

Specification for Approval

Customer :

Part Name : AC ADAPTER

Description : 12 Volts / 5 Amps

. : (Level VI)

Customer P / N : SW3783B

Product P / N :

Issued Date : 24-Jun.-2015

Version : A1

Issued Stamp :

Customer's Approval Signature

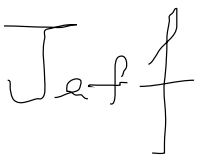
60 W
AC ADAPTER
SPECIFICATION

Model No. : (Level VI)

Description : 12Volts / 5Amps

Version : A1

Date : 24-Jun.-2015

Approved	Reviewed	Checked	Prepared	Sales
				

■ Approval Documents/Spec. Revised Records

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■ Original Documents Content : Spec. 11 Pages, Attachment 2 Pages

[illegible]

1. Feature :

- ◆ **Input** : Universal 100 ~ 240 Vac / 50 ~ 60 Hz Input, without any slide switch.
- ◆ **Output** : +12V / 0~5A
- ◆ **Case Dimension** : 115 (L) *53 (W) * 38 (H) mm
- ◆ **Efficiency** : Eff (av) $\geq$ 88%
- ◆ **Safety** : UL / cUL / GS / PSE / BSMI / CB / KC
- ◆ **EMI** : CE / FCC Class B ; Conduction & Radiation Met.
- ◆ **Protection** : OVP (Over Voltage Protection) 、SCP (Short Circuit Protection) 、OCP (Over Current Protection)
- ◆ High frequency design , less power consumption.
- ◆ Suitable for usage at Telecommunication, Computer, Industrial Controller, & OA System.
- ◆ Meet DoE / ErP (Stage 2) / GEMS / NRCan / CEC / EPA

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)
2.5 Efficiency	Eff (av) $\geq$ 88% (At 115 Vac & 230 Vac)
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	+12V $\pm$ 5%
	Current	5A Max.
	Regulation	11.40Vmin. ~ 12.00Vtyp. ~ 12.60Vmax.
	Ripple & Noise	120mV Max.
	Total Power	60 W Max.

Remark : For ripple & noise measurement, use a 20MHz bandwidth frequency oscilloscope, and add a 0.1 μ F multilayer Cap. and a Low ESR Electrolytic Cap. (10 μ F) at output connector terminals. (At nominal line voltage, full load)

4. Protection :

4.1 Over Voltage Protection (OVP)	(V out *150%) Max.
4.2 Short Circuit Protection (SCP)	Automatic recovery after short-circuit fault being removed
4.3 Over Current Protection(OCP)	(I out *180%) Max.

Remark : When Short Circuit Protection or Over Current Protection is activated,the power supply will shutdown automatically.
Once the abnormal condition resulting in the failure being removed, the power supply will restart accordingly. When
Over Voltage Protection is activated, the power supply will shutdown latch .

5. Safety 、EMI and EMC Requirement :

5.1 Safety Requirement

a. Safety : UL / cUL / GS / PSE / BSMI / CB / KC

b. Dielectric Strength : Cut off current 10mA

(1)	Primary to Secondary	3000Vac for 1 Minute
(2)	Primary to Frame Ground	1500Vac for 1 Minute

c. Insulation Resistance :

(1)	Primary to Secondary	10 M ohm for 500Vdc
(2)	Primary to Frame Ground	10 M ohm for 500Vdc

5.2 EMI Requirement : CE / FCC Class B ; Conduction & Radiation Met.

5.3 Leakage Current : Less than 3.5mA

5.4 Grounding Test : Resistance 0.1ohm Max. @ 32A

6. Operation and Environment Performance :

6.1 Temperature Range

Operating	+ 0°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 Typical

8.2 Cable Type : Black UL1185 AWG16

(Wire + Plug)

Plug : $\phi 5.5 * \phi 2.1 * 12\text{mm}$

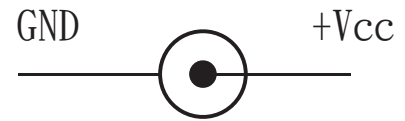
(Tuning Fork & Cannelure)

