



厦门讯亨电子科技有限公司

XIAMEN XUNHENG ELECTRONICS TECH CO., LTD.

产 品 承 认 书/SPECIFICATION FOR APPROVAL

客户/CUSTOMER : _____

产品型号/MODEL NO. : XH1200-2000wJ

内部型号/Internal model : _____

产品规格/PART SPEC : 12.0V2.0A PSE

日 期/DATE : 2023-09-18

版本号/VERSION : REV1.0

生产商/Manufacturer:

制 作	审 核	批 准
MADE BY	CHECKED BY	APPROVED BY

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客户承认签字/签章 (CUSTOMER' S APPROVAL SIGNATURE):

日期/DATE:

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1、概述/Scope

该文件详细阐述了该开关电源的电子、机械和环境的规范/This document details the electronic, mechanical and environmental specifications of the switching power supply.

1.1 类型/Description

- ☒ 插墙式/Wall Mount
- ☐ 桌面式/Desk-Top
- ☐ 裸板/PCBA
- ☐ 其它/Others

2、输入特性/INPUT REQUIREMENTS

2.1 输入电压和频率/Input Voltage&Frequency

项目/Item	最小值/Min	最大值/Max
输入电压/Input Voltage	90Vac	264Vac
额定输入电压/Rated Input Voltage	100Vac	240Vac
额定输入频率/Input Frequency Range	47Hz	63Hz
输入电流/Input Current	-	0.8A

2.2 能效等级/EFFICIENCY LEVEL

项目/Item	规格说明/Spec.Limit
输入空载损耗/NO-Load Input Power Dissipation	☒ 0.3W Max ☐ 0.21W Max ☐ 0.1W Max ☐ 其它/Other
平均效率/Average Efficiency	82.09% Min
能效等级/EFFICIENCY LEVEL	☐ VI ☒ V ☐ IV ☐ 其它/Other
试验条件说明/Description of test conditions: 1、输入空载损耗/NO-Load Input Power Dissipation: 输入 115Vac 和 230Vac 且输出不带载/Input 115Vac&230Vac and the output is no load; 2、平均效率/Average Efficiency: 输入 115Vac 和 230Vac, 输出负载 100% 75% 50% 25%的平均值（根据能效标准, 产品老化半小时且输出端直接连接测试设备） Input 115VAC and 230VAC, and output the average value of 100% 75% 50% 25% of the load(according to the energy efficiency standard, the product is aged for half an hour and the output end is directly connected to the test equipment)	

3、输出特性/OUTPUT REQUIREMENTS

3.1 输出参数/Output Parameters

3.1.1	输出数据/ Output Data	规格说明/Spec.Limit			测试条件 Test Condition
		最小值 /Min	正常值 /Normal	最大值 /Max	
3.1.2	输出电压 Output Voltage	11.4V	12.0V	12.6V	CC=2.0A
3.1.3	纹波噪声 Rippleand Noise	-	-	200mVp-p	20MHz 带宽探头连接 22UF 电解电容和 0.1uF 瓷片/20MHz Bandwidth 22uF Elec. Cap&0.1uF Cer. Cap
3.1.4	过流保护/OCP	-		-	100Vac Input
3.1.5	过流保护/OCP	-		-	240Vac Input

3.2 测试数据/Test data

1. 当工作温度在-20° 的时候，负荷率为 50%；工作温度 40° 能达到 100%的负载运作；随着温度持续上升，到达 70° 的时候，运作时候的负荷率为 20%。When the working temperature is -20 ° C, the load rate is 50%; Capable of achieving 100% load operation at a working temperature of 40 ° C; As the temperature continues to rise and reaches 70 ° C, the load rate during operation is 20%.
2. 工作温度到达 60° 的时候，在强制通风（0.5m3/min）的情况下，负荷率能继续维持 100%。When the working temperature reaches 60 ° C and under forced ventilation (0.5m3/min), the load rate can continue to maintain 100%.
3. 输入电压为 85V 时，负荷率为 80%；输入电压为 115V 时，负荷率为 100%。When the input voltage is 85V, the load rate is 80%; When the input voltage is 115V, the load rate is 100%.

