

SPECIFICATION FOR APPROVAL

CUSTOMER 客 户 C017

CUSTOMER P.N. 客户料号:

MODEL NO. 产品型号: SMS-00120500-S01

DESIGN NO. 设计编号: SMS-00120500

DATE 日 期: 2011-11-24

CUSTOMER AUTHORIZED SIGNATURE / 客户承认签章		

Please return to us one copy of "SPECIFICATION FOR APPROVAL " with you
Approved signature./ /客户确认签字，盖章后请回传一份承认书给我司。

制 作:	审 核:	批 准:
Prepared By :	Checked By :	Approved By

E. C. LIST/变更记录

Rev. 版本	Description of Change/变更内容描述		Changed Date/日期	Remark
	Before/变更前	After/变更后		
A				
B				
C				
D				
E				

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1. SCOPE/概述

The document details the electrical, mechanical and environmental specifications of a SMPS, the power supply provides **60W** continuous output power.

资料详细描述了一款 **60W**(连续输出功率)开关电源的电气性,结构性及环境等要求.

The power supply shall meet the **RoHS** requirements. 此款电源符合 RoHS 要求.

- ☐ SMPS Adaptor(Wall mount)/插墙式适配器
 ☒ SMPS Adaptor(Desk-top)/桌面型适配器
☐ Open Frame/开放式结构
 ☐ Others/其他

2. Input Characteristics/输入特性

2.1. Input Voltage & Frequency/输入电压与频率

	Minimum/最小	Rating/额定值	Maximum/最大
Input Voltage/输入电压	90Vac	100Vac~240Vac	264Vac
Input Frequency/输入频率	47Hz	60Hz/50Hz	63Hz

2.2. Input AC Current / 输入电流

1.5Amax. @ 90Vac input & Full load/在 90Vac 输入和满载条件下最大 **1.5A**

2.3. Inrush Current (cold start)/浪涌电流 (冷启动 @ 230V AC)

No damage for 220V/50Hz at cold start (25°C). 在冷开机条件下, 最大浪涌电流对机型不损坏

2.4. Average Efficiency / 平均效率

While input 115Vac and 230Vac, the average efficiency is more than **80%**. The test point is at 25%, 50%, 75% and 100% of max load respectively.

在输入 115Vac 和 230Vac 条件下, 平均效率不小于 **80%**。测试点分别是最大载的 25%, 50%, 75% 和 100%。

2.5. Standby power / 空载功耗

Standby power **<0.5W** @ 230VAC/50Hz. 在输入 230Vac, 空载功耗小于 **0.5W**.

3. Output Characteristics/输出特性

RATED OUTPUT / 额定输出	Rated Load/额定负载		Remark 备注
	Min.	Max.	
Output Voltage(unload) / 空载输出电压	11.4V	12.6V	
Output Voltage(Full load) / 负载输出电压	11.4V	12.6V	
Output Current / 输出电流规格	0A	5.0A	
Turn - on Delay Time/开机延迟时间		3S	
Hold-up Time/关机维持时间	5mS		
Ripple & Nasic / 纹波与噪声		120mVp-p	
OCP / 过电流保护		7.6A	
power Wp-p / 峰值功率			

Ripple & Noise: Tested by a oscilloscope using 20MHz bandwidth and the output is paralleled a 0.1uF ceramic capacitor and a 47uF electrolysis capacitor.

纹波与噪声: 量测时示波器选用 20MHz 带宽限制, 输出端要并联一颗 0.1uF 的陶瓷电容和一颗 47uF 的电解电容

4. Protection Requirements/保护要求

4.1. Over Current Protection/过流保护

OCP Point Limited: 120%-300% auto restart 保护点限制: 120%-300%自动保护

The output shall hiccup when the over current applied to the output , and shall be self-recovery when the fault condition is removed 当过电流时,输出将进入打嗝模式,当过流情况解除后,产品将会自动恢复正常

4.2. Short Circuit Protection/短路保护

The input power shall decrease when the output is short to GND, the power supply shall not damage, and shall be self-recovery when the fault condition is removed

当输出对地短路时,产品输入功率降低且不会损伤,当短路情况解除后,产品将会自动恢复正常

4.3. AC Over Voltage Protection/过压保护 (部分机型有此功能)

The power supply shall protection when the input over voltage exceeds 300V, the power supply shall no damage, some models have this function.

