

# 样 品 承 认 书

RoHS

## SAMPLES SPECIFICATION FOR APPROVAL

### Switching power Supply/开关电源

客 户:

CUSTOMER: \_\_\_\_\_

产品描述:

DESCRIPTION: Input:100-240V ~ 50-60Hz Output: 12VDC8A

机种型号:

OUR MODEL NO: MX120Z-12008000

样品编号:

日期:

SAMPLE NO: \_\_\_\_\_ DATE: 2024-03-20

物料编码:

产品颜色/SAMPLE COLOR:

MATERIAL CODE: \_\_\_\_\_ Black  White 

APPROVAL SIGNATURE/客户确认		
核准/APPROVED BY	审核/CHECKED BY	检测/TESTED BY
Manufacturer/制造商		
核准/APPROVED BY	审核/CHECKED BY	制定/MAKER
	朱代富	程梦飞

## 广东明鑫电源技术有限公司

GUANGDONG MINGXIN POWER TECHNOLOGIES CO., LTD.

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版本目录/Rev. List			
版本/Rev.	日期/Date	描述/ Description	制订/Design
A0	2024-03-20	新版本/New Rev.	程梦飞

目录/Table of contents

1、描述/ DESCRIPTION.....	3
2、输入特性/INPUT CHARACTERISTICS.....	3
3、输出特性/OUTPUT CHARACTERISTICS.....	4
4、保护功能/PROTECTION FUNCTION.....	5
5、环境要求/ENVIRONMENTAL REQUIREMET.....	5~6
6、安全要求/SAFETY REQUIREMENT.....	6
7、结构参数/MECHANICAL REQUIREMENT.....	7
8、线材/CORD.....	8
9、铭牌附图/LABEL.....	9
10、样品测试报告/ SAMPLES ELECTRICAL TEST REPORT.....	10

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**1、描述/ DESCRIPTION:**

该开关式电源的连续输出功率为 96 W.

The S.M.P.S should be capable of a total continuous DC power output of 96 W atts.

**2、输入特性/INPUT CHARACTERISTICS:**

**2.1 输入电压/Input Voltage:**

额定电压/Rated Voltage: 100-240 Vac

调整范围/Variation Range: 90-264 Vac

**2.2 输入频率/Input Frequency:**

额定频率/ Rated Frequency: 50-60 Hz.

调整频率/Variation Frequency: 47-63 Hz

**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 2.5 A.

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

**2.4 浪涌电流/Inrush Current:**

冲击电流峰值在额定电压输入, 冷启动 (25°C) 时, 不大于 60A; 且在任何负载和输入条件下, 不导致永久性损坏或危险.

Impact current peak in the rated voltage input, cold start (25 °C), not more than 60 A; And in any load and input conditions, don't cause permanent damage or dangerous.

**2.5 AC 漏电流/Ac Leakage Current:**

当输入电压 240Vac 时,最大漏电流为 0.25mA./ 0.25mA Max. At 240Vac input.

**2.6 Stand-by power consumption ≤ 0.21 Watts.**

待机功耗≤ 0.21 W.

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### 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	输出功率 Output power
<b>12Vdc</b>	<b>0.01A</b>	<b>8A</b>	<b>96W</b>

#### 3.2 输出特性/Output Characteristics

电压 Voltage	最小负载 Min. Load	额定负载 Rated. Load	电压范围 Voltage Range	
			空载电压 (V) 11.4-12.6	负载电压 (V) 11.4-12.6
<b>12Vdc</b>	<b>0.01A</b>	<b>8A</b>		

#### 3.3 纹波和噪音 Ripple and Noise:

测试条件:在输入 115/230Vac 25°C 和输出最小及最大负载时, 使用示波器带宽为 20MHz 连接到适配器的输出端, 同时输出端并联一个 47uF 的电解电容和一个 0.1uF 的瓷片电容.

At 115/230Vac 25°C input and output Min and Max.Load,the ripple and noise are as follows when measure with Max.Bandwidth of 20MHz and Parallel 47uF/0.1uF,crossed connected at testing point.

