

HPR48-ES Energy Saver Rectifier



The **Eaton® HPR48-ES Energy Saver Rectifier** is designed for communications network operators who are striving to cut energy costs across the network, and/or to meet aggressive carbon footprint reduction targets.

Building on the successful 2kW APR48-ES product, the HPR48-ES offers 50% more power in a package that results in a significantly increased power density of 36.5W/i³.

Operating with well over 95% efficiency, it makes a significant contribution to site and network energy savings using affordable and reliable components.

The 3kW Energy Saver Rectifier is the ideal module size for powering access applications within a telecom network such as cellular base stations, fibre broadband equipment, and IoT nodes.

This rectifier produces peak efficiency of 95.4% for typical operating loads, while also maintaining a very high minimum operating efficiency of over 95% for a wide load range (from 30% to 70% of the 3kW capacity).

The high power density, compact construction and flexible mounting options makes the Energy Saver Rectifier well suited for limited space applications.

The Energy Saver Rectifier is compatible with Eaton's EC500 system controller. Simplicity of use, with a simple plug-and-go insertion ensures operating costs are kept to a minimum. It operates under a wide range of AC power conditions and in temperatures at up to 75°C (167°F).

Features

- 3000W output power
- Energy saving efficiency greater than 95%
- Wide efficiency curve
- Industry leading power density
- Fast on-line expansion of rectifiers (hot-swap)
- Simple 'plug and go' insert
- Unity power factor
- Wide AC supply conditions
- Wide output voltage range
- Constant power output
- Compliance with international standards



Powering Business Worldwide

Technical Specifications

Input

AC Supply	120V/208-240V, 50/60Hz (nominal) 185-300V full output power up to 45°C [113°F] 90-185V reduced output power
Power Factor	>0.99 (50 – 100% output current)
Efficiency	>95.4% peak >95% (30 to 70% output power)

Output

DC Output	
Voltage Range	42 – 58V
DC Output (maximum)	3000W @ 48V

Environmental

Operating	
Temperature	-40°C to +75°C [-40°F to +158°F]
Range	Output power derates above 45°C [113°F]
Cooling	Temperature controlled, variable speed, high reliability fan <50dBA ambient temperature 25°C

Compatibility

Controller	Eaton EC500 system controller
Magazine	RM4-H1, RM9-H3

Mechanical

Dimensions	1U: 42mm [1.65"], 107mm [4.21"], H,W,D 300mm [11.81"] overall
Weight	1.65kg [3.64 lb]

Certifications

North America	UL, FCC Verification, CSA
Rest of World	CB
Europe	CE

In the interests of continual product improvement all specifications are subject to change without notice. Performance ratings are valid with all other variables at Nominal.

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