Specification for Approval

Customer	:	**CPC**
Part Name	:	**AC ADAPTER**
Description	:	**12Volts / 5Amps**
Model No.	:	**STD-1250P (LEVEL IV)**
Customer P / N	:	**SW4273(PW02712)**
Product P / N	:	**RXTD1250P415224**
Issued Date	:	**11-Feb.-2011**
Version	:	**A1**

Issued Stamp :

Customer's Approval Signature

60W

Switching Power Adapter

SPECIFICATION

Model No.	:	**STD-1250P (LEVEL IV)**
Description	:	**12Volts / 5.0Amps**
Part No.	:	**RXTD1250P415224**
Version	:	**A1**
Date	:	**11-Feb.-2011**

Approved	Checked	Prepared

■ Approval Documents/Spec. Revised Records

- Customer : CPC
- Model No. : STD-1250P
- Original Documents Content : Spec. 11 Pages, Attachment 2 Pages

Revised Records : No.	Date (mm/dd/yyyy)	Description (Before / After)	Page(s) Revised	Revised By (Adapter/Customer)	Remark
1	Feb./11/2011	ISSUE	-	Jarvis	A1

1. Feature：

- ♦ **Input** ： **Universal 100 ~ 240 Vac / 47 ~ 63 Hz Input, without any slide switch.**
- ♦ **Output** ： **+12V / 0~5A**
- ♦ **Case Dimension** ： **115 (L) *53 (W) * 38 (H) mm**
- ♦ **Efficiency** ： **Eff (av) ≧ 85%**
- ♦ **Safety** ： **CUL / UL / GS / PSE / BSMI / CB / RCM**
- ♦ **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 Energy Star IV / Erp (Stage 1) / MEPS IV.**

2. Input：

2.1 Voltage	**Universal 100~240Vac, single phase**
2.2 Frequency	**47 ~ 63 Hz**
2.3 Current	**1.4A Max.**
2.4 Inrush Current	**60A Max. / 230Vac (Cold start at 25 ºC，full load)**
2.5 Efficiency	**Eff (av) ≧ 85% (At 115 Vac & 230 Vac)**
2.6 Power Consumption	**Pi ≦ 0. 5 W (At 230Vac & No load)**

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

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**	**+12.00V ± 5%**
	Current	**5 A Max.**
	Regulation	**11.4Vmin. ~ 12.0Vtyp. ~ 12.6Vmax.**
	Ripple & Noise	**200 mV Max.**
	Total Power	**60W Max.**

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

4. Protection :

4.1 Over Voltage Protection (OVP)	V out *(110%~150%)
4.2 Short Circuit Protection (SCP)	Automatic recovery after short-circuit fault being removed
4.3 Over Current Protection(OCP)	I out *(102%~170%)

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 ： CUL / UL / GS / PSE / BSMI / CB / RCM

b. Dielectric Strength ： Cut off current 10mA

(1)	Primary to Secondary	1800Vac 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

6. Operation and Environment Performance：

6.1 Temperature Range

Operating	+ 0ºC ~ + 40ºC
Storage	- 20 ºC ~ + 60 ºC

6.2 Humidity Range(Non-condensing)

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

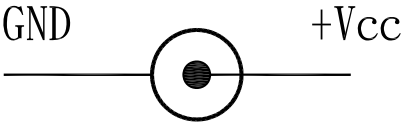
6.3 Cooling：By natural air.

