IDEAL POWER LTD

SPECIFICATION FOR APPROVAL

CUSTOMER : 01097 REV.00

ARTICLE: SWITCHING MODE POWER SUPPLY

STANDARD : UL/GS/CE/SAA 可换头

MODEL NO. : DYS650-120420W-K

OUR PART NO.: DYS650-120420-16519(A1)

YOUR PART NO.:

INPUT : 100-240V AC 50/60Hz

OUTPUT: 12.0V DC 4.2A

供应商确认			客户确认		
Made by	Checked by	Approved by	Made by	Checked by	Approved by
赵 柳	刘 飞	宾 成			

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DONGGUAN DONGSONG ELECTRONIC CO., LTD

SWITCHING MODE POWER SUPPLY

SPECIFICATION

Model No.: DYS650-120420W-K REV.00 Date: 2017/03/28

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SWITCHING MODE POWER SUPPLY

SPECIFICATION

Model No.: DYS650-120420W-K REV.00 Date: 2017/03/28

1. Record of Revision:

REVSION	DESCRIPTIONS OF CHANGE	DATE	Operator
REV.00	New document	2017/03/28	赵 柳

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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 12.0V with rated output current of 4200mA. 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 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 average efficiency shall be 88.00 % under 115Vac/230Vac input and output full load after 30 minutes.

3.3 Input Current

The maximum input current shall be less than 1.3A.

3.4 Input In-rush Current

Peak inrush current shall be limited to 60A.

3.5 Input Leakage Current

The leakage current shall not exceed 0.25mA.

3.6 Standby power

Standby power ≤ 0.21 W

4. Output Feature:

4.1 Output Voltage and Current

The switching mode power supply shall have one regulated DC output voltage: 12.0V DC. The table below defines the total regulation banding for the output, which includes line regulation,

load regulation, transient response, and effects due to environmental conditions and aging. Voltage shall be measured at its output connector.

Output	Output Current Range		Output Voltage Range		Ripple & Noise
	Min	Max	Min	Max	Max.
+12.0V	0.0A	4.2A	11.4V	12.6V	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 20% and 80% under full load at 0.25A/us; 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.

6. Safety Standards:

6.1 Safety

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

* IEC60950,UL60950,EN60950,AS/NZS60950

6.2 Dielectric Strength (HI-POT)

Input to Output Terminal: 4242Vdc 3Sec ≤5mA.

Input to Case: 4242Vdc 3Sec ≤5mA.

When DC voltage of 4.242KV 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 4 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 ℃.

8. Mechanical Specifications:

Weight:	About 238g
Dimensions:	Refer Outline on page 8
Input socket:	UL/VDE/BS/SAA PLUG.
Output cord:	DC2136, 18AWG UL2468, 1.2M Black
Output Connector:	Lead O/P~OD: 2.1mm, ID: 5.5m, Length: 12.0mm (H).

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℃~45℃

Storage Temperature: -20℃~ 80℃

9.2 Humidity

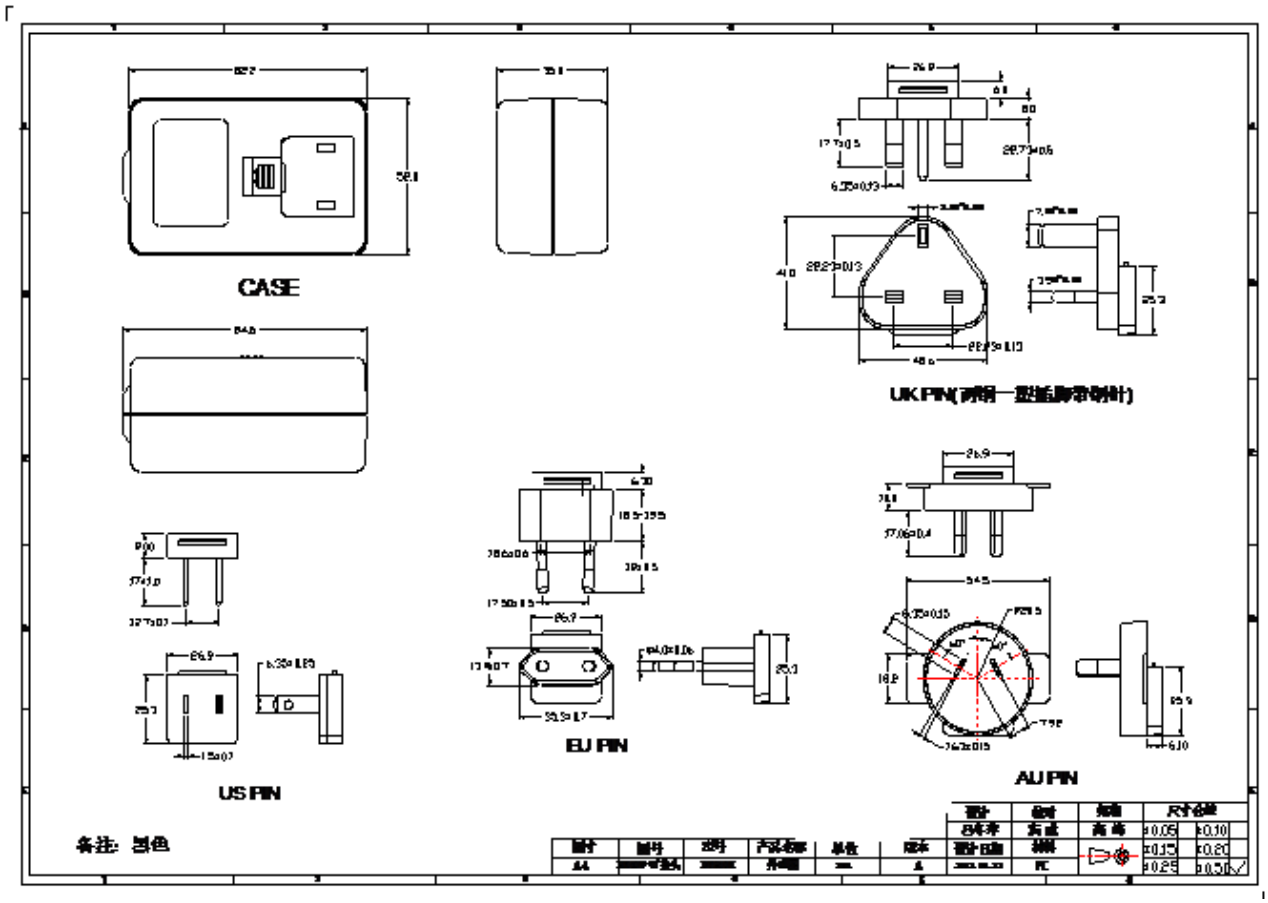
Operating Humidity： 10%~90%(non condensing)

