



**IDEALPOWER**  
experts in power conversion

# SPECIFICATION FOR APPROVAL

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

DESCRIPTION: SWITCHING POWER SUPPLY REV: (A3)

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

DESIGNED NO: 170076-0207 DATE: MAR.25th.2020

CUSTOMER APPROVED SIGNATURES			VENDOR APPROVED SIGNATURES		
					

Ideal Power, 14 Larks Way, Tree Beech Enterprise Park, Gunn, Barnstaple, Devon, England EX32 7NZ

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## 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: 60A 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.



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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.



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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 AS/NZS CISPR 32: 2015

EN 55032: 2015, Class B CISPR 32: 2012 (Ed 2.0)

EN 61000-3-2: 2014 EN 61000-3-3: 2013

IEC 61000-4-2: 2008 IEC 61000-4-3: 2006 +A1: 2007 +A2: 2010

IEC 61000-4-4: 2012 IEC 61000-4-5: 2014 IEC 61000-4-6: 2013

IEC 61000-4-8: 2009 IEC 61000-4-11: 2004 +A1: 2017

## 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 62368-1, Audio/video, Information and Communication Technology Equipment - Part 1: Safety Requirements

CSA C22.2 NO. 62368-1-14, Audio/video, Information and Communication Technology Equipment - Part 1: Safety Requirements

EN 62368-1:2014+A11 BS EN 62368-1:2014+A11 AS/NZS 62368.1:2018



# IDEALPOWER

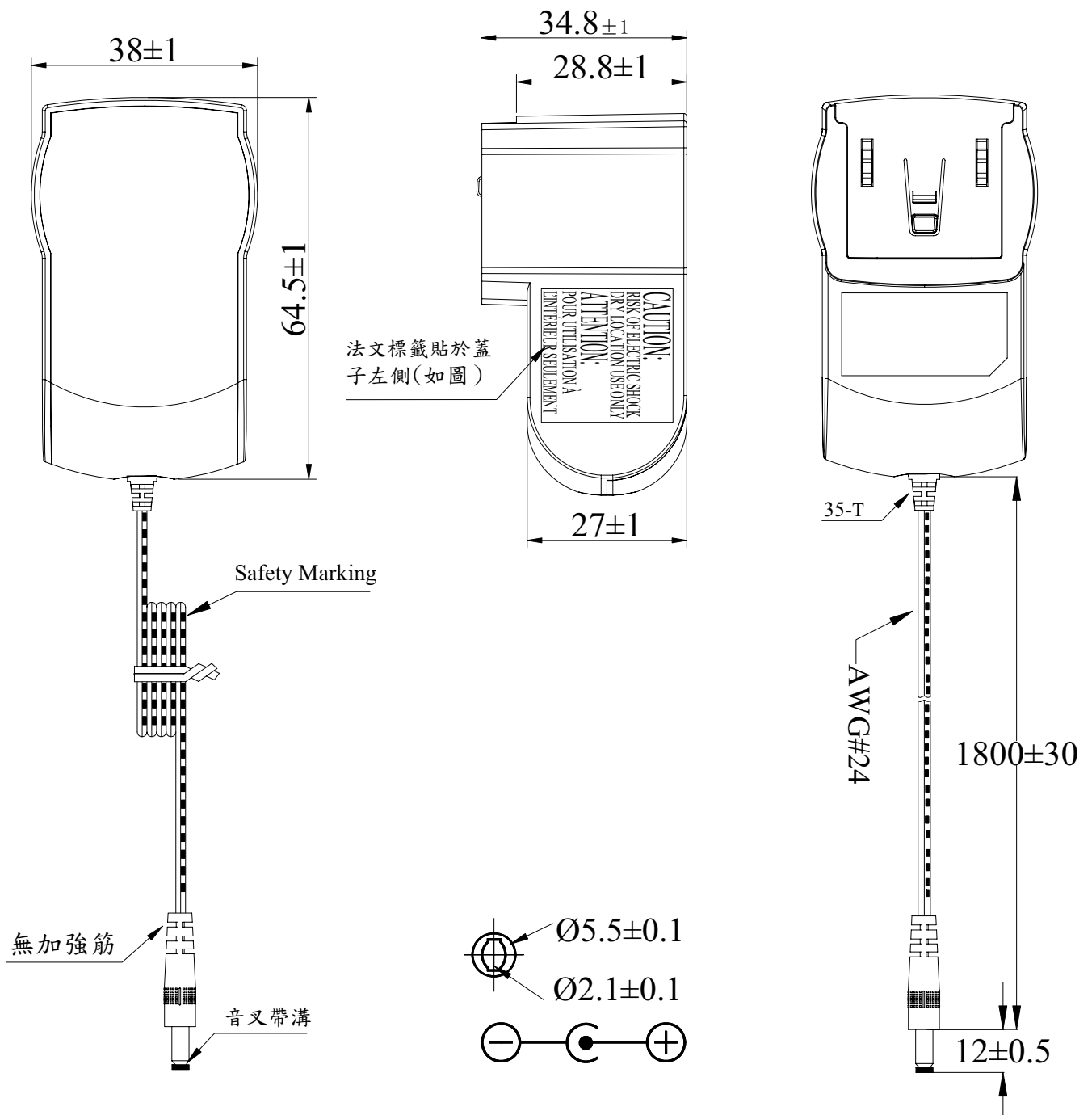
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## 16. OVERALL DRAWING

