



eSURE™ RECTIFIER

R48-2000e3



KEY FEATURES

Rectifier, 48 VDC, 2000 W

- Highest MPPT precision exceeds 96% reduces power consumption for lower operating costs
- Full output power (2 kW) up to +65°C allows savings on climate system and operating costs
- High power density - reduced footprint allows installation in short - depth racks and cabinets
- Wide input voltage to operate in the most demanding environments
- Hot pluggable – facilitates future expansions and easy maintenance
- Compliant 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.

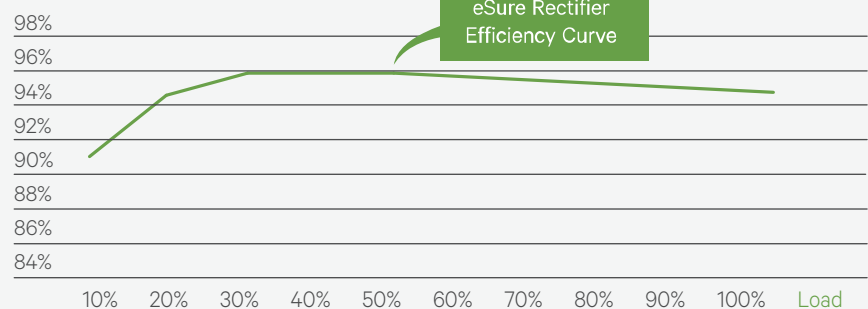
Description

The 2000 watt high-efficiency eSure rectifier (model R48-2000e3) converts standard AC supply voltages into stable nominal -48 VDC voltage that is adjustable to application needs. The R48-2000e3 is a constant power rectifier designed with the latest patented switchmode technology, using DSP (Digital Signaling Processor) functionality for efficient operation.

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



Efficiency



Technical Specifications

AC INPUT	
Input Voltage, Nominal	187 VAC to 264 VAC
Input Voltage, Permitted Variation	85 VAC to 300 VAC
Line Frequency	45 Hz to 65 Hz
Max Input Current	12 A
Power Factor	>0.99 from 50 to 100% load
THD (Total Harmonic Distortion)	≤ 5% from 50 to 100% load at 208, 220, 230 and 240 VAC

DC OUTPUT	
Output Voltage, Adjustment Range	-42 VDC to -58 VDC
Output Power	2000 W maximum
Output Power, Derated for Input Voltage	See diagram
Output Current	42 A @ -48 VDC
Output Current Limit Set Point	0 to 42 A
Peak Efficiency	96.2%
Temperature Derating	Full output power up to +65°C at input voltage range >200 to 300 VAC ; >176 to 200 VAC at +55°C

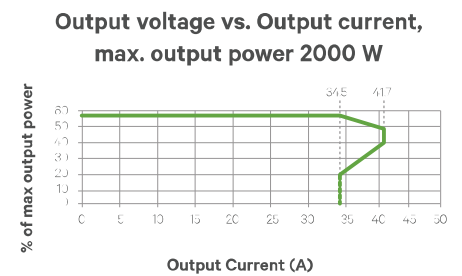
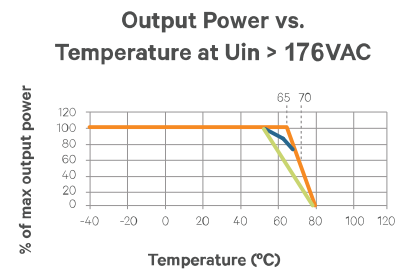
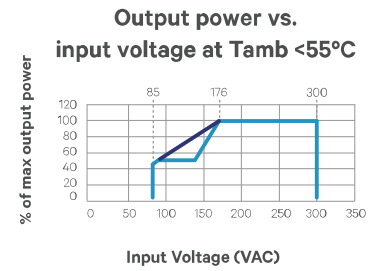
CONTROL AND MONITORING	
Rectifier Alarm and Signaling	Alarm and status reported via CAN bus to system controller
Visual Indications	Green LED: Normal Operation Yellow LED: Alarm Red LED: Failure

ENVIRONMENTAL	
Temperature Range, Operating	-40°C to 80°C / -40°F to +176°F (see diagram for de-rating)
Temperature Range, Storage	-40°C to +70°C / -40°F to +158°F
Relative Humidity	0 to 95%
Altitude	2000 m / 6560 ft at full power
EMC	ETSI EN300 386: 2005, Class B. Other than telecom centers FCC CFR 47 Part 15, Class B conducted and radiated EN55022, Class B conducted and radiated CISPR22, Class B conducted and radiated Telcordia GR-1089-CORE issue 6
Safety	UL 60950-1; EN 60950-1; IEC 60950

MECHANICS	
Dimensions (H x W x D)	41 x 84.5 x 252.5 (mm) / 1.61 x 3.33 x 9.94 (inches)
Weight	1.13 kg / 2.49 lbs

Ordering Information

PRODUCT CODE	DESCRIPTION
1R482000E3	eSure™ rectifier, -48 VDC, 2000 W





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