3.3 启动延迟时间/Startup Delay time

输入 120Vac/230Vac 和最大负载条件下开机延迟时间最大 5s/ Input 120Vac/230Vac and the maximum startup delay time under the maximum load condition is 5S.

3.4 关机保持时间/Hold-up time

输入 120Vac/230Vac, 最大负载同时在最差情况下关机, 最小 10ms./10mS Min. @max Load&120Vac/230Vac input turn off at worst case.

3.5 上升时间/Rise time

输出电压从 10%上升至 90%、额定负载条件下最大 30ms。30mS max. @rated. load, output Voltage from 10% to 90%.

3.6 线性/负载调整率/Line/Load Regulation

输出/Output	负载条件/Load Condition		负载调整率/Load Regulation
额定/Rate	最小负载/min. load	最大负载/max. load	
12V	0A	2.0A	±5%

4、机械特性/MECHANICAL CHARACTERISTICS

4.1 外壳尺寸图/Dimension drawing of case

外壳尺寸图详见附录 A。/The dimension drawing of case is drawn on APPENDIX A.

4.2 铭牌/Nameplate

铭牌详见附录 A。/The nameplate please see APPENDIX A.

4.3 DC 线和 AC 线尺寸图/Dimension drawing of Output DC wire and Input AC wire

DC 线和 AC 线尺寸图详见附录 B。/The Dimension drawing of Output DC wire and Input AC wire is drawn on APPENDIX B.

4.4 包装图/Drawing of Package

包装图详见附录 C。/Drawing of Package please see APPENDIX C.

4.5 跌落实验/Drop test

6 面, 每面各 1 次, 共 6 次, 高度 1M 自由掉落到硬木地板。/6 sides, once on each side, 6 times in total, 1M high, free fall to hardwood floor.

4.6 DC 头摇摆测试/DC Plug Bending Test

Test Conditions (测试条件)	
Weight for hanging (吊重)	1.9 N (200g)
Angle of rotation (旋转角度)	± 6 0 °
Bending cycle (循环弯曲)	4 0 times / min.
Reciprocating time (重复次数)	2000

5、保护要求/Protection Requirement

5.1 短路保护/Short Circuit Protection

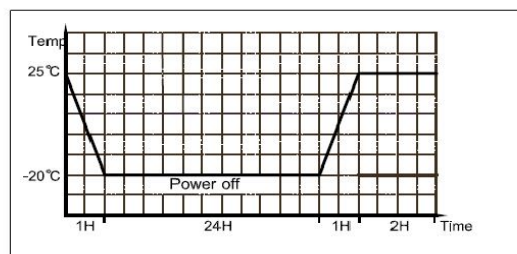
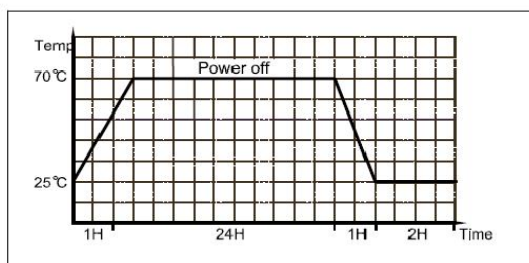
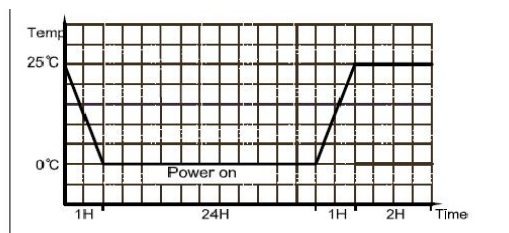
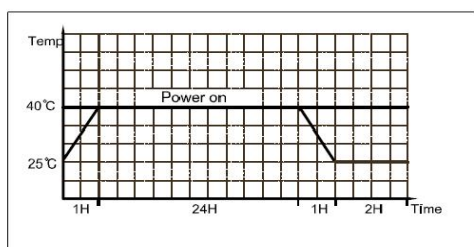
输出端短路, 输出进入保护模式, 故障解除后, 电源恢复正常输出。/If short circuit occurs, Output enters protection mode. After the fault is removed, the adapter auto recovers.

