

承認書

APPROVAL SHEET

客戶名稱： _____
CUSTOMER

承認書編號： _____
NO. of APPROVAL SHEET

品名： AC ADAPTOR
DESCRIPTION

客戶產品型號： _____
MODEL NO. OF CUSTOMER

宥展產品型號： AD-1280
MODEL NO. OF G-ALANTIC

簽認章 AUTHORIZED SIGNATURE		

G-ALANTIC ENTERPRISE CO., LTD.

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New Taipei City, Taiwan (MIT Int'l Science Park Zone)

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<http://www.g-alantic.com.tw>

<http://www.zooty.com.tw>

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**G-ALANTIC®**

1. DESCRIPTION

This product is an 69.96W AC to DC plug-in, Class I, single output power device with constant voltage sources.

2. SCOPE

This specification is applied as description of electrical & mechanical characteristics for PA1075.

3. ELECTRICAL CHARACTERISTICS

3.1 Input Characteristics

3.1.1 AC input voltage

Rated input voltage: 100 ~ 240Vac

Operating input voltage range: 90~ 264Vac

3.1.2 AC input frequency

Rated Input frequency: 50-60 Hz

Operating input frequency range: 47~63 Hz

3.1.3 AC input current

Maximum:2000mA

3.1.4 AC inrush current

Inrush current shall be less 70A at input 115Vac, 100A max/230VAC

cold start at input voltage 90-degrees cut angle for sine wave. With full load.

3.2 Output Characteristics

3.2.1 Output voltage

Output voltage :DC12V±5%

3.2.2 Output current

Output current: 0~5830mA

3.3 Efficiency

3.3.1 The efficiency of power supply will be higher than 87.0% at input voltage range with average value.

3.3.2 Meet CEC regulation level V.

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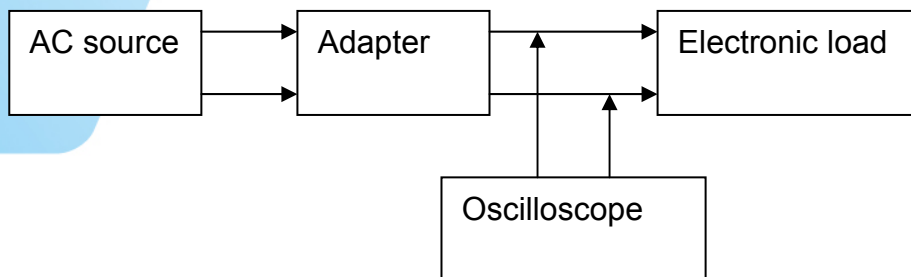


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3.4 Ripple & Noise

Ripple limit: Output voltage 1% max.
 Noise limit: Output voltage 1% max.

Test condition: This is measured over bandwidth of 20MHz at the power supply output connector a 10 μ F electrolytic capacitor in parallel with a 0.1 μ F ceramic capacitor in 5 minutes after the supply starts up.



3.5 Turn on delay time & Rise time

3.5.1 Turn-on delay time

At turn on moment, From AC input turn on to output voltage rise to 90%, The time will less than 2 Sec. At input voltage range with full load.

3.5.2 Rise time

At turn on moment, The output voltage from 10% to 90% rise time will be less than 20mSec. At input voltage range with full load.

3.5.3 Over shoot will be less than 8% of normal voltage value.

3.5.4 Hold up time

At turn off moment, From AC input turn off to output voltage fall to 90%, The time will be more than 10mSec. At input voltage range with full load.

3.6 Protection

3.6.1 Short circuit protection

When output short circuited, output voltage peak value shall be less rating output voltage, AC input peak power will be less 15W at moment and with auto- recovery function

3.6.2 Over current protection

Over current protection point will be less than output current 200% with auto-recovery function.

