

**■ 特性 Features:**

- 全电压范围输入: 90-264Vac  
Full range AC input voltage: 90-264Vac
- 内置主动式 PFC 功能, PF>0.97。  
Built-in active PFC function. PF>0.97
- 高效率, 高可靠性。  
High efficiency and reliability
- 输出低纹波噪声  
Low ripple & noise output
- 电源输出 LED 指示灯  
PSU output LED indicator
- 输出电压可调和恒流值  
The output voltage and constant current
- 内置直流风扇强制风冷  
Built-in DC fan forced air cooling
- 输出短路、过流、过压、过温保护功能  
With OSP、OCP、OVP、OTP functions
- 具有遥控开关/输出电压补偿  
With remote ON-OFF/Output voltage compensation
- 满足 5000M 海拔应用 (备注 3)  
Meet 5000M altitude application (Note 3)
- 100%高温老化  
100% high temperature burn-in test
- 符合 IEC/EN/UL62368、GB4943、GB9254 等认证标准  
Comply with IEC/EN/UL62368、GB4943、GB9254 Etc.certification standards
- 高可靠性, 基板三防漆工艺  
High reliability, conformal coating process for substrates
- 质保期: 5 年  
Warranty: 5Years

**■ 应用 Applications:**

- 工业控制或自动化装置  
Industrial control or automation devices
- 电子仪器, 设备和装置  
Electronic instruments, equipment and devices
- 机械和电气设备  
Mechanical and electrical equipment
- 老化设备  
Burn-in equipment

## ■ 描述 Description:

GSP550W 系列是一款 550W 单组输出 AC 转 DC 电源, 90-264V 交流输入, 整系列提供 5V, 12V, 15V, 24V, 27V, 和 48V 直流隔离输出; 40.5mm 极薄外型设计, 具有完整的保护功能, EMC 性能好, 高可靠性, 安全隔离等优点。产品符合 IEC/EN/UL62368、GB4943、GB9254 等国际安全法规, 符合欧盟 RoHS2.0 指令, 是一款极具性价比的工业电源。

GSP550W series is a 550W single output AC to DC PSU, 90-264Vac input, The whole series provides 5V, 12V, 15V, 24V, 27V and 48V DC isolated output; Advantages such as 40.5mm extremely thin design; With complete protection function; Excellent EMC performance, high reliability, security isolation and so on. Products comply with IEC/EN/UL62368、GB4943、GB9254 international safety standards and EU RoHS2.0 directive; It is a cost-effective industrial PSU.

## 选型规格 Model Selection

| 功率段<br>POWER | 产品型号<br>MODEL | 输出功率<br>Pout | 输入电压<br>Vin | 输出电压<br>Vout | 输出电流<br>Iout | 效率(%)<br>EFF. | 安规认证<br>SAFETY |
|--------------|---------------|--------------|-------------|--------------|--------------|---------------|----------------|
| 550W         | GW-GSP550W-5  | 350.0W       | 90-264Vac   | 5V           | 70A          | 88.5          | CCC/CE         |
|              | GW-GSP550W-12 | 550.1W       |             | 12V          | 45.84A       | 93.5          | CCC/CE/CB/UL   |
|              | GW-GSP550W-15 | 549.9W       |             | 15V          | 36.66A       | 93.5          |                |
|              | GW-GSP550W-24 | 550.1W       |             | 24V          | 22.92A       | 92.0          |                |
|              | GW-GSP550W-27 | 550.0W       |             | 27V          | 20.37A       | 92.5          |                |
|              | GW-GSP550W-48 | 550.1W       |             | 48V          | 11.46A       | 94.0          |                |

\*其它安规需求认证中 Other safety requirements are pending certification.

