

LORAIN® DB 48500 Battery Distribution Fuse/Circuit Breaker Bay

■ DC Power for
Business-Critical Continuity

Key Features

- **Modular design** — initial and field installed Battery Distribution Fuse and Circuit Breaker Panels (BDF/CBB Panels)
- **Mini applications** — one BDF/CBB panel provides two (2) 500 amp buses for a total 1000 amp continuous rating with 16 fuse or circuit breaker positions
- **High capacity** — offers up to ten buses with 5,000 amps continuous rating per frame, with maximum loading up to 80 fuse or circuit breaker positions
- **Fuse protection** — plug-in fuseholders with TPS / TLS fuses ranging from 1-100 amps and GMT-A fuses from .18 to 15 amp
- **Circuit breaker protection** — bullet nose plug-in breakers from 1-150 amps
- **Digital Meter Panel** — features 2 line display, 6 programmable external alarm relays, audible alarm and cutoff, and overcurrent threshold alarms
- **Optional LVD function** — provides load-shedding capability
- **NEBS level 3 compliance** — meets or exceeds all relevant GR1089, GR63 and UL specifications

Description

The LORAIN® DB 48500 Battery Distribution Fuse/Circuit Breaker Bay (BDF/CBB) features high capacity and modularity. These features provide effective secondary load distribution and protection for multiple -48 VDC feeds up to 800 amps.

The LORAIN® DB 48500 system consists of a Digital Meter Panel and up to 13 BDF/CBB panels with a maximum of 5 BDF/CBB panels per frame.

The BDF/CBB Panels mount on standard 23-inch frames and each panel is split into two sides of load distribution with each side providing 8 distributions for a total of 16 positions per panel. Each side has a capacity of 500 amp for a total of 1000 amp per panel. Each side of the panel can have an individual power feed, or the left and right sides of the panel mounted above / below each other can be paralleled for a single input feed of 800 amp per paralleled side. Each side of the BDF/CBB panels can be parallel for single input of 16 positions for 500 amps. Each panel can be equipped with two optional 10-position GMT fuse blocks for additional distribution.

Application

For mini applications the LORAIN® DB 48500 can be configured with one BDF/CBB Panel and a Digital Meter Panel that provides A & B input feeds and 16 fuse or circuit breaker loads with a total 1000 amp capacity. Multiple BDF/CBB Panels, up to 5 modules on a frame, provide up to 10 input buses 5,000 amp continuous rating with a total 80 fuse or circuit breaker loads.

Additional Information

For additional specification, engineering and installation information request document SAG582135200.

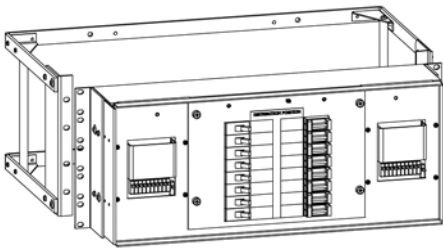


LORAIN® DB 48500 Battery Distribution Fuse/Circuit Breaker Bay

Options

Option	Description
Top or Bottom Feed	Top or bottom input power feeds
Internal Ground	Internal return / ground bus
Parallel Buses	Interpanel parallel feed and ground buses
GMT Fuse Modules	Two 10-position GMT fuse blocks per panel (one A and one B)
LVD Function	Disconnects each side of BDF/CCB panel with self-latching contactor under control of Meter Panel

BDF / CBB Panel



Specifications

Fuses

Bullet nose-type fuseholder

TPS / TLS fuses 1 –100 amp

GMT fuse module

GMT-A fuses .18 to 15 amp

Circuit Breakers

Bullet nose-type circuit breakers 1 to 150 amp

Monitoring



Specifications

Digital Meter Panel

2 line display with 3 navigation buttons

Visual alarms

Audible alarm and alarm cutoff

6 programmable relays for external alarms

Current threshold alarms

Programmable LVD control

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LORAIN® DB 484800 Battery Distribution Fuse/Circuit Breaker Bay

■ DC Power for
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Key Features

- **360° access** — front access provides back-to-back or wall installation, as well as side and rear access for conventional applications
- **High capacity** — offers either an eight bus to 4,800 amps, or six bus to 3,600 amps continuous rating, with maximum loading up to 168 fuse or circuit breaker positions
- **Modular design** — initial and field installed interchangeable fuse and circuit breaker distribution modules
- **Fuse protection** — utilizing TPS, TPA and TPL fuses protects circuits ranging from 0-150 amps
- **Circuit breaker protection** — LEL plug-in breakers available in current ratings of 1-150 amps
- **Multiple circuit breaker types** — options range from bolt-in to plug-in
- **NEBS level 3 compliance** — meets or exceeds all relevant GR1089, GR63 and UL specifications

Description

The LORAIN® DB 484800 Battery Distribution Fuse/Circuit Breaker Bay (BDF/CBB) features high capacity, front access, modularity, and simplified installation. These features provide effective secondary load distribution and protection for multiple -48 VDC feeds up to 600 amps. The base offering is a vertical arrangement of modular distribution providing 360° access for ease of installation, maintenance and expansion.

The LORAIN® DB 484800 BDF/CBB system consists of a standard or Zone 4 box framework, with either six or eight buses, top or bottom feed/distribution. The system offers a wide variety of options including box frame extensions, internal ground bars and a paralleling feature that permits multiple loads to be tied together, internal input cabling options and transient voltage surge suppression. The universal ground bars can be mounted to overhead framing or a cable rack. The physical dimensions are 7' (2.13m) high by 26" (66.04cm) wide by 15" (38.10cm) deep.

Application

The LORAIN® DB 484800 is ideally suited for central office, co-location, and other applications requiring effective secondary load distribution and protection of power plants up to 600 amp capacity per load.

Additional Information

For additional specification, engineering and installation information request drawing SAG582120600.




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LORAIN® DB 484800

Battery Distribution Fuse/Circuit Breaker Bay

Options

Option	Description
Digital metering	Digital metering provides both current and voltage for each bus
Single or parallel buses	Paralleled buses provide maximum configuration flexibility
Bus metering	Separate bus current and voltage readings
Adjustable dressing bars	Sliding dressing bars for reduced output cable installation time
Precharge	Precharge module for TPS and TPJ fuseholders
Box framework extension	8'0" (1.37m), 9'0" (2.74m) and 11'6" (3.50m) extensions
In-line fuse kit	Provides internal power to alarm and meter circuits
Cable management kit	Grooming kit for load cable dressing
Transient voltage protection	Bus voltage protection for sensitive electronic equipment

Distribution Modules

The distribution modules are factory configurable with one or more of the available fuseholders or circuit breakers. Distribution modules can be populated in varying combinations. See "6 Bus" and "8 Bus" charts to the right for options.

6 Bus Maximum Distribution Module Population

Quantity	Type	Description
16	TPS	0-70 amp fuseholders
10	TPL	60-150 amp fuseholders
28	LEL/TPS	0-150 amp plug-in circuit breakers or 0-100 amp TPS/TFD fuses

Monitoring

A fuse or breaker alarm (LED) is provided for each bus, and a bay alarm (LED) is visible from a wide angle. Three form C contacts are provided for remote alarm monitoring. ABS or local powering capabilities for monitoring are included.

8 Bus Maximum Distribution Module Population

Quantity	Type	Description
12	TPS	0-70 amp fuseholders
6	TPL	60-150 amp fuseholders
16	LEL/TPS	0-150 amp plug-in circuit breakers or 0-100 amp TPS/TFD fuses

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