

## Single and Three Phase Switch-Mode Battery Chargers

### SMCR - II Series

With an integral battery impedance monitor that can assess the health of the battery *and* the integrity of its connections, the SMCR-II series is undoubtedly the most advanced battery management system of its kind.

Incorporating dual battery management capabilities including automatic battery testing, the SMCR-II prolongs battery life in any application. Highly reliable, robustly designed and with advanced communication facilities that enable full remote monitoring of the system, the SMCR-II is state of the art.

Available in single and three phase up to 25kw, and using ultra rugged phase controlled technologies, this series is ideal for all industrial applications including substation battery systems and DC UPS.

#### Product Features

- High Efficiency Switch-mode technology
- Versatile constant voltage and constant current charging modes
- Large LCD graphic display
- Comprehensive 11 parameter metering
- Batter impedance and capacity measurement
- Dual battery metering and testing facility
- Programmable battery current limit
- Precise adjustable temperature compensation
- Ideal for all battery types
- Full AS2293 user programmable alarms
- Single and dual battery testing capability
- Limp home feature guarantees operation even if microprocessor fails
- DNP3 Protocol
- Ethernet TCP/IP and Web-server
- Modbus TCP, RS232/485 Modbus
- Full data logging
- Revert to factory settings feature



The SMCR-II Display Panel

**SMCR - II Series - Technical Specifications**

Nominal Voltage	12V	24V	32V	48V	110V	220V
Nominal Current	5-200A	5-800A	5-600A	5-800A	5-320A	5-200A
Input Supply	Single phase 240V± 10% 50Hz ± 5% for output power < 5KVA Three phase 415V ± 10% 50Hz ± 5% for output power >5KVA					
Output Voltage	9-16V	18-35V	24-46V	40-68V	88-150V	180-270V
Noise and Ripple	< 0.5% for switch-mode, specified at full load and without battery connected					
Static Voltage Regulation	± 1% for 0-100% load variation, ± 10% AC input voltage variation and 5% AC input frequency variation without battery connected.					
Dynamic Voltage	5% for load variation of 10% to 100% or 100% to 10%					
Current Regulation	± 1%					
Protection	Input Circuit Breaker, Charger Output Fuse/Circuit Breaker, Charger Current Limit, Dual Battery Current Limit, AC Surge Suppression, Short Circuit Protection, Reverse Battery Polarity Protection					
Alarms	Mains fail, Charger Fail, DC High, DC Low, Under/Over Voltage Trip, Earth Fault, Low Electrolyte, Batter Disconnected, Battery Fail (including hi impedance), Battery Over Temperature, Blown Fuse, Common Alarm Relay, Common Alarm Buzzer <i>*All alarms are user programmable*</i>					
Metering	Charger Voltage, Charger Current, Load Voltage, Load Current, Battery 1 Charge/Discharge Current, Battery 2 Charge/Discharge Current, Battery Temperature, Battery Initial Impedance, Battery Ongoing Impedance, Battery Capacity, Battery Capacity Ratio <i>*Meter accuracy 1%*</i>					
Options	Voltage - free contacts for all alarms, Battery test facility, 3 Stage diode voltage limiter, DC distribution board					
Physical	free standing powder coated metal cabinet <i>*Dimensions depend on charger output rating and associated battery requirements*</i>					
Environmental	0-50°, up to 95% humidity					
Standards	AS 1955, AS 3000, AS 3100 AS 4044, AS 2069					
Serial Comm.	DNP3, TCP/IP, Web-server, RS232/RS485 Modbus					
EMC	AS 2064-1997					
MTBF / MTR	100,000 Hours / 4 Hours					
Efficiency	85 to 90% depending on nominal voltage and power rating					
Temperature Compensation	Programmable 3 - 6 mV / Cell / °					
Audible Noise	< 50 dB					
Limp Home Feature	Continuous operation in the event of control failure					
Revert to Factory Settings	Reinstates all original factory settings					

