



SPECIFICATION FOR APPROVAL

CUSTOMER :	01061 REV.00
ARTICLE:	SWITCHING MODE POWER SUPPLY
STANDARD :	GS
MODEL NO. :	122-180065W-2
OUR PART NO.:	122-180065-15313E
YOUR PART NO.:	
INPUT :	100-240V AC 50/60Hz
OUTPUT:	18.0V DC 0.65A

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1. Record of Revision:

REVISION	DESCRIPTIONS OF CHANGE	DATE	ACTOR
REV.00	New document	2015/03/13	Shi Pei

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2. Descriptions:

These are a series of general purpose AC/DC adapters which convert 100Vac ~ 240Vac to a stabilized DC voltage of 18.0V with rated output current of 650mA. Please connect the electrical power first and then add the load when using this SMPS.

The switching mode power supply meets the requirements of lead free and ROHS.

3. Input Feature:

3.1 Input Voltage and Frequency

The switching mode power supply shall meet all specifications when powered from the following sources.

Rating Voltage	Line Frequency	Minimum Voltage	Maximum Voltage
100-240V AC	50/60Hz	90V AC	264V AC

3.2 Efficiency

The minimum efficiency shall be 77.70% under 115Vac/230Vac input and output full load.

3.3 Input Current

The maximum input current shall be less than 0.3A.

3.4 Input In-rush Current

Peak inrush current shall be limited to 50A.

3.5 Input Leakage Current

The leakage current shall not exceed 0.25mA.

4. Output Feature:

4.1 Output Voltage and Current

The switching mode power supply shall have one regulated DC output voltage: 18.0V DC.

The table below defines the total regulation band for the output, which includes line regulation, load regulation, transient response, and effects due to environmental conditions and aging.

Voltage shall be measured at the power supply output connector.

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Output	Output Current Range		Output Voltage Range		Ripple & Noise
	Min	Max	Min	Max	Max.
+18.0V	0.0A	0.65A	17.1V	18.9V	150mVpp

Ripple & Noise Test: Add 0.1uF/50V ceramic capacitor and 10uF/50V aluminum electrolytic capacitor across the output terminal. Measured with 20MHz Bandwidth Oscilloscope.

4.2 Dynamic Response

The load current of the output is changed between 25% and 75% under full load at 0.5A/ms; the excursion of the output shall not exceed 10% of the nominal output voltage. The output voltage shall be within 10% of the steady state voltage in 1ms.

4.3 Startup and Turn- on Delay

The switching mode power supply shall be able to start up into a resistive load up to the maximum rated current with maximum load capacitance of 1,000uF. The elapsed time between the application of input power and the attainment of output voltage to the nominal value shall not exceed 3 seconds.

5. Protection Feature:

5.1 Over Current Protection

The switching mode power supply shall withstand a continuous over current without damage. It may be applied before power-up, or after power-up. The switching mode power supply shall perform normally again after the over current is removed.

5.2 Short Circuit Protection

Short circuit will not cause the switching mode power supply to damage, or any safety hazards. It shall perform normally again after the short circuit is removed.

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6. Safety Standards:

6.1 Safety

The switching mode power supply has approved by the following safety standards

*EN 60950

6.2 Dielectric Strength (HI-POT)

Input to Output Terminal: 4242Vdc 3Sec $\leq$ 5mA.

Input to Case: 4242Vdc 3Sec $\leq$ 5mA.

When DC voltage of 4.24KV is applied, and the voltage applied to the insulation under test, it gradually rises from zero to the prescribed voltage in 1s, and holds at the value for 3s between the input and output, and between the input and housing, the current sensitivity shall be less than 5mA, after the test, the switching mode power supply shall exhibit no electrical and mechanical abnormalities.

7. Reliability:

7.1 Burn-in

The burn-in test will be performed at least 3 hours at 25 degrees centigrade under full load.

7.2 MTBF

When the operation is complying with this specification, the MTBF of switching mode power supply will be 25K hours at 25 °C.