5.2 过流保护/Over Current Protection

当过流时输出进入保护模式, 过流解除后, 电源恢复正常输出。/In case of over current, the output enters the protection mode. After the over current is removed, the power supply returns to normal.

6、环境条件/ENVIRONMENTAL CONDITIONS

项目/ITEM	环境条件
存储温度/Storage temperature	-20℃ to +70℃
存储湿度/Storage humidity	≤95%
工作温度/Operating temperature	0℃ to +40℃
工作海拔高度/ Operating Ambient Altitude	0-2000M



Maximum measured temperature T of part/at.....:	T (°C)				Allowed T _{max} (°C)
--	a	b	c	d	--
Model: XH1200-2000WG (with input wire)					
Plug holder	48.8	49.3	47.0	46.7	110
Input wire	64.4	61.8	57.6	53.9	80
Varistor VR1 body	76.2	72.0	66.1	60.4	85
PCB under BR1	90.2	87.1	71.5	66.4	130
E-capacitor EC1 body	84.9	80.3	69.9	63.7	105
Line choke L1 winding	93.7	92.0	74.6	69.9	130
E-capacitor EC3 body	94.6	92.5	83.4	77.5	105
PCB near IC1	101.9	105.2	95.7	92.4	130
Transformer T1 winding	102.5	104.9	104.3	100.6	110
Transformer T1 core	100.7	104.3	102.5	100.2	110
Y-capacitor CY1 body	83.6	84.3	79.1	76.1	125
Opto-coupler PH1 body	72.6	78.9	71.2	72.9	100
PCB near D4	118.3	124.0	121.5	121.2	130
E-capacitor EC5 body	91.9	100.0	94.9	98.5	105
Line choke LF1 winding	74.9	83.3	75.9	80.3	130
Output wire	67.0	73.7	67.8	71.9	80
Plastic enclosure inside near T1	73.7	71.2	74.3	67.1	110
Plastic enclosure outside near T1	68.7	66.5	69.4	63.2	95
Ambient	25.2	25.5	25.6	25.5	--

7、安规标准/SAFETY STANDARD

7.1 安规标准/Regulations and Standards

NO.	Type/安规	国家/Country	Standard/标准
1	CCC	中国/China	☐ GB4943.1 ☐ GB4706.1 ☐ GB8898 ☐ 其他
2	CE/GS	欧洲/Europe	☐ EN61558 ☐ EN60335 ☐ EN62368 ☐ 其他
3	cULuc	美国/加拿大 /USA/Canada	☐ UL60950 ☐ UL62368 ☐ UL1310 ☐ 其他
4	UKCA	英国/Britain	☐ BS EN61558 ☐ BS EN60335 ☐ BS EN62368 ☐ 其他
5	PSE	日本/Japan	☒ J61558 ☐ J60335 ☐ 其他
6	KC	韩国/Korea	☐ K60950 ☐ 其他
7	SAA	澳洲/Australia	☐ AS/NZS 61558 ☐ AS/NZS 60335 ☐ 其他
8	其他/other		

7.2 绝缘阻抗/ Insulation Resistance

初次级绝缘阻抗: 100M Ω min at 500VDC。/Primary to secondary: 100M Ω min at 500VDC.

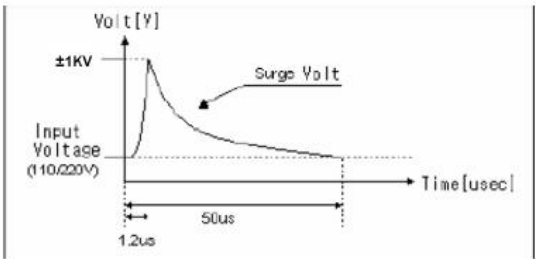
7.3 介电耐压强度/DIELECTRIC STRENGTH (Hi-Pot)

初级对次级 3750Vac/5mA Max. /60 秒 (生产测试时间 3 秒)。/Primary to secondary: 3750VAC / 5mA max.
/ 60s (production test time: 3S).

