

DATE/ 日期: 2022/12/16 (YY/MM/DD)

Customer / 客戶名 : 深圳市明棧信息科技有限公司

Confidential

## APPROVAL SHEET/承認書

RoHS Compliant/通過無鉛認證

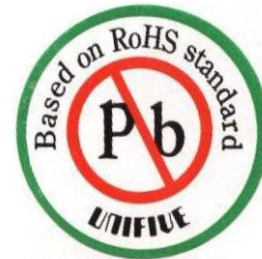
PRODUCT / 產品 : AC/DC ADAPTOR

MODEL / 型號 : SNVUU3036-120030SA

PART NO. / 管編 : MR0184-01

VER. / 版本 : 221216 V1

CUSTOMER NO. / 客戶編號:

Receiver's stamp or signature  
接收方蓋章或簽名

PLEASE APPROVE &amp; RETURN BEFORE 2022/12/30

OR WE WOULD REGARD IT BEEN CONFIRMED.

請於 2022/12/30 號之前確認並返回否則我方將視此承認書已被確認。

RESPONSIBLE 核准	APPROVED 審核	ISSUED 發行
梁國康	楊紅梅	李文珍

「Due to market conditions or safety regulations change, we may submit your request for a change in parts or safety specifications. If you have not placed an order for more than two years, we will not initiate these changes until we receive a new order from you, and we will reconfirm it and get back to you as to whether you can continue production or need to make changes.」

「No part of this specification may be reproduced or reprinted in any form or by any means without the prior written permission of the Company.」

如果因為市場狀況或是安規規範變更，我們可能會提出貴司改變零件或安全規格的申請；如果貴司超過兩年未下單，我們將不會主動提出這些變更，直到接收到貴司新的訂單，我們將重新確認，並且回覆貴司是否可以繼續生產或是需要變更。未經弊公司許可，本規範的任何部分都不得以任何形式或手段進行複製或轉載。

## Revised History / 修改履歷

NO. 序號	Revised Date 修改日期	Description 描述	Approved 核准	ISSUED 發行
1	2022/12/16	FIRST ISSUED / 首次發行	楊紅梅	李文珍

UNIFIVE

優源科技(深圳)有限公司

深圳市寶安區松崗街道紅星社區龍門村大田洋工業區E棟101、201、301.

TEL:0755-27534588

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## 1.INPUT SPECIFICATION/ 輸入規格

ITEM 項目	SPECIFICATION 規格描述	MIN 最小值	TYPICAL 額定值	MAX 最大值
AC INPUT VOLTAGE 交流輸入電壓	SINGLE PHASE 單相電路		100~240Vac	
AC INPUT VOLTAGE RANGE 交流輸入電壓範圍	SINGLE PHASE 單相電路	90Vac		264Vac
AC INPUT FREQUENCY 交流輸入頻率	SINGLE PHASE 單相電路	47Hz	50/60Hz	63Hz
AC INPUT CURRENT 交流輸入電流	TYPICAL INPUT VOLTAGE & OUTPUT AT FULL LOAD. 額定值交流電壓輸入及滿載負載.		0.75A	0.9A
AC INRUSH CURRENT 交流突入電流	TYPICAL INPUT VOLTAGE & FOR A COLD START AT 25°C. 額定值交流電壓輸入及在常溫25°C 開機.			80A
EFFICIENCY 效率	THE ADAPTOR SHALL ACCORD WITH THE REQUEST OF DOE VI , 3A 該適配器應符合DOE等級VI, 3A	87.40%		
	THE ADAPTOR SHALL ACCORD WITH THE REQUEST OF DOE VI , 2A 該適配器應符合DOE等級VI, 2A	86.20%		
STAND BY CONSUMPTION 待機功耗	THE ADAPTOR SHALL ACCORD WITH THE REQUEST OF DOE VI 該適配器應符合DOE等級VI			0.1W
LEAKAGE CURRENT 洩漏電流	MAX INPUT VOLTAGE 最大輸入電壓			0.5mA r.m.s or 0.707mA peak