8. Mechanical Specifications:

Weight:	About 98.5g
Dimensions:	Refer Outline on page 8
Input socket:	VDE PLUG.
Output cord:	DCD1014 22AWG UL2468, 1.5M Black
Output Connector:	Lead O/P~OD: 5.5mm, ID: 2.1mm, Length: 12.0mm (H).

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9. Environmental Conditions:

The switching mode power supply shall meet all requirements of this specification on any combination of operation ambient conditions and after exposure to any combination of non-operation ambient conditions specified in this section.

9.1 Temperature

Operating Temperature: 0°C~40°C

Storage Temperature: -20°C~ 60°C

9.2 Humidity

Operating Humidity: 10%~90%(non condensing)

Relative Humidity: 5%~95% (non condensing)

10. Main Measurement Equipments:

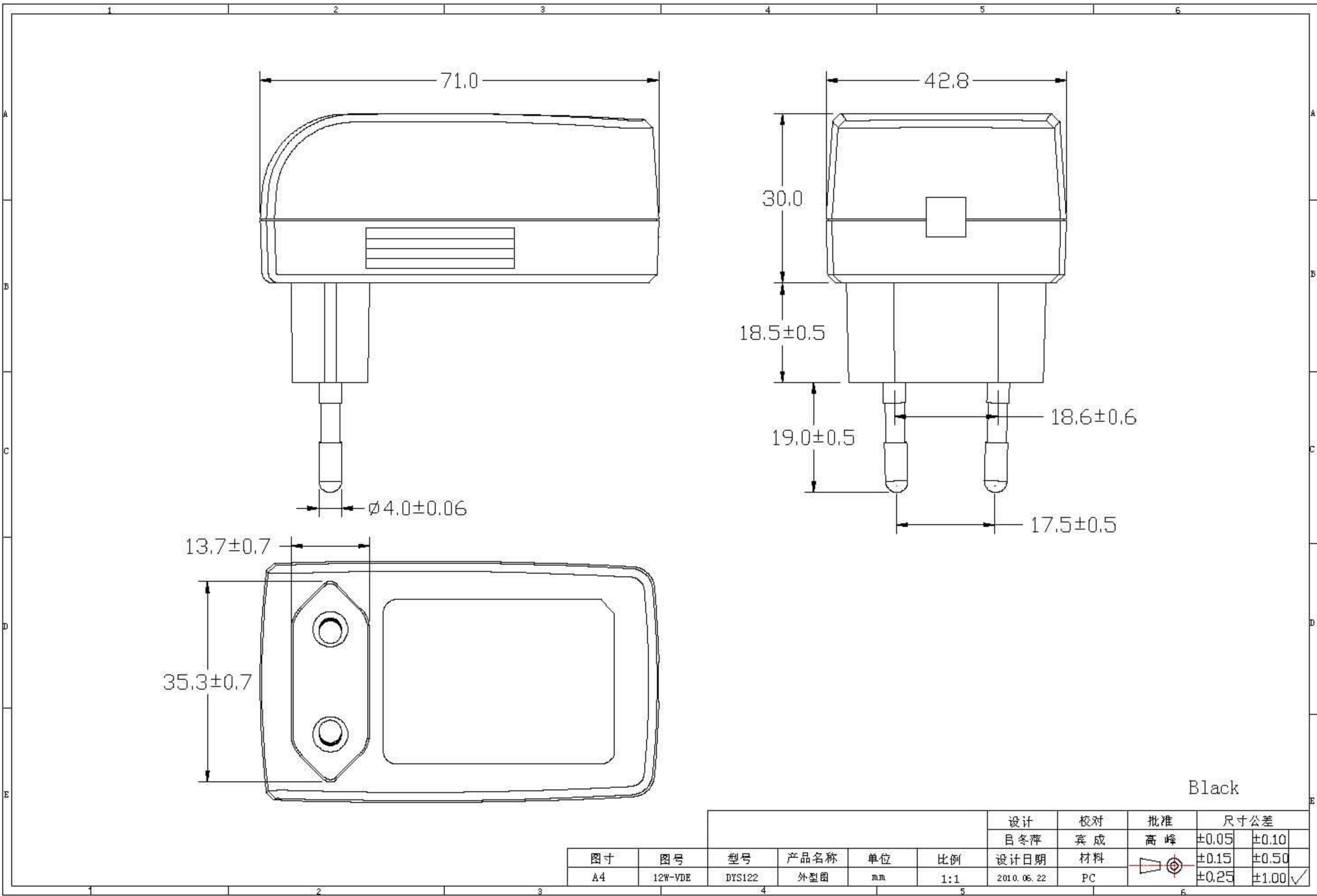
- A. AC Source: YOKOGAWA JL-1005A-500W
- B. Power Meter: Everfine YF9901
- C. Electronic Load: Yokogawa IT8511
- D. Oscilloscope: Matrix Mos-620CH 20MHZ
- E. Digital Multimeter: Victor Vc890D
- F. DC Power: RS1305DN
- G. HI-POT Tester: CHANGSHENG CS2670
- H. Insulation Resistance Tester: TRANST TR7122

