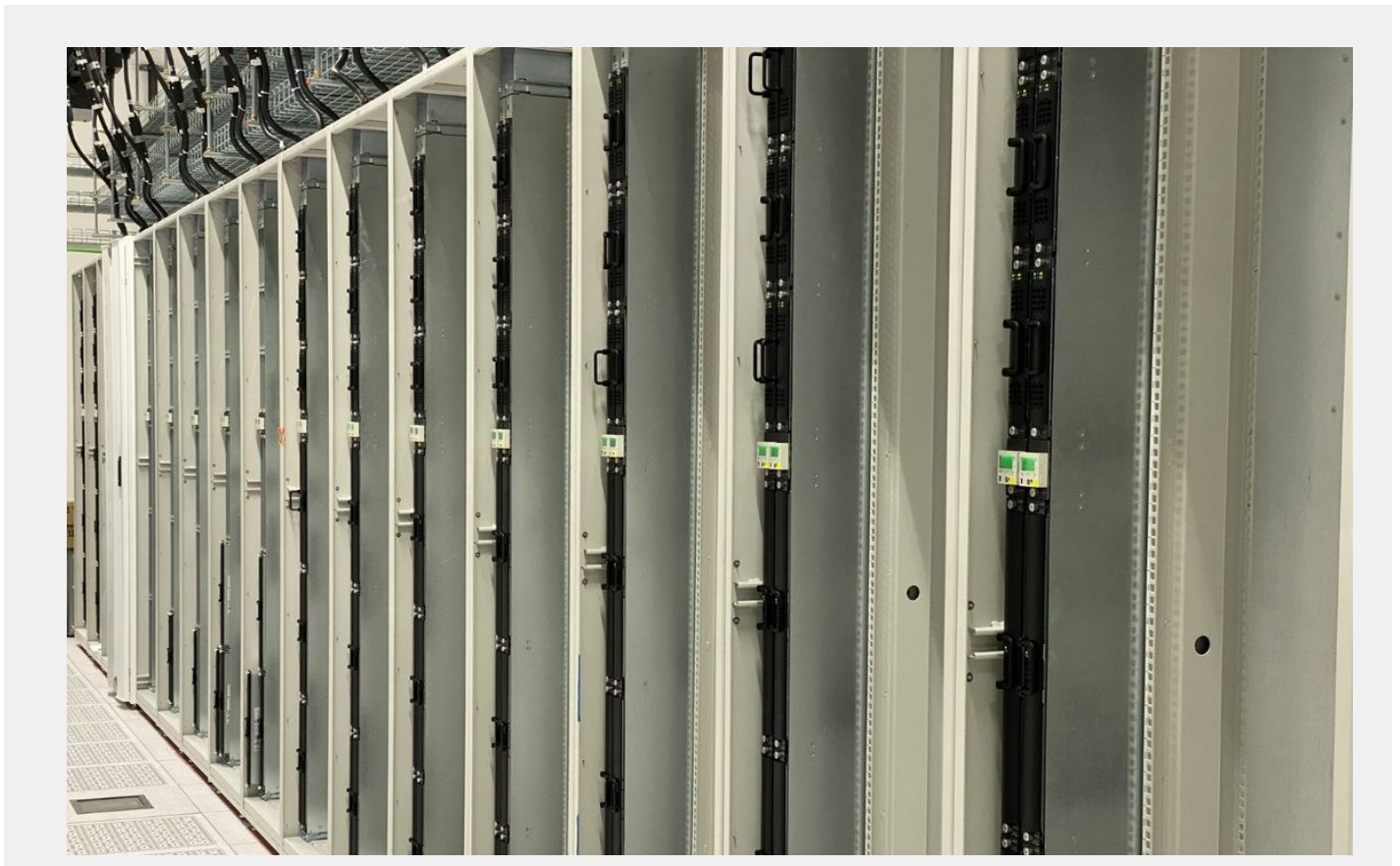


ORDERING GUIDE

Edge Distributed Data Center Power Architecture



Introduction

Dual redundant powering architectures provide high reliability power service for many applications. In true dual redundant systems design, two power trains are used, each having the capacity to support the entire critical load. Should one power train fail, the second continues to supply the required power, ensuring that service is not interrupted.

In this architecture, during normal operation, each power train will be supplying power at 50% or less of its capacity but is designed to supply 100% should the second system fail.

TABLE OF CONTENTS

| | |
|---------|-------------------------------------|
| 04 | Introduction |
| 05 - 10 | Specifications |
| 11 | Ordering Overview |
| 12 - 15 | Step 1: Edge Enclosure Selection |
| 16 - 17 | Step 2: Pluggable Power Units |
| 18 - 21 | Step 3: Distribution Components |
| 21 | Step 4: Additional Capacity Support |
| 22 - 24 | Step 5: Accessories and Adapters |

Edge Distributed Power Architecture

Your Bottom Line. Transformed

The Edge Distributed Power Architecture product family provides you the ultimate in power conversion efficiency eliminating the need for excess equipment and single points of failure in your office. By delivering 208 or 480 Vac directly to the frame and battery storage local to your load equipment, the Edge is the most reliable DC data center solution yet.

In a data center, power efficiency and density are crucial. Imagine the ability to achieve significantly increased processing capability from modern high-density servers for just a small increase in power consumption. The impact could be significant in terms of efficiency and operating power costs.

Overview

Our Edge distributed data center power architecture helps achieve just that. The power architecture is able to meet the demands of today's (and future) data centers by providing high power density in a modular solution that can grow with a data centers' computing needs.

Factor in the reduced number of power conversion steps this power architecture uses – and the associated improvements in power efficiency it provides – and you have a single solution capable of helping you reduce your data center power costs, improve white space utilization, and transform your bottom line.

Advantages

- Power Density Increase
- CapEx & OpEx Reduction
- Execution Speed
- Simplified Maintenance
- Increased Safety & Reliability



Key Features

The highly-reliable Edge distributed data center power architecture provides a cost-effective solution to backup power needs in data centers by utilizing compact DC power supplies mounted inside – on the side (vertically) – of each frame outside of the equipment space. Each power train is fed from a three-phase, 208 or 480-volts AC source and converts the power to 48-volts DC inside the enclosure for maintaining battery reserve (which is also housed in the system). With the Edge power architecture, rectifiers and batteries are hot-swappable and self-configure.

