power-one™
Changing the Shape of Power

FMP 32.48

Rectifier Module

Description

The Power-One FMP 32.48 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 3200W and allow up to five rectifier modules in a 23in. subrack or four modules in a 19in. subrack. Designed with diversity in mind, the FMP 32.48 rectifier is able to operate in a complete range of indoor and outdoor applications.

23in. Forza
Subrack

Features

- Compact 4 rack unit height
- 697 W/L (11.42 W/in^2)
- Front or mid-mount
- 100-240 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

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Input

Model	FMP 32.48
Input Voltage	2 separate inputs, each at 100-240V AC ±15% single phase (44-66Hz) (185-85V at de-rated output power)
Current (max.)	<2x10A
Soft Start	<2x13A/1ms
Harmonics	EN 61000-3-2 (Power factor > 0.98 typical)
Surge Immunity	EN 61000-4-5
Fuse	4 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	FMP 32.48
Output Voltage	45-56VDC
Power (max.)	3200W @ 50-56V DC (input >185V AC) 1350W @ 50-56V DC (input 185 - 85V AC)
Current (max.)	64A
Efficiency (at 40-90% load)	>93%, typical 93,5%
Tolerance	Vout +/- 1.0%,
Transient Response	+/- 5% at load variation 10-90% or 90-10% recovery time 50ms
Load Sharing	<5% of nominal current
Ripple	<100mV p-p (BW. 30Mhz)
Psophometric	<2mV, according to CCITT norms
Connection	FCI 51939-066
EMC	EN 61000-6-2, EN 61000-6-4

Note: All specifications are subject to change without notification.

Mechanical

Dimensions (WxHxD)	105 x 177 x 280mm (4.14 x 6.97 x 11.02in.)
Weight	4.2kg (9.26 lbs.)
Cooling	Fan cooled, speed controlled and alarmed
Insulation	Reinforced insulation, tested at: 4.25 KV DC primary-secondary 2.12 KV DC primary-ground 0.75 KV DC secondary-ground
Enclosure	IP20
Mounting	19in./ 4U subrack up to 4 modules 23in./ 4U subrack up to 5 modules

Other Technical Data

Safety	EN 60950 UL 1950 and IEC60950 CSA C22-2 No. 950	
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 over-voltage disconnecting at >275 VAC with automatic reset at >260VAC.	
Alarms	High output voltage/ shutdown, Low voltage/ module failure. Each alarm has an LED indicator on the front panel and a common potential free contact for external signalling.	
Indications	Green LED	Power ON
	Yellow LED	Current limit/ thermal protection Com. failure (flashing)
	Red LED	Module failure/ high output voltage/ shutdown
Audible Noise	<60dBA	
Operating Temperature	-40 to +65°C up to 2000m -40 to +55°C above 2000m	
Storage Temperature	-60 to +85°C	
Radiated EMC	EN 61000-6-2, EN 61000-6-3, FCC Part 15, Class B	
Environment	Storage	ETS 300 019-2-1
	Transport	ETS 300 019-2-2
	Operation	ETS 300 019-2-3
	Earthquake	GR 63 Core Zone 4

*Average performance for a single module.