

**FEATURES**

- **CEC Compliant. Efficiency of 90% Typ.**
- **Lightweight & Small Size**
- **NiCAD or Sealed lead Acid Charging**
- **USB, and Ethernet Connectivity**
- **Networkable with Data Logging**
- **PC App-Based Programming**
- **Reverse Polarity and Output Transient Protection**
- **Certified to AREMA C Standards**

**DESCRIPTION**

The Trilogy 24V, 720W Battery Charger is designed to be extremely efficient (90% typical) and light weight (less than 10 lbs.). It meets all the AREMA design criteria, Class C standards for temperature, shock and vibration, EMC and dielectric strength.

The charger output can be programmed from 20V to 36V, allowing for charging of various multi-cell batteries. For output voltages of 20V to 24V, max current is 30A and for outputs greater than 24V, the output power is limited to 720W.

The unit contains protection features such as a 60A DC output breaker and AC Input line fuses, inrush current limiting, AC over-voltage clamping, and EMI filtering of the AC mains. Custom software algorithms also provide protection of the output against over-current and over-voltage through a fold back mode and a shut down/auto restart mode.

The control board features a Form C relay to indicate several available alarms. There are 6 LED's that provide indication of AC Present, Over Current, Charger Fault, Over Temperature, Battery Current, and Total Current. The Ethernet Port programs the float voltage and AH rating of the battery as well as the battery type (NiCAD or Lead Acid).

Two sets of digital displays provide the user with the System Voltage, Battery current and Total current. The lower display toggles between Battery and Total Current. Two amber LED's toggle to indicate which is being displayed.

Battery temperature is measured and used to compensate charger voltage. The battery current is measured for precise, charging of the battery regardless of system current.

A USB and Ethernet Port are provided. These ports, along with a MicroSD card, real-time clock, and super capacitor, allow for a built-in data logger (optional). Algorithms can include date and time stamping of power failures, time on AC vs. battery, charging time, etc. A PC application allows the user access to the charging system parameters and monitors the charger in real time.



This charger also provides a Serial Port for use with the Trilogy Products Battery Management System (BMS). The BMS provides information to the charger about individual cell voltage for easy access to battery maintenance data.

**PROTECTION FEATURES**

- Under Voltage Lock Out (< 90V<sub>AC</sub>)
- Output Current, Voltage & Power Limit
- Over Temperature Fold Back & Shutdown

**ELECTRICAL SPECIFICATIONS**

|                                  |  |
|----------------------------------|--|
| Input Voltage (switchable) ..... | 108-132 or 208–264 VAC                 |
| Maximum Input Power .....        | 850W                                   |
| Output Voltage.....              | 20V <sub>DC</sub> to 36V <sub>DC</sub> |
| Maximum Output Power .....       | 720W                                   |
| Min Operating Temperature.....   | -40°C                                  |
| Max Operating Temperature .....  | +70°C                                  |
| Alarm Relay Contact Rating ..... | 2A                                     |

**MECHANICAL SPECIFICATIONS**

|                                      |        |
|--------------------------------------|--------|
| Height .....                         | 11 in  |
| Width (exclude's mounting tabs)..... | 12 in  |
| Depth.....                           | 3.6 in |
| Weight .....                         | 10 lbs |

**ORDERING INFORMATION**

| Item                      | Catalog Number |
|---------------------------|----------------|
| 24V, 720W Battery Charger | SiBC-24V-720W  |