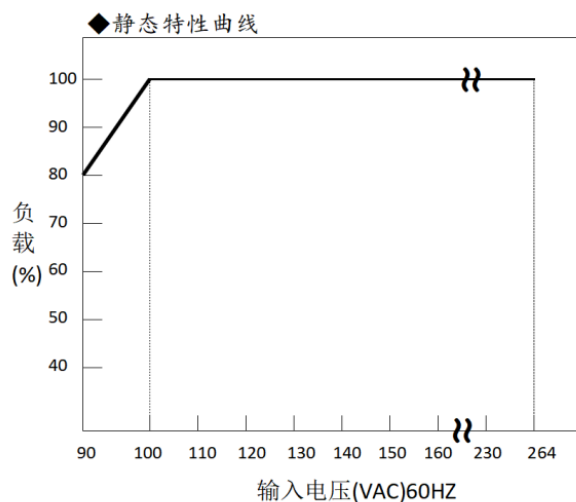
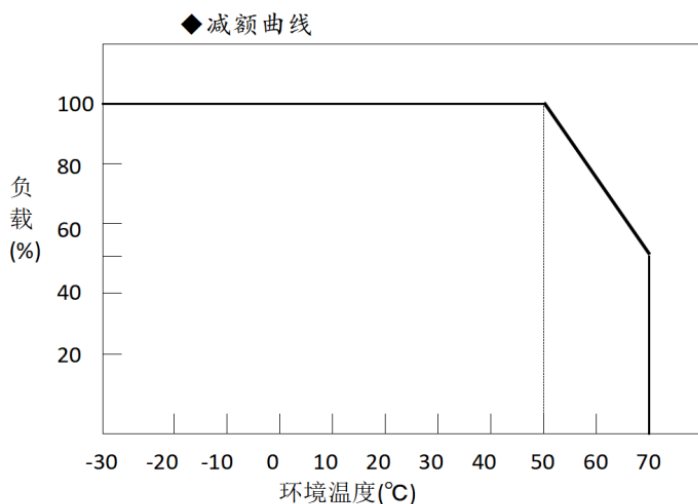
## 通用参数 General Specification

| 型号 MODEL     |                              | GSP550W-5                                        | GSP550W-12 | GSP550W-15 | GSP550W-24 | GSP550W-27 | GSP550W-48 |
|--------------|------------------------------|--------------------------------------------------|------------|------------|------------|------------|------------|
| 输出<br>Output | 输出电压 Output Voltage          | 5V                                               | 12V        | 15V        | 24V        | 27V        | 48V        |
|              | 额定电流 Output Current          | 70A                                              | 45.84A     | 36.66A     | 22.92A     | 20.37A     | 11.46A     |
|              | 电流范围 Current Range           | 0~70A                                            | 0~45.84A   | 0~36.66A   | 0~22.92A   | 0~20.37A   | 0~11.46A   |
|              | 额定功率 Output Power            | 350.0W                                           | 550.1W     | 549.9W     | 550.1W     | 550.0W     | 550.1W     |
|              | 纹波与噪声 Ripple and Noise(备注 6) | 120mV                                            | 120mV      | 120mV      | 120mV      | 120mV      | 120mV      |
|              | 电压调整范围 Adj-voltage range     | 4.5~5.5V                                         | 10~13.2V   | 13.5~18V   | 20~26.4V   | 26~30V     | 41~56V     |
|              | 稳压精度 Voltage stability(备注 2) | ±1.0%                                            | ±1.0%      | ±1.0%      | ±1.0%      | ±1.0%      | ±1.0%      |
|              | 线性调整率 Line regulation        | ±0.5%                                            | ±0.3%      | ±0.3%      | ±0.2%      | ±0.3%      | ±0.2%      |
|              | 负载调整率 Load regulation        | ±0.5%                                            | ±0.5%      | ±0.5%      | ±0.5%      | ±0.5%      | ±0.5%      |
|              | 保持时间 Hold-up time            | 18ms (230Vac/100% load), 14ms (115Vac/100% load) |            |            |            |            |            |
|              | 启动时间 Startup time            | ≤1500ms (115Vac/230Vac ; 100% load)              |            |            |            |            |            |

