ORDERING GUIDE

Secondary DC Distribution

-48V Battery Distribution Bay, BDFB / BDCBB

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Secondary DC Distribution

-48V Battery Distribution Bay, BDFB / BDCBB

Overview

The OmniOn Power™ Battery Distribution Fuse Bay (BDFB) or Battery Distribution Circuit Breaker Bay (BDCBB) serves as a secondary power distribution unit for -48V DC power from the battery plant to the load equipment. The H569-445 family of products is versatile with fuse and circuit breaker options, internal or external DC return bars, 800A, 28-position panels and a VIM1EC smart meter to monitor voltage and current of each load bus.

Cabinet Options

The cabinet for the BDFB / BDCBB is 7ft, seismic zone 4 rated, with up to six 28-position distribution panels. Each panel may be individually fed with an 800A load bus or multiple panels may be joined together. Load bus assemblies include a 1500A shunt and landings for four 750kcmil cables. Factory supplied shunt wiring to each panel allows cabinets to be transitioned into different load configurations in minutes for maximum flexibility.

1, 2 and 4 ½ foot tall cabinet extensions are available for various cable rack heights.

Fuse / Circuit Breaker Panels

Distribution panels have 28 bullet-style positions that accept either TPS or TPL fuses up to 125A or circuit breakers up to 250A. Any fuse or circuit breaker may be installed in any position with no spacing requirements. Each panel includes its own alarm lights for power loss and fuse/breaker alarms. Hinged doors on each panel provide circuit breaker and fuse protection and prevent incorrect installation.

VIM1EC Intelligent Meter

The VIM1EC smart meter monitors voltage and current of each load center with individually configured overload thresholds, power loss and fuse/breaker alarms. Form-C relays for each of the three alarms are accessed via terminal blocks located at the top of the cabinet. The VIM1EC receives redundant power from Load A and B buses as well as an optional external Auxiliary Battery Supply (ABS) connection.

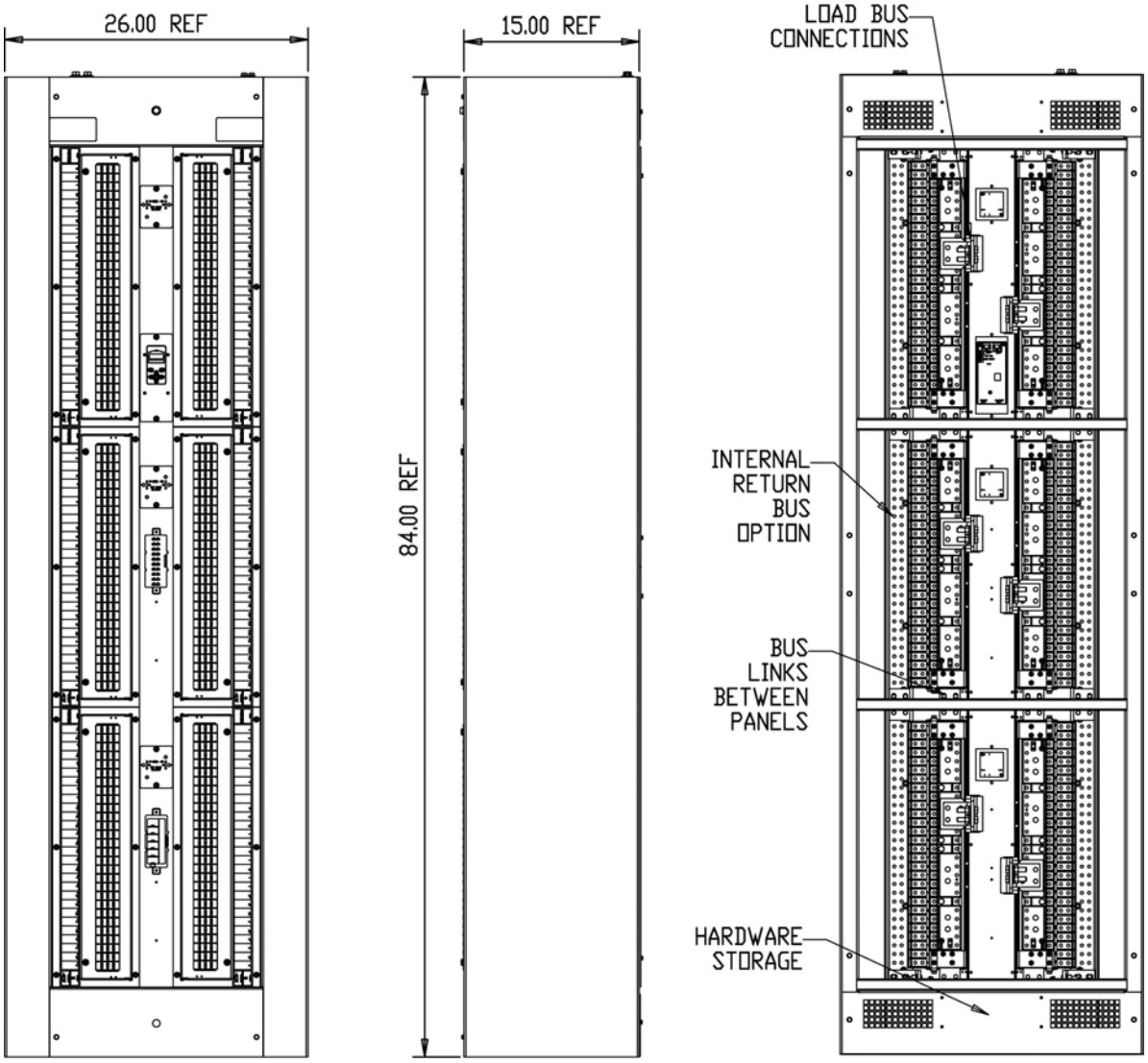
A remote monitoring capability through a Millennium 2 or Pulsar Plus controller is now a standard feature of the VIM1EC meter. Alternatively, an in-bay Network Interface card (bay configured with G274) is available where monitoring has to be done independently of a OmniOn plant controller. Kits to upgrade H569445 BDCBBs to the new VIM1EC, or to add the Network Interface card to existing bays are available.