当输入电压超过 300V 时,产品保护且不会损伤,部分机型有此功能。

5. Environment Requirements/环境要求

5.1. Operating Temperature and Relative Humidity/操作温度和湿度要求

0°C to +40°C 20%RH to 80%RH @ Sea level shall below or no more than 10,000 feet
在海拔小于或等于 10,000 英尺的条件下,低温工作下限为 0°C,高温工作上限为 +40°C,相对湿度为 20%RH to 80%RH。

5.2. Storage Temperature and Relative Humidity/存储温度和湿度要求

-30°C to +70°C 10%RH to 90%RH (non-condensing) @ Sea level shall below 30,000 feet
在海拔低于 30,000 英尺的条件下,低温存储下限为 -30°C (无结冰环境); 高温存储上限为 +70°C,相对湿度为 10%RH to 90%RH。

5.3. Vibration/振动

10 to 300Hz sweep at a constant acceleration of 1.0G(Breadth: 3.5mm) for 1Hour for each of the perpendicular axes X, Y, Z

扫描频率: 10 to 300Hz, 加速度: 1.0G(位移: 3.5mm), X, Y, Z 三垂直坐标轴向各振动 1 小时

6. EMC Standards & Safety Standards / EMC 标准与安规标准

6.1. EMC Standards/EMC 标准

GB9254	GB17625.1		FCC- Part15
EN 55022	EN55024	CISPR 22	EN 61000-4-4
EN 61000-3-2	EN 61000-3-3	EN 61000-4-2	EN 61000-4-3
EN 61000-4-5	EN 61000-4-6	EN 61000-4-8	EN 61000-4-11

6.2. Safety Standards / 安规标准

Type	Country	Standard	Type	Country	Standard
CCC	China	GB4943	CE	Europe	EN60950-1
CCC	China		CB	CB	IEC60950
UL/CUL	USA	UL60950-1	C-TICK	Australia	AS/NZ60950
KC	Korea	K60950	GS/TUV	German	EN60950

6.3. ielectric Strength(Hi-pot)/介电耐压强度(高压)

Primary to Secondary: **1500Vac / 5mA / 60 seconds** (3 seconds for production)
初级对次级: **1500Vac / 5mA / 60 秒**(生产时高压测试时间: 3 秒)

6.4. Leakage Current/漏电流

0.25mA max. at 240Vac / 50Hz input/在输入 240Vac/50Hz 的条件下最大 0.25mA

6.5. Insulation Resistance/绝缘阻抗

100MΩ min. @ primary to secondary add a 500Vdc test voltage
在初级与次级间加 500Vdc 进行测试,最小 100MΩ