|                         |                            |                                                                                                        |            |            |            |          |          |
|-------------------------|----------------------------|--------------------------------------------------------------------------------------------------------|------------|------------|------------|----------|----------|
| 输入<br>Input             | 电压范围 Voltage Range         | 90~264Vac                                                                                              |            |            |            |          |          |
|                         | 频率范围 Frequency Range       | 47~63Hz                                                                                                |            |            |            |          |          |
|                         | 输入电流 Input Current         | 8A                                                                                                     |            |            |            |          |          |
|                         | 功率因数 PF                    | PF>0.97/230VAC PF>0.98/115VAC(100% load)                                                               |            |            |            |          |          |
|                         | 浪涌电流 Inrush Current        | 25A/115VAC 50A/230VAC, Cold start                                                                      |            |            |            |          |          |
|                         | 效率 Efficiency              | 88.5%                                                                                                  | 93.5%      | 93.5%      | 92.0%      | 92.5%    | 94.0%    |
| 保护<br>Protecti<br>ons   | 过电压 OVP                    | 5.75~6.75V                                                                                             | 13.8~16.0V | 18.8~21.8V | 27.6~32.4V | 32~34.8V | 58.4~63V |
|                         | 过负载 OCP                    | 105~155%                                                                                               | 105~155%   | 105~155%   | 105~155%   | 105~155% | 105~155% |
|                         | 过温度 OTP                    | 打嗝模式或者自锁模式, 异常条件移除后可自动恢复 Hiccup or Latch mode, The PSU can be Auto-recovered when the fault is removed |            |            |            |          |          |
|                         | 短路 OSP                     | 打嗝模式, 异常条件移除后可自动恢复 Hiccup mode, The PSU can be Auto-recovered when the fault is removed                |            |            |            |          |          |
| 环境<br>Environm<br>ental | 工作温度 Operating Temperature | -30 ~ +70℃ 请参考降额曲线 Refer to the derating curve                                                         |            |            |            |          |          |
|                         | 工作湿度 Operating Humidity    | 20% ~ 90% RH, 无冷凝 Non-condensing                                                                       |            |            |            |          |          |
|                         | 存储温度 Storage Temperature   | -40 ~ +85℃                                                                                             |            |            |            |          |          |
|                         | 存储湿度 Storage humidity      | 10% ~ 95% RH, 无冷凝 Non-condensing                                                                       |            |            |            |          |          |
| 安规<br>Safety            | 安全规范 safety standards      | IEC/EN/UL62368、GB4943、GB9254                                                                           |            |            |            |          |          |
|                         | 耐压 Hi-pot                  | I/P - O/P: 3000Vac/4242Vdc, I/P - FG: 2000Vac/2828Vdc, O/P - FG: 0.5KVac/707Vdc                        |            |            |            |          |          |
|                         | 绝缘阻抗 Insulating resistance | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃/ 70% RH                                               |            |            |            |          |          |
|                         | 漏电流 Leakage Current        | <2.0mA / 240VAC                                                                                        |            |            |            |          |          |
|                         | 静电放电 ESD                   | IEC/EN61000-4-2, CLASS B; Contact1±4KV / Air ±8KV ;                                                    |            |            |            |          |          |
|                         | 电磁兼容 EMC                   | CISPR32 / EN55032, CLASS B                                                                             |            |            |            |          |          |
| 其它<br>Others            | 质保期 Warranty               | 5Years                                                                                                 |            |            |            |          |          |
|                         | MTBF                       | Telcordia SR-332 (Bellcore) ≥500K hrs                                                                  |            |            |            |          |          |
|                         | 尺寸 SIZE                    | 230mm * 127mm * 40.5mm (L * W * H)                                                                     |            |            |            |          |          |
|                         | 包装 Packing                 | 1.0Kg; 6pcs/Box                                                                                        |            |            |            |          |          |

