

Power

Cordex™ 1.8kW

Modular Switched Mode Rectifier



CXRF 48-1.8kW

- Available in 37.5A @ 48VDC
- High power density
- Power limiting and wide range AC input
- 91% efficiency and power factor correction
- Hot swappable, 2RU ultra compact design

Cordex rectifiers bring advanced technology to the DC power industry. Innovative engineering combines the best in efficiency and reliability meeting the power requirements for a variety of system applications.

With more than 9kW per 23" shelf, the fan cooled Cordex 1.8kW rectifier has extremely high density providing the most power in the least amount of space. A compact 2RU design accommodates five rectifiers per 23" shelf and four rectifiers per 19" shelf with integrated CXCI controller. An optional CXCM2 controller with touch screen display is available.

Local and remote setup, adjustment, and control is a simple single-step process with the Cordex CXC System Controller. By utilizing TCP/IP technology, complete configuration and monitoring of power equipment is possible through a network web browser.

Cordex 1.8kW Modular Switched Mode Rectifier

Rectifier Module(s)

Electrical

Input voltage	
Nominal:	208 to 277VAC
Operating:	176 to 312VAC
Extended:	176 to 90VAC (derated power)
Input frequency:	45 to 66Hz
Power:	1800W continuous/module
Power factor:	>0.99 (50 to 100% load)
THD:	<5%
Efficiency:	>91%
Output voltage:	42 to 60VDC
Output current:	33.3A @ 54VDC (37.5A max. 48V)
Load regulation:	<±0.5% (static)
Line regulation:	<±0.1% (static)
Transient response:	±2% for 50 to 100% load step, 2ms recovery time
Noise	
Voice band:	<32dBmC
Wide band:	<30mV RMS (10kHz to 10MHz) <150mV pk to pk (10kHz to 100MHz)
Psophometric:	<1mV
Acoustic:	<60dBa @ 1m (3ft)

Mechanical

Dimensions	
mm:	84H x 100W x 235D
inches:	3.3H x 3.94W x 9.25D
Weight:	2.8kg (6.2lb)

Features

Indicators:	AC mains OK—green LED Module OK—green LED Module fail—red LED
Controls:	CAN interface to CXC Controller
Adjustments: (via CXC Controller)	Float voltage Equalize voltage High voltage alarm Low voltage alarm High voltage shutdown Current limit Slope Start delay timers
Protection:	Current limit/short circuit Start delay Input/output fuses Output high voltage shutdown Power limiting Thermal foldback/shutdown Input transient AC low line foldback/shutdown AC high voltage shutdown



Typical 9kW 23" Shelf with CXCI



Typical 7.2kW 23" Shelf with CXCM2

Environmental

Temperature	
Standard:	-40 to 65°C (-40 to 149°F)
Storage:	-40 to 85°C (-40 to 185°F)
Humidity:	0 to 95% RH non-condensing
Elevation:	-500 to 2800m (-1640 to 9186ft)
Heat dissipation:	<608 BTU per hour

Shelves

Mechanical

19"/23" shelf

Dimensions	
mm:	86.3H x 442W x 304.8D
inches:	3.4H x 17.4W x 12D
Weight:	6.7kg (14.7lb)
Mounting:	Fits 19" rack flush/center mount Fits 23" rack center mount only

23" shelf

Dimensions	
mm:	86.3H x 530W x 304.8D
inches:	3.4H x 20.8W x 12D
Weight:	8.2kg (18.1lb)
Mounting:	Fits 23" racks only flush/center mount

Connections

Input:	Molex mini-fit type 8mm ² (8AWG)
Output:	Bus adapters with 3/8" studs on 1" centers
Chassis ground:	Compression lug 6 to 16mm ² (10 to 6AWG)
CAN communication:	RJ 12 offset

Standards

The Cordex 1.8kW is designed to meet the following:

Safety:	CSA C22.2 No 60950-1-03 UL 60950-1 1 st Edition CE marked IEC/EN 60950-1
EMC:	ETSI 300 386
Emissions:	CFR47 (FCC) Part 15 Class B ICES-03 Class B EN55022 (CISPR 22) Class B C-tick (Australia) EN 61000-3-2 EN 61000-3-3 EN 61000-4-2 EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-4-11 ANSI/IEEE C62.41 Cat B3
Immunity:	

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