an EnerSys® company

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

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	
3.1kW Rectifier Module(s)	
Input Voltage:	**Nominal:** 208 to 277VAC **Operating:** 176 to 320VAC **Extended:** 176 to 90VAC (de-rated power)
Input Frequency:	45 to 70Hz
Power Factor:	>0.98 (50 to 100% load)
THD:	<5% @ 208 - 240VAC 100% load
Efficiency:	>90%
Output Voltage:	21 to 29VDC
Output Power:	3100W continuous/module
Output Current:	115A @ 27VDC (130A max. 24V)
Load Regulation:	<±0.7% (static)
Line Regulation:	<±0.1% (static)
Transient Response:	±1% for any changes in input voltage within rated limits (recovery within 25ms)
Noise:	**Voice band:** <32dBrnC **Wide band:** <30mV RMS (10kHz to 10MHz) <150mVp-p (10kHz to 100MHz)
Psophometric:	<1.0mV
Acoustic:	<64dBa @ 1m (3ft)
Insulation:	• 1.5kVAC input to ground • 3.0kVAC input to output • 1.0kVAC output to ground • 0.5kVAC signals to ground
Performance / Features	
Indicators:	• AC mains OK — green LED • Module OK — green LED • Module fail — red LED
Controls:	CAN interface to CXC
Adjustments (via CXC HP controller):	• Float voltage • High/low voltage alarm • Current limit • Equalize voltage • High voltage shutdown • Slope • Start delay
Protection:	• Current limit/short circuit • Input/output fuses • Power limiting • Input transient • Start delay • Output high voltage shutdown • Thermal foldback/shutdown • 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) P/N: 030-737-20-040	
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) P/N: 030-736-20-040	
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 ⅜" 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

an EnerSys® company

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**

09/2020
#048-641-10 REV F