Advantages

- Telecom central office and MTSO applications
- 800 amp load centers – from one to six panels with a capacity up to 4800 amps per cabinet
- Digital meter interface with remote access
- No spacing restrictions on fuse and circuit breaker protectors

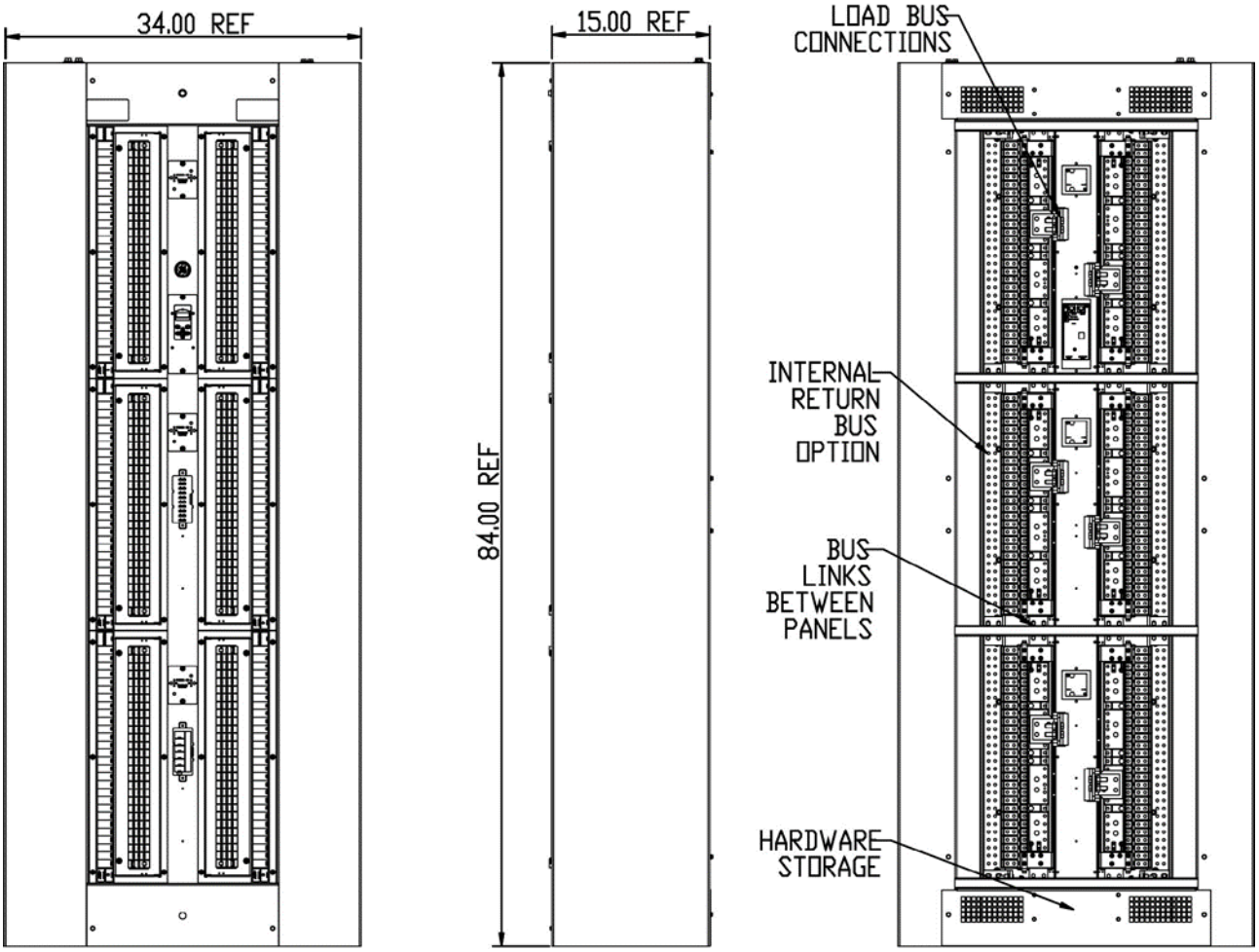