电压 最大纹波/最大噪音

Voltage Ripple and Noise(Max.)

+12Vdc 250mV p-p

#### 3.4 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 3 S.

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

#### 3.5 保持时间/Hold up time:

当输入 115Vac 和输出最大负载时,最小保持时间为 5 mS .

5 mS Min.at 115Vac input and output Max.Load.

#### 3.6 效率/Efficiency:

当 115/230Vac 输入电压时, 1/4, 1/2, 3/4 和满载计算平均效率, 最小 88.00%, 适配器满足能效 VI.

88.00 % Min,At 115/230Vac input voltage,1/4, 1/2, 3/4 and full load calculation average efficiency.Adapter meet efficiency lever VI

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**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,电源将自动恢复正常工作.

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

**5、环境要求/ENVIRONMENTAL REQUIREMET:**

**5.1 工作温度/Operating Temperature:**

0°C-40°C,满载,正常工作.

0°C to 40°C,Full load, Normal operation.

**5.2 储藏温度/Storage Temperature:0°C to 60°C**

带外壳/With package

**5.3 工作湿度/Relative Humidity:**

5%(0°C)~90%(40°C),72 小时,满载,正常工作.

5%(0°C)~90%(40°C)RH,72Hrs,Full load, Normal operating.

**5.4 振动/Vibration:**

1. 测试标准:国际电工电子委员会

Operating: IEC 721-3-3 3M3

5~9Hz,A=1.5mm

加速度(9~200Hz,Acceleration 5m/S2)

2. 运输/Transportation:

IEC 721-3-2 2M2

5~9Hz,A=3.5mm

9~200Hz,加速度 Acceleration=5m/S2

200~500Hz,加速度 Acceleration=15m/S2

3. 轴向振动/Axes,10 cycles per axis.

在测试过程中不能出现永久性的损坏.

No permanent damage may occur during testing.

在电源开启和关闭后,样机能够恢复到最初条件.

The SAMPLE has to restore to its original situation after power off/on..

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### 5.5 跌落试验/Dropping Packed:

插墙式跌落高度为 1 米、桌面式跌落高度为 760mm、6 个面各跌一次

1M for wallmount type and 760mm for desktop type as above described, 6 surfaces or one

测试台面是厚 13mm 的夹木板，离地面高 19-20mm

The horizontal surface Consists of hardwood at least 13mm thick,mounted on two layers of plywood each 19mm to 20mm thick,all supported on a concrete or equivalent non-resilient floor.

## 6、安全要求/SAFETY REQUIREMENT:

### 6.1 主熔断器/ MAIN FUSE

5A250V 保险电阻 Safety Resistor is 5A250V

6.2 安全: 符合标准 UL62368,GB4943, EN62368 ; Safety: accord standard with UL62368,GB4943,EN62368 ;

电磁兼容标准 EMC-Specfication : GB9524/GB17625 ;

1. 干扰噪声抑制标准 Noise-suppressed acc : IEC55022 ;

2. 谐波电流的抑制标准 Harmonic current measurement acc : IEC61000-3-2 ;

3. 抗静电的承受标准 Immunity to electrostatic discharge(ESD)acc:IEC61000-4-2 ;

空气放电 Air discharge: ±8KV ; 接触放电 Contact discharge: ± 4KV ;

4. 抗干扰抑制标准 Immunity to radiated electromagnetic field acc:IEC61000-4-3;

测试条件 Test characteristic: 80-1000MHz; 80%AM(1KHz) 检验条件 Test level 3V/m : A ;

5. 抗快速脉冲群标准 Immunity to fast electric transients(burst)acc: IEC61000-4-4;

耦合方式 Coupling On power supplylines 测试条件 Test Level: 1KV 评估标准: B ;

6. 浪涌测试标准 Surge capability acc: IEC61000-4-5;

浪涌电压 Surge voltage: 1KV 评估标准: B ;