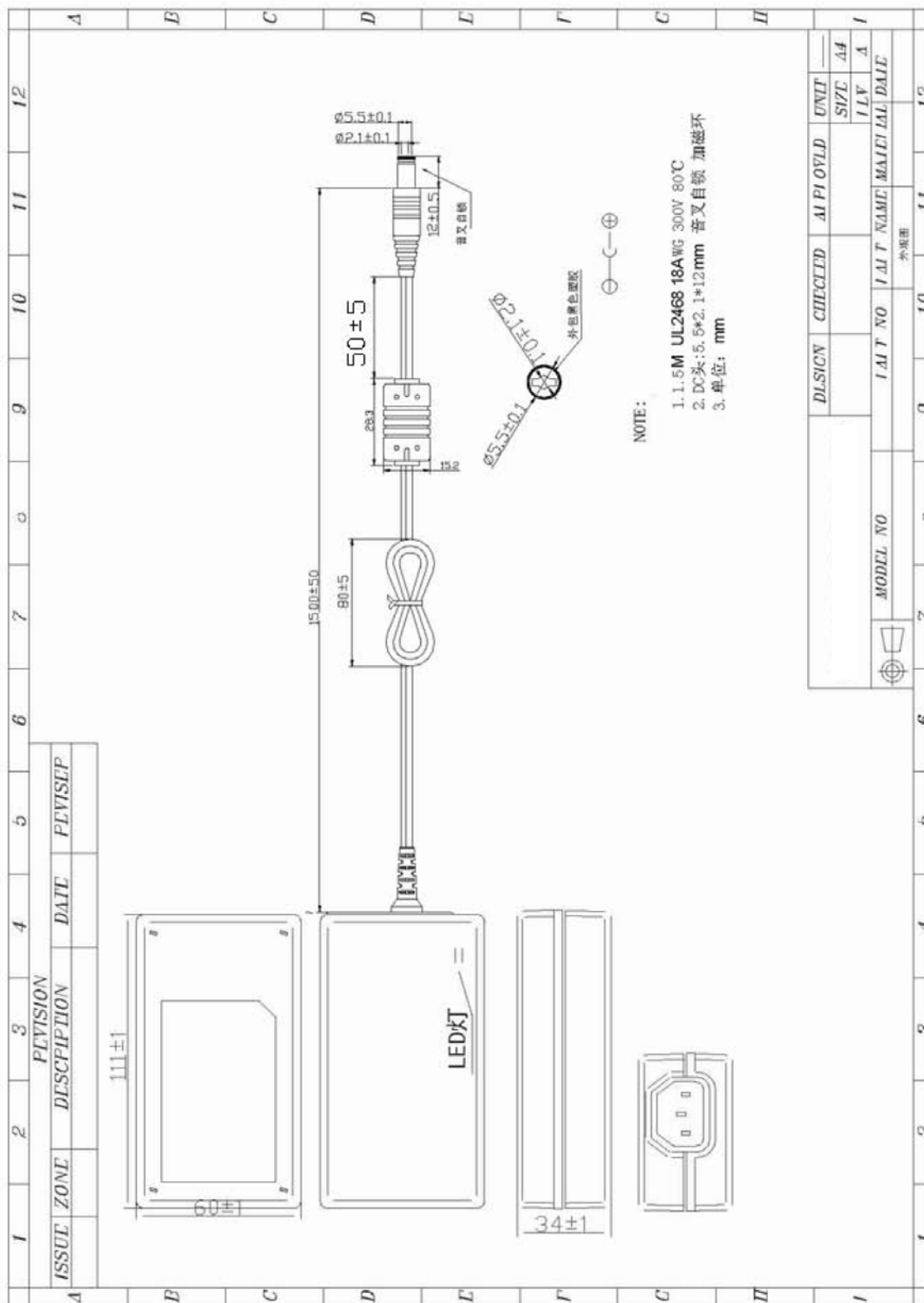
7. Testing Equipment / 测试设备

	Testing Equipment / 测试设备	Model/型号	Validity/有效 期	Remark/备 注
1	AC Source / 交流输入电源	华仪 6205-300W	2011-3-7	
2	Power Meter / 电源功率计	Protronix-1201	2011-3-7	
3	Electronic Load / 电子负载	Chroma-63030C	2011-3-7	
4	Oscilloscopes / 示波器	泰克 3012	2011-3-7	
5	Digital Multimeter / 数字万用表	VC9807A	2011-3-7	
6	DC Power / 直流输入电源	KXN-3030D	2011-3-7	
7	HI-POT Tester / 耐压测试仪	华仪 7410	2011-3-7	
8	Hybrid Recorder / 混合记录仪	YOKOGAWA DR130	2011-3-11	
9	Cons. T/H Simulator / 恒温恒湿仪	TH-A4H 1-150	2011-3-7	
10	Insulation Resistance Tester / 绝缘电阻 表	华仪 7410	2011-3-7	