8.3 Cable Length : 1500mm

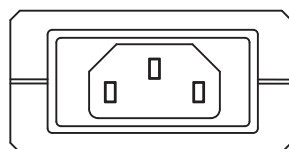
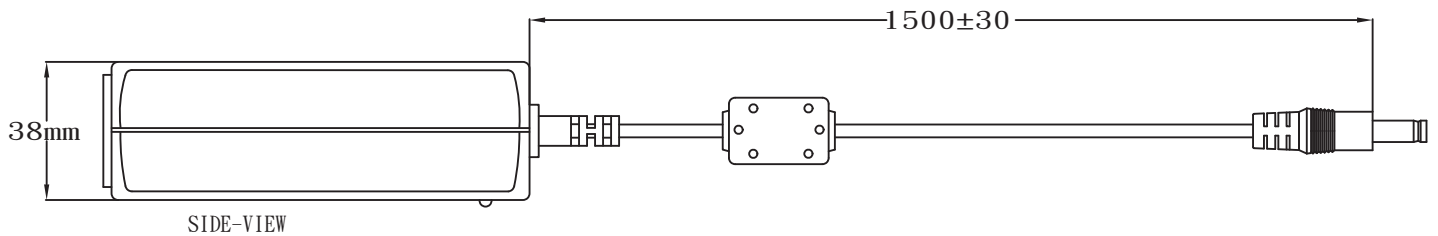
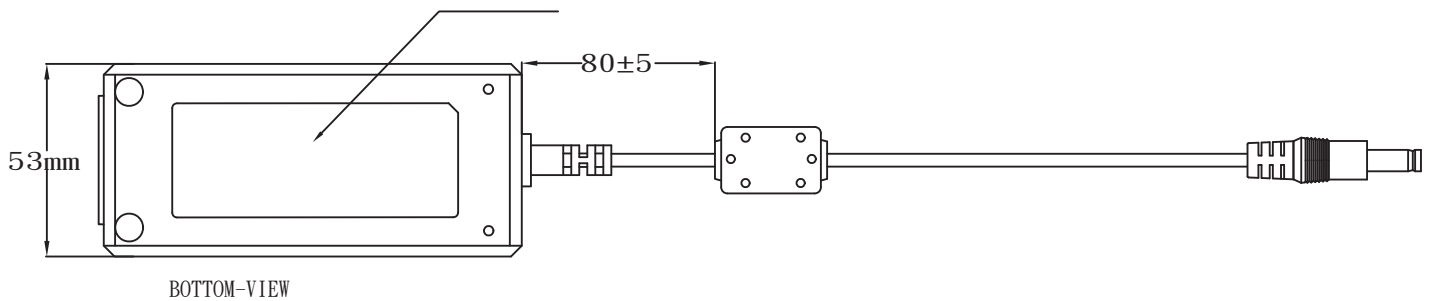
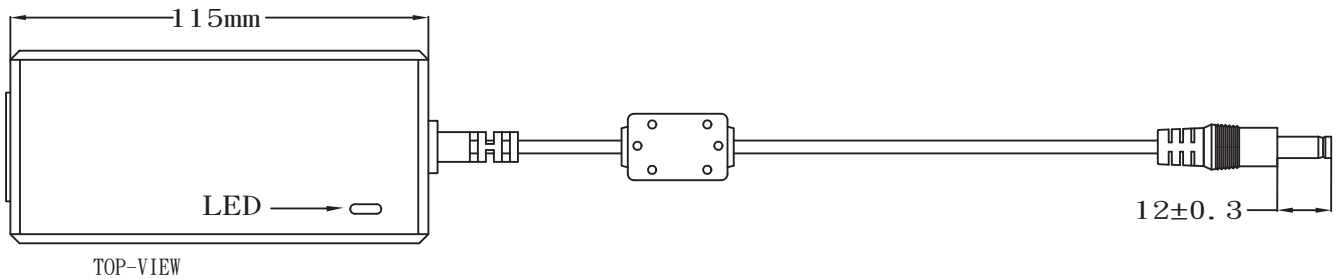
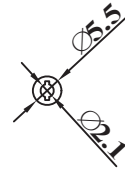
8.4 Case Dimension : 115mm(L)*53mm(W)*38mm(H)

