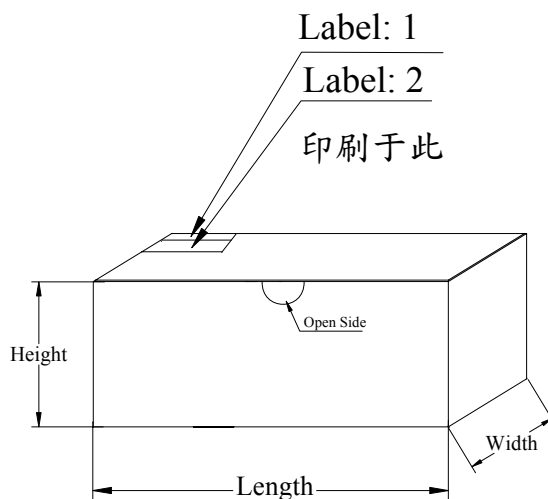
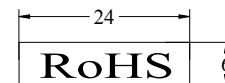
Width: 85

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。

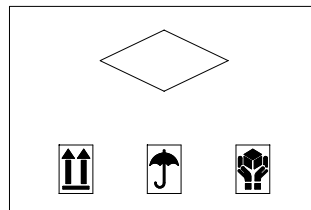


MODEL NO. :	HK-AP-090A067-CP	PAGE NO. :	12 OF 14
PART NO. :	HKSC-170076	ISSUED DATE:	2017.03.25
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A1)

## 17. PACKING

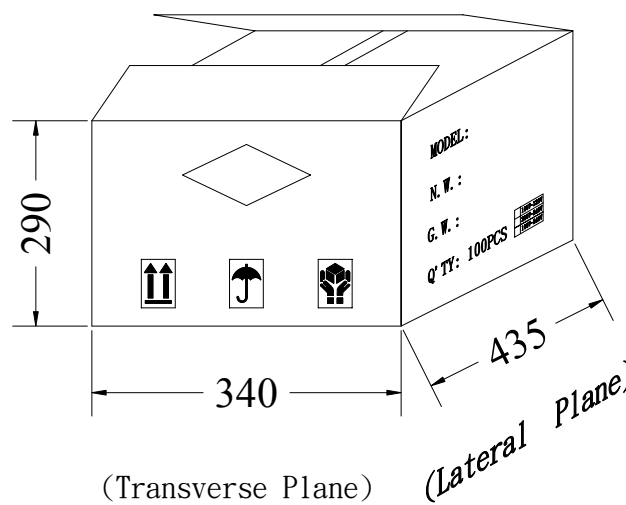
### 17.2 Carton

UNIT: mm



MODEL :  
N. W. :  
G. W. :  
Q' TY: 100PCS

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

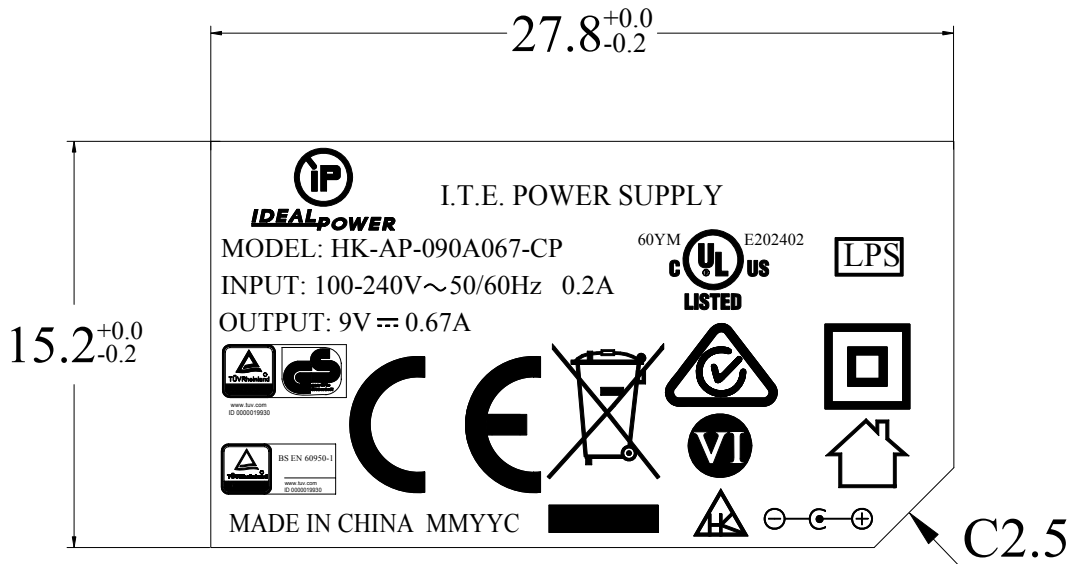


MODEL NO. :	HK-AP-090A067-CP	PAGE NO. :	13 OF 14
PART NO. :	HKSC-170076	ISSUED DATE:	2017.03.25
DESCRIPTION :	I.T.E. POWER SUPPLY	REV:	(A1)

### 18. MARKING

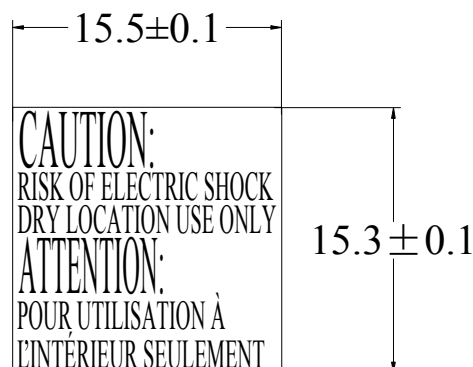
100# CPC 壓花底+上光 NAME-PLATE:WHITE CHARACTERS BLACK BACKGROUND.

UNIT: mm    M M Y Y C  
                   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.



## **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Ideal manufacturer](#):*

Other Similar products are found below :

[30-582](#) [VDV II PLUS](#) [45-915](#) [45-173](#) [45-098](#) [45-097](#) [L-5361](#) [45-093](#) [45-162](#) [41-990](#) [15DYS618-120150W-3](#) [15DYS624-050400W-K](#) [30-503](#) [35-020](#) [35-060](#) [35-516](#) [45-120](#) [45-1633-1](#) [45-170](#) [45-176](#) [45-1773-1](#) [45-1774](#) [45-1939-1](#) [45-2133-1](#) [45-298](#) [45-372](#) [45-404](#) [K-6336](#) [K-8906R](#) [L-4866](#) [L-9038](#) [LB-1091](#) [35-522](#) [61-775](#) [KB-0276R](#) [25HK-AB-050A400-CP](#) [30-593](#) [30-696](#) [33-856](#) [158050](#) [30-576](#) [45-672](#) [45-292](#) [45-129](#) [LB-1002](#) [30-793](#) [33-864](#) [45-1611-1](#) [R151005](#) [45-1513](#)