7. 抗骚扰测试 Injected currents susceptibility acc: IEC61000-4-6;

测试条件 Test Level: 3V/m 评估标准: A ;

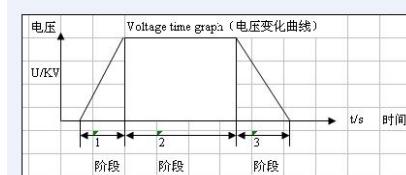
### 6.3 高压/DIELECTRIC STRENGTH Hi-Pot:

输入对输出/INPUT to OUTPUT :3000Vac/5mA/60S for type test.

(批量生产时/Batch production: 3300Vac/5mA/3S)

1. Between input and output <输入 (2pin 脚短路) ---输出 (正, 负极短路)

2. 电压输出变化曲线 Voltage time graph



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6.4 绝缘抗阻/Insulation resistance:

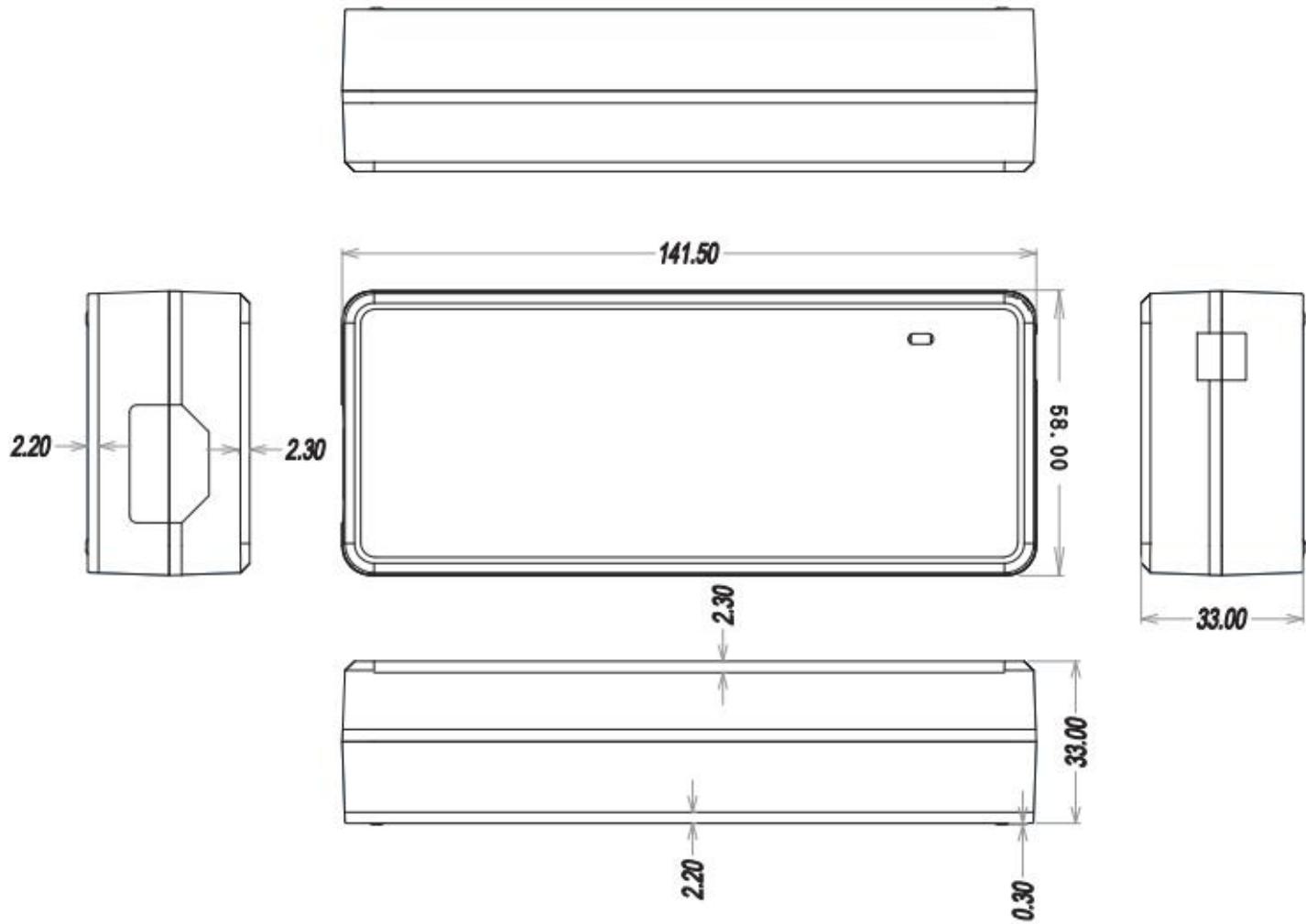
输入对输出/INPUT to OUTPUT  $10M\Omega$  min at 500V DC.