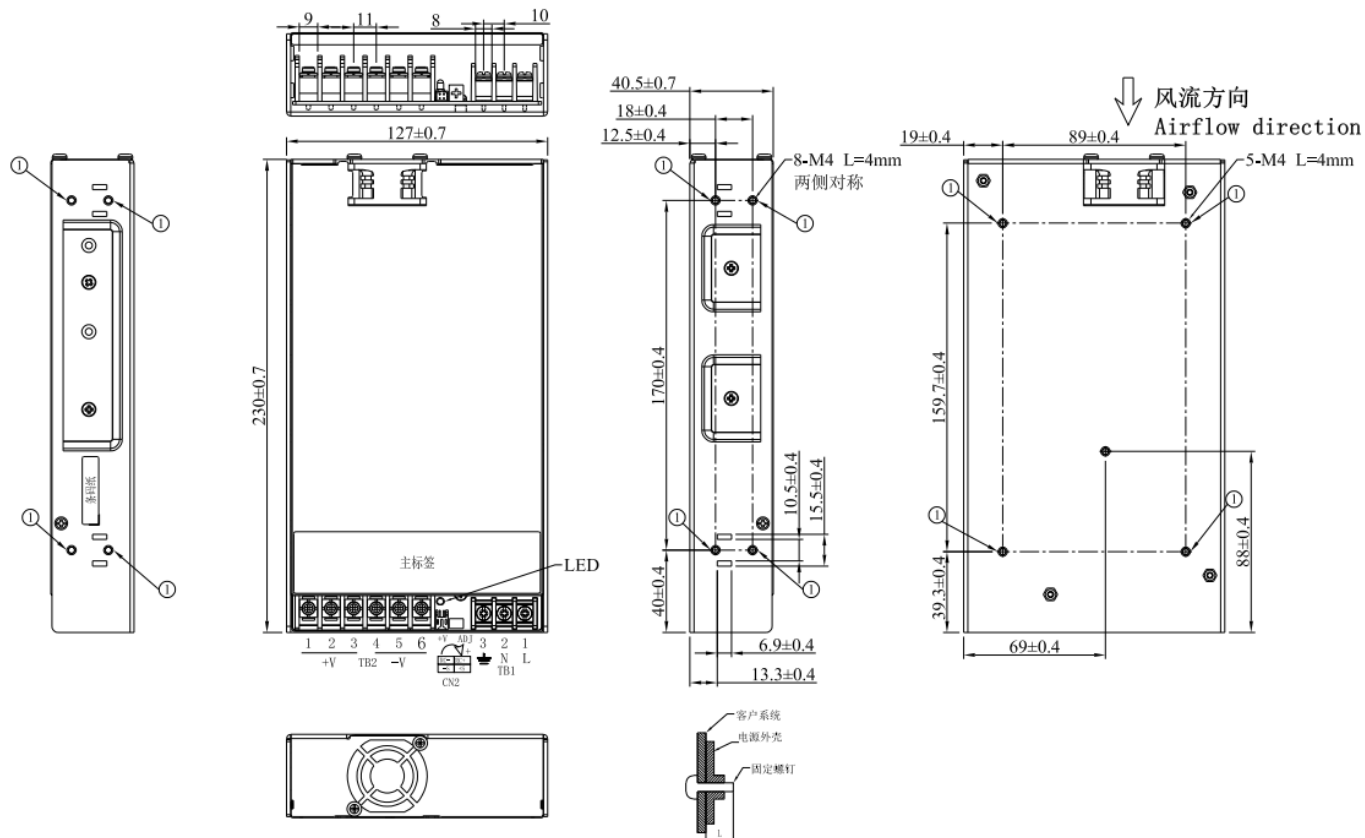
|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 备注<br>Remark | 1. 如未特别说明,所有规格参数均在输入为 230Vac, 额定负载, 25℃环境温度下进行测量, 详见测试报告。<br>Unless otherwise specified, all spec. are measured at 230Vac, rated load, Ta=25℃, Please refer to the test report.                                                                                                                                                                                                                                                                                                                                                                                                                 |
|              | 2. 输出电压的精度包含设定误差、线性调整率和负载调整率。<br>The voltage stability includes setting error, linear regulation and load regulation                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|              | 3. 当产品工作于海拔 2000m 以上时, 环境温度需降额 5℃/1000m。<br>When the power supply is working above an altitude of 2000m, the Ta must be derated by 5℃/1000m                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|              | 4. 低电压输入情况下需减额输出, 具体请参照输出减额曲线图。<br>Derated output is required for low voltage, see the derating curve for details.                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|              | 5. 在调节输出电压的情况下, 输出电压超过额定输出电压时总功率不得超过 550W (5V 输出不得超过 350W), 输出电压低于额定输出电压时电流不得超过额定输出电流。<br>When adjusting the output voltage, if the output voltage exceeds the limit, the total power should not exceed 550W (5V output should not exceed 350W), and if the output voltage is lower than the rated output voltage, the current should not exceed the rated output current.                                                                                                                                                                                                                      |
|              | 6. 纹波和噪声的测试方法采用双绞线连接, 输出并联 47uF 低 ESR 电容和 0.1uF 陶瓷电容, 在 20MHz 带宽下进行量测。<br>The test method of ripple and noise is connected by twisted pair, the output is in parallel with 47 uF low ESR capacitor and 0.1uF ceramic capacitor, and the measurement is carried out at 20MHz bandwidth.<br>*产品免责声明: 产品最终解释权归长城电源技术有限公司所有 详细请参阅网址 <a href="https://www.gwpst.cn">https://www.gwpst.cn</a><br>*Disclaimer: The final interpretation rights of the product belong to Great Wall Power Supply Technology Co., Ltd. Details please refer to <a href="https://www.gwpst.com">https://www.gwpst.com</a> |

