## ■特性 Features:

- 全电压范围输入：85-305Vac/180-430Vdc
  Full range AC input voltage: 85-305Vac/180-430Vdc
- 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 85℃
  Operating temperature up to 85℃
- 效率高达 95%
  Efficiency up to 95%
- 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 adjustable
- 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
- 恒流限制延迟 1 秒后关闭输出电压
  The constant flow limit is delayed for 1 seconds and closes the output voltage
- DC OK 有效信号
  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:

NHP750SW 系列是一款 750W 单组输出 AC 转 DC 电源，85-305V 交流输入，整系列提供 12V，24V，36V，48V 直流隔离输出。半灌胶设计,自然风冷散热，工作温度可达 85℃。含有多种功能如输出电压电流可调。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/UL/EN/BS EN62368、EN61558、GB4943、BIS IS13252、EN62477 等国际安全法规，符合欧盟 RoHS2.0 指令，是一款高性能的工业电源。

NHP750SW series is a 750W single output AC to DC PSU, 85--305Vac input, The whole series provides 12V, 24V,36V,48V DC isolated output.Semi-Potted Design,Cooling by free air convection, working temperature up to 70℃.Contains a variety of functions such as output voltage and current adjustable.With complete protection function,Excellent EMC performance, high reliability, 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 high performance 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 |
|---|---|---|---|---|---|---|---|
| 750W | GW-NHP750SW-12 | 720W | 85-305Vac/ 180-430Vdc | 12V | 60A | 94.0 | CCC/CE/UL |
| | GW-NHP750SW-24 | 751.2W | | 24V | 31.3A | 95 | |
| | GW-NHP750SW-36 | 752.4W | | 36V | 20.9A | 95 | |
| | GW-NHP750SW-48 | 753.6W | | 48V | 15.7A | 95 | |

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

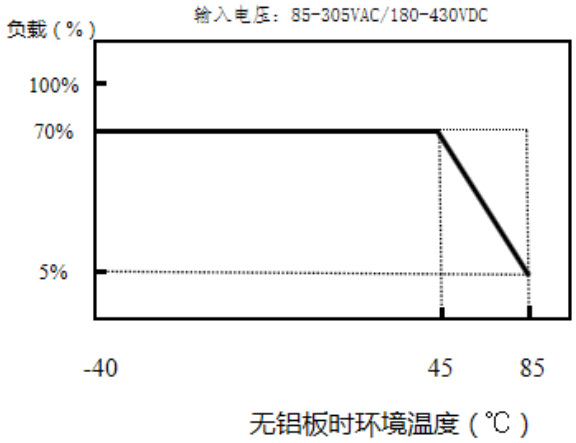
## 通用参数 General Specification

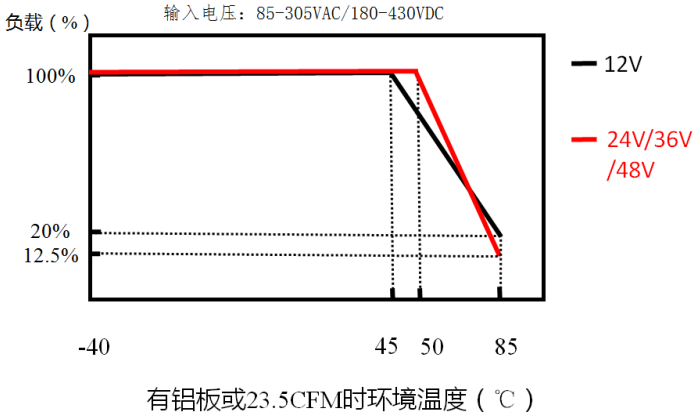
| 型号 MODEL | | GW-NHP750SW-12 | GW-NHP750SW -24 | GW-NHP750SW -36 | GW-NHP750SW -48 |
|---|---|---|---|---|---|
| 输出 Output | 输出电压 Output Voltage | 12V | 24V | 36V | 48V |
| | 额定电流 Output Current | 60A | 31.3A | 20.9A | 15.7A |
| | 电流范围 Current Range | 0~60A | 0~31.3A | 0~20.9A | 0~15.7A |
| | 额定功率 Output Power | 720W | 751.2W | 752.4W | 753.6W |
| | 纹波与噪声 Ripple and Noise(备注 6) | 150mV | 200mV | 240mV | 250mV |
| | 电压调整范围 Adj-voltage range | 12~14.4V | 24~28.8V | 36~43.2V | 48~57.6V |
| | 稳压精度 Voltage stability(备注 2) | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | 线性调整率 Line regulation | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | 负载调整率 Load regulation | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | 输出峰值功率 Output Peak Power | 100 - 277VAC，测试时间1S，最小 140%Io<br>100-277V AC input,Test time 1s,Min 140% Io | | | |
| | 保持时间 Hold-up time | 10ms (230Vac/100% load)，10ms (115Vac/100% load) | | | |
| | 启动时间 Startup time | ≤3s （115Vac /230Vac ； 100% load) | | | |
| 输入 Input | 电压范围 Voltage Range | 85~305Vac | | | |
| | 频率范围 Frequency Range | 47~63Hz | | | |
| | 输入电流 Input Current | 7.5A / 100Vac，4.7A / 240Vac | | | |

