■ 特性 Features:

- 全电压范围输入：90-264Vac/127-370Vdc
  Full range AC input voltage: 90-264Vac/127-370Vdc
- 半灌胶设计
  Semi-Potted Design
- 内置主动式 PFC 功能
  Built-in active PFC function
- 工作温度高达 70℃
  Operating temperature up to 70℃
- 效率高达 94.5%
  Efficiency up to 94.5%
- 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 value are adju
- 自然风冷散热
  Cooling by free air convection
- 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)
- 符合 IEC/EN/UL62368、GB4943、GB9254 等认证标准
  Comply with IEC/EN/UL62368, GB4943, GB9254 and EN62477 Etc.certification standards
- 高可靠性
  High reliability
- 细长超薄型
  Slender and ultra-thin type
- DC OK 有效信号和冗余功能(可选)
  DC OK Effective signal and redundant function (optional)

■ 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:

NHP350SW 系列是一款 350W 单组输出 AC 转 DC 电源，采用 90-264VAC 输入，整系列提供 3.3V,4.2V,5V,12V,15V,24V,36V,48V 和 55V 直流隔离输出；半灌胶设计,自然风冷散热，工作温度可达 70℃；26mm 极薄外型设计，具有完整的保护功能，EMC 性能好，高可靠性，高性价比，安全隔离等优点。产品符合 IEC/UL/EN/BS EN62368、EN61558、GB4943、BIS IS13252、EN62477 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。

NHP350SW series is a 350W single output AC to DC PSU,Adopting the input of 90-264VAC , The whole series provides 3.3V,4.2V,5V,12V,15V,24V,36V,48V and 55V DC isolated output;Semi-Potted Design,Cooling by free air convection, working temperature up to 70℃;Advantages such as 26mm extremely thin design,With complete protection function,Excellent EMC performance, high reliability, high cost performance, security isolation and so on. Products comply with IEC/UL/EN/BS EN62368、EN61558、GB4943、BIS IS13252、EN62477 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
350W	GW-NHP350SW-3.3	198W	90-264Vac/ 127-370Vdc	3.3V	60A	88.5%	CCC,CE,
	GW-NHP350SW-4.2	252W		4.2	60A	89%	
	GW-NHP350SW-5	300W		5V	60A	90%	
	GW-NHP350SW-12	350.4W		12V	29.2A	91%	
	GW-NHP350SW-15	351W		15V	23.4A	92.5%	
	GW-NHP350SW-24	350.4W		24V	14.6A	94.5%	
	GW-NHP350SW-36	351W		36V	9.75A	94.5%	
	GW-NHP350SW-48	350.4W		48V	7.3A	94.5%	
	GW-NHP350SW-55	350W		55V	6.3A	94.5%	

