NETSURE™ 7100 & NETSURE™ 8100

Multi Cabinet DC Power Series

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KEY FEATURES

- Multi cabinet -48 VDC power systems can be expanded to 2,8 MW for telecom and datacom equipment located in close proximity

- Easily adapt to new load requirements with removable cabinet side panels, hot-swappable distribution units

- Individual current measurement feature displays current reading for each fuse/circuit breaker

- Avoid downtime by predefining alarm threshold values and balancing the load in advance

- Site energy consumption mapping displays energy consumption for each DC power fed server rack

- Cabinet efficiency >99,7% from rectifier output to distribution output enabling maximum system efficiency >96,2% from grid to load

The multi cabinet NetSure™ 7100 and NetSure™ 8100 DC power platform is designed to provide plenty of expandable power and space for load distribution in core site environments where power demand is constantly changing.

Improving reliability
Where constant migration and change is the norm

The NetSure 7100 and NetSure 8100 Series of multi cabinet DC power systems delivers outstanding reliability within a modular, scalable cabinet platform. Power is scaled in modules of either single phase 3,5 kW increments up to 42 kW or three phase 5,8 kW increments up to 46,4 kW per cabinet. Distribution units can be added, swapped or removed on live sites, making system expansion a standard procedure. Power supply extensions can be made safe and easy to match constantly changing load requirements, without compromising reliability.

Minimizing energy loss
Save operating costs and non-renewable resources

The NetSure 7100 and NetSure 8100 Series minimizes power conversion energy losses, reducing heat dissipation and lowering energy consumption — both on the power supply and the cooling system. Cabinet infrastructure efficiency is greater than 99,7% from rectifier output to breaker output with maximum system efficiency just over 96,2% from grid to load. The NetSure 7100 systems are equipped with eSure rectifiers that offers high efficiency operation under all load conditions. Rack load measurement and site energy consumption mapping warn of site load distribution inefficiencies and possible hotspots.

Securing availability
Instead of deploying costly excess capacity up-front

The multi cabinet platform offers plenty of expandable power for load distribution, while minimizing site cabling and voltage drop from grid to load. This system is expandable to 2,8 MW and designed to be placed in close proximity to telecom and datacom equipment. With intelligent load management there is no need to install excess capacity up-front to cover for load build-ups and potential overloads. Each load can be monitored and measured down to the distribution, fuse and circuit breaker level. With this detailed information the NetSure Control Unit will provide early warnings before any potential overload. This means that actions to avoid failures can be taken upfront. Site load can continuously evolve while power supply is extended incrementally, without compromising system reliability and power availability.

Application

Designed for medium sized central office telecom and data center applications, this multi cabinet DC power platform is ideal for replacing less power efficient solutions at sites where power expandability, efficiency, and availability are critical. When frequent load changes require access to multiple distribution units and backup proximity close to the load, the multi cabinet NetSure 7100 and NetSure 8100 Series is the answer.

*NetSure 7100
Multi Cabinet System*

Technical Specifications

AC INPUT	NETSURE™ 7100	NETSURE™ 8100
Range	Single phase: 85 VAC to 305 VAC (Nominal: 200 VAC to 277 VAC)	3 phase: 260 VAC to 530 VAC (Nominal: 346 VAC to 415 VAC)
Line Frequency	50 or 60 Hz (45 Hz to 65 Hz)	
Connections	Terminal or distribution for up to 12 circuit breakers	
Surge Protection	Optional	

DC OUTPUT		
Adjustable Range	-42 VDC to -58 VDC (Nominal: -48 VDC)	
Power, Maximum	42 kW (12 x 3,5 kW rectifier modules per cabinet)	46,4 kW (8 x 5,8 kW rectifier modules per cabinet)
	Total system power up to 2,8 MW	
Efficiency, Peak	96,3% eSure™ R48-3500 rectifier	96,2% eSure™ R48-5800 rectifier

DC SYSTEM UNITS		
Distribution Units	Available for circuit breakers, cartridge fuses, NH00 fuses, NH2 fuses	
Circuit Breakers	From 2 A up to 200 A	
Fuses	NH00-80V (up to 600 A) and NH2 (up to 400 A)	
Intelligent Load Management	Optional, equipment for all distribution units	
Battery Connections	Up to 5 x 300 A or 4 x 400 A circuit breakers, Up to 3 x (500 A to 630 A) fuses	

PHYSICAL CHARACTERISTICS		
Mounting	Top and bottom cabling	
Dimensions (H x W x D)	2020 mm x 600 mm x 600 mm (per cabinet)	
Weight	Up to 200 kg per cabinet (fully equipped)	
Access and Security	Front access, IP20, door with lock as option	

ENVIRONMENTAL		
Temperature Range, Operating	-5 °C to +60 °C (full power up to 40 °C)	
Relative Humidity, Operating	<90%	
Altitude	2000 m	
Audible Noise	59dB for R48-3500e3	60dB for R48-5800e
Ventilation	Forced ventilated (rectifier fans)	

SAFETY AND STANDARDS COMPLIANCE		
Electrical	CE EN60950-1	
EMC	EN 300 386-2, Class B	
Environmental	REACH, RoHS 6	

OVERVIEW

NetSure 7100 Multi Cabinet Main Cabinet

1 Battery Connection Unit
2 Control Unit
3 Load Distribution Units with Fuses
4 Load Distribution Unit with CB
5 AC Distribution Unit
6 eSure 3500 W Rectifiers

Ordering Information

MODEL NUMBER	PART NUMBER	DESCRIPTION
—	BMK220A11	Multi cabinet NetSure 7100 DC Power system
—	BMK220A01	Multi cabinet NetSure 8100 DC Power system
1R485800E	BML403123/1	5,8 kW eSure rectifier, high efficiency
1R483500E3	BML440068/1	3,5 kW eSure rectifier, high efficiency
M830D	BMP903100/2	NetSure Control Unit