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> [AFERIY DC060 DC-DC Charger User Manual - 580W Fast Charging for 12V/24V Vehicles and 48V Portable Power Stations](#)

## AFERIY DC060

# AFERIY DC060 DC-DC Charger User Manual

Model: DC060

## 1. INTRODUCTION

Thank you for choosing the AFERIY DC060 DC-DC Charger. This device is designed to provide efficient and rapid charging for your 48V portable power stations from a 12V or 24V vehicle power source. With an input power of up to 580W, it offers significantly faster charging compared to standard car cigarette lighter chargers. This manual provides essential information for safe operation, installation, and maintenance of your charger.

## 2. SAFETY INSTRUCTIONS

- Read all instructions before using the charger.
- Do not expose the charger to rain, moisture, or extreme temperatures.
- Ensure proper ventilation during operation to prevent overheating.
- Do not attempt to disassemble or modify the charger. Refer all servicing to qualified personnel.
- Always connect the charger to a compatible power source and power station.
- Verify correct polarity before making connections to avoid damage to the charger or connected devices.
- Keep out of reach of children.

## 3. PRODUCT OVERVIEW

### Key Features:

- **Rapid Charging:** Up to 580W input power, providing significantly faster charging than conventional 12V car chargers.
- **High Compatibility:** Designed for 12V/24V vehicle systems and compatible with 95% of 48V DC portable power stations via Anderson connection.
- **Multiple Safety Protections:** Includes short-circuit protection, over-temperature protection, over-voltage

protection, and reverse polarity protection.

- **Smart Chip Technology:** Monitors voltage and automatically stops charging when the vehicle engine is off to prevent car battery discharge.
- **Active Cooling System:** Features dual-sided air circulation to maintain stable performance and prolong device lifespan, even in high temperatures.
- **Easy Installation:** Plug-and-play design with a 5-meter cable and Anderson connectors for straightforward setup.

## Components:

The AFERIY DC060 DC-DC Charger unit includes:

- DC-DC Charger Unit
- 5-meter (16.4 ft) Input Cable with Anderson Connector
- Output Cable (DC/PV Charging Cable with MC4 Output Cable)

# 48V DC-Ausgang

## Kompatibel mit 95% der Kraftwerke



\*Funktioniert nahtlos mit allen 48V-DC-Ladestationen und deckt 95% dieser Modelle ab.

Figure 3.1: AFERIY DC-DC Charger unit showing the power button and output ports, indicating 48V DC output compatibility.

## 4. SETUP

The AFERIY DC060 DC-DC Charger is designed for simple plug-and-play installation.

1. **Position the Charger:** Place the DC060 charger in a stable, well-ventilated area within your vehicle, such as the trunk or a storage compartment. Ensure it is not exposed to direct sunlight or excessive heat.

2. **Connect to Vehicle Power:** Connect the 5-meter input cable (with the Anderson connector) from the DC060 charger to your vehicle's 12V or 24V power source. This connection is typically made to the vehicle's battery or an auxiliary power outlet designed for high-power accessories. Ensure the connection is secure and correct polarity is observed.
3. **Connect to Portable Power Station:** Connect the output cable (DC/PV Charging Cable with MC4 Output Cable) from the DC060 charger to the 48V input port of your portable power station. The Anderson connector ensures a secure and compatible connection.



Figure 4.1: Illustration of the plug-and-play connection process, showing the 16.4ft input cable and output cables connecting the charger to a power station.

## 5. OPERATING INSTRUCTIONS

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1. **Start Vehicle Engine:** For optimal charging, ensure your vehicle's engine is running. The smart chip within the charger is designed to monitor vehicle voltage and will stop charging automatically if the engine is off to protect your car battery.
2. **Power On the Charger:** Press the power button on the DC060 charger.
3. **Monitor LED Indicator:** The charger features an LED indicator to show its status:
  - **Green LED:** Indicates normal operation and active charging.
  - **Red LED:** Indicates an error or fault condition. Refer to the Troubleshooting section.
4. **Charging Process:** The charger will begin to supply power to your connected 48V portable power station. The active cooling system will engage as needed to maintain optimal operating temperature.
5. **Charging Completion:** Monitor your portable power station's display for charging status. Once fully charged, the DC060 charger will automatically stop charging to prevent overcharging.
6. **Power Off:** When charging is complete or not needed, press the power button to turn off the charger. Disconnect the cables from both the power station and the vehicle.