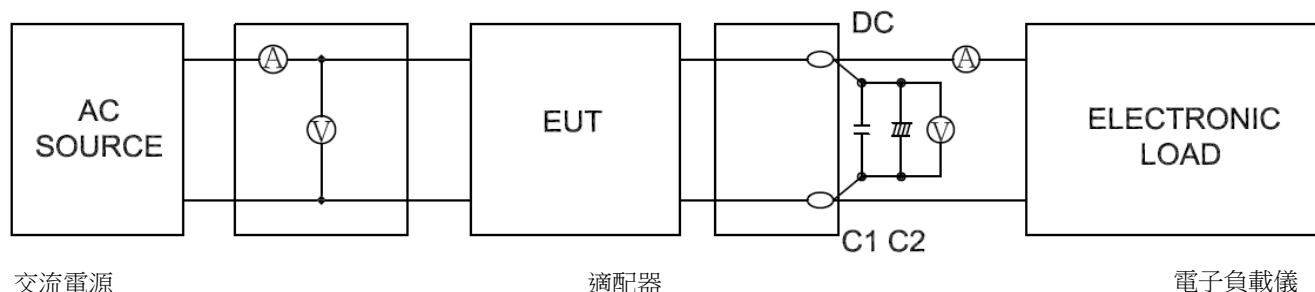
## 2.OUTPUT SPECIFICATION/ 輸出規格

ITEM 項目	SPECIFICATION 規格描述	MIN 最小值	TYPICAL 額定值	MAX 最大值
NOMINAL DC OUTPUT VOLTAGE 額定直流輸出電壓			12Vdc	
DC OUTPUT VOLTAGE RANGE 直流輸出電壓範圍	TYPICAL OUTPUT VOLTAGE 額定輸出電壓	11.4Vdc		12.6Vdc
LOAD CURRENT 負載電流	OPERATING TEMPERATURE 0°C~40°C 作業溫度0°C~40°C			3A
	OPERATING TEMPERATURE -20°C~60°C 作業溫度-20°C~60°C			2A
RIPPLE 紋波	TYPICAL INPUT VOLTAGE , FULL LOAD CURRENT , 25°C 額定輸入電壓 , 滿載電流 , 25°C			240mV
	TYPICAL INPUT VOLTAGE , 2A LOAD CURRENT , -20°C 額定輸入電壓 , 2A電流 , -20°C			240mV
NOISE 噪音	TYPICAL INPUT VOLTAGE , FULL LOAD CURRENT , 25°C 額定輸入電壓 , 滿載電流 , 25°C			240mV
	TYPICAL INPUT VOLTAGE , 2A LOAD CURRENT , -20°C 額定輸入電壓 , 2A電流 , -20°C			240mV
HOLD-UP TIME 保持時間	AT TYPICAL INPUT VOLTAGE AND FULL LOAD ,50Hz 額定輸入電壓&滿載,50Hz	8mS		
TURN-ON DELAY 開機延時時間	TYPICAL INPUT VOLTAGE AND FULL LOAD CURRENT 額定輸入電壓&滿載電流			3S
	TYPICAL INPUT VOLTAGE AND 2A LOAD CURRENT -20°C 額定輸入電壓&2A電流-20°C			3.5S
DYNAMIC TEST 動態負載	TYPICAL INPUT VOLTAGE,20%-80% LOAD,TH 5mS TL 5mS, 100mA/Us 額定輸入電壓在 20% -80%負載範圍內 ,上升下降時間 5mS 電壓轉 換速率 100mA/uS	11.4Vdc		12.6Vdc
	TYPICAL INPUT VOLTAGE,20%-80% LOAD 2A ,TH 5mS TL 5mS, 100mA/uS -20°C 額定輸入電壓在 20% -80%負載2A範圍內 ,上升下降時間 5mS 電壓 轉換速率 100mA/uS	11.4Vdc		12.6Vdc