7.4 泄露电流/Leakage Current

240Vac/50Hz 输入时最大 0.25mA。/0.25mA max. at 240Vac/50Hz.

7.5 电磁干扰/Electromagnetic Interference



项目/Item	标准
浪涌冲击抗扰度 /Input Line Surge Immunity	☒ 1KV ☐ 2KV ☐ 4KV ☐ 其他
快速瞬变脉冲群抗扰度 /Electrical Fast Transient	☒ 1KV ☐ 2KV ☐ 4KV ☐ 其他
放电静电抗扰度 /Electrostatic Discharge	接触放电/Contact: $\pm 4KV$ 空气放电/Non-Contact: $\pm 8KV$

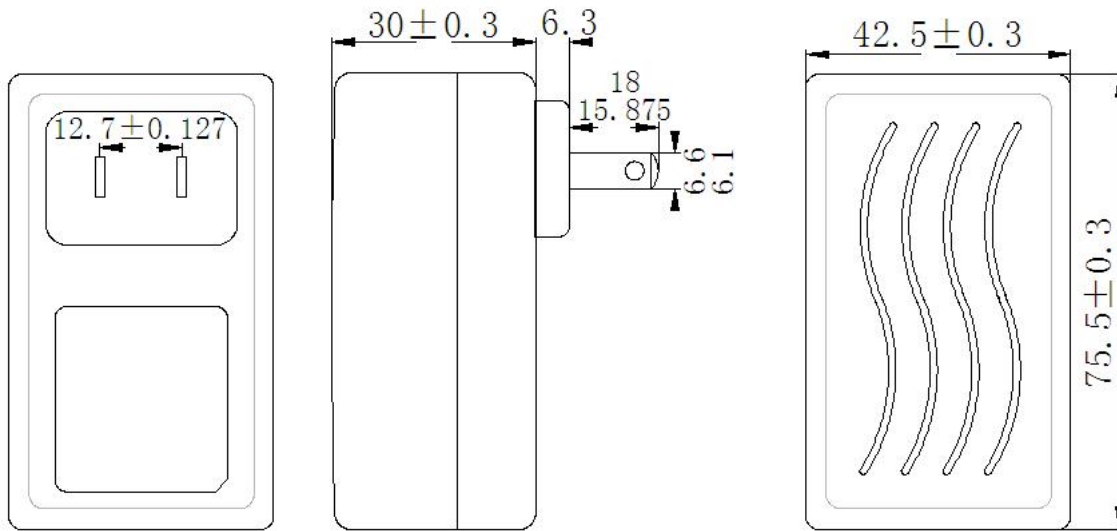
8、老化测试/Burn-in

产品在 25° C-40° C 室温满载下应经受至少 2 小时的老化试验, 试验后产品正常工作。The product shall undergo aging test for at least 2 hours under full load at temperature of 25 ° C-40 ° C. after the test, the product works normally.

9、测试数据/Test Data						
	测试项目 Test Item	测试条件 Test Condition	额定范围 The rated range	Room Temperture 常温		
				1#	2#	3#
输入参数 INPUT PARAMCTIC	满载功率/Full Load Power	Vin. 100	<31W			
		Vin. 240				
	空耗 No Load Power	Vin. 115	<0.3W			
	输入电流 Input Current	Vin. 100	<800mA			
输出参数 OUTPUT PARAMETIC	Output Voltage @Input Voltage 100V (输入100V)	空载/NO LOAD	11.4-12.6V			
		满载/CC=2.0A	11.4-12.6V			
	Output Voltage @Input Voltage 240V (输入240V)	空载/NO LOAD	11.4-12.6V			
		满载/CC=2.0A	11.4-12.6V			
	Ripple 纹波	空载/NO LOAD	<200mV			
		满载/CC=2.0A	<200mV			
	短路保护 Short protect	100V/240V	跳变/≤3W			
	绝缘阻抗 Insulation R.	500Vdc	>100MΩ			
	耐压/Hi-Pot	3750Vac	≤5mA			
产品外观 Product appearance	外壳安规	\	PSE			
	DC 线长度	卷尺	1500mm			
	DC 头尺寸	卡尺	5.5*2.1*10			
测试： 审核： 批准：						