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

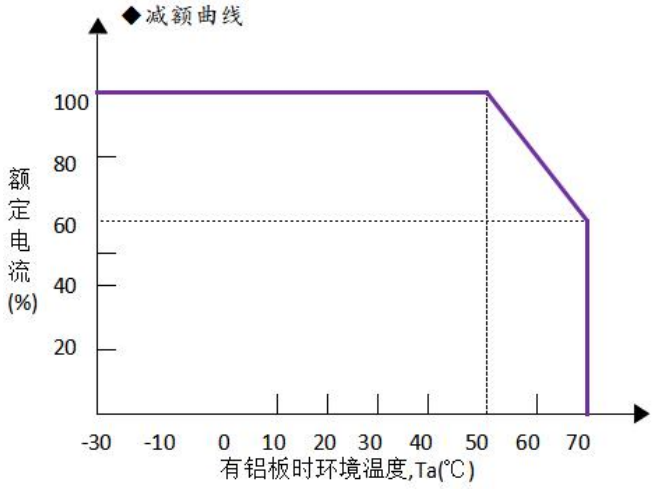
通用参数 General Specification

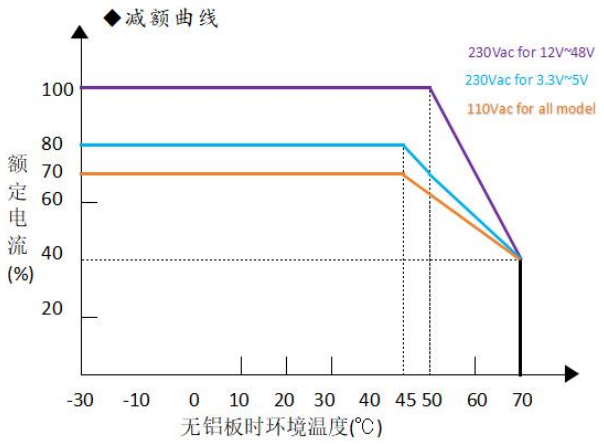
型号 MODEL		GW-NHP 350SW-3.3	GW-NHP 500SW-4.2	GW-NHP 350SW-5	GW-NHP 350SW-12	GW-NHP 350SW-15	GW-NHP 350SW-24	GW-NHP 350SW-36	GW-NHP 350SW-48	GW-NHP 350SW-55
输出 Output	输出电压 Output Voltage	3.3V	4.2V	5V	12V	15V	24V	36V	48V	55V
	额定电流 Output Current	60A	60A	60A	29.2A	23.4A	14.6A	9.75A	7.3A	6.3A
	电流范围 Current Range	0~60A	0~60A	0~60A	0~29.2A	0~23.4A	0~14.6A	0~9.75A	0~7.3A	0~6.3A
	额定功率 Output Power	198W	252W	300W	350.4W	351W	350.4W	351W	350.4W	350W
	纹波与噪声 Ripple and Noise(备注6)	150mV	150mV	200mV	200mV	200mV	200mV	240mV	240mV	300mV
	电压调整范围	3.2~3.5V	3.6~4.4V	4.5~5.5V	11.4~12.6	14.3~15.8V	22.8~25.2V	34.2~37.8V	45.6~50.4V	45~58V

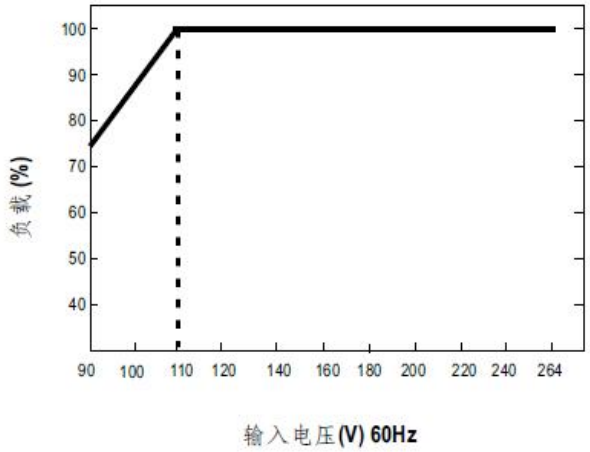
	Adj-voltage range				V					
	稳压精度 Voltage stability(备注2)	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	线性调整率 Line regulation	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	负载调整率 Load regulation	±1.0%	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	保持时间 Hold-up time	10ms(230Vac),10ms (115Vac)								
	启动时间 Startup time	≤3s （115Vac /230Vac ； 100% load）								
输入 Input	电压范围 Voltage Range	90~264Vac								
	功率因数 PF	PF>0.94/230VAC PF>0.99/115VAC(100% load)								
	频率范围 Frequency Range	47~63Hz								
	输入电流 Input Current	4A / 115Vac，2A / 230Vac								
	浪涌电流 Inrush Current	20A/115VAC 40A/230VAC，Cold start								
	效率 Efficiency	88.5%	89%	90%	91%	92.5%	94.5%	94.5%	94.5%	94.5%
保护 Protections	过电压 OVP	3.8~4.6V	4.62~5.46 V	5.75~6.75 V	13.2~15.6	16.5~15.6V	26.4~31.2V	39.6~46.8V	52.8~62.4V	60~69V
		关断输出电压,重启恢复 Shut off the output voltage,The PSU can be recovered after restarted								
	过负载 OCP	额定输出功率的 110%~ 140%								
	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 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	20%～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 Safety	安全规范 safety standards	IEC/UL/EN/BS EN62368、EN61558、GB4943、BIS IS13252、EN62477								
	耐压 Hi-pot	I/P - O/P：3000Vac/4242Vdc；I/P - FG：1500Vac/2500Vdc；O/P - FG：500Vac/707Vdc								
	绝缘阻抗 Insulating	≥10Mohm (500VDC / 25℃ / 90% RH)								

