eSure™ Rectifier

R48-3200e



eSure™ Rectifier -48 V DC, 3200 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 standardsdelivers 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™ R48-3200e rectifier converts standard AC supply voltages into stable nominal-48V DC voltage adjustable to the needs of the application. The R48-3200e 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.



R48-3200e



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Technical Specifications, R48-3200e

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 17 A 0 99 Power Factor

THD (Total Harmonic Distortion) <5% from 50 to 100% of rated load

DC Output

Output Voltage, Adjustment Range -42 to -58 V DC 3200W@Vout >48VDC **Output Power** Output Power, Derated for Input Voltage See Diagram

Output Current 67A 0 to 67 A Output Current limit set Point Efficiency 96.8% peak Psophometric noise (system) <2 mV typical <32 dBrnc typical

Temperature Derating

Control and Monitoring

Alarm and status reported via CAN bus to system Controller Rectifier Alarm and Signaling **Visual Indications** Green LED = Normal operation; Yellow LED = Alarm; Red LED = Failure; Flashing red LED = Fan failure

See diagram

Environmental

Temperature Range, Operating -40 to +75°C, -40 to +167°F -40 to +75°C, -40 to +167°F Temperature Range, Storage

Relative Humidity 0 to 95%

Altitude 2000 m, 6560 ft at full power

ETSI EN 300 386 class B, FCC CFR 47 Part 15 class B, Telcordia GR-1089-CORE class B FMC

Safety IEC 60950, EN 60950, UL 60950

Mechanic

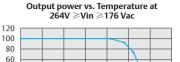
Dimensions ($H \times W \times D$) 132 × 85.3 × 287mm / 5.2 × 3.36 × 11.3 inches Weight 3.1 kg / 6.8 lbs

Other parts

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

Ordering information

Product name Description Rectifier 48V,3200W R48-3200e



output power

40

20 % of

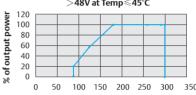
0 -40 -20



40 60

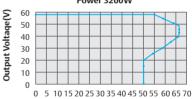
100 80

Output power vs. Input voltage and Vo >48V at Temp≤45°C



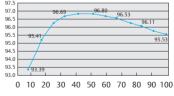
Input voltage (VAC)

Output voltage v.s. Output current at max. Power 3200W



Output current(A)

Efficiency Curve Efficiency



Load (% of rated load)

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

AC Power Connectivity DC Power **Embedded Computing** Embedded Power Monitoring Outside Plant Power Switching & Controls

Precision Cooling Racks & Integrated Cabinets Services Surge Protection

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