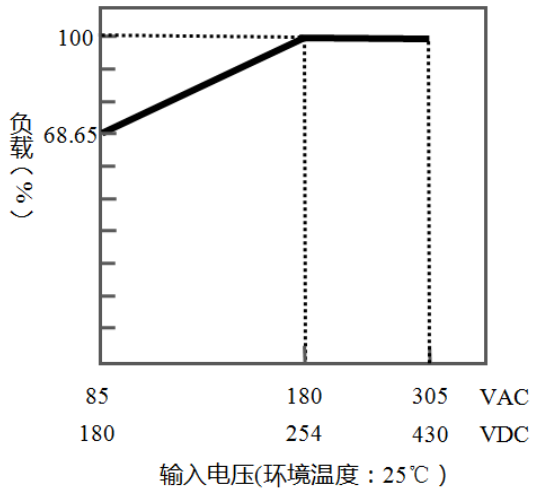
| | | | | | |
|---|---|---|---|---|---|
| | 功率因数 PF | PF>0.97/230VAC PF>0.99/115VAC(100% load) | | | |
| | 浪涌电流 Inrush Current | 20A / 115Vac，40A / 230Vac，Cold start | | | |
| | 效率 Efficiency | 94.0% | 95% | 95.5% | 95.5% |
| 保护 Protections | 过电压 OVP | 13.2~17V | 29~33V | 43.5~49V | 58~66V |
| | | 关断输出电压,重启恢复 Shut off the output voltage,The PSU can be recovered after restarted | | | |
| | 过负载 OCP | 105~170% | 1105~170% | 105~170% | 105~170% |
| | | ＞105%－170% Io，恒流打嗝保护，自恢复 >105%-170%Io Constant current hiccup protection self-recovery | | | |
| | 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 | 恒流打嗝保护，自恢复<br>Constant current Hiccup mode protection, The PSU can be Auto-recovered when the fault is removed | | | |
| 环境 Environmental | 工作温度 Operating Temperature | -40～+85℃ 请参考降额曲线 Refer to thederatingcurve | | | |
| | 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/UL/EN/BS EN62368、EN61558、GB4943、BIS IS13252、EN62477 | | | |
| | 耐压 Hi-pot | I/P - O/P：3000Vac/4242Vdc，I/P - FG：1500Vac/2121Vdc，O/P - FG：500Vac/707Vdc | | | |
| | 绝缘阻抗 Insulating resistance | ≥10Mohm (500VDC / 25℃ ＜90% RH) | | | |
| | 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 | 237mm *100mm * 41mm (L * W * H) | | | |
| | 包装 Packing | 1.35KG；8PCS/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。<br>Unless otherwise specified,all spec.are measured at 230Vac,rated load, Ta=25℃, Please refer to the test report.<br>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<br>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<br>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>In the case of low voltage input, the output must be derated. For details, see the output derated curve.<br>5. 在轻载或空载条件下,PV 电压由高压至低压调整有可能会触发 OVP 保护。建议在这种情形下调整 PV 时必须先关机，再由最低电压向上调整至需求电压。<br>Under light load or no-load conditions, the PV voltage adjustment from high to low voltage may trigger OVP protection. It is recommended that when adjusting PV in this case, you must turn off the PSU first, and then adjust the minimum voltage upward to the required voltage..<br>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 47uF low ESR capacitor and 0.1uF ceramic capacitor, and the measurement is carried out at 20MHZ bandwidth. | | | | |

