

**■ 特性 Features:**

- 全电压范围输入: 90-264Vac  
Full range AC input voltage: 90-264Vac
- 工作温度高达 70℃  
Operating temperature up to 70℃
- 内置主动式 PFC 功能, PF>0.99。  
Built-in active PFC function. PF>0.99
- 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  
The output voltage is adjustable
- 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
- 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、GB/T9254 等认证标准  
Comply with IEC/EN/UL62368、GB4943、GB/T9254 Etc.certification standards
- 输出双重过压保护(可选)  
Output double OVP (optional)
- 高可靠性, 基板三防漆工艺  
High reliability, substrate three anti-paint process
- 质保期: 3 年  
Warranty: 3Years

**■ 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  
Aging equipment



## ■ 描述 Description:

GSP-350W 系列是一款 350W 单组输出 AC 转 DC 电源, 90-264V 交流输入, 整系列提供 4V, 5V, 12V, 15V, 24V, 27V, 36V 和 48V 直流隔离输出; 30mm 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、GB/T9254 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。

GSP-350W series is a 350W single output AC to DC PSU, 90-264Vac input, The whole series provides 4V, 5V, 12V, 15V, 24V, 27V, 36V and 48V DC isolated output; Advantages such as 30mm extremely thin design; With complete protection function; Excellent EMC performance, high reliability, security isolation and so on. Products comply with IEC/EN/UL62368、GB4943、GB/T9254 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 |
|--------------|---------------|--------------|-------------|--------------|--------------|---------------|----------------|
| 350W         | GW-GSP350W-4  | 240.0W       | 90-264Vac   | 4V           | 60A          | 82.5          | CCC, CE, CB    |
|              | GW-GSP350W-5  | 300.0W       |             | 5V           | 60A          | 85.5          |                |
|              | GW-GSP350W-12 | 350.4W       |             | 12V          | 29.2A        | 90            |                |
|              | GW-GSP350W-15 | 349.5W       |             | 15V          | 23.3A        | 91            |                |
|              | GW-GSP350W-24 | 350.4W       |             | 24V          | 14.6A        | 91            |                |
|              | GW-GSP350W-27 | 351.0W       |             | 27V          | 13A          | 91.5          |                |
|              | GW-GSP350W-36 | 349.2W       |             | 36V          | 9.7A         | 92            |                |
|              | GW-GSP350W-48 | 350.4W       |             | 48V          | 7.3A         | 92            |                |

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

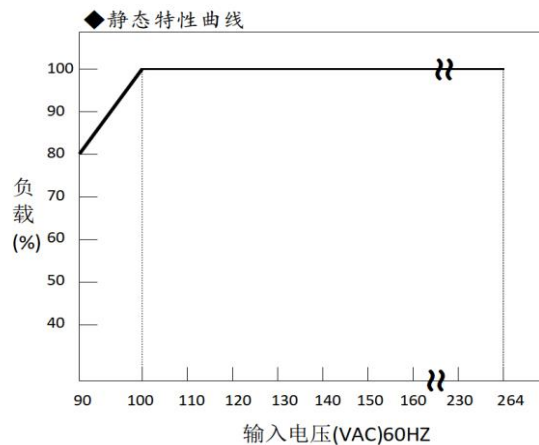
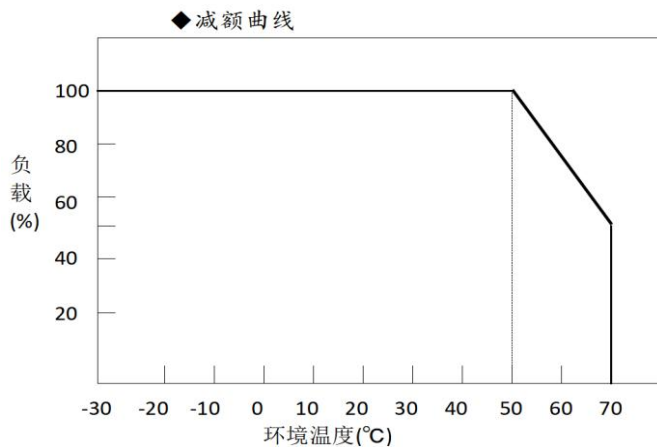
## 通用参数 General Specification

