

Jadeshay OJJUQVJYL-GSJAY110498-04-0-36V

Jadeshay Adjustable DC-DC Converter User Manual

Model: OJJUQVJYL-GSJAY110498-04-0-36V

1. PRODUCT OVERVIEW

The Jadeshay Adjustable DC-DC Converter is a high-performance power supply module designed for precise voltage and current regulation. It functions as both a step-up (boost) and step-down (buck) converter, allowing for flexible output voltage from 0-36V DC from an input range of 6-36V DC. Equipped with a full-screen VA color LCD, it displays voltage, current, and power, providing clear and immediate feedback on its operational status. Its robust design includes an intelligent temperature control fan and multiple protection features to ensure safe and reliable operation.



Figure 1: Front view of the Jadeshay Adjustable DC-DC Converter showing the LCD display and control knob.

Step-up and step-down converters

DC 6-36V

Input voltage:

DC 0-36V

Output voltage:

0-6A

Output current:

120W

Output power:



Figure 2: Key specifications of the converter, highlighting its step-up and step-down capabilities.

2. KEY FEATURES

- **Adjustable Boost/Buck Converter:** Converts DC 6-36V input to DC 0-36V output.
- **High Power Output:** Up to 120W and 6A.
- **Full-Screen VA Color LCD:** Displays voltage, current, and power simultaneously.
- **Intelligent Temperature Control:** Features a smart fan and thickened heatsink for efficient heat dissipation.
- **Upgraded Plug-in Terminals:** Facilitates easy removal and replacement of connections.
- **Comprehensive Protection:** Includes reverse polarity, backflow, undervoltage, overvoltage, overcurrent, overtemperature, overpower, and timeout protection.
- **MPPT Functionality:** Supports battery charging with Maximum Power Point Tracking, ideal for solar applications.
- **Data Storage:** Stores up to 10 groups of settings.

3. SETUP AND WIRING

Before connecting the converter, ensure all power sources are disconnected. Observe proper polarity to prevent damage to the device and connected equipment.

3.1 Wiring Connections

Connect the input power source to the **IN+** (positive) and **IN-** (negative) terminals. Connect your load or device to the **OUT+** (positive) and **OUT-** (negative) terminals. The upgraded plug-in terminals allow for secure and convenient connections.

Key Function Introduction

VSET Button

Short Press: set voltage
Long Press: enter or exit the data Group Interface

SW Button

Short press: switch input and output voltage or shift
Long press: enter or exit the system setting interface

VSET

SW

ISET

SET Button

Short press: set current
Long press: enter or exit the data group interface

Main Interface

Power Button

Short press: turn on/off power output
Long press: long press to clear in capacity Ah/energy Wh time h interface

Encoder Button

Short press: switch output power W/capacity Ah/energy Wh/time h/temperature °C/wheel display
Long press: turn on/off the lock function

Figure 3: Internal layout and wiring points. Ensure correct polarity when connecting input and output.

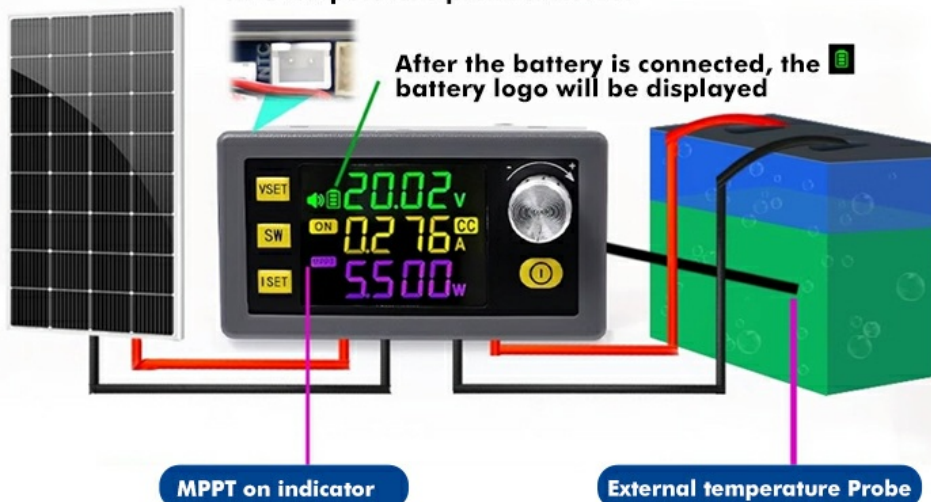
3.2 External Temperature Probe Connection

An external NTC temperature probe (10k NTC 3950BNTC) can be connected to the designated interface for over-temperature protection. When connected, the probe's temperature reading will be displayed, and the device can automatically stop charging if over-temperature conditions are detected.