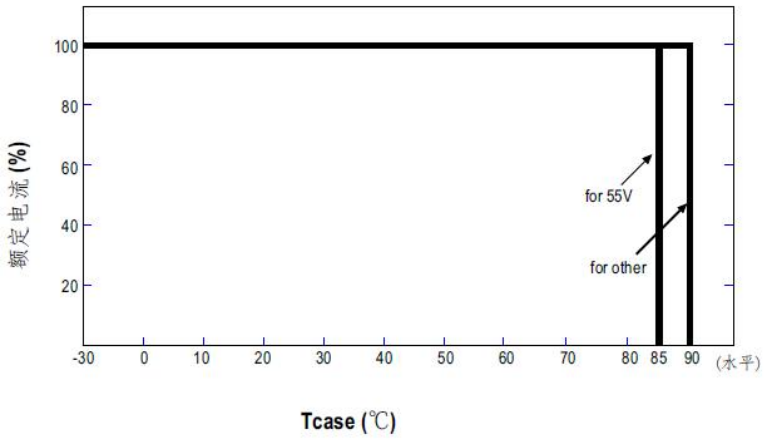
	resistance	
	漏电流 Leakage Current	<0.75mA / 240VAC
	静电放电 ESD	IEC/EN61000-4-2，CLASS B；Contact1±8KV / Air ±15KV ;
	电磁兼容 EMC	CISPR32 / EN55032，CLASS B
其它 Others	固保期 Warranty	3Years
	MTBF	Telcordia SR-332 (Bellcore) ≥500K hrs
	尺寸 SIZE	220mm * 62mm * 26mm (L * W * H)
	包装 Packing	0.58KG；16PCS/Box
备注 Remark	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。 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 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 When the power supply is working above an altitude of 2000m, the Ta must be derated by 5℃/1000m 4. 此电源不符合 EN61000-3-2 标准中规定的谐波电流要求，如应用无谐波电流要求或可自行解决谐波电流问题，可选型本产品。 This power supply don't meet the harmonic requirements in EN61000-3-2 standard. It can be selected if no harmonic requirements are applied or this problems can be solved by themselves. 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。 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. 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。 The test method of ripple and noise is connected by twisted pair, the output is in parallel with 47uF low ESR capacitor and 0.1uF 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 *Disclaimer: The final interpretation rights of the product belong to Great Wall Power Supply Technology Co., Ltd. Details please refer to https://www.gwpst.com	