8.5 Material Flammability : UL 94V-0

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



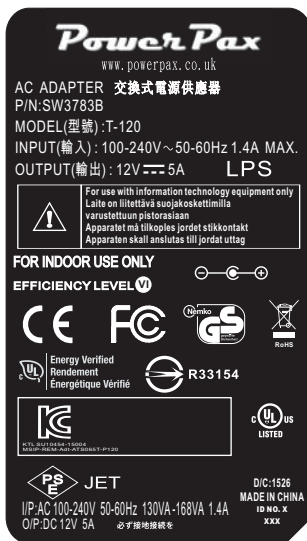
Output Cable Plug Pin Assignment



FRONT-VIEW

8.7 Spec. Label Materials : Metalized Polyester Label (Silver Gloss)
Color : Black Background with Silver Printing
Label Dimension : 70.8mm(L)*40.4mm(W)+/-0.1mm
Label Thickness : 75#

100%



"XXX"

Label supplier's code.

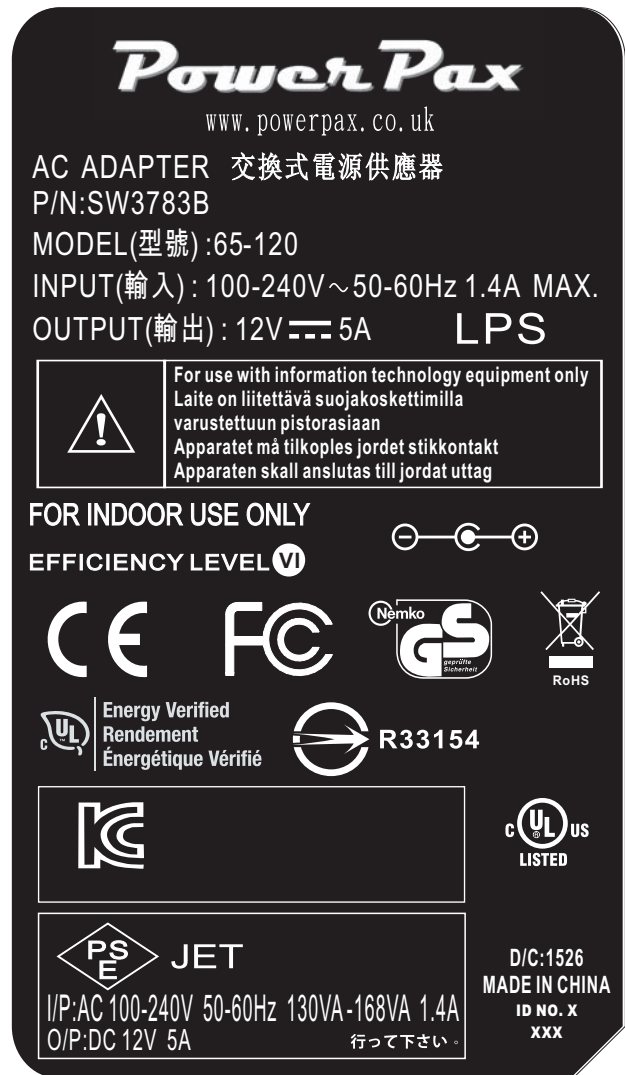
It is accurate that the number of words depends on the real finished product.

ID NO."X"

Manufacturer's code.

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

200%



Label Part No.:9443055250
REV.:A

8.8 Spec. Label Materials : Art paper+ Gloss
Color : White Background with Black Printing
Label Dimension : 85mm(L)*15mm(W)+/-0.1mm
Label Thickness : 0.1mm

100%

P/N:SW3783B

200%

P/N:SW3783B

Label Part No.:9423001120
REV.:A

A. Line Regulation Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
90Vac / 50 % Load	11.40 V ~ 12.60V	12.18 V	12.16 V	12.15 V
115Vac / 50 % Load	11.40 V ~ 12.60V	12.18 V	12.16 V	12.15 V
132Vac / 50 % Load	11.40 V ~ 12.60V	12.18 V	12.16 V	12.15 V
180Vac / 50 % Load	11.40 V ~ 12.60V	12.18 V	12.16 V	12.15 V
230Vac / 50 % Load	11.40 V ~ 12.60V	12.18 V	12.16 V	12.15 V
264Vac / 50 % Load	11.40 V ~ 12.60V	12.18 V	12.16 V	12.15 V

B. Efficiency Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac	88 % Min.	89.10 %	89.07%	89.10 %
230Vac	88 % Min.	89.38 %	89.15%	89.47 %