It has a backflow prevention function and can charge various batteries

Battery charging with MPPT function supports MPPT solar charging

NTC temperature probe interface



Note: This product does not have reverse polarity protection. Reverse polarity of the battery will damage the device. Battery charging requires certain professional knowledge. Non-professionals should not charge directly to prevent fire and explosion.

Figure 4: Connecting an external temperature probe and utilizing the MPPT function for battery charging.

Note: This product does not have reverse polarity protection for battery charging. Reverse polarity of the

battery will damage the device. Battery charging requires professional knowledge. Non-professionals should not charge directly to prevent fire and explosion.

4. OPERATING INSTRUCTIONS

The converter features an intuitive interface with several buttons and an encoder for easy operation.



Figure 5: Key Function Introduction - Buttons and Encoder.

4.1 Button Functions

- **VSET Button:**

- Short Press: Set voltage.
- Long Press: Enter or exit the data group interface.

- **SW Button:**

- Short Press: Switch input and output voltage or shift display.
- Long Press: Enter or exit the system setting interface.

- **ISET Button:**

- Short Press: Set current.
- Long Press: Enter or exit the data group interface.

- **Encoder Button (Rotary Knob):**

- Short Press: Switch output power (W), capacity (Ah), energy (Wh), time (h), temperature (°C) / wheel display.
- Long Press: Turn on/off the lock function.

- **Power Button:**

- Short Press: Turn on/off power output.
- Long Press: Clear capacity (Ah), energy (Wh), and time (h) interface.

4.2 Setting Voltage and Current

1. From the main interface, short press the **VSET** button to enter voltage setting mode. The LCD will show the voltage value blinking.
2. Rotate the **Encoder** to adjust the voltage value.

3. Short press the **VSET** button again to confirm and save the setting.
4. To set the current, short press the **ISET** button and follow the same steps as for voltage setting.

Product details display introduction



Built-in buzzer

Key prompts, alarm
Prompts, everything has
an echo

Upgraded plug-in terminal

Easy to disassemble and
replace.

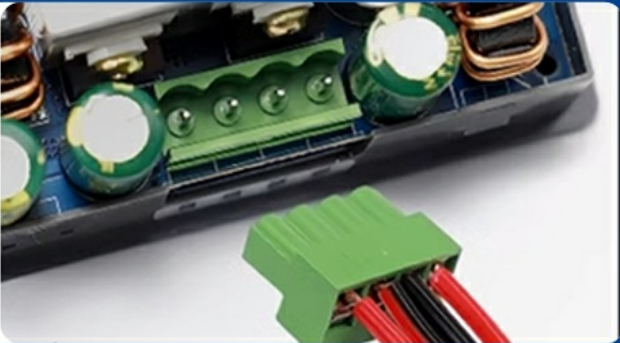


Figure 6: Visual guide for setting voltage and current and display modes.

4.3 Display Modes

From the main interface, short press the **SW** button to toggle between displaying input voltage and output voltage. Short press the **Encoder** button to cycle through output power (W), capacity (Ah), energy (Wh), time (h), and temperature (°C) displays.

4.4 Data Group Function

The device supports 10 data groups (CD0 to CD9) for saving and recalling settings.

1. Long press the **VSET** button on the main interface to enter the data group interface.
2. Use the **Encoder** to select the desired data group (CD0-CD9).
3. Short press **VSET/ISET** to adjust the voltage and current settings for the selected group.
4. Long press **VSET/SW** or short press the **Encoder** to load the selected data group.

4.5 Lock Function

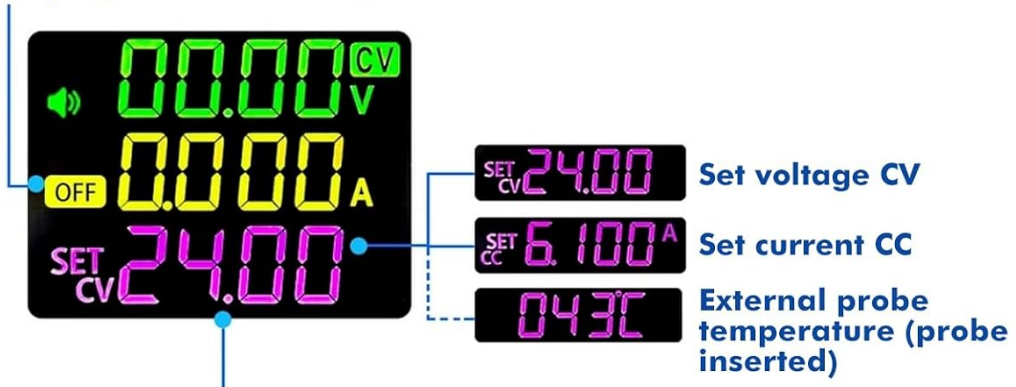
To prevent accidental changes, you can lock the set voltage and current. Long press the **Encoder** button for 2 seconds to activate or deactivate the lock function. A lock symbol will appear on the display when active.