7、结构参数/MECHANICAL REQUIREMENT: (单位: mm)

7.1 外壳/Enclosure:

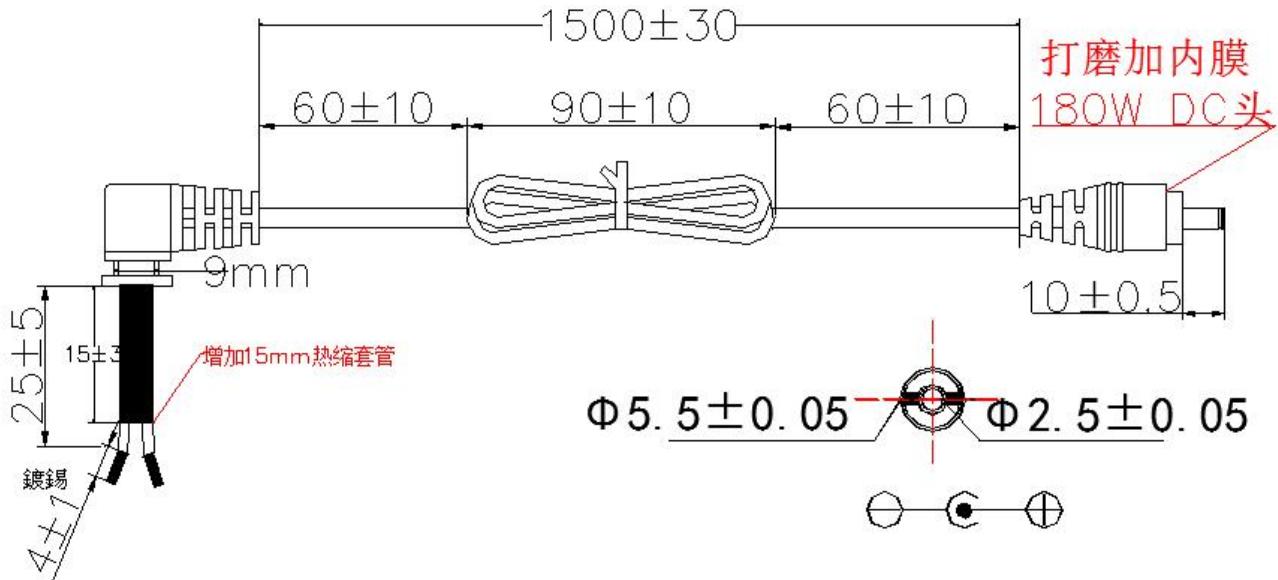
外壳尺寸: L141.5x W58x H33mm;

The power supply size: L141.5x W58x H33mm;



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8、线材/CORD: (单位: mm)



