

	<b>深圳市鑫瑞辉腾电子有限公司</b> <b>Shrinton Electron Technology CO., LTD.</b>		<b>REVISION</b> (版本)	<b>A/0</b>
			<b>DATE</b> (日期)	<b>2023-11-14</b>
<b>PART NUMBER</b> (样单编号)	<b>202311051</b>	<b>CUSTOMER MODEL</b> (客户型号)	<b>HT-PD27W-KC</b>	

## APPROVAL SHEET

(承认书)

FOR

**AC/DC ADAPTER**

(适配器)

MODEL NO.

(型号)

**HT-PD27W-KC**

<b>MANUFACTURER</b> (制造商)			
<b>EDIT</b> (制订)	<b>CONFIRM</b> (确认)	<b>CHECK</b> (审核)	<b>APPROVAL</b> (批准)
刘云			

<b>CUSTOMER APPROVAL</b> (客户承认)		
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**REVISION CHANGE DESCRIPTION (版本变更描述)**

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A/0	/	首次发行	2023-11-14

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## 1. General Description(概述)

This specification defines the input, output, performance characteristics, and environment, noise and safety requirements for **27Watts** adaptor. The adaptor is full range AC(100-240V) Input and +24V DC output .

(本规格详细说明了 **27W** 的适配器输入、输出特性、环境、噪音和安全要求。(适配器输入电压为 AC(100-240V), 输出电压为 DC+24V)

## 2. Environment Protection Laws (环保法规)

ROHS   
 REACH   
 CPSIA   
 EN71   
 PHTHALATE   
 HALOGEN

## 3. According with Safety and EMC Criterion (符合的安全及电磁兼容标准)

EN62368-1   
 EN61558-1   
 J60065   
 EN55022  
 UL62368-1   
 UL1310   
 J55013   
 EN55024  
 GB4943.1   
 GB9254   
 GB17625.1   
 FCC Part15

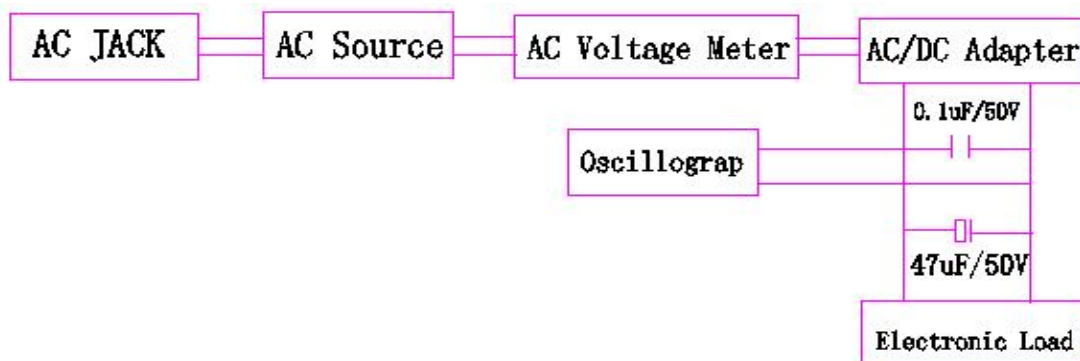
## 4. Safety and EMC Approval (已认可的安全 及电磁兼容标准)

CB   
 TUV/GS   
 CE   
 PSE   
 UL   
 FCC  
 SAA   
 C-tick   
 KC   
 CCC   
 ETL   
 E-mark

## 5. Test Circuit (测试电路)

If the test is to be made on a specified circuit, be sure to use the following circuit.

(无特殊规定的情况下依照下面的电路进行测试.)



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## 6. Input Characteristics (输入特性)

### 6.1 Rated Input Voltage (额定输入电压)

Rated input voltage is from **100Vac** to **240Vac**.

(额定输入交流电压 **100V~240V**)

### 6.2 Rated Frequency (输入频率)

It is normal for **50Hz** or **60Hz** and single phase.

(输入频率 **50Hz/60Hz**)

### 6.3 Steady AC Current (AC 输入电流)

The maximum input current shall be less than **0.6A** at 100~240Vac input

(在额定输入电压 **100V~240V** 时输入电流小于 **0.6A**)

### 6.4 Inrush Current (峰值输入电流)

With cold starting, input AC 240V the inrush current should **80A Max**

(电源启动时最大峰值输入电流小于 **80A**)

### 6.5 Standby (待机功耗)

The input power shall be less than **0.1W** at **115 or 230Vac** input.

