



APPROVAL SHEET

RoHS compliant

APPROVAL SIGNATURES:

Signature lines (dotted boxes):

CUSTOMER : 源拓光电

PART NAME : 5V 1.25A ADAPTER UL

MODEL NO. : BSW0127-5012502W

ISSUE DATE : 2010-8-3

VERSION NO. : REV1.1

EFFICIENCY STANDARDS: ERP v

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Specification

Department

R&D

Type

BSW0127-5012502W ADAPTER

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Date

2010-8-3

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- 1. Scope:** This specification is applied to 5V 1.25A ADAPTER
- 2. Model No.:** BSW0127-5012502W ADAPTER
- 3. Referenced standard:** UL60950-1.
- 4. Electrical characteristics**

4.1 Operating conditions:

Operating temperature: 0°C ~ 40°C

Storage temperature: -20°C ~ 70°C

Relative humidity: ≤95%

Air pressure: 70 ~ 106KPa

4.2 Performance and measurement conditions:

No	Item	Specifications	Test Conditions
1	Appearance	The color of the case is accordant. Pour is not distinctly deficient, no markedly air bubbles, sinking, and so on. The top and bottom case is tie in, no clearance, displacement ≤ 1mm, lax ≤ 1mm and so on. After free drop, the case is close.	Visual Inspection
2	Size	See Appearance drawing	Vernier caliper
3	Power supply voltage	100-240VAC 50/60Hz	
4	Input current	500mA	
5	Output voltage	Vout=5±5%VDC	0A ≤ I _o ≤ 1.25A
6	Ripple&Noise	≤100mVp-p	Measurement is done by 20MHz bandwidth oscilloscope and terminated each output with a 0.1uF ceramic capacitor and a 10uF electrolytic capacitor. (Vin=220VAC)
7	Average efficiency	≥69.8%	Measurement is done by 25%load, 50%load, 75%load, 100%load, at 115VAC and 230VAC.
8	Input power consumption	≤0.3W	No load



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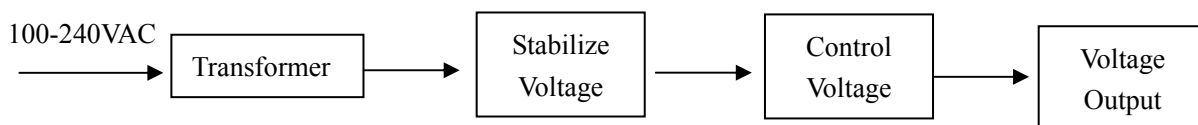
Date

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No.	Item	Specifications	Test conditions
9	Over voltage protection	The adapter will shut down and will not been damaged.	Use the Zener diode to protect the output.
10	Short circuit protection		If short circuit occurs, all the output should be protected. After the fault, the adapter automatically recovers.
11	Dielectric Strength	Without damage such as insulation break down.	Primary and secondary: AC3000(50Hz) Vrms,5mA, 1 minute for type test,1 second for production test.
12	Insulation resistance	≥20MΩ	DC500V shall be applied for 1min. between Primary and Secondary, Primary and case
			DC500V shall be applied for 1min. between Secondary and case.
13	Cord bending test	≥1000 times	The DC cord shall withstand weight of 500g,it swing from left to right at angle of 120 degree, 40 times per min.
14	Strain relief test	No damaged after the test	Fix the main part of the adapter, Plug and cord at their normal position applied a weight of 5 Kg to output for 15 seconds.
15	High temperature storage test	Clause 4.2.1, 4.2.5, 4.2.6, 4.2.11, 4.2.12 shall be satisfied.	The adapter shall be stored at temperature of 40±2℃, for 24hours.
16	Low temperature storage test		The adapter shall be stored at temperature of 0±2℃ for 24hours.
17	High temperature and high humidity operation test		The adapter shall be stored at temperature of 40±2℃ with relative of 90%-95% for 48hours.
18	M.T.B.F	≥50,000 hours	At 25℃
19	Vibration test	No breakage should be observed; Mechanical and electronic characteristic meet design request	Frequency:10-55Hz Amplitude:0.15mm, Time: 10times per directions (X,Y,and Z)
20	Free drop test		Dropping from a height of 60cm to a wood plate of 20mm thickness. And 1 time each side total 6 times.

