SPS-9620
High Current Switching Mode Power Supply with Remote Sensing User Manual

1. INTRODUCTION

This switching mode DC regulated power supply provides high current with constant current limiting protection. It has a fixed 13.8V output with rated current up to 120A. It is designed with a high efficient Active Power Factor Corrector. The remote sensing terminal is used to compensate for long output line losses.

2. PRECAUTIONS   CAUTION! : The AC Input is DOUBLE POLE FUSING

- **Never Short the Remote Sensing Terminal**
- **Do not** expose the power supply to sun, high humid and dusty environment.
- **Never** remove the metal cover of the power supply while AC power is connected.
- **Never** touch the unit when your hands are wet.
- **Never** block the ventilation slots and cooling fan air intake window
- **Never** attempt to repair the power supply. Incorrect re-assembly may result in a risk of electric shock or fire.
- **Never** use the power supply for the load requiring higher current than the designed value otherwise it may damage the power supply.
- The power cord provided is only for 230Vac input. If the input source voltage is below 190Vac, the power cord should be replaced by a $1.0mm^2$ wire size and the length must not exceed 2m.

3. INSTALLATION

- This power supply is for Indoor Use Only.
- Place the power supply on a flat surface with sufficient clearance, dry, dust free surroundings for ventilation.

4. CONTROLS AND INDICATORS

Front   Rear
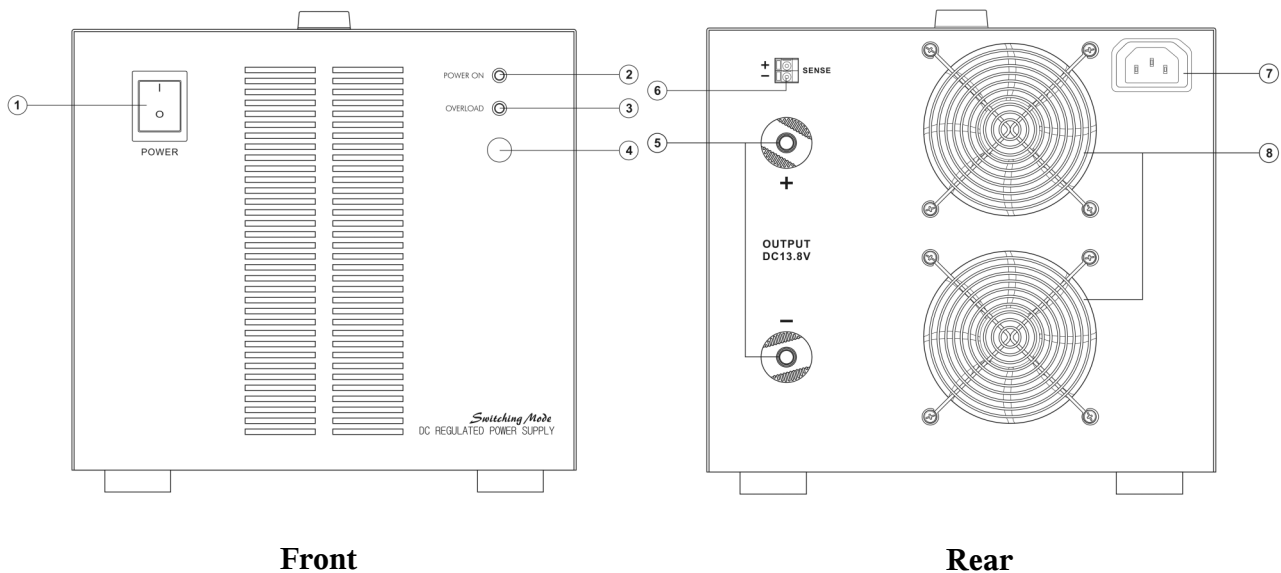
(1) Power ON/OFF Switch
(2) Power ON/OFF LED Indicator
(3) Overload LED Indicator – Overload(Constant Current Limiting) & Short-Circuit Protection
(4) Output Voltage Fine Tune Adjust – adjust range 12.6V – 14.3V.
(5) Output Terminal
(6) Remote Sensing Terminal **(Warning! : Never short the remote sensing terminal)**
(7) AC Input Plug
(8) Cooling Fan Air Intake Grille

5. CONNECTION

5.1 Check the rating label of the power supply and make sure it complies with your AC mains voltage. Connect the power supply to the AC Mains using the provided power cord.

5.2 This power supply will output a fixed 13.8V, make sure the equipment accepts this voltage.

5.3 Connect the equipment to the power supply. Red (+) is connected to the positive polarity input of the equipment and Black (-) is connected to the negative polarity input of the equipment.

5.4 REMOTE SENSING – If you do not use this feature, please skip to 5.5.

Take note of the warning and follow the order of installation.

Warning!:Never short the Remote Sensing Terminal

Connection:

1. First complete the power connections between power supply and equipment as in 4.3.

2. Check and make sure the power connections are secure.

3. Then make connections between Remote Sensing and equipment.(Fig. 3)
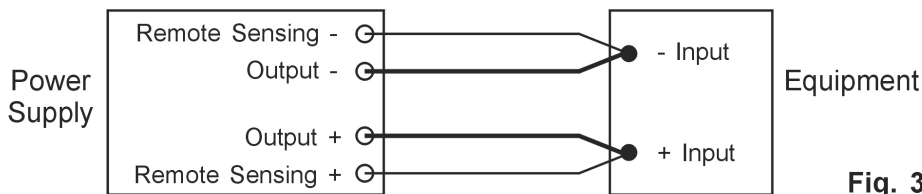
Warning!:Never short the Remote Sensing Terminal

Fig. 3

The remote sensing wire should be AT LEAST 22AWG wire size.

5.5 Switch on the power supply first and the LED Indicator should light up in green.

5.6 Switch on the equipment and the LED Indicator should still remain in green.

5.7 You can now operate the equipment.

When an operation is finished, switch off the equipment first and then switch off the power supply.

5.8 When disconnecting the power supply from the unit, disconnect the remote sensing wire first, then disconnect the output cables.

6. SPECIFICATIONS

	SPS-9620
Output Voltage	Fixed 13.8VDC (Fine Tune 12.6 – 14.3VDC)
Rated Output Current	120A
Ripple and Noise	40mVp-p
Load Regulation(with sense)	0.1% + 5mV
Load Regulation(with no sense)	0.1% + 5mV
Line Regulation	0.05% + 3mV
Input Voltage	230VAC / 50Hz (or on request)
Efficiency	$\geq$85%
Dynamic Power Factor Correction	$\geq$0.97 at optimal load
Indicator	Green LED for power on/off indication
	Red LED for overload/short circuit indication
Special Feature	Remote Sensing
Cooling Method	Variable Speed thermal static control fan
Operating Temperature	0 ~ 40°C
Protections	Overload(Constant Current Limiting), Short Circuit, Overtemperature and OVP
Approvals	CE : EN60950 EN55022
Dimension	235mm(W) x 218mm(H) x 345mm(D)
Weight	11Kg