



**Specification for Approval**

**Customer** : 株式会社アコン

**Part Name** : AC ADAPTER

**Description** : 24.0 Volts / 2.71 Amps

**Model No.** : ATS065T-A240 (Level VI)

**Customer P / N** :

**Product P / N** : ATS065TA240415225

**Issued Date** : 14-Jul.-2022

**Version** : A1

**Issued Stamp** :

**Customer's Approval Signature**

**ADAPTER TECHNOLOGY CO.,LTD.**

Office (Taiwan) : 6F-9, No.258, Liancheng Rd., Zhonghe District, New Taipei City 235,Taiwan (R.O.C.)

TEL : +886-2-8226-2279

FAX : +886-2-8226-2238

E-mail : service\_tw@adaptech.com.tw ; service@adaptech.com.tw

Factory (China) : BOAYANG ELECTRONICS CO., LTD.

(Philippines) : ADAPTER TECHNOLOGY CO.,LTD.



**65.04 W  
AC ADAPTER  
SPECIFICATION**

**Model No.** : **ATS065T-A240 (Level VI)**

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**Description** : **24.0Volts / 2.71Amps**

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**Part No.** : **ATS065TA240415225**

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**Version** : **A1**

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**Date** : **14-Jul.-2022**

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Approved	Reviewed	Checked	Prepared	Sales





## 1. Feature :

- ◆ **Input** : Universal 100 ~ 240 Vac / 50 ~ 60 Hz Input, without any slide switch.
- ◆ **Output** : +24.0V / 0~2.71A
- ◆ **Case Dimension** : 115 (L) \*53 (W) \* 38 (H) mm
- ◆ **Efficiency** : Eff (av)  $\geq$  88%
- ◆ **Safety** : UL / cUL / GS / PSE / BSMI / CB / UKCA / RCM / CCC
- ◆ **EMI** : CE / FCC (conduction & radiation Class B)
- ◆ **Protection** : OVP (Over Voltage Protection) 、 SCP (Short Circuit Protection) 、 OCP (Over Current Protection)
- ◆ Suitable for usage at I.T.E., industrial controller
- ◆ Meet DoE Level VI/ ErP ( Lot 7 ) / GEMS / NRCan.

## 2. Input :

2.1 Voltage	Universal 100~240Vac, single phase
2.2 Frequency	50 ~ 60 Hz
2.3 Current	1.4A Max.
2.4 Inrush Current	80A Max. / 240Vac (Cold start at 25 °C , full load) ( ac source chroma 6530 )
2.5 Efficiency	Eff (av) $\geq$ 88% (At 115 Vac & 230 Vac) Eff $\geq$ 79% @10% load
2.6 Power Consumption	Pi $\leq$ 0.21 W ( At 230Vac & No load)

$$\text{※Eff (av)} = \frac{E_1 + E_2 + E_3 + E_4}{4}$$

E1=efficiency with 25% rated load ; E2= efficiency with 50% rated load  
E3=efficiency with 75% rated load ; E4= efficiency with 100% rated load

## 3. Output :

3.1 DC Output	Voltage	+24.0 V $\pm$ 5%
	Current	2.71A Max.
	Regulation	22.80Vmin. ~ 24.00Vtyp. ~ 25.20Vmax.
	Ripple & Noise	240mV Max.
	Total Power	65.04 W Max.

Remark : For ripple & noise measurement, use a 20MHz bandwidth frequency oscilloscope, and add a 0.1 $\mu$ F multilayer Cap. and a Low ESR Electrolytic Cap. (47  $\mu$ F) at output connector terminals. (At nominal line voltage, full load)



## 4. Protection :

4.1 Over Voltage Protection (OVP)	(V out *150%) Max., latch off.
4.2 Short Circuit Protection (SCP)	Autorecovery
4.3 Over Current Protection(OCP)	(I out *180%) Max.,autorecovery

## 5. Safety 、 EMI and EMC Requirement :

5.1. Dielectric Strength : Cut off current 10mA

(1)	Primary to Secondary	3000Vac for 1 Minute
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5.2. Insulation Resistance :

(1)	Primary to Secondary	10 M ohm for 500Vdc
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5.3 Leakage Current : Less than 0.25mA

## 6. Operation and Environment Performance :

6.1 Temperature Range

Operating	- 20 ° C ~ + 40°C
Storage	- 20 ° C ~ + 80°C

6.2 Humidity Range(Non-condensing)

Operating	20% ~ 80% RH
Storage	10% ~ 90% RH

6.3 Cooling : By natural air.

7. M.T.B.F. : 300,000 Hrs.(Calculated Hours At 25°C , By Telcordia SR-332)



## 8. Mechanical :

8.1 Weight : 310 g Typical

8.2 Cable Type : Black UL2468 AWG20  
( Wire + Plug )

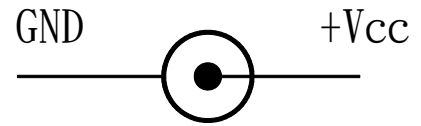
Plug :  $\phi 5.5 \times \phi 2.1 \times 9.5 \text{mm}$   
( Tuning Fork & Cannelure )