■ 降额曲线 Derating Curve





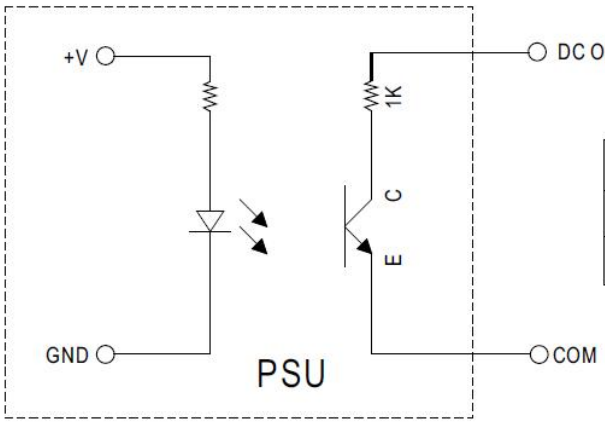




■ 功能手册 Function Manual

1.DC_OK 信号

DC_OK 是一个集电极短路信号,它在电源内部使用一个光耦合器，用来指示电源的输出状态，如下示意图

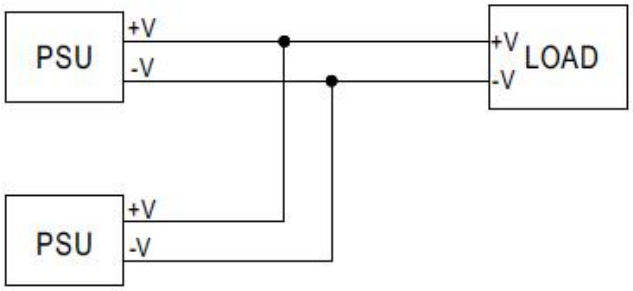


光耦C-E脚导通	电源开启	DC正常
光耦C-E脚开路	电源关断	DC故障
光耦规格(最大)	15Vdc/10mA阻性负载	

2.冗余功能

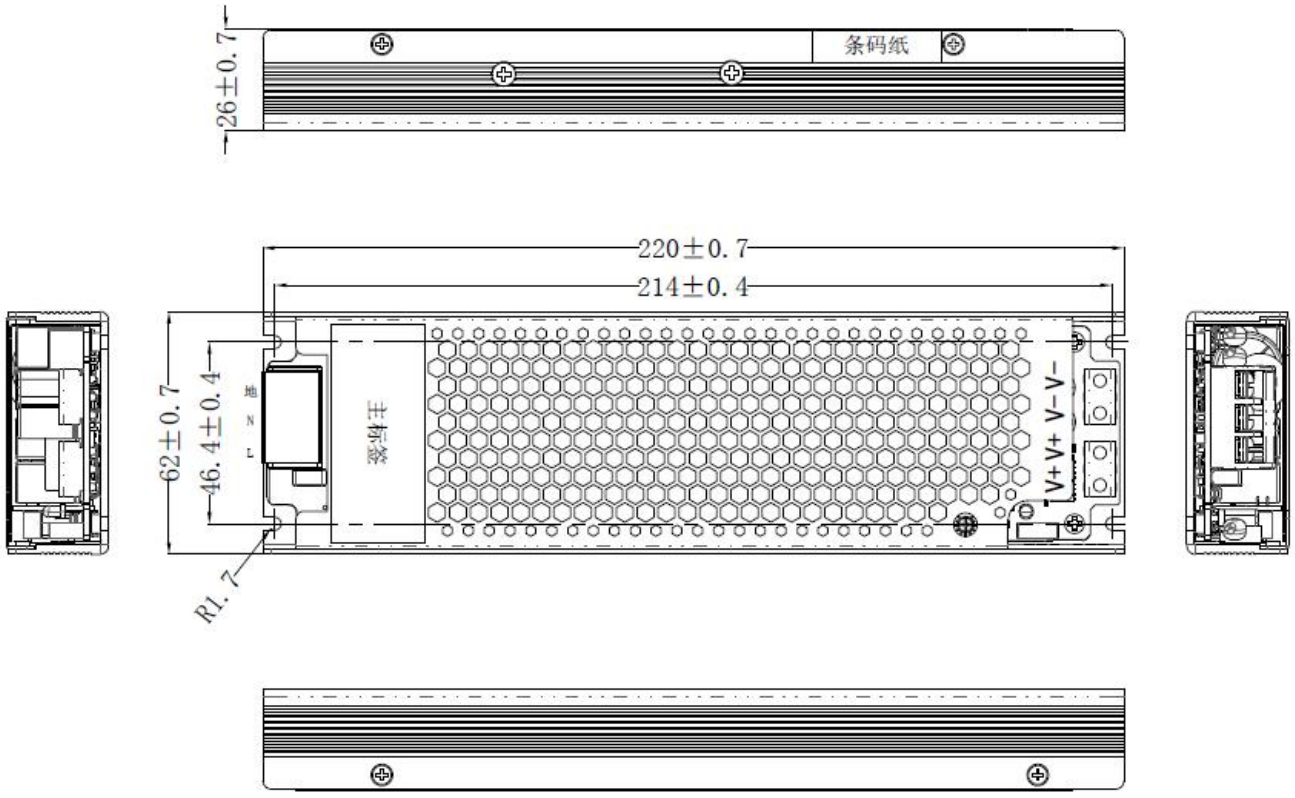
(1) NHP-350R 内建冗余功能，能够并联两台使用