注: DC输出线 UL1185 16AWG 1500mm DC头为5.5x2.5x10mm  
(过大电流) SR为9\*10mm

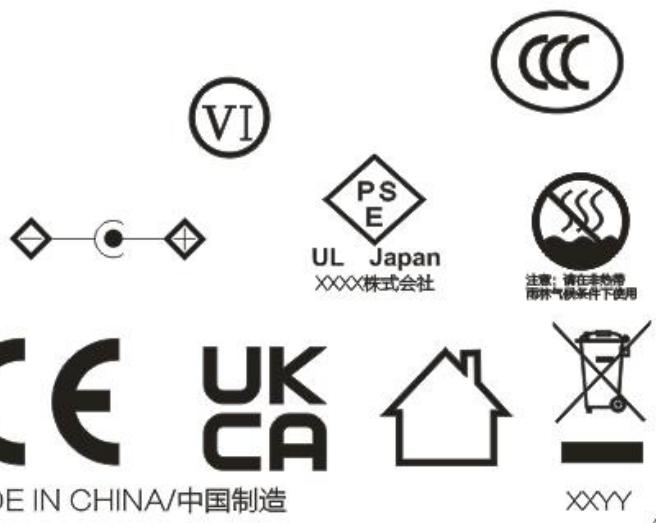
单位: mm

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9、铭牌/LABEL: (单位: mm)

AC/DC ADAPTER /电源适配器

MODEL/型号/品番: MX120Z-12008000  
INPUT/输入/入力: 100-240V~ 50-60Hz 2.5A  
OUTPUT/输出/出力: 12.0V==8.0A 96.0W  
制造商: 广东明鑫电源技术有限公司  
Guangdong Mingxin Power Technologies Co., Ltd.



NOTE: 标签镭射居中

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## 10、样品测试报告/ SAMPLES ELECTRICAL TEST REPORT :

Sample form		sample ( 1 )						
No .	Test Items / 测试项目	Unit / 单位	Test condition & result				Spec. Limit	Pass/ Fail
			90V	115V	230V	264V		
1	Unload input power 空载输入功率	W	0.07	0.09	0.11	0.13	≤0.21W	PASS
2	Power factor 功率因数		0.652	0.629	0.501	0.479		
3	Rated load input power 额定负载输入功率	W	109.61	109.22	109.39	109.27	≤150W	PASS
4	Unload output voltage 空载输出电压	V	12.23	12.23	12.23	12.23	11.4-12.6	PASS
5	Rated load output voltage 额定负载输出电压	V	11.57	11.57	11.57	11.57	11.4-12.6	PASS
6	Output ripple&noise voltage 输出纹波及噪声电压	mV	/	115	128	/	≤250mVp-p	PASS
7	Over current protection 过流保护点	A	/	9.95	10.74	/	9-15	PASS
8	Average Efficiency 平均效率	%	/	88.97	88.88	/	>88	PASS
8	Short-circuit Protection 短路保护	W	not damage and with auto recovery function					PASS
Sample form		sample ( 2 )						
1	Unload input power 空载输入功率	W						PASS
2	Power factor 功率因数							
3	Rated load input power 额定负载输入功率	W						PASS
4	Unload output voltage 空载输出电压	V						PASS
5	Rated load output voltage 额定负载输出电压	V						PASS
6	Output ripple&noise voltage 输出纹波及噪声电压	mV						PASS
7	Over current protection 过流保护点	A						PASS
8	Average Efficiency 平均效率	%						PASS
sample ( 1 )/sample ( 2 )								
1	Drop test 跌落试验	the Dropping hight of wall mount type is 1M,6 surfaces Dropping respectively						PASS
2	Drop test 跌落试验	the Dropping hight of wall mount type is 1M,6 surfaces Dropping respectively						PASS
3	appearance 外观	Content of the NP label is correct,the appearance is clear no spot,scratch color-difference,disconnection and gap						PASS
4	Burn-in test 老化试验	Input:230Vac/50Hz Full Load 4hrs						PASS
5	Insulation test 绝缘测试	INPUT TO OUTPUT:10MΩ min/DC500V,						PASS
DATE/日期: 2024-03-20		CHECK/审核: 朱代富			APPROVED BY/核准:			
TEST/测试员: 程梦飞								