## PROTECTION / 保護

OVER CURRENT PROTECTION 過電流保護	AUTO RECOVERY,THE MINIMUM POSSIBLE PROTECTION POINT IS 105% OF THE RATED LOAD 自動恢復，最小可能保護點為額定負載的105%
SHORT CIRCUIT PROTECTION 短路保護	THE ADAPTOR SHALL NOT DAMAGE BY SHORT TO THE DC OUTPUT GROUND 直流輸出短路適配器不會受損
OVER VOLTAGE PROTECTION 過電壓保護	AUTO RECOVERY 自動恢復

## TEST MEASURES/ 測試及量測方式

C1: 0.1 $\mu$  F CERAMICS CAPACITOR / 陶瓷電容0.1 $\mu$ FC2: 10 $\mu$  100V ALUMINUM CAPACITOR / 鋁電解電容10 $\mu$  100V

THE BANDWIDTH OF OSCILLOSCOPE IS SET WITH 20MHz / 示波器頻帶寬設置為20MHz

## 3.MECHANICAL / 機械性能

ITEM 項目	SPECIFICATION OR TEST CONDITION 測試條件	ACCEPTANCE CRITERIA 接收標準
BENDING TEST 搖擺測試	NORMAL TEMPERATURE 常溫 @ 25 $^{\circ}$ C THE PLUG SHALL WITHSTAND WEIGHT OF 2.94N,IT SWINGS FROM LEFT TO RIGHT AT AN ANGLE OF 60DEG. 500 TIMES MIN.,S/R SHALL WITHSTAND WEIGHT OF 2.94N. IT SWING FROM LEFT TO RIGHT AT AN ANGLE OF 60DEG. 500 TIMES MIN.,BENDING SPEED 40CYCLE/MIN. PLUG吊重2.94N,從左到右搖擺60度,500次. SR吊重2.94N,從左到右搖擺60度,500次，搖擺速度40次/分	NO SHORT CIRCUIT THE BREAK RATE OF WIRE SHALL BE BELOW 30%. 沒有短路的現象, 斷線率要在30%以下
VIBRATION 振動	DURATION:30MINUTES 持續時間：30分鐘 AMPLITUDE:0.35mm 振幅：0.35mm FREQUENCY RANGE:10Hz...55Hz...10Hz 頻率範圍：10Hz...55Hz...10Hz SWEEP RANGE: APPROXIMATELY 1 OCTAVE / MIN 掃描範圍：約 1 OCTAVE / 分鐘	THERE SHALL BE NO ABNORMALITY ON THE APPEARANCE STRUCTURE AND OPERATING 外觀結構與作業無異常

