

ESURE™ RECTIFIER

R48-5800e



KEY FEATURES

Rectifier, 48 VDC, 5800 W

- Optimized depth - reduced footprint allows installation in short-depth racks and cabinets
- 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, near 96.2% - 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 from -40°C to +65°C / -40°F to +149°F meets the harshest climatic environment requirements

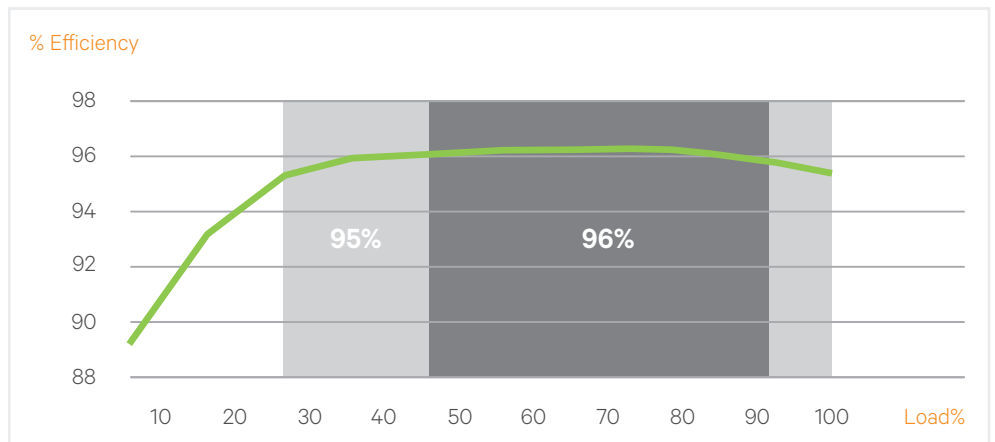
Description

The eSure™ R48-5800e rectifier converts 260 to 530 VAC 3-phase supply voltages into stable nominal -48V DC voltage adjustable to the needs of the application. The R48-5800e 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.



R48-5800e



R48-5800e Efficiency Curve at 380 VAC Nominal

Technical Specifications, R48-5800e

AC INPUT	
Voltage	260 VAC to 530 VAC (see figure 1) 380 VAC to 480 VAC (nominal)
Frequency	45 Hz to 65 Hz
Maximum Current	13 A
Power Factor	0.99

DC OUTPUT	
Voltage	-42 VDC to -58 VDC
Maximum Power	5800 W @ Vout >48 VDC
Maximum Current	120A @ 48 VDC, limit set point 0 to 120 A (see figure 2)
Peak Efficiency	96.2%
Psophometric Noise (System)	<2 mV typical; <32 dBrc typical
Temperature Derating	See figure 3 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 +65°C / -40°F to +149°F (see figure 3 for derating)
Storage	-40°C to +70°C / -40°F to +158°F
Relative Humidity	0 to 95%
Altitude	2000 m / 6560 ft at full power

STANDARDS COMPLIANCE	
Safety	60950 (EN and UL), Telcordia GR-63-CORE
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)	85.5 x 245 x 380 (mm) / 3.37 x 9.65 x 14.96 (inches)
Weight	6.5 kg / 14 lbs

Ordering information

PRODUCT CODE	DESCRIPTION
1R485800E	eSure Rectifier, 48 VDC, 5800 W

Figures

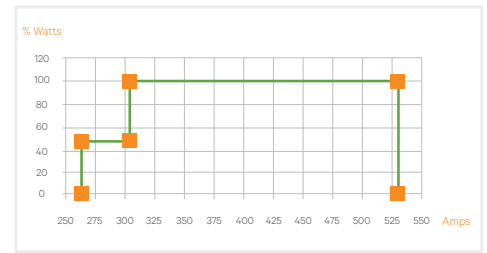


Figure 1:
Output Power vs. Input Voltage
at Temp < 45°C

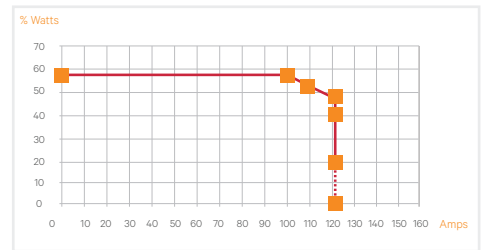


Figure 2
Output Power vs. Output Current,
Max. Output Power 5800 W

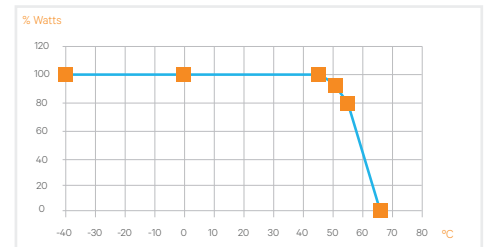


Figure 3
Output Power vs. Temperature
at Uin . 304 VAC