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# Cordex® 3.1kW

## 24VDC Modular Switched Mode Rectifier



- Available in 130A @ 24VDC
- High power density, over 18.6kW 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

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**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 24VDC Modular Switched Mode Rectifier

P/N: 010-572-20-040

Electrical	
<b>3.1 kW Rectifier Module(s)</b>	
<b>Input Voltage:</b>	<b>Nominal:</b> 208 to 277VAC <b>Operating:</b> 176 to 320VAC <b>Extended:</b> 176 to 90VAC (de-rated power)
<b>Input Frequency:</b>	45 to 70Hz
<b>Power Factor:</b>	>0.98 (50 to 100% load)
<b>THD:</b>	<5% @ 208 - 240VAC 100% load
<b>Efficiency:</b>	>90%
<b>Output Voltage:</b>	21 to 29VDC
<b>Output Power:</b>	3100W continuous/module
<b>Output Current:</b>	115A @ 27VDC (130A max. 24V)
<b>Load Regulation:</b>	<±0.7% (static)
<b>Line Regulation:</b>	<±0.1% (static)
<b>Transient Response:</b>	±1% for any changes in input voltage within rated limits (recovery within 25ms)
<b>Noise:</b>	<b>Voice band:</b> <32dBmC <b>Wide band:</b> <30mV RMS (10kHz to 10MHz) <150mVp-p (10kHz to 100MHz)
<b>Psophometric:</b>	<1.0mV
<b>Acoustic:</b>	<64dBa @ 1m (3ft)
<b>Insulation:</b>	<ul style="list-style-type: none"> <li>1.5kVAC input to ground</li> <li>3.0kVAC input to output</li> <li>1.0kVAC output to ground</li> <li>0.5kVAC signals to ground</li> </ul>
Performance / Features	
<b>Indicators:</b>	<ul style="list-style-type: none"> <li>AC mains OK — green LED</li> <li>Module OK — green LED</li> <li>Module fail — red LED</li> </ul>
<b>Controls:</b>	CAN interface to CXC
<b>Adjustments (via CXC HP controller):</b>	<ul style="list-style-type: none"> <li>Float voltage</li> <li>High/low voltage alarm</li> <li>Current limit</li> <li>Equalize voltage</li> <li>High voltage shutdown</li> <li>Slope</li> <li>Start delay</li> </ul>
<b>Protection:</b>	<ul style="list-style-type: none"> <li>Current limit/short circuit</li> <li>Input/output fuses</li> <li>Power limiting</li> <li>Input transient</li> <li>Start delay</li> <li>Output high voltage shutdown</li> <li>Thermal foldback/shutdown</li> <li>AC low line foldback shutdown</li> </ul>

Mechanical	
<b>Dimensions:</b>	<b>mm:</b> 160H x 87W x 3000 <b>inches:</b> 6.3H x 3.4W x 11.8D
<b>Weight:</b>	4.6kg (10lbs)
Environmental	
<b>Temperature:</b>	<b>Standard:</b> -40 to 65°C (-40 to 149°F) <b>Storage:</b> -40 to 85°C (-40 to 185°F)
<b>Humidity:</b>	0 to 95% RH non-condensing
<b>Elevation:</b>	-500 to 4000m (-1640 to 13120ft)
<b>Heat dissipation:</b>	<1176 per hour
Shelves	
<b>19"/23" shelf (5 modules) P/N: 030-737-20-040</b>	
<b>Dimensions:</b>	<b>mm:</b> 177H x 442W x 389D <b>inches:</b> 6.9H x 17.4W x 15.3D
<b>Weight:</b>	8.5kg (19lbs)
<b>Mounting:</b>	Fits 19" rack flush/center mount Fits 23" rack center mount only
<b>23" shelf (6 modules) P/N: 030-736-20-040</b>	
<b>Dimensions:</b>	<b>mm:</b> 177H x 530W x 389D <b>inches:</b> 6.9H x 20.8W x 15.3D
<b>Weight:</b>	9.5kg (21lbs)
<b>Mounting:</b>	Fits 23" racks only flush/center mount
<b>Connections:</b>	<b>Input:</b> Box type terminal block, 6 to 16mm <sup>2</sup> (10 to 6AWG) <b>Output:</b> Bus adapters with 3/8" studs on 1" centers <b>Chassis ground:</b> Compression lug, 6 to 16mm <sup>2</sup> (10 to 6AWG) <b>CAN communication:</b> RJ 12 offset
Agency Compliance	
<b>Safety:</b>	CSA C22.2 No 60950-1-03 UL 60950-1 1st edition CE marked IEC/EN 60950-1
<b>EMC:</b>	ETSI 300 386
<b>Emissions:</b>	CFR47 (FCC) Part 15 Class B ICES-03 Class B EN55022 (CISPR 22) Class B C-Tick (Australia) EN 61000-3-2, 3-3
<b>Immunity:</b>	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
<b>NEBS:</b>	GR-1089 CORE GR-69 CORE



Typical 15.5kW 19" Shelf



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**Alpha Technologies Services, Inc.** USA: 3767 Alpha Way, Bellingham, WA 98226 Canada: 7700 Riverfront Gate, Burnaby, BC V5J 5M4  
Toll Free North America: +1 800 322 5742 Outside US: +1 360 647 2360 Technical Support: +1 800 863 3364  
For more information visit [www.alpha.com](http://www.alpha.com)

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