

承 认 书
*SPECIFICATION FOR
APPROVAL*

CUSTOMER (客户) : _____ 顺造 _____

Model Number (型号) : _____ AY035P-1HF02 _____

Part Description (元件描述) : _____ switching power supply _____

Part No. of Customer (客户编号) : _____

Date of Approval (确认日期) : _____ 2023-1-16 _____

Prepared By: AOYUAN (奥源确认栏)

Reported By	Checked By	Approved By

Please return us one original approved by you with your signatures.

客户承认盖章后敬请寄回正本一份

Customer Signature: (客户签名栏)

Reported By	Checked By	Approved By

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1. Scope (范围)

The specification defines the performance characteristics of a 27 W Switching Power adapter. All products including samples delivered will meet all the requirements as outlined in the document. The basic requirements of the design features are listed below:

这是一份详细描述总功率为 27 瓦的开关电源适配器的规格承认书。所有提供的产品包括样品将满足本文件所描述的产品规格。其设计基本要求如下：

2. Electrical requirements (电气特性)

2.1 Input voltage range (输入电压范围)

Rated input voltage 额定输入电压	100 Vac to 240 Vac
Limited working Range 极限工作范围	90 Vac to 264 Vac
Frequency range 频率范围	50Hz/60Hz±3%
Max input ac current 满载输入电流	1A max at full load and 100Vac condition
Inrush Current 浪涌电流	The cold inrush current must not cause the input fuse to open or cause damage to components
Leakage Current 泄漏电流	Less Than 0.25 mA 240 Vac input

2.2 Output voltage

Table 1/表格 1

Output No. 输出组数	Voltage 电压	Min. Load 最小负载	Nominal Load 标准负载	Peak Load 峰值负载
1	27V	0mA	1000mA	-

Output voltage/current range /输出电压电流范围

Table 2/表格 2

Load 负载	Voltage 电压	Range 范围	Current 电流
No load/空载	26.5V	26-27V	0mA
Loaded/负载	CV25.5V	-	900-1100mA

2.3 Ripple/noise(纹波 / 噪声)

Output Voltage 输出电压	Ripple/Noise (peak-peak) (mV)
26V	$\leq 250\text{mV}$

1. The ripple is measured from peak to peak with band width limit of 20MHz. 纹波是使用示波器带宽为 20MHz 测量峰峰值得到的。

2. Input voltage at 100-240Vac and full load, a 0.1uF ceramic disk capacitor & 47uF electrolytic (low ESR) capacitor should be put across the output terminals during ripple & noise measure.

在输入 100-240Vac, 输出满载的情况下, 测试纹波和噪声需要在输出端并联一个 0.1uF 的瓷片电容和一个 47uF 低内阻的电解电容。

2.4 Turn on delay time(开机延迟时间)

The turn on delay time is 4seconds Max. At 100-240Vac input and output full load. 当输入 100-240Vac, 输出满载时, 开机延迟时间最大为 4S.

2.5 Rise time(上升时间)

The output rise time is 100mS Max. at 100Vac input and output Max. load. 当输入 100Vac, 输出最大负载时最大上升时间 100mS.

2.6 Hold up time/保持时间

10 mS Min. at 220 Vac input and output Max. load. 当输入 220 Vac, 输出最大负载时最小保持时间为 10mS.

2.7 Efficiency/效率

Average efficiency 86.42% minimum at 25%, 50%, 75% and 100% of full-loading and 115Vac or 230Vac input. (After warm up 30 minutes).

在输入 115Vac / 230Vac 时, 负载 25%, 50%, 75% 和 100% 的平均效率最小为 86.42%。(开机 30 分钟后测试).

No-load power consumption 0.2W Max. 空载功耗最大值为 0.2W.

2.8 Overshoot/过冲

$\pm 10\%$ Max. When power supply at turn on or turn off.

在电源开启或关闭的时候, 过冲最大幅度为. $\pm 10\%$ 最大

3. Protection requirements/保护功能

3.1 Short circuit protection/短路保护

Power adapter shall have self-limiting protection to protect against short circuit or overload conditions.