(2) 当并联使用时，最大使用负载不能超过任意一台电源的额定负载



结构参数 Mechanical Overview

■ 结构尺寸 Shape Size

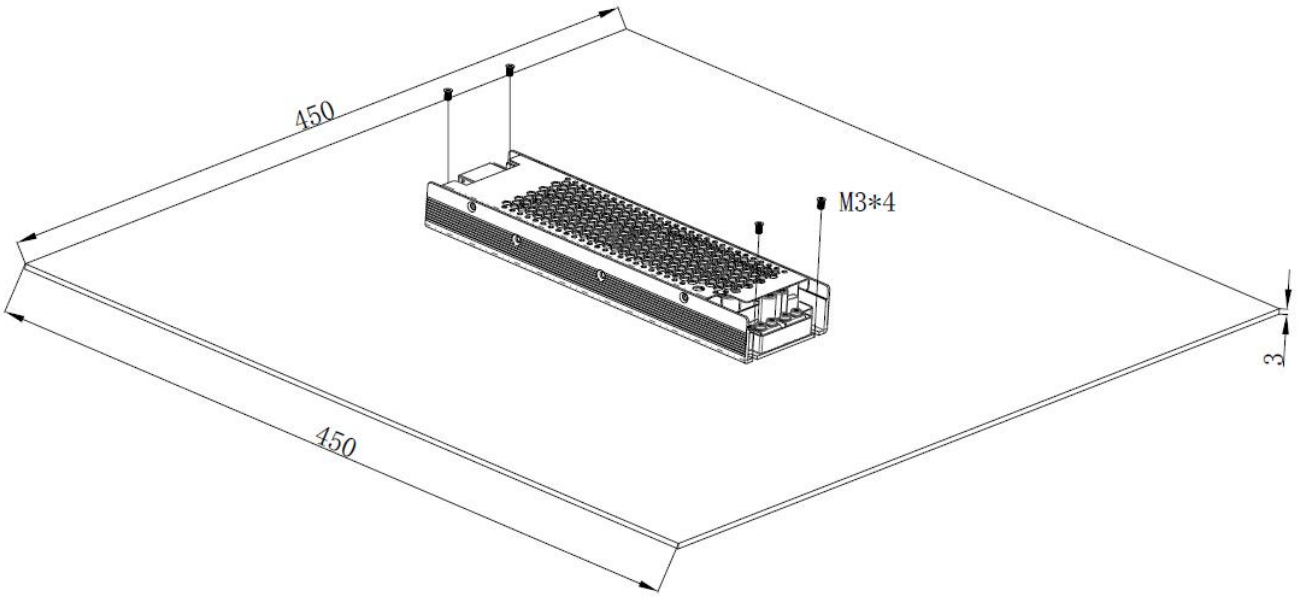


安装图 Installation Drawing

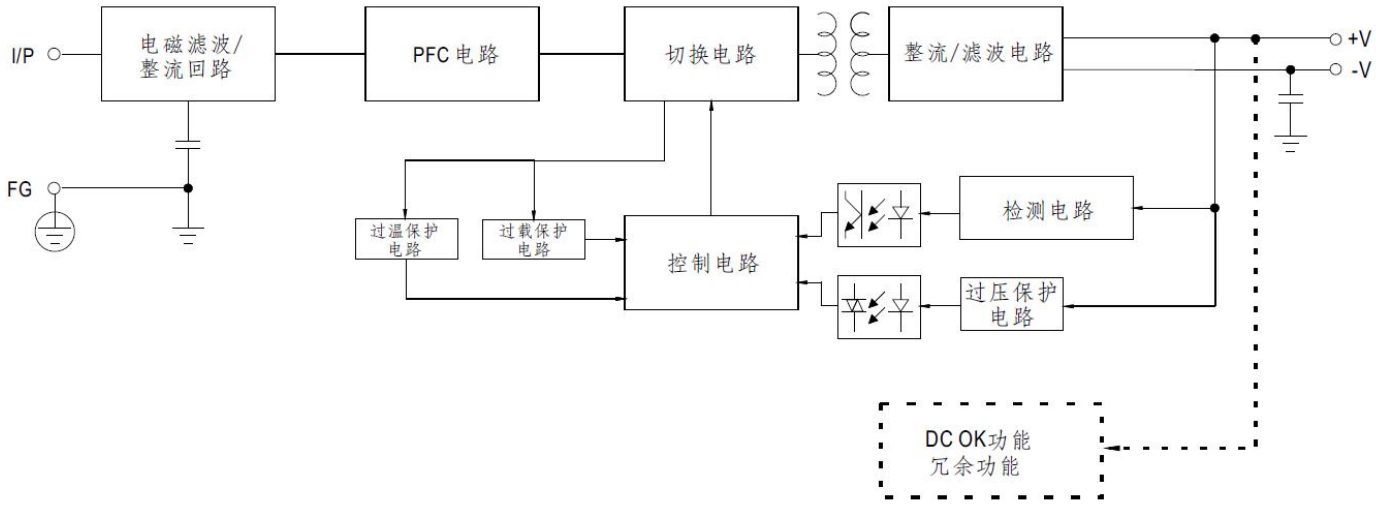
1.外加铝板操作

为了符合"降额曲线"和"静态特性曲线"，NHP-350 系列必须安装在一个铝板上面(或相同尺寸的机壳)，建议铝板尺寸如下图所示。

为了优化散热性能，铝板表面必须光滑(或者涂散热油)，且 NHP-350 系列必须紧紧安装在铝板中心位置。



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