7. M.T.B.F.： 100,000 Hrs.(At 25ºC，By MIL-HDBK-217F)

8.Mechanical :

8.1 Weight : 288 g Typical

8.2 Cable Type : Black UL2468 AWG18
(Wire + Plug)
Plug : ø2.1*ø5.5*12mm
(Tuning Fork & Cannelure)
Cable Drawing No. : ADT-0888



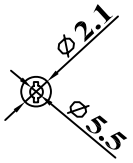
Output Cable Plug Pin Assignment

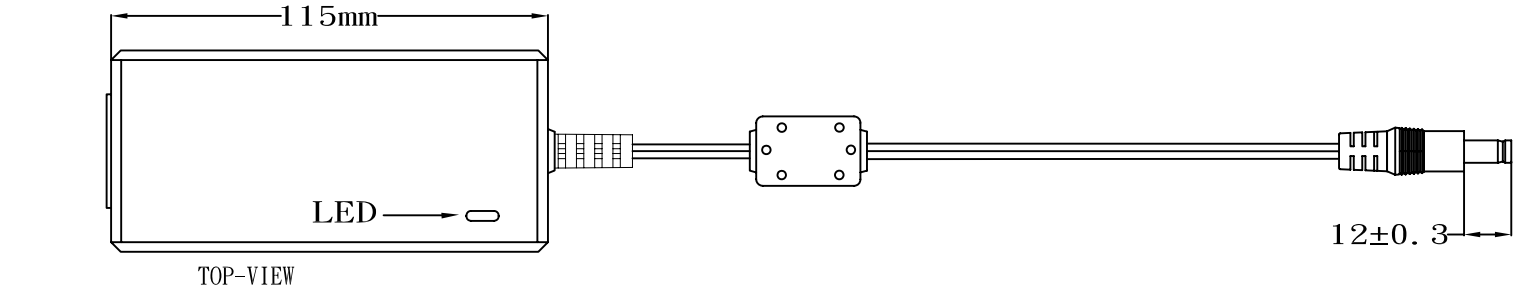
8.3 Cable Length : 1500mm

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

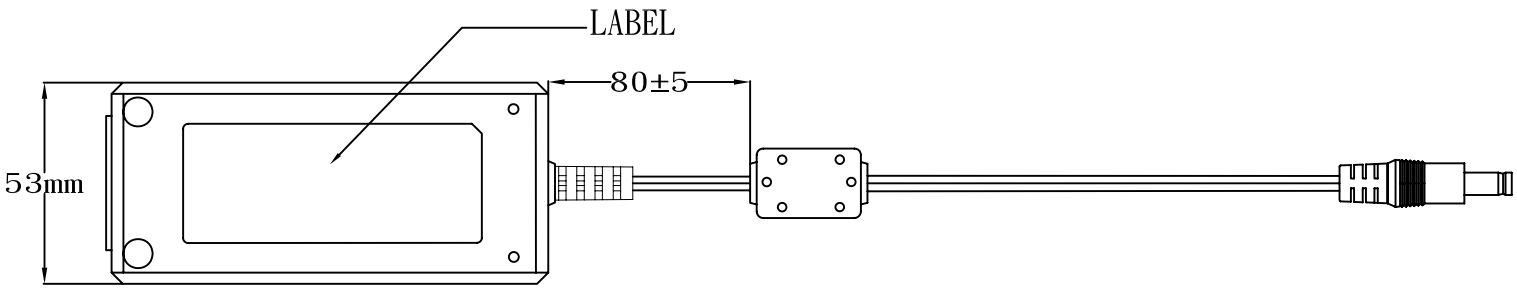
