FieldSmart®
Fiber Active Cabinet (FAC) 400

Application

The FieldSmart Fiber Active Cabinet (FAC) 400 broadband enclosure has been designed with the philosophy of modularity and flexibility, while maintaining a maximum heat dissipation capability. The cabinet's small form factor design allows for speedy delivery of subscriber services in an assortment of deployment scenarios. Compliant with GR-487, the FAC 400 is the ideal outdoor cabinet solution for the harshest outdoor conditions, providing a sealed internal environment where external air and humidity are completely isolated from the electronic equipment.

Description

The FAC 400 is an environmentally-controlled enclosure constructed of powder-coated aluminum. The FAC 400's equipment bay features a 19" vertical equipment rack, accommodating up to 4RU of active electronics equipment. The FAC 400 provides up to 192 internal fiber distribution ports for subscriber PON deployments, along with complementary splitter capacity. The FAC 400 accepts local AC power and uses a door mounted integrated air-to-air heat exchanger and DC-powered fans to cool the equipment inside the cabinet. A separate, vented, under-cabinet compartment houses optional batteries.

Features and Benefits

Integrity
- Designed to seamlessly integrate a variety of standard options that are expected in remote cabinets, such as the rectifier system, battery base, battery warmers and field configurable fiber or copper distribution frames
- Supports a variety of cabinet mounting options including pad, pole, wall and H-frame eliminating concern with right-of-way issues and problematic installation locations

Protection
- Telcordia GR-487 compliant and UL-60950/UL-50 spec
- Environmentally sealed design protects internal equipment investment from dust and rain
- Rated for deployments in harsh environments per GR-487: -40°F to +115°F (-40°C to +46°C)

Access
- Provides front and side doors for full access to the equipment
- Designed to allow access to all complementary elements of a remote outdoor cabinet deployment such as the copper or fiber cables, fiber splicing and distribution modules, power and DC distribution systems, AC power and battery charge breakers, AC outlet, etc, in a compact form factor
- Door security and hardware features designed to protect from vandalism and theft

Investment
- Cabinet engineered features designed to ensure ease of maintenance and eliminate service interruptions
- Provides an ideal platform for the migration of copper access services to fiber access infrastructure and electronics

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Technical Specifications

FieldSmart FAC 400	
Dimensions	48"H (with battery base) x 24"W x 29"D
Weight	Local AC power w/ single 60 Ah battery base: 156 lbs. Equipped with one 60 Ah battery string: 340 lbs. Local AC power w/ dual 60 Ah battery base: 184 lbs. Equipped with two 60 Ah battery strings: 525 lbs.
Mounting Options	Pour-in-Place Template, Pole Mount, Wall Mount, Vault/Riser and Pre-Cast Pad (3rd party supplied)
AC Power Center Options	Optional integrated AC load center, 110–240 VAC single phase, 30 Amp service with UL listed service disconnect, high power Joslyn AC surge protector
AC/DC Rectifier Option	Alpha Cordex 1RU -48 VDC Rectifier System Two 25 Amp rectifier modules, auto-senses and adjusts for low and high AC input. CXCM1+ Controller
	Low input (100–185 VAC): Max. total power output 1200 Watts; Max. total current 25 Amps (2 modules, non-redundant)
	High input (185–264 VAC): Max. total power output 2400 Watts; Max. total current 50 Amps (2 modules, non-redundant)
Cooling/Environmental	700 Watt cooling capacity with Dantherm door mount heat exchanger
	Ambient temperature per GR-487: –40° F to +115° F (-40°C to +46°C)
Wired Capacity	Fiber: Up to 192 subscriber fiber drops (SC connectors); (6) 1x32 PON splitters
	Copper: Up to 288 copper lines with MS2 or 710 splice options
Fiber Management Options	12-position fiber splice tray (default), up to 192-position fiber distribution in 48- or 96-port increment assemblies; SC connector fiber spool and routing facilities. Integrated 1:16 or 1:32 GPON Splitters (option) LGX based 6-position cassette for fiber splicing or termination.
Copper Protection Options	Standard 5-pin protection blocks — modular in 48-pair increments. Up to six 48-pair protection blocks
Available Rack Units	4
Safety and Compliance	UL-60950, Standard for Safety, Issue 1, April 1, 2003 CAN/CSA-C22.2 No. 60950 EMC FCC Part 15 Class A ICES-003 Class A
	Telcordia, GR-63-CORE, NEBS Telcordia, GR-487, Generic Requirements for Electronic Equipment Cabinets

Pre-Configured Part Numbers
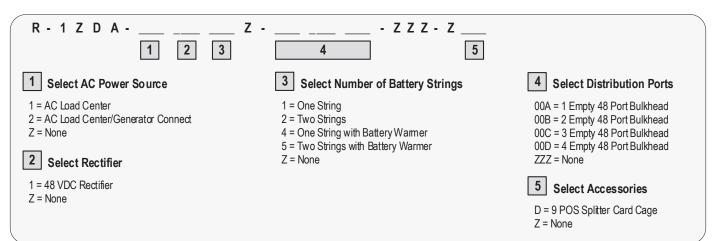
Part Number	Description
R-1ZDA-ZZZZ-ZZZ-ZZZ-ZZ	FieldSmart Fiber Active Cabinet, FAC 400 Enclosure, Vertical 19 Inch Equipment Rack, 300W Heat Exchanger, No Load Center, No Rectifier, No Battery String, No Bulkhead

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Configured Part Numbers

Disclaimer/Note: Paper configurator shown is for reference only and should not be used to configure a saleable product configuration. All options shown on paper configurators may not be available or compatible with other options listed. Please contact your Clearfield representative for assistance in product configurations.

R - 1 Z D A - ___ ___ ___ Z - ___ ___ ___ - Z Z Z - Z ___

[1] [2] [3]   **[4]**   **[5]**

[1] Select AC Power Source

1 = AC Load Center
2 = AC Load Center/Generator Connect
Z = None

[2] Select Rectifier

1 = 48 VDC Rectifier
Z = None

[3] Select Number of Battery Strings

1 = One String
2 = Two Strings
4 = One String with Battery Warmer
5 = Two Strings with Battery Warmer
Z = None

[4] Select Distribution Ports

00A = 1 Empty 48 Port Bulkhead
00B = 2 Empty 48 Port Bulkhead
00C = 3 Empty 48 Port Bulkhead
00D = 4 Empty 48 Port Bulkhead
ZZZ = None

[5] Select Accessories

D = 9 POS Splitter Card Cage
Z = None

Mounting Options

Mounting Option	Part Number	Description
Pad Mount	140-00022	Fiber Active Cabinet 400 Pour-in-Place Template
Pole Mount	140-00043	Fiber Active Cabinet 400 Pole/Wall Mount Kit for 60 AH Battery Base
Wall/H-Frame Mount	140-00043	Fiber Active Cabinet 400 Pole/Wall Mount Kit for 60 AH Battery Base

Battery Options

Battery Option	Part Number	Description
62 AH Battery String	140-00039	Fiber Active Cabinet 400 62 AH Enersys SBS B14 Battery String