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5. Circuit diagram



6. Use guide

Input: 100-240VAC 50/60Hz (500mA)

Output: 5VDC 1.25A

I/O connector Pin description: in(+),out(-)

7. Caution

7.1 Risk of electric shock

7.2 For indoor use only

7.3 Do not open the unit

7.4 Dry location use only

8. Attachments

8.1 Label

8.1.1 Material: PC (granulation);

8.1.2 Thickness: < 0.3mm;

8.1.3 Color: Black grounding, argent font;

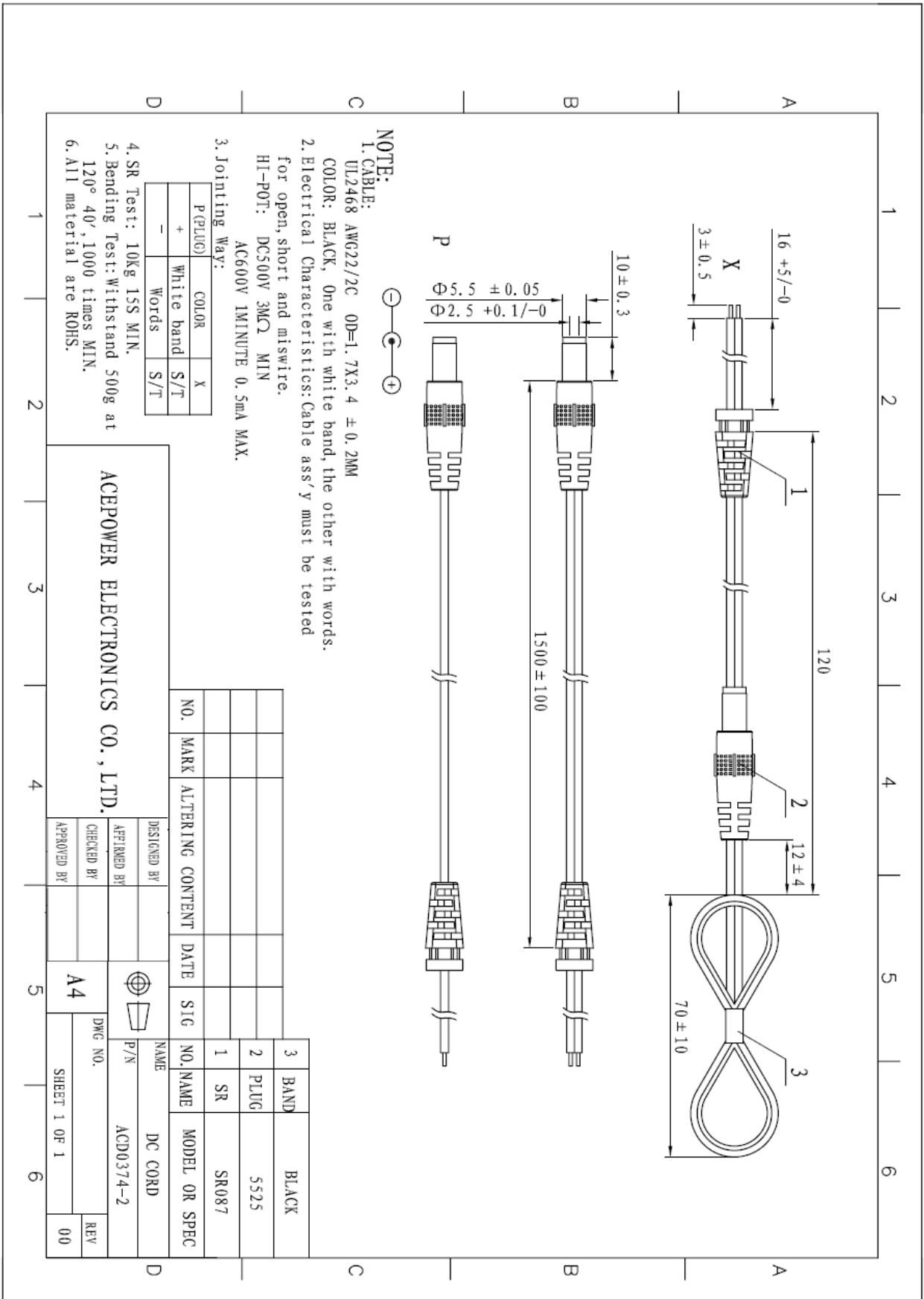
8.1.4 L/No.:CY1028 is the track date,

“10”means year, “28” means week;

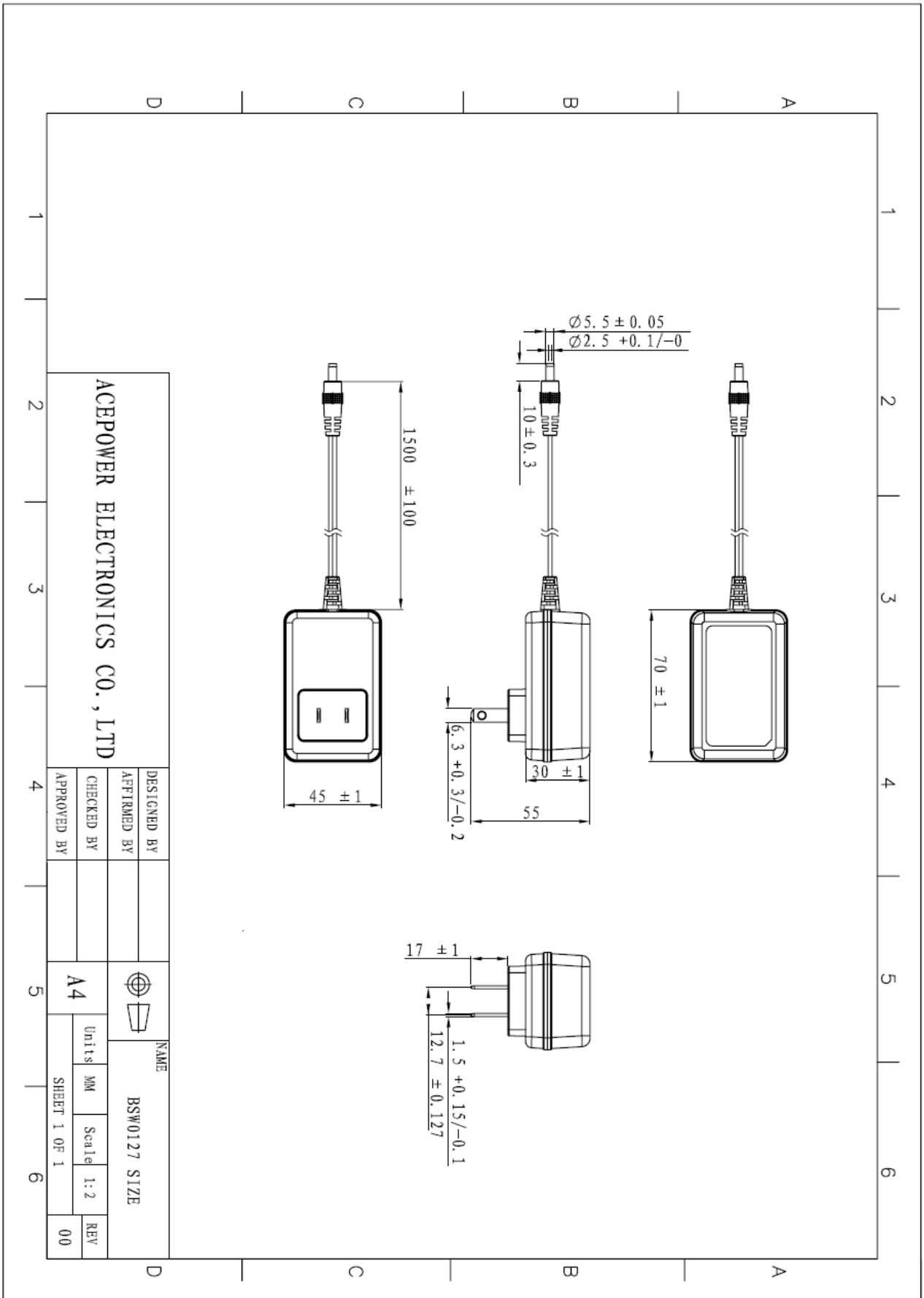
8.1.5 Size & Content:



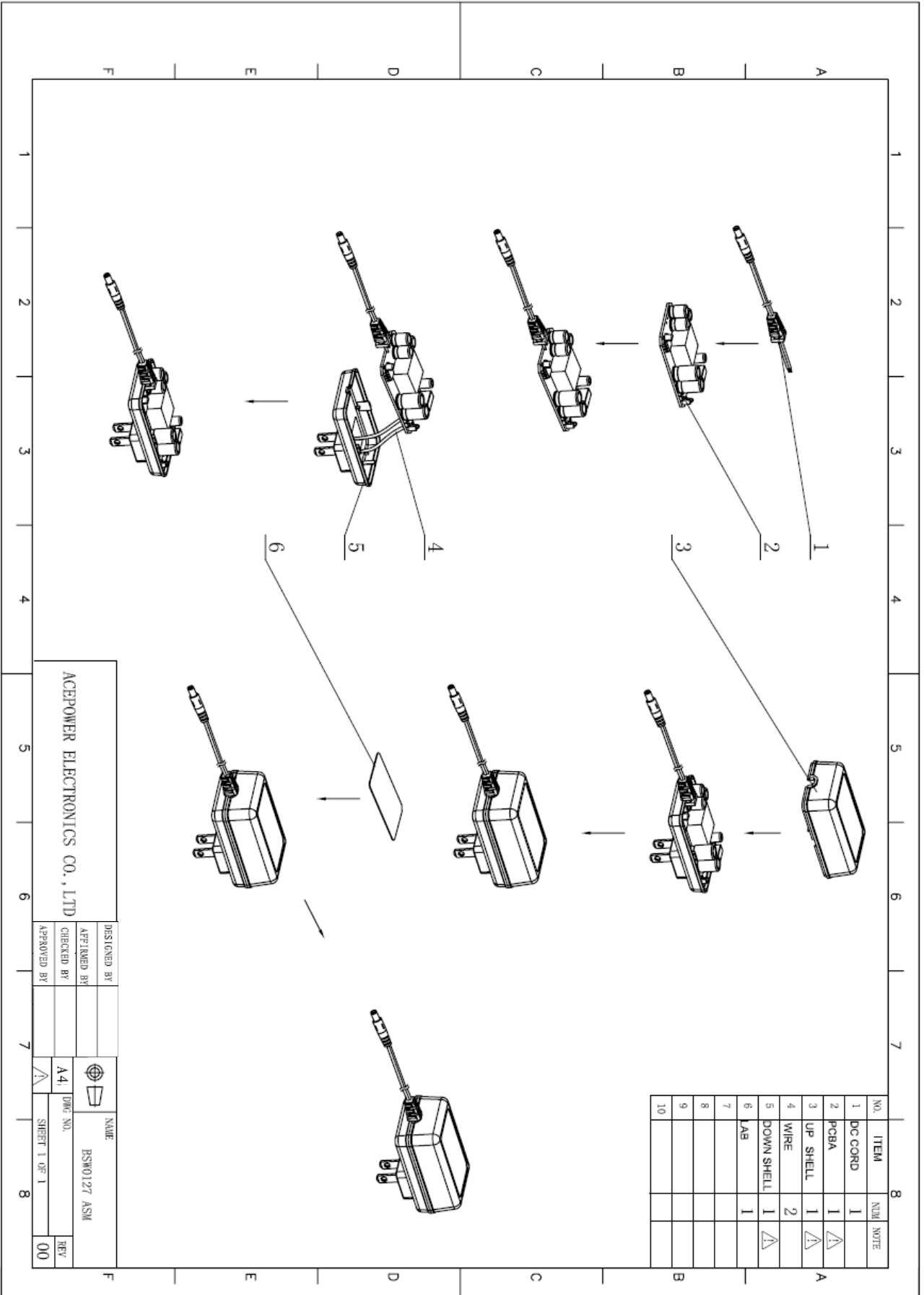
8.2 DC cord drawing



8.3 Appearance drawing



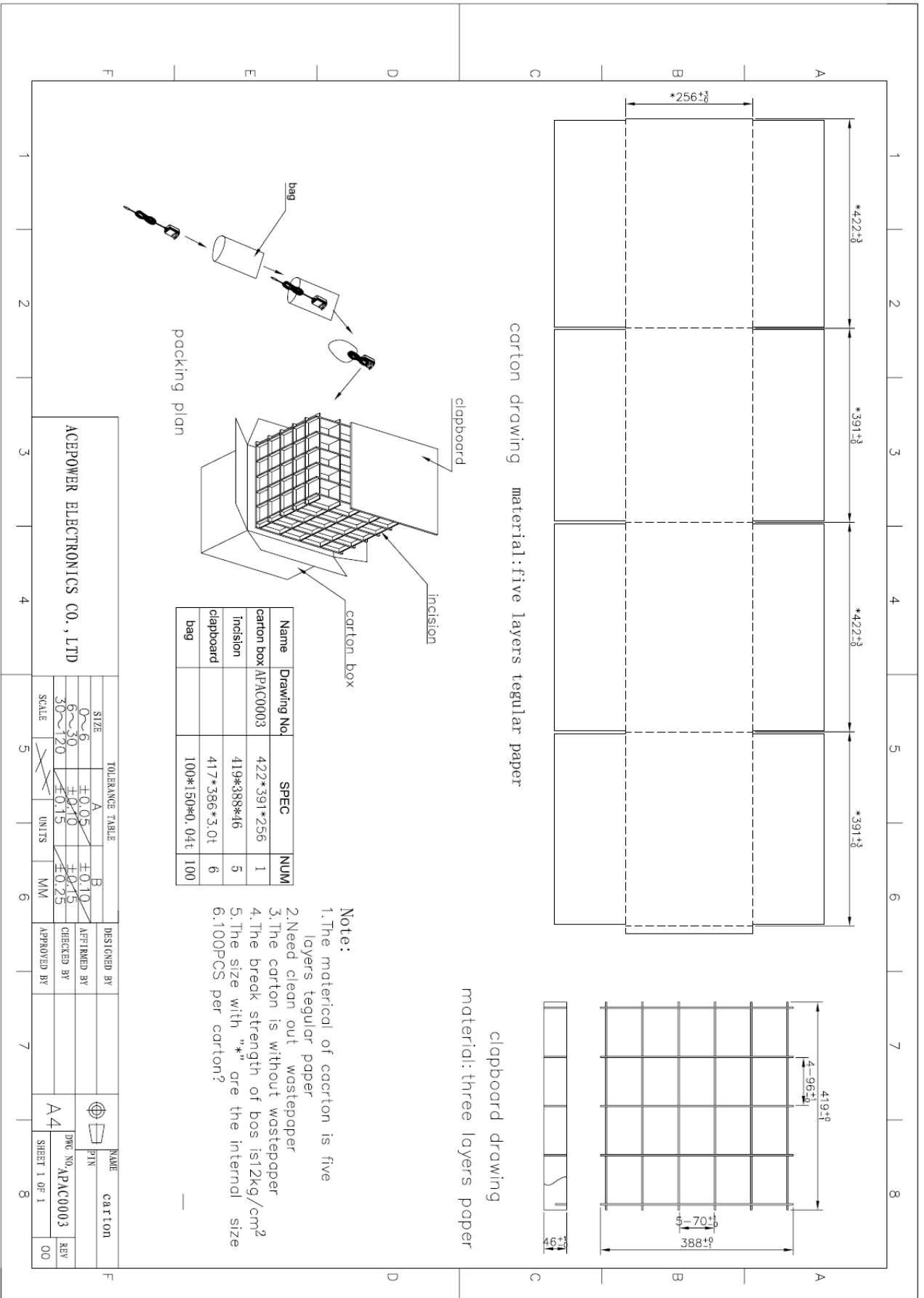
