

# Cordex™ 1kW

Modular Switched Mode Rectifier



CXRC 48-1kW

- Available in 21A @ 48VDC
- Power limiting and wide range AC input
- 92% efficiency and power factor correction
- Convection cooled
- 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 Cordex 1kW integrated 19" or 23" shelf systems with distribution is ideal for applications with lower power requirements. A compact 4RU design allows five rectifiers plus controller or six rectifiers per 19" shelf for bulk power needs.

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 1kW Modular Switched Mode Rectifier

Rectifier Module(s)

Electrical

Input voltage  
 Nominal: 208 to 277VAC  
 Operating: 150 to 320VAC  
 Extended: 150 to 90VAC (derated power)  
 Input frequency: 45 to 66Hz  
 Power output: 1000W continuous/module  
 Power factor: >0.99  
 Efficiency: >92%  
 Output voltage: 42 to 60VDC  
 Output current: 18.5A @ 54VDC (20.8A maximum)  
 Load regulation: <±0.5% (static)  
 Line regulation: <±0.1% (static)  
 Transient response: ±1% for 50% to 100% load step, 2ms recovery time

Noise

Voice band: <32dBnC  
 Wide band: <5mVrms  
 <100mVpk to pk

Psophometric:

<1mV

Mechanical

Dimensions  
 mm: 177H x 71W x 250D  
 inches: 6.9H x 2.8W x 9.8D  
 Weight: 2.9kg (6.4lb)

Features

Indicators: AC mains OK—green LED  
 Module OK—green LED  
 Module alarm—red LED  
 Natural convection

Cooling:  
 Adjustments: (via CXC Controller) Float and equalize voltage  
 Battery test voltage  
 High and low voltage alarms  
 High voltage shutdown  
 Current limit  
 Start delay timers  
 Slope %

Protection: Current limit/short circuit  
 Start delay  
 Input/output fuses  
 Output high voltage shutdown  
 Output power limiting  
 Thermal foldback/shutdown  
 Input transient  
 AC low line foldback/shutdown  
 AC high voltage shutdown

Environmental

Temperature  
 Operation: -40 to 50°C (-40 to 122°F)  
 (with short periods up to 70°C/158°F)  
 Storage: -40 to 85°C (-40 to 185°F)  
 Humidity: 0 – 95% RH non-condensing  
 Elevation: -500 to 4000m (-1640 to 13120ft)  
 Heat dissipation: <295 BTU per hour

Shelves

Mechanical  
 19"/23" shelf

Dimensions  
 mm: 177H x 544W x 303D  
 inches: 6.9H x 21.4W x 11.9D  
 Weight: 10.2kg (22.5lb)  
 Mounting: Fits 19" or 23" rack center mount

19" shelf

Dimensions  
 mm: 177H x 444W x 303D  
 inches: 6.9H x 17.5W x 11.9D  
 Weight: 7.3kg (16lb)  
 Mounting: Fits 19" rack flush mount

Note: Consult factory for other shelf configurations.

Connections

Input: Dual feed terminal blocks  
 4 to 6mm<sup>2</sup> (12 to 10AWG)  
 Output: ¼" studs on ½" centers  
 Chassis ground: ¼" stud  
 CAN communication: RJ 12 offset

Standards

The Cordex 1kW is designed to meet the following:

Safety: CSA C22.2 No 60950-1-03  
 UL 60950-1 1<sup>st</sup> Edition  
 CE marked  
 IEC/EN 60950-1

EMC: Emissions: ETSI 300 386  
 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  
 EN 61000-4-11  
 ANSI/IEEE C62.41 Cat B3



Typical 4kW 23" shelf with controller