Cabinet Drawings

Outline Drawing Of Group 7 (26” Wide) 7FT Cabinet



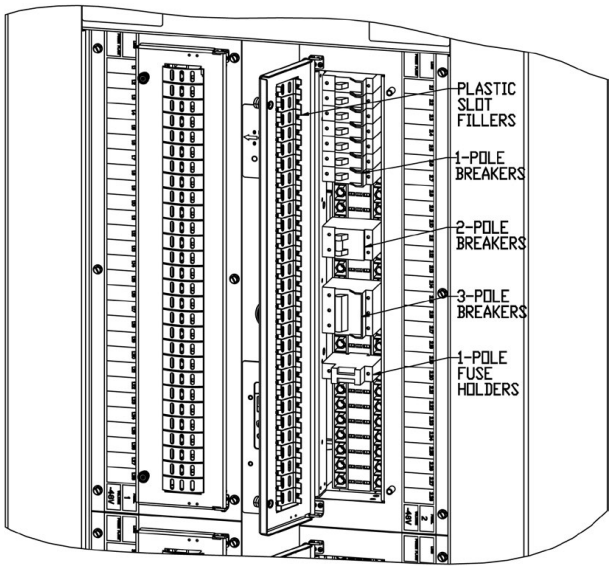
Cabinet Drawings (continued)

Outline Drawing Of Group 8 (34” Wide) 7FT Cabinet

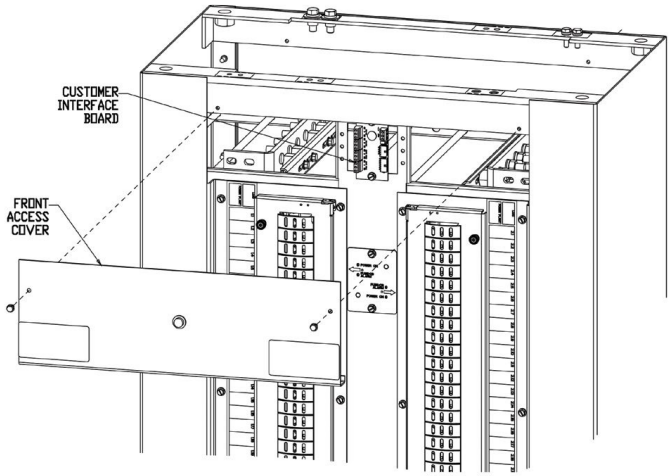


Cabinet Drawings (continued)

