

Vertiv™ NetSure™ D601

Off-Grid Outdoor Enclosure



Benefits

- Deter battery theft with two layers of heavy-duty metal that shields the lock and batteries
- Deploy your site in harsh environments with robust thermal management system
- Improve operating cost as capacity increases using solar energy and lithium-ion batteries
- Reduce carbon emissions by relying less on diesel fuel
- Optimize energy use with high efficiency Vertiv™ eSure™ rectifiers and solar converters
- Easily monitor and adjust system parameters with the NCU controller via an on-board color display or web pages supported by all major browsers
- Rapidly expand your network with user friendly, simplified installation

The Vertiv™ NetSure™ D601 outdoor enclosure is a robust energy storage solution for off-grid applications that supports the use of solar power.

Description

NetSure™ D601 outdoor enclosures are optimally designed to power equipment in off-grid and poor-grid telecom networks. These rugged enclosures are tested for use in harsh environments, including climate conditions typical to Sub-Saharan Africa. Vertiv understands the unique requirements of your radio site and has developed two base enclosure models with multiple configuration options. Easy access to equipment and batteries is provided through a single front door, simplifying installation and maintenance.

The enclosure has separate chambers for the power system and the batteries to enable precise thermal management. The upper power chamber is cooled with a fan-filtered ventilation system, and is designed to house the Vertiv™ NetSure™ 7100 DC power system that provides full power up to +45°C. Data and control for the DC power plant, batteries and diesel generator is managed through the Vertiv™ NCU Controller. A dedicated AC distribution panel with built-in surge protection is also included.

The insulated lower battery chamber is available with an air conditioner or optional fan-filtered solution on the doors, to ensure the batteries operate within the recommended temperature range. The battery chamber is designed to support -48 VDC lithium-ion batteries up to 1,500Ah in 2U, 3U, 4U and 5U form factors that range up to 250Ah each.

Galvanized steel insulated walls treated with corrosion-resistant powder paint protect electronics from ingress of heavy rain, wind and dust. Equipment is further protected by concealed 304 grade stainless-steel hinges, anti-theft locking hooks on the hinge side of the door, four-point locking mechanisms, and a double skin door lock protective hood. Two optional battery security kits with internal steel cladding and an enhanced security pack to reinforce the hinge and lock, can be added to deter battery theft.

The enclosure comes with a standard 2-year warranty for corrosion resistance or an extended 5-year warranty option.

Application

The Vertiv™ NetSure™ D601 outdoor enclosure is designed to support remote wireless access networks in off-grid CDC or poor-grid applications that typically rely on an AC generator. OpEx savings and environmental benefits are enhanced when using lithium-ion batteries and high-efficiency Vertiv™ eSure™ rectifiers and solar converters.



Technical Specifications

Enclosure	215LZA, 216LZA, 216ESZA	215LFZA, 216LFZA, 216ESFZA
Dimensions, Enclosure Body (H x W x D)	2140 x 900 x 1320mm	2140 x 900 x 1430mm
Enclosure Body	Galvanized steel, powder coated RAL7035, insulated (heat transfer 2.5W/(m2k), flat roof with lifting hooks	
Rack Width	19" for customer equipment, 19" for solar converter shelves and 23" for DC power system	
Battery Shelves	27U (8 x 3U; 6 x 4U; 4 to 5 x 5U)	
Weight	Up to 582Kg (without batteries and solar shelves)	
Locking	4-point locking mechanism, supports various padlocks with shank diameter of 12mm and other locking accessories	
Cable Inlet Type	1xPG29, 6xPG21, 2xPG16	
Mounting	Ground (reinforced concrete): 4xM10 Anchor bolts	
Accessories (standard offering)	Service light, door contacts, alarm terminals user interface, MET bar, cable strain relief/glands, document holder	

Climate Solution

Power Compartment: Fan Filter Over Pressure (VDC) ^[1]	>55 [W/K]	>55 [W/K]
Battery Compartment: Air-conditioner (VDC), up to +55°C	520W or 600W	N/A
Battery Compartment: Fan Filter Over Pressure (VDC) ^[1]	N/A	>45 [W/K]
Thermal Zones/Compartments	2	2

DC Power Equipment

Operational Temperature ^[2]	-10°C to +45°C	
Vertiv™ NetSure™ 7100 with NCU (standard)	15U high, 18kW/21kW or 27kW/31.5 kW output capacity, >96,3% peak efficiency	
Vertiv™ NetSure™ Solar Shelf (optional)	Up to 32kW, 140 VDC to 400 VDC input, nominal	

AC Distribution

Input, Nominal	Single Phase: 200 VAC to 250 VAC, 3-phase: 345 VAC to 430 VAC	
Surge Protection	IEC Type 2 Class 2	
Input Protection	100A 4-pole isolator with individual rectifier input circuit breakers	
Accessories	10A fused Schuko socket with 30mA RCCB, and 350, 700 or 1000 watt inverters	

Standards Compliance

Safety and EMC	CE, IP55 and EN 300386 Class B Radiated, Class A Conducted	
Audible Noise (fan filter)	≤55dBA @ 3m	

^[1] Nominal heat load capacity per degree (exhaust vs ambient) [W/K]

^[2] Other ambient temperatures available upon request

Ordering Information

Part Number	Description
U57-15000-215LZA	NetSure D601 with NetSure 7100 (up to 21kW) and battery compartment air conditioner
U57-15000-215LFZA	NetSure D601 with NetSure 7100 (up to 21kW) and battery compartment fan filter
U57-15000-216LZA	NetSure D601 with NetSure 7100 (up to 31.5kW) and battery compartment air conditioner
U57-15000-216LFZA	NetSure D601 with NetSure 7100 (up to 31.5kW) and battery compartment fan filter
U57-15000-216ESZA	NetSure D601 with NetSure 7100 (up to 31.5kW), battery compartment air conditioner and enhanced security
U57-15000-216ESFZA	NetSure D601 with NetSure 7100 (up to 31.5kW), battery compartment fan filter and enhanced security

Options

U57-17942-MS	Medium security option	BMR960030/1	2 kW MPPT solar converter (Vertiv™ eSure™ S48-2000e3)
U57-17942-HS	High security option	BML440068/1	3.5 kW rectifier, -48 VDC (Vertiv™ eSure™ R48-3500e3)
U57-17536-2L	2kW MPPT solar shelf	1R483000E3B	3 kW rectifier, -48 VDC (Vertiv™ eSure™ R48-3000e3)
U57-17536-4L	4kW MPPT solar shelf	U57-15559	48 VDC to 230 VAC, 1000 W inverter for AC auxiliary loads

Please contact your local sales representative to discuss your specific enclosure configuration requirements.

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