

Vertiv™ eSure™ Solar Converter

S48-4300E4



Benefits

- Maximize energy delivery using a high efficiency converter with high precision Maximum Power Point Tracking (MPPT) technology.
- Free up space for batteries and revenue generating equipment with the converter's high density footprint.
- Scale your load for future demand with plug and play modules designed for Vertiv™ NetSure™ DC power systems.
- Increase reliability and optimize operating cost thanks to active load sharing and Digital Signal Processing (DSP).
- Improve shade tolerance and enable small to large solar arrays with a wide input voltage range.
- Enjoy full power at high temperatures – when the sun is bright, it is also hot.
- Get ready to compete in this rapidly evolving market with the ability to connect to M10 and M12 high current cells, Topcon, HJT, Edge Emitters, Matrix Shingle Panels and Perovskite.

Support your corporate sustainability goals by harnessing clean, renewable energy in your network.

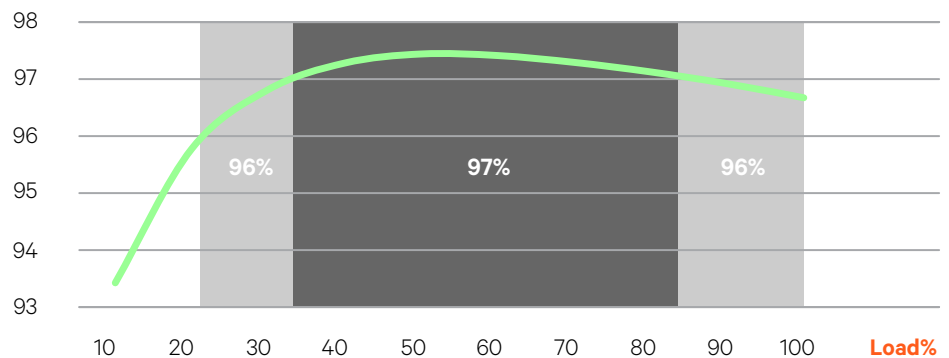
Description

The S48-4300E4 Vertiv™ eSure™ Solar Converter efficiently delivers 4300 watts of power to the load and battery. This constant power converter designed with the latest patented switch-mode technology, uses DSP (Digital Signal Process) to provide clean power to the load with acute control and management.

The S48-4300E4 can be connected in parallel with other converters and rectifiers to support a variety of telecom applications. Unified remote management and control of the power system is enabled when combined with a controller. Implementing solar conversion and control from Vertiv, ensures your critical network is highly available and extremely affordable to operate.



% Efficiency



S48-4300E4 Efficiency Curve

Technical Specifications

DC Input		S48-4300E4
Voltage	70 VDC to 420 VDC (see figure 1)	
Maximum Current	24A	
MPPT Precision	>99% when the output power more than 400 W	
DC Output		
Voltage	-38 VDC to -58.5 VDC	
Maximum Power	4320 W maximum	
Maximum Current	81.5 A (see figure 2)	
Peak Efficiency	97.3%	
Control and Monitoring		
Alarms and Signaling	Alarm and status reported via CAN bus to system controller	
Visual Indications	Green LED: Normal Operation Yellow LED: Alarm Red LED: Failure	
Environmental		
Operating Temperature	-40°C to +80°C / -40°F to +176°F (see figure 3)	
Storage Temperature	-40°C to +75°C / -40°F to +167°F	
Relative Humidity	0 to 95%	
Altitude	3000 m / 9842 ft at full power	
Standards Compliance		
Safety	62368-1 (EN,IEC and UL) with AS-NZS 5033 Ground Fault Protection	
EMC	ETSI EN300 386 V1.6.1. Other than telecom centers. EN55022, Class A conducted and Class B radiated, Telcordia GR-1089-CORE issue 6: 2009	
Environment	REACH, RoHS, WEEE	
Mechanics		
Dimensions (H x W x D)	41 x 84.5 x 330 mm / 1.61 x 3.33 x 13 inches	
Weight	2 kg / 4.4 lbs	

Figures

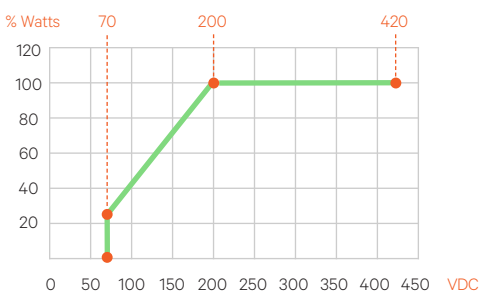


Figure 1: Output Power vs. Input Voltage and Vo > 53 VDC at Tamb < 55°C

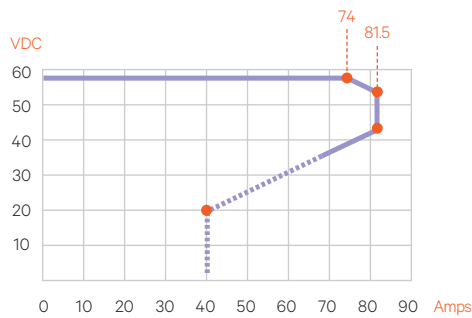


Figure 2: Output Voltage vs. Output Current at Max Power 4320 W

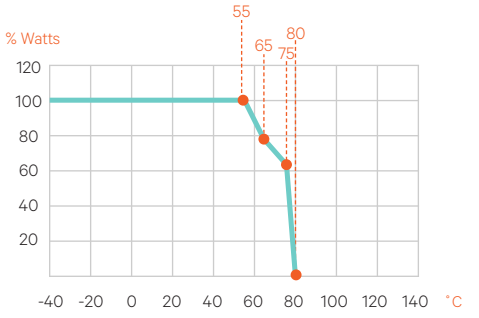


Figure 3: Output Power vs. Temperature

Ordering Information

Part Number	Description
1S484300E4	eSure™ converter 48 VDC, 4320 W