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

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

C. Load Regulation Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 0 % Load	11.40 V ~ 12.60V	12.33 V	12.33 V	12.31 V
115Vac / 50 % Load	11.40 V ~ 12.60V	12.18 V	12.16 V	12.15 V
115Vac / 100 % Load	11.40 V ~ 12.60V	12.03 V	12.00 V	11.98V
230Vac / 0 % Load	11.40 V ~ 12.60V	12.25 V	12.33 V	12.31 V
230Vac / 50 % Load	11.40 V ~ 12.60V	12.18 V	12.16 V	12.15 V
230Vac / 100 % Load	11.40 V ~ 12.60V	12.03 V	12.00 V	11.98V

D. Ripple & Noise Test

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	120mV Max.	63.4 mV	60.8 mV	65.4 mV
230Vac / 100 % Load	120mV Max.	61.2 mV	62.1 mV	63.3 mV

E. Inrush Current

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
240Vac / 100 % Load	80A Max	63 A	65 A	64 A

F. Over Current Protection

Test Result :

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	(Vout *180%) Max.	122 %	120 %	121 %
230Vac / 100 % Load	(Vout *180%) Max.	121 %	122 %	123 %

G. Short Circuit Protection

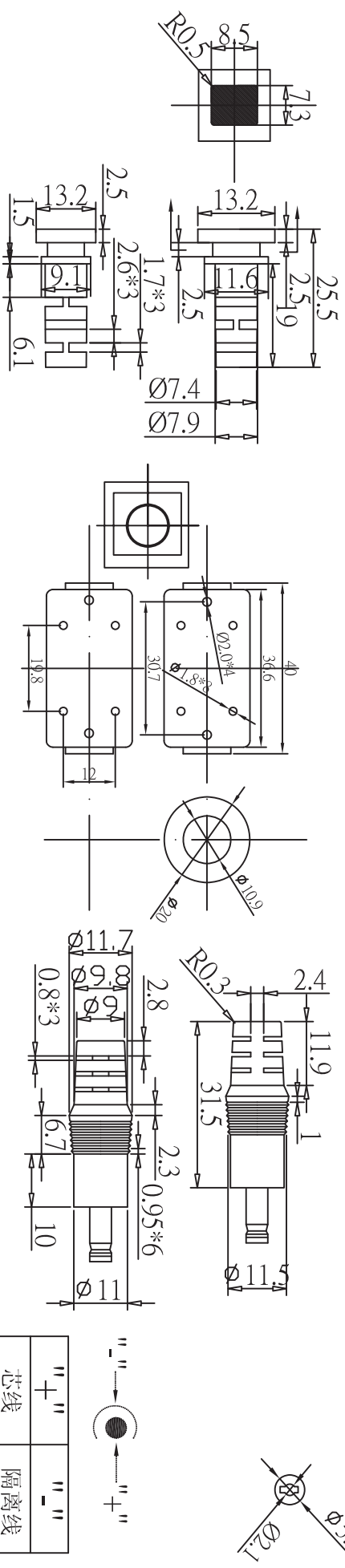
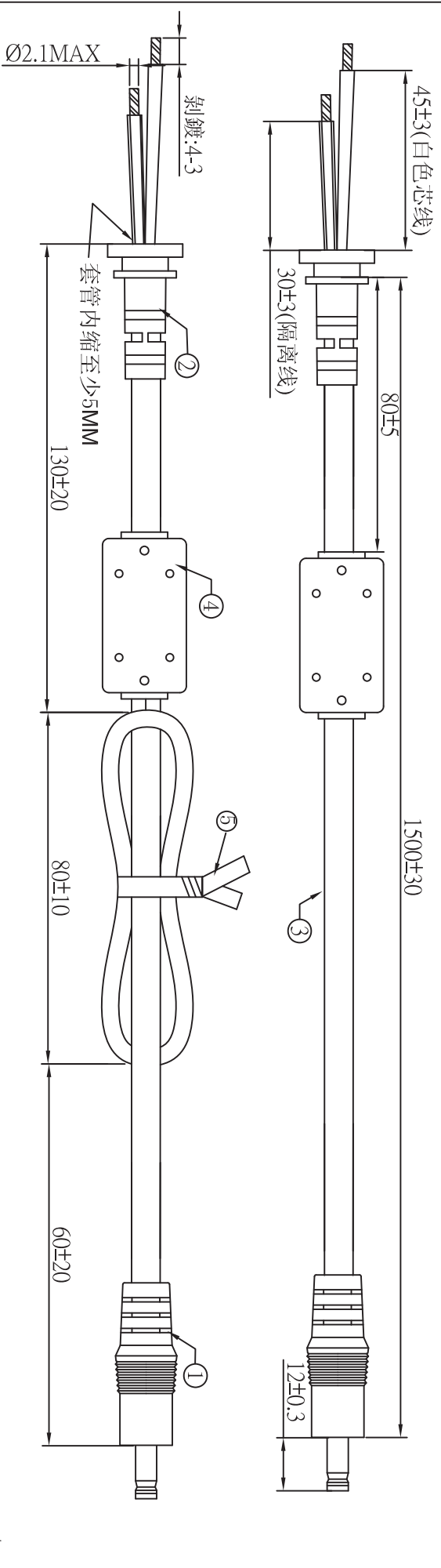
Test Result :