UNIT: mm

COLOR: BLACK



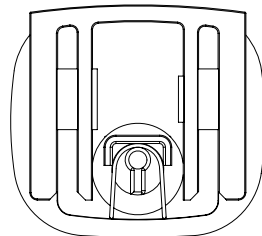
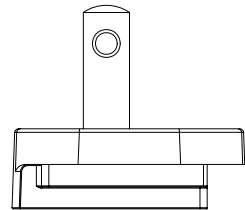
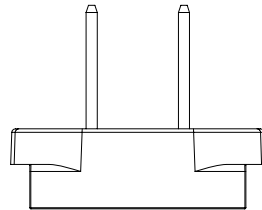
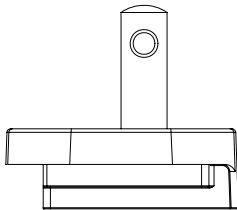
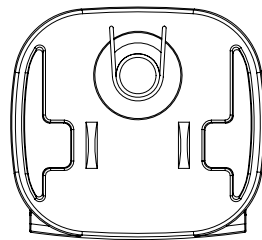


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UNIT: mm

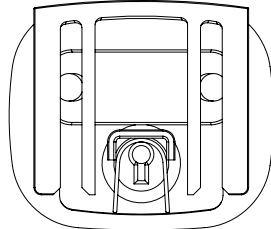
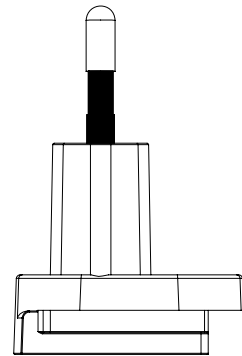
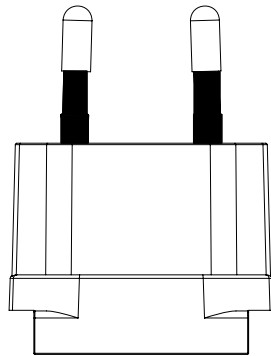
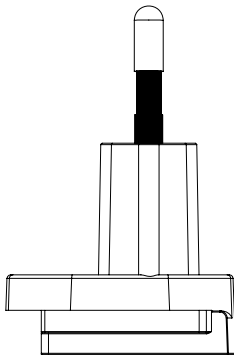
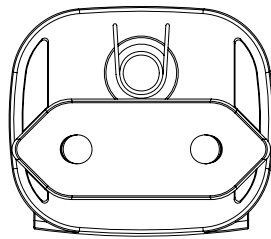