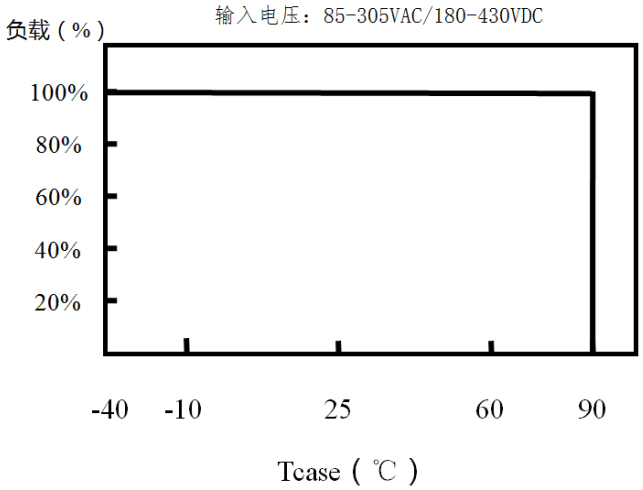
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## 降额曲线 Derating Curve




注：1.对于输入电压为 85 - 180VAC/180-254VDC 需在温度降额的基础上进行输入电压降额

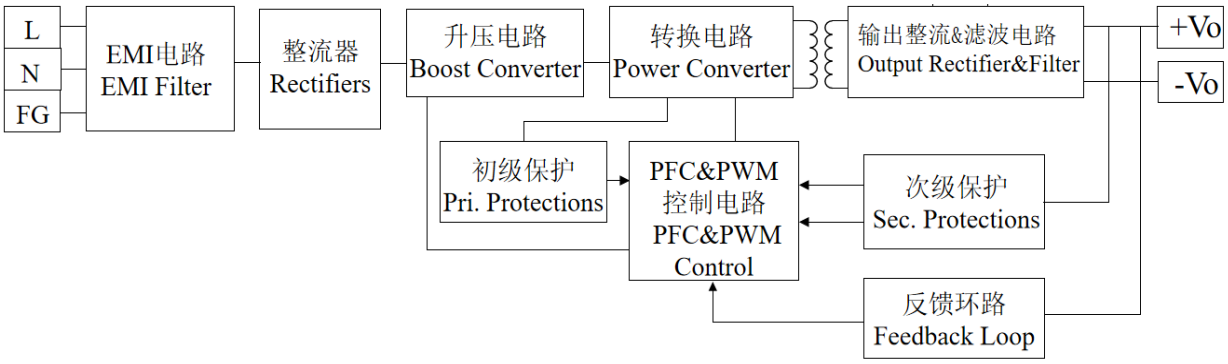
## ■ 功能手册 FunctionManual

1.DC_OK 信号 DC_OK signal

30V DC 1A

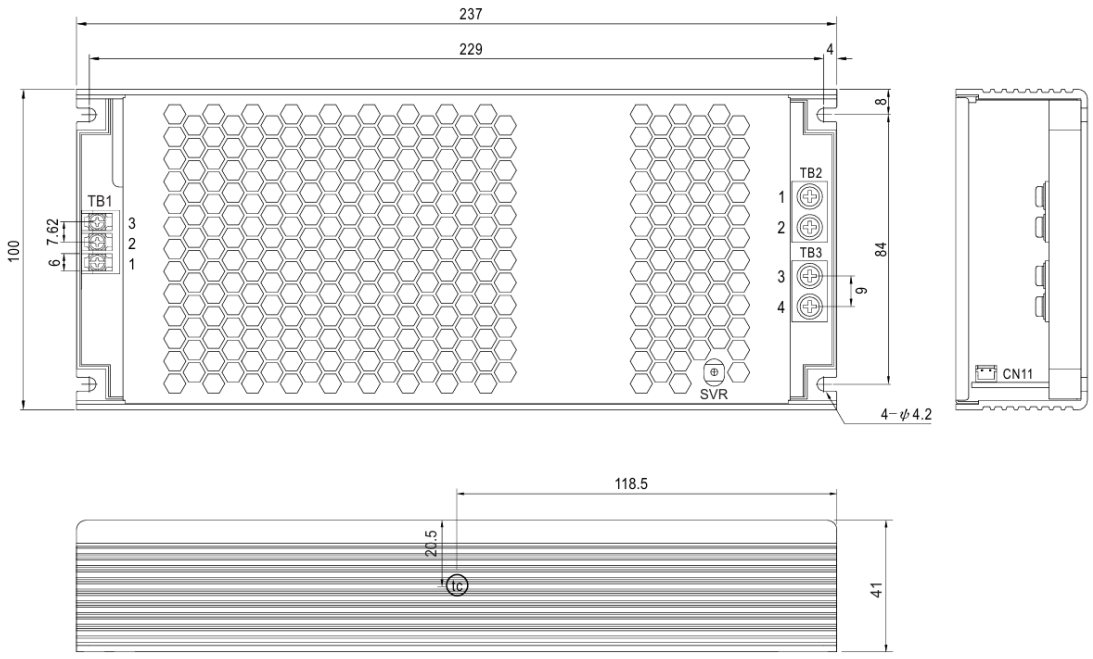
| | |
|---|---|
| 触点关断 | 电源开启/DC正常 |
| 触点开启 | 电源关断/DC故障 |
| 触点容量(最大) | 30Vdc/1A阻性负载 |

