

Description

The Power-One FMP16.48 rectifier provides extremely reliable DC power in the highest possible density. This rectifier module incorporates the latest in power monitoring solutions using an internal microprocessor that gives 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 1600 watts and allow up to 10 rectifier modules in a 23-inch subrack or eight modules in a 19-inch subrack. Designed with diversity in mind, the FMP16.48 rectifier is able to operate in a complete range of indoor and outdoor applications.



23-inch PPR16 Subrack

Features

- RoHS lead free solder and lead solder exempted products are available
- Compact 4-rack unit height
- 717 W/L (11.75 W/in³)
- 205/240 VAC 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

Input

Model	FMP16.48
Input Voltage	100-240 VAC \pm 15% single phase (44-66 Hz) (185-85 V at derated output power)
Current (max.)	<10 A
Soft Start	<13A /1ms
Harmonics	EN 61000-3-2 (Power factor > 0.98 typical)
Surge Immunity	EN 61000-4-5
Fuse	2 x F 12.5A (line & neutral)
Connection	FCI 51939-066
EMC	EN 61000-6-2, EN 61000-6-3, FCC Part 15 Class B

Output

Model	FMP16.48
Output Voltage	45-57 VDC
Power (max.)	1600 W @ 45-57 VDC (input >185 VAC) 675 W @ 45-57 VDC (input 185 - 85 VAC)
Current (max.)	32 A
Efficiency (at 40-90% load)	>93%, typical 93.5%
Tolerance	Vout \pm 1.0%
Transient Response	\pm 5% at load variation 10-90% or 90-10% recovery time 50 ms
Load Sharing	<5% of nominal current
Ripple	<100 mV p-p (BW 30 MHz)
Psophometric	<2 mV, according to CCITT norms
Connection	FCI 51939-066
EMC	EN 61000-6-2, EN 61000-6-4

NUCLEAR AND MEDICAL APPLICATIONS - Power-One products are not designed, intended for use in, or authorized for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems without the express written consent of the respective divisional president of Power-One, Inc.

TECHNICAL REVISIONS - The appearance of products, including safety agency certifications pictured on labels, may change depending on the date manufactured. Specifications are subject to change without notice.

Mechanical

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

Other Technical Data

Safety	EN 60950-1 UL 60950-1, IEC60950-1, and CSA C22.2 No. 60950-1	
Protection	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 overvoltage disconnecting at >275 VAC with automatic reset at >260 VAC.	
Alarms	High output voltage/ shutdown, Low voltage/ module failure. Each alarm has an LED indicator on the front panel.	
Indications	Green LED Yellow LED Red LED	Power ON Current limit/ thermal protection. Com. failure (flashing) Module failure/ high output voltage/ shutdown
Audible Noise	<60dBA	
Operating Temperature	-40 to +65 °C up to 2000 m -40 to +55 °C above 2000 m	
Storage Temperature	-60 to +85 °C	
Radiated EMC	EN 61000-6-2, EN 61000-6-3, FCC Part 15, Class B	
Environment	Storage: Transport: Operation: Earthquake:	ETS 300 019-2-1 ETS 300 019-2-2 ETS 300 019-2-3 GR 63 Core Zone 4