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Jesverty SPS-3030H

Jesverty SPS-3030H DC Power Supply User Manual

Model: SPS-3030H

1. PRODUCT OVERVIEW

The Jesverty SPS-3030H is a variable DC power supply designed for precision applications. It features an encoder knob for convenient voltage and current setting, an output ON/OFF switch, and a 4-digit LED display. Built-in Over-Voltage Protection (OVP) and Over-Current Protection (OCP) ensure safe operation. This compact and lightweight unit is suitable for laboratories, educational sites, manufacturing tests, maintenance repairs, battery charging, and electronic DIY projects.



Figure 1: Front view of the Jesverty SPS-3030H DC Power Supply.

Multiuse Dual Output Connectors

Stable and Clean Voltage Output



Figure 2: Front and rear views highlighting the dual output connectors, adjustment knobs, and cooling fan.

2. SAFETY PRECAUTIONS

- Ensure the power supply is connected to a grounded outlet.
- Do not operate in wet or damp conditions.
- Avoid short-circuiting the output terminals unless specifically performing a current adjustment procedure as outlined in the manual.
- Always turn off the output before connecting or disconnecting loads.
- Do not block ventilation openings; ensure proper airflow for the cooling fan.
- Refer to the specifications for maximum voltage and current ratings to prevent overload.

3. SETUP AND INITIAL OPERATION

3.1 Unpacking and Inspection

Carefully remove the power supply from its packaging. Inspect the unit for any signs of physical damage. Verify that all included accessories are present: 1 x SPS-H/HP Unit, 1 x Power Cord, 1 x instruction manual.

3.2 Power Connection

Connect the provided power cord to the AC input terminal on the rear of the power supply and then to a suitable grounded AC outlet. Note that power cords and AC input settings may vary by region.

3.3 Powering On/Off

1. Locate the **POWER** button on the front panel.
2. Press the **POWER** button to switch the power supply ON. The LED display will illuminate.
3. To turn OFF the power supply, press the **POWER** button again.

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Video 1: Demonstration of basic power supply operation, including power on/off, voltage and current adjustment, and OVP/OCP settings.

4. OPERATING INSTRUCTIONS

4.1 Voltage and Current Adjustment

The SPS-3030H features encoder knobs for precise adjustment of voltage and current, offering a setting resolution of 0.01V/0.01A.

1. **Voltage Adjustment:** Locate the **VOLTAGE** adjustment knob. Press the knob to select the digit you wish to change on the voltage display. Rotate the knob to adjust the value.
2. **Current Adjustment:** Locate the **CURRENT** adjustment knob. Press the knob to select the digit you wish to change on the current display. Rotate the knob to adjust the value.

4.2 Output ON/OFF Control

The dedicated **OUT** button allows for easy control of the power output without needing to disconnect the load or power off the unit.

- Press the **OUT** button to turn on the output. The "OUT" LED will illuminate.
- Press the **OUT** button again to turn off the output. The "OUT" LED will turn off.

4.3 Over-Voltage Protection (OVP) Setup

OVP protects connected devices from excessive voltage. When the output voltage exceeds the set OVP trip point, the power supply will automatically shut down the output.

1. Press the **OVP** button to enter the OVP configuration interface. The display will show "OFF" or "ON" and the current OVP trip point.
2. Press and rotate the **CURRENT** knob to toggle OVP between "OFF" and "ON".
3. Use the **VOLTAGE** knob to set the desired OVP trip point. For example, to set it to 40V, adjust the value to 40.00V.
4. Press the **OVP** button again to exit the configuration interface and return to the main display. The "OVP" LED will illuminate if OVP is active.

4.4 Over-Current Protection (OCP) Setup

OCP protects connected devices from excessive current. When the output current exceeds the set OCP trip point, the power supply will automatically shut down the output.

1. Press the **OCP** button to enter the OCP configuration interface. The display will show "OFF" or "ON" and the current OCP trip point.
2. Press and rotate the **CURRENT** knob to toggle OCP between "OFF" and "ON".

3. Use the **VOLTAGE** knob to set the desired OCP trip point. For example, to set it to 10A, adjust the value to 10.00A.
4. Press the **OCP** button again to exit the configuration interface and return to the main display. The "OCP" LED will illuminate if OCP is active.



Figure 3: The power supply providing accurate power output, as demonstrated with external measurement devices.

BATTERY CHARGING FUNCTION

Note: Please set the current and voltage correctly before charging

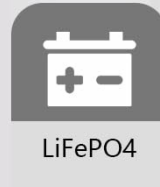
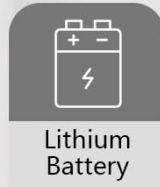
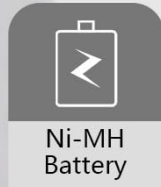


Figure 4: The power supply's battery charging function, compatible with Ni-MH, Lithium, LiFePO4, and Lead-Acid batteries. Ensure correct current and voltage settings before charging.

5. MAINTENANCE

- **Cleaning:** Disconnect the power supply from the AC outlet before cleaning. Use a soft, dry cloth to wipe the exterior. Do not use abrasive cleaners or solvents.
- **Ventilation:** Regularly check that the ventilation openings are clear of dust and debris to ensure proper cooling.
- **Storage:** When not in use for extended periods, store the power supply in a cool, dry place away from direct sunlight and extreme temperatures.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
No power/Display off	Power cord disconnected or no AC power.	Check power cord connection and AC outlet. Ensure the POWER button is pressed.
Output not turning on (OUT LED off)	Output button not pressed, or OVP/OCP is triggered.	Press the OUT button. Check OVP/OCP settings and reset if triggered.
OVP LED flashing	Output voltage exceeded the set OVP trip point.	Reduce the set voltage or increase the OVP trip point. Press OVP button to reset.
OCP LED flashing	Output current exceeded the set OCP trip point.	Reduce the load current or increase the OCP trip point. Press OCP button to reset.
Unit feels hot	Insufficient ventilation or prolonged high-power operation.	Ensure ventilation openings are clear. Reduce load or allow unit to cool down. The temperature-regulated cooling fan should activate.

7. SPECIFICATIONS

Feature	Detail
Model	SPS-3030H
Output Voltage	0-30V
Output Current	0-30A
Output Wattage	900W
Display	4-Digit LED Display
Adjustment	Encoder Knob (0.01V/0.01A resolution)
Protection	OVP (Over-Voltage Protection), OCP (Over-Current Protection)
Cooling Method	Air (Temperature-regulated cooling fan)
Dimensions (Approx.)	13.2(D) x 8.4(W) x 6.5(H) inches (33.5cm x 21.3cm x 16.5cm)
Weight (Approx.)	6.6 lbs (3.0 kg)
Manufacturer	Jesverty
Country of Origin	China

Dimensions And Weight

Multiuse, Stable and Clean Voltage Output



Overload Protection



Metal body



Cooling Fan



HD Screen Display

Approx. 3.0kg/6.4lb



Figure 5: Approximate dimensions and weight of the power supply.

8. WARRANTY AND CUSTOMER SUPPORT

Jesverty provides professional technical support for this product. For any problems or questions regarding your order or the product's operation, please feel free to contact Jesverty Customer Service via Amazon message or email.

This product is covered by the standard manufacturer's warranty. Please retain your proof of purchase for warranty claims.