## 4.RELIABILITY / 可靠性

ITEM 項目	TEST CONDITION 測試條件	ACCEPTANCE CRITERIA 接收標準
TEMPERATURE UP WITH FULL LOAD 滿載升溫	TEST AT SURFACE OF THE CASE WITH TYPICAL AC INPUT AND FULL LOAD IN OUTPUT 50/60Hz 試驗表面情況典型交流和滿載輸出 50/60Hz	TEMPERATURE RISEN MEET SAFETY APPROVALED AT THE SURFACE OF CASE 溫度上升達到安全取得的情況
HI-POT TEST 高壓測試	BETWEEN INPUT & OUTPUT 1500Vac 60 SECONDS 10mA, IT IS BASE ON 別表第八 TEST PROCEDURE. FOR MASS PRODUCTION, IT IS TESTED BY 1800Vac /1 SECOND. 介於輸入AC 輸入 與 輸出 間 以交流 1500伏60秒10毫安培培培培條件測試,依據規範別表第八條件基礎上測試 ,於批量生產時,測試以交流 1.8KVvac /1 秒鐘條件 .	NO DAMAGE 無損傷
INSULATION RESISTANCE 絕緣阻抗	INPUT TO OUTPUT, DC 500V 輸入端至輸出端, 加直流電壓500V	>50M $\Omega$ (below at R.H 70%). >10M $\Omega$ (at R.H 71 ~ 95%). *Put it into normal temperature & humidity for 24H,when testing. (Ta:20~30 $^{\circ}$ C, below R.H 70%) >50M $\Omega$ (相對濕度低於70%) >10M $\Omega$ (相對濕度71~95%) 將產品置於常溫 & 濕度24小時(溫度:20~30 $^{\circ}$ C,相對濕度低於70%)
MTBF 平均故障率	TYPICAL INPUT & FULL LOAD AT 25 $^{\circ}$ C 25 $^{\circ}$ C 環境下,標準輸入電壓 & 滿載輸出	100000 HOURS (min) 100000 小時 (最小)
BURN-IN TEST 燒機測試	AT 30 $^{\circ}$ C ( $\pm$ 10 $^{\circ}$ C),TYPICAL INPUT VOLTAGE 環境30 $^{\circ}$ C ( $\pm$ 10 $^{\circ}$ C),標準輸入電壓	2~4 HOURS 2~4 小時
IEC61000-4-2 ESD TEST 靜電放電測試 IEC61000-4-2	AIR DISCHARGE $\pm$ 8KV 空氣放電 $\pm$ 8KV CONTACT DISCHARGE $\pm$ 4KV 接觸放電 $\pm$ 4KV	NO DAMAGE 無損壞 1 ROUND/SEC ABOVE 1輪 /每秒 以上
IEC61000-4-5 SURGE WITHSTAND 雷擊測試 IEC61000-4-5	$\pm$ 1KV	NO DAMAGE 無損壞

## 5.ENVIRONMENT/ 環境

ITEM 項目	SPECIFICATION OR TEST CONDITION 測試規格	MIN 最小值	TYPICAL 額定值	MAX 最大值
OPERATING TEMPERATURE 作業溫度	3A LOAD※1	0 $^{\circ}$ C		40 $^{\circ}$ C
	2A LOAD※2	-20 $^{\circ}$ C		60 $^{\circ}$ C
STORAGE TEMPERATURE 存儲溫度		-20 $^{\circ}$ C		65 $^{\circ}$ C
OPERATING HUMIDITY 作業濕度	NON-CONDENSING 不凝結的	5%RH		95%RH
STORAGE HUMIDITY 存儲濕度	NON-CONDENSING 不凝結的	5%RH		95%RH

※1 The 3A LOAD approved of safety,@40 $^{\circ}$ C.

※1 3A 負載已取得安規,@40 $^{\circ}$ C.

※2 The 2A LOAD meet of safety,@60 $^{\circ}$ C

※2 2A 負載符合安規,@60 $^{\circ}$ C

## 6. OUTLOOKING / 外觀

DIMENSION / 尺寸： 72.7(L)\*35.7(W)\*53.0(H) TYP  
 WEIGHT / 重量 ABOUT / 大約 172g  
 AC INPUT TYPE / AC輸入型號 WALL MOUNT / 插牆式  
 DC OUTPUT TYPE / DC輸出型號 5.5\*2.1\*9.5  
 DC OUTPUT CABLE / DC輸出線材 USE UL 2468 18 AWG WIRE  
 INDICATION / 說明 LASER MARKING / 鐳射  
 FLAMMABILITY OF POWER SUPPLY ADAPTER ENCLOSURE IS 94V0  
 外殼防火等級為 94V0  
 FLAMMABILITY OF PWB IS 94V0  
 PWB防火等級為94V0

## 7. QC CHECK / 品質檢驗

ALL OF THE QUANTITY SHALL BE CHECKED BEFORE SHIPMENT, CHECK ITEM AS BELOW:

出貨前,所有產品都需要做以下測試項目:

- (1) DC PLUG POLE CHECK / DC插頭極性檢驗
- (2) DC OUTPUT VOLTAGE CHECK / 直流輸出電壓檢驗
- (3) HI-POT & INSULATION CHECK / 高壓及絕緣檢驗
- (4) OUTLOOKING CHECK / 外觀檢驗

