

# Power

## CXPS 48-1T

Standard 48Vdc System



CXPS 48-1T 23"  
Rail Mount Power System  
shown with 3.6kW rectifiers

- › Integrated 48V, 417A power system with front access distribution
- › High temperature rated, fan-cooled design for harsh outdoor installations
- › Modular controller with touch screen display for full local control
- › Flexible ordering options including configurations with racks and battery trays
- › Optional rectifier expansion kits for future growth potential

Alpha CXPS standard power systems bring proven Cordex technology into a standard integrated system package. The CXPS 48-1T uses high density 48V-4kW or 48V-3.6kW rectifiers, the front access single-tier distribution, and the advanced CXCM4 digital controller.

Perfect for both wireline and wireless applications, the CXPS 48-1T provides up to 417 Amps of 48VDC power and allows for future expansion of up to 600 Amps via an additional rectifier shelf.

The CXPS 48-1T can be integrated easily into customer provided relay racks or enclosures. This system can also be easily ordered factory-installed into various Alpha rack configurations including a system with pre-wired battery trays.

## CXPS 48-1T Standard 48Vdc System

P/N: 053-392-20 (with LVD), P/N: 053-6920-20 (no LVD)

### Electrical

#### Input:

Voltage: ..... 176 to 320Vac  
 Current: ..... 16.8A @ 240Vac nominal (per rectifier module)  
 Frequency: ..... 45 to 66Hz  
 Power factor: ..... >.99

#### Output:

Voltage: ..... 42 to 60Vdc  
 Current: ..... System: 417A  
 (expandable to 600A with additional CXRF shelf)  
 Rectifier: 83.3A @ 48Vdc  
 Power: ..... System: 20kW  
 (expandable to 28.8kW with additional CXRF shelf)  
 Rectifier: 4000W max

### Performance / Features

#### Configurations:

053-692-20-000: ..... Base system with 23" mounting  
 053-692-20-020: ..... System mounted in 44RU zone 4 seismic rack  
 053-692-20-030: ..... System mounted in 44RU Z4 rack with 3x battery trays for 3x 48V strings

Rectifier: ..... Up to 5x rectifier positions

Distribution: ..... 24x AM plug-in breaker positions (no LVD)  
 18x AM plug-in breaker positions (with LVD)  
 10x GMT type fuse positions  
 Shunt  
 Low voltage disconnect

Controller: ..... CXCM4 modular controller

Note: Specifications listed are for Cordex HP 4kW 48Vdc rectifiers

### Mechanical

#### Dimensions:

mm: ..... 488H x 584W x 477D  
 inches: ..... 19.25H x 23W x 18.8D  
 (-000 configuration - excludes mounting brackets)

Weight: ..... 49.8kg (110lbs)

Mounting: ..... 23" center mount

#### Connections:

Load breaker: ..... Hot: 1/4"-20 studs on 5/8" centers  
 Return: 1/4" holes on 5/8" centers  
 GMT fuses: ..... Screw Terminal 1.31mm<sup>2</sup> to 0.128mm<sup>2</sup>  
 (#16 to #26 AWG)  
 Battery terminations: ..... 3/8" holes on 1" centers  
 4x sets per polarity  
 Rectifier Input: ..... 3/8" holes on 1" centers  
 Alarm connections: ..... Screw terminal 1.31mm<sup>2</sup> to 0.128mm<sup>2</sup>  
 (#16 to #26 AWG)  
 Access: ..... Cable: top or bottom  
 User: 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)  
 -500 to 4000m (-1640 to 13124ft) with de-rated output

### Related Components

058-716-20: ..... Expansion kit, rectifier shelf  
 (shipped loose only)

Cordex HP™ 4kW 48Vdc rectifier

Cordex™ 3.6kW 48Vdc rectifier

Cordex™ controller CXCM4

AM plug-in breakers

GMT style fuses



CXPS 48-1T Internal Distribution (053-392-20 with LVD)