

# R48-5800L

DC Power for  
Business-Critical Continuity™

## Rectifier, 120A -48VDC, 5800W

### 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, up to 92% – 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 +65°C / 149°F) – meets the harshest climatic environment requirements

### Description

The R48-5800L rectifier converts 145V to 264 V 3-phase AC supply voltages into stable nominal -48 V DC voltage adjustable to the needs of the application. The R48-5800L 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.



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## Technical Specifications, R48-5800L

AC Input	
Input Voltage, Nominal	208 V AC
Input Voltage, Permitted Variation	145 to 264 V AC
Line Frequency	45 to 65 Hz
Max Input Current	18 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	5800W@Vout >48VDC
Output Power, Derated for Input Voltage	See Diagram
Output Current	120A
Output current limit set point	0 to 120 A
Efficiency	92%
Psophometric Noise (System)	<1mV at 0 to 100% of rated load; <32 dBmrc at 0 to 100% of rated load
Temperature Derating	See Diagram

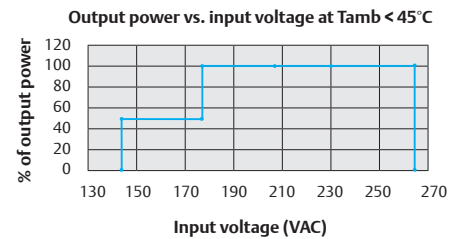
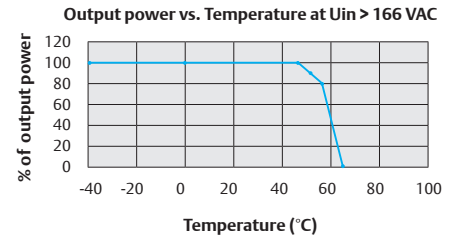
Control and Monitoring	
Rectifier Alarm and Signaling	Alarm and status reported via CAN bus to system controller
Visual Indications	Green LED: Normal Operation Yellow LED: Alarm Red LED: HVSD Indicating Lamp Blinking Red LED: Fan Fault

Environmental	
Temperature Range, Operating	-40 to +65°C, -40 to +149°F
Temperature Range, Storage	-40 to +70°C, -40 to +158°F
Relative Humidity	0 to 95%
Altitude	2000 m, 6560 ft at full power
EMC	EN 300 386 Class B; Telcordia GR-1089-CORE Class B; FCC CFR 47 Part 15 Class B
Safety	UL 60950; IEC 60950; CSA-C22.2 NO. 60950; Telcordia GR-63-CORE

Mechanics	
Dimensions (H×W×D)	85.5 × 245 × 380 mm (3.37 × 9.65 × 14.96 inches)
Weight	<10 kg (22lbs)

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

Ordering information	
Product Name	R48-5800L



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- Embedded Power
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- Power Switching & Controls

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