- Dual AC Inputs
- 200/208/240 or 380/400/415/480 Vac
- Pulsar Edge controller with integrated management system
- Intelligent rectifier and battery modules
- Hot pluggable & hot swappable modules
- Digital load sharing
- Configurable local distribution
- Fully RoHS 10 compliant
- UL and CE for deployment worldwide

Specifications

The Edge Distributed Power Architecture offers a configurable power conversion solution at the load equipment to maximize power availability and density. The following specification are generic and not specific to a single solution. It should be noted that the overall capacities, distribution options, and plant configurations are changeable in the event they are needed.

| Input | MIN | TYPICAL | MAX |
|---------------------------|---------|---------|---------|
| Voltage Range | | | |
| • High-Line | 320 Vac | 480 Vac | 530 Vac |
| • Low-Line | 176 Vac | 208 Vac | 275 Vac |
| Frequency | 47 Hz | 60 Hz | 66 Hz |
| Power Factor | 98% | 99.5% | 99.8% |
| Total Harmonic Distortion | 5% | | |

| Output | |
|-----------------------|---------------------------------------|
| Nominal Voltage | -48 Vdc |
| Output Rating | 1000 A (48 kW _{max} for Bay) |
| Vo Setpoint (Factory) | -54.5 Vdc ±1% |
| Vo Range | -42 Vdc to -58 Vdc |
| Regulation | ±0.05% |

| Mechanical | | |
|-----------------------|---|--|
| | 7 Foot Cabinet (EDGE 7) | 8 Foot Cabinet (EDGE 8) |
| Height (in/mm) | 84 / 2134 with 44RU Equipment Space | 97.8 / 2483 with 52RU Equipment Space |
| Width (in/mm) | 29.8 / 756 Enclosure with standard 19 IN mounting rails | |
| Depth (in/mm) No Door | 44 / 1118 without doors; 47.5 / 1207 with doors | |
| Depth (in/mm) No Door | 47.5 / 1207; Door swing requires 30.2 / 767 | |
| *Weight (lbs/kg) | 742 / 337 Base Cabinet in 3x3 N+N configuration | 825 / 374 Base Cabinet in 3x2 N+N configuration |
| Finish | Central office white powder coat Sherwin-Williams UWT2-10009 or Protech HX511W481 | |

* Weight is for base cabinet only. It does not include: rectifiers, batteries, distribution modules, doors, or customer equipment

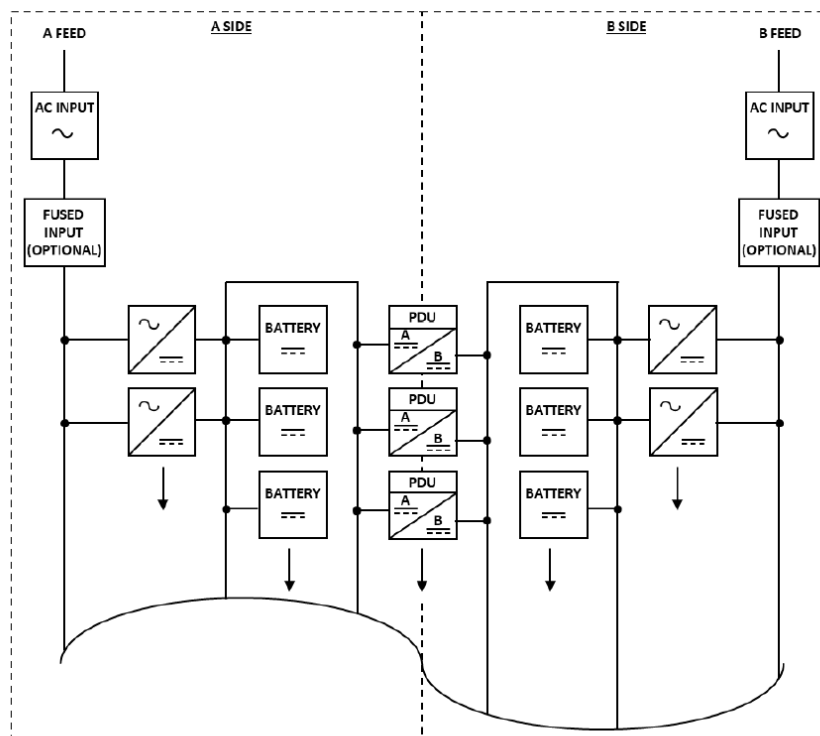
Specifications (continued)

| Environmental | |
|-----------------------|---|
| Operating Temperature | -40 °C to +40 °C (-40 °F to 104 °F) |
| Storage Temperature | -40 °C to +85 °C (-40 °F to 185 °F) |
| Relative Humidity | 95% max, non-condensing |
| Altitude | 4000 M (for altitudes above 2000 M, peak operating temperature de-rates 0.656 °C /100M) 4000 M peak temperature rating is 62°C |

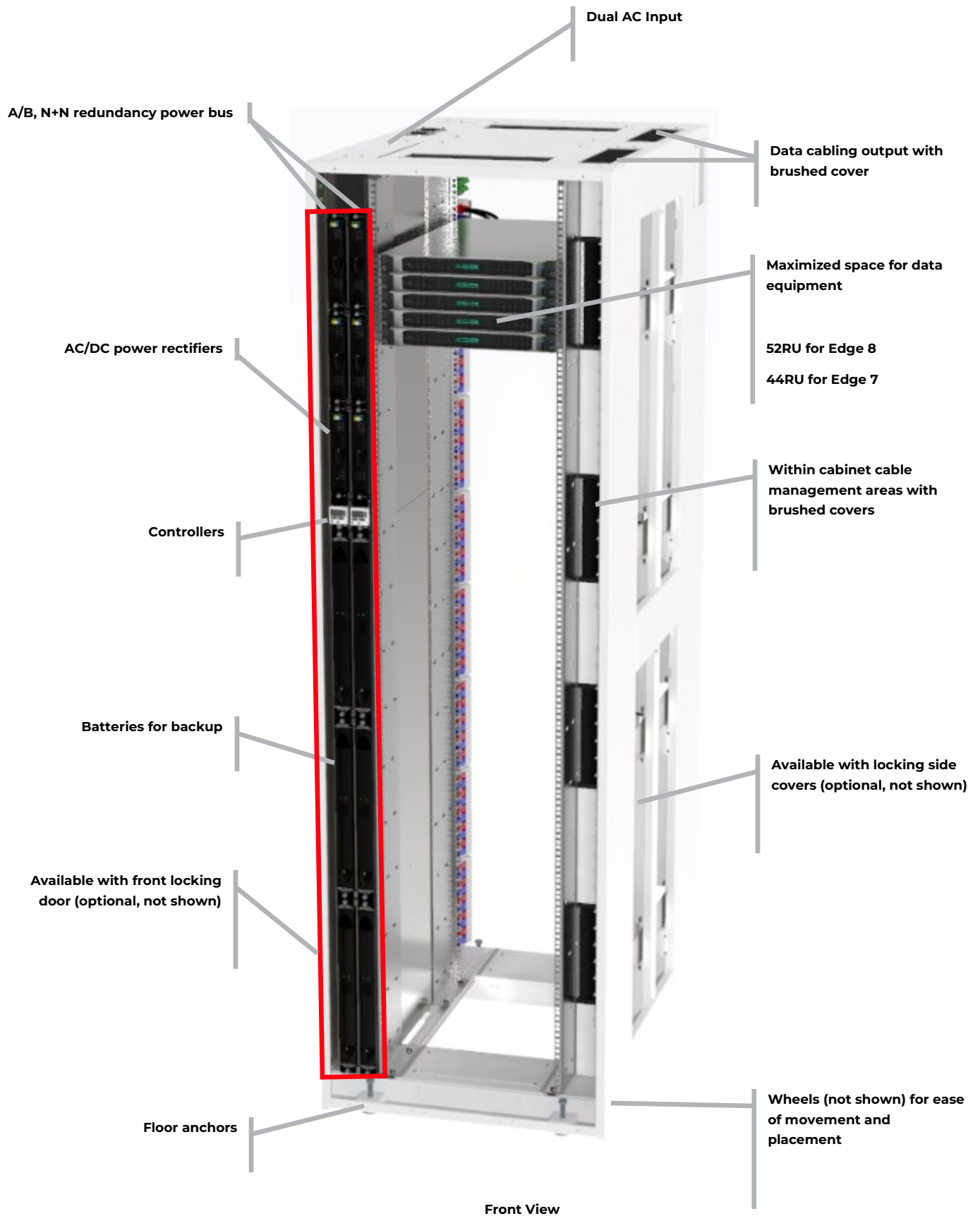
| Safety And Standards Compliance | |
|---------------------------------|---|
| NEBS | Evaluated by independent NRTL test lab to Telcordia GR63-CORE & GR1089-CORE Issue 6 [Level 3] |
| Safety | ANSI/UL60950-1-2014 Second Edition and CAN/CSA C22.2 No. 60950-1-07, Second Edition + A2:2014 (MOD), dated October 14, 2014 |
| RoHS | Compliant to RoHS EU Directive 2002/95/EC RoHS 6/6 |
| EMC | European Directive 2014/30/EU; EN55032, Class A; EN55035; FCC, Class A; GR1089-CORE Issue 6 |

