

# NetSure™ Control Unit (NCU)

M830B, M830D



## Benefits

- Easily monitor and adjust system parameters with a simple, graphic user interface accessed through an on-board color display or web pages supported by all major browsers.
- Numerous connectivity options that support integration into a wide variety of networks – IPv4, IPv6, Modbus, SNMP, TL1, EEM, YDN23 and dual network port option for permanent and local craft port connections.
- Leverage advanced battery and generator management controls, including soft start, time controls, starter battery check with recharge, bad-grid equalization recovery, current limiting, fuel monitoring with theft alarms and support for multiple battery technologies, including lithium.
- Rapidly turn-up system with easily uploaded/downloaded pre-programmed configuration files.
- Decrease energy costs by effectively managing multiple energy sources such as generators and solar panels.

*The advanced NetSure™ Control Unit (NCU) from Vertiv™ takes remote monitoring and control to the next level with a user-friendly color interface, secure connectivity, data statistics and multiple communication options.*

## Description

The NetSure Control Unit (NCU) is an advanced controller designed for a wide range of DC power applications, enabling remote monitoring and control of modern communication sites. The factory-installed (standard) or field-added NCU is backward compatible with existing NetSure power systems, controlling all aspects of the power chain, including AC mains, DC power plant, battery backup, diesel generator, and the local site environment. The addition of optional interface boards enables the user to access an even greater set of site parameters.

Battery management features include temperature compensation, thermal runaway management, recharge current limit, reserve time prediction, and optional midpoint monitoring. Battery testing options include scheduled battery testing and short duration battery testing. Thresholds for battery current measurement, detailed alarms, inventory management and three LVD levels can be programmed easily through the controller. Control of rectifiers (24V, 48V and 400V) and converters (24V, 48V, 400V and solar) is possible in this convenient pluggable module.

Expanded information and alarm data can be monitored or controlled via password protected and encrypted web browsers, including Internet Explorer, Firefox, Google Chrome, and Apple Safari.

Network element management support for data communication is also available via standard protocols, such as SNMP version 2 or 3, or Modbus. In addition, Modbus device integration for many industry standard monitoring devices is now possible with the versatile NCU controller.

Patented Intelligent Load Management from Vertiv enables you to see power usage down to the fuse or circuit breaker level. To prevent site overload, load levels of each rack can be measured in relation to rack capacity. Rack load monitoring requires optional system distribution measurement devices for the fuse or circuit breaker positions.



M830B



M830D

## Technical Specifications

### General

Power Supply	19 VDC to 60 VDC
Power Consumption	18 W maximum, 4W typical

### Environmental

Operating	-20°C to +65°C (nominal), -40°C to +75°C (extended conditions) / -4°F to +149°F (nominal), -40°F to +167°F (extended conditions)
Relative Humidity	0 to 90%

### Safety and Standards Compliance

Electrical	IEC 60950-1, EN 60950-1, UL 60950-1
EMC	EN 300 386, 2001 Class B; FCC Part 15, Class B
Environmental	CE; NEBS Level 3

### Mechanical Data

#### M830B

#### M830D

Dimensions (H x W x D)	43.4 x 86 x 208 (mm) 1.65 x 3.41 x 8.33 (inches)	86.2 x 87 x 208 (mm) 3.41 x 3.42 x 8.33 (inches)
Standard Installation Methods	Hot pluggable in stand-alone or embedded power plants	
Weight	1 kg / 2.2 lbs.	

### Inputs/Outputs

#### M830B

#### M830D

Display	128 x 160 Pixels TFT LCD	320 x 240 Pixels TFT LCD
Communication	RS232, RS485, Ethernet, USB (for software upgrades)	
Protocol	IPv4, IPv6, HTTPS, SNMP V 2/ V 3, EEM, SocTpe, Rsoc, Modbus	
Analog Inputs	2 battery currents, 1 load current, 1 bus voltage, 2 battery voltages, 2 temperatures, fuel level sensor and much more with additional interface boards	
Digital Inputs	1 input for status of surge protective device auxiliary contacts, 12 load fuses, 6 battery fuses, bi-stable contactor status	
Outputs	3 LVD mono or bistable contactors	



NetSure™ Control Unit User Interface



Web Interface Home Page

## Ordering Information

Model	Model Number	Description
M830B	1M830BXX	NCU3.0+ controller, 1 x 2 RU
M830D	1M830DXX	NCU3.0+ controller, 2 x 2 RU

### Optional Interface Board

EIB	5 relay outputs, 8 DC voltages, 3 DC currents, 2 temperatures
IB1	4 relay outputs, 4 digital inputs
IB2	8 relay outputs, 8 digital inputs, 2 temperatures
IB4	1 additional Ethernet port

### Supervision Modules

SMDU	4 shunts, 1 voltage input, 20 fuse alarms, and 2 LVD controls
SMDU+	25 shunts, and 25 fuse alarms
SMTEMP	Temperature concentrator with up to 8 temperature sensors
SMDUH	20 Hall effect sensors to measure DC distribution load current from 0 A to 100 A

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