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› Bolisila Adjustable Lab DC Power Supply TPS-C3010 User Manual

Bolisila TPS-C3010

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Model: TPS-C3010

INTRODUCTION

Thank you for choosing the Bolisila Adjustable Lab DC Power Supply, model TPS-C3010. This manual provides essential information for the safe and efficient operation of your new power supply. Please read this manual thoroughly before use and retain it for future reference.

This power supply is designed for laboratory and industrial applications, offering stable and precise voltage and current output. Its robust design ensures high efficiency and durability, making it suitable for various demanding environments.

SAFETY PRECAUTIONS

- Always connect the power supply to a grounded outlet.
- Do not operate in wet or damp conditions.
- Ensure proper ventilation to prevent overheating.
- Do not open the casing; there are no user-serviceable parts inside.
- Disconnect power before making any connections or disconnections.
- Use appropriate voltage and current settings for your application.

PRODUCT OVERVIEW

The Bolisila TPS-C3010 features a clear digital display for voltage, current, and power, along with intuitive controls for adjustment and output management.



Figure 1: Front Panel Layout of the TPS-C3010. This image displays the main interface of the power supply, including the large digital readouts for voltage (V), current (A), and power (W), as well as indicators for Constant Voltage (C.V) and Constant Current (C.C) modes. Control knobs for Voltage, Current, and Power adjustment are visible on the right, along with memory buttons (M1, M2, M3), an OCP (Over Current Protection) button, and the main output enable (OUT) button. The red and black output terminals are at the bottom center.

DC power supply

Models:TPS-C3010

30V 10A 300W



Figure 2: TPS-C3010 Displaying 30V 10A 300W Output. This image shows the power supply's digital display set to its maximum output of 30.00 Volts, 10.00 Amperes, and 300.0 Watts, demonstrating its full capacity. The Constant Voltage (C.V) and Constant Current (C.C) indicators are also visible, confirming the operational mode.

Key Features:

- High efficiency and durability for stable performance.
- Precise control for accurate operational performance.
- User-friendly design for simple installation.
- Low maintenance requirements.
- Wide range of applications in industrial and laboratory settings.

SETUP

1. **Unpacking:** Carefully remove the power supply from its packaging. Inspect for any signs of damage during transit.
2. **Placement:** Place the unit on a stable, level surface with adequate ventilation around all sides. Ensure no vents are blocked.

3. **Power Connection:** Connect the provided power cord to the AC input on the rear of the unit and then to a grounded electrical outlet. Ensure the input voltage matches the power supply's requirements (typically 110V/220V, check label).
4. **Initial Power On:** Turn on the power switch, usually located on the front or rear panel. The digital display should illuminate.

OPERATING INSTRUCTIONS

Basic Operation:

1. **Adjusting Voltage:** Rotate the **VOLTAGE** knob to set the desired output voltage. The display will show the set value.
2. **Adjusting Current:** Rotate the **CURRENT** knob to set the desired output current limit. This acts as a current protection limit.
3. **Enabling Output:** Press the **OUT** button (usually illuminated green) to enable the power output to the terminals. The display will now show the actual output voltage and current.
4. **Connecting Load:** Connect your device or circuit to the red (+) and black (-) output terminals using appropriate test leads. Ensure correct polarity.
5. **Disabling Output:** Press the **OUT** button again to disable the power output before disconnecting your load.

Advanced Features:

- **Constant Voltage (CV) Mode:** When the load resistance is high, the power supply operates in CV mode, maintaining the set voltage. The "C.V" indicator will illuminate.
- **Constant Current (CC) Mode:** When the load resistance is low or the current drawn exceeds the set limit, the power supply switches to CC mode, maintaining the set current limit. The "C.C" indicator will illuminate.
- **Memory Presets (M1, M2, M3):** Use these buttons to save and recall frequently used voltage and current settings. Refer to the specific device interface for saving and recalling procedures (e.g., long press to save, short press to recall).
- **Over Current Protection (OCP):** Press the **OCP** button to enable or disable over current protection. When enabled, the output will shut down if the current exceeds a predefined or user-set limit, protecting the connected device.

MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Do not use abrasive cleaners or solvents.
- **Ventilation:** Regularly check that the ventilation openings are clear of dust and debris.
- **Storage:** When not in use for extended periods, store the power supply in a cool, dry place, away from direct sunlight and extreme temperatures.
- **No User Serviceable Parts:** Do not attempt to repair the unit yourself. Refer all servicing to qualified personnel.

TROUBLESHOOTING

Problem	Possible Cause	Solution
No power/Display off	Power cord not connected; Power switch off; Blown fuse; No AC power.	Check power cord connection; Turn on power switch; Check and replace fuse (if accessible and safe); Verify AC outlet power.

Problem	Possible Cause	Solution
No output voltage/current	Output disabled; OCP triggered; Incorrect settings; Loose connections.	Press OUT button to enable output; Check OCP status and reset if needed; Verify voltage/current settings; Secure all connections.
Unit overheats	Blocked ventilation; Excessive load; Operating in high ambient temperature.	Ensure clear ventilation; Reduce load; Operate in a cooler environment.
Unstable output	Loose connections; Faulty load; Internal issue.	Check and secure all connections; Test with a different load; Contact support if problem persists.

SPECIFICATIONS

Parameter	Value
Model Number	TPS-C3010
Output Power	300W (for TPS-C3010)
Output Voltage Range	0-30V (for TPS-C3010)
Output Current Range	0-10A (for TPS-C3010)
Item Weight	2.2 pounds (1000 Grams)
Package Dimensions	0.39 x 0.39 x 0.39 inches
Manufacturer	Bolisila
Country of Origin	China

Note: Specifications are subject to change without notice. Refer to the product label for the most accurate information.

WARRANTY AND SUPPORT

Bolisila products are manufactured to high-quality standards. For warranty information and technical support, please refer to the warranty card included with your product or contact your point of purchase.

For further assistance, you may also visit the official Bolisila website or contact their customer service department. Please have your model number (TPS-C3010) and purchase date ready when contacting support.

While specific warranty details are not provided here, typical warranties cover defects in materials and workmanship for a limited period from the date of purchase. Damage due to misuse, accident, or unauthorized modification is generally not covered.