8.5 Material Flammability : UL 94V-0

8.6 External Apperance : As drawing below (Scale → mm)

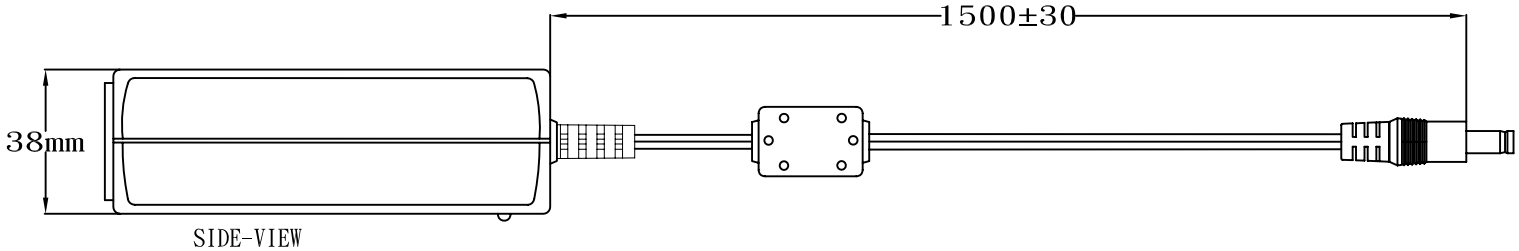




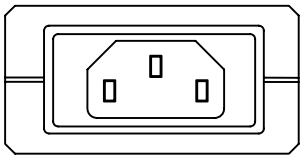
TOP-VIEW



BOTTOM-VIEW

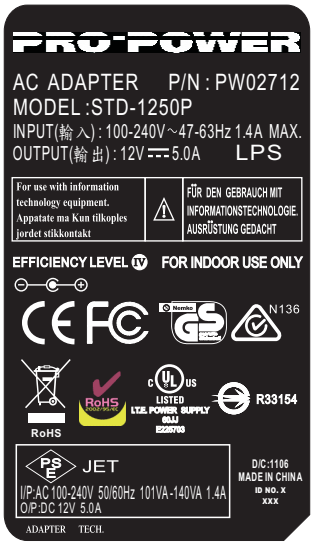


SIDE-VIEW



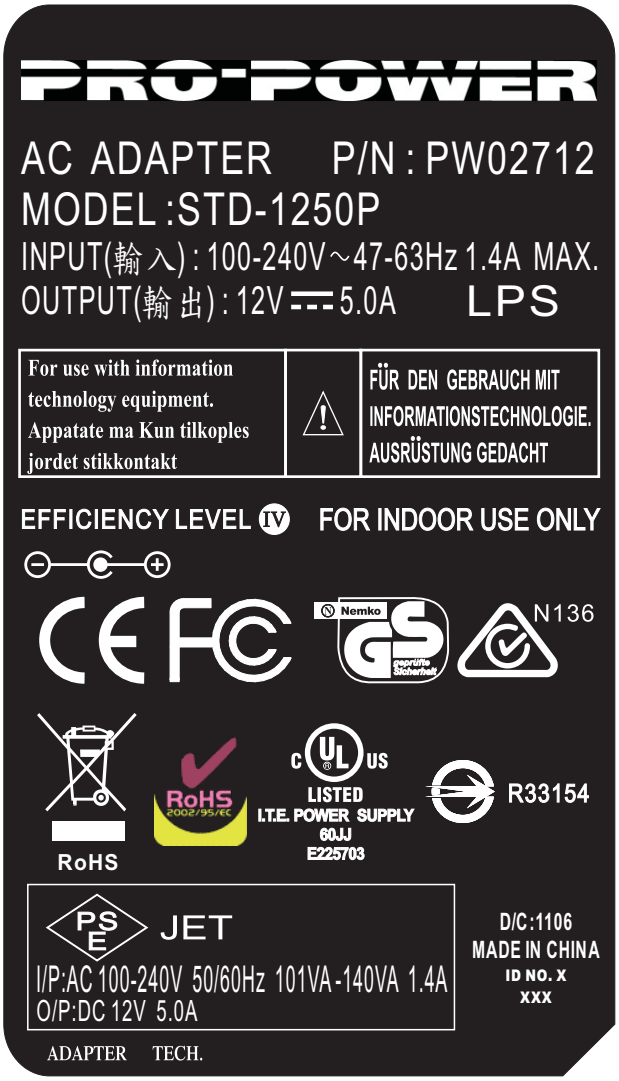
FRONT-VIEW

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 : 0.1mm



"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.



