

R48-1800

■ DC Power
for Business-Critical Continuity™

Rectifier, 35A -48 VDC, 1700 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, up to 91% 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 +80°C / 176°F) – meets the harshest climatic environment requirements

Description

The R48-1800 rectifier converts standard AC supply voltages into stable nominal -48 VDC voltage adjustable to the needs of the application. The R48-1800 is a constant power rectifier designed with the latest patented switch-mode technology using DSP (Digital Signal 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, R48-1800

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	12 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	1700W@Vout >48V DC
Output Power, Derated for Input Voltage	See Diagram
Output Current	35.4 A
Output current limit set point	0 to 35.4 A
Efficiency	91%
Psophometric Noise (System)	<1mV at 0 to 100% of rated load; <32 dBmrc at 0 to 100% of rated load
Temperature Derating	See Diagram

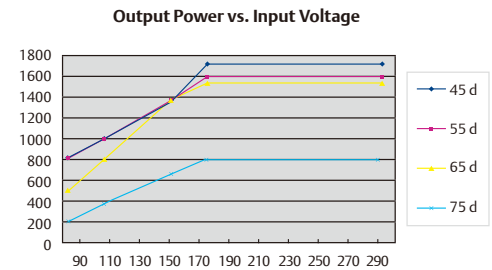
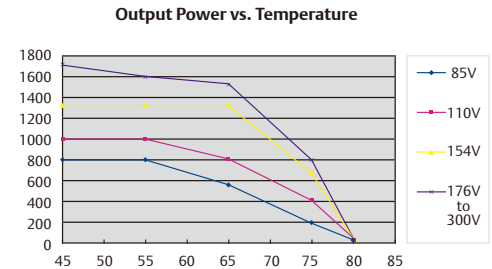
Control and Monitoring	
Rectifier Alarm and Signaling	Alarm and status reported via CAN bus to system controller
Visual Indications	Green LED: Normal Operation Yellow LED: Alarm Red LED: HVSD Indicating Lamp Flashing Red LED: Fan Failure

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 × 272 mm (3.39 × 3.33 × 10.71 inches)
Weight	2.4 kg (5.29 lbs)

Other parts	
Controller Units	See separate ACU, SCU and LCUs datasheets

Ordering information	
Product Name	R48-1800 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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