| Agency Certifications | |
|-----------------------|---|
| CSA / UL | ANSI/UL60950-1-2014 Second Edition and CAN/CSA C22.2 No. 60950-1-07, Second Edition + A2:2014 (MOD), dated October 14, 2014 |
| EMI/EMC | European Directive 2014/30/EU; EN55032 (CISPR22) Class A; EN55035 (CISPR24) |
| NEBS Level 3 | GR-1089-CORE, Issue 7, December 2017; GR-63-CORE, Issue 5, December 2017 (24kW/440A N+N; 48KW/880A N configuration with additional 1523Lbs of load equipment) |

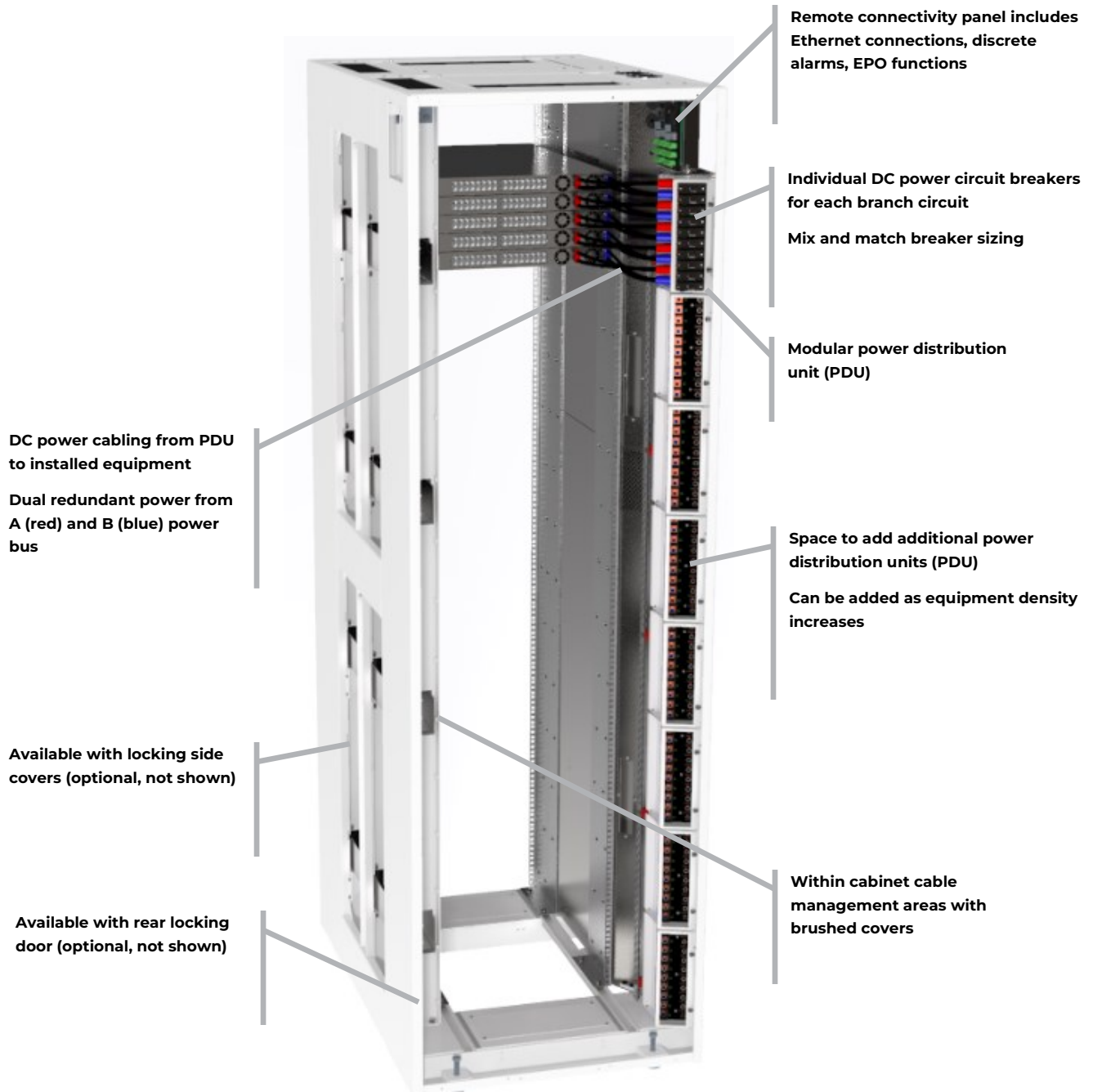
Block Diagram



Product Features



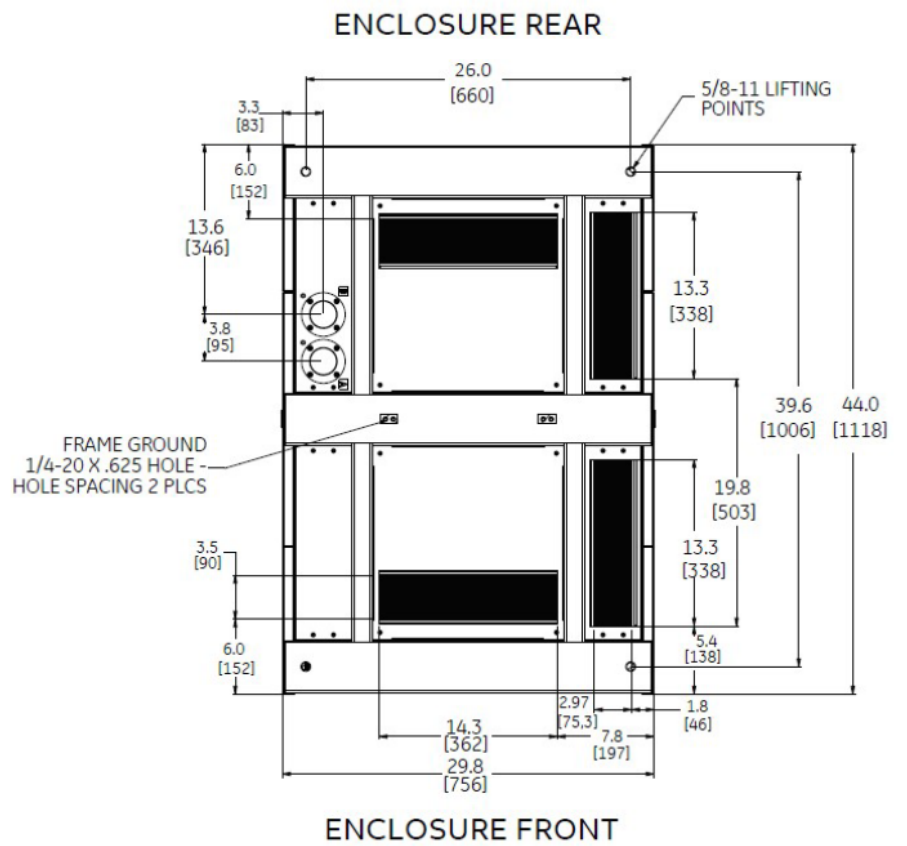
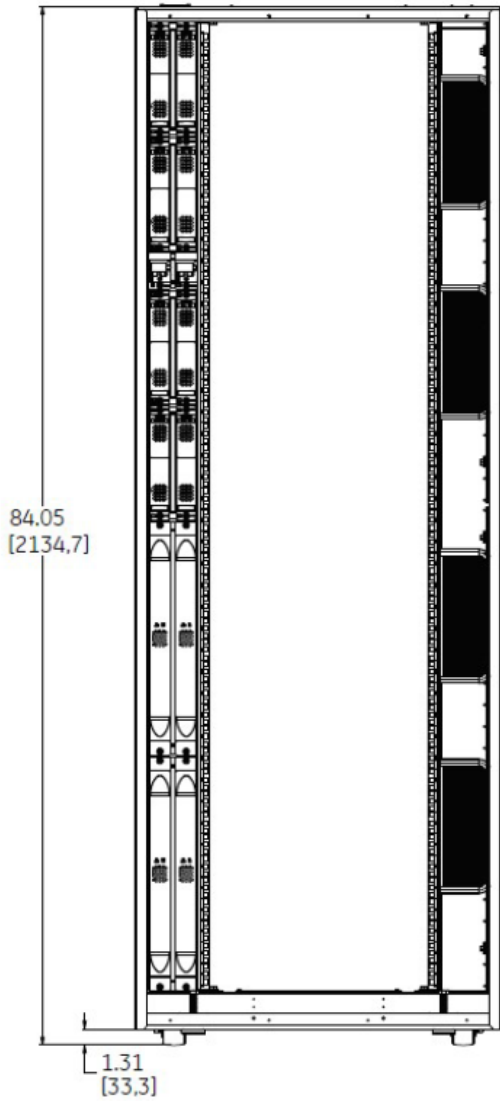
Product Features



Rear View

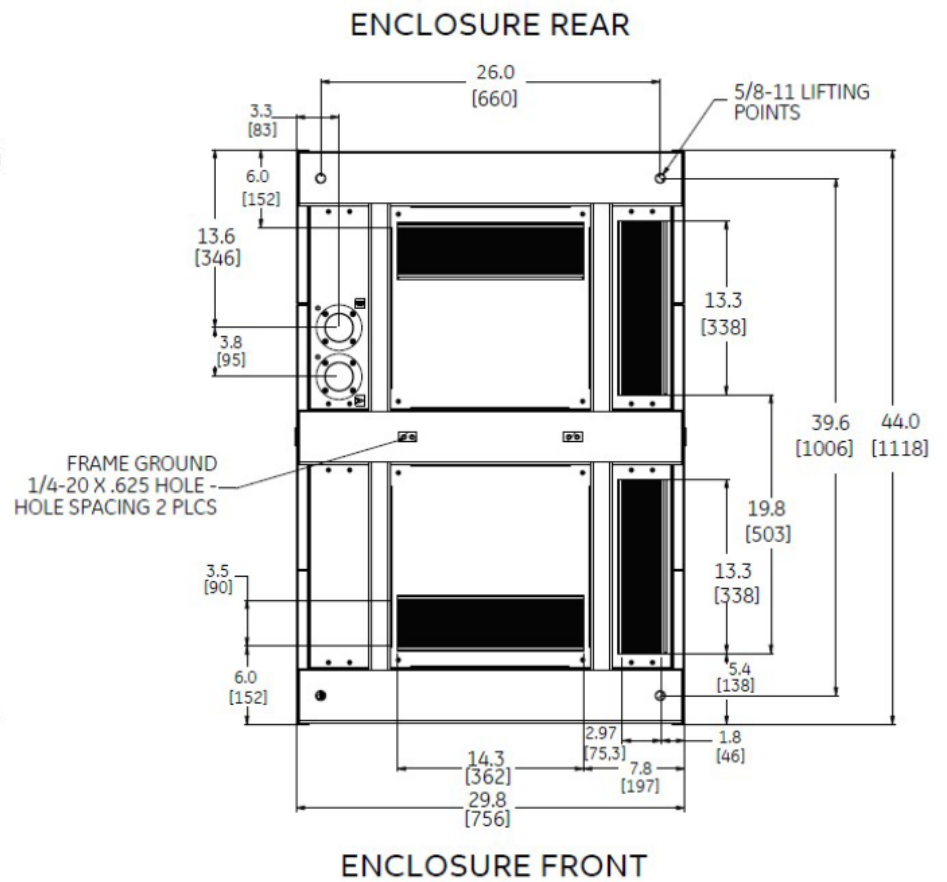
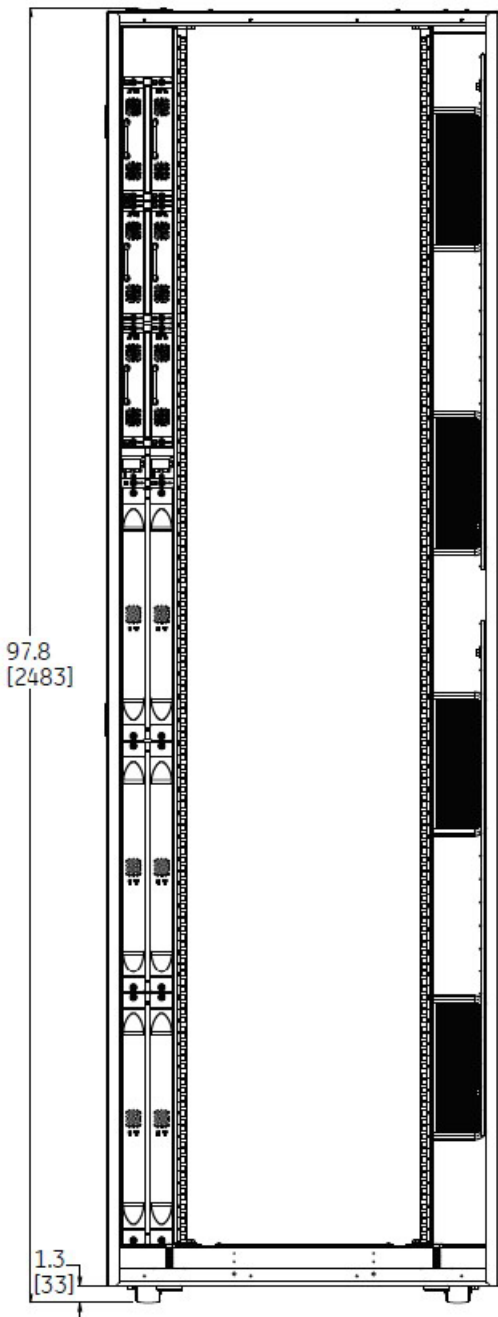
Drawings

