

# 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.*

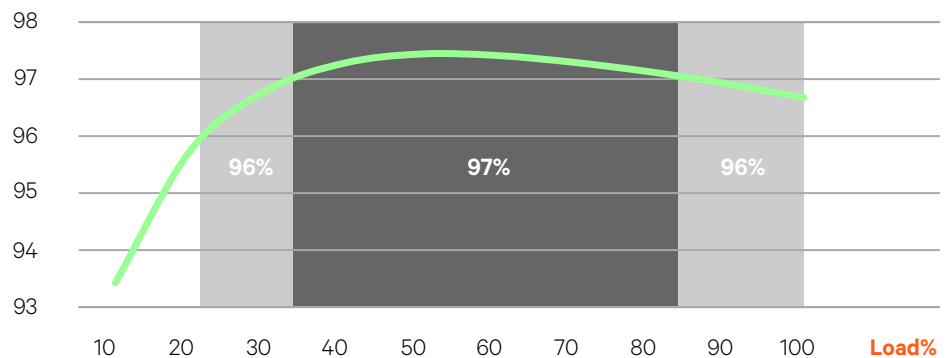
## Description

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

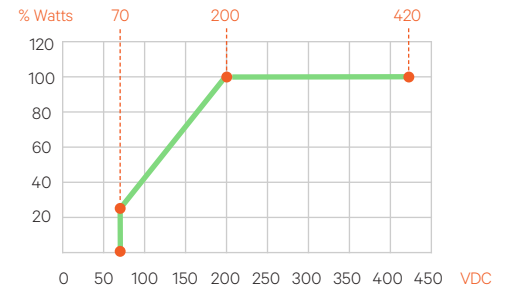
### Mechanics

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

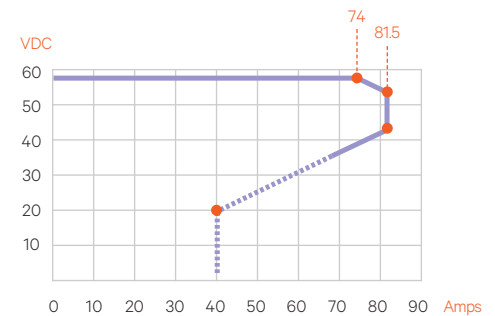
## Ordering Information

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

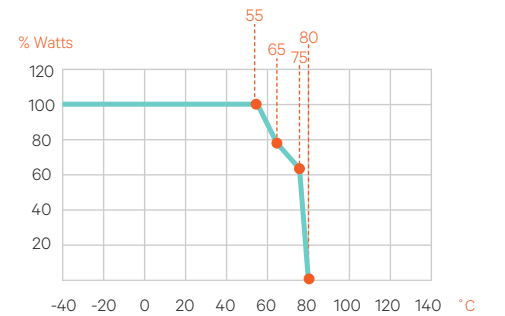
## Figures



**Figure 1:** Output Power vs. Input Voltage and  $V_o > 53$  VDC at  $T_{amb} < 55^\circ\text{C}$



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



**Figure 3:** Output Power vs. Temperature