

■ 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 POWER	产品型号 MODEL	输出功率 Pout	输入电压 Vin	输出电压 Vout	输出电流 Iout	效率(%) EFF.	安规认证 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	
	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 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 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 Protecti 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 Environm 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 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 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					

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。

Unless otherwise specified, all spec. are measured at 230Vac, rated load, $T_a=25^{\circ}\text{C}$, 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。

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 $5^{\circ}\text{C}/1000\text{m}$ 。

When the power supply is working above an altitude of 2000m, the T_a must be derated by $5^{\circ}\text{C}/1000\text{m}$

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。

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能超过额定输出电流。

备注

Remark

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.

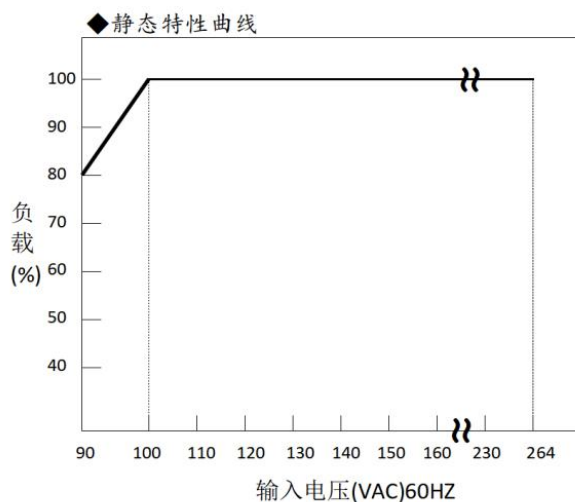
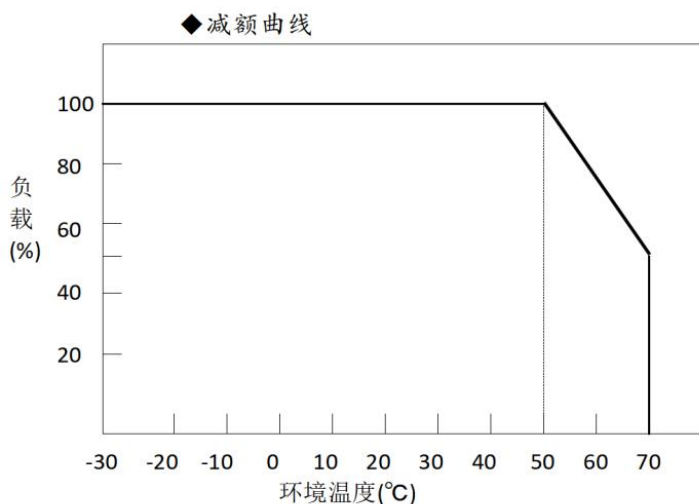
6. 纹波和噪声的测试方法采用双绞线连接, 输出并联 47 μF 低 ESR 电容和 0.1 μF 陶瓷电容, 在 20MHz 带宽下进行量测。

The test method of ripple and noise is connected by twisted pair, the output is in parallel with 47 μF low ESR capacitor and 0.1 μF ceramic capacitor, and the measurement is carried out at 20MHz bandwidth.

