

Flexible Backhaul Enclosure / Integrated Solutions

Modular FBE2322-ENC Platform



Modular solution for current fiber backhaul and business service needs with future expansion capability

Integrated AC/DC Powering Solutions



1RU or 2RU Cordex High Performance Rectifiers



2RU or 3RU Novus FXM AC UPS



Total Power Solutions



RELIABILITY



INTELLIGENCE



SUSTAINABILITY



EFFICIENCY

FBE Modular Design

1 ENCLOSURE LID

FBE2322-LID provides maximum solar shielding with its double walled aluminum welded construction, with optional fan cooling exhaust, is Field Removable for future expansion and equipment access (easily attaches to the top of any enclosure configuration)

2 AUXILIARY EQUIPMENT ENCLOSURE

FBE2322-AEE provides 7RU for 19" mounted equipment, front door left or right-hinged option, open top and bottom design for easy equipment access and allows for custom system configuration
Outer Dimensions H x W x D (in/mm): 14 x 23 x 21.7 / 355.6 x 584.2 x 551.2

3 BASE EQUIPMENT ENCLOSURE

FBE2322-ENC designed with three door access to 15RU for 19" horizontal or 10RU for 23" vertical mounted equipment with adjustable front to back rails, front door left or right-hinged option, lift off left and right-side doors, open top and bottom design for easy equipment access and allows for custom system configuration
Outer Dimensions H x W x D (in/mm): 29.7 x 26 x 24.3 / 754.4 x 660.4 x 617.2

4 BATTERY EXPANSION ENCLOSURE

FBE2322-BEE houses up to 4 batteries with front door left or right-hinged option, open top and bottom design allows batteries to either be open flow format for shared climate control between equipment and batteries or can be configured as an isolated battery compartment
Outer Dimensions H x W x D (in/mm): 14 x 23 x 21.7 / 355.6 x 584.2 x 551.2

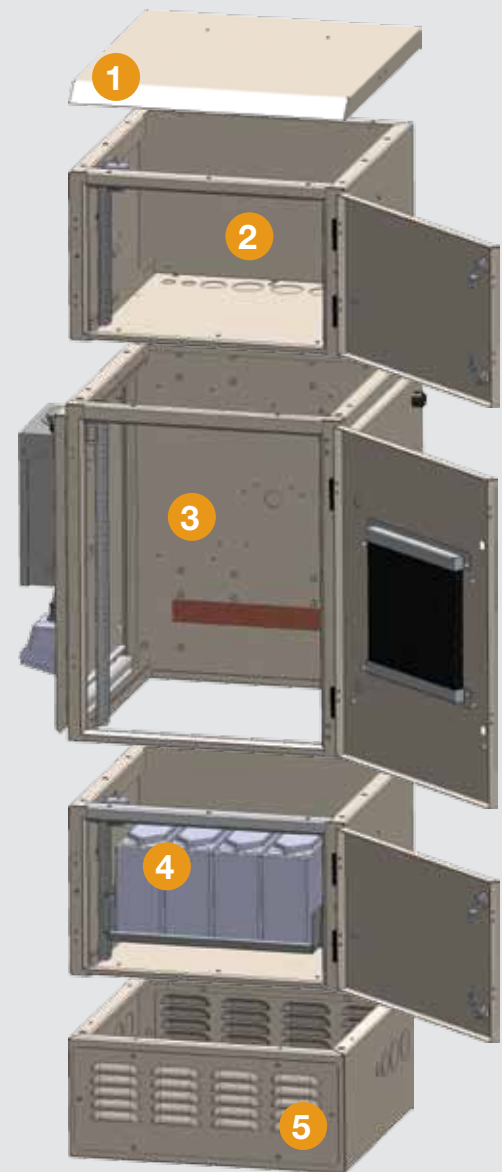
5 10" PLINTH / MOUNTING OPTIONS

FBE2322-P10 for ground mounting (attaches to the bottom of any enclosure configuration)

Alternative mounting options: Wall, H-frame, or pole

CLIMATE CONTROL OPTIONS

- 6a Direct Air Cooling:** 24 or 48VDC Speed Controlled, redundant dual Fan >100CFM
 - 6b Heat Exchanger:** 24 or 48VDC performances ranging from 5 Watt / F – 50 Watt / F with Speed Controlled Fans
 - 6c Air Conditioner:** 120VAC input ranging from 800 - 2400 BTU with heater
- Optional Emergency Ventilation System (EVS):** Ventilates Enclosure with 24 or 48VDC Speed Controlled, redundant dual Fan >100CFM on high temperature alarm