3.6.3 Over voltage protection

Over voltage protection point will be less than output voltage 120%

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4 Safety & EMC requirement

Safety

Safety Refer Standards

UL(USA)	UL60950-12nd 2007.3.27
CUL(Canada)	CSA C22.2 NO.60950-1-07 2nd 2007.3
CB scheme	IEC60950-1:2005 (2nd Edition)
TUV GS	EN60950-1:2006+A11
Taiwan	BSMI CNS14336
PSE	J60950(H)19),J55022(H14)

EMI

CE	EN55022:2006(Class B) EN55024:1998/A1:2001/A2:2003
FCC	ANSI C63.4(2003) Class B
VCCI	CISPR 22:1997+A1:2000 Class B
Australia	CISPR 22:1997+A1:2000 Class B AS/NZS CIPR22:2002

Referring Standards		Test Specification	
ESD	IEC61000-4-2	Contact	$\pm 4KV$
		Air	$\pm 8KV$
EFT	IEC61000-4-4	1KV on AC power line.	
SURGE	IEC61000-4-5	1KV on differential mode.	

4.1 Surge Test

There must be no damage to the adaptor and it must continue to operate and meet all specifications after surge test.

Surge voltage condition: Full Load, voltage($\pm 1KV$)

Ring wave (0.5us/100KHz), -. Impulse(1.2/50us)

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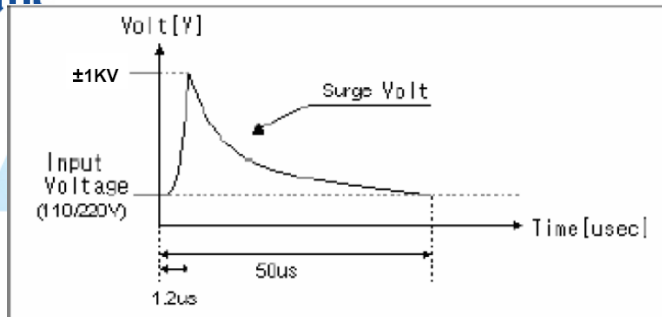
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4.2 Leakage Current

MAX Current: under 700uA

Y-capacitor between primary & secondary circuit is less than 4700pF.

4.3 HI-POT

4.3.1: Between primary to secondary: 1800Vac 50Hz for 3 Sec.

In Production line shall be more than 2 sec,

Test current will be less 10mA

Adapter is no damage after completion of the test

4.3.2: Conditions of Grounding test: Test current 25A(MAX) , 100mohms(max)

4.4 Insulation Resistance

Adapter will withstand 500VDC 50Mohms between input or output plug to plastic case

5. Reliability

5.1 MTBF

40,000 hour Power on at 25 °C

5.2 Temperature Rise (Delta-T).

Temperature rise will be less than 85 deg C and case temperature rise will be less than 35 °C at normal AC input / DC output full loading

Environment temperature 25 ± 1°C

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5.3 Burn-in

100% Burn - in at full loading and 4 hours at 40 +/- 5°C Environment temperature.

5.4 Drop Test

The adapter will be subjected to 3 drops from 0.6M height on a hard wooden surface.

5.5 AC input ON/OFF test (Dip test)

The adapter must meet all specifications after test.