## ■ 方框图 Block Diagram




# 结构参数 Mechanical Overview

## ■ 结构尺寸 Shape Size



## ■ 安装示意图 installation instruction

外加铝板 Extra aluminium plate

为了符合“静态特性曲线”，电源必须安装在一个铝板上面（或者相同尺寸的机壳）；

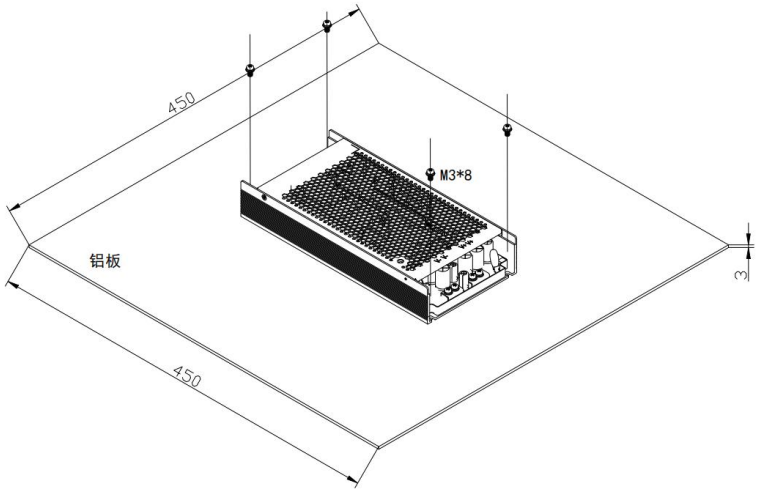
建议铝板尺寸为：450mm*450mm*3mm；

注意：为了优化散热性能，铝板表面必须光滑（或者均匀涂抹导热硅脂），且电源模块应安装在铝板中心位置。

In order to meet the “the static characteristic curve ”, and the power source must be installed on an aluminum plate （Or the same size of the enclosure ）;

The aluminum plate size is recommended :450mm*450mm*3mm;

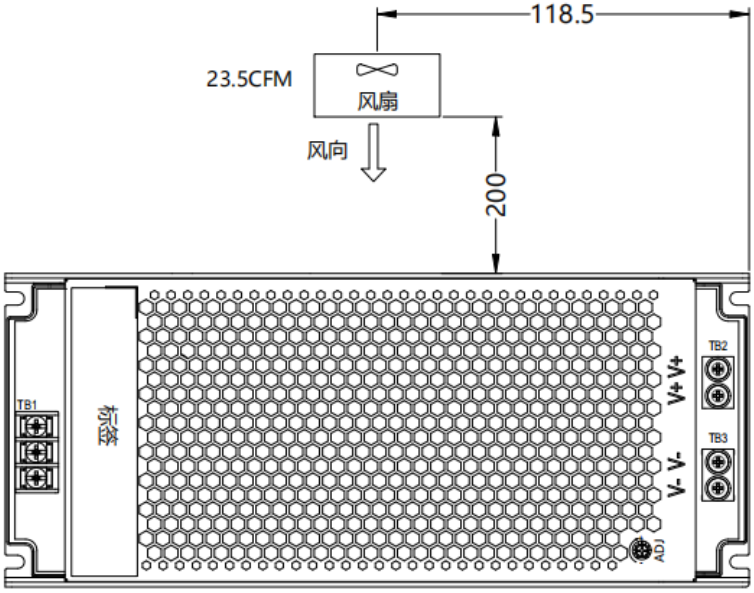
Note: in order to optimize the cooling performance, the surface of the aluminum plate must be smooth (or evenly apply the heat conductive silicone), and the power module should be installed in the center of the aluminum plate.




外加风扇 Impressed fan

外加风扇安装如下图所示： The additional fan is installed as shown below ：

尺寸单位为：mm The size unit is: mm




* 安装手册请查阅网址：https://www.gwpst.cn

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