| 型号 MODEL     |                              | GSP350W-4 | GSP350W-5 | GSP350W-12 | GSP350W-15 | GSP350W-24 | GSP350W-27 | GSP350W-36 | GSP350W-48 |
|--------------|------------------------------|-----------|-----------|------------|------------|------------|------------|------------|------------|
| 输出<br>Output | 输出电压 Output Voltage          | 4V        | 5V        | 12V        | 15V        | 24V        | 27V        | 36V        | 48V        |
|              | 额定电流 Output Current          | 60A       | 60A       | 29.2A      | 23.3A      | 14.6A      | 13A        | 9.7A       | 7.3A       |
|              | 电流范围 Current Range           | 0~60A     | 0~60A     | 0~29.2A    | 0~23.3A    | 0~14.6A    | 0~13A      | 0~9.7A     | 0~7.3A     |
|              | 额定功率 Output Power            | 240.0W    | 300.0W    | 350.4W     | 349.5W     | 350.4W     | 351.0W     | 349.2W     | 350.4W     |
|              | 纹波与噪声 Ripple and Noise(备注 6) | 100mV     | 100mV     | 150mV      | 150mV      | 150mV      | 150mV      | 150mV      | 220mV      |
|              | 电压调整范围<br>Adj-voltage range  | 3.6~4.4V  | 4.5~5.5V  | 10.8~13.2V | 13.5~16.5V | 21.6~26.4V | 24.3~29.7V | 32.4~39.6V | 43.2~52.8V |
|              | 稳压精度 Voltage stability(备注 2) | ±2.0%     | ±2.0%     | ±1.0%      | ±1.0%      | ±1.0%      | ±1.0%      | ±1.0%      | ±1.0%      |
|              | 线性调整率 Line regulation        | ±0.5%     | ±0.5%     | ±0.3%      | ±0.3%      | ±0.3%      | ±0.3%      | ±0.3%      | ±0.3%      |
|              | 负载调整率 Load                   | ±1.5%     | ±1.5%     | ±0.5%      | ±0.5%      | ±0.5%      | ±0.5%      | ±0.5%      | ±0.5%      |

|                     |                            |                                                                                        |                   |            |                  |            |          |          |          |
|---------------------|----------------------------|----------------------------------------------------------------------------------------|-------------------|------------|------------------|------------|----------|----------|----------|
|                     | regulation                 |                                                                                        |                   |            |                  |            |          |          |          |
|                     | 保持时间<br>Hold-up time       | >12ms, 100% Load                                                                       |                   |            | >10ms, 100% Load |            |          |          |          |
|                     | 启动时间<br>Startup time       | ≤3000ms （115Vac /230Vac ； 100% load）                                                   |                   |            |                  |            |          |          |          |
|                     |                            |                                                                                        |                   |            |                  |            |          |          |          |
| 输入<br>Input         | 电压范围<br>Voltage Range      | 90~264Vac                                                                              |                   |            |                  |            |          |          |          |
|                     | 频率范围<br>Frequency Range    | 47~63Hz                                                                                |                   |            |                  |            |          |          |          |
|                     | 输入电流<br>Input Current      | 4.5A / 115Vac, 2A / 230Vac                                                             |                   |            |                  |            |          |          |          |
|                     | 功率因数 PF                    | PF>0.97/230Vac    PF>0.99/115Vac                                                       |                   |            |                  |            |          |          |          |
|                     | 浪涌电流 Inrush Current        | 45A/115VAC ； 85A/230VAC, Cold start                                                    |                   |            |                  |            |          |          |          |
|                     | 效率 Efficiency              | 82.5%                                                                                  | 85.5%             | 90.0%      | 91.0%            | 91.0%      | 91.5%    | 92.0%    | 92.0%    |
|                     |                            |                                                                                        |                   |            |                  |            |          |          |          |
| 保护<br>Protections   | 过电压 OVP                    | 4.6~6.3V                                                                               | 6~8V              | 13.8~17.0V | 18~22V           | 27.6~32.4V | 31~36V   | 41~48V   | 56~65V   |
|                     | 过负载 OCP                    | 120~170%                                                                               | 120~170%          | 120~170%   | 120~170%         | 130~180%   | 130~180% | 130~180% | 130~180% |
|                     | 过温度 OTP                    | 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 |                   |            |                  |            |          |          |          |
|                     | 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>Environmental | 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    | 10% ~ 90% RH, 无冷凝 Non-condensing                                                       |                   |            |                  |            |          |          |          |
|                     | 存储温度 Storage Temperature   | -40 ~ +85℃                                                                             |                   |            |                  |            |          |          |          |
|                     | 存储湿度 Storage humidity      | 5% ~ 95% RH, 无冷凝 Non-condensing                                                        |                   |            |                  |            |          |          |          |
| 安规<br>Safety        | 安全规范 safety standards      | IEC/EN/UL62368、GB4943                                                                  |                   |            |                  |            |          |          |          |
|                     | 耐压 Hi-pot                  | I/P - O/P: 3000Vac/4242Vdc, I/P - FG: 1800Vac/2545Vdc, O/P - FG: 500Vac/707Vdc         |                   |            |                  |            |          |          |          |
|                     | 绝缘阻抗 Insulating resistance | ≥100Mohm (500VDC / 25℃ / 90% RH)                                                       |                   |            |                  |            |          |          |          |
|                     | 泄漏电流 Leakage Current       | <1.0mA / 240Vac                                                                        |                   |            |                  |            |          |          |          |
|                     | 电磁兼容 EMC                   | IEC/EN55032 (CISPR32) Class B, IEC/EN55035, IEC/EN61000-3-2                            |                   |            |                  |            |          |          |          |
|                     |                            | Conducted                                                                              | CISPR32 / EN55032 |            |                  | CLASS B    |          |          |          |
|                     |                            | Radiated                                                                               | CISPR32 / EN55032 |            |                  | CLASS B    |          |          |          |
|                     |                            | Harmonic Current                                                                       | IEC/EN61000-3-2   |            |                  | -----      |          |          |          |