EDGE 7



Drawings

EDGE 8



Ordering Guide Information

The Edge Distributed Data Center Power Architecture offers site and load dependent configurability for the end user application. Whether used as a single cabinet for an enterprise application or as a total data hall application, each cabinet can be configured to support as little as 6kW up to 120kW of load while supplying as little as 30 seconds up to 30 minutes of backup battery capacity. Since all power conversion takes place in the equipment bay, the user can define how much power and battery reserve is required or desired in each cabinet.

The following ordering guide contains the currently released products available to be ordered for deployment. From a minimal enclosure with rectification and distribution to a fully configured bay with all panels and feature, these configuration steps are used as a guideline to configure site specific solutions starting with the bay and then populating with various modules and features for site deployment.

Additional options available. Please contact your sales person for systems not listed below and for pricing.

Configuration Steps

| Step | Selection | Requirements Needed | Options |
|------|-----------------------------|--|--|
| 1a | Edge Enclosure Selection | <ul style="list-style-type: none"> Enclosure Size Input Voltage Input type Number of power buses Power capacity | <ul style="list-style-type: none"> 7 or 8 foot 208Vac or 480Vac California Plug, Direct Wire Dual Bus, Single A or B bus 18kW, 30kW, 48kW, etc. |
| 1b | Specialized Edge Selection | <ul style="list-style-type: none"> Edge BDFB Edge Inverter Bay | <ul style="list-style-type: none"> 48kW, 60kW 48kW Red or Blue |
| 2 | Pluggable Power Modules | <ul style="list-style-type: none"> Rectifiers Inverter Battery | <ul style="list-style-type: none"> 208Vac or 480Vac 48V/120V VRLA or NiMH |
| 3 | Distribution Components | <ul style="list-style-type: none"> Primary distribution panels Large breaker panels Breaker sizes Connectors and Cables | <ul style="list-style-type: none"> Dual Bus, Single A or B Dual Bus, Single A or B Single and multi-pole (5 - 250A) 10 - 2AWG Connectors/Cable Kits |
| 4 | Additional Reserve Capacity | <ul style="list-style-type: none"> Supplemental battery shelves Battery connection panel | <ul style="list-style-type: none"> A & B, single A, single B shelves Dual Bus, single A, single B |
| 5 | Accessories and Adapters | <ul style="list-style-type: none"> Enclosures add-ons Equipment specific modifications In bay inverter solutions | <ul style="list-style-type: none"> Doors, side panels, mounting kits Nokia mounting & Cisco air flow kit Split and single voltage inverters |

Step 1a: Edge Enclosure Selection

The Edge enclosure is configured based on the height of the cabinet, power and battery configuration, and the type of AC input the bay accepts. The following is a list of currently released bays available to order for new installations, as well as equipment expansion projects. Choose the bay based on your application and installation. If a new configuration is required for your application, please reach out to your sales representative to discuss options.

| 480Vac Input Bays | | | | |
|----------------------|---|----------------------|--|-------------|
| Ordering Code | Description | Feature | Value | |
| 1600264831A | 8' Edge Distributed Power Architecture Bay A & B power busses each equipped: 3 - Rectifier positions (6 Total) 3 - Battery positions (6 Total) 8 - PDU output positions Pulsar Edge Controller Vertical Ground Bus Front to Rear cable raceway 10Ft AC cable with CS8164 locking plug and second CS8164 locking plug for raceway connection EDGE-8-19-480-33-AB-CS-B00-D0-S0-Z0-P0-2 | Rating (kW) | 18 N+N | |
| | | Input Voltage (Vac) | 380 - 480Vac @ 50/60Hz | |
| | | Output Configuration | A & B | |
| | | Battery Positions | 6 Total | |
| | | | Installed | Shipping |
| | | Height (in/mm) | 97.8/2483 | 104.8/2662 |
| | | Width (in/mm) | 29.8/756 | 44/1118 |
| | | Depth (in/mm) | 44/1118 | 58/1473 |
| | | Weight (lbs/kg) | 825/374 | 1042/473 |
| | | 1600274222A | 8' Edge Distributed Power Architecture Bay A & B power busses each equipped: 5 - Rectifier positions (10 Total) 2 - Battery positions (4 Total) 8 - PDU output positions Pulsar Edge Controller Vertical Ground Bus Front to Rear cable raceway 10Ft AC cable with CS8164 locking plug and second CS8164 locking plug for raceway connection EDGE-8-19-480-52-AB-CS-B00-D0-S0-Z0-P0-2 | Rating (kW) |
| Input Voltage (Vac) | 380 - 480Vac @ 50/60Hz | | | |
| Output Configuration | A & B | | | |
| Battery Positions | 4 Total | | | |
| | Installed | | | Shipping |
| Height (in/mm) | 97.8/2483 | | | 104.8/2662 |
| Width (in/mm) | 29.8/756 | | | 44/1118 |
| Depth (in/mm) | 44/1118 | | | 58/1473 |
| Weight (lbs/kg) | 825/374 | | | 1042/473 |
| 1600261221A | 7' Edge Distributed Power Architecture Bay A & B power busses each equipped: 4 - Rectifier positions (8 Total) 2 - Battery positions (4 Total) 6 - PDU output positions Pulsar Edge Controller Vertical Ground Bus Front to Rear cable raceway 10Ft AC cable with CS8164 locking plug and second CS8164 locking plug for raceway connection EDGE-7-19-480-42-AB-CS-B00-D0-S0-Z0-P0-2 | | | Rating (kW) |
| | | Input Voltage (Vac) | 380 - 480Vac @ 50/60Hz | |
| | | Output Configuration | A & B | |
| | | Battery Positions | 4 Total | |
| | | | Installed | Shipping |
| | | Height (in/mm) | 84/2135 | 91/2311 |
| | | Width (in/mm) | 29.8/756 | 44/1118 |
| | | Depth (in/mm) | 44/1118 | 58/1473 |
| | | Weight (lbs/kg) | 742/337 | 960/435 |

