

**ASPIRO**

# XPGe12.48G

## 48VDC RECTIFIER

### 25 Amps | 1200 Watts

### Overview

The XPGe12.48G rectifier raises the bar for efficiency in medium-size rectifiers. Incorporating resonant technology to reduce component stresses also provides increased system reliability.

The rectifier features a wide input operating voltage range to maximize power availability within demanding utility power environments.

Typical applications for these rectifiers are both in indoor and outdoor environments, which is ideal for broadband access, cable head ends, micro/pico BTS Cells, Enterprise E911, and GSM-R applications.

The XPGe12.48G is one of two rectifier types that can be installed in the Aspiro Series DC power systems.

### Features

- >95% typical efficiency
- Leading power density of up to 21.8W/in<sup>3</sup>
- Rugged input voltage range
- Thermal protection
- Hot-swappable
- International standards compliance
- Three Year Warranty

### Ordering Guide

Max. Power	Output Voltage	Output Current	Input Voltage <sup>2</sup>	Input Current <sup>3</sup>	Model No.
1200W	48.0VDC 53.5VDC <sup>1</sup>	25.0A 22.4A	90-275VAC	5.8A/5.5A	XPGe12.48G

Notes:

1. Default factory setting.
2. Units will operate over the full range from 90VAC to 275VAC, automatically limiting output current according to the actual input voltage range applied.
3. Input currents shown are nominal values at 110VAC/240VAC as appropriate.



### Safety Certification

CAN/CSA C22.2 No 62368-1:2014  
 UL 62368-1:2014  
 EN 62368-1:2014/A11:2017

# XPGe12.48G Specifications

## Input

Voltage	Nominal: 90-275VAC
	Permitted variation: 90-300VAC (L-PE and N-PE <250VAC)
Current	<5.5A @ 230VAC   <5.8A @ 110VAC
Frequency	47-63Hz
Power Factor	>0.99 typical
Fuse	Two 12.5A fast blow (L & N)

## Output

Voltage Range	46-57VDC	
Power	1200W at 180-264VAC   600W at 90-180VAC	
Current	@ 48V	25.0A at 180-275VAC   12.5A at 90-180VAC
	@ 53.5V	22.4A at 180-275VAC   11.2A at 90-180VAC
Efficiency		
Tolerance	Vout ±1.0%	
Transient Response	±3% at load variation 10-90% or 90-10% recovery time 20ms	
Load Sharing	<5% of nominal current	
Ripple	<100mV p-p (BW 500MHz)	
Psophometric	<2mV, according to CCITT norms	

## Standards

Inrush Current	ETSI ETS 300 132-1
Harmonics	EN61000-3-2
EMC	ETSI EN300 386 V1.3.2 EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4 EN55024 performance criterion A EN55022 Class B Telcordia NEBS GR1089
Safety	CAN/CSA C22.2 No 62368-1:2014 UL 62368-1:2014 EN 62368-1:2014/A11:2017
Environmental	Storage: ETSI EN300 019-2-1 Transport: ETSI EN300 019-2-2 Operation: ETSI EN300 019-2-3 Damp Heat: IEC60068-2-78 Earthquake: GR 63 Core Zone 4

## Mechanical

Dimensions, inches (mm)	4.0 (102) W x 9.1 (230) D x 1.6 (41) H
Weight	2.4lbs. (1.1kg)
Cooling	Fan-cooled, speed controlled
Insulation	4.25kVDC primary-secondary 2.12kVDC primary-ground 0.2kVDC secondary-ground
Enclosure	IP20
Mounting	19in x 1RU sub-rack up to 4 modules

## General

Protection	Short circuit protection, automatic current/power limiting, input/output overvoltage protection, thermal protection.
Alarms	Fan failure Fan pre-warning Temperature shutdown High temperature pre-warning Output power derating Low output voltage Current share error Internal communication failure Output overvoltage
LED Indicators	Green: AC normal operation Yellow steady: power derating Yellow flashing: Comms. failure Red: Module alarm
Audible Noise (nominal input)	<45dBA @ ≤25°C <55dBA @ >45°C
Operating Temperature	-40°C to +75°C up to 2000m. Reduced spec -40°C to -20°C.
	<p>For 3000m altitude derate by 5°C.</p>
Storage Temperature	-60°C to +85°C

## ABOUT GREEN CUBES TECHNOLOGY

Green Cubes Technology harnesses over 30 years of industry experience to ensure we design, develop and deliver solutions for the most challenging energy needs. We offer battery technology innovation, application design and performance management to drive productivity, scalability and sustainability.

Green Cubes provides complete power systems to the stationary power industry. With the addition of the Guardian and Aspiro Product lines offered under the UNIPOWER brand, these industry proven DC plant systems serve critical applications all around the world. Green Cubes offers complete power solutions including energy storage, power conversion, and seamless integration.

For more information, email [contact@greencubes.com](mailto:contact@greencubes.com) or visit [greencubes.com](http://greencubes.com)

