

CORDEX® HP 4.0KW

MODULAR SWITCHED MODE RECTIFIER

OVERVIEW

High performance 83.3A rectifier for 48V telecom applications

95.3% efficiency for increased OpEx savings and reduced carbon footprint

High power density 4RU compact design delivering up to 24kW per 23" shelf

Power limiting and wide range AC input for global installation requirements

Extended operating temperature range up to 75°C for deployment in the harshest outdoor environments

Backwards compatibility with Cordex 3.6kW rectifier shelves and power solutions providing cost effective upgrade path

Cordex® High-Performance switched mode 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 for immediate Opex/Capex savings, reducing total cost of ownership and impact on the environment, and are useable under a wider range of applications.

The Cordex HP 4.0kW is a perfect solution for various 48Vdc capacity applications from small remote sites to large power systems at CO's, MTSO's and Data centers. Unlike other rectifiers in its category, the Cordex HP 4.0kW provides 100% nominal power up to 55°C and at least 3,600W up to 65°C. With a high operating efficiency (95.3%) and wide temperature operation (-40 to 75°C), HP series rectifiers are ideal for harsh outside plant enclosure installations.

The Cordex HP 4.0kW is a backwards compatible solution with existing Cordex 3.6kW shelves and systems, providing users an easy upgrade path to greater power density and reduced OPEX.

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



CORDEX® HP 4.0KW 48VDC MODULAR SWITCHED MODE RECTIFIER

ELECTRICAL

Input Voltage:	Nominal: 208 to 277Vac Operating: 187 to 312Vac (de-rated output power) Extended: 70 to 90Vac (de-rated output power)
Input Frequency:	45 to 66Hz
Power Factor:	>0.99 (50 to 100% load)
THD:	<5% (@ 208Vac)
Efficiency:	>95,3%
Output Voltage:	42 to 60Vdc
Output Power:	4,000W continuous
Float Voltage:	48 to 58Vdc
Output Current:	74A @ 54Vdc (83.3A max 48V)
Load Regulation:	<±0.5% (static)
Line Regulation:	<±0.1% (static)
Transient Response:	±3% for 40 to 90% load step
Noise:	Voice Band: <38dBmC Wide Band: <30mV RMS (10kHz to 10 MHz) <150mV pk to pk (10kHz to 100MHz)
Psophometric noise:	<2mV
Acoustic:	<60dBa @ 1m (3ft)

PERFORMANCE / FEATURES

Indicators:	AC mains OK – green LED Module OK – green LED Module fail – red LED
Cooling:	CAN interface to CXC
Adjustments (via CXC HP controller):	Float and equalize voltage High/low voltage alarm High voltage shutdown Current limit Start delay Slope
Protection:	Current limit/short circuit Start delay Input/output fuses Output high voltage shutdown Power limiting Thermal foldback/shutdown Input transient AC low line foldback/shutdown

MECHANICAL

Dimensions (H x W x D)	160 x 87 x 300mm 6.3 x 3.4 x 11.8in
Weight:	3.9kg (8.6lbs)

ENVIRONMENTAL

Temperature:	Operation: -40 to 75°C (-40 to 176°F); full rated output up to 55°C (131°F); >3600W @ 65°C (149°F) Storage: -40 to 85°C (-40 to 185°F)
Humidity:	0 to 95% RH non-condensing
Elevation:	-500 to 4,000m (-1,640 to 13,120ft)
Heat dissipation:	<1150 BTU per hour/337W

SHELVES

19" / 23" shelf (5-Modules)

Dimensions (H x W x D):	177 x 442 x 389mm 6.9 x 17.4 x 15.3in
Weight:	8.5kg (19lbs)
Mounting:	Fits 19" rack flush/center mount Fits 23" center mount only

23" shelf (6-Modules)

Dimensions (H x W x D):	177 x 530 x 389mm 6.9 x 20.8 x 15.3in
Weight:	9.5kg (21lbs)
Mounting:	Fits 23" rack only flush/center mount

CONNECTIONS

Input:	Box type terminal block 6 to 16mm ² (10 to 6AWG)
Output:	Bus adapters with 3/8" studs on 1" centers
Chassis Ground:	Compression lug 6 to 16mm ² (10 to 6AWG)
CAN Communication:	RJ 12 offset

STANDARDS AND CERTIFICATION

Safety:	CSA C22.2 No 60950-1-03 UL 60950-1 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	GR-1089-CORE GR-63-CORE

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