AC input voltage: 115/230Vac

AC input ON/OFF cycle: min 5 Sec/ 5 Sec

AC input voltage drop: 30%/500mSec

AC input ON/OFF times: 10,000

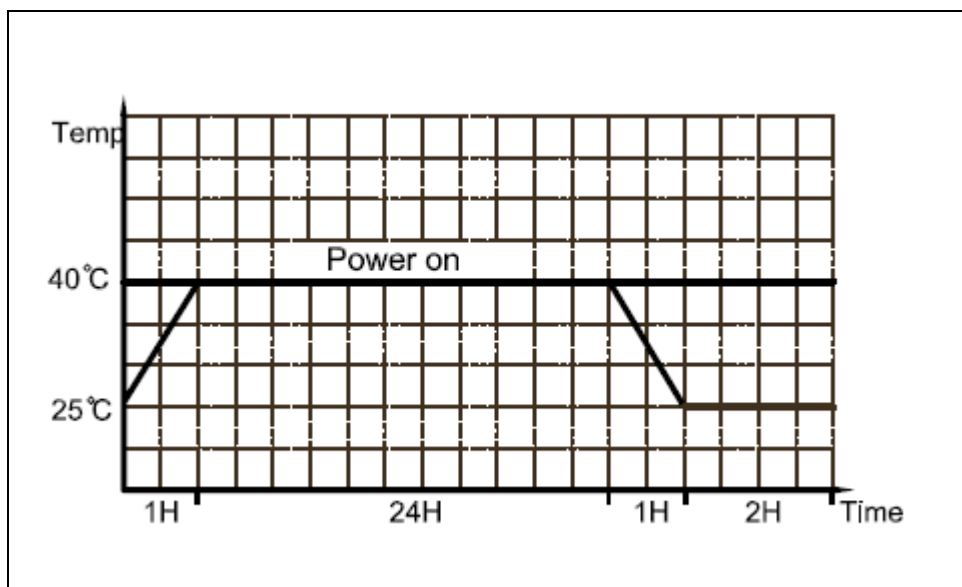
6. ENVIRONMENTAL CHARACTERISTICS.

6.1 Temperature

The adapter must meet all specifications after test.

Unit operating temperature range: 0 to 40°C

Storage temperature range: -20 to 70°C



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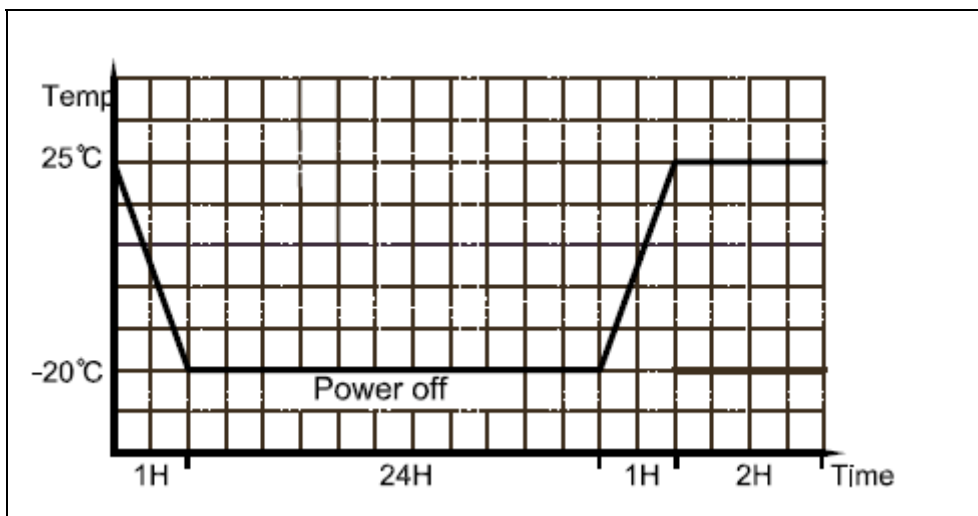
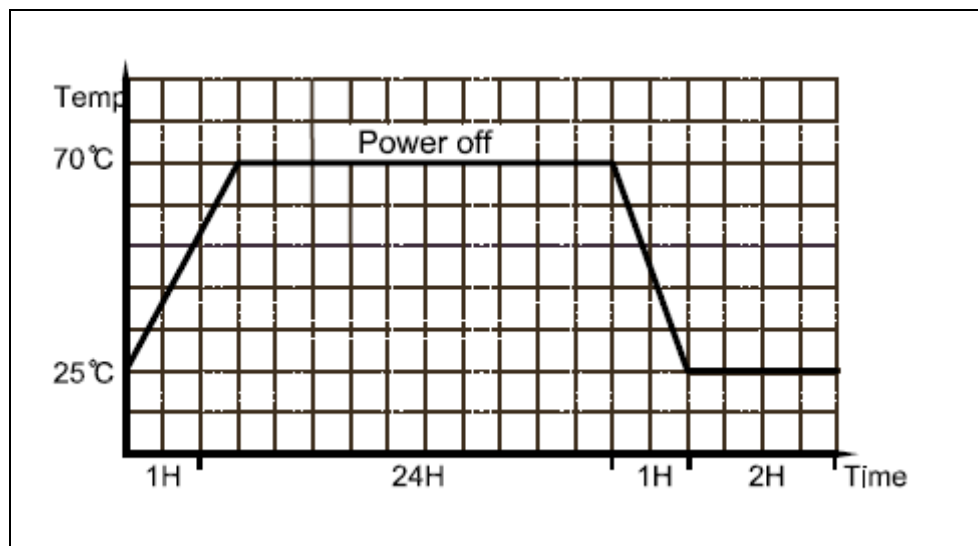
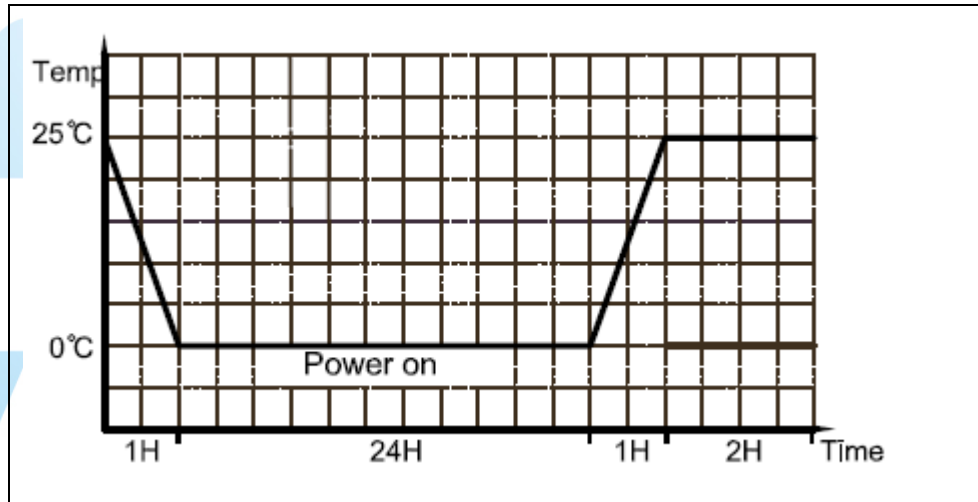
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6.2 Max Temperature

