

ESURE™ RECTIFIER

R400-15000e



KEY FEATURES

Rectifier, 400 VDC, 15 kW

- 15 kW high-efficiency rectifier designed for 400V DC power applications
- 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, peak 97% – reduces power consumption for lower operating costs
- Hot pluggable – facilitates future expansions and easy maintenance
- Wide input voltage range to operate in the most demanding environments
- Wide temperature operating range to meet the harshest climatic environments

In addition to reducing power consumption and lowering operating cost, eSure™ high-efficiency rectifiers offer superior performance and uncompromised reliability.

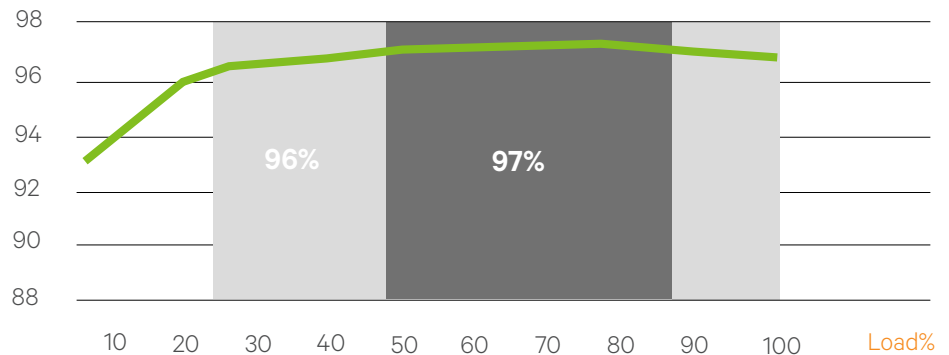
Description

The 15 kW high-efficiency eSure rectifier (model R400-15000e) is designed to convert standard AC supply voltages into stable 400V DC voltage that is adjustable to application needs. The R400-15000e is a constant power rectifier designed with the latest patented switchmode 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.



% Efficiency



R400-15000e Efficiency Curve at 480 VAC Nominal

Technical Specifications

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	30 A
Power Factor	0.99

DC OUTPUT	
Voltage	290 VDC to 400 VDC
Maximum Power	15000 W @ Vout >336 VDC
Maximum Current	44.6 A @ 400 VDC, and nominal input, limit set point 0 to 44.6 A (see figure 2 for derating)
Peak Efficiency	Peak 97%

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

ENVIRONMENTAL	
Operating	-40°C to +65°C / -40°F to +149°F (see diagram for de-rating)
Storage	-40°C to +75°C / -40°F to +167°F
Relative Humidity	0 to 95%
Altitude	2000 m / 6560 ft at full power

STANDARDS COMPLIANCE	
Safety	60950-1 (EN, IEC and UL)
EMC	EN55022, CISPR22, ETSI EN300 386: 2005, FCC CFR 47 Part 15, Telcordia GR-1089-CORE issue 6 (Class B conducted and radiated)
Environment	REACH, RoHS 5, WEEE

MECHANICS	
Dimensions (H x W x D)	88 x 218 x 565 (mm) / 3.5 x 8.5 x 22 (inches)
Weight	10 kg / 22 lbs

Ordering Information

PRODUCT CODE	DESCRIPTION
1R40015000E	Rectifier, 400 VDC, 15 kW

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Figures

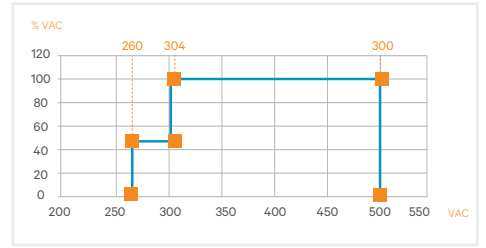


Figure 1
Output Power vs. Input Voltage
at Tamb <45°C

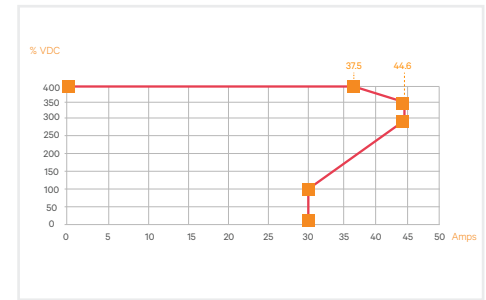


Figure 2
Output voltage vs. Output current,
max. output power 15000 W

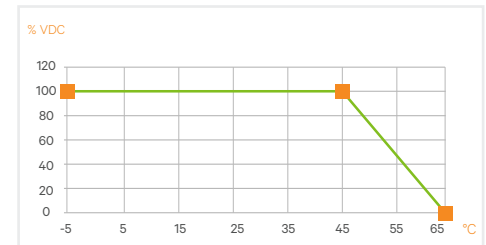


Figure 3
Output Power vs. Temperature
at Uin>340VAC, Vo >336 VDC