## UL



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UNIT: mm

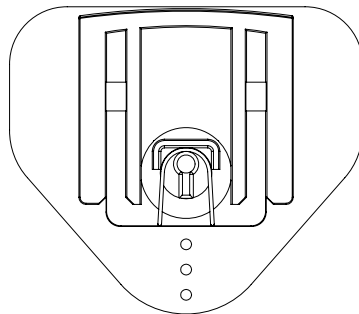
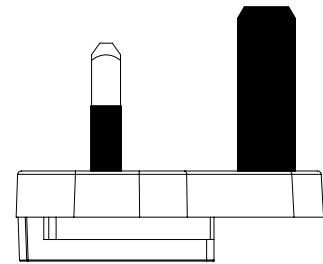
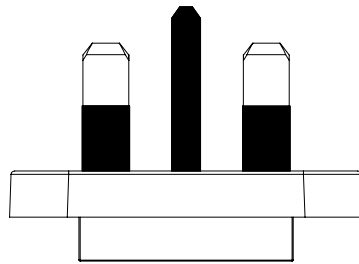
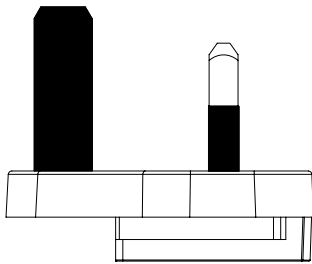
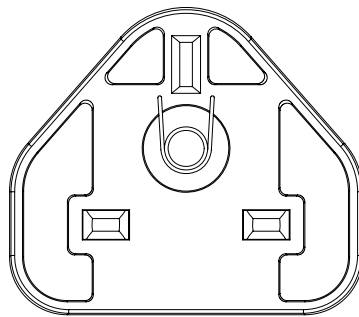


TUV



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UNIT: mm

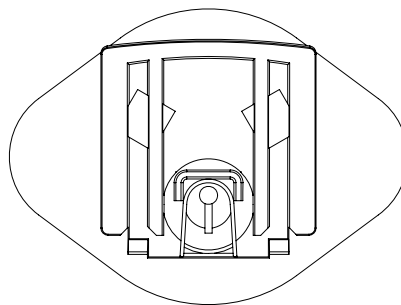
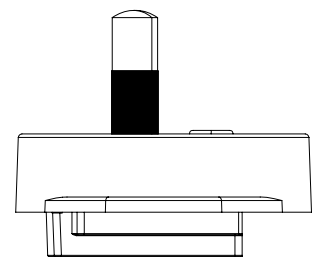
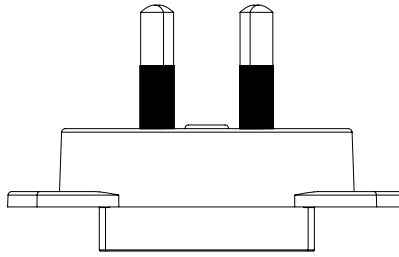
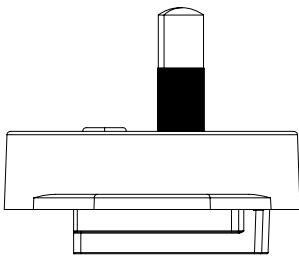
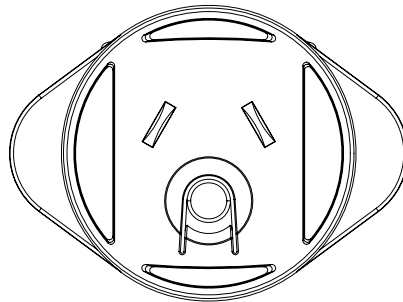