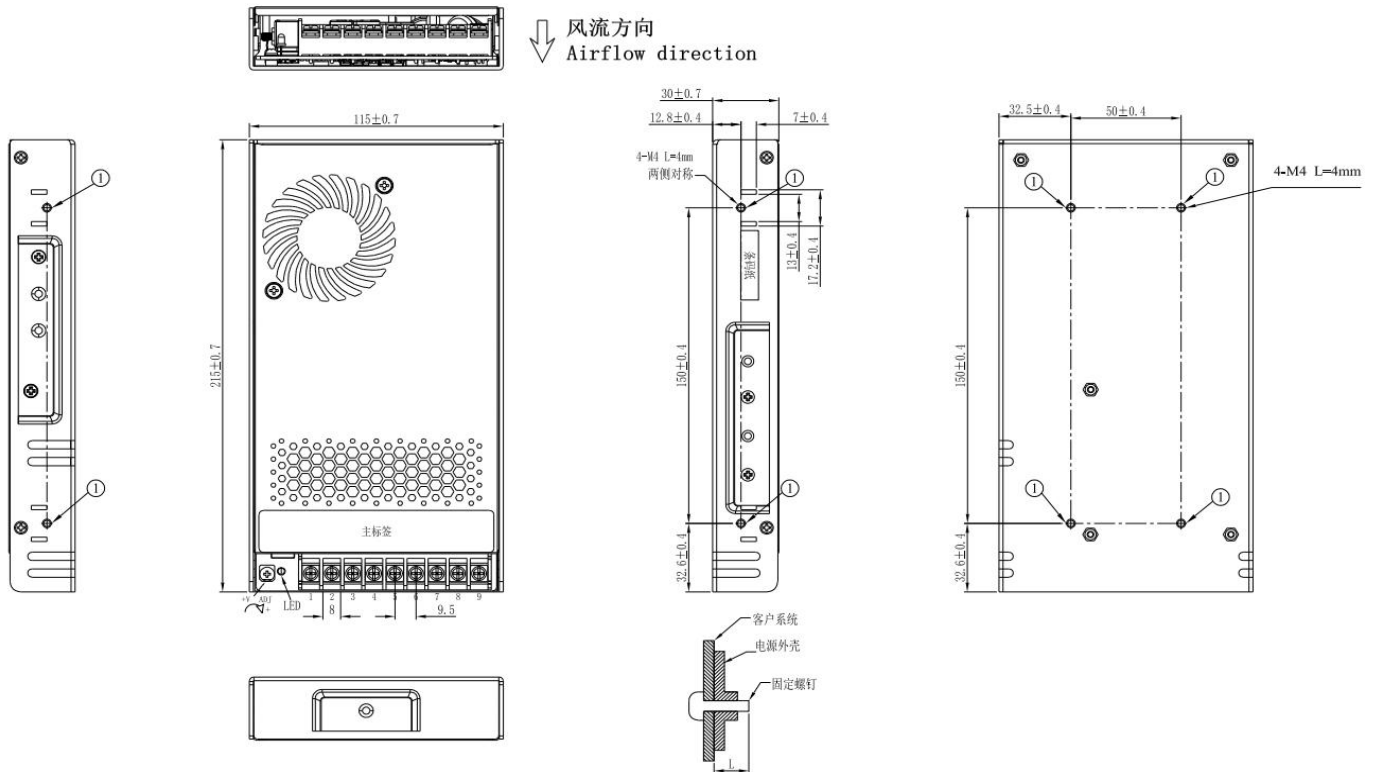
|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                       |                  |                                                                                                               |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------|
|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Voltage Flicker                       | IEC/EN61000-3-3  | -----                                                                                                         |
|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ESD                                   | IEC/EN61000-4-2  | Level 1,Contact1±8KV /Level 1, Air ±15KV                                                                      |
|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Radiated                              | IEC/EN61000-4-3  | Level 3                                                                                                       |
|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | EFT / Burst                           | IEC/EN61000-4-4  | Level 1, 2KV                                                                                                  |
|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Surge                                 | IEC/EN61000-4-5  | Level 1, 2KV/Line-Earth ; Level 1, 1KV/Line-Line                                                              |
|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Conducted （抗扰度）                       | IEC/EN61000-4-6  | Level 3                                                                                                       |
|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Magnetic Field                        | IEC/EN61000-4-8  | Level 4                                                                                                       |
|              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Voltage Dips and Interruptions        | IEC/EN61000-4-11 | Level 1,0% dip 8mS(110Vac);<br>Level 1,0% dip 8mS(220Vac);<br>Level 2,70% dip 500mS;<br>Level 2,0% dip 5000mS |
| 其它<br>Others | 固保期 Warranty                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 3Years                                |                  |                                                                                                               |
|              | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Telcordia SR-332 (Bellcore) ≥500K hrs |                  |                                                                                                               |
|              | 尺寸 SIZE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 215mm * 115mm * 30mm (L * W * H)      |                  |                                                                                                               |
|              | 包装 Packing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 0.7KG+/-10%；15PCS/Box                 |                  |                                                                                                               |
| 备注<br>Remark | <div>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.</div> <div>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</div> <div>3. 当产品工作于海拔 2000m 以上时，环境温度需降额 1℃/200m。<br/>When the power supply is working above an altitude of 2000m, the Ta must be derated by 1℃/200m</div> <div>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.</div> <div>5. 产品在任何稳态工作条件下，总功率不应超出标示的额定功率且输出电流不应超出额定输出电流。<br/>Under any operating conditions, the total power should not exceed the rated power indicated and the output current should not exceed the rated output current.</div> <div>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.</div> <div>*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.com">https://www.gwpst.com</a></div> <div>*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></div> |                                       |                  |                                                                                                               |

