

## FEATURES

- **Lightweight & Small Size**
- **Supports Lead-Acid, NiCad and Custom Charging Profiles**
- **USB and Ethernet Connectivity**
- **Internal Data Logging**
- **Easy Setup via Front Panel or Web Interface**
- **Reverse Battery Polarity and Output Transient Protection**
- **Efficiency of >87% Typ.**
- **Load Sharing/Redundancy Capable**
- **Meets AREMA 11.5.1 Design Criteria for Class C equipment**

## OVERVIEW

The Trilogy 12V, 40A Battery Charger is an efficient, lightweight battery charger and power supply capable of supplying up to 40A of current and up to 18 volts at up to 480W output power. It meets AREMA 11.5.1 Class C standards for wayside equipment.

The charger output can be programmed for float voltages from 10.5V to 18V, which allows charging batteries of various types and cell counts. Maximum output current is 40A and maximum power output is limited to 480W.

The charger supports remote battery voltage sense to provide precise control of charging voltage directly at the battery terminals. Additionally a battery current sensor can be optionally installed to control charge current to the battery.

## PROTECTION

The unit has a number of protection features, including:

- 60A output breaker with breaker-open alarm
- Battery reverse polarity protection
- Output over-current and battery over-current (with optional battery current sensor) fold-back
- AC input fuses (non-user replaceable)
- AC inrush current limiting, over-voltage clamping and under-voltage lockout

## FRONT PANEL INTERFACE

Front panel indicator LEDs provide indication of AC power present, overcurrent, charger fault, and charger over-temperature. Total current and battery current (with optional battery current sensor installed) are displayed on the 7-segment LED displays.



An integrated menu system uses the 7-segment displays and 4 buttons on the front panel to permit configuration and diagnostics of the charger, including setting up battery configuration and type, entering IP settings, and setting the charger's realtime clock.

## CONNECTIVITY

A 10/100 Ethernet port provides the following features:

- Web configuration and monitoring interface
- FTP interface for log file and configuration file access
- Realtime monitoring via SNMP
- Clock sync via SNTP
- Remote firmware update

A USB type-B port on the front panel provides read-only log file access via PC connection. A normally-open dry contact rated at 2A is provided to indicate charger health. Also provided is an RJ-45 serial port for connection to the Trilogy Products Battery Management System (BMS). The BMS provides a number of additional features including remote cell voltage sensing and battery health monitoring.

## ELECTRICAL SPECIFICATIONS

Input Voltage (switchable) \_\_\_\_\_ 108-132 or 208-264 VAC  
 Maximum Input Current \_\_\_\_\_ 6A  
 Output Voltage \_\_\_\_\_ 10.5 to 18V<sub>DC</sub>  
 Maximum Output Power \_\_\_\_\_ 480W  
 Min Operating Temperature \_\_\_\_\_ -40 °C  
 Max Operating Temperature \_\_\_\_\_ +70 °C  
 Alarm Relay Contact Rating \_\_\_\_\_ 2A

## MECHANICAL SPECIFICATIONS

Height \_\_\_\_\_ 11 in  
 Width (excluding mounting tabs) \_\_\_\_\_ 12 in  
 Depth \_\_\_\_\_ 3.6 in  
 Weight \_\_\_\_\_ 10 lbs