No damage to the power adapter shall result from a continuous or intermittent short circuit condition. It will be auto-recovered when the failure is removed.
电源适配器有自我限制保护功能来防止短路或过载条件, 在连续或断续的短路条件下电源将不会有任何损坏。短路故障排除后, 电源将会自动恢复正常工作。

3.2 Over current protection/过流保护

The OCP current is 1.3A max ,After output current of power supply reach OCP current, the over current protection shall operate, the power supply will be auto-recovered when over current faults remove. 电源电流过流 1.3A 最大, 发生过流后, 保护将会动作, 过流故障排除后, 电源将自动恢复正常工作。

3.3 Over Voltage protection/过压保护

The maximum OVP voltage is 35V,After output Voltage of power supply reach OVP voltage. The over Voltage protection shall operate, the power supply will be auto-recovered when over Voltage faults remove.
电源最大输出电压保护点为 35V. 发生过压后, 保护将会动作。过压故障排除后, 电源将自动恢复正常工作。

4. Environmental requirements/环境要求

4.1 TEMPERATURE AND HUMIDITY/温度和湿度

Operating Temperature/工作温度	0°C~40°C Full load Normal operation
Operating Humidity/工作湿度	10%~80% R.H Full load Normal operation
Storage Temperature/储存温度	-20°C~75°C
Storage Humidity/储存湿度	10%~80% Relative Humidity
Cooling/冷却方式	Cooling shall be with natural convection cooling
Operating height/工作高度	≦2000m Elevation

Weather conditions/气候条件	conform to the tropical climate
-------------------------	---------------------------------

Cooling: Cooling shall be with natural convection cooling
(散热方式:空气自然对流散热)

4.2 Vibration/振动

4.2.1 Operating: IEC 721-3-3 3M3/测试标准(国际电工电子委员会)

5~9 Hz, A=1.5mm
9~200Hz, Acceleration/加速度:5m/s

4.2.2 Transportation/运输

Operating:IEC 721-3-2 2M2
5-9 Hz, A=3.5mm
9~200Hz, Acceleration/加速度: 5m/s
200~500Hz, Acceleration/加速度: 15m/s

5. Reliability requirements/可靠性要求

5.1 MTBF qualification/平均间隔故障时间估算

The mean time between failures shall be greater than 50000 hours at 25°C, full load and nominal input condition. Execution standard:

平均间隔故障时间: 大于 50000 小时 (25°C 环境及额定输入与输出满载条件下)

6. Safety and EMI requirements/安全及 EMI 要求

6.1 Hi-pot test/高压测试

Hi-pot test shall meet with the following table test requirements, 100% production test must be performed for each test item and be maintained at that level for a minimum of 5seconds without failure.

高压测试满足下表的要求, 100%在线间品执行此项测试, 并每一项目至少保持 1min 时间无任何故障.

ITEM	SPECIFICATION	REMARK
Primary to Secondary 输入—输出	3000Vac/10mA/1min	No arcing No broken/无飞狐无 击穿
Primary to P.G/输入—地		
Note:Factory test criteria for mass production shall be 3.6KVac ,3S,10mA		

6.2 Insulation resistance/绝缘阻抗

ITEM	SPECIFICATION	REMARK
Primary to Secondary 输入—输出	>100MΩ ;DC500V	
Primary to P.G/输入—地		

