Vertiv™ NetSure™ Solar Converter Shelf

Benefits

- Lower operating costs by supplementing grid or generator power at on-grid, off-grid, or bad-grid sites with Vertiv's solar converter shelf
- Easily integrate with most existing DC power systems while saving rack space
- Maximize efficiency with high-density 4300W Vertiv eSure Solar Converters and MTTP technology, optimized for wide temperature ranges
- Reduce site visits through remote access with the NetSure system controller
- Ensure reliable performance with proven NetSure™ technology and expert Vertiv support

Achieve your environmental goals and reduce operating costs by augmenting your existing DC power system with the exceptional solar power density of a Vertiv™ NetSure™ Solar Converter Shelf utilizing Vertiv's eSure™ 4300W solar converter modules.

The NetSure™ Solar Converter Shelf is a compact -48 VDC solution that can easily be added to an existing telecom DC power plant from any manufacturer. Built on the proven reliability of the Vertiv™ eSure™ Solar Converter, the NetSure Solar Converter Shelf delivers industry-leading system density and full power up to 55°C. It can support one or two 4300W solar converter modules, features front access connections and is available in two versions.

The **Add-on** version of the shelf is for use with an existing *third-party* DC power system and *includes* a mini-NCU M831A controller to manage the solar shelf.

The **expansion** version of the shelf is for use with an existing *Vertiv* DC power system and *utilizes the existing* NCU controller to manage the DC power systems and the solar shelf.

For larger applications, multiple **expansion** shelves can be connected to a single Vertiv DC power system. **Expansion** shelves can also be added to an **add-on** shelf to increase system capacity. Please see the manual for additional information.

Application

With the cost of energy rising and the environmental need to minimize carbon emissions, adding the Vertiv NetSure Solar Converter Shelf to your existing network infrastructure is a cost-effective way to decrease operating costs.

- Reduce energy consumption at on-grid sites
- Minimize battery stress and replacement at bad-grid sites
- Decrease generator run-time, maintenance and fuel costs at off-grid CDC sites

Vertiv™ NetSure™ Solar Converter Shelf

	Specification	Add-On Shelf	Expansion Shelf
Electrical			
DC Input	Voltage Range	70 VDC to 420 VDC	70 VDC to 420 VDC
	Maximum Current	48 A	48 A
DC Output	Voltage, Nominal	-48 VDC	-48 VDC
	Voltage Range	-20 VDC to -58.5 VDC	-20 VDC to -58.5 VDC
	Maximum Power	8640 W	8640 W
	Maximum Current	163 A	163 A
	Peak Efficiency	97.3%	97.3%
	Temperature Performance	100% up to 55C , derate from 55C to 80C	100% up to 55C , derate from 55C to 80C
Distribution			
DC Load Distribution	Circuit Breaker Type	High density - UL 1077	High density - UL 1077
	Circuit Breaker Positions	2	2
	Circuit Breaker Rating	125 A	125 A
Monitoring			
Control Module	Module Name	M831A	-
	Local Display	Yes	-
	Protocols	HTTPS, SNMP V2/V3, Modbus RTU-485 and EEM	-
	Analog Inputs	1	-
	Digital Inputs	5	2
Rated Output Capacity			
System	Power Capacity	8640 W	8640 W
	Current Capacity	163 A	163 A
Converter	Power Capacity	4320 W	4320 W
	Current Capacity	81.5 A	81.5 A
Environmental			
	Operating Temperature	-40°C to 75°C / -40°F to 167°F	-40°C to 75°C / -40°F to 167°F
	Storage Temperature	-40°C to 80°C / -40°F to 176°F	-40°C to 80°C / -40°F to 176°F
	Relative Humidity	0% to 95%	0% to 95%
	Altitude	3000 m / 9842 ft at full power	3000 m / 9842 ft at full power
Physical Characteristics			
	Color	Grey	Grey
	Height	44.45 mm / 1.75 in	44.45 mm / 1.75 in
	Width	482.6 mm / 19 in	482.6 mm / 19 in
	Depth	425 mm / 16.73 in	425 mm / 16.73 in
	Empty Weight (Approximate)	9.5 kg (20.9 lbs)	9.0 kg (19.8 lbs)
	Mounting width	482.6 mm or 584.2 mm / 19 in or 23 in	482.6 mm or 584.2 mm / 19 in or 23 in
	Mounting depth	Flush, 127 mm / 5 in recess or wall	Flush, 127 mm / 5 in recess or wall
	Cable Entry	Front	Front
Standards Compliance			
	Safety	IEC/UL 62368	IEC/UL 62368
	EMC	ETSI EN300 386 V1.6.1, EN55022 Class A conducted and Class B radiated, Telcordia GR-1089-CORE issue 6: 2009	ETSI EN300 386 V1.6.1, EN55022 Class A conducted and Class B radiated, Telcordia GR-1089-CORE issue 6: 2009
	Environment	REACH, RoHS, WEEE	REACH, RoHS, WEEE
	Ingress Protection	IP20	IP20

Part Number	Description
1S484300E4	Vertiv eSure Solar Converter 48 VDC, 4320 W
744900180006	NetSure 8.6kW Solar Converter Add-On Shelf with NCU M831A Controller
744900180007	NetSure 8.6kW Solar Converter Expansion Shelf – CAN Connection Cable Must Also Be Ordered
562868	CAN connection cable ~32' – Must Be Ordered When Using Expansion Shelf
556155	Temperature Sensor Probe -10'
552992	Temperature Sensor Probe - 33'
283033100000	AC Relay for Solar Off - Utilized in limited Add-on shelf applications

Vertiv.com | **Vertiv Headquarters,** 505 N. Cleveland Ave., Columbus, OH, 43082, USA

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