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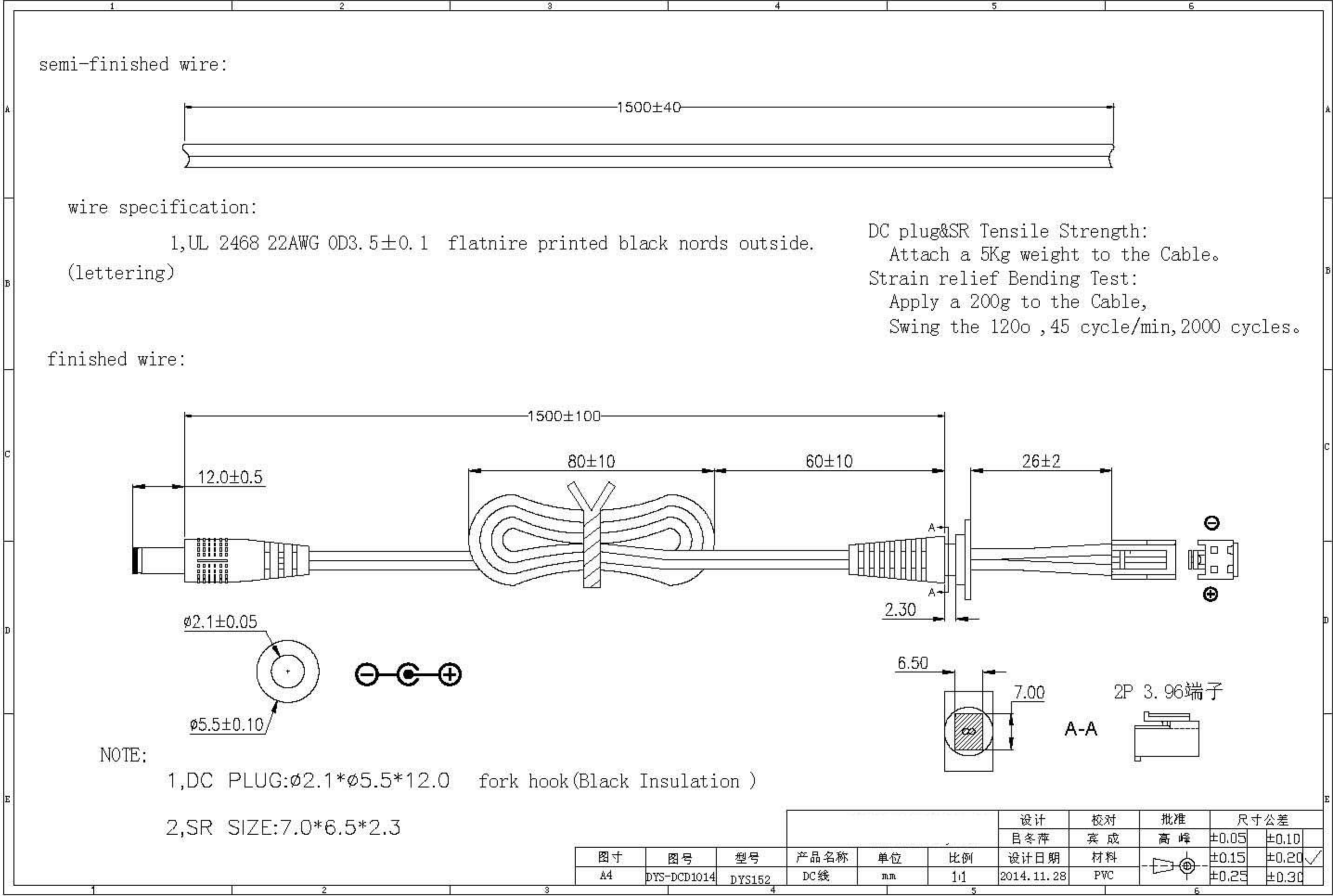
Model No.: 122-180065W-2

