



Vertiv™ NetSure™

7100 Series

Highly Reliable and Efficient

48V DC Power System



Vertiv™ NetSure™ 7100 Series

The Vertiv™ NetSure™ 7100 A61 showcases the new platforms of higher power densities, designed to deliver reliable and uninterruptible DC power for the telecom access applications. The system composes AC & DC distribution unit, rectifier modules, control module, and lightning protection unit. All these components are intelligently engineered to deliver the highest reliability, highest efficiency, and rapid deployment. It also supports future capacity expansion seamlessly through compact rectifier and distribution extension subracks.

The NetSure™ 7100 series has a readily available integrated advanced control unit with enhanced load management capabilities. Remote Monitoring and software updates are available through web browsers with access via multiple gateways, resulting in rapid deployment, upgrades, and efficient service.

Product Features

Highly Reliable

- Easily adaptable in a harsh grid environment: Supports a wide range of input voltage i.e., from 80 VAC to 300 VAC
- Tolerates ultra-wide operating temperature range -40 to +65 °C (derating above 45 °C), strong environmental and geographical adaptability
- Three-dimensional (foolproof) protection from lightning strokes (i.e., AC side, DC side, and signal side)
- Power walk-in function ensures gradual start-up of backup diesel generator & transformer

Energy Efficient

- >96% efficient rectifier modules save the significant amount of operational expenditures
- ECO mode algorithm ensures highest efficiency at varying load levels
- Intelligent speed regulation of the fan reduces the system losses further and prolongs the service life of the fan
- High-power density rectifier module leaves more wiring and operating space for efficient management

Intelligent

- Multiple communication interface: Built-in RS232 port, USB (optional), dry contact and other communication interfaces ensure flexible remote management
- The rectifier modules are assigned with independent ID for recognition eases user asset management
- Advanced battery management function, effectively prolong the service life of the battery

Rapid deployment

- Standard 19-inch subrack cabinet with its low noise design adopts well into your infrastructural needs
- Needs only frontal access for maintenance
- Suitable to be installed in indoor network room / outdoor cabinet / stairwall / basement

Applications

- Outdoor communication base station
- 3G, 4G, 5G indoor coverage
- Integrated access sites
- RRU independent power supply



NetSure™ 7100 A61-S1

Product Configuration

Model	NetSure™ 7100 A61-S1	NetSure™ 7100 A61-S2	Remarks
System Capacity		300 A	Configured with 50 A module
		600 A	Configure 50A module, needs to be paired with PSS4850-9A/19 Extended rectifier sub-rack
		450 A	Configured with 75 A module
		600 A	Configure 75A module, needs to be paired with PSS4 875-1A/19 Extended rectifier subrack
Controller	M530B		With RS485 interface, network port, USB port
Rectifier Modules	50 A/75 A (R48-3000e3/R48-4300e3) Optional		50 A (R48-3000E3), 75 A (R48-4300E3)
AC Power Distribution	Input: 100 A/4P × 2 (Manual changeover) Output: 16 A/1P × 3	Input: 100 A/4P × 1	
AC Lightning Protection	Class B (In=30 kA)	Class C (In=20 kA)	
DC Distribution	Battery distribution: 125 A/1PN × 4 (reserved to add 2 × 125 A/1P) User 1 output: Critical load MCB: 32 A/1PN × 2. User 1 output: Non-critical load MCB: 100 A/1PN × 3, 63 A/1PN × 2; User 2 output: Critical load MCB: 16 A/1PN × 2. User 2 output: Non-critical load MCB: 32 A/1PN × 4		
DC Lightning Protection	≥10 kA		
Mechanical Parameters	482.6 mm (W) x 420 mm (D) x 176.7 mm (H) (19" 4U high), ≤40 kg (without modules)		
Installation Mode	19" rack mount		

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PSS4850-9A/19



PSS4875-1A/19



PDU48/300DFI-S1, PDU48/300DFI-S2

PSS48 Rectifier Extension Subrack Series

Model	PSS4850-9A/19	PSS4875-1A/19	Remarks
System Capacity	300 A (Max. configuration 4 x 75 A modules)	150 A (Max. configuration 2 x 75 A modules)	Configured with 75 A module
	300 A (Max. configuration 6 x 50 A modules)	100 A (Max. configuration 2 x 50 A modules)	Configured with 50 A module
Monitoring	Monitoring board communicates with the main rectifier subrack through CAN	Monitoring board communicates with the main rectifier subrack through CAN	
Rectifier Modules	R48-3000e3 (50 A) / R48-4300e3 (75 A) Optional		
AC Power Distribution	To be connected in parallel with the main rectifier frame AC terminal		The wire diameter of the AC parallel cable is 10mm ² , and the tube terminal is used for crimping.
DC Distribution	1 set of DC extension unit		The diameter of the DC parallel cable is 25-35mm ² , and the tube terminal is used for crimping.
Mechanical Parameters	482.6 mm (W) x 420 mm (D) x 44.1 mm (H) (19" 1U high) PSS4850-9A/19: ≤9 kg, PSS4875-1A/19: ≤7 kg		Modules are not included
Installation Mode	19" rack mount		

PDU48/300DFI Power Distribution Expansion Subrack Series

Model	PDU48/300DFI-S1/PDU48/300DFI-S2	Remarks
System Capacity	300 A	
Monitoring	SMDCU	RS485 interface
DC Distribution	Critical load MCB: 32A/1PN × 2 Non-critical load MCB: 100A/1PN × 3, 63A/1PN × 2	The diameter of the DC parallel cable is 25-35mm ² , and the tube terminal is used for crimping.
Mechanical Parameters	482.6 mm (W) x 420 mm (D) x 44.1 mm (H) (19" 1U high), ≤ 8 kg (excluding modules)	
Installation Mode	19" rack mount	

Electrical Parameters

Power System

Performance Parameters	Description
Operating Temperature	- 40 to + 65 °C (de-rating from above 45 °C)
Storage Temperature	- 40 to + 70 °C
Relative Humidity	5% to 95% RH (no condensation)
Altitude	≤ 4000 m (de-rating from above 2000 m)
Input Voltage Range	80 to 300 VAC
Input Frequency	45 to 65 Hz
Power Factor	≥ 0.99
Output Voltage Range	-42 to -58 VDC
System Efficiency	>95%



R48-3000e3



R48-4300e3

Rectifier Modules

Performance parameters	R48-3000e3	R48-4300e3
Input Voltage	80 to 300 VAC	
Power Factor	≥ 0.99	
Output Voltage	42 to 58 VDC	
Rated Current	50 A	75 A
Output Current	0 to 60 A	0 to 70 A
Module Efficiency	>96%	

