

Cordex™ 3.1kW

24Vdc Modular Switched Mode Rectifier



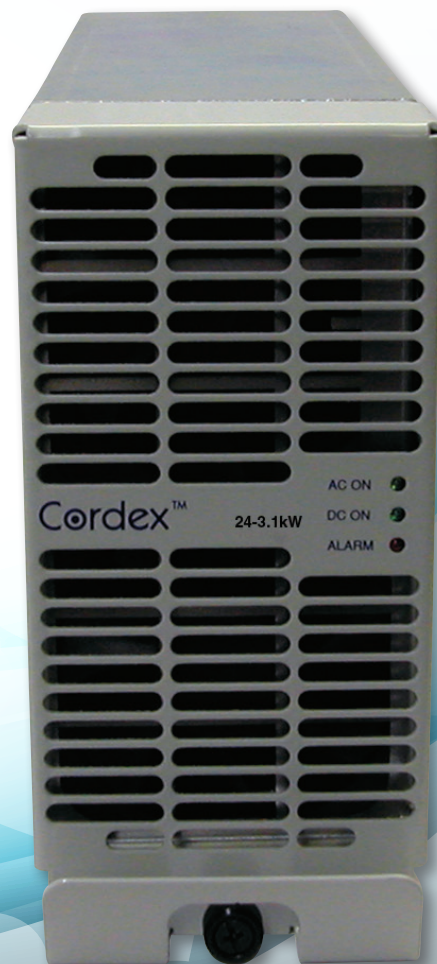
Your Power Solutions Partner

- Available in 130A @ 24Vdc
- High power density, over 21kW per 23" shelf
- Power limiting and wide range AC input
- Compliant with the stringent EMI immunity requirements for power station and substation environments
- 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.



Power

Cordex™ 3.1kW 24Vdc Modular Switched Mode Rectifier

Part Number:010-572-20

ELECTRICAL

> 3.1kW Rectifier Module(s)

Input voltage:

Nominal:.....208 to 277Vac
 Operating:.....176 to 312Vac
 Extended:.....176 to 90Vac (de-rated power)

Input frequency:.....45 to 70Hz

Power factor:.....>0.99 (50 to 100% load)

THD:.....<5%

Efficiency:.....>90%

Output voltage:.....21 to 29Vdc

Output power:.....3100W continuous/module

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:.....<32dBnCr
 Wide band:.....<30mV RMS (10kHz to 10MHz)
 <150mVp-p (10kHz to 100MHz)

Psophometric:.....<1.0mV

Acoustic:.....<60dBa @ 1m (3ft)

PERFORMANCE / FEATURES

Indicators:.....AC mains OK — green LED

Module OK — green LED
 Module fail — red LED

Controls:.....CAN interface to CXC

Adjustments:.....Float voltage

(via CXC controller)

Equalize voltage
 High/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

MECHANICAL

Dimensions:

mm:.....160H x 87W x 300D
 inches:.....6.3H x 3.4W x 11.8D

Weight:.....4.6kg (10lbs)

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 per hour

SHELVES

> 19/23" shelf (5 modules)

Dimensions:

mm:.....177H x 442W x 389D
 inches:.....6.9H x 17.4W x 15.3D

Weight:.....8.5kg (19lbs)

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 (21lbs)

Mounting:.....Fits 23" racks only flush/center mount

Connections

Input:.....Box type terminal block
 6 to 16mm² (10 to 6AWG)
 Output:.....Bus adapters with 3/8" studs on 1" centers
 Chassis ground:.....Compression lug
 6 to 16mm² (10 to 6AWG)
 CAN communication:.....RJ 12 offset

AGENCY COMPLIANCE

Safety:.....CSA C22.2 No 60950-1-03

UL 60950-1 1st 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, 3-3

Immunity:.....EN 61000-4-2, 4-3, 4-4, 4-5, 4-6, 4-11

ANSI/IEEE C62.41 Cat B3

IEC TS 61000-6-5 Immunity for power station

and substation environments

NEBS:.....GR-1089 CORE

GR-69 CORE



Typical 15.5kW 19" Shelf

Alpha Technologies Ltd.

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