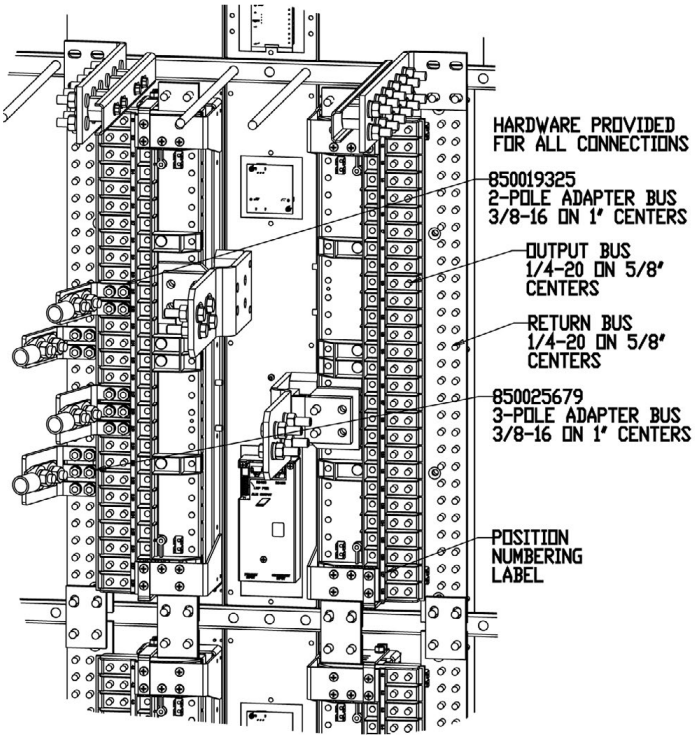
Miscellaneous BDFB Equipment Views



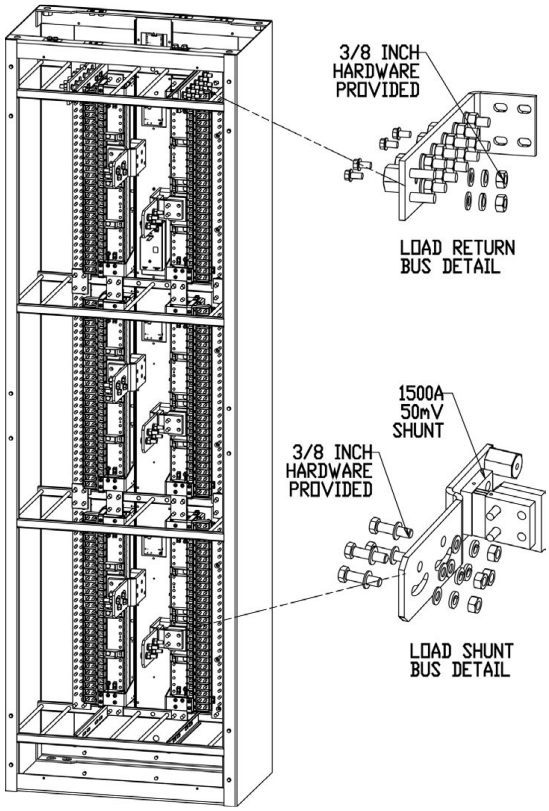
Fuse or Circuit Breaker Installation



Alarm Termination Board