5. SPECIFICATIONS

Parameter	Value
Input Voltage	DC 6 - 36 V
Output Voltage	DC 0 - 36 V

Parameter	Value
Output Current	0 - 6 A
Output Power	120 W
Memory Groups	10 groups
Dimensions (L x W x H)	79mm x 43mm x 50mm (approx.)
Model Number	OJJUQVJYL-GSJAY110498-04-0-36V

Displays OFF when the power is off



In OFF state, CV/CC/probe temperature will be automatically displayed in rotation

Constant voltage CV constant current CC constant power CW function introduction



Constant voltage CV Constant current CC Constant power CW

1 When the constant power function is not turned on, the power supply only has constant voltage and constant current functions, and the constant voltage CV and constant current CC will automatically switch according to the load;

1.1 When the load current is less than the set constant current value, the power supply is in constant voltage mode, the output voltage is the set voltage value CV, and the current is adaptive;

1.2 When the load current is greater than the set constant current value, the power supply automatically enters constant current mode, at which time the output current is the set constant current value CC, and the voltage is adaptive;

When the constant power function is turned on, the constant current value defaults to the maximum value, and the constant voltage value CV is used as the initial voltage (a reasonable value is set according to the actual situation). After the power is turned on, the equivalent resistance R of the load is calculated by Ohm's law $R=U/I$; then the corresponding voltage can be calculated according to the set constant power value through the power $P=U^2/R$ formula (voltage adaptation); at this point, the constant power point algorithm automatically follows and the constant power is completed.

Constant power switch and constant power value setting

1. Long press SW on the main interface to enter the system settings;

2. Short press ISET/SET to switch to the -CP- constant power switch item, ON to turn on constant power, OFF to turn off constant power;

3. After turning on constant power, short press SET on the main interface to modify the constant power value.

Figure 7: Product Dimensions.

6. MAINTENANCE AND CARE

The Jadeshay converter is designed for durability. To ensure its longevity and optimal performance:

- Keep the device clean and free from dust. Use a soft, dry cloth for cleaning.
- Ensure proper ventilation around the device, especially the heatsink and fan, to allow for efficient heat

dissipation.

- Avoid exposing the device to extreme temperatures, humidity, or corrosive environments.
- Regularly check connections for tightness and ensure no wires are frayed or damaged.

7. TROUBLESHOOTING

This section addresses common issues and their potential solutions.

Problem	Possible Cause	Solution
Device does not power on.	No input power, incorrect wiring, or power button off.	Check input power supply. Verify wiring connections and polarity. Short press the Power button to turn on output.
Output voltage/current is unstable or incorrect.	Load too high, incorrect settings, or poor connections.	Ensure load is within specified limits (120W/6A). Re-adjust voltage/current settings. Check all wiring connections.
Device shuts down unexpectedly (Over-temperature protection).	Insufficient ventilation, excessive load, or high ambient temperature.	Ensure adequate airflow around the device. Reduce the load. Allow the device to cool down. Consider using an external temperature probe if not already.
Display is not working or shows errors.	Internal fault or connection issue.	Power cycle the device. If the issue persists, contact customer support.
Buzzer sounds continuously.	Alarm prompt (e.g., over-temperature, over-current).	Check the display for specific error messages. Address the underlying issue (e.g., reduce load, improve ventilation).

7.1 Protection Features

The converter is equipped with multiple protection mechanisms:

- **Reverse Polarity Protection:** Protects the device from incorrect input power polarity.
- **Backflow Protection:** Prevents current from flowing back into the input source.
- **Undervoltage Protection:** Shuts down if input voltage drops below a safe threshold.
- **Overvoltage Protection:** Shuts down if output voltage exceeds a safe threshold.
- **Overcurrent Protection:** Limits or shuts down output if current exceeds set limit.
- **Overtemperature Protection:** Shuts down if internal temperature becomes too high.
- **Overpower Protection:** Shuts down if output power exceeds set limit.
- **Timeout Protection:** Shuts down if operation exceeds a set time limit.

8. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please contact Jadeshay customer service through the retailer where the product was purchased or visit the official Jadeshay website. Please have your model number (OJJUQVJYL-GSJAY110498-04-0-36V) and purchase details ready when contacting support.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question