The adaptor must meet all specifications after test.
Condition:

Measure the temperature continuously for more than 3 hours with max load.

6.3 Humidity

The adapter must meet all specifications after test.

Operating humidity: Max 75%RH

Storage humidity: Max 95% RH

6.4 Altitude

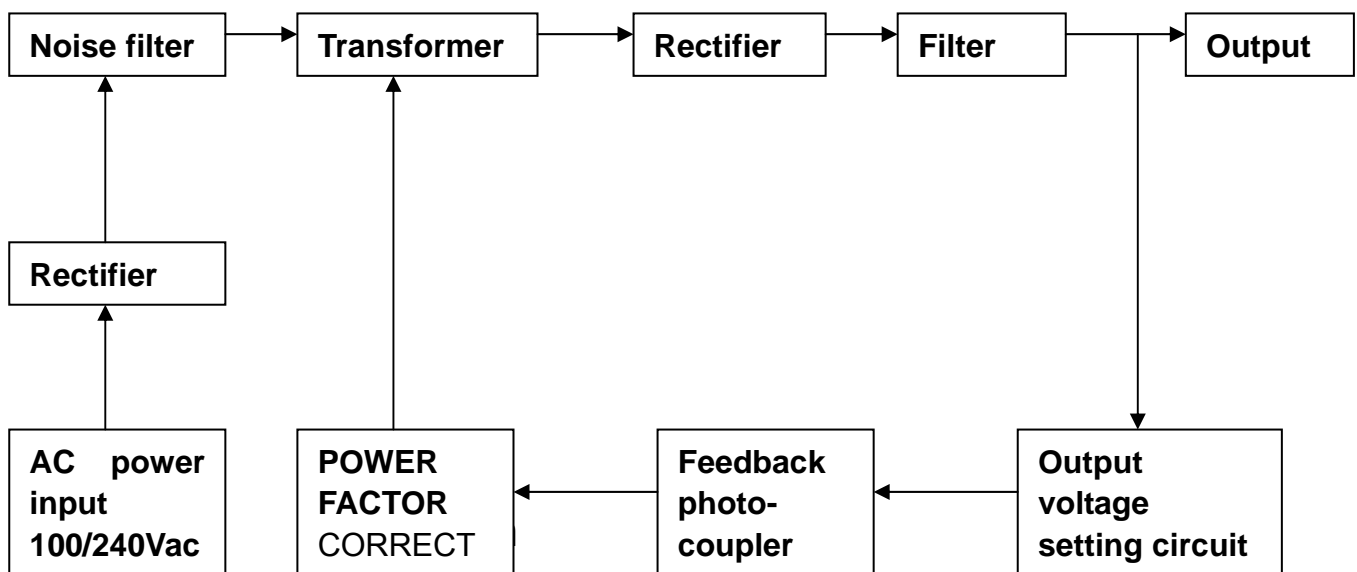
The adapter must meet all specifications after test.