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

11. Case Drawing:



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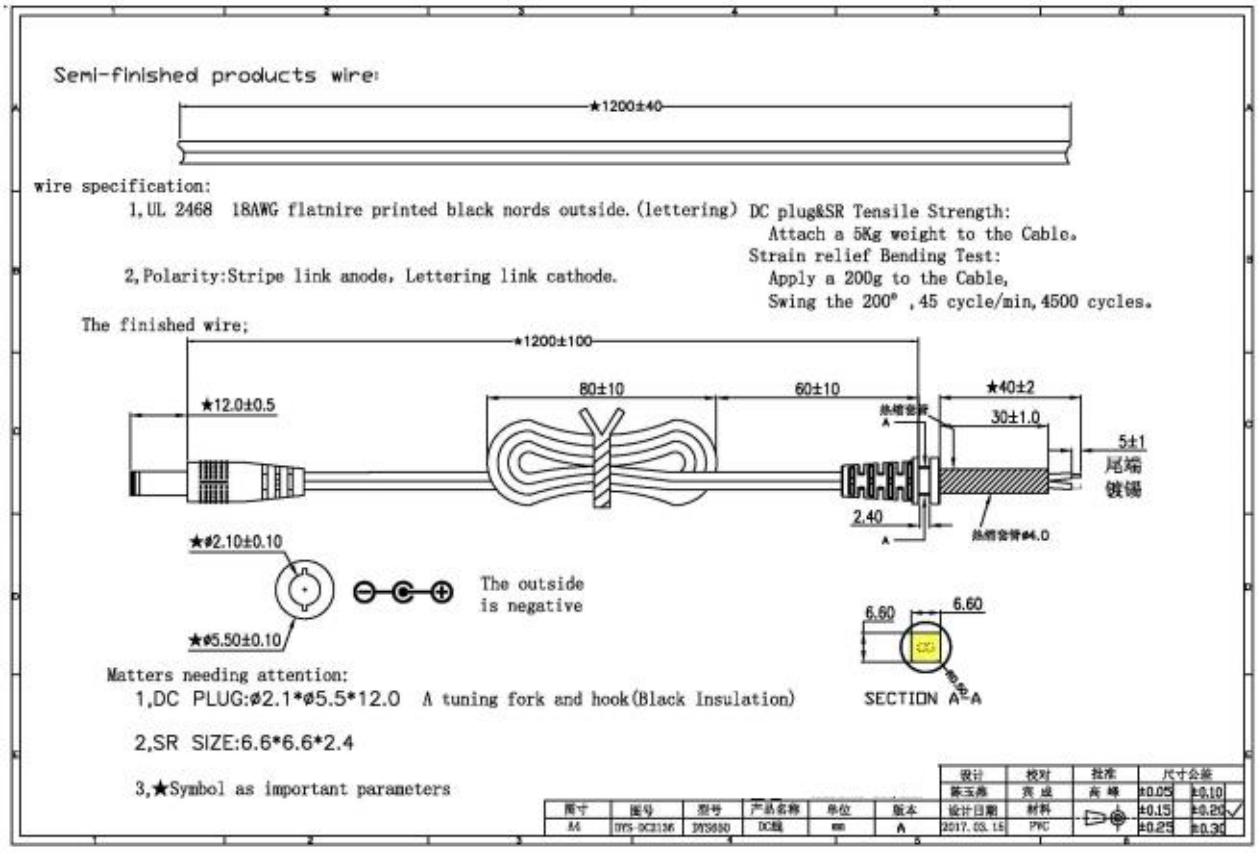
12. DC Cable Drawing:



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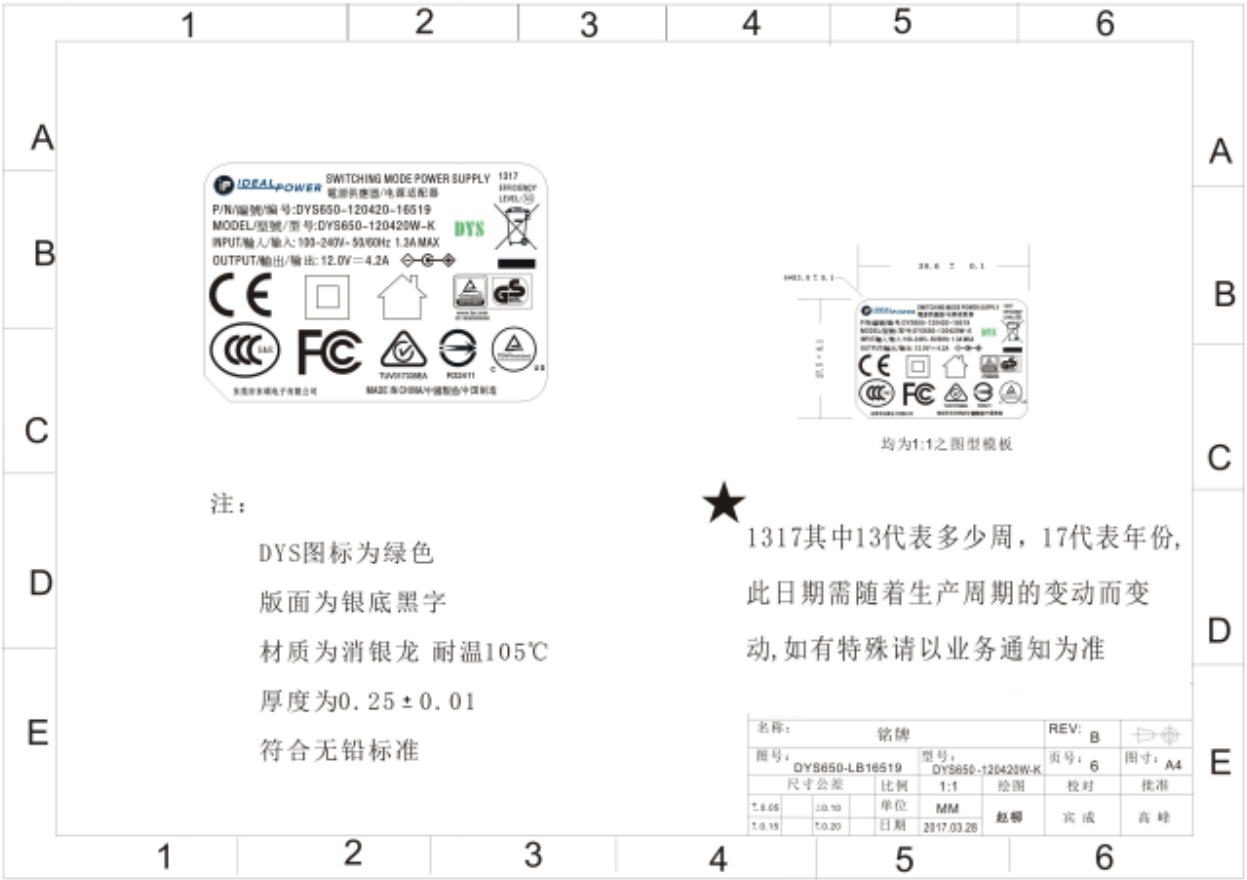
13.Label Drawing:



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14. Package Drawing:

MECHANICAL DIMENSION:

	L(mm)	W(mm)	H(mm)
PLASTIC BAG	210	130	
WHITE BOX	143	70	60
CARDBOARD	370	296	
PAPER CASE	380	306	275

PACKING METHOD：

PACKING METHOD	10PCS/LAYER * 4AYERS
QTY	40PCS
N.G	4.6Kg
G.W	5.1Kg

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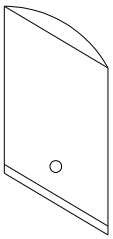
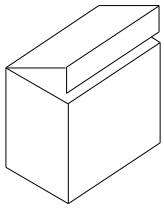
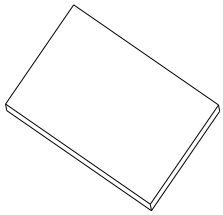
PLASTIC BAG/PE袋



WHITE BOX/白盒



CARDBOARD/纸板



PAPER CASE/纸箱