Jesverty SPS-3005H

Jesverty SPS-3005H DC Power Supply User Manual

Model: SPS-3005H

1. INTRODUCTION

This manual provides detailed instructions for the safe and efficient operation of your Jesverty SPS-3005H DC Power Supply. Please read this manual thoroughly before using the device to ensure proper functionality and to prevent damage.

2. PRODUCT OVERVIEW

2.1 Key Features

- **High Precision Encoder Knobs:** Digital adjustment for voltage and current with 0.01V and 0.001A resolution.

- **Output ON/OFF Button:** Conveniently control power output without disconnecting loads.

- **4-Digit LED Display:** Real-time display of Voltage (V), Current (A), and Power (W) with adjustable brightness.

- **5V/2A USB Charging Port:** Integrated USB port for charging external devices.

- **Multiple Protection Functions:** Includes Over-Current Protection (OCP, settable), Over-Voltage Protection (OVP, fixed), and a temperature-regulated cooling fan.

- **OPN Output Status Setting:** Allows the unit to output voltage and current automatically upon power-on.

- **Compact and Lightweight Design:** Space-saving for various applications.

2.2 Package Contents

- 1 x Jesverty SPS-3005H DC Power Supply Unit

- 1 x Power Cord

- 1 set of Test Leads (banana plug to alligator clip)

- 1 x Instruction Manual

2.3 Product Diagram

Front view of the Jesverty SPS-3005H DC Power Supply, showing the 4-digit LED display, encoder knobs for current and voltage, USB port, power button, output button, and output terminals.

Overview diagram highlighting key features such as short circuit protection, overcurrent protection, overheating protection, low noise ripple, USB socket, overvoltage protection, encoder buttons, four-digit display, and output switch button.

3. SETUP

3.1 Initial Connection

1. Ensure the power supply is turned off.

2. Connect the provided power cord to the AC input on the rear of the unit and then to a suitable AC power outlet (240V AC).

3. Connect the test leads to the output terminals on the front panel. The red lead connects to the positive (+) terminal, the black lead to the negative (-) terminal, and the green lead to the ground (GND) terminal.

4. Ensure all connections are secure before proceeding.

4. OPERATING INSTRUCTIONS

4.1 Powering On/Off

Press the green **POWER** button on the front panel to turn the unit on or off. The LED display will illuminate when the unit is powered on.

4.2 Voltage and Current Adjustment

Illustration of the encoder knob operation for setting voltage and current values digit by digit.

1. To adjust voltage, press the **VOLTAGE** encoder knob. A digit on the voltage display will begin to flash, indicating it is selected for adjustment.

2. Turn the **VOLTAGE** knob left or right to change the value of the flashing digit (0-9).

3. Press the **VOLTAGE** knob again to move to the next digit for adjustment. Repeat until the desired voltage is set.

4. To adjust current, follow the same procedure using the **CURRENT** encoder knob.

5. The setting resolution is 0.01V for voltage and 0.001A for current.

4.3 Output ON/OFF Function

The **OUTPUT** button allows you to enable or disable the power output to the terminals. Press this button to toggle the output state. This feature is useful for adjusting settings without disconnecting the load or powering down the unit.

4.4 Screen Brightness Adjustment

Illustration demonstrating how to adjust the display brightness by simultaneously turning the CURRENT and VOLTAGE knobs.

To adjust the screen brightness, simultaneously turn both the **CURRENT** and **VOLTAGE** encoder knobs. Turning them to the right increases brightness, while turning them to the left decreases brightness.

4.5 OPN (Output Status Setting) Function

Instructions for activating and deactivating the OPN function, which enables automatic output upon power-on.

The OPN function allows the unit to automatically output the set voltage and current as soon as the power switch is turned on, without needing to press the **OUTPUT** button.

- **To Enable OPN:** Press the **OUTPUT** button for 3 seconds to enter the OPN setting interface. The OPN

light will turn on. Turn the **OUTPUT** button lightly to change the power bit display value from 0 to 1. Press the **OUTPUT** button for 3 seconds to save the setting and return to the main interface. The OPN light will remain on.

- **To Disable OPN:** Enter the OPN setting interface as described above. Turn the**OUTPUT** button lightly to change the power bit display value from 1 to 0. Press and hold the **OUTPUT** button for 3 seconds to save and exit. The OPN light will turn off.

4.6 OCP (Over-Current Protection) Setting

Instructions for activating and deactivating the OCP function, which protects against excessive current draw.

OCP protects the connected load by limiting the output current to a set maximum value. When OCP is triggered, the output will shut down.

- **To Enable OCP:** Press and hold the **CURRENT** button for 3 seconds to enter the OCP setting interface. The OCP light will turn on. Turn the **CURRENT** button to the right to set the desired OCP value. Press the **CURRENT** button for 3 seconds to save and return to the main interface. The OCP short circuit protection alarm function is now active.
- **To Disable OCP:** Enter the OCP setting interface as described above. Turn the**CURRENT** button to the left until the power display value jumps from 1 to 0. Press and hold the **CURRENT** button for 3 seconds to save and exit. The OCP light will turn off.

4.7 OVP (Over-Voltage Protection)

The unit features fixed Over-Voltage Protection (OVP) to safeguard connected devices from excessive voltage. This protection is not user-adjustable.

4.8 USB Charging Port

A 5V/2A USB charging port is located on the front panel, providing a convenient power source for compatible USB devices.

5. SAFETY INFORMATION

- Do not operate the power supply in wet or damp conditions.

- Ensure proper ventilation to prevent overheating. Do not block the cooling fan vents.

- Always connect the ground terminal to a proper earth ground.

- Do not attempt to open or modify the unit. Refer all servicing to qualified personnel.

- Verify voltage and current settings before connecting to a load to prevent damage to the device or the power supply.

- Use only the provided power cord and test leads, or suitable replacements.

6. MAINTENANCE

- Keep the unit clean and free from dust. Use a soft, dry cloth for cleaning.

- Periodically check the cooling fan for obstructions. The fan operates based on internal temperature.

- Store the power supply in a dry, cool environment when not in use.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
No power/display off	Power cord not connected; Power switch off; Blown fuse.	Check power cord connection; Press power switch; Replace fuse (if accessible and qualified).
No output voltage/current	Output button off; OCP/OVP triggered; Incorrect settings.	Press OUTPUT button; Check OCP/OVP status and reset if necessary; Verify voltage/current settings.
Display is too dim/bright	Brightness setting needs adjustment.	Adjust screen brightness using both encoder knobs simultaneously.
Unit overheats	Blocked ventilation; Excessive load.	Ensure vents are clear; Reduce load or operate within specified limits.

8. SPECIFICATIONS

Parameter	Value
Brand	Jesverty
Model	SPS-3005H
Input Voltage	240V AC
Output Voltage Range	0-30V DC
Output Current Range	0-5A DC
USB Output	5V/2A

Parameter	Value
Display Type	4-Digit LED (V, A, W)
Voltage Display Resolution	0.01V
Current Display Resolution	0.001A
Power Display Resolution	0.1W
Dimensions (D x W x H)	7.1 x 3.35 x 6.1 inches (approx.)
Weight	2.5 lbs (approx.)
Protection Features	OCP (settable), OVP (fixed), Temperature-regulated cooling fan

9. WARRANTY AND SUPPORT

Jesverty provides professional technical support for this product. If you encounter any problems or have questions regarding your order or the product's operation, please contact Jesverty Customer Service. Contact information is typically included with the product or can be found via the Amazon platform or official Jesverty email channels.