

承 认 书

SPECIFICATION FOR APPROVAL

开关电源/Switching Power Supply

CUSTOMER/客户: _____

DESCRIPTION/产品描述: Input:100~240V AC 50/60Hz
Output:12.0VDC 3.0A

OUR MODEL NO/機種型号: YS50-1203000-D1M

SAMPLE COLOR/产品颜色: Black (☒) White (☐)

SAMPLE DATE/产品日期: 2024-09-05

业务/SALES: GuiXiaoXia

核准/APPROVED BY:

设计/DESIGNED BY:

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1、描述/SCOPE:

本规格书适应 YS50-1203000 型号的开关电源。

The purpose of the document is to specify the functional requirements of a 36.0W switching power supply.

2、输入特性/INPUT CHARACTERISTICS:

2.1 输入电压/Input Voltage:

额定电压/Rated Voltage:100 ~ 240Vac

调整范围/Variation Range:90-264Vac

2.2 输入频率/Input Frequency:

额定频率/ Rated Frequency: 50/60Hz.

调整频率/Variation Frequency:47-63Hz

2.3 输入电流/Input Current:

当输入交流电压为额定值的下限电压负载满载时,最大输入交流电流 1.5A.

1.5Amps max At any input voltage and rated, DC output rated load.

2.4 AC 漏电流/Ac Leakage Current:

当输入电压 264Vac 时,最大漏电流为 0.5mA

0.5mA Max.At264Vac input

2.5 浪涌电流/Inrush Current:

当输出为额定负载,环境温度为 25°C,输入 240Vac 冷态起机时的最大浪涌电流小于为 150A.

150Amps Max. Cold start at 240Vac input, with rated load and 25°C ambient.

3、输出特性/OUTPUT CHARACTERISTICS:

3.1 输出功率/Power output

电压 Voltage	最小负载 Min. Load	额定负载 Rated. Load	峰值功率 Peak Load	输出功率 Output power
12.0Vdc	0.00A	3.0A	3.1-5.4A	36.0W

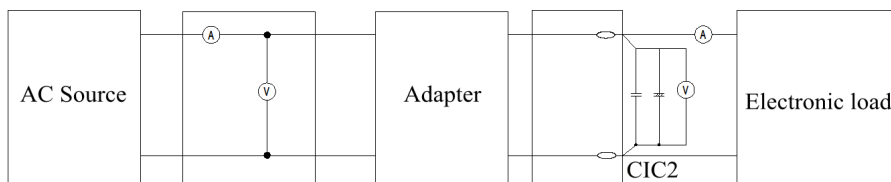
3.2 负载特性,调整率/Combined Load/Line Regulation

电压 Voltage	最小负载 Min. Load	额定负载 Rated. Load	线性调整 Line Regulation	负载调整 Load Regulation
12.0Vdc	0.00A	3.0A	±3% 11.65-12.36V	±5% 11.40-12.60V

3.3 输出电压精度/Voltage accuracy: ±5%

3.4 纹波和噪音 Ripple and Noise:

Output Ripple voltage is 200mV peak to peak or less.(100Vac 60Hz/240Vac 50Hz)



Measured methods:

*The ripple is measured from peak to peak with band width limit of 20MHz
 C1:0.1uF Ceramics
 capacitor C2:47uF/50V aluminum capacitor under DC output full load, AC nominal input 25°C ambient temperature).

3.5 启动延迟时间/Turn on delay time:

当输入 100Vac 和输出最大负载时,最大启动时间为 3S.

3Second Max.at 100Vac input and output Max.load.

3.6 上升时间/Rise time:

当输入 100Vac 和输出最大负载时最大时间为 40 mS.

40 mS Max.at 100Vac input and output Max load.

3.7 保持时间/Hold up time:

当输入 100Vac 和输出最大负载时,最小保持时间为 5 mS.

5 mS Min.at 100Vac input and output Max.Load.

3.7 效率/Efficiency:

Energy Star Compliance: Level VI Requirement

Average Efficiency achieve 87.4% 115Vac input.

Average Efficiency achieve 87.4% 230Vac input.

3.8 待机功耗 Standby Power:

额定电压 Rated Voltage:100~240Vac 0.1W max

4、保护功能/PROTECTION FUNCTION:**4.1 短路电路保护/Short circuit protection:**

该电源供给器在短路解除时能正常工作恢复.

The power supply will be auto recovered when short circuit faults remove.

4.2 过流保护/Over current Protection:

过流故障排除后,电源将恢复正常工作.