# Echtes 6-mal Schnellladen

Max.: 580W Eingangleistung

AFERIY DC600 Ladegerät

580W max



Auto-Zigarettenanzünder-Ladegerät

96W max (12V/8A)

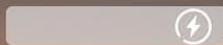


Figure 5.1: Visual representation of the AFERIY DC060 charger's rapid charging capability from a vehicle.

# Smart Chips überwachen die Spannung

Schützen Sie die Startstromversorgung des Motors



## Ladestopp

Wenn der Motor abgestellt wird

Die Ladeleistung nimmt ab, wenn die Autobatterie schwach ist

Präzise Steuerung, um ein Entladen Ihrer Autobatterie zu verhindern

Figure 5.2: Depiction of the smart chip technology that monitors voltage and manages charging to protect the vehicle's battery.

## 6. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the charger. Do not use liquid cleaners or solvents.
- **Storage:** When not in use, store the charger in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Cable Inspection:** Regularly inspect all cables and connectors for any signs of damage, wear, or

corrosion. Replace damaged cables immediately.

- **Ventilation:** Ensure the ventilation openings are clear of dust and debris to maintain efficient cooling.



Figure 6.1: The charger's active cooling system ensures stable performance even in high temperatures, contributing to its longevity.

## 7. TROUBLESHOOTING

If you encounter issues with your AFERIY DC060 DC-DC Charger, refer to the following:

- **Charger Not Powering On:**

- Check all cable connections to ensure they are secure.
- Verify that the vehicle's power source is active and providing sufficient voltage.
- Ensure the power button on the charger has been pressed.

- **Red LED Indicator:**

- A red LED indicates an error. This could be due to short-circuit, over-temperature, over-voltage, or reverse polarity.
- Immediately disconnect the charger from both the vehicle and the power station.
- Inspect all connections for correct polarity and any signs of damage.
- Allow the unit to cool down if it feels hot.
- Reconnect carefully, ensuring all conditions are safe. If the error persists, contact customer support.

- **Slow Charging:**

- Ensure the vehicle engine is running to provide optimal input power.
- Check that the cables are not excessively long or of insufficient gauge, which can cause voltage drop.
- Verify that the portable power station is capable of accepting the full 580W input.

- **Charger Stops When Engine Off:**

- This is a normal safety feature. The smart chip is designed to protect your vehicle's battery from discharge. Restart the engine to resume charging.

# Rundumschutz

Umfassende Sicherheit für Ihr Stromnetz



Kurzschlusschutz



Verpolungsschutz



Unterspannungsschutz



Übertemperaturschutz



Figure 7.1: The charger's comprehensive safety features protect both the device and connected equipment.

## 8. SPECIFICATIONS

Feature	Specification
Model	DC060
Input Voltage	12V / 24V DC (from vehicle)

Feature	Specification
Max Input Power	580W
Output Voltage	48V DC
Compatibility	95% of 48V Portable Power Stations
Connector Type	Anderson
Cable Length	5 meters (16.4 ft)
Safety Protections	Short-circuit, Over-temperature, Over-voltage, Reverse Polarity
Cooling System	Active Ventilation
Indicator	LED (Green: Normal, Red: Error)

## 9. WARRANTY AND SUPPORT

AFERIY products are manufactured to high-quality standards. For warranty information, please refer to the warranty card included with your product or visit the official AFERIY website. If you require technical assistance or have questions regarding your DC060 charger, please contact AFERIY customer support through the contact information provided on our website or your purchase platform. Please have your model number (DC060) and purchase details ready when contacting support.