8.3 Cable Length : 1500mm

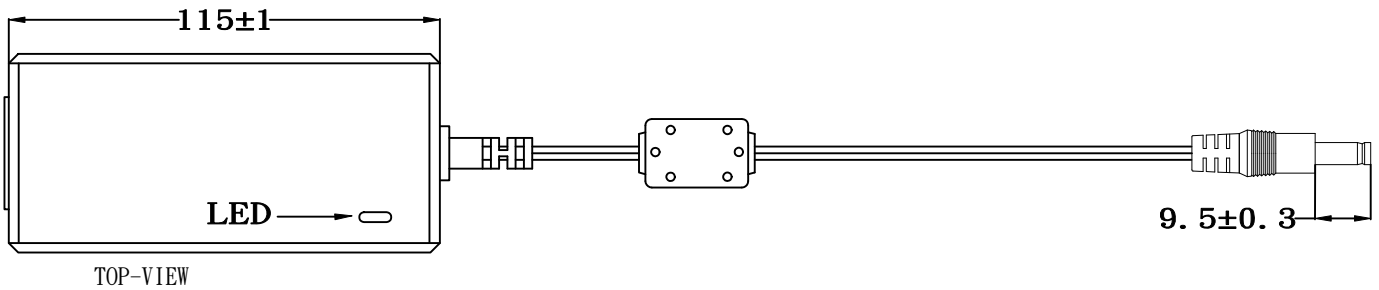
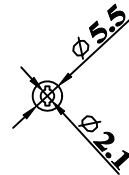
8.4 Case Dimension : 115mm(L)\*53mm(W)\*38mm(H)

8.5 Material Flammability : UL 94V-0

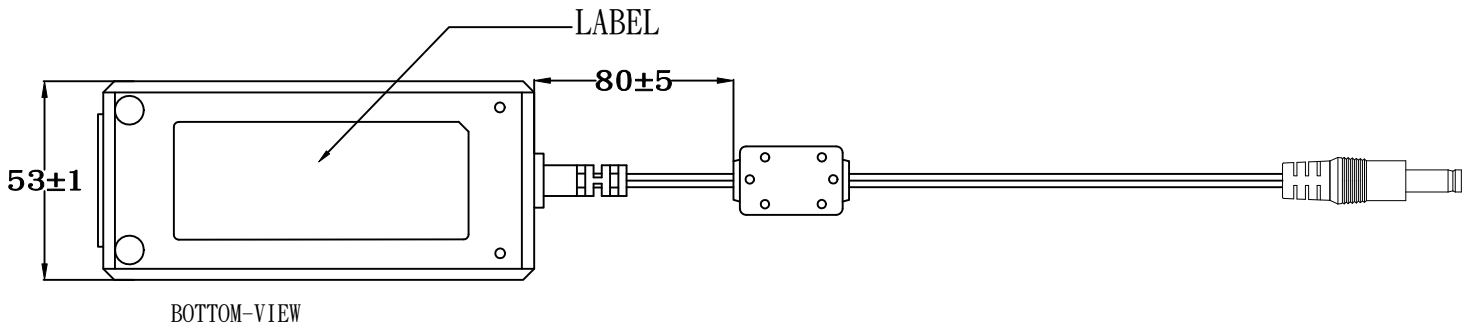
8.6 External Apperance : As drawing below ( Scale  $\rightarrow$  mm )



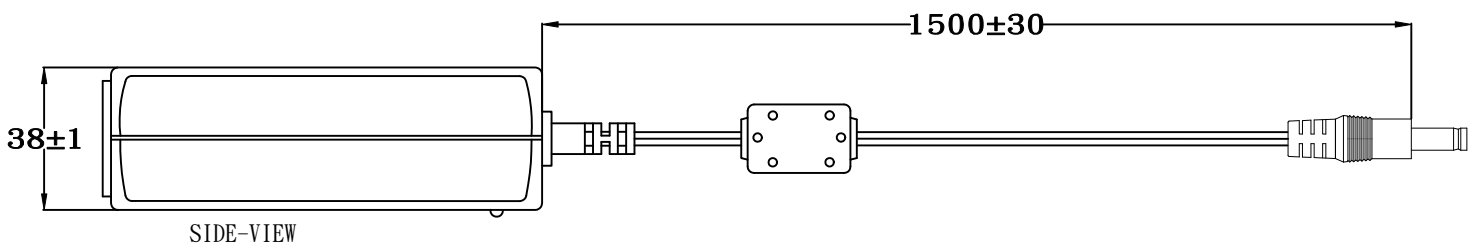
Output Cable Plug Pin Assignment



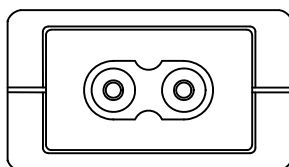
TOP-VIEW



BOTTOM-VIEW



SIDE-VIEW



FRONT-VIEW



# Adapter Technology Co., Ltd.

**8.7 Spec. Label Materials : Metalized Polyester Label ( Silver Gloss )**  
**Color : Black Background with Silver Printing**  
**Label Dimension : 70.8mm(L)\*40.4mm(W)+/-0.2mm**  
**Label Thickness : 75#**

100%



200%



"YYWW"

YY=Year 2019=19

WW=Week

"XXX"

Label supplier's code.

It is accurate that the number of words depends on the real finished product.

ID NO."X"

Manufacturer's code.

It is accurate that the number of words depends on the real finished product.