8.8 Spec. Label Materials : Art paper (With Gloss)
Color : White Background with Black Printing
Label Dimension : 85.0mm(L)*15.0mm(W)+/-0.1mm
Label Thickness : 0.1mm

100%

P/N : PW02712

P/N : PW02712

A. Line Regulation Test

Test Result ：

Test condition	Spec.	Reading 1	Reading 2	Reading 3
90Vac / 50 % Load	11.4 V ~ 12.6 V	12.238 V	12.236 V	12.232 V
115Vac / 50 % Load	11.4 V ~ 12.6 V	12.238 V	12.236 V	12.232 V
132Vac / 50 % Load	11.4 V ~ 12.6 V	12.238 V	12.236 V	12.231 V
180Vac / 50 % Load	11.4 V ~ 12.6 V	12.24 V	12.239 V	12.235 V
230Vac / 50 % Load	11.4 V ~ 12.6 V	12.24 V	11.239 V	12.235 V
264Vac / 50 % Load	11.4 V ~ 12.6 V	12.24 V	11.240 V	12.235 V

B. Efficiency Test

Test Result ：

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac	85 % Min.	85.7 %	85.62 %	85.58 %
230Vac	85 % Min.	85.33 %	85.31 %	82.29 %

$$Eff_{(av)} = \frac{E_1 + E_2 + E_3 + E_4}{4}$$

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	11.4 V ~ 12.6 V	12.356 V	12.251 V	12.249 V
115Vac / 50 % Load	11.4 V ~ 12.6 V	12.238 V	12.236 V	12.232 V
115Vac / 100 % Load	11.4 V ~ 12.6 V	12.118 V	12.112 V	12.110 V
230Vac / 0 % Load	11.4 V ~ 12.6 V	12.354 V	12.250 V	12.247 V
230Vac / 50 % Load	11.4 V ~ 12.6 V	12.24 V	12.239 V	12.235 V
230Vac / 100 % Load	11.4 V ~ 12.6 V	12.125V	12.122 V	12.119 V

D. Ripple & Noise Test

Test Result ：

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	200mV Max.	70 mV	76 mV	73 mV
230Vac / 100 % Load	200mV Max.	60 mV	65 mV	64 mV

E. Inrush Current

Test Result ：

Test condition	Spec.	Reading 1	Reading 2	Reading 3
230Vac / 100 % Load	60A Max	46.0 A	46.0 A	45.0 A

F. Over Current Protection

Test Result ：

Test condition	Spec.	Reading 1	Reading 2	Reading 3
115Vac / 100 % Load	Iout*(102%~170%)	144 %	141 %	144 %
230Vac / 100 % Load	Iout*(102%~170%)	144 %	143 %	145 %

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	≦ 0.5 W	0.35 W	0.41 W	0.38 W