FBE2322-ENC-P10
with Fan Cooled option

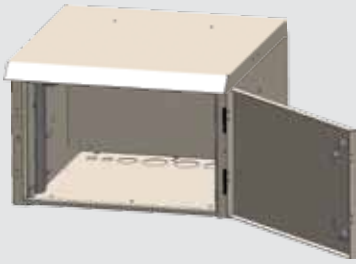


FBE2322-ENC-P10
with Heat Exchanger option



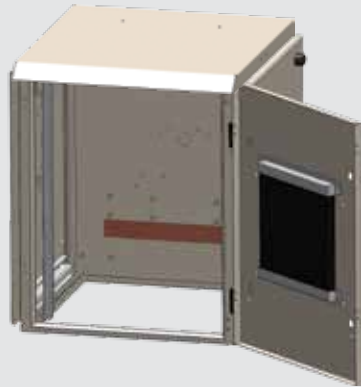
FBE2322-ENC-P10
with Air Conditioner option

Modular Enclosure Configuration Examples



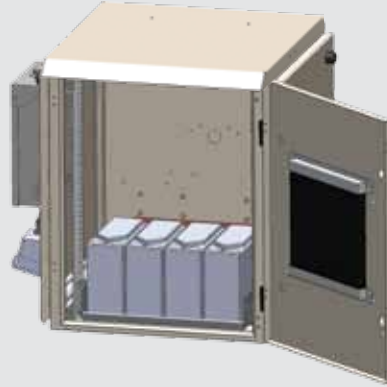
FBE2322-AEE

Single carrier requiring up to 7RU of 19" equipment with DC power provided by carrier



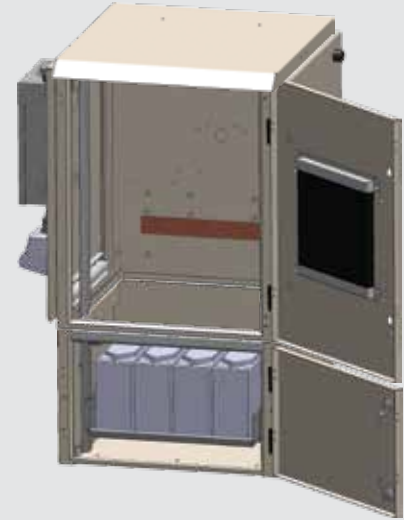
FBE2322-ENC

Single carrier requiring up to 15RU of 19" or 10RU of 23" equipment with DC power provided by carrier



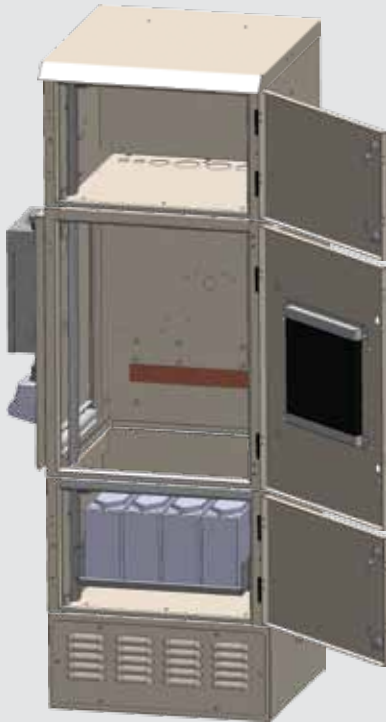
FBE2322-ENC

Single carrier requiring 7RU of 19" equipment space with integrated battery backed up DC power



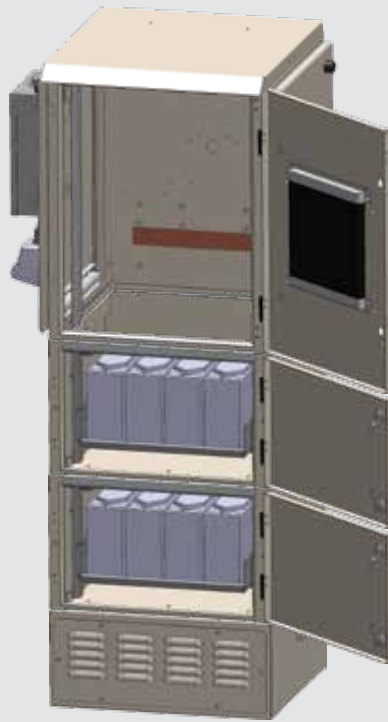
FBE2322-ENC-BEE

Single or multiple carrier requiring 15RU of 19" or 10RU of 23" equipment space with separate battery compartment



