

Cordex™ 3.1kW

Modular Switched Mode Rectifier



CXRF 24-3.1kW

- Available in 130A @ 24VDC
- High power density, over 18kW per 23" shelf
- Power limiting and wide range AC input
- High efficiency and power factor correction
- Hot swappable, 4RU 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.

The 24VDC Cordex 3.1kW rectifier has extremely high density providing the most power in the least amount of space. A compact 4RU shelf accommodates six rectifiers per 23" shelf and five rectifiers per 19" shelf.

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 3.1kW Modular Switched Mode Rectifier

Rectifier Module(s)

Electrical

Input voltage	
Nominal:	208 to 277VAC
Operating:	176 to 312VAC
Extended:	176 to 90VAC (derated output power)
Input frequency:	45 to 70Hz
Power:	3100W continuous/module
Power factor:	>0.99 (50 to 100% load)
THD:	<5%
Efficiency:	>90%
Output voltage:	21 to 29VDC
Output current:	115A @ 27VDC (130A max. 24V)
Load regulation:	<±0.5% (static)
Line regulation:	<±0.1% (static)
Transient response:	±2% for 50 to 100% load step, 2ms recovery time

Noise

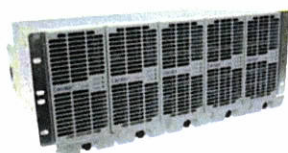
Voice band:	<32dBnC
Wide band:	<30mV RMS (10kHz to 10MHz) <150mV pk to pk (10kHz to 100MHz)
Psophometric:	<1.0mV
Acoustic:	<60dBa @ 1m (3ft)

Mechanical

Dimensions	
mm:	160H x 87W x 300D
inches:	6.3H x 3.4W x 11.8D
Weight:	4.6kg (10lb)

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
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



Typical 15.5kW 19" Shelf

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 4000m (-1640 to 13120ft)
Heat dissipation:	<1176 BTU per hour

Shelves

Mechanical

19"/23" shelf (5 modules)

Dimensions	
mm:	177H x 442W x 389D
inches:	6.9H x 17.4W x 15.3D
Weight:	8.5kg (19lb)
Mounting:	Fits 19" rack flush/center mount Fits 23" rack center mount only

23" shelf (6 modules)

Dimensions	
mm:	177H x 530W x 389D
inches:	6.9H x 20.8W x 15.3D
Weight:	9.5kg (21lb)
Mounting:	Fits 23" racks only flush/center mount

Connections

Input:	Box type terminal block 6 to 16mm ² (10 to 6AWG)
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 3.1kW 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:	