## STANDARD OF RoHS / ROHS標準

NO. / 序號	chemical substances group / 化學物質組
1	Cadmium/鎘
2	Chromium(VI)/六價鉻
3	Lead/鉛
4	Mercury/汞
5	Polybrominated biphenyls (PBBs)/多溴聯苯 (PBBs)
6	Polybrominated diphenyl ethers (PBDEs)/多溴聯苯醚 (PBDEs)

Effective in 1st Jan. 2019 (2019年1月1號開始有效)

NO. / 序號	chemical substances group / 化學物質組
1	Bis (2-ethylhexyl) phthalate (DEHP)/鄰苯二甲酸酯 (DEHP)
2	Butyl benzyl phthalate (BBP)/鄰苯二甲酸丁基苄基酯 (BBP)
3	Dibutyl phthalate (DBP)/鄰苯二甲酸二丁酯 (DBP)
4	Diisobutyl phthalate (DIBP)/鄰苯二甲酸二異丁基酯 (DIBP)

FOR ENVIRONMENTAL IMPACT SUBSTANCES CONTAINED IN PARTS. COMPLY WITH "RoHS 2.0"

由於受大環境影響，有害物質存在於電子原件中，但符合RoHS 2.0標準。

## 8. STANDARD / 標準

## SAFETY / 安規

COMPLY SAFETY STANDARDS 符合安規項目	STANDARD 標準
PSE	別表第八

Manufacturer: UNIFIVE TECHNOLOGY (SHENZHEN) CO., LTD.

公司名稱：優源科技（深圳）有限公司

Factory Address: 101,201,301,BLDG E DATIANYANG INDUSTRIAL ZONE LONGMEN VLG

HONGXING SONGGANG ST BAOAN DISTRICT SHENZHEN GUANDONG, 518105 CHINA

工廠地址：廣東深圳寶安松崗街道紅星龍門村大田洋工業區 102 201 301

## EMC (EMI+EMS)

COMPLY STANDARDS 符合安規項目	STANDARD 標準
FCC	FCC Part 15
VCCI	CLASS B
CISRP32 Class B	

The EMC result will be affected when connecting of end device. The end user should be re-test the EMC of the complete set of equipments

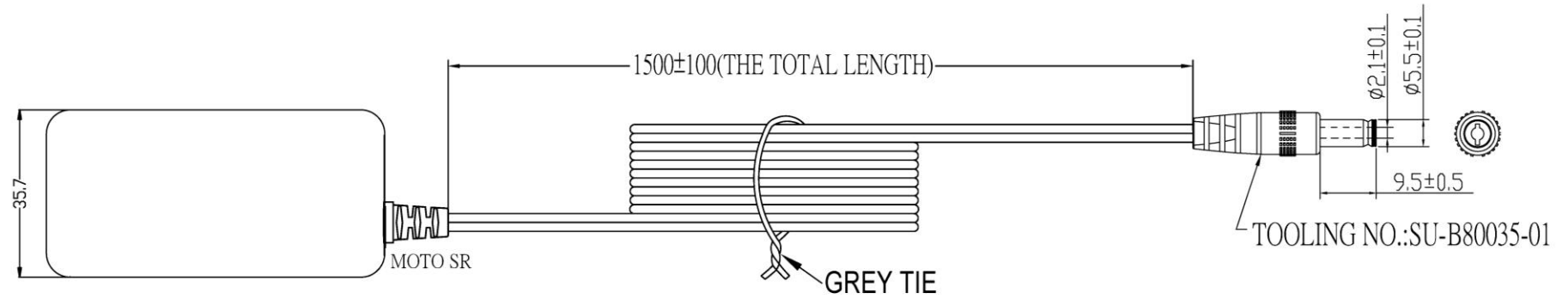
如果有連接終端裝置,EMC的結果會有影響,終端客戶需要對成套設備重新做EMC測試動作

The value which list on the spec,were tested by resistance.