Step 1a: Edge Enclosure Selection

The Edge enclosure is configured based on the height of the cabinet, power and battery configuration, and the type of AC input the bay accepts. The following is a list of currently released bays available to order for new installations, as well as equipment expansion projects. Choose the bay based on your application and installation. If a new configuration is required for your application, please reach out to your sales representative to discuss options.

| 208Vac Input Bays | | | | |
|-------------------|--|----------------------|------------------------|----------|
| Ordering Code | Description | Feature | Value | |
| 1600481402A | 7' Edge Distributed Power Architecture Bay A & B power busses each equipped: 4 - Rectifier positions (8 Total) 2 - Battery positions (4 Total) 6 - PDU output positions Pulsar Edge Controller Vertical Ground Bus Front to Rear cable raceway 2, A + 2, B Terminal block inputs EDGE-7-19-208-42-AB-TB-B00-D0-S0-Z0-P0-1 | Rating (Kw) | 24 N+N | |
| | | Input Voltage (Vac) | 200 - 240Vac @ 50/60Hz | |
| | | Output Configuration | A & B | |
| | | Battery Positions | 4 Total | |
| | | | Installed | Shipping |
| | | Height (in/mm) | 84/2135 | 91/2311 |
| | | Width (in/mm) | 29.8/756 | 44/1118 |
| | | Depth (in/mm) | 44/1118 | 58/1473 |
| | | Weight (Lbs./KG) | 742/337 | 960/435 |
| 1600481428A | 7' Edge Distributed Power Architecture Bay A & B power busses each equipped: 2 - Rectifier positions (4 Total) 3 - Battery positions (6 Total) 6 - PDU output positions Pulsar Edge Controller Vertical Ground Bus Front to Rear cable raceway 2, A + 2, B Terminal block inputs EDGE-7-19-208-23-AB-TB-B00-D0-S0-Z0-P0-2 | Rating (Kw) | 12 N+N | |
| | | Input Voltage (Vac) | 200 - 240Vac @ 50/60Hz | |
| | | Output Configuration | A & B | |
| | | Battery Positions | 6 Total | |
| | | | Installed | Shipping |
| | | Height (in/mm) | 84/2135 | 91/2311 |
| | | Width (in/mm) | 29.8/756 | 44/1118 |
| | | Depth (in/mm) | 44/1118 | 58/1473 |
| | | Weight (Lbs./KG) | 742/337 | 960/435 |

Step 1b: Specialty Edge Enclosure Selection



These Edge enclosures are special configurations for non-standard applications. Configurations include Inverter bays for localized AC serviced equipment, Edge Battery Distribution Circuit Breaker Boards, and other configuration for special applications. Choose the bay based on your application and installation. If a new configuration is required for your application, please reach out to your standards team and sales representative to discuss options.

| Ordering Code | Description | Feature | Value | |
|----------------------|--|----------------------|---|-------------|
| 1600305670A | 7' Edge Battery Distribution Circuit Breaker Board Bay is equipped with the following: 4 - Rectifier positions (8 Total) 2 - Vertical Battery positions (4 Total) 11 - Horizontal Battery positions (22 Total) 3 - PDU output positions 3 - Battery PDU's Pulsar Edge Controller Vertical Ground Bus Front to Rear cable raceway 2 - 10Ft AC cable with CS8164 locking plugs EDGE-7-19-480-42-AB-CS-B11-D0-S0-Z0-P0-2 | Rating (Kw) | 24 N+N | |
| | | Input Voltage (Vac) | 380 - 480Vac @ 50/60Hz | |
| | | Output Configuration | A & B | |
| | | Battery Positions | 26 Total | |
| | | | Installed | Shipping |
| | | Height (in/mm) | 84/2135 | 91/2311 |
| | | Width (in/mm) | 29.8/756 | 44/1118 |
| | | Depth (in/mm) | 44/1118 | 58/1473 |
| | | Weight (Lbs./KG) | 947/429 | 1164/527 |
| | | 1600274216A | 7' Edge 48kW 120/240 Inverter Bay - Red A power bus equipped with: 10 - Rectifier positions 4 - Vertical Battery positions 20 - Horizontal Battery positions 1 - 60kVA Inverter System Pulsar Edge Controller Vertical Ground Bus Front to Rear cable raceway 2 - 10Ft AC cable with CS8164 locking plugs EDGE-7-19-480-51-A-CS-B20-DB-S2-Z0-P0-2 | Rating (Kw) |
| Input Voltage (Vac) | 380 - 480Vac @ 50/60Hz | | | |
| Output Configuration | 120/240V Bulk Split Phase | | | |
| Battery Positions | 24 Total | | | |
| | Installed | | | Shipping |
| Height (in/mm) | 97.8/2483 | | | 104.8/2662 |
| Width (in/mm) | 29.8/756 | | | 44/1118 |
| Depth (in/mm) | 44/1118 | | | 58/1473 |
| Weight (Lbs./KG) | 1005/456 | | | 1222/554 |
| 1600274217A | 7' Edge 48kW 120/240 Inverter Bay - Blue B power bus equipped with: 10 - Rectifier positions 4 - Vertical Battery positions 20 - Horizontal Battery positions 1 - 60kVA Inverter System Pulsar Edge Controller Vertical Ground Bus Front to Rear cable raceway 2 - 10Ft AC cable with CS8164 locking plugs EDGE-7-19-480-51-B-CS-B20-DB-S2-Z0-P0-2 | | | Rating (Kw) |
| | | Input Voltage (Vac) | 380 - 480Vac @ 50/60Hz | |
| | | Output Configuration | 120/240V Bulk Split Phase | |
| | | Battery Positions | 24 Total | |
| | | | Installed | Shipping |
| | | Height (in/mm) | 97.8/2483 | 104.8/2662 |
| | | Width (in/mm) | 29.8/756 | 44/1118 |
| | | Depth (in/mm) | 44/1118 | 58/1473 |
| | | Weight (Lbs./KG) | 1005/456 | 1222/554 |

