NetSure™ 5100 Series

48V DC Power System – 6 kW to 24 kW Subrack

Key Features

- High Efficiency — 96.2% efficient eSure™ rectifiers ensure optimized total cost of ownership
- Wide Operating Temperature Range — -40 °C to +80 °C, up to +65 °C without derating, enabling CapEx and OpEx savings on climate systems in outdoor applications
- Decreases CapEx — supports up to three load disconnect levels (LVD) enabling optimization of battery capacity
- ECO Mode — an innovative function that enables significant energy savings, even at low load operation
- Remote Access — monitoring through web browsers, TCP/IP & SNMP as standard; supports remote access via GPRS/3G/4G modems
- Battery Management - automatic battery tests in conjunction with battery midpoint or block voltage monitoring ensures early detection of battery problems

NetSure™ 5100 Series is designed for wireless access and fixed network applications offering unmatched temperature performance and high power density.

Description

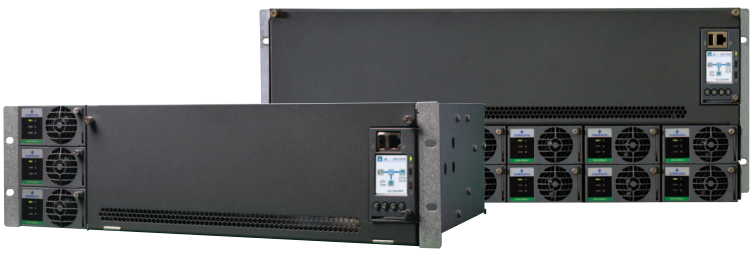
The NetSure™ 5100 Series, a compact 48 volt DC power solution, features a standard or advanced control unit, up to (12) 2000 W high-efficiency eSure™ rectifiers and a multi-function battery and distribution connection unit. The integrated power shelf supports 19" and 23" rack mounting and is available in a number of configurations, designed to work with a wide range of applications. The distribution section supports up to (72) 2 A to 200 A circuit breakers, configured for load or battery breaker. Multiple LVD levels are supported, allowing load prioritization in up to three steps. Prioritized load disconnect can result in significant savings on the back-up battery investment.

Standard remote monitoring and software upgrades are available through web browsers, TCP/IP and SNMP. Access via GPRS/3G/4G modems is also supported.

NetSure™ DC Power systems from Emerson offer extremely low failure rates, as well as low total cost of ownership. The 2000 W eSure™ rectifier delivers peak system efficiency above 96%. Maximum value is achieved by an advanced energy optimization function known as ECO mode, enabling significant energy savings even at low loads.

Application

NetSure™ 5100 Series DC power systems are designed for deployment in telecom access network applications requiring a reliable and high power density supply up to 24 kW at 48 VDC. The high operating temperature (+65 °C) in conjunction with high operational efficiency has a positive impact on climate system dimensioning in outdoor enclosure applications. The DC power system is designed for insertion into EQ zone 4 compliant cabinets.



NetSure™ 5100 Series 6 kW, 19" Rack (left)
NetSure™ 5100 Series 24 kW, 23" Rack (right)

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Technical Specifications

	19-inch Rack			23-inch Rack	
Input	**6 kW**	**10 kW**	**20 kW**	**12 kW**	**24 kW**
Nominal	Single phase: 220 VAC to 240 VAC 3-phase: 380 VAC to 415 VAC				
Operational	Single phase: 85 VAC to 300 VAC 3-phase: 147 VAC to 520 VAC				
Frequency	45 Hz to 65 Hz				
Input Connections	Terminal strip or circuit breaker				
Surge Protection Device	Optional in configurations with input AC MCB				

Output					
Nominal	-48 VDC				
Adjustable Range	-42 VDC to -58 VDC				
Power	3 x 2 kW	5 x 2 kW	10 x 2 kW	6 x 2 kW	12 x 2 kW
Main Unit DIN Rail MCB Space for Battery, Load & AC	304 mm	391 mm		485 mm	
Extension Unit DIN Rail MCB Space for Load & AC	N/A	436 mm		530 mm	
27 mm Thermal Magnetic MCB's	80 A to 125 A				
18 mm Thermal Magnetic MCB's	3 A to 63 A				
13 mm Hydraulic Magnetic MCB's	2 A to 200 A				

Physical Characteristics					
Mounting	Standard 19" rack mounting			Standard 23" rack mounting	
Dimensions (H x W x D)	133.5 mm (3 U) x 482 mm x 330 mm	177.8 mm (4 U) x 482 mm x 367 mm	222.3 mm (5 U) x 482 mm x 367 mm	177.8 mm (4 U) x 578 mm x 367 mm	222.3 mm (5 U) x 578 mm x 367 mm
Weight (basic unit without rectifiers)	7 kg	17 kg	23 kg	19 kg	25 kg
Accessibility	Top cabled with front access				
Back Cover	Included				
Top Cover	Optional				

Environmental		
Temperature Operating Window	-40 °C to +80 °C	
Temperature Operation, Non-Derated	-40 °C to +65 °C	-40 °C to +55 °C*

* 12 kW system: -40 °C to +65 °C up to 10 kW load, 24 kW system: -40 °C to +65 °C up to 20 kW load

Standards Compliance	
Safety	EN 60950-1, CE
EMC	ETSI EN 300386 class B
RoHS 6	Compliant
REACH	Compliant

Ordering Information

Catalog Number	Part Number	Description
NetSure 5100	BMK110x...x*	48 VDC system, fully configured
R48-2000e3	BML440033/1	Rectifier, 2 kW, high efficiency, refer to separate data sheet
M521B	BMP903080/1	Standard control unit (SCU+), refer to separate data sheet
M820B	BMP903090/1	Advanced control unit (ACU+), refer to separate data sheet

* "x...x" to be determined upon request.

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