6.3 Safety: accord with/安全: 符合标准

Certificate	Country/国家	Standards/标准
<input type="checkbox"/> CCC	China/中国	GB8898-2011
<input type="checkbox"/> CCC	China/中国	GB4943-2011
<input type="checkbox"/> CCC	China/中国	GB4943.1-2022
<input checked="" type="checkbox"/> CQC	China/中国	GB4706
<input type="checkbox"/> CQC	China/中国	GB9706
<input type="checkbox"/> UL/CUL	USA/美国	UL62368
<input type="checkbox"/> UL/CUL	USA/美国	UL1310
<input type="checkbox"/> UL/CUL	USA/美国	UL60601-1
<input type="checkbox"/> CB	/	IEC62368
<input type="checkbox"/> CB	/	IEC60335
<input type="checkbox"/> CB	/	IEC61558
<input type="checkbox"/> CB	/	IEC60601-1
<input type="checkbox"/> GS	Europe/欧洲	EN62368
<input type="checkbox"/> GS	Europe/欧洲	EN 60335
<input type="checkbox"/> GS	Europe/欧洲	EN 61558
<input type="checkbox"/> GS	Europe/欧洲	EN 60601-1
<input type="checkbox"/> CE	Europe/欧洲	EN62368
<input type="checkbox"/> CE	Europe/欧洲	EN 60335
<input type="checkbox"/> CE	Europe/欧洲	EN 61558
<input type="checkbox"/> CE	Europe/欧洲	EN 60601-1
<input type="checkbox"/> UKCA	England/英国	BS EN62368
<input type="checkbox"/> UKCA	England/英国	BS EN 60335
<input type="checkbox"/> UKCA	England/英国	BS EN 61558
<input type="checkbox"/> UKCA	England/英国	BS EN 60601-1
<input type="checkbox"/> RCM	Australia/澳洲	AS/NZS 62368

<input type="checkbox"/> RCM	Australia/澳洲	AS/NZS 60335
<input type="checkbox"/> RCM	Australia/澳洲	AS/NZS 61558
<input type="checkbox"/> RCM	Australia/澳洲	AS/NZS 60601-1
<input type="checkbox"/> PSE	Japan/日本	J62368
<input type="checkbox"/> PSE	Japan/日本	J60335
<input type="checkbox"/> PSE	Japan/日本	J61558
<input type="checkbox"/> PSE	Japan/日本	J60601-1
<input type="checkbox"/> KC	Korea/韩国	K62368
<input type="checkbox"/> KC	Korea/韩国	K60335
<input type="checkbox"/> KC	Korea/韩国	K61558
<input type="checkbox"/> KC	Korea/韩国	K60601-1
<input type="checkbox"/> EAC	Russia/俄罗斯	EN 62368
<input type="checkbox"/> EAC	Russia/俄罗斯	EN 60335
<input type="checkbox"/> EAC	Russia/俄罗斯	EN 61558
<input type="checkbox"/> EAC	Russia/俄罗斯	EN 60601-1

6.4 EMI/电磁干扰

EMI:accord with/EMI: 符合标准

<input type="checkbox"/> EN55032 <input type="checkbox"/> J55032 <input type="checkbox"/> K32	Electromagnetic compatibility of multimedia equipment — Emission requirements 多媒体设备的电磁兼容性. 发射要求
<input checked="" type="checkbox"/> GB9254. 1-2022	Information technology equipment, multimedia equipment and receivers—Electromagnetic compatibility—Part 1: Emission requirements 信息技术设备、多媒体设备和接收机电磁兼容第 1 部分: 发射要求
<input type="checkbox"/> GB4343. 1 <input type="checkbox"/> EN55014-1 <input type="checkbox"/> J55014-1 <input type="checkbox"/> K55014-1	Electromagnetic compatibility Requirements for household appliances, electric tools and similar apparatus Part 1: Emission 电磁兼容 家用电器, 电动工具和类似器具的要求 第 1 部分: 发射
<input type="checkbox"/> FCC Part 15 B	FCC CFR 47 Part 15 subpart B 美国联邦通信法规第 47 卷 15 章内无意的辐射器材的相关规定
<input type="checkbox"/> ICES-003: Issue 7	Electromagnetic compatibility of Information Technology Equipment (including Digital Apparatus) Emission requirements for Canada 加拿大信息技术设备(包含数字设备) 电磁兼容. 发射要求