## Label Part No.:9443125410

## REV.: A



## A. Line Regulation Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
90Vac / 50 % Load	22.8 V ~ 25.2 V	24.05 V	23.95 V	24.00 V
115Vac / 50 % Load	22.8 V ~ 25.2 V	24.05 V	23.95 V	24.00 V
132Vac / 50 % Load	22.8 V ~ 25.2 V	24.05 V	23.95 V	24.00 V
180Vac / 50 % Load	22.8 V ~ 25.2 V	24.05 V	23.95 V	24.00 V
230Vac / 50 % Load	22.8 V ~ 25.2 V	24.05 V	23.95 V	24.00 V
264Vac / 50 % Load	22.8 V ~ 25.2 V	24.05 V	23.95 V	24.00 V

## B. Efficiency Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac	88 % Min.	88.94 %	88.88 %	88.99 %
230Vac	88 % Min.	89.40 %	89.31 %	89.52 %
230Vac@10% load	79 % Min.	86.43 %	86.15 %	86.47 %

$$\text{Eff (av)} = \frac{E1 + E2 + E3 + E4}{4}$$

E1=efficiency with 25% rated load ; E2= efficiency with 50% rated load  
E3=efficiency with 75% rated load ; E4= efficiency with 100% rated load

## C. Load Regulation Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 0 % Load	22.8 V ~ 25.2 V	24.26 V	23.16 V	24.21 V
115Vac / 50 % Load	22.8 V ~ 25.2 V	24.05 V	23.95 V	24.00 V
115Vac / 100 % Load	22.8 V ~ 25.2 V	23.85 V	23.75 V	23.80 V
230Vac / 0 % Load	22.8 V ~ 25.2 V	24.26 V	23.16 V	24.21 V
230Vac / 50 % Load	22.8 V ~ 25.2 V	24.05 V	23.95 V	24.00 V
230Vac / 100 % Load	22.8 V ~ 25.2 V	23.85 V	23.75 V	23.80 V





## D. Ripple & Noise Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	240mV Max.	55.6mV	54.8mV	55.7mV
230Vac / 100 % Load	240mV Max.	34.4mV	32.1mV	22.5mV

## E. Inrush Current

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
240Vac / 100 % Load	80A Max	63 A	62 A	65A

## F. Over Current Protection

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	(I out *180%) Max.	132%	133%	135%
230Vac / 100 % Load	(I out *180%) Max.	129%	130%	133%

## G. Short Circuit Protection

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	Auto Recovery	OK	OK	OK
230Vac / 100 % Load	Auto Recovery	OK	OK	OK

## H. Input Power Consumption(No Load)

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
230Vac / 0 % Load	$\leq 0.21$ W	0.08W	0.08W	0.07W



# Adapter Technology Co., Ltd.

## Efficiency Test Report

- A. Model Number : ATS065T-A240(24.0V/2.71A)
- B. DC Power Cord : UL2468 , 20AWG ,1.5M
- C. Efficiency :  
LEVEL VI EFF(av) ≥ 88% & Eff ≥ 79% @10% Load
- D. NO Load Power Consumption :  
LEVEL VI 0.21W max.
- E. Testing Dequpiment :
1. AC Power Source : " Chroma 61605
2. Electronic Load : " PRODIGIT " 3311F
3. Power Meter : "YOKOGAWA " WT310
4. Digital Meter : " FLUKE " 179
- F. AC Input Voltage : 115Vac/60Hz

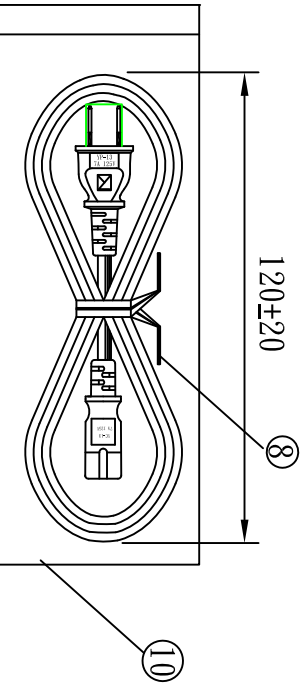
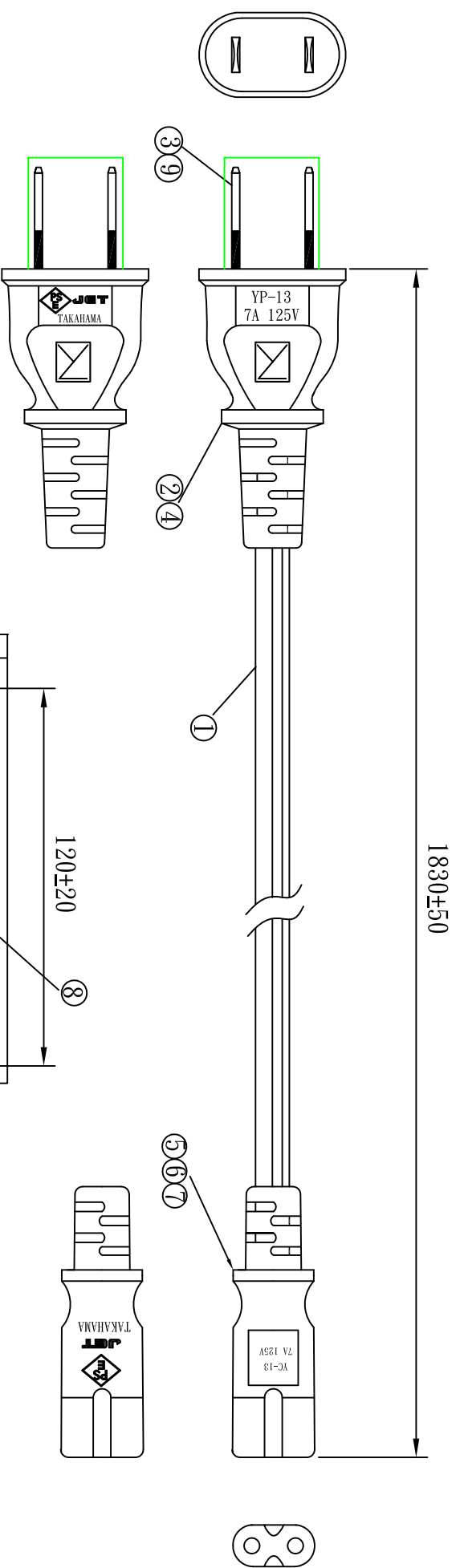
Reported \ Load Conditions	100%* I <sub>0</sub>	75%* I <sub>0</sub>	50%* I <sub>0</sub>	25%* I <sub>0</sub>	10%* I <sub>0</sub>	0%* I <sub>0</sub>	
Rms Output Current(mA)	2710mA	2033mA	1355mA	678mA	271mA	0mA	
Rms Output Voltage(V)	23.844V	23.949V	24.053V	24.156V	24.218V	24.257V	
Active Output Power(W)	64.62W	48.68W	32.59W	16.37W	6.56W	0.00W	
Rms Input Voltage(V)	115V	115V	115V	115V	115V	115V	
Rms Input Current(A)	1.258A	1.005A	0.738A	0.440A	0.270A	0.209A	
Rms Input Power(W)	73.96W	54.75W	36.39W	18.20W	7.40W	0.07W	
Total Harmonic Distortion of the input current	162.00%	177.50%	194.32%	217.72%	239.97%	154.21%	
True Power Factor	0.533	0.503	0.464	0.416	0.238	0.065	
Power Consumed by UUT(W)	9.34W	6.07W	3.80W	1.83W	0.84W	0.07W	
Efficiency	87.37%	88.91%	89.56%	89.92%	88.70%	*	
Average Efficiency	88.94%						*

