

## Victron Energy CCH024016000

# Victron Energy Centaur 24-Volt 16 Amp 3 Bank Battery Charger

Model: CCH024016000

## 1. INTRODUCTION

---

This manual provides essential information for the safe and efficient operation of your Victron Energy Centaur 24-Volt 16 amp 3 Bank Battery Charger. The Centaur charger is designed for robust performance, featuring auto-ranging input and three isolated outputs for multi-battery setups. Please read this manual thoroughly before installation and use.

## 2. SAFETY INFORMATION

---

**WARNING: Incorrect installation can be hazardous. Please consult a licensed professional and follow all applicable electrical codes during installation.**

- Ensure the charger is installed in a well-ventilated area.
- Avoid exposing the charger to temperatures outside its operating range of -20 to 60°C (0 - 140°F).
- Maintain humidity levels below 95% to prevent damage.
- Do not attempt to open or repair the charger yourself. Refer all servicing to qualified personnel.
- Always disconnect power before making any connections or performing maintenance.

## 3. KEY FEATURES

---

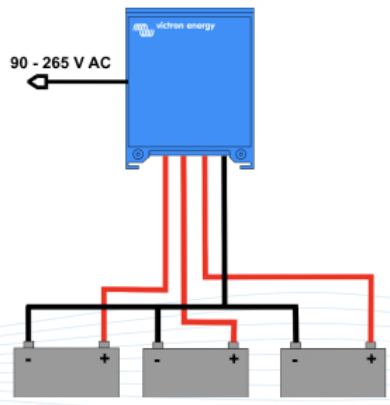
- **Auto-Ranging Input:** Covers 90-265VAC 50/60Hz, allowing use worldwide.
- **Three Isolated Outputs:** Capable of simultaneously charging up to three battery banks, with each output supplying the full rated current.
- **Three-Stage Charging:** Features bulk, absorption, and float stages with temperature compensation for optimal battery health.
- **Internal Temperature Sense:** Ensures power components operate within specified limits, automatically reducing output current under extreme environmental conditions if necessary.
- **Robust Construction:** Aluminium epoxy powder-coated cases with drip shield and stainless steel fixings provide durability in harsh environments, resisting heat, humidity, and salt air.


- **Corrosion Protection:** Circuit boards are protected with an acrylic coating for maximum corrosion resistance.

**THREE OUTPUTS**

## Three outputs that each can supply the full output current

Three isolated outputs to simultaneously charge 3 battery banks. Each output is capable to supply the full rated current.





**FEATURE**

## Three-stage charging, with temperature compensation

The Centaur charges at bulk rate until the output has reduced to 70% of the rated Amps, at which a 4 hour timer begins. After the timed period the charger switches to float rate. An internal temperature sensor is used to compensate the charge voltage with  $-2 \text{ mV}/^{\circ}\text{C}$  ( $-1 \text{ mV}/^{\circ}\text{F}$ ) per cell. A DIP switch is available to select the optimum charge/float voltages for Flooded Lead-acid, Gel or AGM batteries.

Figure 3.1: Overview of Centaur Charger Features

## 4. SPECIFICATIONS

Specification	Value
Brand	Victron Energy
Model Number	CCH024016000
Product Dimensions (D x W x H)	4.3" x 8.5" x 14" (110mm x 214mm x 351mm)
Item Weight	8.4 Pounds (3.8 kg)
Output Voltage	24 Volts
Input Voltage	90-265VAC (50/60Hz)
Current Rating	16 Amps
Number of Outputs	3
Battery Charge Time	4 Hours (absorption stage timer)
Operating Temperature	-20 to 60°C (0 - 140°F)
Humidity	Max. 95% (non-condensing)

## DIMENSIONS

# Compact size

Weight: 3.8KG / 8.4LBS



Robust  
technology



Global  
network



45 years of  
know-how



Figure 4.1: Centaur Charger Dimensions

## 5. SETUP AND INSTALLATION

Installation of the Centaur battery charger should only be performed by a qualified professional in accordance with all local and national electrical codes. Ensure proper ventilation and secure mounting of the unit.

The charger features three isolated outputs. Connect each output to a separate battery bank. The auto-ranging input allows connection to a wide range of AC power sources (90-265VAC, 50/60Hz) without manual adjustment.