■ 降额曲线 Derating Curve



## 结构参数 Mechanical Overview

## ■ 结构尺寸 Shape Size

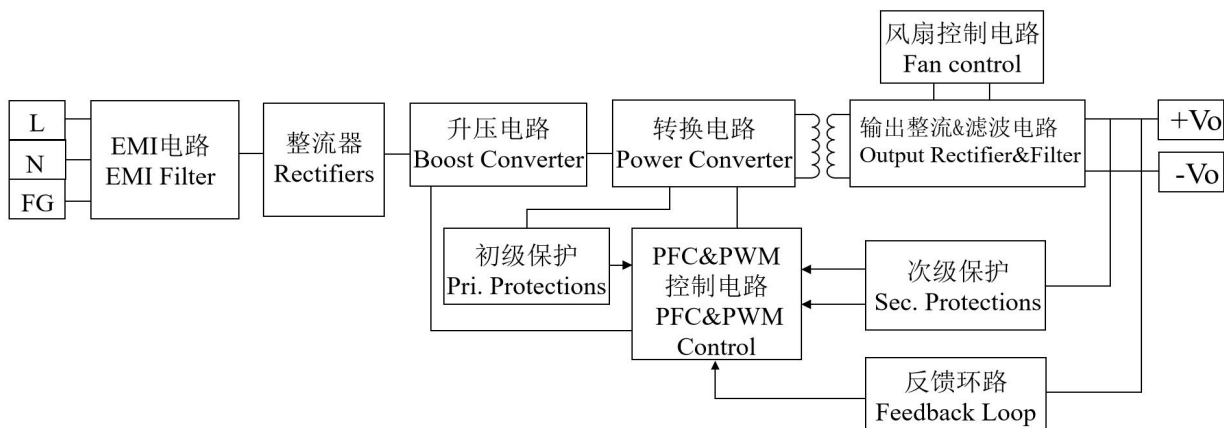


## 端子引脚描述 Terminal PIN Description

| 引脚编号 Pin number  | 1~3    | 4~6    | 7  | 8    | 9    |
|------------------|--------|--------|----|------|------|
| 引脚功能 Pin Feature | Vout + | Vout - | FG | AC/N | AC/L |

| 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 |

## ■ 方框图 Block Diagram

\* 安装手册请查阅网址: <https://www.gwpst.com>\* Installation manual, please refer to web.: <https://www.gwpst.com>