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	≤ 0.21 W	0.05 W	0.05 W	0.05 W

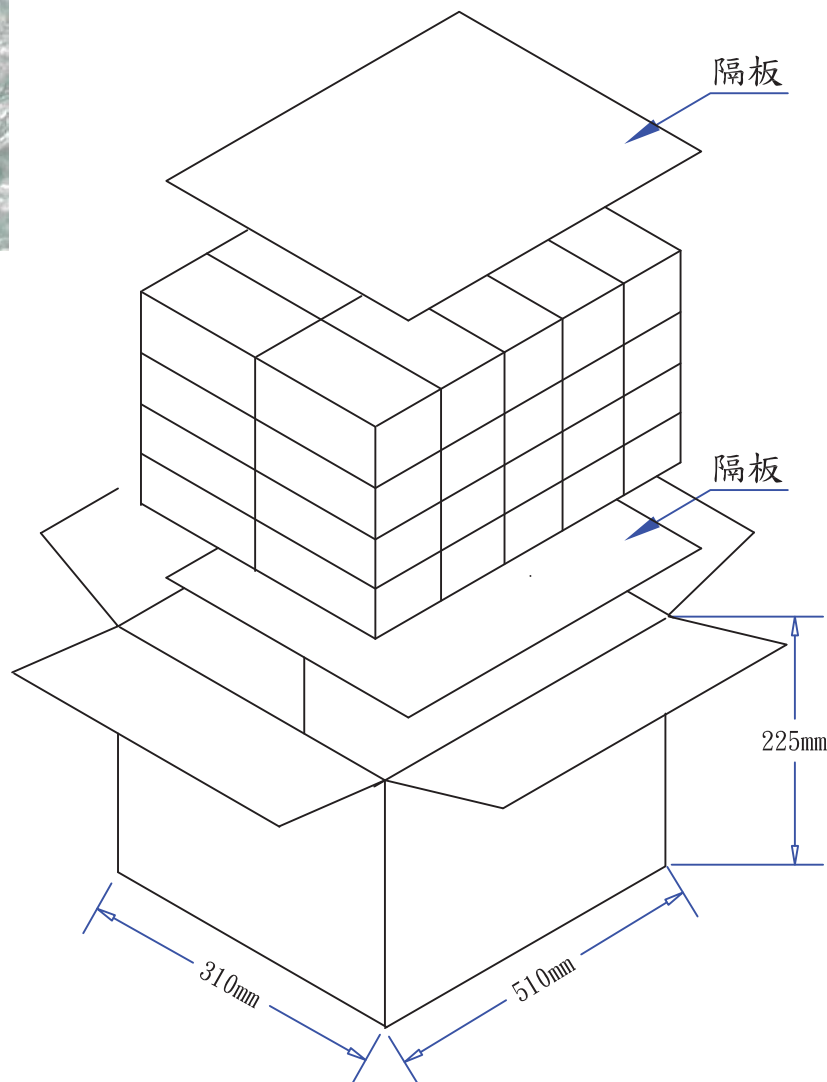
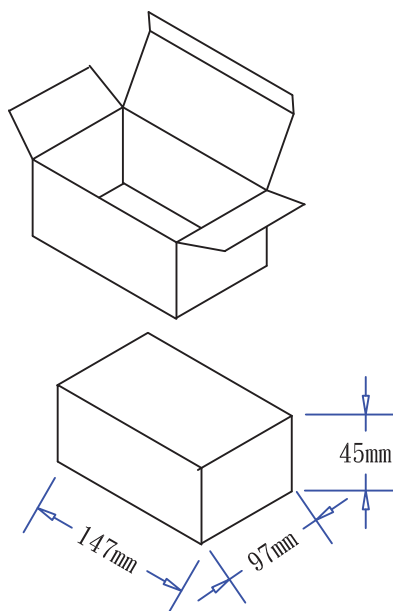
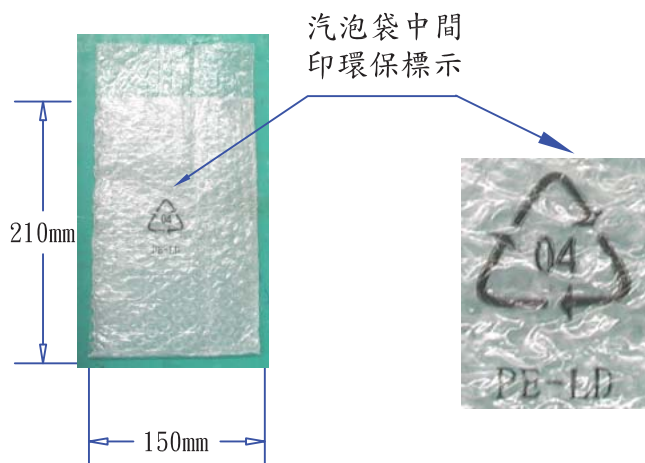