8.4 Assembly drawing



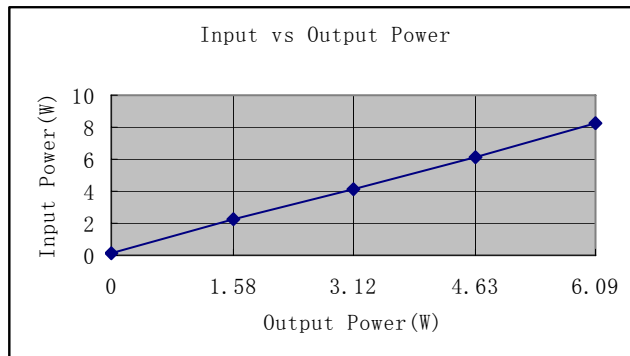
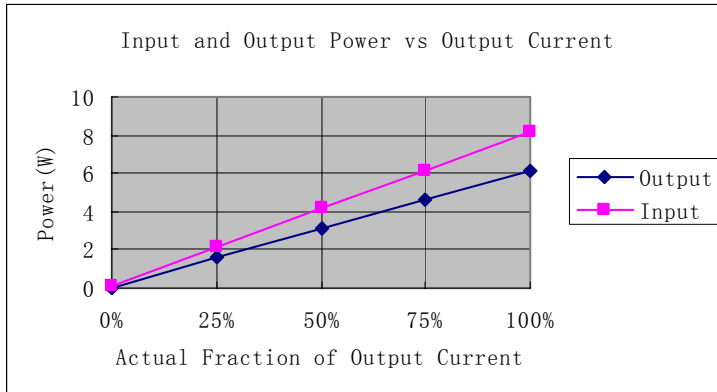
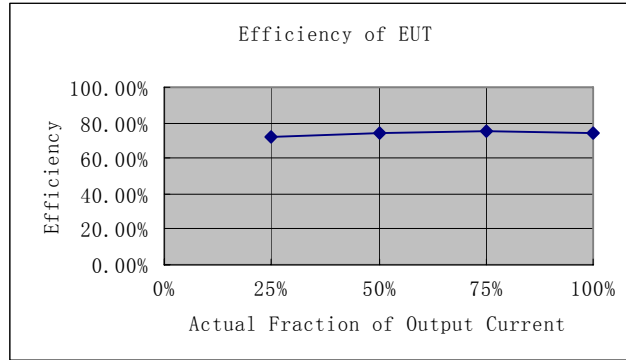
NO.	ITEM	NUM.	NOTE
1	DC CORD	1	
2	PCBA	1	△
3	UP SHELL	1	△
4	WIRE	2	
5	DOWN SHELL	1	△
6	LAB	1	
7			
8			
9			
10			

