

## VUBBJCRS SDS-24S4810

# VUBBJCRS DC-DC Power Converter (SDS-24S4810) User Manual

24V to 48V 10A 480W Step-Up Converter

## 1. INTRODUCTION

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This manual provides essential information for the safe and efficient installation, operation, and maintenance of your VUBBJCRS DC-DC Power Converter, Model SDS-24S4810. This device is designed to convert a 24V DC input voltage to a stable 48V DC output voltage, with a maximum output current of 10A and a rated power of 480W. Please read this manual thoroughly before using the product.

## 2. SAFETY INSTRUCTIONS

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**WARNING: Failure to follow these safety instructions may result in electric shock, fire, or serious injury.**

- Ensure the input voltage is within the specified range (20-36Vdc) to prevent damage to the converter.
- Do not exceed the maximum output current of 10A or rated power of 480W.
- Disconnect power before making any connections or disconnections.
- Install the converter in a well-ventilated area to prevent overheating.
- Avoid exposing the device to moisture, water, or extreme temperatures.
- This device is not waterproof. Protect it from water ingress.
- Only qualified personnel should perform installation and wiring.
- Ensure proper polarity when connecting input and output wires. Incorrect polarity can damage the device and connected equipment.

## 3. PACKAGE CONTENTS

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Verify that all items are present and undamaged upon opening the package. If any items are missing or

damaged, contact your supplier.

- 1 x VUBBJCRS DC-DC Power Converter (Model SDS-24S4810)
- 1 x User Manual (this document)

## 4. PRODUCT FEATURES

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- **Input Voltage Range:** 20-36Vdc
- **Output Voltage:** 48Vdc
- **Output Current:** 10A (Max)
- **Rated Power:** 480W
- **Efficiency:** High conversion efficiency
- **Protection:** Over-current, over-voltage, over-temperature protection
- **Compact Design:** Size approximately 100mm x 80mm x 39mm

## 5. SETUP AND INSTALLATION

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Follow these steps for proper installation:

1. **Mounting:** Choose a secure, dry, and well-ventilated location for mounting the converter. Ensure there is adequate airflow around the unit to dissipate heat.
2. **Wiring Preparation:** Use appropriate gauge wiring for the input and output connections to handle the expected current. Strip insulation carefully, ensuring no stray strands.
3. **Input Connection (24V DC):**
  - Connect the positive (+) terminal of your 24V DC power source to the input positive terminal of the converter.
  - Connect the negative (-) terminal of your 24V DC power source to the input negative terminal of the converter.
  - **Ensure correct polarity. Reverse polarity will damage the unit.**
4. **Output Connection (48V DC):**
  - Connect the positive (+) terminal of your 48V DC load to the output positive terminal of the converter.
  - Connect the negative (-) terminal of your 48V DC load to the output negative terminal of the converter.
  - **Ensure correct polarity.**
5. **Secure Connections:** Double-check all wiring connections to ensure they are tight and secure. Loose connections can cause overheating and poor performance.
6. **Initial Power-Up:** After verifying all connections, apply power to the 24V DC input source. The converter should begin operation.



*Figure 1: Typical wiring diagram for the DC-DC Power Converter. Ensure correct polarity for input and output connections.*

## 6. OPERATING INSTRUCTIONS

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The VUBBJCRS DC-DC Power Converter is designed for straightforward operation once properly installed.

- Power On:** Once the input 24V DC power is supplied, the converter will automatically begin to regulate and output 48V DC. There are no external switches or controls for basic operation.
- Load Connection:** Connect your 48V DC load to the output terminals. Ensure the load's current draw does not exceed 10A.
- Monitoring:** Periodically check the converter for any signs of overheating or unusual operation. While the device has built-in protections, continuous monitoring is recommended, especially during initial use.
- Power Off:** To turn off the converter, disconnect the 24V DC input power source.

## 7. MAINTENANCE

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The VUBBJCRS DC-DC Power Converter requires minimal maintenance to ensure long-term reliable operation.

- Cleaning:** Keep the converter clean and free from dust and debris. Use a dry, soft cloth to wipe the exterior. Do not use liquid cleaners or solvents.
- Ventilation:** Ensure that the ventilation openings (if any) are not obstructed. Good airflow is crucial for heat dissipation.
- Connection Checks:** Periodically inspect all wiring connections for tightness and signs of corrosion or damage. Re-tighten if necessary.
- Environmental Conditions:** Ensure the operating environment remains within specified temperature and humidity ranges.

## 8. TROUBLESHOOTING

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If you encounter issues with your DC-DC Power Converter, refer to the following table for common problems and solutions.

Problem	Possible Cause	Solution
No output voltage	No input power Incorrect input polarity Loose connections Overload protection activated Internal fault	Check 24V input power source. Verify input wiring polarity. Inspect and tighten all connections. Reduce load; disconnect and reconnect power. Contact customer support.
Output voltage unstable or incorrect	Input voltage fluctuation Overload condition Poor connections	Ensure stable 24V input. Reduce load. Check and secure all wiring.

Problem	Possible Cause	Solution
Converter is overheating	Insufficient ventilation Excessive load High ambient temperature	Relocate to a better-ventilated area. Reduce load to within specifications. Ensure operating environment is within temperature limits.

## 9. SPECIFICATIONS

Parameter	Value
Model Number	SDS-24S4810
Input Voltage Range	20-36Vdc
Output Voltage	48Vdc
Output Current	10A (Max)
Rated Power	480W
Ripple Voltage	< 150mV
No-Load Current	< 30mA
Dimensions (L*W*H)	100mm x 80mm x 39mm
Weight	460g

*Note: Specifications are subject to change without notice.*

## 10. WARRANTY AND SUPPORT

VUBBJCRS products are manufactured to high-quality standards. For warranty information and technical support, please refer to the purchase platform or contact your retailer directly. Keep your proof of purchase for warranty claims.

For further assistance, please visit the VUBBJCRS official website (if available) or contact customer service through the channel where the product was purchased.