

Power

Radium Fiber Enclosure Series

Environmentally Controlled Enclosures



- Scalable, environmentally controlled enclosure system
- Fully integrated system and agency certified
- Ideal for remote optical transition applications
- High capacity 24 or 48VDC 3000BTU (879W) DC powered air conditioner
- Natural gas or propane DC generator system supports critical communications
- Reduces operational and recurring costs

As advanced voice, video and data fiber based services are deployed deeper into the broadband network, the need for reliable attractive modular transition nodes increases. The Radium MiniBay supports a wide range of applications including bulk power to CATV hub and secondary hub requirements. Also ideal for remote optical transition applications including optical amplification, downstream DWDM demultiplexing, narrowcast combining and return path aggregation providing services to remote communities.

The Radium MiniBay reduces operational costs by locating the electronics where needed and avoids the recurring costs of maintaining a real estate intensive building. Alpha's field power services group provides turnkey installations, turn-up and test services.



Radium MiniBay Fiber

General Specifications

The Radium MiniBay is a recent addition to the Telecom grade Radium FITL-FTTC outside plant family of powering systems fully scalable to 4,000W and 1240Ah of battery capacity. The MiniBay system benefits from more than 20 years of Alpha's Outside Plant (OSP) powering experience.

The MiniBay integrates Alpha's comprehensive line of power solutions for today's complex Hub and environmentally controlled enclosure powering requirements including Alpha's Pinnacle AC UPS, RSM 48/10 and 24/18 series high efficiency hot swappable switchmode rectifiers, and the AlphaGen™ series of telephony grade DC generators.

Features for the Radium MiniBay include: front and rear accessible 19 or 23" equipment racks providing up to 46 rackmount spaces, durable powder coated aluminum construction, battery storage modules isolated from the equipment section and house up to four 155Ah batteries supporting a 19A load for 8hrs. Typical CSA-NRTL marked configurations include integrated AC service entrance, TVSS, AC distribution, standby generator interface, lighting, heat exchanger, fan/filter or air conditioner thermal management, rectifiers or AC UPS equipment.

Nominal Specifications

General

Environmental Rating:	NEMA 3R when configured with door mounted fans and filter system. NEMA 4X when configured with heat exchanger or air conditioning system.
Seismic Rating:	Consult factory. A seismic rating is based on a set system configuration with defined mounting locations and equipment types.
Design Standards:	Following NEC & Telcordia Technologies (Bellcore) GR-487, GR-63 and GR-108 guidelines.
Compliance:	Third party approval from National Recognized Testing laboratory (NRTL).

Physical	Weight (lb/kg)	Dimensions (in)	Dimensions (cm)
Equipment Enclosure:	195/88.5	32D x 44H x 30W	81.3D x 106.7H x 76.2W
Battery Storage Module:	130/59	32D x 14H x 30W	81.3D x 35.6H x 76.2W
Riser Module:	102/46.3	32D x 14H x 30W	81.3D x 35.6H x 76.2W
Side Chamber SC1:	100/45.4	12D x 72H x 32W	30.5D x 81.3H x 131.1W
Side Chamber SC2:	89/40.4	12D x 72H x 32W	30.5D x 81.3H x 131.1W

Material: High strength corrosion resistant aluminum
Finish: Almond color powdercoat finish

Fans and Filters

The most basic thermal management system supporting the MiniBay utilizes conformal-coated, variable speed and alarm monitored fans with electrostatic air filters providing up to 500W thermal dissipation. This configuration has a NEMA 3R rating.

- Variable speed controlled DC fans continue to operate during a utility outage
- Conformal-coated fans
- Electrostatic and washable air filters
- Field replaceable fans

Heat Exchanger

An airtight rear door and a heat exchanger equipped hinged front door providing over 500W thermal dissipation. With a 500W load, the internal ambient temperature will not exceed 15 to 27°F above external ambient. With a 250W load, the internal ambient temperature will not exceed 7°C or 12.6°F above external ambient. This configuration has a NEMA 4X rating.

- Heat exchanger heat pipe technology provides efficient thermal transfer
- Minimizes internal temperature rise above external ambient
- Variable speed controlled DC fans continue to operate during a utility outage
- Field replaceable fans

DC Air Conditioner

For applications requiring the most reliable below ambient cooling and dehumidifying system for supporting seamless performance through extended utility outages. Cooling capacity 878W dissipated at 43°C outdoor ambient allowing a Maximum* internal ambient of 40°C.

- Variable speed brushless motor 24/48VDC compressor system assures optimum efficiency over the full range of thermal loading and ambient temperatures
- 3,000BTU @ 43°C/110°F rating
- Redundant conformal-coated fans have >50,000hrs of life and low voltage disconnect circuitry

AC Air Conditioner

Ideal for applications requiring cooling and dehumidifying with little or no standby runtime performance. Cooling capacity 1464W dissipated at 43°C outdoor ambient allowing a Maximum* internal ambient of 40°C.

- 5,000BTU @ 43°C/110°F rating
- Washable electrostatic filters
- 240VAC

* Reducing the internal dissipated heat load reduces internal ambient.



MiniBay with Fiber Management

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