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# Cordex® HP 3.0kW

## Modular Switched Mode Rectifier



- High performance compact 62.5A rectifier for 48V telecom applications
- High efficiency, approaching 96.9% for reduced OPEX and carbon footprint
- Extended operating temperature range up to 75°C for deployment in the harshest outdoor environments
- Multiple configurations delivering up to 15kW in a compact 23" 1RU shelf
- High power density (35W/in<sup>3</sup>) 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 3.0kW 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 312A or 15kW per compact 1RU shelf.

Unlike other rectifiers in its category, the Cordex HP 3.0kW provides 100% nominal power up to 55°C ambient and at least 2400W 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 HP system controller. Complete configuration and monitoring of power equipment is possible through a network web browser or via a local display.

# Cordex® HP 3.0kW 48V Modular Switched Mode Rectifier

P/N: 0100037-001

| Electrical                 |  |
|----------------------------|--|
| <b>Input Voltage:</b>      | <b>Nominal:</b> 208 to 277Vac<br><b>Operating:</b> 90 to 305Vac<br><b>Extended:</b> 90 to 187Vac (de-rated power)  |
| <b>Input Frequency:</b>    | 45 to 66Hz   |
| <b>Power:</b>              | 3000W continuous (1700W output @ 120Vac Input)   |
| <b>Power Factor:</b>       | >0.98 (50 to 100% load)  |
| <b>THD:</b>                | <8% (50 to 100% load)  |
| <b>Efficiency:</b>         | 96.9% Peak   |
| <b>Output Voltage:</b>     | 42 to 58Vdc  |
| <b>Output Current:</b>     | 55A @ 54Vdc (62.5A max. @ 48Vdc)<br>(~36AA @ 48Vdc at 120Vac Input)  |
| <b>Load Regulation:</b>    | <±0.5% (static)  |
| <b>Line Regulation:</b>    | <±0.1% (static)  |
| <b>Transient Response:</b> | ±3% for 40 to 90% load step  |
| <b>Noise:</b>              | <b>Voice Band:</b> <53dBmC<br><b>Wide Band:</b> <260mV RMS (10kHz to 10MHz)<br><180mV pk to pk (10kHz to 100MHz)   |
| <b>Psophometric Noise:</b> | <2mV RMS   |
| <b>Acoustic:</b>           | <60dBA @ 1m (3ft), 30°C  |
| Mechanical                 |  |
| <b>Dimensions:</b>         | <b>mm:</b> 41H x 104W x 333D<br><b>inches:</b> 1.6H x 4.1W x 13.1D   |
| <b>Weight:</b>             | 1.83kg (4.04lbs)   |
| Environmental              |  |
| <b>Temperature:</b>        | <b>Operating:</b> -40 to 75°C (-40 to 176°F); full rated output up to 55°C (131°F);<br>>2400W @ 65°C (149°F)<br><b>Storage:</b> -40 to 85°C (-40 to 185°F)   |
| <b>Humidity:</b>           | 0 to 95% RH non-condensing   |
| <b>Elevation:</b>          | 60 to 3000m (197 to 9842ft)  |
| <b>Heat Dissipation:</b>   | <585 BTU per hour (worst case)/171 Watts   |
| Agency Compliance          |  |
| <b>Safety:</b>             | <ul style="list-style-type: none"> <li>• CSA/UL/IEC/EN 60950-1</li> <li>• CE Marked</li> </ul>   |
| <b>EMC:</b>                | ETSI 300 386<br><b>Emissions:</b> <ul style="list-style-type: none"> <li>• CFR47 (FCC) Part 15 Class A</li> <li>• EN 61000-3-2, 3-3</li> </ul> <b>Immunity:</b> <ul style="list-style-type: none"> <li>• EN 61000-4-2, 4-3, 4-4, 4-5, 4-6, 4-11</li> <li>• ANSI/IEEE C62.41 CatB3</li> </ul> |
| <b>NEBS / Telcordia:</b>   | <ul style="list-style-type: none"> <li>• GR-1089-CORE (pending)</li> <li>• GR-63-CORE (pending)</li> <li>• GR-3108-CORE (pending)</li> </ul>   |

## Cordex 48-3.0kW Rectifier Shelves

**23in 1RU universal mount**  
**15000W**  
**P/N 0300216-001**



|                      |  |
|----------------------|--|
| <b>Rectifiers:</b>   | 5 x CXRF HP 48-3.0kW   |
| <b>Distribution:</b> | Bulk power for external distribution                                 |
| <b>Dimensions:</b>   | <b>mm:</b> 44H x 537W x 420D<br><b>inches:</b> 1.75H x 21.1W x 16.5D |
| <b>Weight:</b>       | 5.7kg (12.6lbs)  |

**19in 1RU universal mount**  
**12000W**  
**P/N: 0300228-001**



|                              |  |
|------------------------------|--|
| <b>Rectifiers:</b>           | 4 x CXRF HP 48-3.0kW   |
| <b>Distribution:</b>         | Bulk power for external distribution                                 |
| <b>Dimensions:</b>           | <b>mm:</b> 44H x 438W x 420D<br><b>inches:</b> 1.75H x 17.3W x 16.6D |
| <b>Weight:</b>               | 4.5kg (9.9lbs)   |
| <b>Communications Ports:</b> | CAN: interface on shelf to CXC HP controller                         |



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