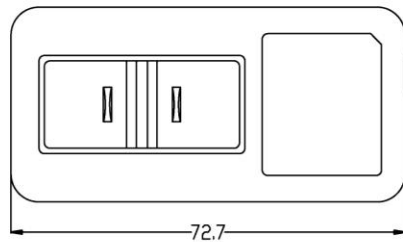
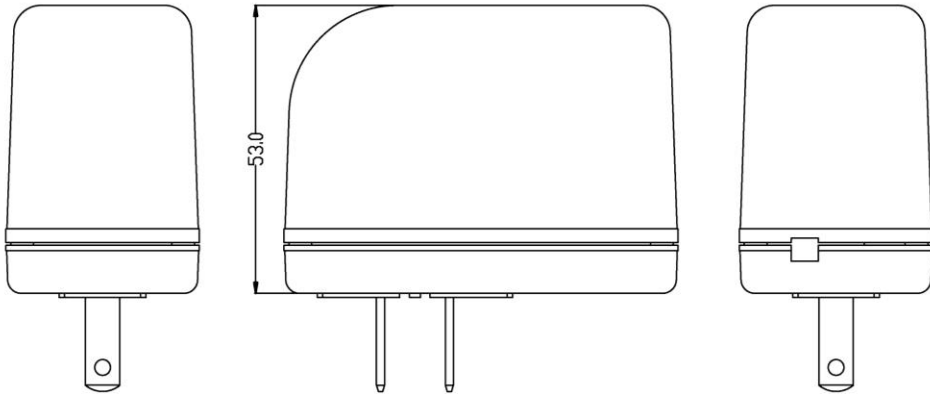
在規格上所列出來的資料都是連接電阻測試而來

9.PRODUCT DRAWING / 產品圖

CASE TOLERANCE:  $\pm 0.8\text{mm}$   
尺寸公差:  $\pm 0.8\text{mm}$



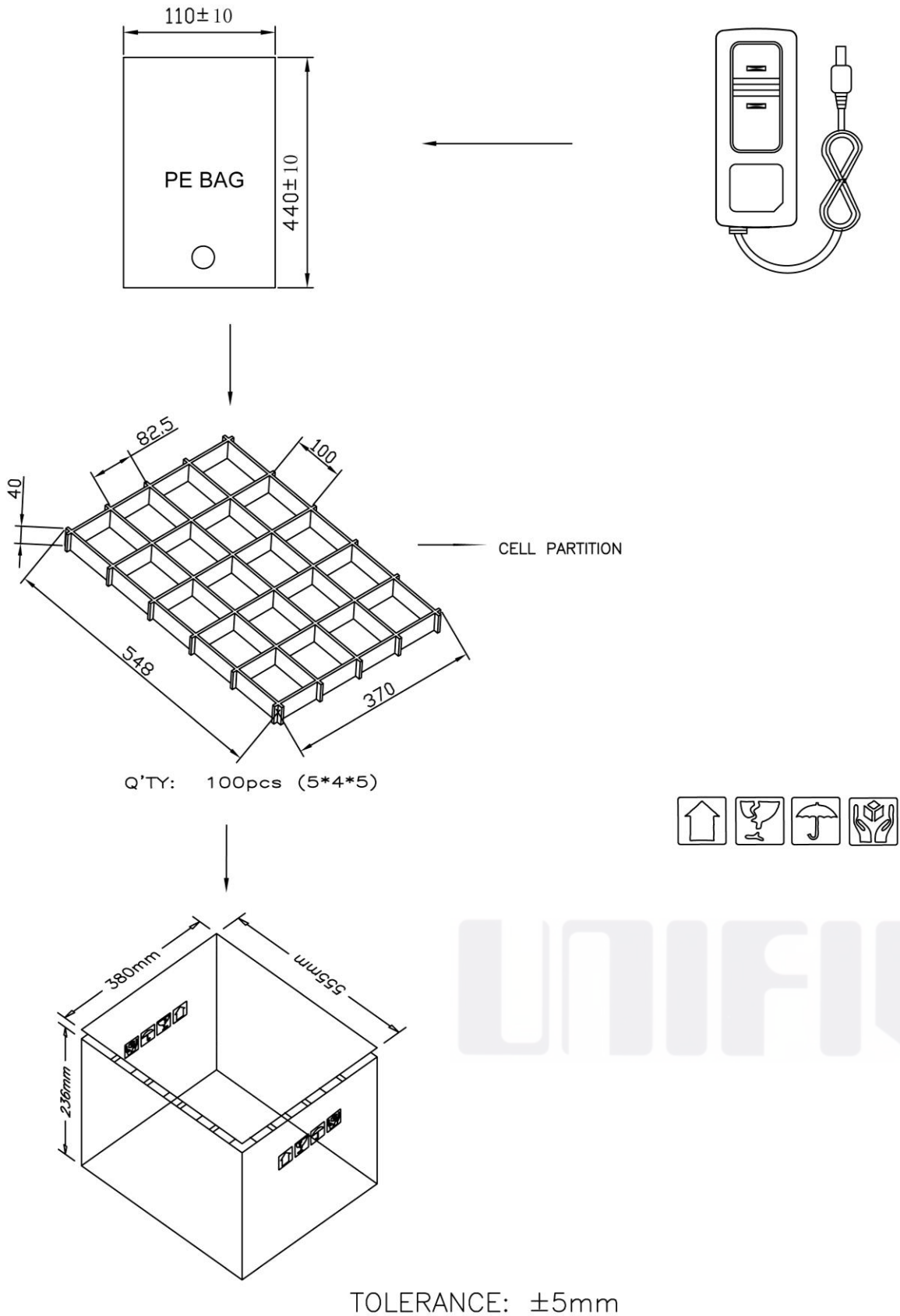
MEMO: Fork insulation with tonometer groove type