Installation : Sea level up to +10,000 feet

Storage : Sea level -100 to +10,000 feet

7 Block Diagram & Schematic Drawing

7.1 Block Diagram



8 Mechanical

8.1 Plastic Case material: "PC".

8.2 Physical Size: 155.5mm(L)x54mm(W)x32 mm(H).

8.3 Output Cable: UL1185, 16AWG, L=1500mm with plug : 5.5X2.5X10.5mm Barrel straight



8.4 AC input with 3 pins plug-in type.

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9.SAMPLE TEST REPORT

9.1. Burn - In Test

Test Purpose: To check reliability of the products.						
Test Condition: Ambient Temperature: 40 +/- 5°C 1. Vin = 115V/60Hz Full load 4hours 2. Vin = 230V/50Hz Full load 4hours						
Criteria: There should not be any abnormal found after the testing.						
Test result: <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail						
Test Data	No.	1	2	3	4	5
	1	OK	---	---	---	---
	2	OK	---	---	---	---

9.2. COMBINE REGULATION TEST

Test Purpose: To check if the Total regulation and ripple noise meets the specification.												
Test Condition: Ambient Temperature: 25°C 1. Vin = 100V/60Hz Full load 2. Vin = 110V/60Hz Half load 3. Vin = 132V/60Hz No load 4. Vin = 180V/50Hz Full load 5. Vin = 230V/50Hz Half load 6. Vin = 264V/50Hz No load												
Criteria: 1. Output Voltage Range: 11.4V ~12.6V 2. Ripple & Noise Range: 250mVMax												
Test result: <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail												
Test Data	Output Voltage (V)						Ripple & Noise (mV)					
	No.	1	2	3	4	5	No.	1	2	3	4	5
	1	11.79	---	---	---	---	1	210	---	---	---	---
	2	11.95	---	---	---	---	2	190	---	---	---	---
	3	12.11	---	---	---	---	3	60	---	---	---	---
	4	11.79	---	---	---	---	4	180	---	---	---	---
	5	11.95	---	---	---	---	5	150	---	---	---	---
	6	12.11	---	---	---	---	6	62	---	---	---	---

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9.5. Short Circuit Test

<p>Test Purpose: To verify that no damage, fire or safety problem will result from a short circuit.</p>						
<p>Criteria: 1. Power supply shall recover automatically. 2. The maximum output energy will lower than 15VA is when it is in output short-circuit.</p>						
<p>Test Condition: Ambient Temperature: 25°C 1. Vin =115V/60Hz 2. Vin = 230V/50Hz</p>						
<p>Test result: <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail</p>						
Test Data	No.	1	2	3	4	5
	1	2.1	---	---	---	---
	2	4.8	---	---	---	---