- G. AC Input Voltage : 230Vac/50Hz

Reported \ Load Conditions	100%* I <sub>0</sub>	75%* I <sub>0</sub>	50%* I <sub>0</sub>	25%* I <sub>0</sub>	10%* I <sub>0</sub>	0%* I <sub>0</sub>	
Rms Output Current(mA)	2710mA	2033mA	1355mA	678mA	271mA	0mA	
Rms Output Voltage(V)	23.846V	23.950V	24.054V	24.156V	24.215V	24.257V	
Active Output Power(W)	64.62W	48.68W	32.59W	16.37W	6.56W	0.00W	
Rms Input Voltage(V)	230V	230V	230V	230V	230V	230V	
Rms Input Current(A)	0.833A	0.654A	0.492A	0.311A	0.230A	0.204A	
Rms Input Power(W)	72.90W	54.36W	36.31W	18.31W	7.62W	0.13W	
Total Harmonic Distortion of the input current	223.85%	239.25%	253.31%	276.62%	365.71%	456.32%	
True Power Factor	0.428	0.419	0.399	0.373	0.339	0.022	
Power Consumed by UUT(W)	8.28W	5.68W	3.72W	1.94W	1.06W	0.10W	
Efficiency	88.68%	89.59%	89.83%	89.51%	86.43%	*	
Average Efficiency	89.40%						*

Tester :Sun

若因配合認證機構的要求而變更標示, 將不另行通知。



序號	品名規格	用量	備注
1	PSE規格: VFF 2x0.75mm <sup>2</sup> 黑色	1PC	1810±20(YL)
2	YP-13 50P 黑色膠料	15g/PC	
3	半絕緣銅片: P97675BS-1B	2PCS	
4	兩插內模	1PC	
5	三爪磷青銅管	2PCS	
6	"8"字內模	1PC	
7	YC-13 50P 黑色膠料	9g/PC	
8	迷你帶: L=130mm 黑色	1PC	
9	白色護套	1PC	
10	PE 袋: 250x110x0.06mm	1PC	

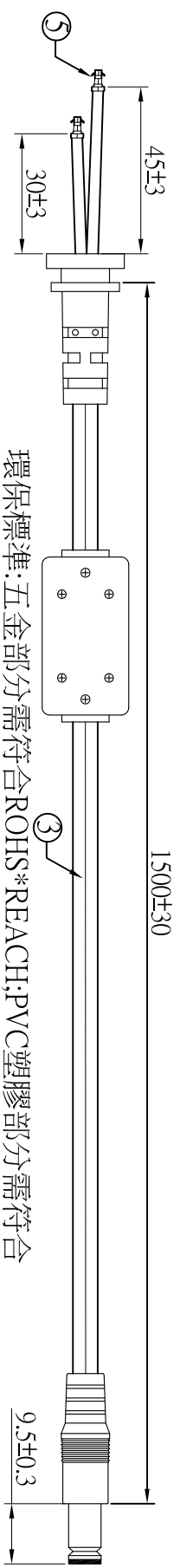
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PSJET TAKAHAMA VFF 2X0.75mm<sup>2</sup> 20XX -F-

