MADE IN CHINA

minleaf

User Manual

DC Power Supply

NPS3010W

Introduction

The series of switching power supplies for measuring instrument have ruled out the inconvenience of bigvolume and heavyweight of a traditional power supply possess.The output voltage and current is controlled by two variable resistors regulation for morehandy and precise adjustment.

Features

·With more extensive range of input voltage at 230V±10% 50Hz or 115V±10% 60Hz.
Note:Correct selection of input voltage when use.
·With high frequency operation can reduce the size of power transformer.
·With small size, light weight and high density power.
·Entire efficiency rate higher up to 70%.
·Zero adjustment for the output of voltage and current.

Parameter Specification

Operation Environment: Indoor use
Input Voltage:230V±10% 50Hz or 115V±10% 60Hz
Ouput Voltage:0~30V
Output Current:0~10A
Operation Temperature &Humidity : O°C to 40°C, <80%.
Storage Temperature & Humidity : –10°C to 70°C, <70%.

Constant Voltage Operation

1. Output voltage ranges from 0 to rating voltage with continuous adjustment.
2. Voltage regulation
Line regulation≦5mV.
Load regulation≦5mV.
3. Recovery time≦500 μs(50% load change, minimum load 0.5A).
4. Ripple & Noise≦5mVrms, 100mVp–p.
5. Temperature coefficients≦100ppm/°C.

Operation mode: Voltage Operation Mode

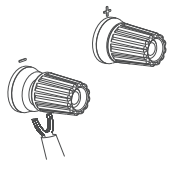
1. Set Power Switch to “OFF” position.
2. Make sure that line voltage is correct for the input power voltage.
3. Plug power cord into the power outlet.
4. Set Power Switch to ”ON” position.
5. Adjust ”Voltage” and ”Current” control to the desired output voltage and current.
6. Connect the external load to the output binding posts. Make sure both ”+” and ”–” terminals are connected correctly.

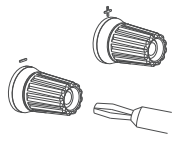
Setting Current Limit

1. Determine the maximum safe current for the device to be powered.
2. Temporarily short the (+) and (–) terminals of the power supply together with a test lead.
3. Rotate the COARSE VOLTAGE control away from zero sufficiently to have the CC indicator lightened.
4. Adjust the CURRENT control for the desired current limit. Read the current value on the Ammeter.
5. The current limit (overload protection) has now been preset.
Do not change the CURRENT control setting after this step.
6. Remove the short between the (+) and (–) terminals and hook up for constant voltage operation.

Terminal

1. Loosen the terminal knob with counterclockwise rotation.
2. Insert the load terminal.
3. Tighten the terminal knob by turning clockwise.
4. The banana plug can be inserted directly into the terminal hole.





Constant Voltage / Constant Current Crossover Characteristic

The working characteristic of this series is called a constant voltage/constant current automatic crossover type. This permits continuous transition from constant current to constant voltage modes in response to the load change. The intersection of constant voltage and constant current modes is called the crossover point.The crossover point is indicated by the front panel LED indicators. The crossover point is reached when the CV indicator goes out and the CC indicator is on.