

R48-2000

DC Power
for Business-Critical Continuity™

Rectifier, 42A -48VDC, 2000W

Features and Benefits

- Low rectifier/subrack height minimize space needed for power in embedded applications
- 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, >92% reduces power consumption for lower operational 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 +80°C / 176°F) meets the harshest climatic environment requirements

Description

The R48-2000 rectifier converts standard AC supply voltages into stable nominal -48 VDC voltage adjustable to the needs of the application. The R48-2000 is a constant power rectifier designed with the latest patented switch-mode technology using DSP (Digital Signaling Processor) functionality for efficient operation. For a larger load capacity, rectifiers can be connected in parallel and intelligent control can be added with the help of a separate controller.



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Technical Specifications, R48-2000

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	13 A
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	2000W@Vout >-48VDC
Output Power, Derated for Input Voltage	See Diagram
Output Current	41.7 A @ -48 VDC
Efficiency	>92%
Psophometric Noise (System)	<1mV; <32 dBrc
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 +80°C, -40 to +176°F
Temperature Range, Storage	-40 to +80°C, -40 to +176°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)	86×84.5×272mm (3.37×3.31×10.66 inches)
Weight	2.4 kg (5.3lbs)

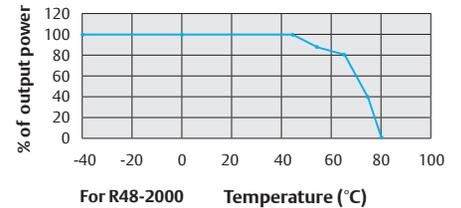
Other parts

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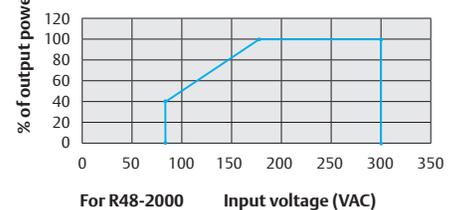
Ordering information

Product Name	R48-2000 Shelf 19 inch with 5 rectifier positions Shelf 19 inch with 4 rectifier positions +1 controller position Shelf 23 inch with 6 rectifier positions Shelf 23 inch with 5 rectifier positions +1 controller position
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Output Power vs. Temperature at Uin >176V AC



Output Power vs. Input Voltage at Tamb <45°C



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