Sample Drawing No.:  
SP170602-13

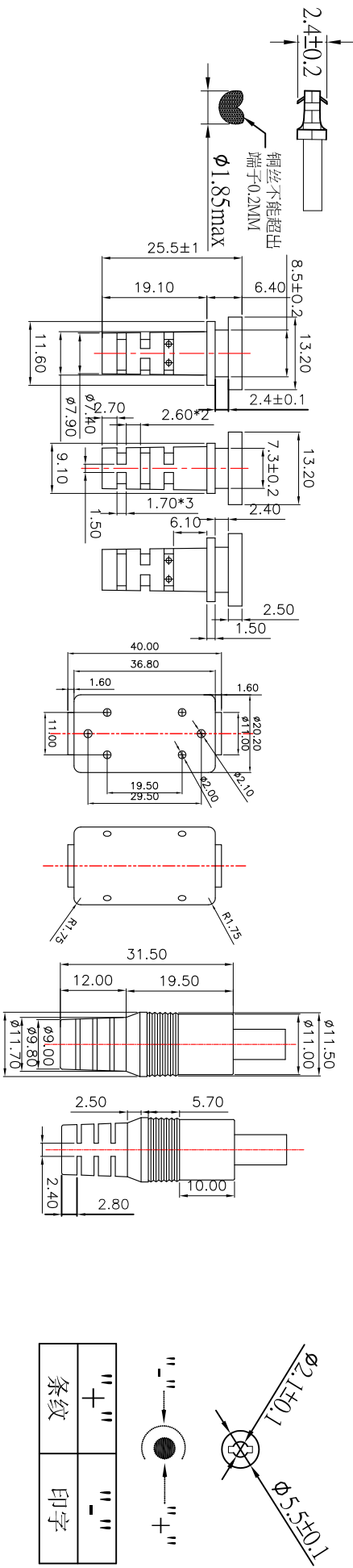
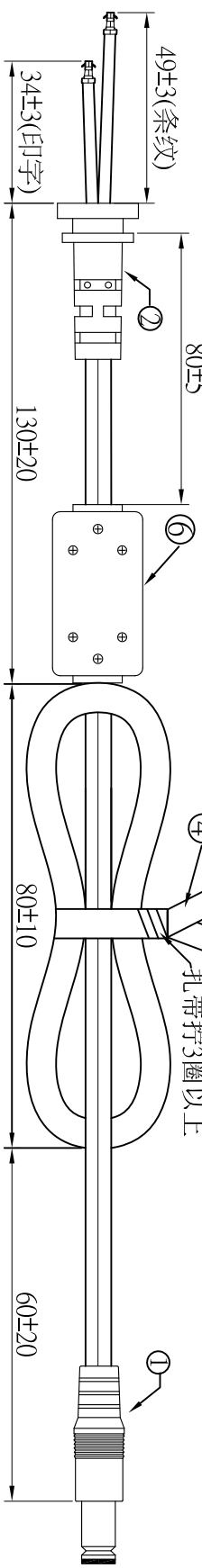
一般寸法公差:				東莞永力電業有限公司			
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>1.0±0.50	審核	日期		阿達特			
>10.0±1.0	制圖	日期	17.06.02	客戶編號	R426AF18315		
>20.0±2.0	圖號	日期		客戶料號			
±1°	圖號	日期		材質	P.V.C	單位	mm
	圖號	日期		單重(g)	72		
	圖號	日期		版本	B		





注意线材印字方向!

環保標準:五金部分需符合ROHS\*REACH;PVC塑膠部分需符合  
ROHS\*REACH\*PAHS\*PAES\*加州65



" + "	" - "
条纹	印字

- ① 5.5\*2.1\*21音叉叉沟黑色带尾,外模P-224(泰岳P-184)号模(两次成型),用PVC 60P黑色胶粒成型
- ② SR-203 (泰岳SR-348) 號模,用PVC 60P黑色膠粒成型 吊重:1米/20磅/60秒
- ③ UL2468 20AWG(BC0.16\*26)\*2C 黑色 OD:1.9\*3.8 截線長度:1570±10-0
- ④ PET无鐵芯紮帶10CM\*黑色
- ⑤ φ1.8双钩基板端子\*2PCS
- ⑥ 铁芯规格:14. 2\*28, 5\*6. 35, 外模T-011 (泰岳SR-118) 號模, 用PVC 60P黑色膠粒成型