*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 <https://www.gwpst.com>

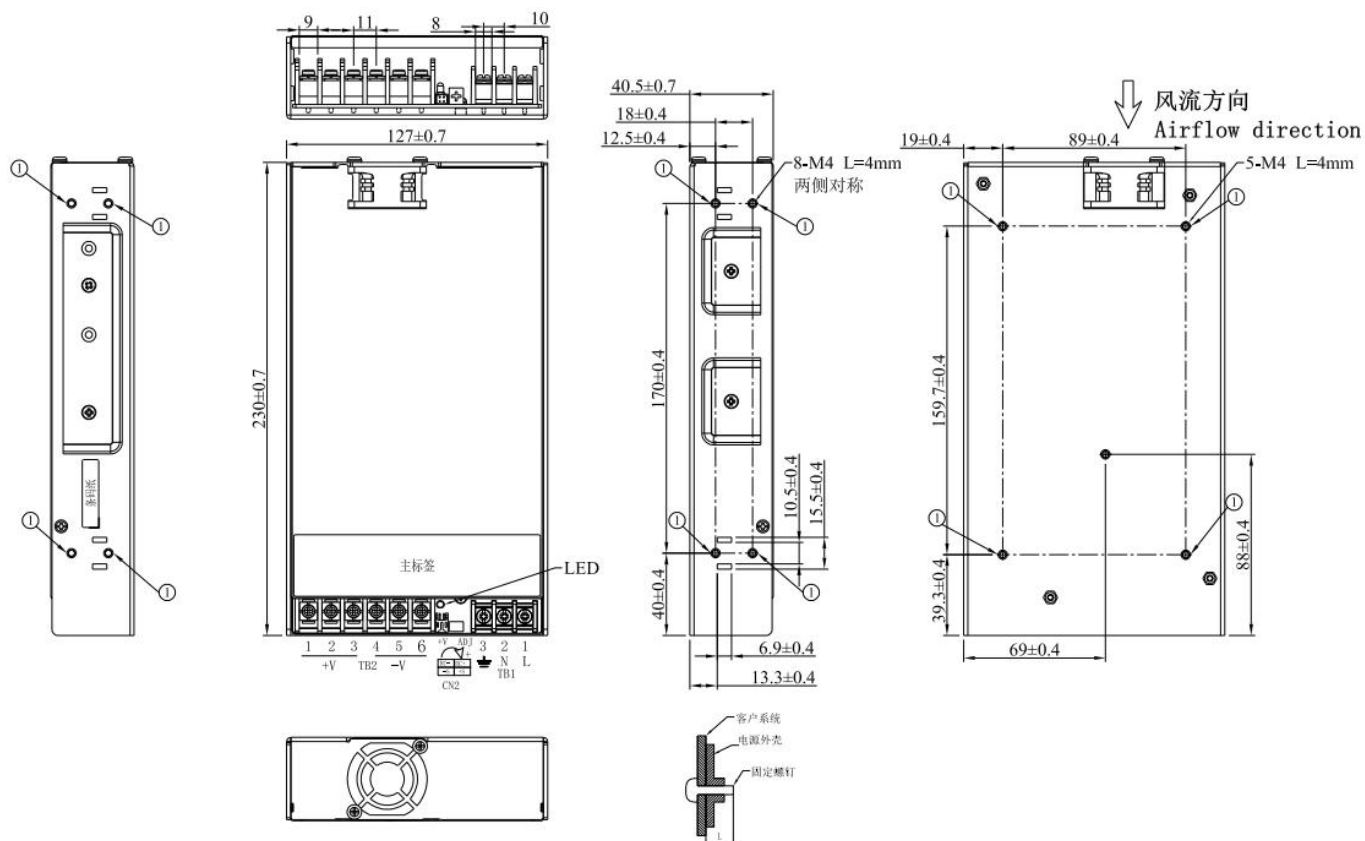
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■ 降额曲线 Derating Curve



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 输出电压补偿 (Max compensation0.5V) Output voltage compensation(+S,-S)				

备注 Remark:

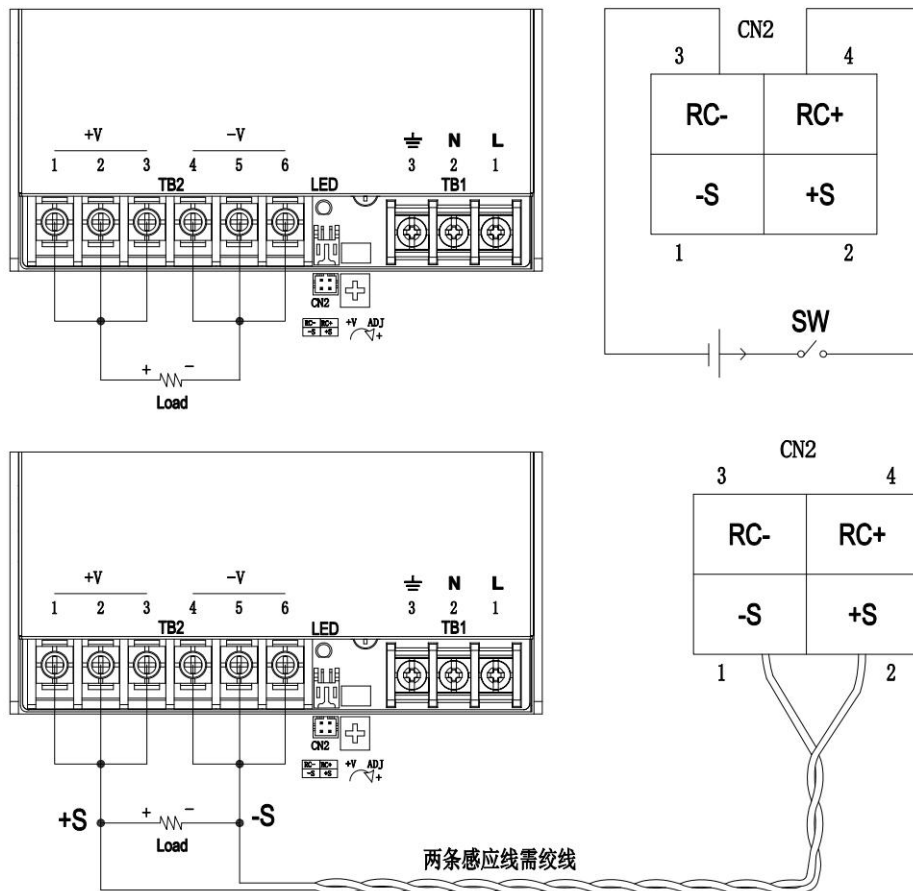
1. 入风口与出风口各保持 30mm 的安装缝隙。

Maintain a 30mm installation gap between the power inlet and outlet.

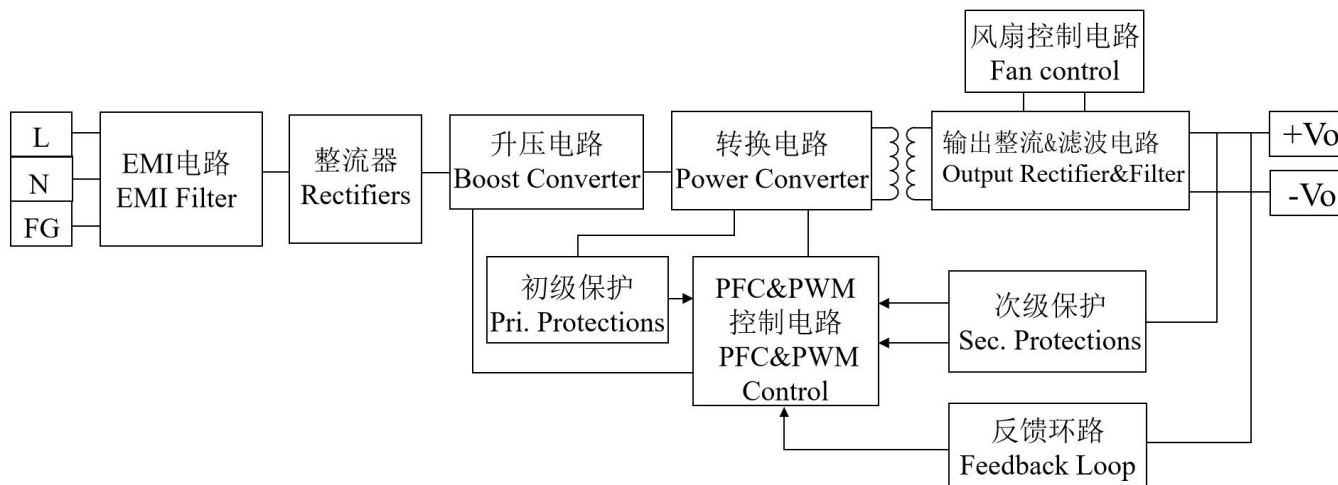
2. 两台电源一起使用时保持 15mm 的安装缝隙，避免上下叠放安装电源。

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.com>

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