

## Description

The Power-One FMP 16.48 rectifier provides extremely reliable DC power in the highest possible density. The module incorporates the latest in power monitoring solutions through an internal microprocessor giving up to the second updates to the system controller and adjacent rectifiers. This guarantees tightly controlled load sharing among rectifiers and provides status and identification information to the controller.

At only four rack units high, these compact rectifiers provide up to 1600W and allow up to ten rectifier modules in a 23in. subrack or eight modules in a 19in. subrack. Designed with diversity in mind, the FMP 16.48 rectifier is able to operate in a complete range of indoor and outdoor applications.



23in. PPR 16  
Subrack

## Features

- Compact 4 rack unit height
- 717 W/L (11.75 W/in<sup>2</sup>)
- 208/240 single phase input
- Input overvoltage disconnection
- Thermal protection
- Hot-swappable
- No adjustments required
- 93,5% typical efficiency
- Active and droop current sharing
- International Standards Compliance

# FMP 16.48

## Rectifier Module

### Input

<b>Model</b>	<b>FMP 16.48</b>
<b>Input Voltage</b>	100-240V AC $\pm$ 15% single phase (44-66Hz) (185-85V at de-rated output power)
<b>Current (max.)</b>	<10A
<b>Soft Start</b>	<13A/1ms
<b>Harmonics</b>	EN 61000-3-2 (Power factor > 0.98 typical)
<b>Surge Immunity</b>	EN 61000-4-5
<b>Fuse</b>	2 x F 12.5A (line & neutral)
<b>Connection</b>	FCI 51939-066
<b>EMC</b>	EN 61000-6-2, EN 61000-6-3, FCC Part 15 Class B

### Output

<b>Model</b>	<b>FMP 16.48</b>
<b>Output Voltage</b>	45-56VDC
<b>Power (max.)</b>	1600W @ 50-56V DC (input >185V AC) 675W @ 50-56V DC (input 185 - 85V AC)
<b>Current (max.)</b>	32A
<b>Efficiency (at 40-90% load)</b>	>93%, typical 93,5%
<b>Tolerance</b>	Vout +/- 1.0%,
<b>Transient Response</b>	+/- 5% at load variation 10-90% or 90-10%, recovery time 50ms
<b>Load Sharing</b>	<5% of nominal current
<b>Ripple</b>	<100mV p-p (BW. 30Mhz)
<b>Psophometric</b>	<2mV, according to CCITT norms
<b>Connection</b>	FCI 51939-066
<b>EMC</b>	EN 61000-6-2, EN 61000-6-4

Note: All specifications are subject to change without notification.

### Mechanical

<b>Dimensions (WxHxD)</b>	51 x 177 x 280mm (2.0 x 6.97 x 11.02in.)
<b>Weight</b>	2.2kg (4.85 lbs.)
<b>Cooling</b>	Fan cooled (front to back), speed controlled and alarmed
<b>Insulation</b>	Reinforced insulation, tested at: 4.25 KV DC primary-secondary 2.12 KV DC primary-ground 0.75 KV DC secondary-ground
<b>Enclosure</b>	IP20
<b>Mounting</b>	19in./ 4U subrack up to 8 modules 23in./ 4U subrack up to 10 modules

### Other Technical Data

<b>Safety</b>	EN 60950 UL 1950 and IEC60950 CSA C22-2 No. 950	
<b>Protection</b>	Short circuit proof, automatic current limiting, selective shutdown of modules at excessive output voltage. Thermal protection reduces the output power at environmental temperatures above maximum level. Shut down at >75°C with an automatic restart*. Input over-voltage disconnecting at >275 VAC with automatic reset at >260VAC.	
<b>Alarms</b>	High output voltage/ shutdown, Low voltage/ module failure. Each alarm has an LED indicator on the front panel.	
<b>Indications</b>	Green LED Yellow LED Red LED	Power ON Current limit/ thermal protection. Com. failure (flashing) Module failure/ high output voltage/ shutdown
<b>Audible Noise</b>	<60dBA	
<b>Operating Temperature</b>	-40 to +65°C up to 2000m -40 to +55°C above 2000m	
<b>Storage Temperature</b>	-60 to +85°C	
<b>Radiated EMC</b>	EN 61000-6-2, EN 61000-6-3, FCC Part 15, Class B	
<b>Environment</b>	Storage: Transport: Operation Earthquake	ETS 300 019-2-1 ETS 300 019-2-2 ETS 300 019-2-3 GR 63 Core Zone 4

\*Average performance for a single module.