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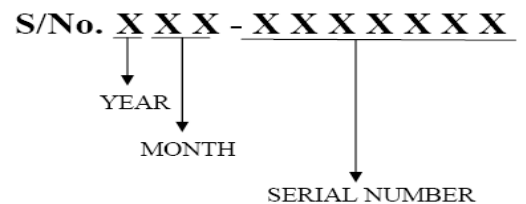
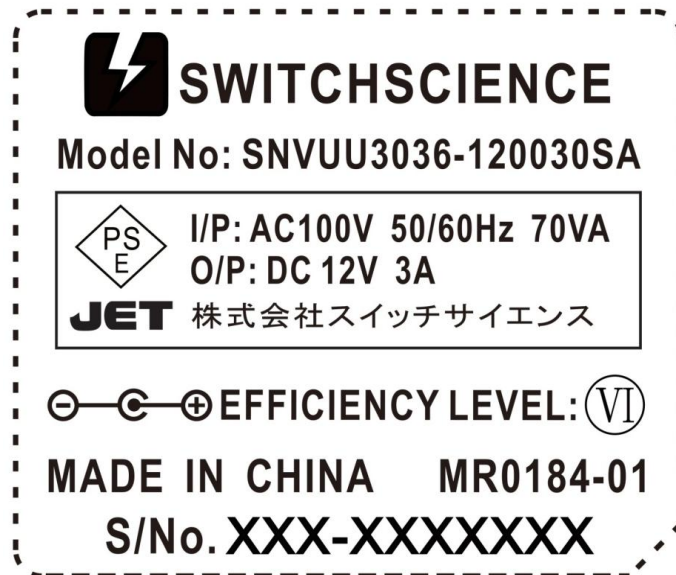


10.PACKING / 包裝





## 11.LABEL/ 標籤 (LASER MARKING / 鐳射)



About S/No. From the year of 2010, notation of year will be as below;

ex. 2022/12...N12-XXXXXXX

2023/01...P01-XXXXXXX

2024/01...Q01-XXXXXXX

2025/01...R01-XXXXXXX

2026/01...S01-XXXXXXX

(A,B,C~Z)the letters of "I" and "O" will not be used.(In order not to make confusion of 1 and 0)