NRC50
Powerful and expandable digital controller module for management of digital and analogue DC power systems

KEY FEATURES
» Advanced microprocessor technology with CAN Bus system communications
» Five extension slots for expansion boards
» Individual control of up to 120* digital rectifiers or 64* analogue rectifiers
» High visibility, 4-line alphanumeric display or optional graphical display
» Measurement of network mains voltage, frequency and current* (single, or three phase)
» Multiple branch, battery connection test
» Comprehensive battery management capabilities for up to 6 branches, with battery voltage, current and temperature measurement, event history log and battery type selection*
» Mapped Float Temperature Compensation curves for optimum battery charging
» Float and equalize battery charge modes, with charge current limitation and programmable switching conditions
» Battery discharge test with configurable test parameters and timed intervals
» Battery symmetry test
» Advanced battery life counter
» Low voltage disconnect (LVD) for up to 6 battery branches
» Non essential load disconnect
» Alarm Manager with configuration/management of 200 predefined alarms
» Event history log with full time stamping
» System security via password protected, multi-level access
» Equation interpreter for total customer flexibility in alarm condition definition and configuration
» Local and remote system alarm reporting with Modem* autodial-out facility
» TCP/IP* connection, SNMP management available, email alert, http access
» MOD BUS*-J BUS* connection
» Win50, WinSite, Windows compatible supervision software
» CE

*Optional expansion boards

For use with rectifiers
SM1800, SM2000, SM5700
For use with PC softwares
Win50, WinSite
### Input supply voltage
18 - 80Vdc

### Nominal current
1.5A (48V input)

### Battery Charge Modes
- Float, Equalize (Charge modes have configurable Float Temperature Compensation curve (FTC) and di/dt charge limiting)
- Automatic programmable, or manually triggered battery test
- (Test undertaken at constant discharge current)
- Multiple branches battery connection test with configurable parameters
- (manually & automatically triggered)
- Battery symmetry test
- Advanced battery life counter with ambient temperature integration
- Battery history log

### Battery Test
- Automatic programmable, or manually triggered battery test
- Multiple branches battery connection test with configurable parameters
- Advanced battery life counter with ambient temperature integration
- Battery history log

### CONNECTIONS

#### Digital outputs
- 8 relay outputs: (expandable to 40) 80V/300mA

#### Alarm outputs
- 4 software configurable volt-free changeover relay contacts: 250Vac/4A

#### Analogue output
- 1 opto-isolated analogue output: -15V to +15V max. (software programmable limits)

#### Digital inputs
- 16 opto-isolated inputs: (expandable to 80) 0-5Vdc (12-70Vdc available via external interface board)

#### DC voltage measurement
- 2 voltage measurement inputs 0/60V or 0/5V link selectable

#### AC voltage measurement
- 3 voltage measurement inputs 0/20Vac

#### Communication ports
- 1 isolated RS485 or RS232C link selectable

#### DC current measurement
- 2 current + sign measurement inputs -50 mV/50mV, -100 mV/100mV 0/5 link selectable
- 2 current measurement inputs 0/50mV, 0/100mV, 0/5V link selectable

#### Temperature measurement
- I2C port, up to 8 sensors

### MAINS MEASUREMENT

#### Voltage
- Single or three phase; range 20Vac

#### Frequency
- 0/60 Hz

#### Current (option)
- Single or three phase

#### Communications
- Direct through RS242/RS485, connection ports, optional modem* or Ethernet board*
  (*Win50 Windows interface software package available)

### MECHANICAL SPECIFICATION

#### Dimensions
- 88mm (2U) H, 445mm (19") W, 245mm D

#### Weight
- 2.5kg to 3.6kg* (optional expansion boards)

### ENVIRONMENTAL

#### Cooling
- Natural convection cooling

#### Operating temperature
- -10°C to +60°C

#### Storage temperature
- -40°C to +70°C

#### Humidity
- 0% to 95% non condensing

#### Altitude
- 0 - 4000 m operating

### STANDARDS

#### Safety
- EN60950

#### EMC
- Emission: EN61000-6;4.3.6.2 - Immunity: EN61000-6;1.6.2

#### Telecom networks
- EN301088-2 - 301132-2

#### Environment
- EN300419:2009 (transportation storage and operation)
- ROHS Directive on Restriction of use of certain Hazardous Substances
- WEEE directive on Waste Electrical and Electronic Equipment

#### Approvals
- CE

### AVAILABLE CONFIGURATIONS

#### Product references
- NRC50 Alphanumeric display

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For further information please refer to:
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