搖擺測試標準:吊重200g,左右60度,每分鐘40次,至少2000次

絕緣阻抗:20MΩ 導通阻抗:1.5ΩMAX

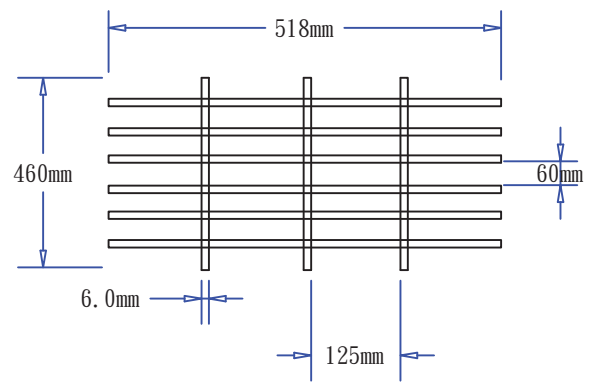
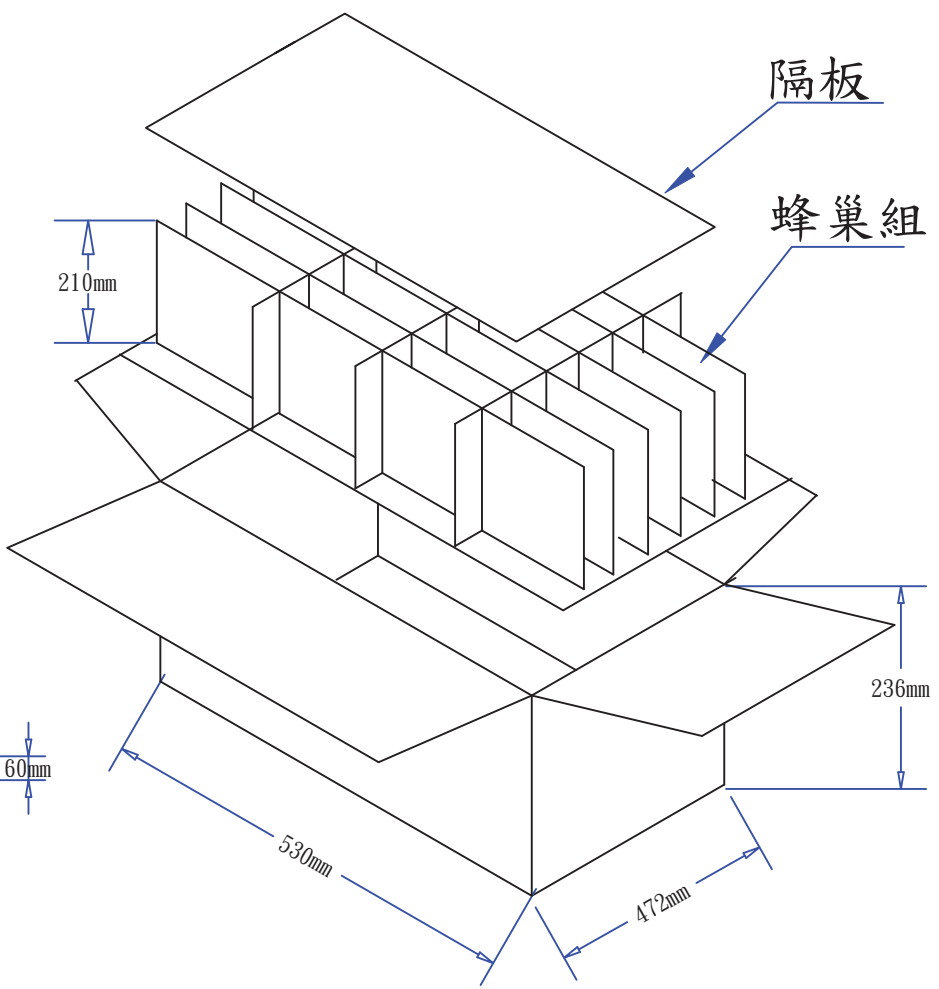
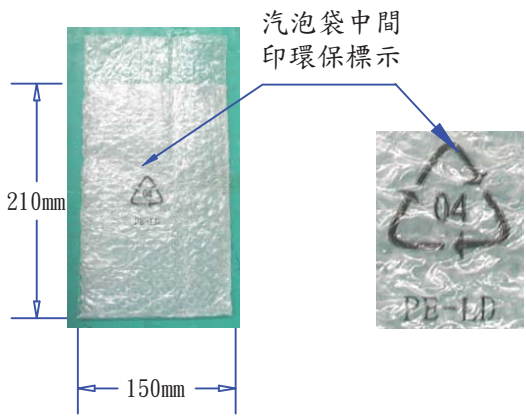
單位:mm

長度(MM)	公差範圍(MM)
5以下(含)	±0.2
10以下(含)	±0.5
30以下(含)	±1
31以上(含)	±1.5

版本	變更內容	變更人	日期
A	初出	吳青喜	2018-01-13

<b>GD 廣多貿易(廣全)有限公司</b>			
廣東省東莞市大朗鎮蔡邊村白雲前工業區雲蓮路一街6號			
TEL:0769-83019738 83019739 FAX:0769-83201033			
<b>料號</b>	<b>R44M1915011D</b>	<b>制圖</b>	<b>吳青喜</b>
<b>客戶</b>	<b>阿達特</b>	<b>頁數</b>	<b>01/01</b>
<b>廣多版本</b>	<b>A</b>	<b>審核</b>	
<b>客戶版本</b>	<b>01</b>	<b>批准</b>	
<b>圖號</b>	<b>ADT-Q0401</b>	<b>日期</b>	<b>2018-01-13</b>

<input checked="" type="checkbox"/> 用膠帶封口 <input type="checkbox"/> 無需膠帶封口	REVISIONS				
	SHOW	REV	DESCRIPTION	DATE	APPROVED
	△	A	初版制作	12/08/09	SUN
	△	B	更新格式	22/07/13	SUN



**PIS36W00016 包裝(FOR 36W~65W)(K=K)-環保雙面氣泡袋-刀卡-28**

- 9550018601 1. 隔板:518(L)\*460(W)\*6mm K=K 2/28
- 2. 數量:4\*7\*1=28 PCS
- 9520025501 3. 外箱:530(L)\*472(W)\*236(H)mm K=K 1/28
- 9560020601 4. 3刀卡:518(L)\*210(W)\*6mm(中分) K=K 6/28
- 9560020501 5. 6刀卡:460(L)\*210(W)\*6mm(中分) K=K 3/28
- 9540000901 6. 環保汽泡袋:210(L)\*150(W)\*47mm 無色透明,短邊單端開口,長邊中間印環保標志



- 7. 成品裝入氣泡袋,銘板面需位於環保標志側,將SR朝上裝入蜂巢,AC線材大頭朝上裝入蜂巢位於DC線側,方向須統一。
- 8. 上述所有材料須符合環保ROHS標準。

阿達特科技股份有限公司  
Adapter Technology Co., Ltd.

DRAWING NO. <b>PIS36W00016</b>		APPROVAL 1 BY		
UNIT	MODEL NO. 36W-65WAC線	APPROVAL 2 BY		
mm	FILE NO. ADT-0139	CHECKED BY(ENGINEER)	Sun	2022/07/13
SCALE	REV. B	SHEET 1/1	DRAWN BY	Moon
Apply for sales		Apply for engineer		Use the sales
				Use the engineer



# Adapter Technology Co., Ltd.

**8.7 Spec. Label Materials : Metalized Polyester Label ( Silver Gloss )**  
**Color : Black Background with Silver Printing**  
**Label Dimension : 70.8mm(L)\*40.4mm(W)+/-0.2mm**  
**Label Thickness : 75#**

100%



阿達特  
 2022.07.13  
 賴廣梅

Adapter Tech.  
 2022.07.13  
 Steven Liao

"YYWW"

YY=Year 2019=19  
WW=Week

"XXX"

Label supplier's code.

