

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: 12VDC 2.5A

机种型号:

OUR MODEL NO: MX36W-1202500J

样品编号:

日期:

SAMPLE NO: _____

DATE: 2025-03-19

客户编码:

产品颜色/SAMPLE COLOR:

Customer part number: _____

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

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	2025-03-19	新版本/New Rev.	程梦飞

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1、描述/ DESCRIPTION:

该开关式电源的连续输出功率为 30 W.

The S.M.P.S should be capable of a total continuous DC power output of 30 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 1 A.

1 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℃) 时, 不大于 30A ;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 ℃), not more than 30 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.At240Vac input.

2.6 Stand-by power consumption ≤ 0.1 Watts.

待机功耗≤ 0.1W.

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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
12Vdc	0.01A	2.5A	30W

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	
12Vdc	0.01A	2.5A	空载电压 (V)	负载电压 (V)
			11.4-12.6	11.4-12.6

3.3 纹波和噪音 Ripple and Noise:

测试条件:在输入 115/230Vac 25℃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℃ 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 Voltage	最大纹波/最大噪音 Ripple and Noise(Max.)
+12Vdc	200 mV 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 86.94%, 适配器满足能效 VI. 86.94%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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4.1 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℃-40℃,满载,正常工作.

0℃ to 40℃,Full load, Normal operation.

5.2 储藏温度/Storage Temperature:0℃ to 60℃

带外壳/With package

5.3 工作湿度/Relative Humidity:

5%(0℃)~90%(40℃),72 小时,满载,正常工作.

5%(0℃)~90%(40℃)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 3.15A250V Ω 主熔断器/ MAIN FUSE 3.15A250V Ω

6.2 安全: 符合标准 [PSE62368](#) ; Safety:accord standard with [PSE62368](#) ;

电磁兼容标准 EMC-Specification : [K55022](#) ;

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](#) Assessment criteria 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](#) Assessment criteria 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](#) Assessment criteria 评估标准: [A](#) ;

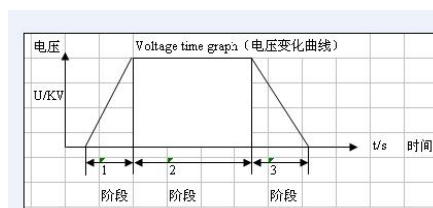
6.2 高压/DIELECTRIC STRENGTH Hi-Pot:

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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6.3 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:

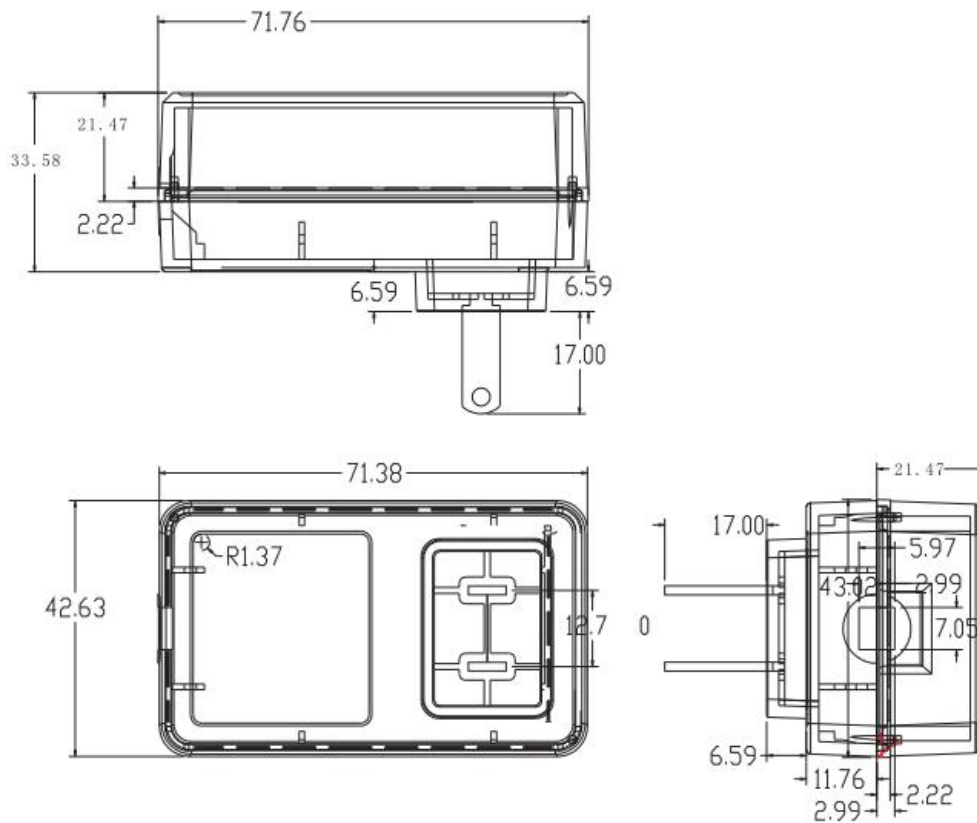
外壳尺寸: L71.76x W42.63x H33.58mm (未标注公差 $\pm 1mm$);

The power supply size: L71.76x W42.63x H33.58mm;

7.2 输入线/Input Connector:

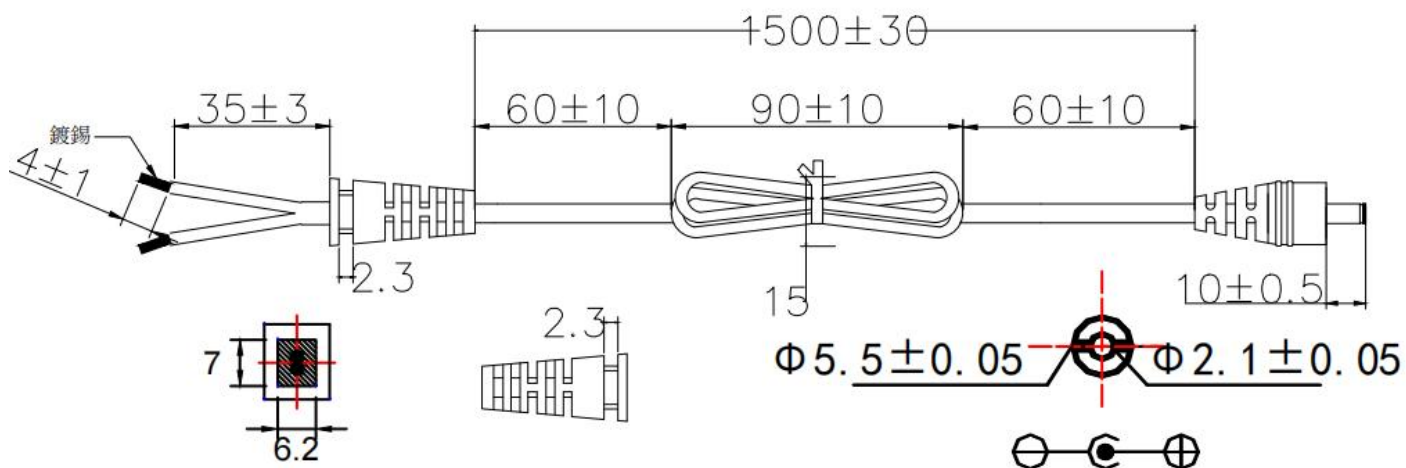
2 Pin US 插脚/Two pin input plug of US.

外观图 OUTLOOK DRAWING: mm



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8、线材/CORD: (单位: mm)

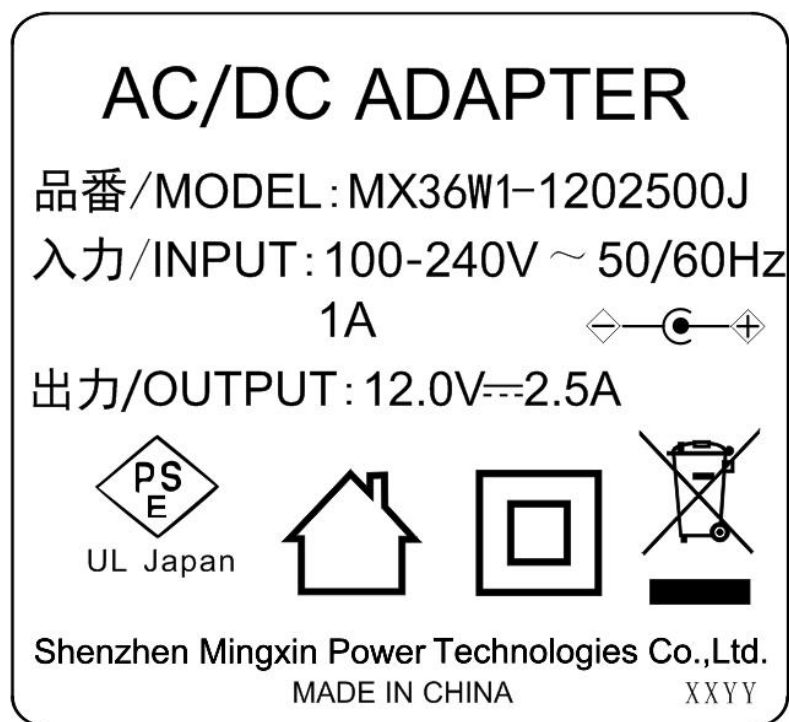


注: 2464 20AWG 1.5m 黑色 DC头
 $\Phi 5.5 \times 2.1 \times 10$ mm 黑嘴音叉带沟槽 SR: 1号模
7X6.2X2.3mm

单位: mm

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9、铭牌/LABEL: (单位: mm)



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	0.04	0.06	0.09	0.09	≤ 0.1W	PASS
2	Power factor 功率因数			0.57	0.42			
3	Rated load input power 额定负载输入功率	W	34.17	34.22	34.07	34.15	≤45W	PASS
4	Unload output voltage 空载输出电压	V	12.24	12.24	12.24	12.24	11.4-12.6	PASS
5	Rated load output voltage 额定负载输出电压	V	11.72	11.72	11.72	11.72	11.4-12.6	PASS
6	Output ripple&noise voltage 输出纹波及噪声电压	mV		87	95		≤ 200mVp-p	PASS
7	Over current protection 过流保护点	A	4.0	4.1	4.17	4.2	2.7-5.0A	PASS
8	Average Efficiency 平均效率	%		87.52	87.75		86.94	PASS
9	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
9	Short-circuit Protection 短路保护	W	not damage and with auto recovery function					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	appearance 外观	Content of the NP label is correct,the appearance is clear no spot,scratch color-difference,disconnection and gap						PASS
3	Burn-in test 老化试验	Input:230Vac/50Hz Full Load 4hrs						PASS
4	Insualtion test 绝缘测试	INPUT TO OUTPUT:10MΩ min/DC500V,						PASS
5	Hi-pot test 介电强度	INPUT TO OUTPUT: 3000Vac/5mA/60S or 4242Vdc/5mA/60S						PASS
DATE/日期:2025-03-19		CHECK/审核:			APPROVED BY/核准:			
TEST/测试员: 程梦飞								