10. 附录 A/APPENDIX A

外壳尺寸图/Dimension drawing of case:



NO.	项目/Item	SPEC.
1	插头安规 Plug safety Standard	☐ CCC ☐ CE ☐ UL ☐ UKCA ☐ KC ☐ SAA ☒ PSE ☐ 其他/Other
2	颜色/Color	☒ 黑色/black ☐ 白色/white ☐ 灰色 grey ☐ 其他/Other

铭牌/Nameplate:

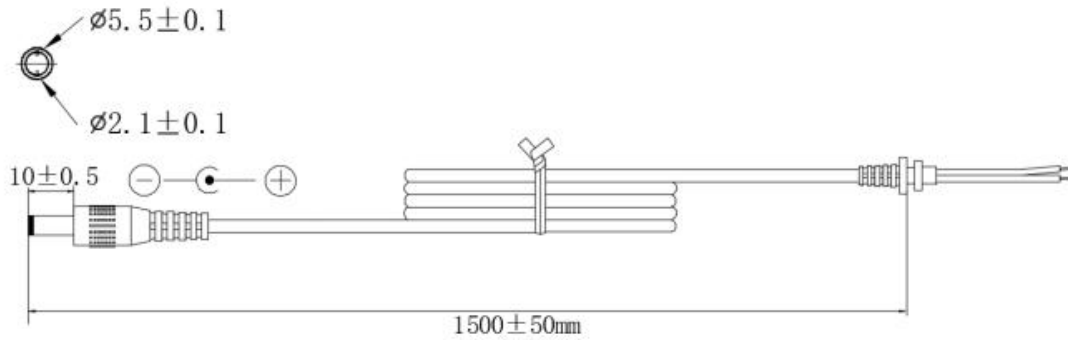


备注/Remarks

- 1、黑底白字，字迹清晰可见；
- 2、所有文字字体, 间距，排列以图纸为准。

11. 附录 B/APPENDIX B

DC 线尺寸图/Dimension drawing of Output DC wire



备注/Remark

项目/Item

规格/SPEC.

线材/WIRE

☒ UL2464 ☐ UL2468 ☐ UL1185 ☐ 其他/Other:

线号/Line Number

☐ 18AWG ☒ 20AWG ☐ 22AWG ☐ 24AWG ☐ 其他/Other:

DC 头/DC PLUG

5.5*2.1*10 直头音插

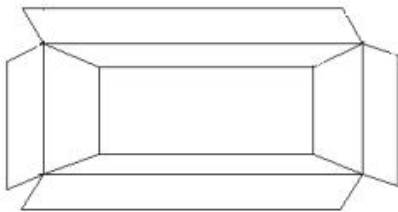
长度/Length

☐ 1000mm ☐ 1200mm ☒ 1500mm ☐ 1800mm ☐ 1830mm ☐ 其他/Other:

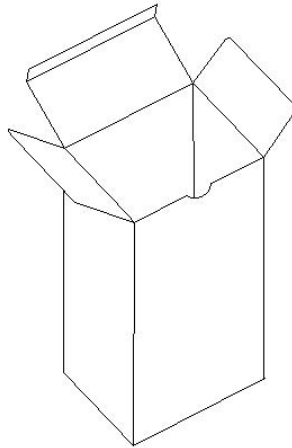
颜色/color

☒ 黑色/black ☐ 白色/white ☐ 灰色 grey ☐ 其他/Other:

12. 附录 C/APPENDIX C



CARTON



WHITE BOX



PE BAG

Remarks:

包装方式为: CARTON (纸箱) + White Box (小白盒) + PE BAG (PE 袋)