THREE OUTPUTS

# Three outputs that each can supply the full output current

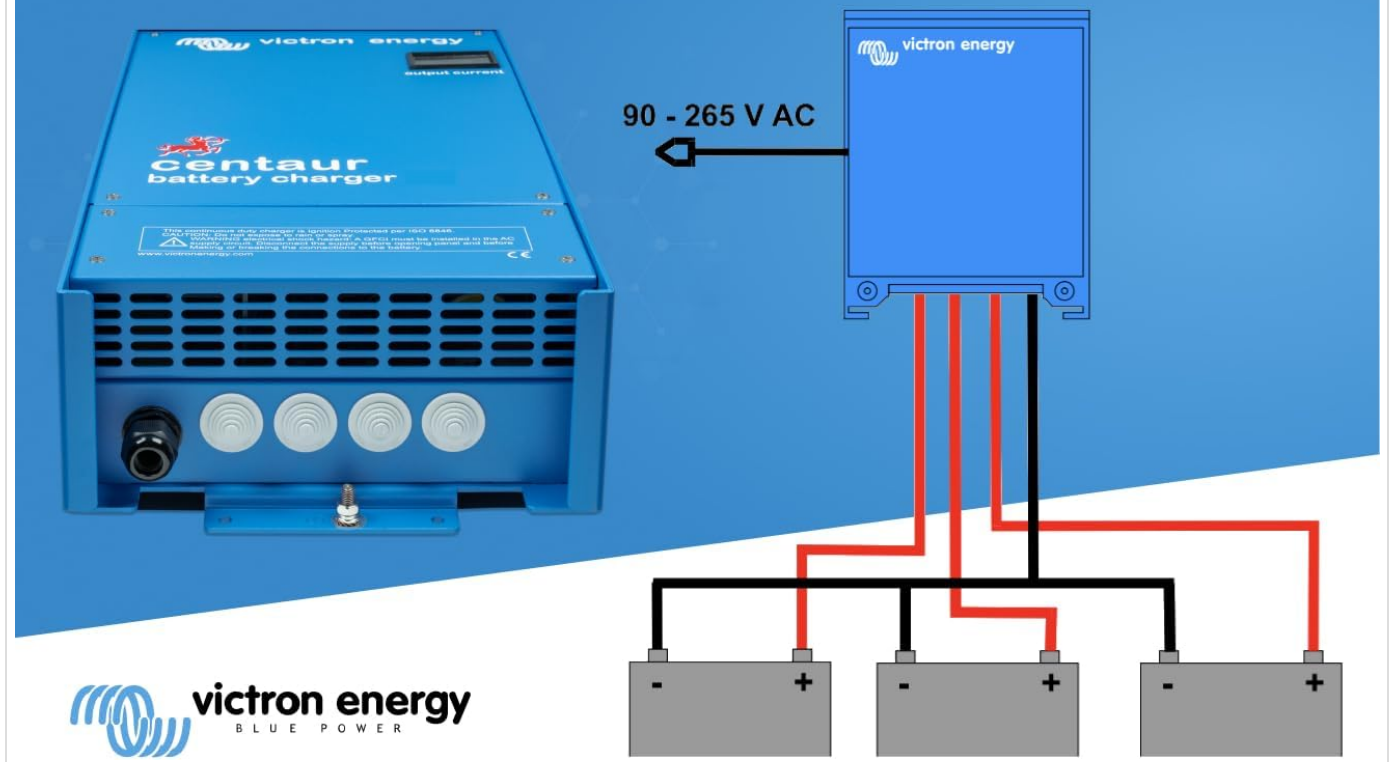


Figure 5.1: Connecting to Multiple Battery Banks

## 6. OPERATING INSTRUCTIONS

The Centaur charger employs a sophisticated three-stage charging algorithm to optimize battery charging and prolong battery life:

1. **Bulk Stage:** The charger delivers maximum current to rapidly charge the battery until the output current reduces to 70% of the rated Amps.
2. **Absorption Stage:** Once the bulk stage criteria are met, a 4-hour timer begins. During this period, the charger maintains a constant voltage to ensure the battery is fully charged. An internal temperature sensor compensates the charge voltage to prevent overcharging or undercharging based on ambient temperature. A DIP switch is available to select the optimum charge/float voltages for Flooded Lead-acid, Gel, or AGM batteries.
3. **Float Stage:** After the absorption stage timer concludes, the charger switches to a lower float voltage to maintain the battery at full charge without overcharging.

## 7. MONITORING

### 7.1. Victron Remote Management (VRM)

The Victron Remote Management (VRM) portal allows you to monitor, manage, and optimize your Victron Energy systems

remotely. It helps identify potential issues early by setting alerts and alarms. VRM is free and works with a GX-device (such as the Cerbo GX) with an internet connection or the GlobalLink 520 for smaller systems.

Your browser does not support the video tag.

Video 7.1.1: Introduction to Victron Remote Management (VRM) portal, demonstrating how to check remote systems at a glance, manage devices with simple controls, monitor system performance in detail, and design safety nets with programmable alerts and alarms.



Figure 7.1.2: Victron Remote Monitoring (VRM) Interface

## 7.2. VictronConnect App

The VictronConnect app allows you to configure, monitor, update, and diagnose your Victron product. It connects to Victron products via Bluetooth, USB, and WiFi/LAN/Internet, providing real-time data and control from your smartphone or tablet.

Your browser does not support the video tag.

Video 7.2.1: Demonstration of the VictronConnect App, showing how to instantly check key monitoring data, see device performance, stay on top with simple controls, and perform easy configuration, firmware updating, and commissioning.



Figure 7.2.2: VictronConnect App Interface

## 8. MAINTENANCE

---

To ensure optimal performance and longevity of your Centaur battery charger, follow these general maintenance guidelines:

- Regularly inspect the charger and its connections for any signs of damage, corrosion, or loose wiring.
- Keep the charger clean and free from dust and debris. Use a dry cloth for cleaning.
- Ensure adequate ventilation around the unit to prevent overheating.
- Periodically check battery terminals for cleanliness and tightness.

## 9. TROUBLESHOOTING

---

If you encounter issues with your Centaur charger, consider the following basic troubleshooting steps:

- **No Power:** Check the AC input connection and ensure the power source is active. Verify all fuses and circuit breakers.
- **No Charging Output:** Confirm battery connections are secure and correct polarity is observed. Check if the charger is in a fault state (refer to any indicator lights on the unit).
- **Overheating:** Ensure the charger has sufficient ventilation and is not obstructed. Verify ambient temperature is within operating limits.
- **Unusual Noises or Smells:** Immediately disconnect power and contact qualified service personnel.

For complex issues or if troubleshooting steps do not resolve the problem, contact Victron Energy support or a certified technician.

## 10. WARRANTY AND SUPPORT

---

The Victron Energy Centaur 24-Volt 16 amp 3 Bank Battery Charger comes with a **5-year warranty**. For warranty claims or technical support, please contact your authorized Victron Energy dealer or visit the official Victron Energy website for contact information and support resources.

Official Victron Energy Website: [www.victronenergy.com](http://www.victronenergy.com)

