

Vertiv™ eSure™ Converter

C400/48-3500E3



Key Features

- 3500 Watt high-efficiency converter designed to operate from a nominal 400V DC source to provide -48V DC load power
- High efficiency over 96.5% – reduces power consumption for lower operating costs
- Very high power density (50.2 W/inch³) saves costly space
- Hot pluggable – facilitates future extensions
- Wide input voltage range to operate during battery discharge down to 190 VDC
- Wide temperature operating range from -40°C to +75°C / -40°F to 167°F meets the harshest climatic environment requirements

In addition to reducing power consumption and lowering operating cost, eSure™ high-efficiency converters offer superior performance and uncompromised reliability.

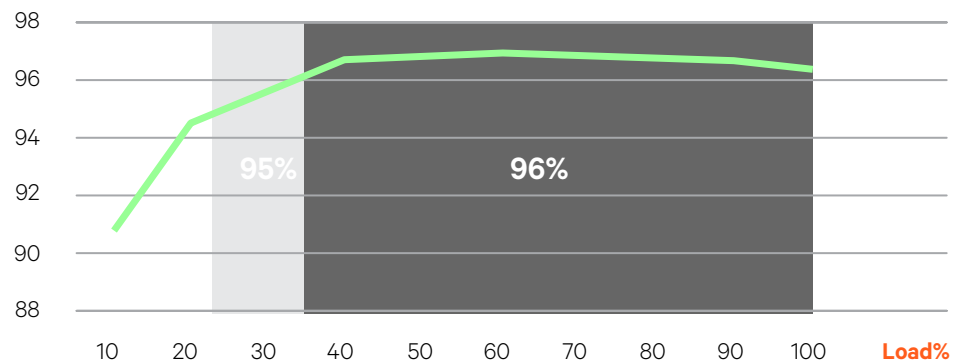
Description

The eSure™ C400/48-3500E3 high-efficiency converter is designed to operate from a nominal 400V DC source to provide nominal -48V DC load power, which is adjustable to application needs. The C400/48-3500E3 is a constant power converter designed with the latest patented switchmode technology, using Digital Signal Processing (DSP) functionality for efficient operation.

For a higher load capacity, converters can be connected in parallel, and intelligent control can be added with the help of a separate controller.



% Efficiency



C400/48-3500E3 Efficiency Curve at 380 VAC Nominal

Technical Specifications

DC Input	C400/48-3500E3
Voltage	190 VDC to 400 VDC (see figure 1), 400 VDC (nominal)
Maximum Current	22 A
DC Output	
Voltage	-42 VDC to -58 VDC
Maximum Power	3500 W @ Vout >48 VDC
Maximum Current	73 A @ 48 VDC (see figure 2)
Peak Efficiency	96.5%
Psophometric Noise (System)	<12 mV ; <38 dBrc
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 Flashing Red LED: Fan Failure
Environmental	
Operating Temperature	-40°C to +75°C / -40°F to +167°F (see figure 3)
Storage Temperature	-40°C to +70°C / -40°F to +158°F
Relative Humidity	0 to 95%
Altitude	2000 m / 6560 ft at full power
Standards Compliance	
Safety	EN 60950, IEC 60950, UL 60950
EMC	ETSI EN 300 386 class A, FCC CFR 47 Part 15 class A, Telcordia GR-1089-CORE class A
Environment	REACH, RoHS, WEEE
Mechanics	
Dimensions (H x W x D)	42 x 84.5 x 330 mm / 1.7 x 3.3 x 13.0 inches
Weight	1.7 kg / 3.7 lbs

Figures

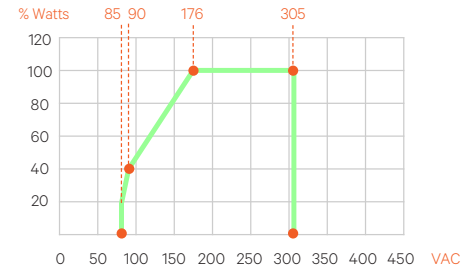


Figure 1: Output Power vs. Input Voltage at Tamb 45°C

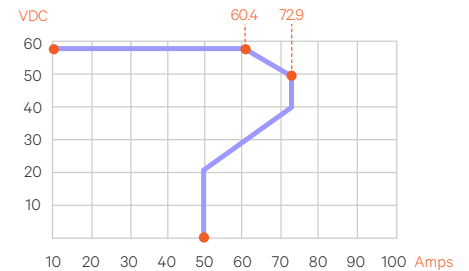


Figure 2: Output Voltage vs. Output Current at Maximum Output Power 3500 W

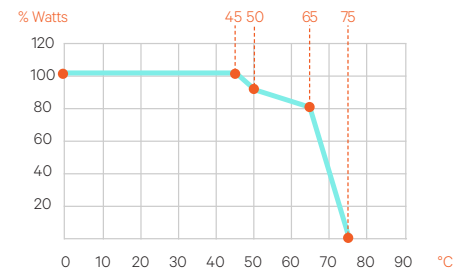


Figure 3: Output Power vs. Temperature at Vin ≥ 176 VAC

Ordering Information

Part Number	Description
1C400483500E3	Converter, 400 to 48 VDC, 3500 W

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