Efficiency Test Report

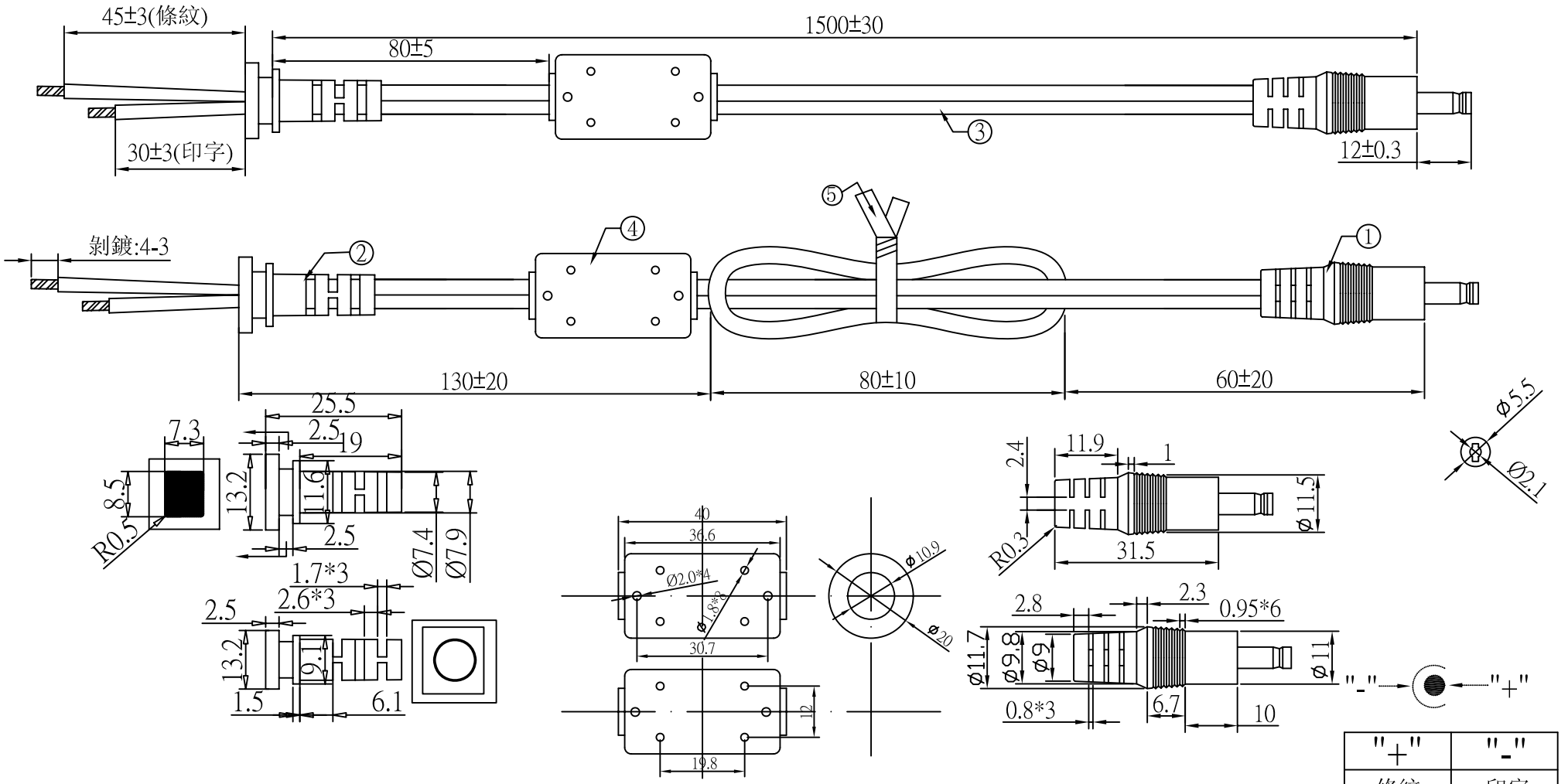
A.	**Model Number**	:	**STD-1250P (12V / 5A)**
B.	**DC Power Cord**	:	**UL2468 , 18AWG , 1.5M**
C.	**Average Efficiency**	:	
	Energy Star IV		**85% min.**
	Erp (Stage 1)		**84% Min.**
	MEPS IV		**85% min.**
D.	**NO Load Power Consumption**	:	
	Energy Star IV		**0.5W max.**
	Erp (Stage 1)		**0.5W max.**
	MEPS IV		**0.5W max.**
E.	**Testing Dequipment**	:	
	1. AC Power Source	:	**" Zentech "** **2700M-10**
	2. Electronic Load	:	**" PRODIGIT "** **3311C**
	3. Power Meter	:	**" Zentech "** **2100**
	4. Digital Meter	:	**" FLUKE "** **45**
F.	**AC Input Voltage**	:	**115Vac/60Hz**