9.6. Hi-Pot Test

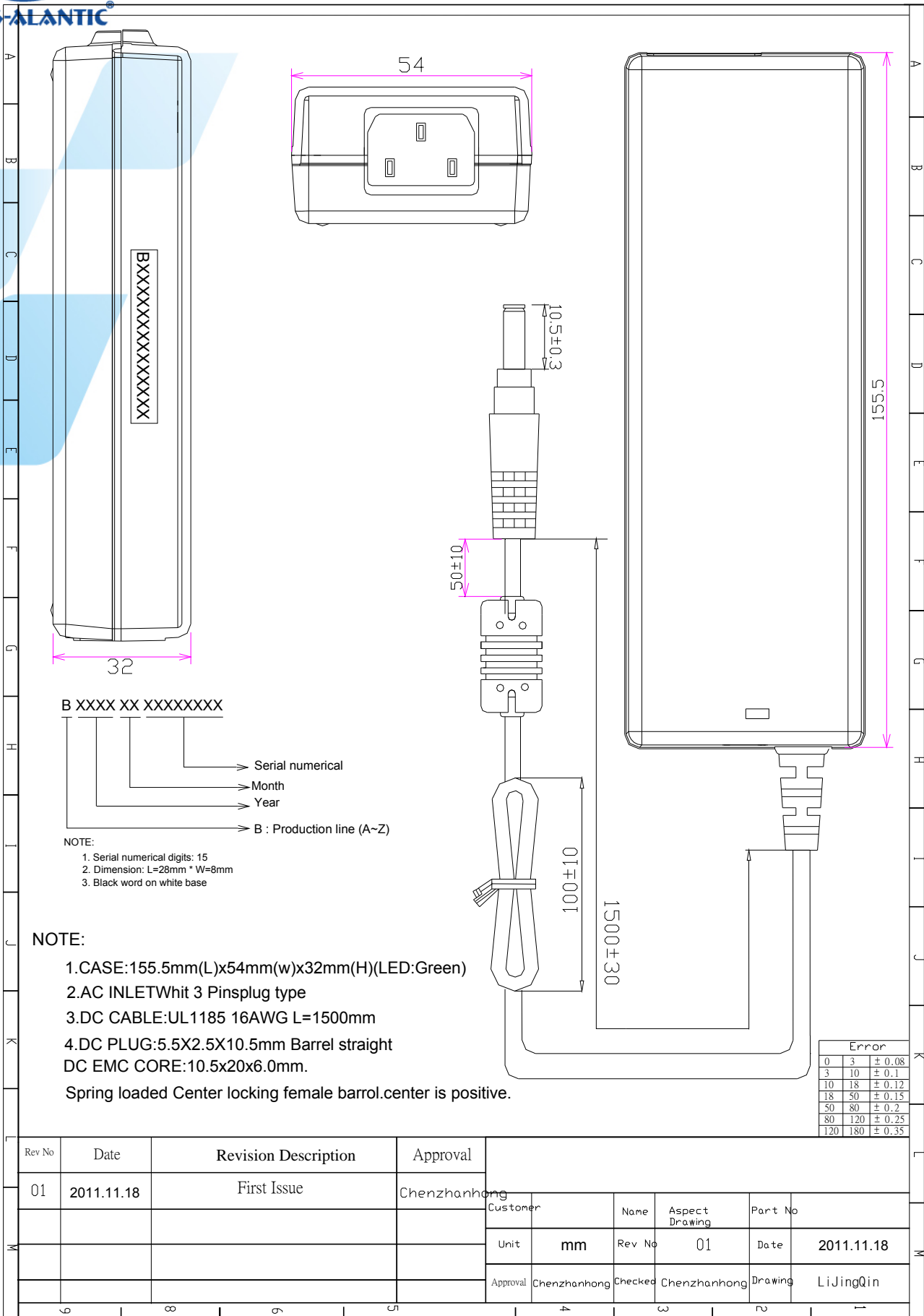
<p>Test Purpose: To check if Hi-Pot characteristic meet specification requirement.</p>						
<p>Test Condition: Ambient Temperature: 25°C 1. H/P TEST: 1800VAC 10.0mA(Max) 3Seconds 2. I-R TEST: 500VDC 50MΩ(Min) 3 Seconds 3. R-Ω TEST: 100mΩ(max) 25A</p>						
<p>Criteria: Power supply should experience no damage.</p>						
<p>Test result: <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail</p>						
Test Data	No.	1	2	3	4	5
	1	OK	---	---	---	---
	2	OK	---	---	---	---
	3	OK	---	---	---	---