11. Case Drawing:



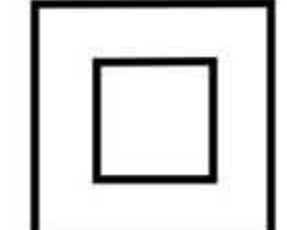
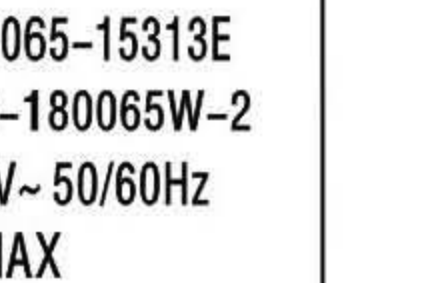
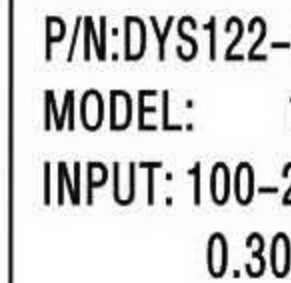
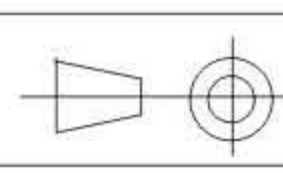
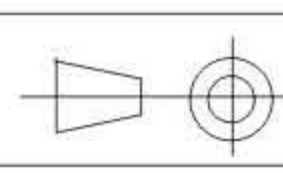
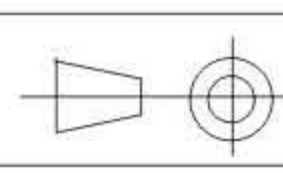
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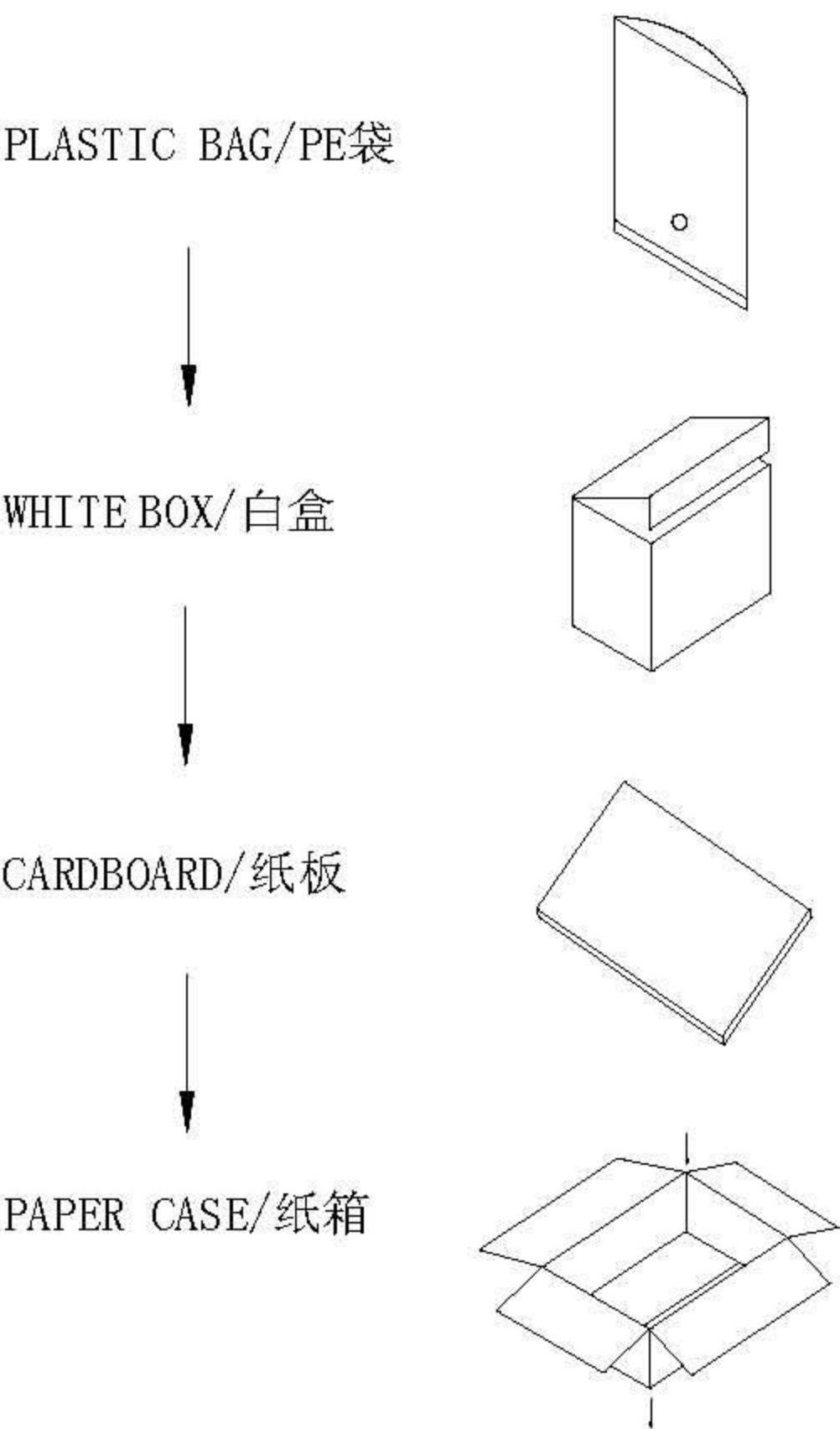
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	1	2	3	4	5	6																																			
A	SWITCHING MODE POWER SUPPLY P/N:DYS122-180065-15313E MODEL: 122-180065W-2 INPUT: 100-240V~ 50/60Hz 0.30A MAX OUTPUT: 18.0V $\pm$ 0.65A EFFICIENCY LEVEL:   MADE IN CHINA SWITCHING MODE POWER SUPPLY P/N:DYS122-180065-15313E MODEL: 122-180065W-2 INPUT: 100-240V~ 50/60Hz 0.30A MAX OUTPUT: 18.0V $\pm$ 0.65A EFFICIENCY LEVEL:   MADE IN CHINA																																								
B																																									
C																																									