Load Conditions / Reported Quantity	100%* I_0	75%* I_0	50%* I_0	25%* I_0	0%* I_0
Rms Output Current(mA)	5000mA	3750mA	2500mA	1250mA	0mA
Rms Output Voltage(V)	11.616V	11.743V	11.868V	11.989V	12.111V
Active Output Power(W)	58.08W	44.04W	29.67W	14.99W	0.00W
Rms Input Voltage(V)	115V	115V	115V	115V	115V
Rms Input Current(A)	0.908A	0.707A	0.501A	0.277A	0.016A
Rms Input Power(W)	69.80W	52.10W	34.40W	17.30W	0.18W
Voltage T.H.D.(%)	0.38%	0.29%	0.27%	0.21%	0.18%
True Power Factor	0.539	0.517	0.481	0.440	0.111
Power Consumed by UUT(W)	11.72W	8.06W	4.73W	2.31W	0.18W
Efficiency	83.21%	84.52%	86.25%	86.63%	*
Average Efficiency	85.15%				*

G. AC Input Voltage : 230Vac/50Hz

Load Conditions / Reported Quantity	100%* I_0	75%* I_0	50%* I_0	25%* I_0	0%* I_0
Rms Output Current(mA)	5000mA	3750mA	2500mA	1250mA	0mA
Rms Output Voltage(V)	11.616V	11.743V	11.868V	11.989V	12.111V
Active Output Power(W)	58.08W	44.04W	29.67W	14.99W	0.00W
Rms Input Voltage(V)	230V	230V	230V	230V	230V
Rms Input Current(A)	0.555A	0.429A	0.297A	0.163A	0.024A
Rms Input Power(W)	69.00W	52.00W	34.50W	17.50W	0.25W
Voltage T.H.D.(%)	0.32%	0.27%	0.25%	0.18%	0.08%
True Power Factor	0.432	0.422	0.408	0.365	0.057
Power Consumed by UUT(W)	10.92W	7.96W	4.83W	2.51W	0.25W
Efficiency	84.17%	84.69%	86.00%	85.64%	*
Average Efficiency	85.12%				*