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8.5 Pack drawing

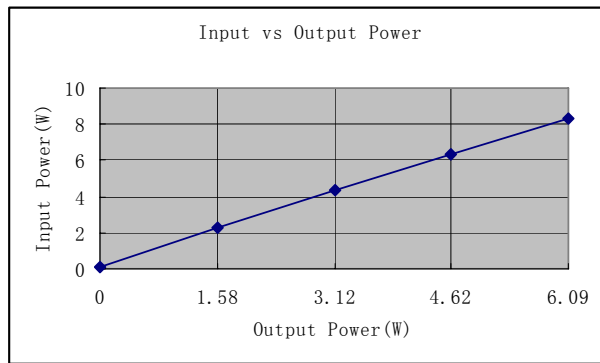
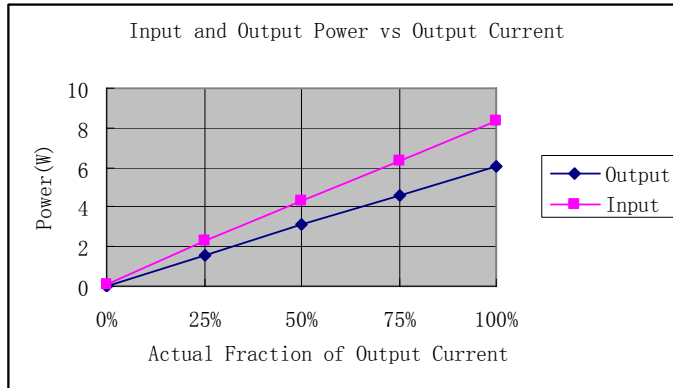
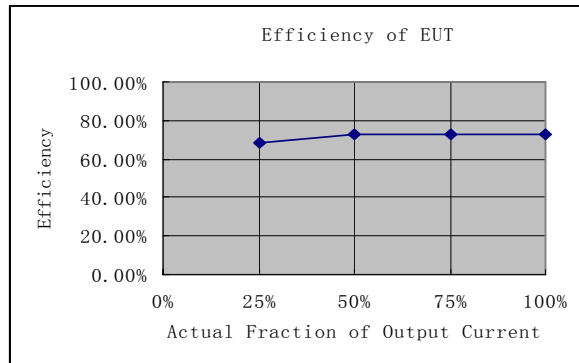


8.6 Test report



	No load	Active power values				
Percent of nameplate current	0%	25%	50%	75%	100%	Average
d.c. output current (A)	0	0.3136	0.6265	0.9376	1.2512	
d.c. output voltage (V)	5.111	5.051	4.991	4.937	4.879	
d.c. output power (W)	0	1.58	3.12	4.63	6.09	
a.c. input current (A)	0.0031	0.0361	0.0578	0.0808	0.115	
a.c. input voltage (V)	115.7	115.9	115.8	115.9	115.12	
a.c. input power (W)	0.1	2.2	4.18	6.16	8.22	
Total harmonic distortion (THD) of input current	22.45%	324.59%	456.25%	445.14%	429.47%	
True power factor (W/VA)	0.333	0.53	0.626	0.627	0.63	0.5492
Power consumed by EUT	0.1	0.62	1.06	1.53	2.13	
Efficiency		71.82%	74.64%	75.16%	74.09%	73.93%
Compulsory value	≤0.3W	≥0.075 x Ln (Pno) + 0.561=69.8%				

Measured and calculated data of BSW0127-5012502W at 115V 50Hz



	No load	Active power values				
Percent of nameplate current	0%	25%	50%	75%	100%	Average
d.c. output current (A)	0	0.3136	0.6272	0.9408	1.2544	
d.c. output voltage (V)	5.111	5.05	4.911	4.931	4.871	
d.c. output power (W)	0	1.58	3.12	4.62	6.09	
a.c. input current (A)	0.0019	0.0256	0.042	0.0566	0.0678	
a.c. input voltage (V)	230.8	230.5	230.8	230.5	230.1	
a.c. input power (W)	0.12	2.3	4.31	6.32	8.32	
Total harmonic distortion (THD) of input current	25.36%	368.73%	472.13%	453.19%	433.29%	
True power fact (W/VA)	0.341	0.381	0.446	0.499	0.543	0.442
Power consumed by EUT	0.12	0.72	1.19	1.7	2.23	
Efficiency		68.70%	72.39%	73.10%	73.20%	71.80%
Compulsory value	≤0.3W	≥0.075 x Ln (Pno) + 0.561=69.8%				

Measured and calculated data of BSW0127-5012502W at 230V 50Hz