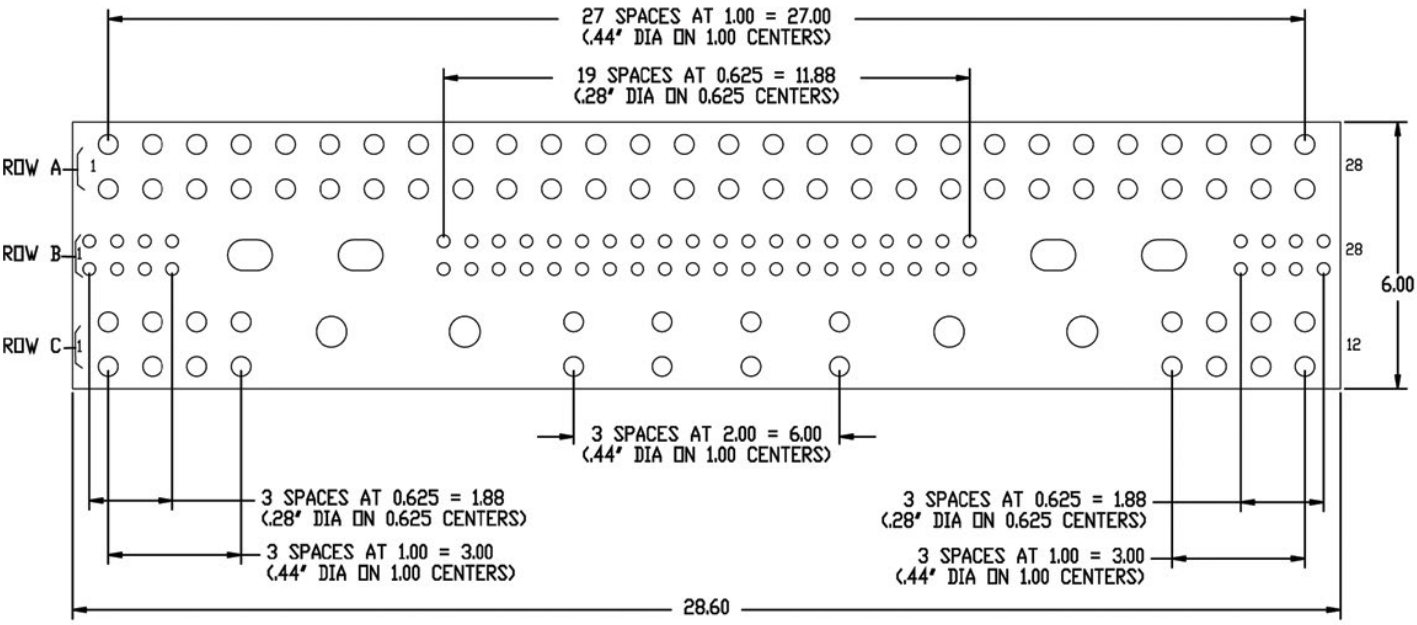
Distribution Panel Connections

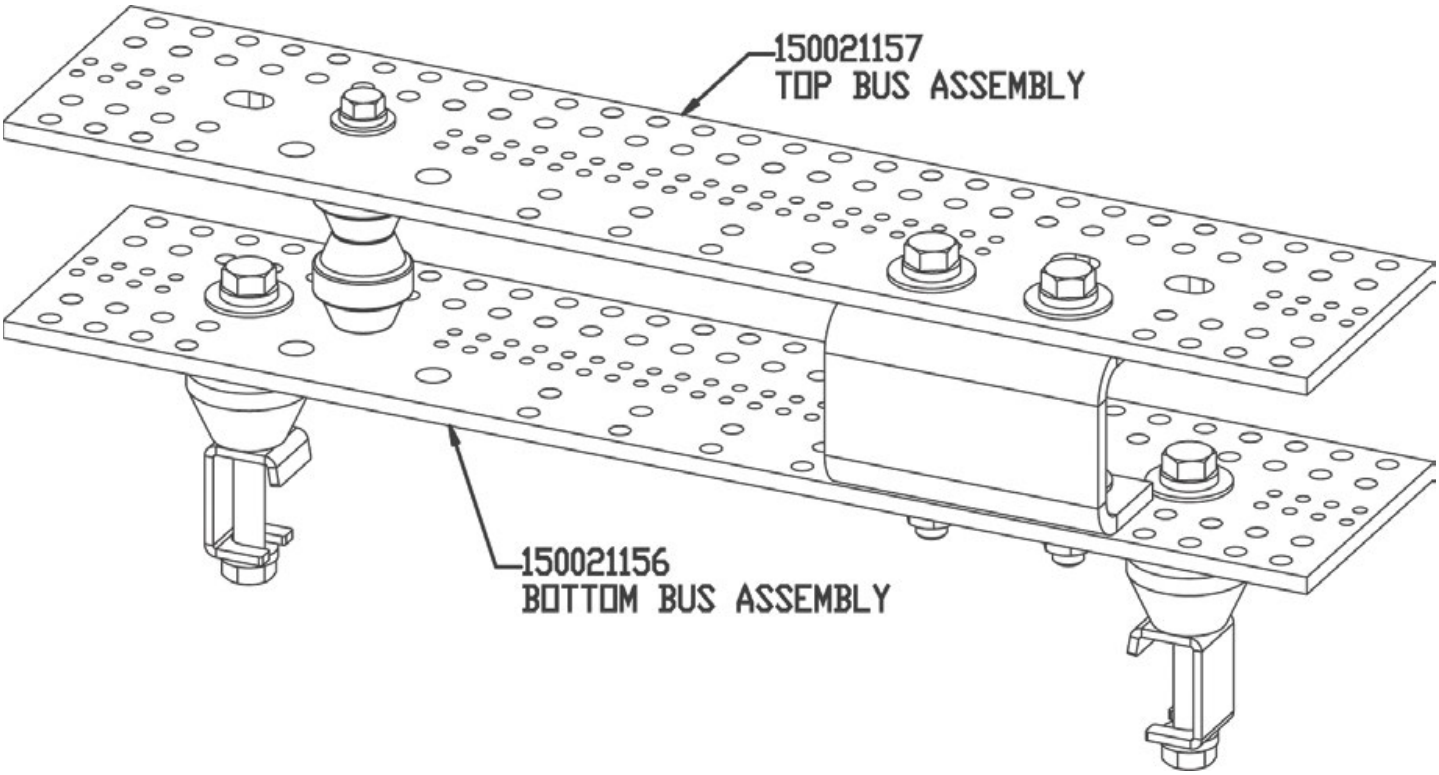


Load Input Connections

Cabinet Drawings (continued)

