Pro Chaser 25A 300W (Model 2699029244)

Pro Chaser DC-DC 72V 60V 48V to 12V Step Down Voltage Reducer Regulator (25A 300W) User Manual

1. Introduction

This manual provides essential information for the safe and effective installation, operation, and maintenance of your Pro Chaser DC-DC Voltage Reducer Regulator. This device is designed to convert higher DC voltages (72V, 60V, 48V) down to a stable 12V output, suitable for various applications such as scooters, electric bicycles, golf carts, forklifts, and buses.

2. Safety Information

- **Read all instructions:** Before installation or operation, carefully read and understand all instructions in this manual.
- **Professional installation recommended:** If you are not experienced with electrical wiring, seek professional assistance.
- **Disconnect power:** Always disconnect the power source before performing any wiring or maintenance.
- **Proper ventilation:** Ensure the device is installed in a location with adequate ventilation to prevent overheating.
- **Avoid water exposure:** While the unit is robust, it is not fully waterproof. Avoid direct exposure to water or excessive moisture.
- **Correct voltage:** Verify that the input voltage of your system matches the supported input range of the converter (48V, 60V, 72V).
- **Polarity:** Always observe correct polarity when connecting wires to prevent damage to the device and connected equipment.

3. Product Overview

The Pro Chaser DC-DC Voltage Reducer Regulator is designed for reliable power conversion. Key features include:

- **Input Voltage:** 48V, 60V, 72V DC
- **Output Voltage:** 12V DC
- **Working Power:** 300W
- **Max Working Current:** 25 Amps

- **Construction:** Made of Aluminum Alloy for durability and heat dissipation.
- **Protection Features:** Internal short circuit protection, over-voltage protection, and thermal-load protection.

Figure 3.1: Pro Chaser DC-DC Voltage Reducer Regulator. This image shows the overall appearance of the voltage reducer, highlighting its compact design and aluminum alloy casing.

Figure 3.2: Device dimensions and wire labels. The image displays the physical dimensions of the converter (167mm/6.6" length, 88.2mm/3.5" width, 48.2mm/1.9" height) and labels for the input/output wires: Yellow (Output+), Black (Output-), Thin Black (Input-), Thin Red (Lock/Key Switch), Red (Input+).

4. Setup and Installation

Proper installation is crucial for the performance and longevity of the voltage reducer. Follow these steps carefully:

1. **Mounting:** Choose a secure, dry location for mounting the converter, away from direct heat sources and moisture. Ensure adequate airflow around the unit.
2. **Wiring Preparation:** Before making any connections, ensure the main power source to your vehicle or system is

completely disconnected.

3. **Input Connections:**
    - Connect the **Thick Red wire** to the **positive (+) terminal** of your high-voltage battery (48V, 60V, or 72V).
    - Connect the **Thin Black wire** to the **negative (-) terminal** of your high-voltage battery.
4. **Lock Wire Connection (Thin Red Wire):**
    - The **Thin Red wire** is the ignition/lock wire. Connect this wire to your vehicle's ignition switch or a separate switch that provides positive voltage when the system is ON. This allows the converter to be switched on and off with your vehicle.
    - **Important:** If your application does not have a lock switch, or if you prefer the converter to be always on when the main power is connected, merge the **Thin Red wire** with the **Thick Red wire** and connect both to the positive input end of your battery.
5. **Output Connections:**
    - Connect the **Yellow wire** to the **positive (+) terminal** of your 12V load (e.g., lights, horn, accessories).
    - Connect the **Black wire** to the **negative (-) terminal** of your 12V load.
6. **Secure Connections:** Ensure all connections are tight and properly insulated to prevent short circuits. Butt connectors are often provided for secure connections.
7. **Test:** Once all connections are made, re-connect the main power source and test the 12V output and connected accessories.

Figure 4.1: Wiring Diagram. This diagram illustrates the correct connections for the voltage reducer, showing input from the battery, the key switch connection, and output to the 12V load.

Figure 4.2: Included connectors and harness. This image shows the five butt connectors and the connect/disconnect harness, which simplifies installation and allows for easy removal if needed.

5. Operating Instructions

Once properly installed, the Pro Chaser DC-DC Voltage Reducer Regulator operates automatically:

- If the **Thin Red wire** is connected to an ignition switch, the converter will activate when the ignition is turned ON and deactivate when turned OFF.
- If the **Thin Red wire** is merged with the **Thick Red wire**, the converter will be continuously active as long as the main battery power is connected.
- The converter will maintain a stable 12V output for your connected accessories, provided the input voltage is within the specified range and the total load does not exceed 25A (300W).

6. Maintenance

The Pro Chaser Voltage Reducer is designed for minimal maintenance. However, periodic checks can ensure optimal performance:

- **Inspect Connections:** Periodically check all wiring connections for tightness and signs of corrosion. Re-tighten or clean as necessary.
- **Clean Unit:** Keep the exterior of the converter clean and free of dust or debris to ensure proper heat dissipation. Use a dry cloth for cleaning.

- **Environmental Conditions:** Ensure the operating environment remains within recommended temperature and humidity ranges.

7. Troubleshooting

Problem	Possible Cause	Solution
No 12V output	Input power not connected or low. Lock wire (Thin Red) not connected or not receiving power. Blown fuse in the input line (if applicable). Incorrect wiring polarity.	Check main battery connections and voltage. Ensure Thin Red wire is connected to an active ignition switch or merged with Thick Red wire. Inspect and replace any blown fuses. Verify all wiring connections match the diagram (Figure 4.1).
Output voltage fluctuates	Loose connections. Overloading the converter. Faulty input power source.	Check and secure all wiring connections. Reduce the load on the 12V output; ensure it does not exceed 25A (300W). Test the input battery voltage for stability.
Converter gets excessively hot	Insufficient ventilation. Overloading the converter.	Relocate the converter to an area with better airflow. Reduce the load on the 12V output.

8. Specifications

Brand	Pro Chaser
Model Number	2699029244
Input Voltage	48V, 60V, 72V DC
Output Voltage	12V DC
Working Power	300W
Max Working Current	25A
Item Dimensions (L x W x H)	167mm x 88.2mm x 48.2mm (6.6 x 3.5 x 1.9 inches)
Item Weight	1.2 Pounds (0.54 kg)
Material	Aluminum Alloy
Protection	Short circuit, Over-voltage, Thermal-load

9. Warranty and Support

Warranty: This Pro Chaser product comes with a manufacturer warranty for 90 days from the date of purchase. Please retain your proof of purchase for warranty claims.
Support: For technical assistance, troubleshooting, or warranty inquiries, please contact Pro Chaser customer support through the retailer where the product was purchased or refer to the official Pro Chaser website for contact information.