

Battery Boss - UC75

Smart Charger, 3.3V and 5V Regulator & Battery Protection System

Index Designs

Features

- 75 Watt Input Voltage Regulator.
- 3 Amp Intelligent Battery Charger.
- Provides uninterruptible DC outputs.
- Built in 3.3V @ 3.5 Amp, 5V @ 3.5 Amp, Battery Feed and up to 4 additional output voltages.
- Outputs are Short Circuit Safe.
- Input Fuses to protect Source and Battery



Applications

- Vehicle based monitor systems
- UPS for Industrial Equipment

- Ship Board Electronic Systems
- Solar Power Systems
- Remotely Controlled Power Supply

General Description

The Battery Boss UC75 is a multi-function power controller / UPS with built in battery charger, output regulators and electronic circuit breakers with remote control operation and monitoring. A 75 watt input regulator accepts a 2:1 input voltage range and provides CC/CV battery charging. A built in Real Time Clock provides weekly or monthly condition cycles as required by battery type.

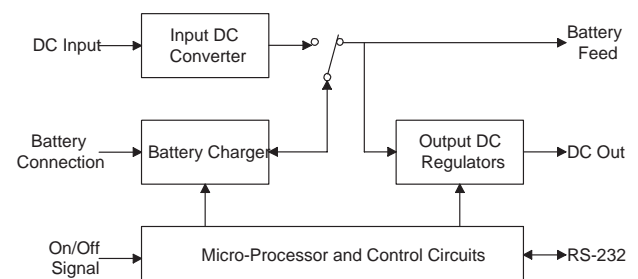
Up to 7 output voltages are provided. Internal DC DC converters provide 3.3V and 5.0 Volt outputs at 3.5 amps each. Battery voltage is provided through an electronic circuit breaker providing short circuit current limiting. Two optional "1/2 Brick" DC converter can be used to provide a total of 4 additional output voltages. Single output bricks provide isolated outputs.

Battery and Operating Options

The UC75 can be configured to control various battery chemistries, capacities and operating conditions. Charging current, voltage limits, load current limits and various timers can all be configured via EEPROM constants.

A built in RS-232 serial port allows a remote processor to read time and date, set "Auto-Wake Up" timers, monitor voltages and currents, activate a built in Watch Dog Timer and control overall system power. Power and battery failures are monitored and reported.

Block Diagram



The above block diagram shows input power, battery and basic output connections. Also shown are the On/Off control signals and RS-232 channel. Not shown are battery thermistor and optional "1/2 Brick" DC converters and connections.

Mechanical Information

Input Voltage Ranges	9-20V; 16-36V; 32-60V
Output Voltage Additional Connections	Battery Feed, 3.3@3.3A, 5@3.5A Two Optional DC Converter 5 - 15 Watts
Max. Output Power	75 Watts. Combined Output and Battery Charging total.
Size and Mounting Hole Location (Inches)	Size: 5.25 x 3.75 x 1.25 Inches 0.125 Mounting Hole with 4x40 Threads Hole Centers: 4.70 x 3.40 Inches