■ 降额曲线 Derating Curve



## 结构参数 Mechanical Overview

## ■ 结构尺寸 Shape Size



## 端子引脚描述 Terminal PIN Description

| 端子位号 Terminal number | TB2    |        | TB1  |      |    |
|----------------------|--------|--------|------|------|----|
| 引脚编号 Pin number      | 1~3    | 4~6    | 1    | 2    | 3  |
| 引脚功能 Pin Feature     | Vout + | Vout - | AC/L | AC/N | FG |

| 孔编号 | 推荐螺丝型号 | 最大穿孔深度 L | 推荐安装扭矩     |
|-----|--------|----------|------------|
| ①   | M4     | 4mm      | 7~10Kgf.cm |

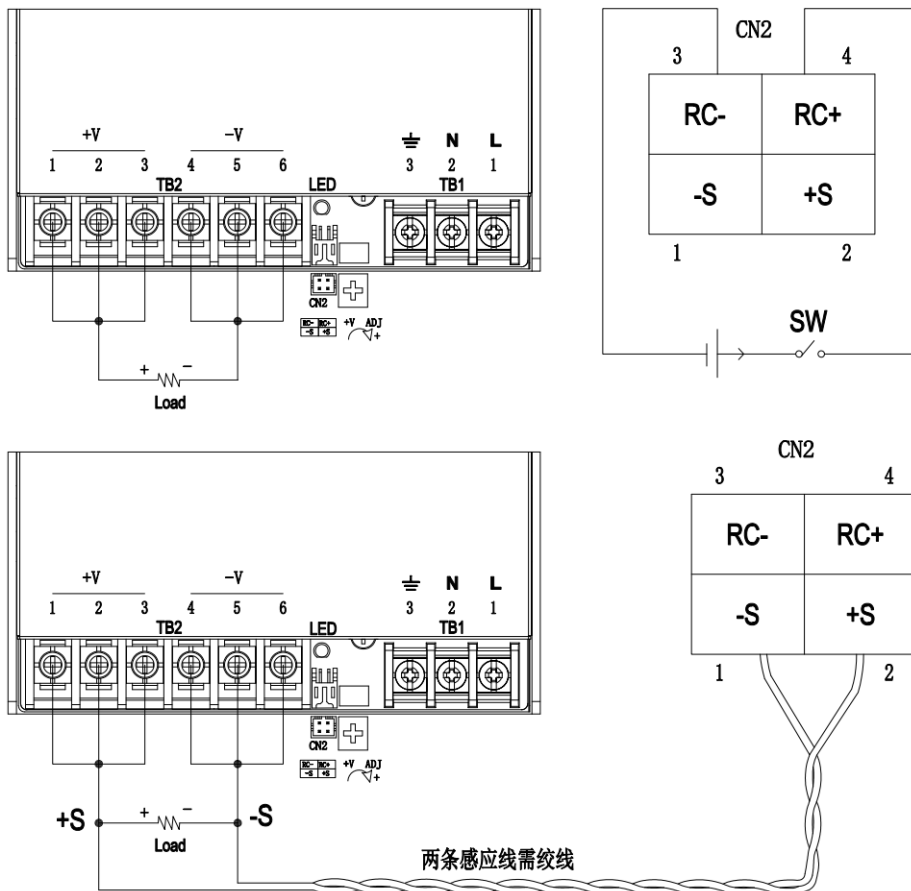
## CN2 端子引脚描述 CN2 Terminal PIN Description

