

Power

Cordex HP 1.2kW

Modular Switched Mode Rectifier



CXRF-HP 48-1.2kW

- HP “High Performance” series
- Up to 25A @ 48Vdc output
- 93% efficiency and power factor correction
- High temperature operation, no de-rating to 65°C
- 1RU x 2RU footprint & high power density (21.8 W/in³)
- Wide AC input operating range

Cordex High-Performance 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 Op-Ex/Cap-Ex savings, reducing total cost of ownership and impact on the environment.

The Cordex HP 1.2kW is a perfect solution for small 48Vdc power applications such as customer premise, xDSL, FTTx, distributed node B, and microwave. With a high operating efficiency and high temperature operation, HP series rectifiers are also ideal for harsh outside plant enclosure installations.

Local and remote setup, adjustment, and control is a simple single-step process with Cordex CXC system controllers. By utilizing TCP/IP technology, complete configuration and monitoring of power equipment is possible through a network web browser.

Cordex CXRF-HP 1.2kW Modular Switched Mode Rectifier

Part Number: 010-619-20

Electrical

Input voltage:

Nominal: 176 to 276Vac
 Extended (low): 90 to 175Vac (de-rated output power)
 Extended (high): 277 to 300Vac (de-rated power factor)

Input current:

Nominal: 7.4A max
 90 to 132Vac: 6A max

Input frequency: 45 to 70Hz

Power factor: >99%

THD: <5% @ nominal input voltage

Efficiency: >93% 40%-100% load (nominal AC input)
 >90% 40%-100% load (120Vac input)

Output voltage: 42 to 58Vdc

Output power:

Nominal AC input: 1200 Watts
 110 to 132Vac: 600 Watts (de-rated linearly to 491 Watts @ 90Vac)

Output current:

Nominal AC input: 22.2A @ 54V (25A max @ 48V)
 110 to 132Vac: 12.5A max (de-rated linearly to 10.2A @ 90Vac)

Load regulation:

Static: <±0.5%
 Dynamic: <±1% for 40 to 90 to 40% load step,
 2ms recovery time

Line regulation:

Static: <±0.1%
 Dynamic: <±1% for any change within rated limits

Wide band noise: <30mVrms

<150mVp-p

Psophometric noise: <2mV

Mechanical

Dimensions:

mm: 41.4H x 84.8W x 256.8D
 inches: 1.63H x 3.34W x 10.11D

Weight: 1.23kg (2.7lb)

Features

Indicators: AC mains OK — green LED
 DC output OK — green LED
 Module alarm — red LED

Cooling: Fan cooled

Adjustments: Float and equalize voltage

(via CXC controller) Battery test voltage
 High and low voltage alarms high voltage
 shutdown
 Current limit
 Start delay time
 Slope %

Protection: Current limit/short circuit
 Input/output fuses
 Output high voltage shutdown
 Output power limiting
 Thermal foldback/shutdown
 Input transient
 AC low line foldback/shutdown
 AC high voltage shutdown

Environmental

Temperature:

Operation: -40 to 65°C (-40 to 149°F)
 (power derated up to 80°C/176°F)

Storage: -40 to 85°C (-40 to 185°F)

Humidity: 0 to 95% RH non-condensing

Elevation: -500 to 3000m (-1640 to 9840ft)

Heat dissipation: <308 BTU per hour

Standards

The Cordex HP 1.2kW is certified and/or designed to meet the following:

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
 EN 61000-3-3

Immunity: EN 61000-4-2
 EN 61000-4-3
 EN 61000-4-4
 EN 61000-4-5
 EN 61000-4-6 EN 61000-4-11
 ANSI/IEEE C62.41 Cat B3

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

Cordex CXRF-HP 1.2kW Efficiency