External DC Return Bus Options





Specifications

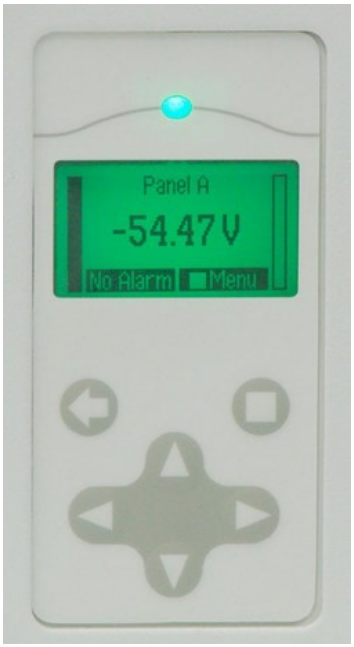
Capacity	
Output Voltage	-48VDC
Output Current per Load	800A
Load Complement	2,4 or 6
Distribution	28-Position Panels for Bullet Style Protectors
Protectors	Bullet-Style Fuse Holders, TPS or TPL Fuses through 125A Single-Pole LEL Bullet-Style Circuit Breakers through 100ATwo-Pole LEL Bullet-Style Circuit Breakers through 175A Three-Pole LEL Bullet-Style Circuit Breakers through 250A

Mechanical	
Width	26” / 660mm or 34” /864mm
Depth	15” / 381mm
Height	84” / 2134mm
Weight	375 lbs. (with 6 panels)
Color	Central Office Soft Blue
Cabinet Extension Height (inch/mm)	12” / 305mm 24” / 610mm 54” /1372mm

Environmental	
Operating Temperature Range	0°C to +40°C (32°F to 104°F)

Agency Certifications	
Telcordia	NEBS Level 3 Certified
Seismic Rating	Zone 4
UL	Canada/US UL60950/UL1801
EMI/EMC	CISPR class A conducted and radiated

VIM1EC Intelligent Meter



The VIM1EC monitor, or smart meter, has an alarm sensitive back-lit display that changes color from green to red on alarm. Current, voltage and alarm information forthe A and B buses are accessed thru the display. There are three primary alarms:

Power Loss/Under Voltage: Generates an alarm when power is lost to either the A or B bus; or when a user configurable low voltage threshold is reached.

Overload: Generates an alarm when a user configurable current threshold is reached. A configurable time delay may also be set to avoid nuisance alarms due to bus transients.

Breaker/Fuse: Generates an alarm when either a circuit breaker trips or a fuse blows.

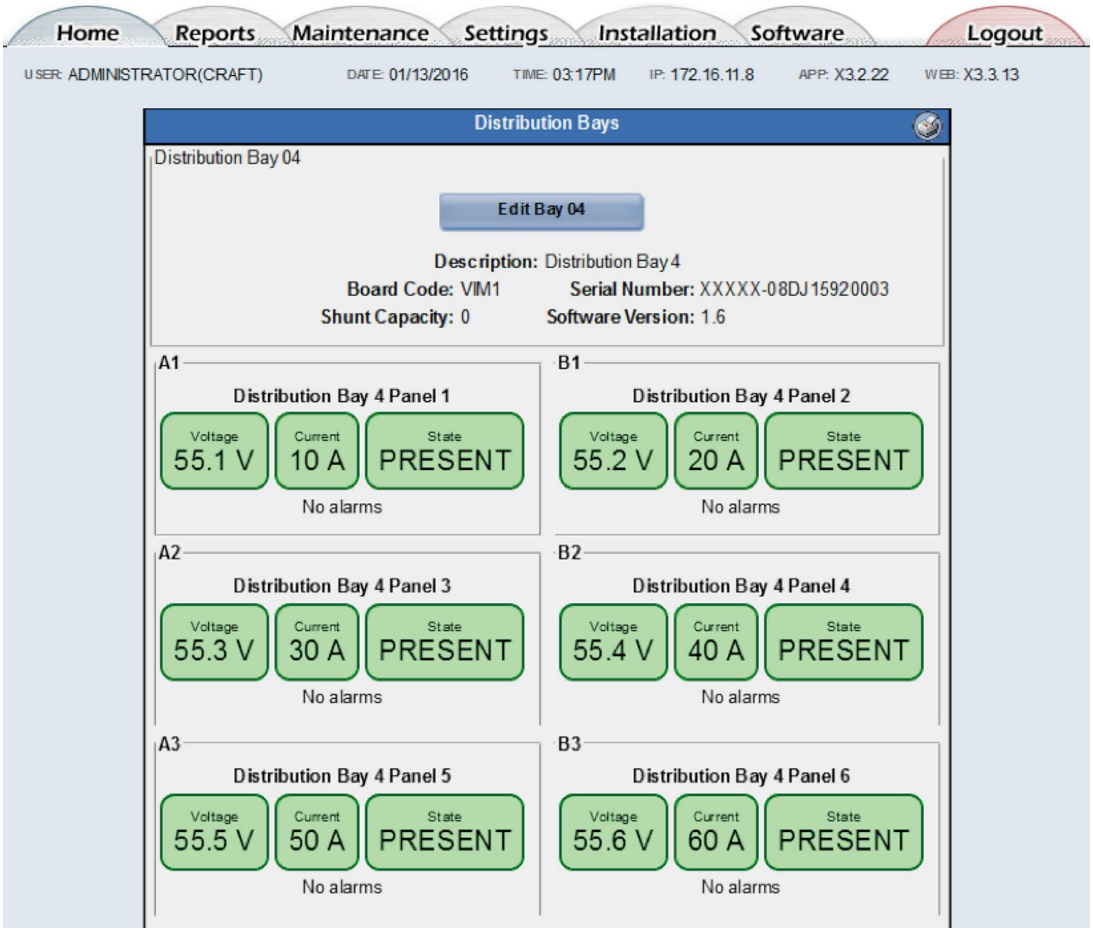
The VIM1EC digital meter includes an audible alarm with a user configurable on/ off feature. There is a form-C relay for each of the three alarms for remote monitoring - power loss/ under voltage, current overload/threshold exceeded, and blown fuse/breaker trip.

