



iMCR11 DC System

GREEN POWER

Unique and innovative utilisation of inverter H-bridge technology to produce DC power has created a highly reliable, industrial green battery charger with the ability to utilise the battery energy by recycling it back into the grid.

This charger has galvanic isolation from the mains through a transformer.

The system also has unity input power factor whilst retaining all advanced functionality of the MCR11 battery chargers.

With single and three phase input, this series is ideal for all industrial applications including substation battery systems, DC UPS and data centres.



FEATURES:

- Rugged IGBT technology.
- Unity Power Factor.
- Versatile constant voltage and constant current charging modes.
- Integrated battery testing facility by discharging into the grid.
- Programmable battery current limit.
- Ideal for all battery types.
- Full AS2293 user programmable alarms.
- Isolated RS232 or RS485, Ethernet, Modbus RTU, Modbus TCP, SNMP, Internal Webpage.
- Access facility software.
- Full data logging.



TECHNICAL SPECIFICATIONS

INPUT

Nominal Voltage	48VDC, 110VDC
Nominal Current	15-50A
Input Supply	Single phase 240V \pm 10% 50Hz \pm 5% for output power <5kVA
Three Phase	415V \pm 10% 50Hz \pm 5% for output power >5kVA (only for 110VDC)

OUTPUT

Output Voltage	42-55VDC, 88-150VDC
Noise and Ripple	<2% specified at full load and without battery connected.
Static Voltage Regulation	\pm 1% for 0-100% load variation, \pm 10% AC input voltage variation and 5% AC input frequency variation
Dynamic Voltage	5% for load variation of 10% to 100% or 100% to 10%
Current Regulation	\pm 1%

ENVIRONMENTAL

Temperature Range	0-60°C, up to 95% humidity
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SYSTEM

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, Battery Disconnected, Battery Fail, Battery Over Temperature, Blown Fuse, Common Alarm Relay, Common Alarm Buzzer *All alarms are user programmable*
Metering	Charger Voltage, Charger Current, Load Voltage, Load Current, Battery Temperature, Battery Capacity Ratio *Meter accuracy 1%*
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 *Dimensions depend on charger output rating and associated battery requirements*
Standards	AS 1955, AS 3000, AS 3100 AS 4044, AS 2069
Serial Comm.	Isolated RS232 or RS485, Ethernet, Modbus RTU, Modbus TCP, SNMP Internal Webpage.
EMC	AS 2064-1997
Efficiency	80 to 93% depending on nominal voltage and power rating
Temperature Compensation	Programmable 3 - 6 mV / Cell / °C
Audible Noise	< 55 DB
Revert to Factory Settings	Reinstates all original factory settings
Data Logging	3800 log entries