The power supply will be auto recovered when over current faults remove.

4.3 过压保护/Output voltage achieve over voltage protection point.will auto protection without output.be capable of auto-recovery function

5、环境要求/ENVIRONMENTAL REQUIREMET:**5.1 工作温度/Operating Temperature:**

-20℃-50℃,满载,正常工作.

-20℃ to 50℃,Full load, Normal operation.

5.2 储藏温度/Storage Temperature:-40℃ to 80℃

带外壳/With package

5.3 工作湿度/Relative Humidity:

25%(0℃)~75%(40℃),72 小时,满载,正常工作.

25%(0℃)~75%(40℃)RH,72Hrs,Full load, Normal operating.

5.4 工作高度/Operating Altitude: -50 to 2000m AMSL

6、安全及 EMI 要求/SAFETY AND EMI REQUIREMENT:

6.1 安规标准/Regulatory Standards

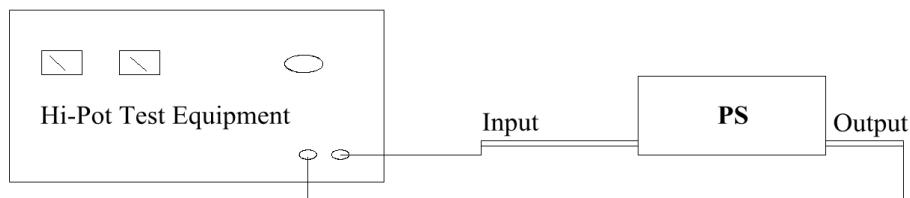
	Type	Country	Standard		Type	Country	Standard
✓	UL	USA	UL62368-1		PSB/CB	SINGAPORE	IEC62368-1
	GS	EUROPE	EN62368-1		PSE	JAPAN	J62368-1
	CCC	CHINA	GB4943		KC	KORE	K62368-1
✓	CE	EUROPE	EN62368-1		CSA	CANADIAN	CAS C22.2
	RCM	AUSTRALIA	AS/NZ62368-1				

6.2 绝缘阻抗: 输入 500VDC 初级到次级最小阻抗 100MΩ

Insulation Resistance: 500VDC primary to the secondary input impedance of 100MΩ(Min)

6.3 高压/DIELECTRIC WITHSTAND Hi-Pot:

HI-POT-- primary to secondary 3000Vac 5mA 1min



6.4 EMI 标准/EMI STANDARD

测试符合/Meets the Limits of

EN 55032:2015+A11:2020+A1:2020

EN 55035:2017+A11:2020

EN IEC 61000-3-2:2019+A1:2021

EN 61000-3-3:2013+A1:2019+A2:2021

7.可靠性要求/Reliability Requirements

7.1 振动/Vibration

5 to 500Hz sweep at a shift gears for 20 minute for each of the perpendicular axes X,Y,Z
Thereinto:acceleration frequency for 10 m2/s3 at 5~10Hz;acceleration frequency for 3 m2/s3
At 10~200Hz; acceleration frequency for 1 m2/s3 at 200~500Hz

扫描频率: 5 to 500Hz 随机振动, X,Y,Z 三垂直坐标轴向各振动 20 分钟, 其中: 5~10Hz 频率范围的加速度频率为 10 m2/s3 , 10~200HZ 频率范围的加速度频率为 3 m2/s3, 200~500HZ 频率范围的加速度频率为 1 m2/s3

7.2 跌落/Drop in

Random surface in all twice,Height: 1.0m,on the cement plane
任意面共两次, 跌落高度: 1.0 米, 跌落到水泥面上

7.3 钢球冲击/STEEL BALL IMPACT

Ball weight: 500g±25g , diameter: 50mm

钢球规格: 球重 500g±25g, 直径: 50mm

Top surface&back surface in all once,steel ball @Height:1.3m free faller,on the cement
Plane,the case can not crack

顶面和底面各冲击一次, 钢球冲 1.3m 处自由下落, 在水泥地面上进行, 外壳不能开裂

7.4 平均间隔故障时间估算/Qualification

The MTBF shall be at least 50000hours at 25°C, Full load and input 230Vac

平均间隔故障时间: 至少 50000 小时, 25°C环境及 230Vac 输入与满载条件下

7.5 电解电容寿命/The lifetime electrolyte capacitor

The lifetime of electrolyte capacitor shall be at least 17520 hours at 25°C, 80% load and
Rated input condition

电解电容寿命至少 17520 小时, 25°C环境及额定输入与 80%负载条件下.

