

Key Features

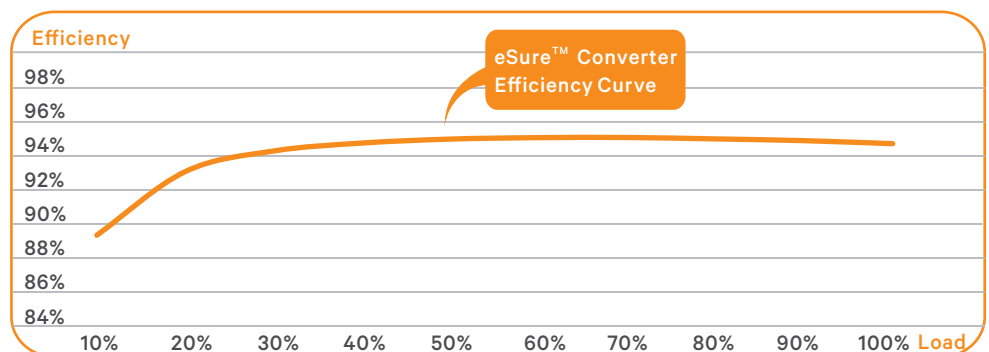
- High efficiency, reduces power consumption for lower operating costs
- Full output power (3kW) up to +35°C allows savings on climate system and operating costs
- Wide input voltage range from 190Vdc~400Vdc
- Hot pluggable – facilitates future expansions and easy maintenance
- Complies with global standards – delivers quality, performance and reliability no matter what the application or location demands

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

Description

The eSure™ C400/48-3000e3 high-efficiency converter is designed to operate from a nominal 400V DC or 200VAC source to provide nominal -48V DC load power, which is adjustable to application needs. The C400/48-3000e3 is a constant power converter designed with the latest patented switch mode technology, using DSP (Digital Signaling Processor) 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.



Technical Parameters

AC Input

Input voltage, Nominal	200 to 250 VAC, 240/336VDC
Input Voltage, Permitted Variation	85 to 300 VAC, 190 to 410VDC
Line Frequency	45 to 65Hz
Max Input Current	22A
Power Factor	>0.99 for 50%-100% load
THD (Total Harmonic Distortion)	≤5% for 50%-100% load at 208Vac, 220Vac

DC Output

Output voltage, Adjustment Range	-42 to -58VDC
Output Power	3000W Maximum
Output Power, derated for Input Voltage	See diagram
Output Current	62.5A@-48VDC
Output Current Limit Set Point	0 to 62.5A
Peak Efficiency	95.5%
Typical Efficiency	≥95% at 220 Vin, 53.5Vout, 20A to 45A load 125°C
Temperature Derating	Full output power up to +35° at input voltage range : 176-264VAC, 250VDC-400VDC

Control and Monitoring

Converter Alarm 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

Temperature Range, Operating	-40 to 70°C, -40 to +158°F (See diagram for de-rating)
Temperature Range, Storage	-40 to +70°C, -40 to +158°F
Relative Humidity	0 to 95%
EMC	ETSI EN300 386: 2005, Class A & EN55022, Class A
Safety	EN 60950-1; IEC 60950

Mechanical

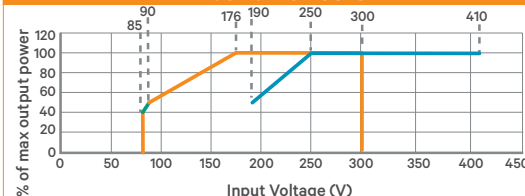
Dimensions (H x W x D)	41x84.5x330mm/1.61x3.33x13 inches
Weight	2kg/4.41lbs2kg/4.41lbs

Other Parts

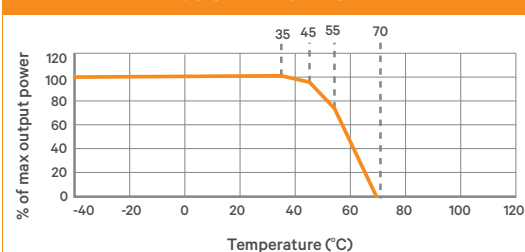
Controller Units	See separate controller datasheet
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Diagrams

Output Power vs. Input Voltage
at Tamb ≤35°C



Output Power vs. Temperature
at Uin ≥176VAC



Output voltage vs. Output current,
max. output power 3000W

