

eSure™ Rectifier

R48-3500e

DC Power
for Business-Critical Continuity™

eSure™ Rectifier -48 V DC, 3500 W

Features and Benefits

- Optimized depth-reduced footprint allows installation in short-depth racks and cabinets
- DSP (Digital Signaling Processor)-means fewer components, optimized operation and active load sharing for increased reliability
- Compliant with global standards-delivers quality, performance and reliability no matter what the application or location demands
- High efficiency, near 97%-reduces power consumption for lower operating costs
- Hot pluggable-facilitates future extensions
- Wide input voltage range-operates in the most demanding environments where input voltage changes
- Wide temperature operating range (-40°C / -40 °F to +75°C / 167°F) -meets the harshest climatic environment requirements

NetSure® Certified

Description

The eSure™ R48-3500e rectifier converts standard AC supply voltages into stable nominal-48V DC voltage adjustable to the needs of the application. The R48-3500e is a constant power rectifier designed with the latest patented switch-mode 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.



R48-3500e

eSure™ Rectifier

R48-3500e

Technical Specifications, R48-3500e

AC Input

Input Voltage, Nominal	200 to 250 V AC
Input Voltage, Permitted Variation	85 to 300 V AC
Line Frequency	45 to 65 Hz
Max Input Current	18.5A
Power Factor	0.99
THD (Total Harmonic Distortion)	<5% from 50 to 100% of rated load

DC Output

Output Voltage, Adjustment Range	-42 to -58 V DC
Output Power	3500W@Vout >48VDC
Output Power, Derated for Input Voltage	See Diagram
Output Current	73A
Output Current limit set Point	0 to 73A
Efficiency	96.7% peak
Psophometric noise (system)	<2 mV typical
	<32 dBrc typical
Temperature Derating	See diagram

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
	Flashing Red LED: Fan Failure

Environmental

Temperature Range, Operating	-40 to +75°C, -40 to +167°F
Temperature Range, Storage	-40 to +75°C, -40 to +167°F
Relative Humidity	0 to 95%
Altitude	2000 m, 6560 ft at full power
EMC	ETSI EN 300 386 class B, FCC CFR 47 Part 15 class B, Telcordia GR-1089-CORE class B
Safety	IEC 60950, EN 60950, UL 60950

Mechanics

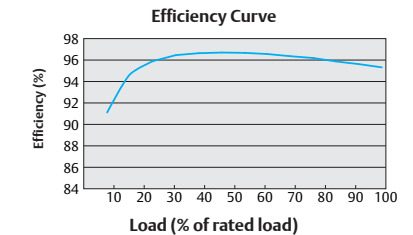
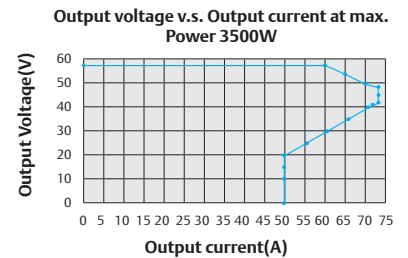
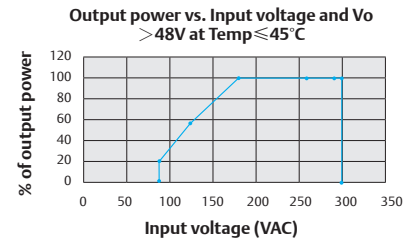
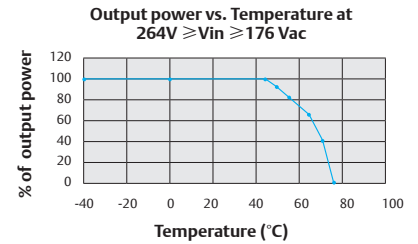
Dimensions (H×W×D)	132 × 85.3 × 287mm / 5.2 × 3.36 × 11.3 inches
Weight	3.5kg / 7.7lbs

Other parts

Controller Units	See separate ACU/ACU+ and SCU/SCU+ datasheets
------------------	---

Ordering information

Description	Product Code
Rectifier 48V,3500W	1R483500eXXX



Emerson Network Power.
The global leader in enabling
Business-Critical Continuity™.

■ AC Power
■ Connectivity
■ DC Power
■ Embedded Computing

■ Embedded Power
■ Infrastructure Management & Monitoring
■ Outside Plant
■ Power Switching & Controls

■ Precision Cooling
■ Racks & Integrated Cabinets
■ Services
■ Surge Protection

www.emersonnetworkpower.com
www.emersonnetworkpower.com/energysystems
www.DCpowerefficiency.com

Business-Critical Continuity, Emerson Network Power and the Emerson Network Power logo are trademarks and service marks of Emerson Electric Co.
©2010 Emerson Electric Co.