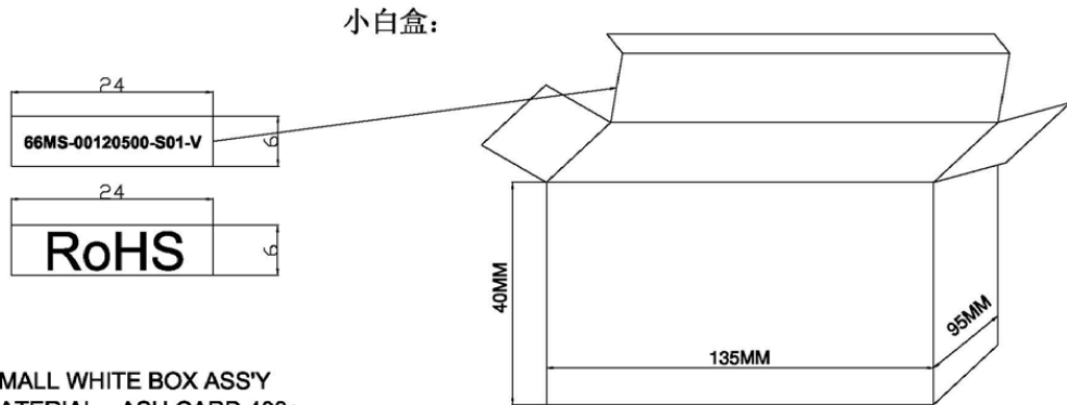
8. Label drawing / 标贴图



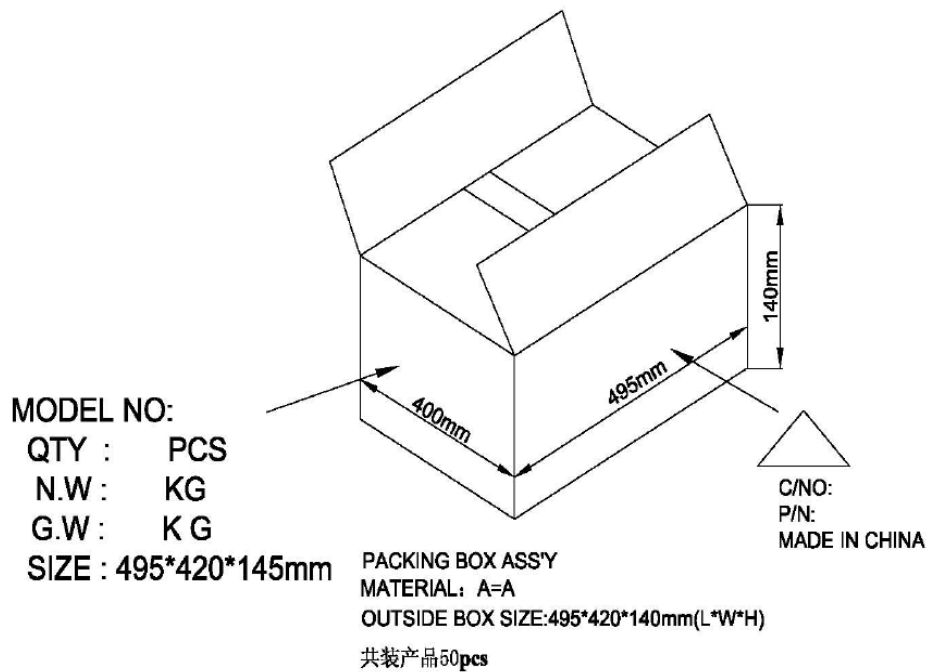
9. Outline drawing / 外形图



10. Package Drawing / 包装图



SMALL WHITE BOX ASS'Y
 MATERIAL: ASH CARD 400g
 OUTSIDE BOX SIZE: 135*95*40mm(L*W*H)
 小白盒左上角印上: 66MS-00120500-S01-V,
 RoHS字样



11. Sample Test Report / 样品测试报告

Customer / 客户	C017	Tester/测试		Date: 2011-11-24				
Design No./ 设计编号: SMS-00120500		Model No. / 机型: SMS-00120500-S01						
Test Items /测试项目	Test Condition / 测试条件	Sample quantity and test result /测试结果						PASS / FAIL
		# 1	#2	#3				
Unload output voltage / (CC mode)空载输出电压 (0.0A) 11.4Vdc~12.6Vdc								
	120Vac	12.49	12.53	12.57			PASS	
	230Vac	12.49	12.53	12.57			PASS	
Rated load output voltage / (CC mode)额定负载输出电压 (5.0A) 11.4Vdc~12.6Vdc								
	120Vac	11.91	11.92	11.99			PASS	
	230Vac	11.91	11.92	11.99			PASS	
Rate Load Cold Ripple(CC mode)冷态纹波 (5.0A) <120mV								
	120Vac	44.8	38.4	39.2			PASS	
	230Vac	31.2	35.4	32.4			PASS	
AC Over Voltage Protection AC 过压保护 300-350		----	----	----			----	
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Short-circuit protection test / 短路保护测试	100Vac	OK	OK	OK			PASS	
	220Vac	OK	OK	OK			PASS	
Hi-pot / 介电强度	1500Vac/ 5 mA/3 min	OK	OK	OK			PASS	
Efficiency / 效率> 80%	@220V	83.3%	83.2%	83.3%			PASS	
450V Inrush 冲击	450V full load	----	----	----			----	