Step 2: Pluggable Power Modules


Rectifier Modules

GP100 rectifiers for the Edge Distributed Architecture are installed in the A or B side of the frame. They are designed and qualified to operate 40°C to +55°C with extended operation to +70°C. The rectifiers are programmable from 42 - 58V in order to float and charge all battery technologies utilized by the Edge Distributed Architecture.

| Ordering Code | Description | Feature | Value | | Image |
|---------------|--|------------------|------------------------|--------------|--|
| 1600373923A | GP100L3R48TEZEC Low Line Rectifier | Power Rating | 6 kW | 110 A @ 54 V |  |
| | | Input Voltage | 200 - 240Vac @ 50/60Hz | | |
| | | Input Current | | | |
| | | Heat Release | Watts | BTU/hr. | |
| | | | Installed | Shipping | |
| | | Weight (Lbs./KG) | 8.95/4.1 | 9.85/4.5 | |
| 1600092584A | GP100H3R48TEZEC High Line Rectifier | Power Rating | 6 kW | 110 A @ 54 V |  |
| | | Input Voltage | 380 - 480Vac @ 50/60Hz | | |
| | | Input Current | 10A - 8A | | |
| | | Heat Release | 217 Watts | 740 BTU/hr. | |
| | | | Installed | Shipping | |
| | | Weight (Lbs./KG) | 8.95/4.1 | 9.85/4.5 | |

Inverter Modules

The below inverter module is used in the specialty Edge Inverter Bays in step 1b. For single phase units, order as many individual units as necessary to support the load. For split phase systems inverters modules must be used in pairs.






| Ordering Code | Description | Feature | Value | | Image |
|---------------|---|------------------|----------------|-------------|---|
| 450041032 | INV BRAVO MOD 2.5KVA 48Vdc 120Vac Single phase Inverter Module | Power Rating | 2000 W | 2500 kVA |  |
| | | Input Voltage | 40 - 60 Vdc | | |
| | | Input Current | 56 A @ 40 Vdc | | |
| | | Overload | 150% (15 Sec.) | | |
| | | Heat Release | 182 Watts | 621 BTU/hr. | |
| | | | Installed | Shipping | |
| | | Weight (Lbs./KG) | 9.46/4.3 | 10.4/4.7 | |

Step 2: Pluggable Power Modules (cont.)

Battery Modules

BME2500 batteries for the Edge Distributed Architecture are installed in the A or B vertical space, or in horizontal shelves in the center of the frame.



CAUTION: Do not mix battery types within a single Edge cabinet. Mixing battery technology will result in battery damage.

| Ordering Code | Description | Feature | Value | | Image |
|------------------|---|------------------|---------------|--------------|---|
| 1600283228A | Qty. 1 BME2500/120VRLA48 BATTERY Valve Regulated Lead Acid | Float Voltage | 54.5 Vdc | |  |
| | | 1 Min (ECV 38.4) | 3810 W | 1.6 Ah | |
| | | 2 Min | 3177 W | 2.8 Ah | |
| | | 5 Min | 1863 W | 4 Ah | |
| | | 10 Min | 1167 W | 5.1 Ah | |
| | | 15 Min | 815 W | 5.3 Ah | |
| 1600443177A | Qty. 20, Bulk Packaged BME2500/120VRLA48 BATTERY Valve Regulated Lead Acid | Operating Temp. | 0 to +40 °C | |  |
| | | Heat Release | 11 Watts | 37.5 BTU/hr. | |
| | | | Installed | Shipping | |
| | | Weight (Lbs./KG) | 42.9/19.5 | 47.4/21.5 | |
| 1600283230A | Qty. 1 BME2500/480NIMH48 BATTERY Nickel Metal Hydride | Float Voltage | 56.0 Vdc | |  |
| | | 1 Min (ECV 38.0) | 6000 W | 2.6 Ah | |
| | | 2 Min | 5900 W | 5.2 Ah | |
| | | 5 Min | 4800 W | 10.5 Ah | |
| | | 10 Min | 2850 W | 12.5 Ah | |
| | | 15 Min | 1870 W | 12.3 Ah | |
| 5000482993P | Qty. 20, Bulk Packaged BME2500/480NIMH48 BATTERY Nickel Metal Hydride | Operating Temp. | +15 to +35 °C | |  |
| | | Heat Release | 15 Watts | 51.2 BTU/hr. | |
| | | | Installed | Shipping | |
| | | Weight (Lbs./KG) | 58/26.3 | 63/32.3 | |
| 1600283229A | BME2500/220NA+48 BATTERY Sodium Ion / Prussian Blue *Conditional availability based on quantity | Float Voltage | 58.0 Vdc | |  |
| | | 1 Min (ECV 38.4) | 5400 W | 1.7Ah | |
| | | 2 Min | 3850 W | 2.8 Ah | |
| | | 5 Min | 1940 W | 4.1 Ah | |
| | | 10 Min | 1300 W | 5.1 Ah | |
| | | 15 Min | 740 W | 5.4 Ah | |
| | | Operating Temp. | | | |
| | | Heat Release | 15 Watts | 51.2 BTU/hr. | |
| | | | Installed | Shipping | |
| Weight (Lbs./KG) | 41.9/19 | 46.9/25 | | | |

Step 3: Distribution Components

Distribution Modules

Distribution modules are designed to connect directly to the distribution bus via pin and socket pluggable connections on the single pole breaker panels or two-hole lugs on the multi-pole breaker panel. See connectors and cables for interfacing options on the single pole breaker panel.

| Ordering Code | Description | Feature | Value | | Image |
|---------------|--|------------------|-----------------------------|----------|--|
| 1600276419A | 10 Position Distribution for A Bus Only (RED - G400) | Panel Rating | 400A | |  |
| | | Position Rating | 100A | | |
| 1600274226A | 10 Position Distribution for B Bus Only (BLUE - G402) | Total Positions | 10 | | |
| | | Connection Type | Pluggable Pin and Sleeve | | |
| 1600213820A | 10 Position Distribution for A & B Buses (RED & BLUE - G401) | | Installed | Shipping | |
| | | Weight (Lbs./KG) | 8.15/3.7 | 9/4.1 | |
| 1600250697A | 2 Position Distribution for A Bus Only (RED - G410) | Panel Rating | 400A | |  |
| | | Position Rating | 300A (up to 3 Pole breaker) | | |
| 1600361457A | 2 Position Distribution for B Bus Only (BLUE - G412) | Total Positions | 2 | | |
| | | Connection Type | 1/4-20 on 5/8" | | |
| 1600250698A | 2 Position Distribution for A & B Buses (RED & BLUE - G411) | | Installed | Shipping | |
| | | Weight (Lbs./KG) | 8.15/3.7 | 9/4.1 | |

Step 3: Distribution Components (cont.)