(在输入电压 **115V 或 230V** 时待机功耗小于 **0.1W**)

### 6.6 Efficiency (效率)

Measured at 115Vac or 230Vac input voltage, Average efficiency can reach energy star VI  
**(5V:84.25% , 9V/12V/15V:86.62% )**standard

在输入电压 115Vac 或 230Vac, 平均效率可达到能效六级**(5V:84.25% , 9V/12V/15V:86.62%)**  
 标准

## 7. Output Characteristics (输出特性)

### 7.1 Rated Output Voltage (额定输出电压)

No load voltage (空载输出电压范围): **5V 9V 12V 15V ±5%**

Full load voltage (满载输出电压范围): **5V5A 9V3A 12V2.25A 15V1.8A ±5%**

### 7.2 Rated Power (额定功率)

This adaptor is capable to support **27Watts** continuously at all specified conditions.

(额定功率为 **27Watts**)

### 7.3 Ripple and Noise (纹波和噪音)

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Ripple voltage is **200mV** p-p (Full load ) measured methods: Performed by 20MHz bandwidth in oscilloscope Applied 0.1uF ceramic capacitor and 47uF electrolytic capacitor across output connector terminals Measured at the end of DC cable. The environment temperature is 25°C or aging test after 15 minutes.

(输出端并 0.1uF 与 47uF 电容, 限制示波器带宽 20MHz 时, 测得纹波小于 **200mV** p-p, 环境温度为 25 度或老化 15 分钟后进行测试)

#### 7.4 Protection (保护)

##### 7.4.1 Over Voltage Protection (过压保护)

The power supply shall protect itself from any over voltage condition.  
电源在过压情况下可自动保护。

##### 7.4.2 Over Current Protection (过流保护)

OCP Point Limited: **105%~200%** of Max. Load. The output shall hiccup when the over current applied to the output, and shall be self-recovery when the fault condition is removed  
过电流点为最大负载的 **1.05~2.0** 倍, 输出将进入打嗝模式, 当过电流情况解除后, 产品将会自动恢复正常。

##### 7.4.3 Short Circuit Protection (短路保护)

The input power shall decrease when the output short, the power supply shall no damage, and shall be self-recovery when the fault condition is removed.  
(当输出短路时, 产品输入功率降低且不会损伤, 当短路情况解除后, 产品将会自动恢复正常。)

### 8. Reliability Items (可靠性项目)

#### 8.1 Electrostatic discharge (静电)

At 150pF: 330Ω, for each point, 10 shots of direct discharge or air discharge (1 MΩ/ SHOT), have no malfunction. Direct discharge: **±4kV**, Air discharge: **±8kV**  
(在接触放电 **±4kV** 和空气中放电 **±8kV** 模式下, 各处分别放电 10 次无误动作)

#### 8.2 Hi-Pot Test (高压测试)

Primary to Secondary: **3000Vac / 10mAMax / 3S**  
初级对次级: **3000Vac / 10mAMax / 3S**

#### 8.3 Insulation Resistance (绝缘电阻)

100MΩ min. between primary to secondary add 500Vdc test voltage.  
在初级与次级间加 **500Vdc** 进行测试, 最小 **100MΩ**。

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#### 8.4 Leakage Current (泄漏电流)

**0.25mA** maximum, at nominal AC input voltage and frequency  
(输入时泄漏电流不得 **0.25mA max**)

#### 8.5 Burn-In Test (老化测试)

**2 hours** at **40°C** maximum, Normal input voltage, rated load.  
(在高温 **40°C** 工作 **二**小时情况下, 输入电压和额定负载正常。)

#### 8.6 lightning test (雷击测试)

在每个选定的试验部位上, 正、负极性的干扰 **5** 次, 浪涌最大重复率为 **1** 次/min  
**共模**试验的各级参数为 **1kV**

At each selected test site, the interference of positive and negative polarity was 5 times, and the maximum surge repetition rate was 1 time /min

The parameters of common mode test are **1kV**

### 9. Mechanical Requirement (机械要求)

#### 9.1 Weight (重量)

**/g ± 10g**

#### 9.2 Input plug type (输入插头类型)

Wall-mounted type. **KC-pin. 2** Conductors, < Live. Neutral > ( **韩规 AC 输入 2PIN** 插头)

#### 9.3 Drop Test (跌落试验)

Drop the adaptor from a height of **75cm** onto a hardwood floor, hitting the adaptor for **3** times, no mechanical damages or other failures, no electrical deterioration and other failures comparing to before test condition.