7.6 外壳描述及阻燃等级/Case description and flame retardant grade

The case is Black.the material is ABS+PC,and the flame retardant grade is UL94V-0

外壳为黑色，材质为 ABS+PC 料，阻燃等级为 UL94V-0

7.7 线及 SR 测试/DC wire and SR test

DC wire use 18#2464, Hang 0.3kg weight at the position of below DC wire or SR, rocking angle $\pm 90^\circ$, Swaying frequency 40 times per minute, and wobble 3000 times, The connectivity shall be well, and the Rate of wire breaking shall be less than 30%

DC 线为 18#2464 线，吊重 0.3KG 在 DC 线或 SR 下方，摇摆角度为 $\pm 90^\circ$ ，摇摆频率为 40 次/分钟，摇摆 3000 次，其导通性良好及断线率小于 30%

7.8 连接器插拔测试/Connector Insertion test

The connector insertion test 5000 times, after the test is completed, functional connectivity is normal And no loosening

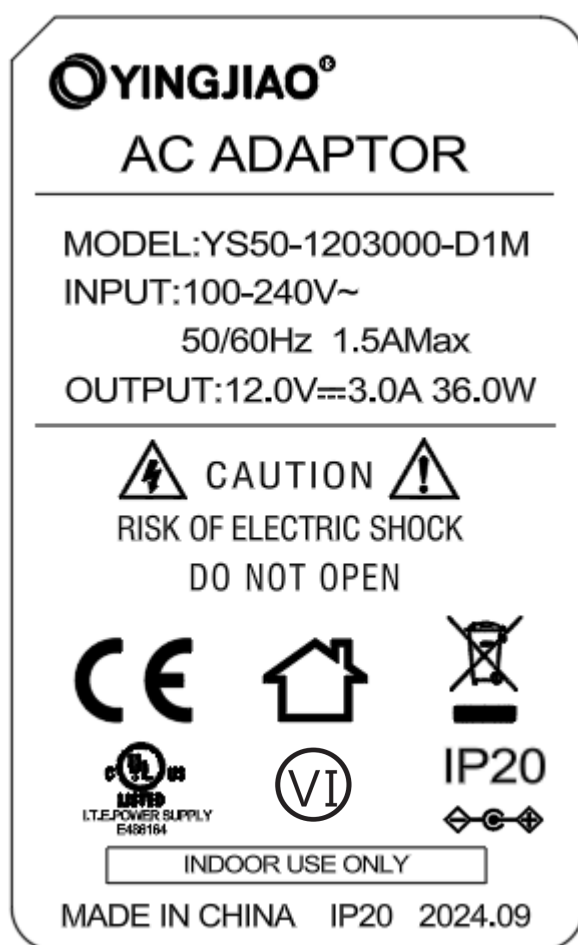
连接器插拔测试 5000 次，测试完成后，功能连接性正常且无松动

7.9 外壳表面温升/Temperature delta of the case surface

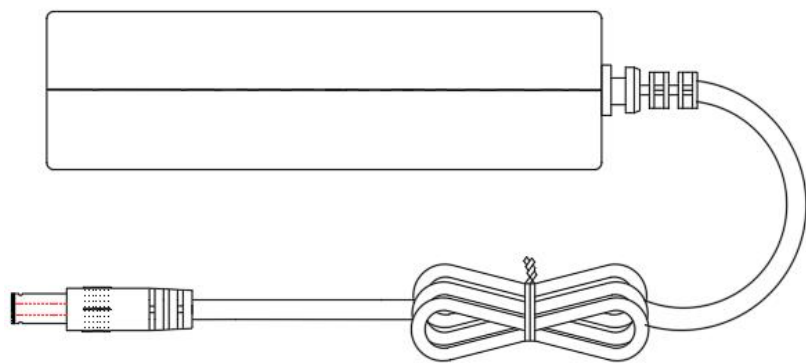
Temperature delta of the case surface should not exceed 45K

外壳表面温升不能超过 45K

9. 铭牌标签/LABEL:



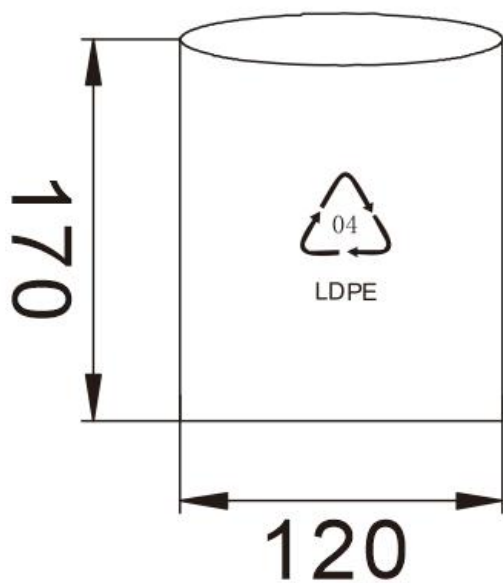
10、包装说明/PACKING STEP:



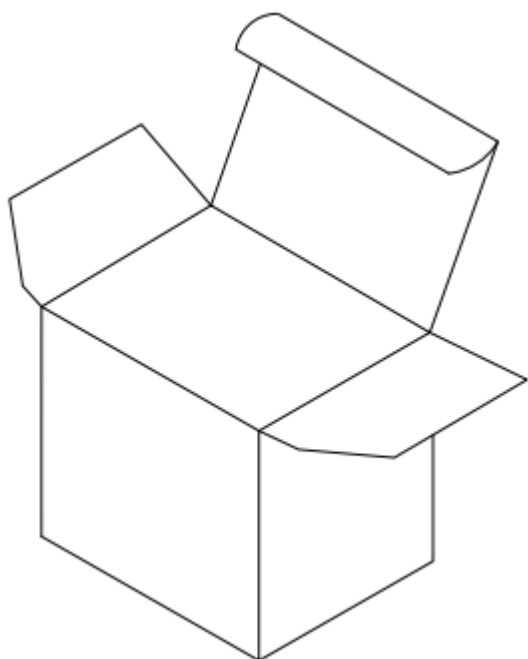
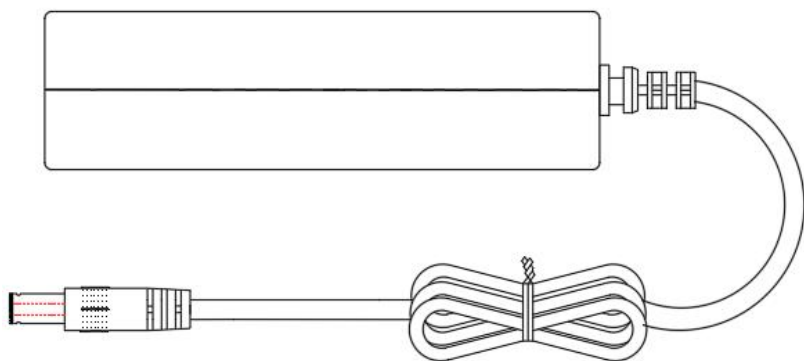
A :Product



装PE袋



B:PE Bag

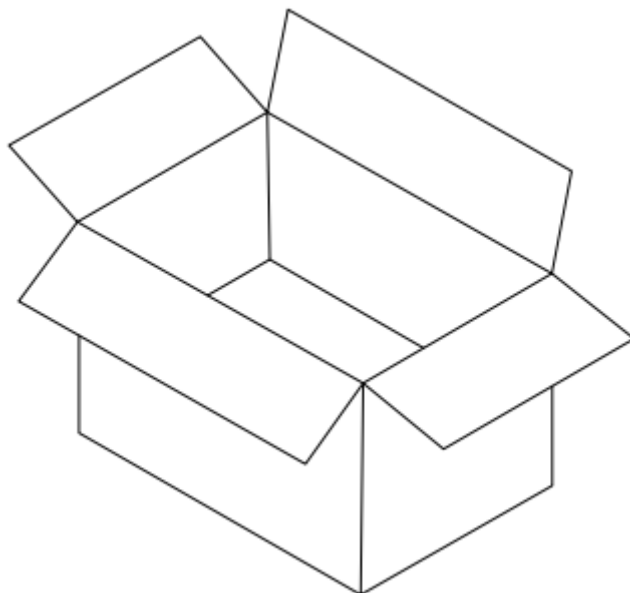


白盒/ White box:

长/ Length:146mm

宽/ Width:63mm

高/ Height:70mm



Packing request:

Packaging

Outside box:340L*310W*370H

Quantity:50PCS/CTN

Remarks:

1. Firstly, put the product into PE bag according to the picture "A/B".
2. After finishing the first step, then put the product into White box according to the picture "C".
3. Then put the product into outer carton.
4. When packing finished, then seals the carton and labels the mark.
5. Through the QA inspection, the products can be shipped