

Description

The Power-One PMP 25 rectifier uses resonance switch mode technology (soft switching), and incorporates thermal protection while providing extremely reliable DC power in a small space. Rectifier communication is accomplished using digital interfaces over an RS485 data bus. Information is transmitted to adjacent rectifiers while providing status and identification information to the system controller (PCS).

At only 4 rack units high, these compact rectifiers allow for up to five modules in each 23in. rack (4 units in 19in. rack) providing up to 250A at 48V or up to 550A at 24V. With full power available up to 65°C, PMP 25 rectifiers are ideal for any indoor or outdoor application.



PPS 25 System
Shown

Features

- Compact 4 rack-unit height
- 50A output at 48V
- 110A output at 24V
- 208 / 240 single phase input
- Input over-voltage disconnect
- Hot-swappable rectifiers
- High efficiency, up to 91%
- Active current sharing
- International standards compliance

PMP 25

Rectifier Module

Input

Model	PMP 25.24	PMP 25.48
Input Voltage	196 - 250V AC $\pm 10\%$ single phase, (44-66Hz) 176-160V AC at reduced output power	
Current (max.)	<22A	<20A
Soft Start	<22A	<20A
Harmonics	EN 61000-3-2 Power Factor >0.98 at 50-100% load	
Surge Immunity	EN 61000-4-5	
Fuse	F 25A	
Connection	Harting MH - 21 Signal pins, 3 HC pins	
EMC	EN 61000-6-2, EN 61000-6-3, FCC Part 15 Class B	

Output

Model	PMP 25.24	PMP 25.48
Power (max.)	3080W	2800W
Output Voltage	22-30V DC	44-58V DC
Current (max.)	110A	50A
Efficiency (@ 40-90%Load)*	>89%	>91%
Tolerance	Vout +/- 0.5%	
Transient Response	+/- 6% at load variation 10-90% or 90-10%, recovery time 150ms	
Load Sharing	<5% of nominal current	
Ripple	<100mV p-p (BW. 30MHz)	
Psophometric	<2mV, according to CCITT norms	
Connection	8mm HC-pins	
EMC	EN 61000-6-2, EN 61000-6-4	

* Average performance for a single rectifier

Mechanical

Dimensions	105 x 176 x 455mm (6.9 x 4.13 x 17.9in.)
Weight	6.2kg (13.6lbs.)
Cooling	Fan: speed controlled and monitored
Interface	RS485 for communication with the supervision module
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	In 19"/ 4U subrack up to 4 In 23"/ 4U subrack up to 5

Other Technical Data

Safety	EN 60950 CSA C22-2 No. 950, UL 1950	
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 automatic restart.* Input over-voltage disconnection at >275VAC with automatic reset at >260VAC.	
Indications	Green LED Yellow LED Yellow Flashing Red LED	Power ON Thermal Protection Comm. Error Module Failure
Audible Noise	<60dBA	
Operating Temperature*	48V: -25 to +60°C 24V: -40 to +65°C	
Storage Temperature	-40 to +85°C	
Radiated EMC	EN 61000-6-2, EN 61000-6-3, FCC Part 15, Class B	
Environment	Storage: Transport: Operation:	ETS 300 019-2-1 ETS 300 019-2-2 ETS 300 019-2-3

Note: All specifications are subject to change without notification.