It is accurate that the number of words depends on the real finished product.

ID NO."X"

Manufacturer's code.

It is accurate that the number of words depends on the real finished product.

200%

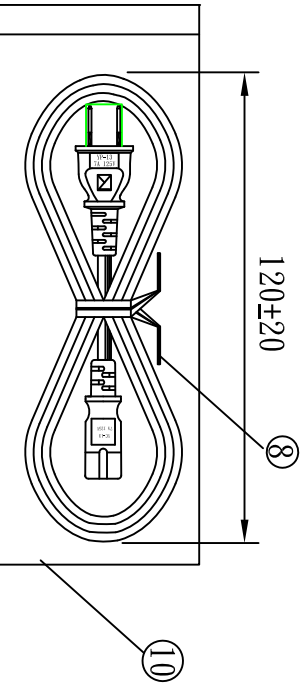
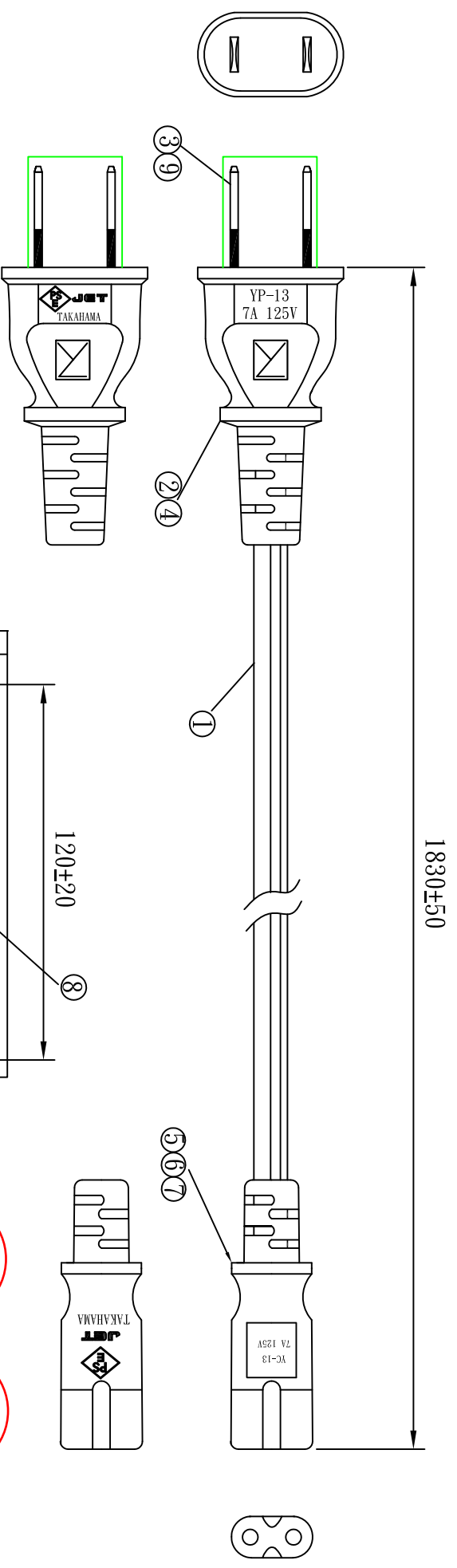


## Label Part No.:9443125410

## REV.: A



若因配合認證機構的要求而變更標示, 將不另行通知。



阿達特  
2022.07.13  
賴廣梅

Adapter Tech.  
2022.07.13  
Steven Liao

Sample Drawing No.:  
SP170602-13

線材印字:

PSJET TAKAHAMA VFF 2X0.75mm<sup>2</sup> 20XX -F-

序號	品名規格	用量	備注
1	PSE規格: VFF 2x0.75mm <sup>2</sup> 黑色	1PC	1810±20(YL)
2	YP-13 50P黑色膠料	15g/PC	
3	半絕緣銅片: P97675BS-1B	2PCS	
4	兩插內模	1PC	
5	三爪磷青銅管	2PCS	
6	"8"字內模	1PC	
7	YC-13 50P黑色膠料	9g/PC	
8	迷你帶: L=130mm 黑色	1PC	
9	白色護套	1PC	
10	PE袋: 250x110x0.06mm	1PC	