Tester : DEN



"+"	"-"
條紋	印字

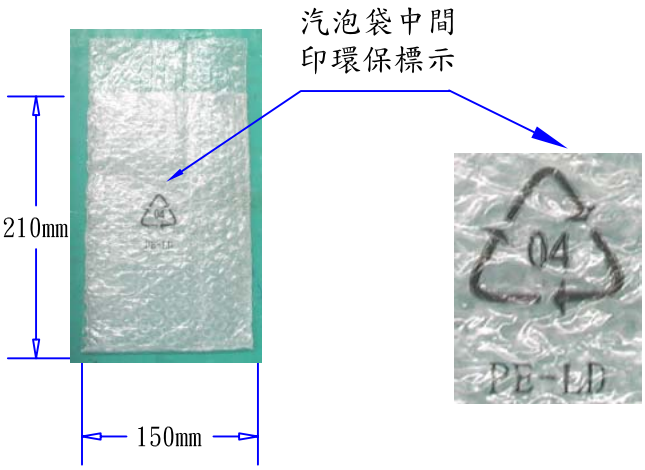
注意:此圖面所需材料符合"ROHS"標準

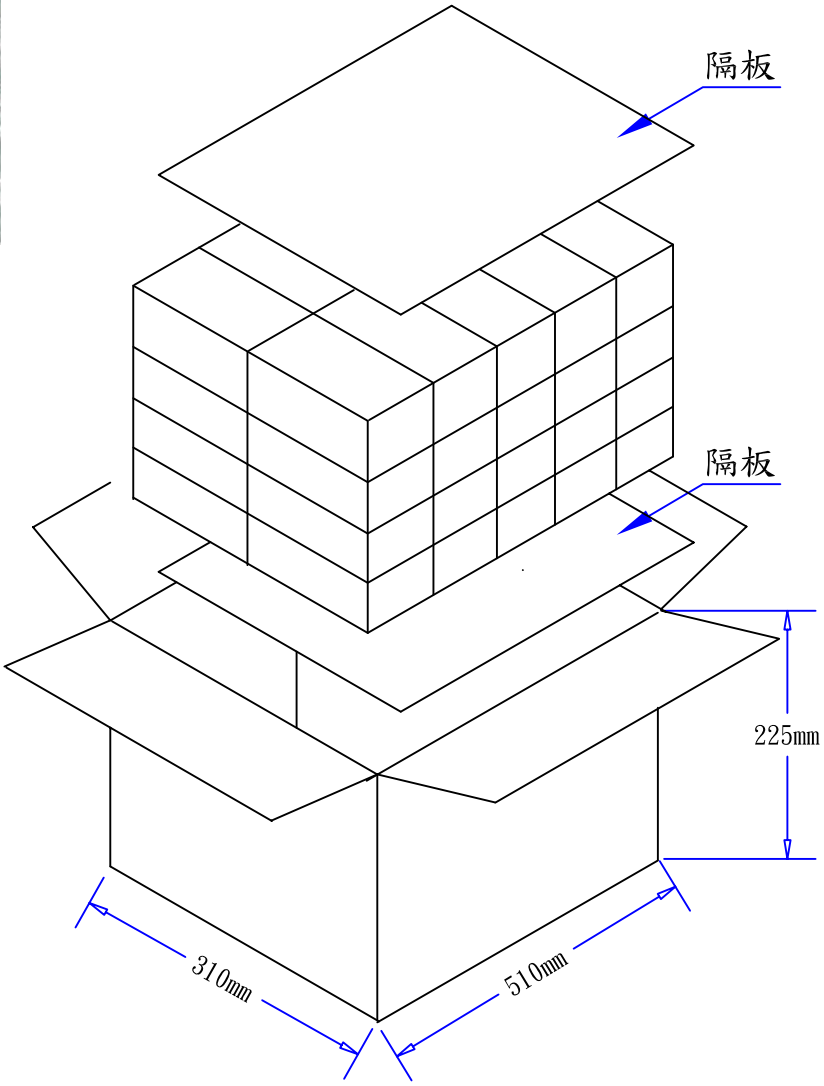
① 5.5*2.1*24.5音叉車溝黑色半邊(YY-PD-00158),外模P-184號模(二次成型),
用料外PVC60P黑色(YY-PV-00009)
② SR-348(A)號模,用料PVC75P黑色(YY-PV-00031),吊重:1米/20磅/60秒
③ UL 2468 18AWG(0.16*41)*2C BK OD:2.2*4.4(YY-DC-00091) 裁線長度:1560+10-0
④ 鐵芯規格:14.2*28.5*6.35(YY-CR-00009),外模SR-118號模用料PVC60P黑色(YY-PV-00009)
⑤ PE有鐵芯紮帶10CM黑色(YY-ES-00001)
⑥ 絕緣阻抗:20Ω,導通阻抗:1.5Ωmax
⑦ 單位:MM

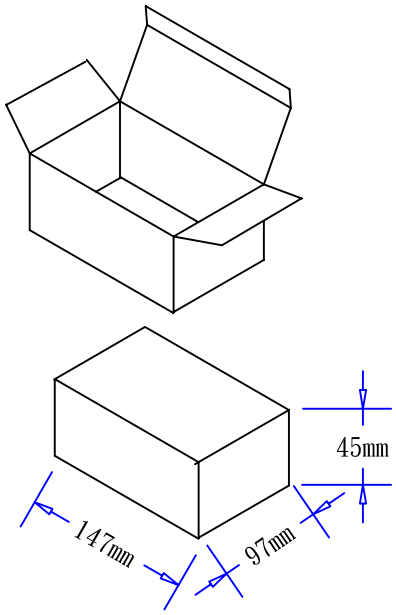
料號	R44M1G1501G		
客戶	阿達特	制圖	谈怀用
版次	02	審核	
頁數	01	批準	
泰岳電子有限公司			
圖號	ADT-0888	日期	2008/10/30

02	SR模号
版次	内容

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志

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

阿達特科技股份有限公司	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)	DATE: 2009/06/19
	SCALE	REV. A SHEET 1/1	DRAWN BY	sun	DATE: 2009/06/18