A connection over the OmniOn propriety GP bus to an Millennium 2 or Pulsar Plus controller allows remote monitoring via Ethernet. There are two RJ45 type connectors on the board that allow 16 VIM1 boards to be daisy chained for monitoring over a single IP connection

Alarm Cables Pinouts And Description

Pin	Form-C Alarm	Wire Color
7	Fuse NO	Blue
1	Fuse NC	White/Blue
2	Fuse C	Slate
10	OVL NO	White/Slate
4	OVL NC	Orange
5	OVL C	White/Orange
12	PL NO	Yellow
6	PL NC	White/Yellow
11	PL C	White

Remote Monitoring Web Page Example



Step 1: Select Power Bays

Ordering Code	26" Cabinet options (See Notes 1,2)
CC109168530	6 load, 6 panels, internal returns. (H569445 G7 G10A, G23-3, G33-3, G63, G63A-3, G272)
CC109168547	6 load, 6 panels, external returns. (H569445 G7 G10A, G23-3, G33-3, G60, G272)
150020729	2 load, 6 panels, internal returns. (H569445 G7 G10A, G23, G33-3, G63, G63A-3, G272)
150020730	2 load, 6 panels, external returns. (H569445 G7 G10A, G23, G33-3, G60, G272)
150050170	6 load, 6 panels, internal returns, IN BAY NETWORK ACCESS CARD (H569445 G7 G10A, G23-3, G33-3, G63, G63A-3, G274)
150050171	6 load, 6 panels, NO INTERNAL returns, IN BAY NETWORK ACCESS CARD (H569445 G7 G10A, G23-3, G33-3, G60, G274)
150050161	2 load, 6 panels, internal returns, IN BAY NETWORK ACCESS CARD (H569445 G7 G10A, G23, G33-3, G63, G63A-3, G274)
150050162	2 load, 6 panels, NO INTERNAL returns, IN BAY NETWORK ACCESS CARD (H569445 G7 G10A, G23, G33-3, G60, G274)

Ordering Code	34" Cabinet options (See Notes 1,2)
150024803	6 load, 6 panel, internal return. (H569445 G8 G10A G23-3 G33-3 G63 G63A G272-CC)
150024804	6 load 6 panel external return. (H569445 G8 G10A G23-3 G33-3 G60 G272-CC)
150024805	2 load 6 panel internal return. (H569445 G8 G10A G23 G33-3 G63 G63A-3 G272-CC)
150024806	2 load 6 panel external return. (H569445 G8 G10A G23 G33-3 G60 G272-CC)
150050782	6 load, 6 panel, internal return. (H569445 G8 G10A G23-3 G33-3 G63 G63A G274-CC)
150050891	6 load 6 panel no internal return. (H569445 G8 G10A G23-3 G33-3 G60 G274-CC)
150050892	2 load 6 panel internal return. (H569445 G8 G10A G23 G33-3 G63 G63A-3 G274-CC)
150050893	2 load 6 panel no internal return. (H569445 G8 G10A G23 G33-3 G60 G274-CC)

Ordering Code	Extension Cabinet Options For Top Of BDFB (26" Cabinet only)
CC109132040	1ft cabinet extension kit
848258570	2ft cabinet extension kit
848258588	4-1/2ft cabinet extension kit