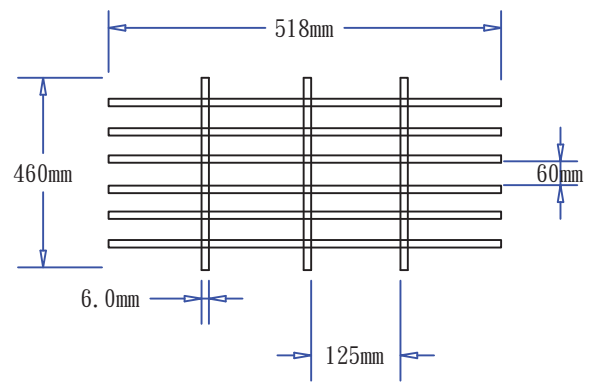
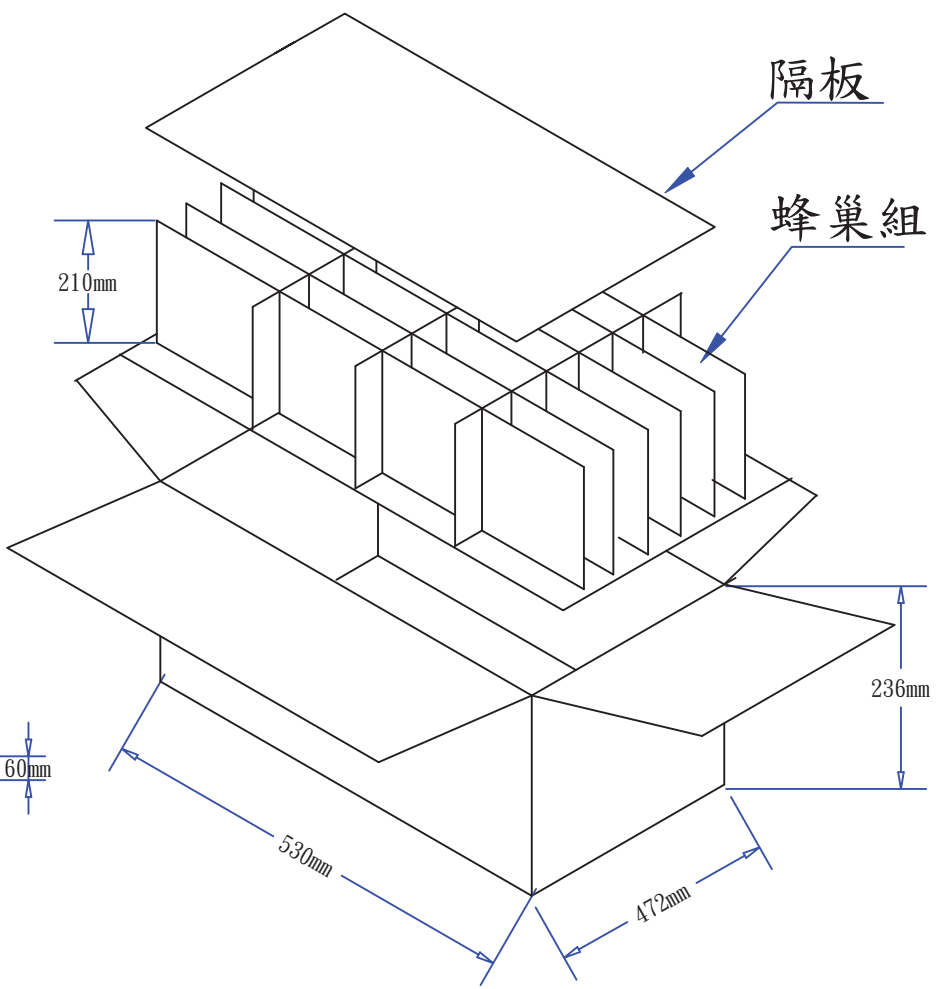
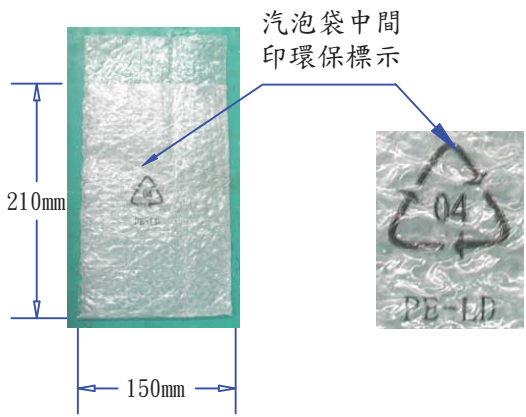
一般寸法公差:				東莞永力電業有限公司	
>0±0.30	核准	日期	YUNG LI CO., LTD.		
>1.0±0.50	審核	日期	阿達特		
>10.0±1.0	制圖	日期	客戶編號	R426AF18315	
>20.0±2.0	SUKI	17.06.02	客戶料號	P.V.C	
Angle: ±1°	(PSE)YP-13/YC-13		材質	單位	mm
	圖號	版本	單重(g)	72	







<input checked="" type="checkbox"/> 用膠帶封口	REVISIONS				
<input type="checkbox"/> 無需膠帶封口	SHOW	REV	DESCRIPTION	DATE	APPROVED
	△	A	初版制作	12/08/09	SUN
	△	B	更新格式	22/07/13	SUN



**PIS36W00016 包裝(FOR 36W~65W)(K=K)-環保雙面氣泡袋-刀卡-28**

- 9550018601 1. 隔板:518(L)\*460(W)\*6mm K=K 2/28
- 2. 數量:4\*7\*1=28 PCS
- 9520025501 3. 外箱:530(L)\*472(W)\*236(H)mm K=K 1/28
- 9560020601 4. 3刀卡:518(L)\*210(W)\*6mm(中分) K=K 6/28
- 9560020501 5. 6刀卡:460(L)\*210(W)\*6mm(中分) K=K 3/28
- 9540000901 6. 環保汽泡袋:210(L)\*150(W)\*47mm 無色透明,短邊單端開口,長邊中間印環保標誌



- 7. 成品裝入氣泡袋,銘板面需位於環保標誌側,將SR朝上裝入蜂巢,AC線材大頭朝上裝入蜂巢位於DC線側,方向須統一。
- 8. 上述所有材料須符合環保ROHS標準。

阿達特科技股份有限公司  
Adapter Technology Co., Ltd.

DRAWING NO. <b>PIS36W00016</b>		APPROVAL 1 BY		
UNIT	MODEL NO. 36W-65WAC線	APPROVAL 2 BY		
mm	FILE NO. ADT-0139	CHECKED BY(ENGINEER)	Sun	2022/07/13
SCALE	REV. B	SHEET 1/1	DRAWN BY	Moon
				2022/07/13
Apply for sales		Apply for engineer	Use the sales	Use the engineer
		阿達特 2022.07.13 徐東昇	Adapter Tech. 2022.07.13 Steven Liao	阿達特 2022.07.13 賴廣梅