(制品从 **75cm** 处落下 **3** 次, 落下的方向任意, 落在硬木地板上, 实验后与实验前状态比较没有机械破损等不良状况,且不出现在电器性能损坏)

### 10. Environmental Performances(环境性能)

#### 10.1 Operating temperature range (工作温度范围)

The product should operate at **0~40°C**, test of operating for **4 hours** at **0°C ± 2°C and 40°C ± 2°C**.

(该产品工作温度范围为 **0~40°C**,低温 **0°C ± 2°C** 和高温 **40°C ± 2°C** 工作试验各 **4** 小时)

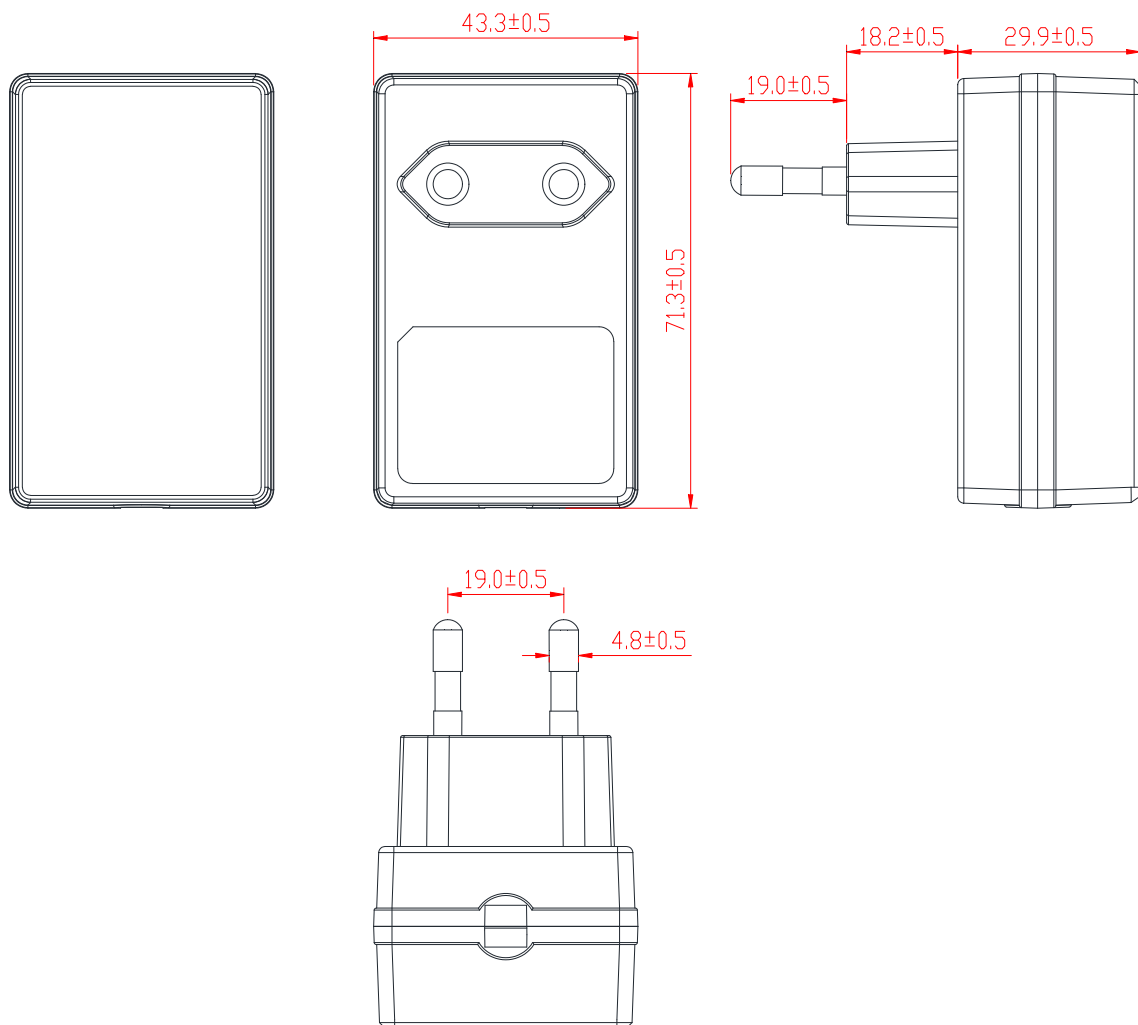
#### 10.2 Storage temperature range(存储温度范围)