6.5 EMS/电磁抗扰度

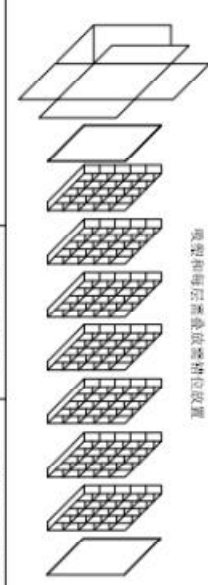
EMS:accord with/EMS: 符合标准

<input type="checkbox"/> EN55020	Sound and television broadcast receivers and associated equipment immunity characteristics limits and methods of measurement	
<input checked="" type="checkbox"/> EN55024	Information technology equipment—Immunity characteristic limits and methods of measurement	
EN61000-4-2	Electrostatic discharge immunity test	CON:±4KV; AIR:8KV; 10 charge/point for Con; 10 charge/point for Air Meet criteria: B
EN61000-4-3	Radiated, radio-frequency, electromagnetic field immunity test	900 MHz, 3 V/m, duty cycle 1/8, 217 Hz repetition frequency Meet criteria: A
EN61000-4-4	Electrical fast transient/burst immunity test	AC port:±1KV Meet criteria: B
EN61000-4-5	Surge immunity test	AC port: L-N:±1KV L-PE/N-PE:±2KV Meet criteria: B

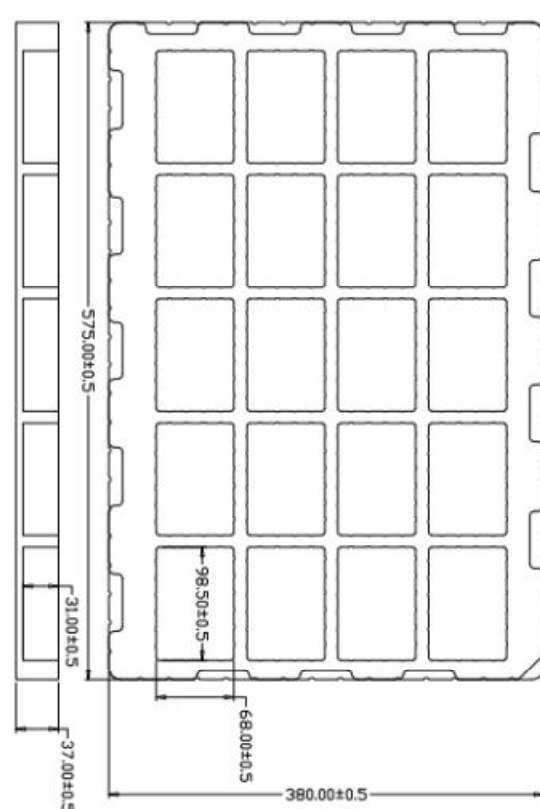
9. Label 铭牌

TBD

10. PACKAGE 包装



纸箱 平卡 吸塑盒 吸塑盒 吸塑盒 吸塑盒 吸塑盒 吸塑盒 吸塑盒 平卡
吸塑和每层需叠放需错位放置



NO.	NAME	PART NAME	SPEC	QTY/PCS	NOTE
1	吸塑盒	164.3006.10	PET	7	
2	气泡袋	165.1001.10	PE	140	125*95, 厚度1.0, 规格: 100*100
3	平卡	164.4001.10	A3A	2	
4	纸箱	164.1004.13	A507A	1	800*390*410, 每箱装100PCS
5					
6					

东莞市奥源电子科技有限公司
Dongguan AOYUAN Electronics Technology Co., Ltd

MODEL NAME: AY035P-1HF01

PART NAME: []

PART NO.: []

DRAWING NAME: PACKING

DWG PATH: []

VIEW: []

UNIT: mm

TOLERANCES: []

APPROVAL 1: 陈家词

ENGINEER: 王贵宾

DRAWING BY: 雷新勇

Date: []

APPROVAL 2: 张克旺

REV.	DESCRIPTION	DATE
V1.0	NEW	23.02.09

ISSUED STAMP

SCALE: [] SHEET: []