

NRC30

Powerful digital controller module for management of intelligent DC power systems

Key Features

- **Technology**

Advanced microprocessor technology;
CAN bus communication with rectifiers;
RS232 ports for user communication;
19" subrack mounting;

- **Mains monitoring**

Measurement of input mains voltage and frequency (single, or three phase);

- **Rectifier management**

Individual control of up to 31 rectifiers;
Automatic rectifier detection and configuration;

- **Battery charge control**

Three battery charge modes available: float, equalise and commissioning;
Comprehensive battery management capabilities with battery voltage, current and temperature measurement and event history log;
Programmable mapped float temperature curve for optimum battery charging;

- **Battery discharge control**

Two levels of low voltage detection to enable disconnect of essential or non-essential load;

- **Battery test**

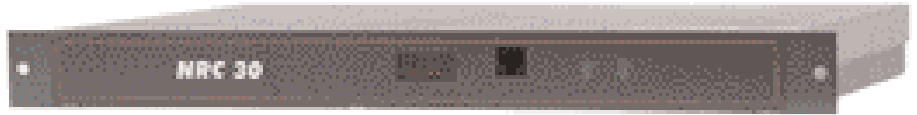
Battery discharge test with automatic/manual initiation;

- **Alarms**

Automatic detection of rectifier and system faults, with event history log;

- **Local and remote system alarm**

Software-configurable "Urgent" and "Non-urgent" alarm outputs;
System alarm reporting with six visible status indicators on front panel;
Six corresponding voltage-free fixed alarm outputs via rear connection for remote indication;



- **User communication**

System and alarm status available on front panel alphanumeric display;
Direct RS232 connection. Optional modem connection or TCP/IP gateway with NCS unit;
Win30, Windows™ - compatible supervision software as standard;
Optional web-based Java viewer available for use with NCS;

- **Access security**

System security via password protected, multi-level access;

- **Approvals**

CE marked.

For use in systems:

MTP1800iC, MTP2800iC, MTP2800iHP

For use with rectifiers:

SMi1800, SMi2800

For use with software:

Win30

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SPECIFICATION

Input	
Input voltage	18 - 60Vdc
Nominal current	300mA (48V input)
Mains monitoring	
Voltage	Single or three phase; Input range 0-306Vac L-N
Frequency	0-65Hz, resolution 0.1 Hz
DC monitoring	
Load current measurement	Analogue input. (Current shunt connection)
Battery current measurement	Analogue input. (Current shunt connection)
Voltage measurement inputs	Four analogue inputs for battery tapping point measurement.
Protection	
Input	Internal input fusing
Connections	
Alarm outputs	Two software configurable volt-free changeover relay contacts (AC mains rated), plus 6 fixed alarm outputs. (volt-free changeover relay contacts – 60Vdc rated)
Contact breaker inputs	Three opto-isolated inputs for detecting system contact breaker status. (22-60V input range)
Low voltage disconnect	LVD1 drive/feedback -controls battery low voltage contactor, LVD2 drive/feedback -controls non-essential load contactor
Communication	
Standard	Direct RS232 connection. ANSI T1.317 communications protocol utilised. Win30 Windows interface software package available
Options	Modem for remote connection. TCP/IP Gateway with NCS option or SNMP via Java Viewer
Battery management	
Battery charge modes	Float, Equalise, Commissioning, (Configurable float temperature compensation (FTC) curve), Four battery tapping points for monitoring of cell/string voltage balance
Battery test	Automatic programmable, or manually triggered battery test, (Test undertaken at constant discharge current)
Mechanical specification	
Dimensions	44.4mm (1U) H, 445mm (19") W, 155mm D
Weight	1.9kg
Mounting	19" rack
Environmental	
Operating temperature	-15°C to +50°C ambient.
Extended operating temperature	-40°C to -15°C and +50°C to +70°C (with reduced accuracy)
Altitude	0-4000m operating.
Standards	
Safety	EN60950, IEC60950
EMC	Emission: EN55022-Class B, EN61000-3-2/3-3, EN61000-6-3/6-4 Immunity: EN61000-6-1/6-2, ANSI C62.41
Telecom networks	EN300386, EN300132-2
Environment	EN300019 (Transportation, storage and operation)
Acoustic noise	ETS 300753