Ordering Code	External Return Bus Assembly Options
150021156	One 2400A External DC Return bus for mounting on 15 or 20 inch cable rack (1st Tier)
150021157	One Supplementary 2400A DC Return bus for stacking on a 150021156 bus. (Order 1 for a 2 Tier arrangement. Order 2 for a 3 Tier arrange-ment)

Ordering Code	Miscellaneous Spare/Replacement Parts
850018546	Label Kit for numbering panel positions 1.1 to 1.28 through 6.1 to 6.28. (BDFB's ship with 1 label kit)
CC109172854	VIM1EC Digital Meter Assembly
150050351	Kit to add network interface card to existing G& or G8 bay (G274)
CC109172747	Alarm Termination Board
CC109172730	Panel LED Alarm Board
150026362	G63 DC Return Bar Kit
848429288	Top Cover Kit for Group 7 (26" wide) Cabinet for Bottom Feed Applications
150021903	Two 28-Position Distribution Panels
150021902	Two Load Bus Shunt Assemblies (Mounts on two 28-position distribution panels)
847135662	(4) ½ inch drop-in anchors (For Zones 0,1,2)
847135688	(4) 12mm cap bolts anchors (For Zones 0,1,2,3,4)

Note 1: Load shunt connections are accessible for either top or bottom cable entry without field modification.
Note 2: Four bus links are included with each cabinet. If unused in configuration they are shipped in hardware box for field modifications.

Step 2: Select Distribution Components

Bullet Style Load Circuit Breakers

Ordering Code	Amperage	CB Positions (Poles)	Min. Wire Guage	Photo
407998137	3	1	10	
407998145	5	1	10	
407998152	10	1	10	
407998160	15	1	10	
407998178	16	1	10	
407998186	20	1	10	
407998194	25	1	10	
407998202	30	1	10	
408213486	40	1	8	
407998210	45	1	8	
407998228	50	1	6	
407998236	60	1	6	
407998244	70	1	2	
407998251	80	1	2	
407998269	90	1	2	
407998277	100	1	2	
CC848808551	100	2	2	
408185353	125	2	2	
408185346	150	2	1/0	
450023081	175	2	1/0	
408564941	200	3	2/0	
CC408573975	225	3	4/0	
408535752	250	3	4/0	
850019325	2-Position Adapter Bus Kit (one required for 2-pole breakers and one for internal return bus)			
850025679	3-Position Adapter Bus Kit (one required for 3-pole breakers and one for internal return bus)			

TPS/TLS Fuses

Ordering Code	Amperage	Ordering Code	Amperage	Photo
406700567	3	406700658	40	
406700583	5	406700674	50	
406700591	6	406700682	60	
406700609	10	406700690	70	
406700617	15	CC408618020	80	
406700625	20	CC408618037	90	
406700633	25	CC408618045	100	
406700641	30	CC408618061	125	
402328926	0.18 Alarm Fuse			
408548944	Bullet Fuse Holder, TFD-101-011-09 (Alarms on Blown Fuse or Fuse Head Removal)			
CC408617410	Bullet Fuse Holder, TFD-101-011-10 (Alarms on Blown Fuse Only)			

Notes

Notes

Reliability

- Delivers decades of service
- High availability architecture
- NEBS level 3 certified

Intelligence

- Industry leading programmable digital smart monitor
- Remote Monitoring VIA Ethernet
- Visual, audible and remote alarms

Investment Protection

- Backward compatibility
- Flexible upgrade options

On Time Delivery

- 4-6 week availability
- 24/7 technical support
- Standard building blocks

Management Visibility

Galaxy Manager* software is the centralized visibility and control component of a comprehensive power management system designed to meet engineering, operations and maintenance needs. The Galaxy Manager client-server architecture enables remote access to system controllers across the power network.

- Dashboard display with one-click access to management information database
- Trend analysis
- Scheduled or on demand reports
- Fault, configuration, asset, and performance management

Training

OmniOn offers on-site and classroom training options based on certification curriculum. Technical training can be tailored to individual customer needs. Training enables customers and partners to more effectively manage and support the power infrastructure. We have built our training program on practical learning objectives that are relevant to specific technologies or infrastructure design objectives.

Service & Support

OmniOn field service and support personnel are trusted advisors to our customers always available to answer questions and help with any project, large or small. Our certified professional services team consists of experts in every aspect of power conversion with the resources and experience to handle large turnkey projects along with custom approaches to complex challenges. Proven systems

engineering and installation best practices are designed to safely deliver results that exceed our customers' expectations.

Warranty

OmniOn is committed to providing quality products and solutions. We have developed a comprehensive warranty that protects you and provides a simple way to get your products repaired or replaced as soon as possible.

For full warranty terms and conditions please go to omnionpower.com

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