| 引脚编号 Pin number                                                                                                                                         | 1   | 2  | 3   | 4  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----|----|
| 引脚功能 Pin Feature                                                                                                                                        | RC+ | +S | RC- | -S |
| 远程开关 remote ON-OFF(RC+,RC-)远程开关 remote ON-OFF , RC+/RC- : 0~0.8V:电源开启; 4~10V:电源关断<br>输出电压补偿 ( Max compensation0.5V ) Output voltage compensation(+S,-S) |     |    |     |    |

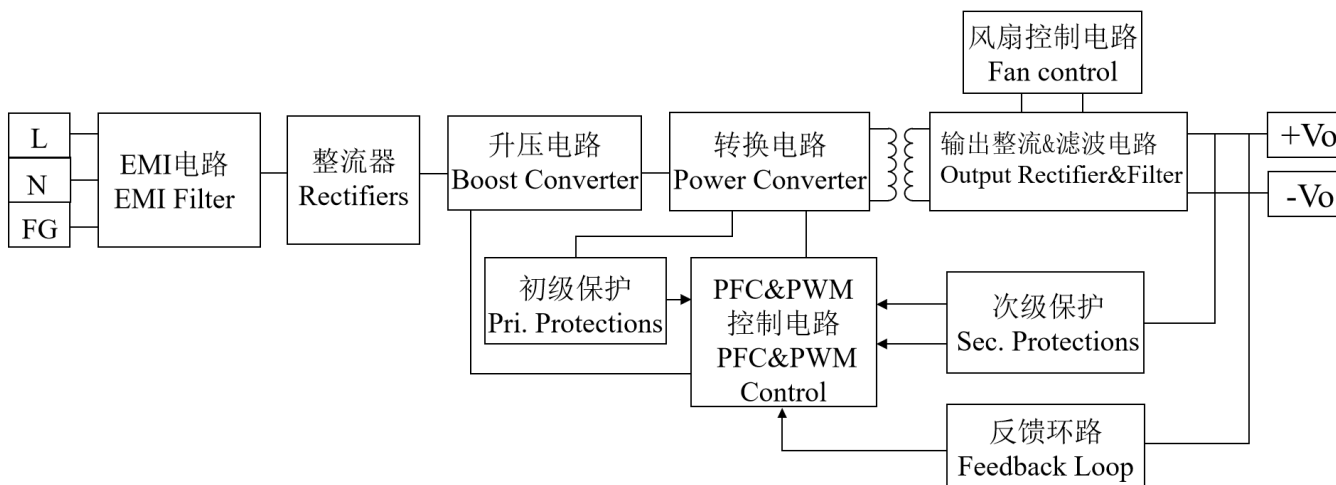
## 备注 Remark:

- 入风口与出风口各保持 30mm 的安装缝隙。  
Maintain a 30mm installation gap between the power inlet and outlet.
- 两台电源一起使用时保持 15mm 的安装缝隙，避免上下叠放安装电源。  
When using two power supplies together, maintain a 15mm installation gap to avoid stacking them up and down.

■ 功能模块说明 Function module description



■ 方框图 Block Diagram



\* 安装手册请查阅网址: <https://www.gwpst.cn>

\* Installation manual, please refer to web.: <https://www.gwpst.com>