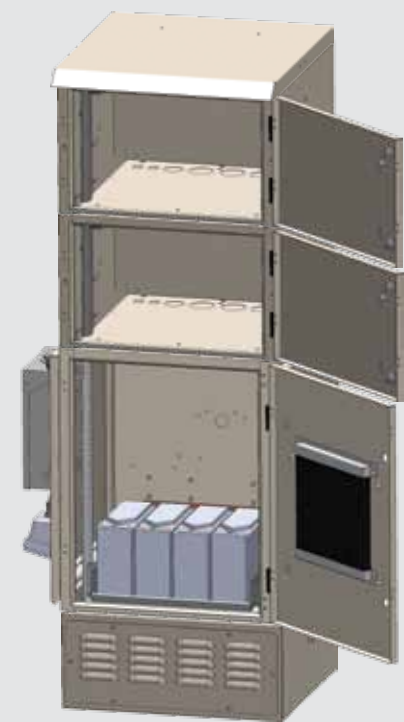
FBE2322-AEE-ENC-BEE-P10

Single or multiple carrier requiring 22RU of 19" or 10RU of 23" and 7RU of 19" equipment space with separate battery compartment on a 10" plinth



FBE2322-ENC-BEE-BEE-P10

Single or multiple carrier requiring 15RU of 19" or 10RU of 23" equipment space with multiple separate battery compartments for extended runtime on 10" plinth



FBE2322-AEE-AEE-ENC

Multiple carriers requiring 7RU of isolated access to 19" equipment space with integrated battery backed up DC power on 10" plinth

THE FBE2322 MODULAR DESIGN IS ENGINEERED TO ALLOW YOU TO CUSTOMIZE THE ENCLOSURE TO MEET CURRENT REQUIREMENTS WITH FLEXIBILITY FOR FUTURE EXPANSION.

Alpha Technologies offers these current configurations and can custom design an enclosure for your specific needs.

Integrated Solutions

AC/DC Powering Options

DC Rectifiers

- HP "High Performance" series
- 24Vdc or 48Vdc output
- 93% efficiency and power factor correction
- 1RU x 2RU footprint and high power density (21.8 W/in³)
- Integrated DC distribution option
- Wide AC input operating range



Cordex HP™

Rackmount AC UPS

- Clean, uninterruptible backup power
- Wide range Automatic Voltage Regulation during periods of surge or sag
- Local or remote monitoring and control via RS-232 port or (optional) Ethernet SNMP interface
- Event and alarm logging with time and date stamping
- Temperature compensated battery charging extends the life of the battery



Novus FXM

Additional Enclosure Options

Service Entrances



- Outdoor weather proof enclosure
- 120/240Vac 70Amp, 2 position
- 120/240Vac 100Amp, 8 position
- 120/240Vac 100Amp, 8 position with manual transfer switch and L14-30P generator plug

Surge Protection



- UL 1449 3rd Edition approved
- Protects critical equipment from voltage transients
- Plug-in or hardwired solution utilizing Metal Oxide Varistor (MOV) protection
- VSS 120/VSS 240 Series provides downed power line protection

Stand-Alone DC Distribution



- GMT and TPL fuse panel options
- AM Bolt, AM plug-in and GJ breaker options
- 19" and 23" rack mount models
- 12, 24 or 48Vdc configurations
- Designed for flexible and custom DC distribution

Application-Specific Batteries



- Front access terminal design
- Specifically designed for mission-critical applications
- 10-year float life @ 25°C
- Strong corrosive-resistant grid design
- Approved as non-hazardous cargo for ground/sea/air transportation

Services

Fully Integrated Power Systems / Rack and Stack

Alpha's Backhaul and Business Services Enclosures ship from our East and West Coast factories completely wired to your configuration. Installation errors are reduced since every enclosure is consistent in appearance, wiring and function. By ensuring reliable operation from day one, we help you minimize long term maintenance, while reducing installation time and cost.

- Any of these items can be installed and wired at the factory prior to shipment:
- Cooling fans, heat exchangers or Air Conditioners
 - Alarm modules
 - Door switch alarms
 - Adjustable racks set to your specification
 - Battery heaters
 - Rectifier shelves
 - AC Input – no need for contract electricians
 - Optional receptacle configurations: NEMA 5-15, 5-20, 6-15, 6-20, GFI
 - DC or AC distribution panel
 - Rectifier output pre-wired to distribution panel
 - Fiber splice trays
 - Any customer specified or supplied equipment



Field Services / Installation and Maintenance

Trained Alpha Field Service technicians and engineers are dispatched 24 hours per day, 7 days per week to perform routine system maintenance or emergency repair service. In addition, Alpha Technologies Services can combine small-, medium- and large-scale network hardware upgrades with the necessary installation manpower. With a national network of contractors and project managers, Alpha Technologies Services can provide turnkey solutions for outside plant, headend, telecommunications, industrial and renewable energy applications.

- Preventive Maintenance
- Turnkey Installation
- Certified Installation Inspections
- Turn-up and Test Services
- Plant Hardening
- Construction Services



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