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The product should be stored at  $-25\sim 70^{\circ}\text{C}$ , test of non-operated for **16 hours** at  $-25^{\circ}\text{C}\pm 2^{\circ}\text{C}$  and  $70^{\circ}\text{C}\pm 2^{\circ}\text{C}$ .

(该产品存储温度范围为 $-25\sim 70^{\circ}\text{C}$ , 非工作状态下进行低温 $-25^{\circ}\text{C}\pm 2^{\circ}\text{C}$ 和高温  $70^{\circ}\text{C}\pm 2^{\circ}\text{C}$ 存储试验各 **16** 小时)

### 11. Product Outline Drawing (制品结构尺寸图)

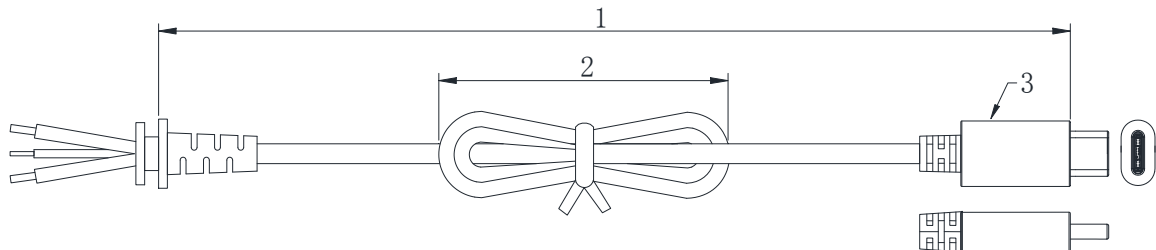


颜色 (color)  
 白色 (white)



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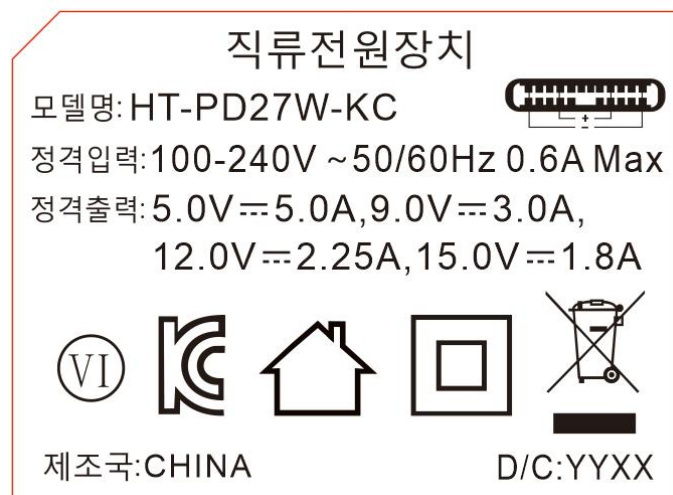
## 12. DC Output Cable and Plug Drawing (输出线材图)



Note/备注:

1. Cable/线材: **UL2464 18#** Cable length/线材长度: **1200±50mm** 80°C 300V VW-1, white/白色;
2. 扎线后/ After binding length: **80±20mm**;
3. DC Plug /DC 插头: **TYPE-C** 头;
4. Appearance details are subject to the actual samples/外观详情参考实物为准。

## 13. Ratin Label Drawing (标贴图纸)



标贴: 镭雕

注: “周期: YYXX”, YY 代表生产年份, XX 代表生产周期  
大货根据实际周期镭雕

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#### 14. Packaging vector diagram (包装矢量图)

1. Customer requirements customer requirements by packaging/客户有要求的按客户要求包装。
2. Customer requirements according to our request package/客户无要求按我司要求。

5\*10\*2layers,total=100PCS

