

NetSure™ M Series

M620HC Outdoor Enclosure for Hybrid Applications



Benefits

- Decrease OPEX and carbon footprint by supplementing your generator with a high capacity energy storage solution
- Optimize the amount of energy delivered to your batteries with eSure™ rectifiers that deliver over 96% efficiency
- Easily monitor and adjust system parameters with the NCU via an on-board color display or web pages supported by all major browsers
- Confidently deploy in any environment with an enclosure that meets a wide variety of international standards and operates in harsh conditions
- Enjoy the flexibility to deploy a wide range of battery sizes to meet the specific needs of your site



NetSure™ M620HC with fan-filtered cooling for the NetSure™ 5100 power system and air conditioning for the batteries

The NetSure™ M620HC enclosure is a robust energy storage solution for off-grid CDC (charge-discharge-charge) or bad-grid applications with optional supplemental solar power.

Telecom network operators deploying access nodes in remote geographical areas around the world are often faced with situations where no or poor AC utility infrastructure exists. In order to bring sites online in these challenging conditions, Vertiv's reliable and proven NetSure™ DC power systems and enclosures can be paired with batteries designed for cyclical applications. This reduces demand on the generator, enabling operators to save money on fuel, minimize their carbon footprint, and simplify maintenance.

The NetSure™ M Series M620HC enclosure features a reliable NetSure™ 5100 DC power system that operates in environments up to +65 °C without deration and is equipped with the latest NetSure™ Control Unit (NCU), where data and control is available for all aspects of the power chain including the DC power plant, batteries and diesel generator. The NetSure 5100 utilizes 2000 watt high-efficiency eSure rectifiers and supports the use of 2000 watt solar converters when a solar array is leveraged to further secure energy supports and reduce carbon emissions.

The power system and batteries are housed in a robust enclosure designed with easy access to equipment via front and rear doors. Single-skin aluzinc walls treated with advanced corrosion-resistant powder paint enable this solution to withstand extremely harsh environments including heavy rain, wind, dust, lightning and electromagnetism. The enclosure doors feature hidden stainless steel hinges and three-point locking mechanisms for added security.

Separate chambers for the power system and batteries facilitate precise thermal management. The upper power chamber is cooled with a fan-filtered ventilation system, while air conditioners on the doors ensure the batteries in the insulated lower chamber operate within their recommended temperature range.

The battery chamber is designed to support (24) 2 volt cyclic battery cells ranging from 600 to 1200 Ah. Front and rear access doors simplify installation and maintenance.

Application

The NetSure M620HC outdoor enclosure is designed for remote off-grid CDC or poor-grid wireless access networks that typically utilize a generator as an AC source and require a large energy storage solution. OPEX savings and environmental benefits can be further enhanced by pairing the NetSure M620HC with a Vertiv™ solar power solution.

Technical Specifications

Enclosure

Dimensions, Enclosure Body (H x W x D)	2100x975x1190 mm
Enclosure Body	Aluzinc, powder paint RAL 7035, battery compartment insulation (heat transfer 2,5 W/(m2,K))
Rack Width	19" for customer equipment and NetSure™ DC power system
Rack Height (total)	4U (front) and 15U (rear) for customer equipment
Weight (without batteries)	xx kg
Locking type	3-point locking system on both doors
Cable Inlet Type	MC25 through floor
Mounting	Ground (125 mm high C-bars with side cable access and front and rear covers)

Climate Solution Capacity/Options

Power Compartment	Fan filter, -48 VDC, 80 [W/K] heat load capacity per degree (exhaust vs. ambient)
Battery Compartment	(2) air conditioners, -48 VDC, 600 W unit (each), L35/L35

Environmental

Temperature	-10 °C to +55 °C (ambient)
Operational, Transportation, Storage	ETSI EN 300 019-1-4 class 4.1, ETSI EN 300 019-1-2 class 2.3, ETSI EN 300 019-1-1 class 1.2
Protection	IP55 (IEC 60529), EN60950-22 for rain
Impact	IK 10 (EN 50102)
Noise Pressure	60 dB(A) at 1m

DC Power Equipment

NetSure™ 5100 e/w NetSure™ Control Unit (NCU)	-48 VDC, 20 kW output power, up to 10 kW solar output power, peak efficiency >96%
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AC Distribution

Input, Nominal	3-phase: 380 VAC to 415 VAC
Components Included	Main circuit breaker, service outlet/RCD, Class C surge protection

Standards Compliance

EU Directives	CE, RoHS 6, REACH
Safety	EN60950-1 (-22)
EMC	ETSI EN 300386 Class B radiated, solar Class A conducted
Corrosion Resistance	EN60950-22 and ISO 21207 method B (corrosion resistance 20-50 years)

Ordering Information

Part Number	Description
BFK22205143/200	NetSure™ M620HC enclosure with NetSure™ 5100 DC power system
BML440033/1	R48-2000e3, 2000 watt high-efficiency eSure™ rectifier
BMR960030/1	S48-2000e3, 2000 watt high-efficiency eSure solar converter
10011200	Inter-battery cable connection kit for two terminal batteries. <i>Note: Order two kits for four terminal batteries</i>

Narada REX for applications with predictable recharging of batteries such as Off-Grid CDC or where batteries may stay at a full charge for an extended period of time such as Bad-Grid sites with or with solar

10011409	600 Ah batteries (two terminals)
10011412	800 Ah batteries (four terminals)
10011413	1000 Ah batteries (four terminals)
10011415	1200 Ah batteries (four terminals)

Narada REXC for applications with unpredictable recharging of batteries such as Off-Grid and Off-Grid CDC with solar

10011314	600 Ah batteries (two terminals)
10011293	800 Ah batteries (four terminals)
10011367	1000 Ah batteries (four terminals)
10011368	1200 Ah batteries (four terminals)

Note

Rectifiers and solar converters need to be ordered separately.