UK



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UNIT: mm



**SAA**



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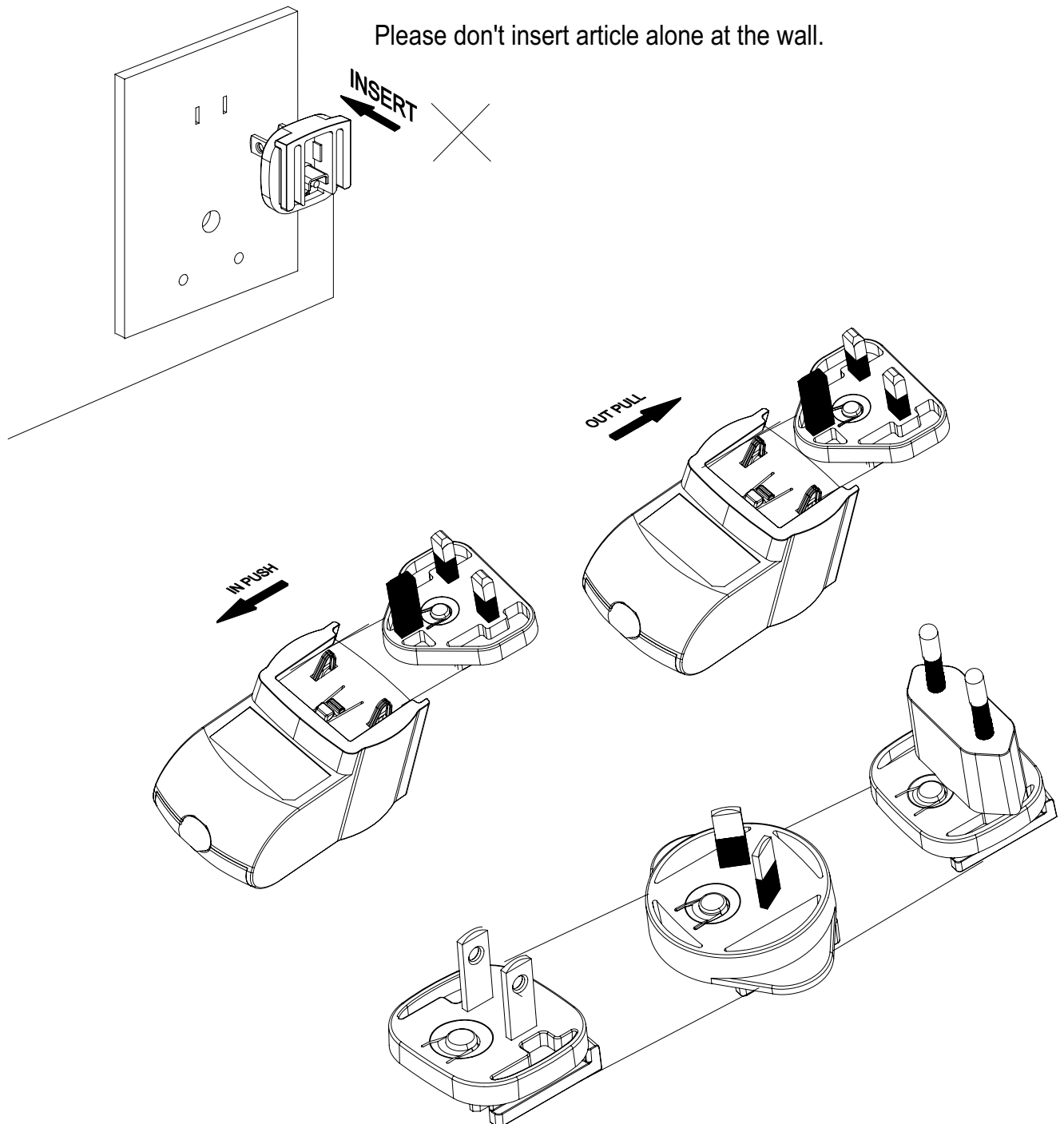
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UNIT: mm

## WARNING!

Please don't insert article alone at the wall.





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## 17. PACKING

### 17.1 Inner Box

UNIT: mm

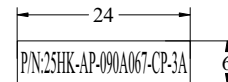
■ BOX( ■ Normal BOX □ Corrugated BOX)

Length: 82

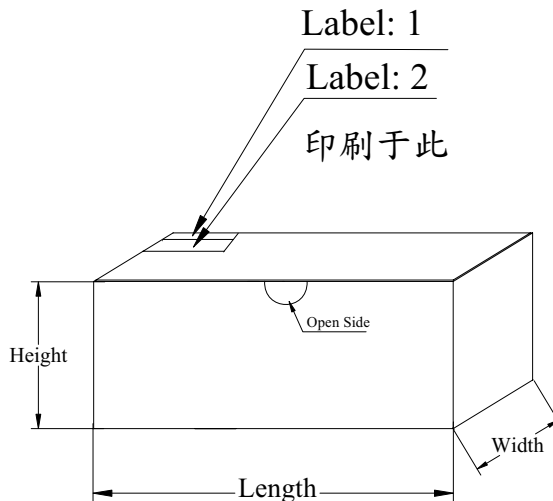
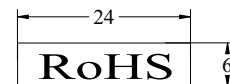
Width: 85

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.

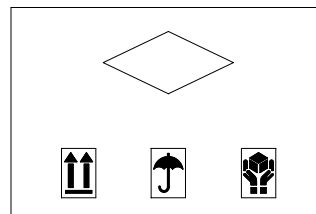


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## 17. PACKING

### 17.2 Carton

UNIT: mm



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

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

