

Description

The Power-One Xscend rectifier provides extremely reliable, high density DC power. The rectifier 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 two rack units high, these compact universal input rectifiers provide up to 1600 watts and allow up to five rectifier modules in a 23-inch shelf or four modules in a 19-inch shelf. Designed with diversity in mind, the Xscend rectifier is able to operate in a complete range of indoor and outdoor applications.



Xscend Power System

Features

- Compact 2-rack unit height
- 703 W/L (11.5 W/in³)
- Front or mid-mountable
- 110V/200-240 VAC single-phase input
- Input overvoltage disconnection
- Thermal protection in all load situations
- Hot-swappable
- No adjustments required
- 93.5% typical efficiency
- Active and droop current sharing
- International standards compliance

Input

Model	XR1648	XR1424
Input Voltage	100-240 VAC \pm 15% single phase (44-66 Hz) (180-85 VAC at derated output power)	
Current (max.)	<10 A	
Soft Start	<13 A/1 ms	
Harmonics	>0.98 typical	
Surge Immunity	EN 61000-4-5	
Fuse	12.5 A -line, 12.5 A -neutral	
Connection	FCI power connector™	
EMC	EN 61000-6-2, EN 61000-6-3, FCC Part 15 Class B	

Output

Model	XR1648	XR1424
Output Voltage	45-57 VDC	22.5-28 VDC
Power (max.)	1600 W at >180 VAC (50-57 VDC)	1400 W at >180 VAC (25-28 VDC)
	675 W at 180-85 VAC (50-57 VDC)	675 W at 180-85 VAC (25-28 VDC)
Current (max.)	32 A	56 A
Efficiency (at 40-90% load)	>93% (93.5% typical)	>90% (91% typical)
Tolerance	Vout +/- 1.0%, constant voltage regulation	
Transient Response	+/- 5% at load variation 10-90% or 90-10%	
Load Sharing	<5% of nominal current	
Ripple	<100 mV p-p (BW. 30 MHz)	
Psophometric	<2 mV, according to CCITT norms	
Connection	FCI power connector™	
EMC	EN 61000-6-2, EN 61000-6-4	

Mechanical

Dimensions (WxHxD)	102.87 x 88.9 x 241.3 mm (4.05 x 3.5 x 9.5 in)
Weight	2.3 kg (4.12 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
Mounting	19 in/ 2U subrack up to 4 modules 23 in/ 2U subrack up to 5 modules

Other Technical Data

Safety	CSA C22-2 No. 950, UL 1950 and IEC60950/ EN 60950	
Protection	Short circuit proof, automatic current limiting, selective shutdown of modules at excessive output voltage. Thermal protection derates the output power 65°C ambient temperature. Shutdown at >75°C with automatic restart. Shutdown is load dependant, at low load typ 85°C. Input overvoltage disconnection at >275VAC with automatic reset at >260VAC.	
Alarms	High output voltage/ shutdown, Low voltage/ module failure. Each alarm has an LED indicator on the front panel.	
Indications	Green LED	Power ON
	Yellow LED	Current limit/ thermal protection
	Red LED	Module failure
Audible Noise	<60dBA	
Operating Temperature	-40 to +65 °C up to 2000 m	
	-40 to +55 °C above 2000 m	
Storage Temperature	-40 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.

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.