

KEY FEATURES

Rectifier -48VDC, 500W

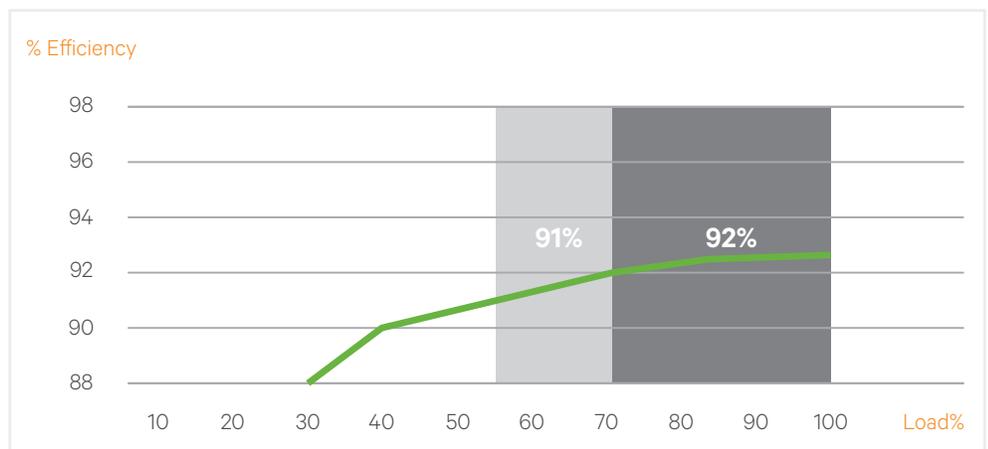
- Low rectifier/subrack height minimize space needed for power in embedded applications
- DSP (Digital Signal Processor) means fewer components, optimized operation and active load sharing for increased reliability
- Compliant with global standards delivers quality, performance and reliability no matter what the application or location demands
- High efficiency, Maximum 92% efficiency 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 to 75°C / -40°F to 167°F) meets the harshest climatic environment requirements

Description

The R48-500 rectifier converts standard AC supply voltages into stable nominal -48 VDC voltages adjustable to the needs of the application. The R48-500 is a constant power rectifier designed with the latest patented switch-mode technology using DSP (Digital Signal 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.



R48- 500



R48-500 Efficiency Curve at 208 VAC Nominal

Technical Specifications, R48-500

AC INPUT	
Voltage	85 VAC to 300 VAC (see figure 1) 100 VAC to 250 VAC (nominal)
Frequency	45 Hz to 65 Hz
Maximum Current	6.8 A
Power Factor	0.99
DC OUTPUT	
Voltage	-42 VDC to -58 VDC
Maximum Power	500 W @ Vout > 48 VDC
Maximum Current	10.5 A @ -48 VDC, limit set point 0 to 120 A (see figure 2 for derating)
Peak Efficiency	92%
Psophometric Noise (System)	≤1 mV ; <32 dBrc
Temperature Derating	See figure 2 for derating
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	
Operating	-40°C to +75°C / -40°F to +167°F
Storage	-40°C to +75°C / -40 to +167°F
Relative Humidity	0 to 95%
Altitude	2000 m / 6560 ft at full power
STANDARDS COMPLIANCE	
Safety	60950 (EN, IEC and UL)
EMC	ETSI EN 300 386 class B, FCC CFR 47 Part 15 class B, Telcordia GR-1089-CORE class B
Environment	REACH, RoHS 5, WEEE
MECHANICS	
Dimensions (H x W x D)	40.8 x 86.5 x 241 (mm) / 1.6 x 3.4 x 9.5 (inches)
Weight	1.25 kg / 2.76 lbs

Ordering Information

PRODUCT CODE	DESCRIPTION
1R48500	Rectifier, 48 VDC, 500 W

Figures

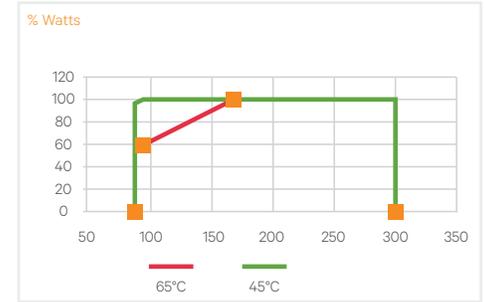


Figure 1
R48-500 Output Power vs. Input Voltage at 65°C and 45°C

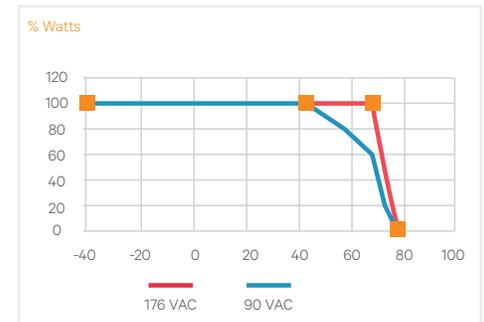


Figure 2
R48-500 Output Power vs. Temperature at 176 VAC and 90 VAC