CXPS 24→48-i

24 to 48V DC-DC Converter System

alpha TECHNOLOGIES™

Your Power Solutions Partner

> Integrated 8kW capacity 24-48Vdc converter system with front access distribution

> Support for small to medium 48Vdc loads from legacy 24V power system

> Integrated Cordex CXCi controller for advanced local and remote monitoring and control

> Internal low voltage smart shutdown feature for cost effective integration into existing systems

> Universal 19/23" mounting for flexible installation options into existing racks

Alpha CXPS standard power systems bring proven Cordex technology into a standard integrated system package. The CXPS 24→48-i uses high density CXDF 24-48/2kW DC-DC converters, a front access distribution center, and the advanced, CXCi controller.

The CXPS 24→48-i is a perfect solution for various small 48Vdc applications, co-located to existing 24Vdc power system. With a small footprint and high temperature operation, it is ideal for outside plant installations. The system provides up to 148A @ 54Vdc, and includes 18 total (1-100A) breaker positions.

The system is a universal 19" or 23" rack mount design and can be easily integrated into various racks, boxbays, or enclosures.

Power

CXPS 24→48-i 24 to 48V DC-DC Converter System

Part Number: 053-997-20

ELECTRICAL

Input:
Voltage: ....+21 to +30Vdc
Current:
System: ....Feed A: <188A @ +24V input (216A max)
Feed B: <188A @ +24V input (216A max)
Converter: ....<94A @ +24V input (108A max)
Efficiency: ....>88% (50-100% load @ nominal voltage)

Output:
Current:
System: ....148A max @ 54Vdc
Converter module: ......37A max @ 54Vdc
Power:
System: ....8000W max @ 54Vdc output
Converter module: ......2000W max @ 54Vdc output

PERFORMANCE / FEATURES

Configurations:
053-997-20-000: ....Base system with 19/23" universal mounting
Converter: .... Up to 4x CXDF 24-48/2kW converter positions
Distribution: .... 18x load breaker positions
(mid-trip, plug-in style)
Shunt:
Controller:.........................CXCi integrated Controller

MECHANICAL

Dimensions:
mm:................................222H x 438W x 310D
inches: ....8.75H x 17.24W x 12.2D
(-000 configuration - excludes mounting
brackets, rear cover, and module handle)

Weight:
System: 19kg (42lbs)
Rectifier:...........................2.8kg (6.2lbs) each
Mounting:........................19/23" universal mount (center or flush)

Connections:
Load breaker:.................18x sets, ¼"-20 studs on ⅝" centers
Return bar: ....18x sets, ¼" holes on ⅝" centers
Alarm: ....Screw terminal 1.31mm² to 0.128mm²
(#16 to #26 AWG)
CXCi input: ....25-pin D-Sub cable
Access ....Front access after installation

ENVIRONMENTAL

Temperature:....................-40 to 65°C (-40 to 149°F)
-40 to 75°C (-40 to 167°F) de-rated output
Humidity: ....0 to 95% RH non-condensing
Elevation:.........................-500 to 2800m (-1640 to 9186ft)
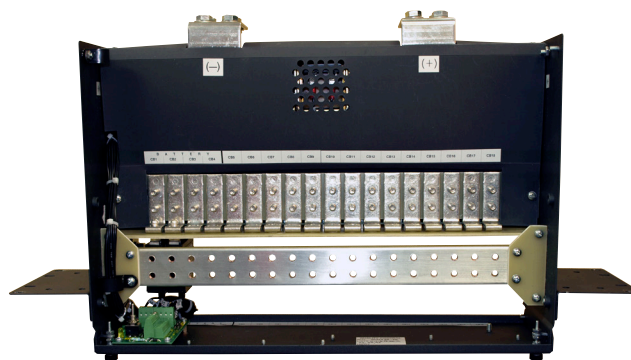
RELATED COMPONENTS

Cordex CXDF 24-48/2kW
Cordex controller CXCI
AM plug-in breakers (load)

STANDARDS COMPLIANCE

This product is designed to meet or exceed the following:

FCC 47 CFR part 15: ....Class A radiated and conducted EMI
EN 55022 (CISPR 22): ......Class A radiated and conducted EMI
ENV 50204: ....Radiated electromagnetic immunity
(digital radio and telephones)
EN 61000-4-2: ....ESD immunity
EN 61000-4-3: ....Radiated electromagnetic immunity
EN 61000-4-4: ....Electrical fast transients burst immunity
EN 61000-4-6: ....Conducted electromagnetic immunity
CE:....................................EN 60950-1
CAN/CSA (NRTL/C): ....C22.2 No. 60950-1-03
ANSI/UL (NTRL): 60950-1
GR-63-CORE: ....Vibration and shock
GR-1089-CORE:...............Electromagnetic compatibility and
electrical safety

Top View: CXPS 24→48-i