D	Remark: DYS logo is green Layout:Black Word on silver Back ground Material quality:Meta lized polyester Rating of temperature:85℃					★ 1115Where 11 represents the number of weeks 15 represents the number of year The date niu change allordng fo prodnction date change, if any spelial lircum sfanles, wiu be nofiled by sales																																			
E	Thickness:0.25 $\pm$ 0.01 Apply to lead-less Standard					<table><tr><td colspan="3">名称: 铭牌</td><td>REV: A</td><td></td></tr><tr><td colspan="2">图号: 122-LB15313E</td><td>型号: 122-180065W-2</td><td>页号: 6</td><td>图寸: A4</td></tr><tr><td colspan="2">尺寸公差</td><td>比例</td><td>1:1</td><td>绘图</td></tr><tr><td colspan="2">± 0.05</td><td>单位</td><td>MM</td><td>校对</td></tr><tr><td colspan="2">± 0.15</td><td>日期</td><td>2015.03.13</td><td>批准</td></tr><tr><td colspan="2"></td><td></td><td>施佩</td><td>宾成</td></tr><tr><td colspan="2"></td><td></td><td></td><td>高峰</td></tr></table>	名称: 铭牌			REV: A		图号: 122-LB15313E		型号: 122-180065W-2	页号: 6	图寸: A4	尺寸公差		比例	1:1	绘图	± 0.05		单位	MM	校对	± 0.15		日期	2015.03.13	批准				施佩	宾成					高峰
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MECHANICAL DIMENSION:

	L(mm)	W(mm)	H(mm)
PLASTIC BAG	210	130	
WHITE Box	90.5	53.5	75.5
CARDBOARD	370	275	
Outside Box	380	285	320

PACKING METHOD:

PACKING METHOD	20PCS/LAYER * 4 LAYERS
QTY	80PCS
N.G	6.08 Kg
G.W	7.58Kg

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Customer:01061		Product Name: Swithing Mode PowerSupply				P/N:DYS122-180065-15313E			
Product Specification: AC100-240V 50/60Hz DC 18.0V/0.65A						Safety: GS			
Item s	Testing Title		Test Result	Sample Number and Test Result					
	Items	Condition		1	2	3	4	5	PASS
Basic Elec- tri- cal Char- act- eris- tic	1、No load voltage	AC90V/50Hz	DC 18.0 V ± 0.9V	18.11					PASS
		AC180V/50Hz	DC 18.0 V ± 0.9V	18.14					PASS
		AC264V/50Hz	DC 18.0 V ± 0.9V	18.14					PASS
	2、Full Load voltage	AC90V/50Hz	DC 18.0 V ± 0.9V	17.97					PASS
		AC180V/50Hz	DC 18.0 V ± 0.9V	18.02					PASS
		AC264V/50Hz	DC 18.0 V ± 0.9V	18.02					PASS
	3、Full Load input power	AC90V/50Hz	FULL LOAD (W)	14.8					PASS
		AC180V/50Hz	FULL LOAD (W)	14.3					PASS
		AC264V/50Hz	FULL LOAD (W)	14.4					PASS
	4、Efficiency	AC115V/50Hz	≥77.70 %(Average Of 25/50/75/100% Loads)	81.26					PASS
		AC230V/50Hz	≥77.70 %(Average Of 25/50/75/100% Loads)	79.50					PASS
	5、Ripple & noise	AC90V/50Hz	≤ 150 mV(FULL LOAD)	100					PASS
		AC180V/50Hz	≤ 150 mV(FULL LOAD)	100					PASS
		AC264V/50Hz	≤ 150 mV(FULL LOAD)	100					PASS
	6、Standby power		< 0.3 W	0.1					PASS
	7、Short-circuit test		No output when short circuit happens work normally after recovery (240Vac)	1.9					PASS
	8.over-current protection		0.85 - 2.0 A (240Vac)	1.3					PASS
	9、Noise test		40db MAX	OK					PASS
	10、Hi-pot test		DC4242V 60S<5mA	OK					PASS
	11、Temperature rise		At normal temperature 25℃, case surface temperature rise ≤55℃	OK					PASS
	12、DC Cable size		Customer Request: 2.1 * 5.5 * 12.0 L= 1.5M H	2.1 * 5.5 * 12.0 L= 1.5M H					PASS
Test stat- us	1、High temperature		□ 60℃ ■80℃ ■48H □96H	OK					PASS
	2、Low temperature		■-20℃ □-40℃ ■48H □96H	OK					PASS
	3、Constant humidity		■ 40℃ 95%RH ■48H □96H	OK					PASS
	4.Plugfest(male to female)		3000 times Min	OK					PASS
	5、Burn-in test		≥8hours AC100/240V each 4H full load	OK					PASS