

Cordex HP™ 2.4kW

Modular Switched Mode Rectifier



Your Power Solutions Partner

- High performance compact 50A rectifier for 48V telecom application
- High efficiency (96.2%) for reduced OPEX and carbon footprint
- Extended operating temperature range up to 75°C for deployment in the harshest outdoor environments
- Multiple configurations providing 250A or 12kW in a compact 1RU shelf
- High power density (28W/in³) yields more space for revenue generating equipment
- Wide AC input operating range for global installation requirements

Cordex High-Performance (HP) rectifiers make a proven, reliable platform even better, with significant advancements in efficiency and performance. In a compact, fan-cooled design, HP rectifiers open the possibility to wider ranges of applications and immediate Opex/Capex savings, reducing total cost of ownership and impact on the environment.

The Cordex HP 2.4kW is a perfect solution for various small to large 48Vdc capacity applications including DAS, central office, headend, backhaul and wireless base stations. It is particularly suitable for high density telecom applications and able to deliver 250A or 12kW per compact 1RU shelf. Unlike other rectifiers in its category, the Cordex HP 2.4kW provides 100% nominal power up to 55°C ambient and at least 2000W up to 65°C. With a high operating efficiency, high power density and broad temperature operation, HP series rectifiers are also ideal for harsh outside plant enclosure installations.

Local and remote setup, adjustment and control are 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 HP™ 2.4kW 48V Modular Switched Mode Rectifier

P/N: 0100003-001

ELECTRICAL

Input voltage:

Nominal:..... 120 to 277Vac
 Operating:..... 187 to 310Vac
 Extended:..... 90 to 187Vac (de-rated power)

Input frequency:..... 44 to 66Hz

Power:..... 2400W continuous
 (1200W output @ 120Vac Input)

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

THD:..... <5%

Efficiency:..... 96.2%

Output voltage:..... 44 to 58Vdc

Output current:..... 44.5A @ 54Vdc (50A max.@ 48Vdc)
 (~25A @ 48Vdc at 120Vac Input)

Load regulation:..... <±0.7% (static)

Line regulation:..... <±0.1% (static)

Transient response:..... ±3% for 40 to 90% load step

Noise:

Voice band:..... <38dBmC
 Wide band:..... <20mV RMS (10kHz to 10MHz)
 <150mV pk to pk (10kHz to 100MHz)

Psophometric noise:..... <2mV RMS

Acoustic:..... <60dBa @ 1m (3ft), 30°C

MECHANICAL

Dimensions:

mm:..... 41H x 104x 333D
 inches:..... 1.6H x 4.1W x 13.1D

Weight:..... 1.76kg (3.9lbs)

ENVIRONMENTAL

Temperature:

Operating:..... -40 to 75°C (-40 to 176°F); full rated output up
 to 55°C (131°F); >2000W @ 65°C (149°F)

Storage:..... -40 to 85°C (-40 to 185°F)

Humidity:..... 0 to 95% RH non-condensing

Heat Dissipation:..... <500 BTU per hour (worst case)

AGENCY COMPLIANCE

Safety:..... CSA/UL/IEC/EN 60950-1
 CE Marked

EMC:..... ETSI 300 386

Emissions:..... CFR47 (FCC) Part 15 Class A
 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 CatB3

NEBS / Telcordia:..... GR-1089-CORE
 GR-63-CORE
 GR-3108-CORE

CORDEX 48-2.4KW RECTIFIER SHELVES

>23in 1RU universal mount 12,000W

P/N 0300057-001



Rectifiers:..... 5 x CXRF HP 48-2.4kW

Distribution:..... Bulk power for external distribution

Dimensions:

mm:..... 44H x 537W x 420D
 inches:..... 1.75H x 21.1W x 16.5D

Weight:..... 5.7kg (12.6lbs)

>19in 1RU universal mount 9,600W

P/N: 0300040-001



Rectifiers:..... 4 x CXRF HP 48-2.4kW

Distribution:..... Bulk power for external distribution

Dimensions:

mm:..... 44H x 438W x 420D
 inches:..... 1.75H x 17.3W x 16.6D

Weight:..... 4.5kg (9.9lbs)

Communications ports:... CAN: interface to control rectifiers &
 smart peripherals

Ethernet:..... 10/100 Base-T for TCPIP/SNMP features

RELATED COMPONENTS

Controllers:..... CXCR/CXCP

Distribution:..... CXPS-M 1200
 AM plug-in breakers

Alpha Technologies Ltd.

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