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B XXXX XX XXXXXXXX

- Serial numerical
- Month
- Year
- B : Production line (A~Z)

NOTE:
 1. Serial numerical digits: 15
 2. Dimension: L=28mm * W=8mm
 3. Black word on white base

NOTE:
 1. CASE:155.5mm(L)x54mm(w)x32mm(H)(LED:Green)
 2. AC INLET Whit 3 Pinsplug type
 3. DC CABLE:UL1185 16AWG L=1500mm
 4. DC PLUG:5.5X2.5X10.5mm Barrel straight
 DC EMC CORE:10.5x20x6.0mm.
 Spring loaded Center locking female barrol.center is positive.

Error		
0	3	± 0.08
3	10	± 0.1
10	18	± 0.12
18	50	± 0.15
50	80	± 0.2
80	120	± 0.25
120	180	± 0.35

Rev No	Date	Revision Description	Approval
01	2011.11.18	First Issue	Chenzhanhong

Customer	Name	Aspect Drawing	Part No

Unit	mm	Rev No	01	Date	2011.11.18
Approval	Chenzhanhong	Checked	Chenzhanhong	Drawing	LiJingQin



REVISION	
1	DATE
2	DESCRIPTION
3	

G-ALANTIC ENTERPRISE CO.,LTD.
PART NO:AD-1280 (PEAK 80W)
MODEL:PA1075-120T1A583
Input:AC 100~240V 2.0A 50/60Hz
OUTPUT:12V $\overline{\text{---}}$ 5.83A
EFFICIENCY LEVEL:

1202000001A00

WARNING:
RISK OF ELECTRIC SHOCK,
DO NOT OPEN, INDOOR USE ONLY

17DU E248122

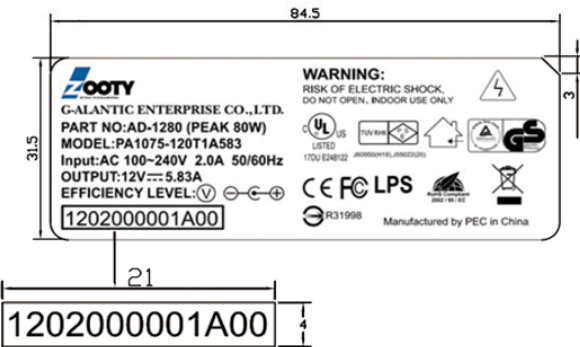
J60950(H19),J55022(20)

2002 / 95 / EC

Manufactured by PEC in China

NOTE:

- 1.Silver background with black solid characters.
- 2.UL RECOGNIZED
- 3.MATERIAL PET, T=0.25mm
- 4.Serial No. ex:1202000001A00



TOLERANCES UNLESS NOTED: 0.130mm to 0.250mm F0.13 0.250mm to 0.635mm F0.25 > 0.635mm to 3.175mm F0.50 ANGULAR \pm 0.5°	
No production order without approval of G-ALANTIC ENTERPRISE CO.,LTD. in writing. If there is any change in the drawing, it is subject to production.	
TITLE: Aspect Drawing FILES NAME:	PART NO: 01 G-ALANTIC ENTERPRISE CO.,LTD.
SCALE: 1:1 UNIT: MM	DATE: 2011.12.01 DRAWN: AET/MS CHECK: CCH/IV
SHEET 1 OF 1	REV: 000

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