注意:此圖面所需材料符合"ROHS"標準

- ① 5.5*2.1*23音叉車溝黑色半邊(YY-PD-00186),外模P-184號模(二次成型),用料外PVC60P黑色(YY-PV-00009)
- ② SR-348(C)號模,用料PVC75P黑色(YY-PV-00031),吊重:1米/20磅/60秒
- ③ UL 1185 16AWG(0.254*26) 单芯隔離线加粗 (0.16*65) BK亮 OD:4.3 裁線長度:1560+10/-0
- ④ 鐵芯規格:14.2*28.5*6.35(YY-CR-00009),外模SR-118號模用料PVC60P黑色(YY-PV-00009)
- ⑤ 熱縮套管Ø2*35
- ⑥ PE有鐵芯紫帶10CM黑色(YY-ES-00001)
- ⑦ 絕緣阻抗:20Ω,導通阻抗:1.5Ωmax
- ⑧ 單位:MM

料號	R44M1115017		
客戶	阿達特	制圖	吳遠松
版次	02	審核	
頁數	01	批准	
泰岳電子有限公司			
版次	變更內容	圖號	日期
02	鍍錫OD	ADT-1797	2011/04/21

REVISIONS				
SHOW	REV	DESCRIPTION	DATE	APPROVED
0	A	ISSUE	18/Jun/09	



零件料號

9550004101

1. 隔板: 500*300*6mm B=B 2/40

2. 數量: 10*4=40PCS

9520009801

3. 外箱: L*W*H=510*310*225mm K=K 1/40

9510000802

4. 白盒: L*W*H=147*97*45mm 350P+CE(即C9紙加裱350磅白板紙)

9540000901

5. 環保汽泡袋: 210*150*47mm 無色透明, 短邊單端開口, 長邊中間位置印環保標示

6. 白盒, 外箱標注為外徑尺寸.

7. 成品CASE朝前裝入汽泡袋, 銘板與環保標示同一側, 折合袋口后用小膠紙封口

8. 成品銘板向上平裝入白盒內, 方向須統一, 線材位於白盒內側.

ADAPTER
2009.07.14
研發部

DRAWING NO. PIS36W00002		APPROVAL 1 BY	
UNIT	MODEL NO. 36W-65W(阿達特)	APPROVAL 2 BY	
mm	FILE NO. PACKAGE_Y_212	CHECKED BY(ENGINEER)	廖志偉(ChihWei)
SCALE	REV. A	SHEET 1/1	DRAWN BY sun
		DATE: 2009/06/19	
		DATE: 2009/06/18	