

Key Features

- The installation space and cost can be saved due to its small size and embedded installation.
- Wide input voltage range(85-300Vac), strong ability in adapting power grid.
- Rectifier working temperature range: -40 ~+80°C.
- Supports ECO sleep technology, that optimizes system efficiency.
- Efficiency of the rectifier is above 96%, efficiency of the system is above 95%.
- Intelligent battery management system, which prolongs the working life of the battery.
- Provide multiple communication ports such as RS232, Ethernet port, dry contacts, etc, for flexible networking to achieve remote monitoring.

Applications

- Power supply for LTE in-building solutions
- Power supply for FTTx broadband multi-solutions
- Power supply for macro station and outdoor cabinet

Description

The Netsure™ 531 series from Vertiv is a fully-integrated DC power system consisting of a rectifier and controller that provides maximum efficiency for mobile communication applications such as LTE and FTTx deployments or macro stations. It is designed to meet the high-efficiency demands of mobile applications, with high reliability, high power density, and fully digital features. The built-in high efficiency R48-2000e3 rectifier also provides an ultra high efficiency of up to 96%, significantly improving the energy efficiency.



NetSure™ 531 A41



NetSure™ 531 A91

System Configuration

Configuration		NetSure™ 531 A41	NetSure™ 531 A91
System Capacity		8kW	18kW
Controller		M221S / M222S / M830B	
Rectifier		Max: 4 x R48-2000e3	Max: 9 x R48-2000e3
AC Distribution	Input	1x63A/2P	1x63A/4P
	Output	1x16A /1P	
Battery Capture		2x63A/1P	2x125A/1P
DC Distribution	BLVD	2x16A/1P	5x63A/1P, 5x32A/1P, 8x10A/1P
	LLVD	2x63A/1P, 2x32A/1P	
Lightning Protection		C-level lightning protection at AC side, D-level lightning protection at DC side and signal side	
Dry Contact		3 alarm inputs, 4 alarm outputs (8 alarm outputs is optional)	
Optional		Top Cover, Temperature Sensor, Battery Rack	

Rectifier

Configuration

Model

Efficient Module	R48-2000e3
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Electric Parameters

Descriptor

Input Voltage	85 VAC ~ 300VAC
Power Factor	≥0.99
Efficiency	>96%
Output Voltage	-42Vdc ~ -58Vdc
Nominal Voltage	-48Vdc
Rated Voltage	-53.5Vdc



R48-2000e3

Controller M221S/M222S/M830B

M221S

M222S

M830B

Display		LCD with 8x16 characters	128 x 160 pixels TFT LCD
Communication Interface	RS232, ETHERNET	RS232	Rs232, RS485, Ethernet, USB
Protocol	HTTP, SNMP, YDN23	YDN23	IPv4, IPv6, HTTPS, EEM, SNMP V2/V3, SocTpe, Rsoc, Modbus
Inputs	Analog	1 battery currents, 1 bus voltage, 1 battery voltage, 2 temperatures, 4 midpoint battery voltage	2 battery currents, 1 load current, 1 bus voltage, 2 battery voltages, 3 temperatures, 1 fuel sensor and much more with additional interface boards
	Digital	2 load fuses, 4 battery fuses, 1 bi-stable contactor status, 4 user inputs(Optional, need extra board) load fuse and battery fuse can be configured as midpoint battery voltage, load fuse and battery fuse	1 input for status of SPD auxiliary contacts, 12 load fuses, 6 battery fuses, bi-stable contactor status
Outputs		1 LVD mono & bistable contractors, 1 LVD mono contactor, 8 user relay outputs (Optional, need extra board)	3 LVD mono & bistable contractors



M221S



M222S



M830B

Mechanical Parameters

NetSure™ 531 A41

NetSure™ 531 A91

Structure	19 inches(W), 4U(H)	19 inches(W), 8U(H)
Dimensions (W x D x H) in mm	483 x 310 x 178	483 x 310 x 356
Weight (kg)	≤25 (exclude rectifier and controller)	≤40(exclude rectifier and controller)