Bullet Style Load Circuit Breakers

Edge Distributed Power Architecture distribution panels all support plug-in (bullet style) breakers modules. Larger breakers can be 2 or even 3 poles. The multi-pole breakers can only be used in G410, G411, & G412.

| Ordering Code | Amperage | CB Positions | Min Wire Gauge | Image |
|---------------|----------|--------------|----------------|---|
| 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 | 10 | |
| 407998210 | 45 | 1 | 8 | |
| 407998228 | 50 | 1 | 8 | |
| 407998236 | 60 | 1 | 6 | |
| 407998244 | 70 | 1 | 6 | |
| 407998251 | 80 | 1 | 4 | |
| 407998269 | 90 | 1 | 4 | |
| 407998277 | 100 | 1 | 2 |  |
| CC848808551 | 100 | 2 | 2 | |
| 408185353 | 125 | 2 | 2 | |
| 408185346 | 150 | 2 | 1 |  |
| 408564941 | 200 | 3 | 3/0 | |
| CC408573975 | 225 | 3 | 3/0 | |
| 408535752 | 250 | 3 | 4/0 | |
| 450046922 | 300 | 3 | 4/0 | |

Step 3: Distribution Components (cont.)

Keyed Connector Kits and Crimping Tools

| Ordering Code | Type | Color | Wire Gauge | Image |
|---------------|---|-------|------------|-------|
| 1600264825A | Connector Kit | Blue | 10 | |
| 1600264826A | Connector Kit | Red | 10 | |
| 1600272823A | Connector Kit | Blue | 8 | |
| 1600272824A | Connector Kit | Red | 8 | |
| 1600264827A | Connector Kit | Blue | 6 | |
| 1600264828A | Connector Kit | Red | 6 | |
| 1600272825A | Connector Kit | Blue | 4 | |
| 1600272826A | Connector Kit | Red | 4 | |
| 1600264829A | Connector Kit | Blue | 2 | |
| 1600264830A | Connector Kit | Red | 2 | |
| 1600301872A | CRIMP AND DIE TOOL SET W/O CUTTER; Includes: 5 dies 10 - 2 AWG, charger, and two batteries | | | |
| 1600301871A | CRIMP AND DIE TOOL SET WITH CUTTER; Includes: 5 dies 10 - 2 AWG, charger, and two batteries | | | |

Cable Kits with Keyed Connectors


Premade cables below utilize the same keyed connector kits in the previous section. Each comes with color matched cables with 6 Foot of wire on the positive and negative cable intended to be cut to length in the field.

| Ordering Code | Type | Color | Wire Gauge | Image |
|---------------|------------------------|-------|------------|-------|
| 1600261217A | Keyed Cable Kit, 6 ft. | Red | 10 | |
| 1600261218A | Keyed Cable Kit, 6 ft. | Blue | 10 | |
| 1600272817A | Keyed Cable Kit, 6 ft. | Red | 8 | |
| 1600272818A | Keyed Cable Kit, 6 ft. | Blue | 8 | |
| 1600261219A | Keyed Cable Kit, 6 ft. | Red | 6 | |
| 1600261220A | Keyed Cable Kit, 6 ft. | Blue | 6 | |
| 1600272819A | Keyed Cable Kit, 6 ft. | Red | 4 | |
| 1600272820A | Keyed Cable Kit, 6 ft. | Blue | 4 | |
| 1600272821A | Keyed Cable Kit, 6 ft. | Red | 2 | |
| 1600272822A | Keyed Cable Kit, 6 ft. | Blue | 2 | |

Step 3: Distribution Components (cont.)

Bulk Packaged Cable Kits with Keyed Connectors

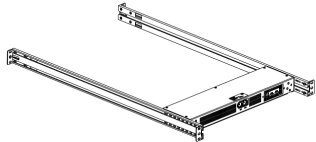

Manufactured cable sets below utilize the same keyed connector kits in the previous section. Each comes with color matched cables with 6 Foot of wire on the positive and negative cable intended to be cut to length in the field. Packages are optimized for shipping and OSHA material handling standards.

| Ordering Code | Color | Wire Gauge | Quantity Per Package | Image |
|---------------|-------|------------|----------------------|---|
| 1600468527A | Red | 10 | 20 |  |
| 1600468528A | Blue | 10 | 20 | |
| 1600468529A | Red | 8 | 20 | |
| 1600468530A | Blue | 8 | 20 | |
| 1600468531A | Red | 6 | 20 | |
| 1600468532A | Blue | 6 | 20 | |
| 1600468536A | Red | 4 | 12 | |
| 1600468533A | Blue | 4 | 12 | |
| 1600468534A | Red | 2 | 8 | |
| 1600468535A | Blue | 2 | 8 | |

Step 4: Additional Reserve Capacity

Supplemental Battery Trays and Panels

Additional battery modules can be added into the equipment area of the Edge frame. Additional horizontally mounted shelves are purchased as either single bus or dual bus configurations and come equipped with cables to connect to the battery distribution panels. Battery distribution panels are used as the interface from the battery trays to the Edge bus.

| Ordering Code | Description | Feature | Value | | Image |
|---------------|---|------------------|------------------------|----------|---|
| 1600274230A | A Battery Shelf (RED - G710) | Mounting | Adjustable rails | |  |
| | | Battery Type | VRLA, NiMH, NA+ | | |
| 1600274231A | B Battery Shelf (BLUE - G711) | | Installed | Shipping | |
| | | Weight (Lbs./KG) | 8.2/3.7 | 9.5/4.3 | |
| 1600274232A | A & B Battery Shelves (RED & BLUE - G712) | | Installed | Shipping | |
| | | Weight (Lbs./KG) | 16.5/7.4 | 19/8.6 | |
| 1600274228A | 10 Position Battery Panel for A Bus Only (RED - G421) | Panel Rating | 400A | |  |
| | | Position Rating | 300A | | |
| 1600274229A | 10 Position Battery Panel for B Bus Only (BLUE - G422) | Total Positions | 10 | | |
| | | Connection Type | Pluggable Pin & Sleeve | | |
| 1600274227A | 10 Position Battery Panel for A & B Buses (RED & BLUE - G420) | | Installed | Shipping | |
| | | Weight (Lbs./KG) | 8.15/3.7 | 9/4.1 | |

Step 5: Accessories and Adapters

Enclosure Add-ons

| Ordering Code | Description | Notes/Application |
|---------------|--|---|
| 1600299945A | Lockable side panel kit, 8 ft. enclosure (G008). Includes 2 panels for one side of the cabinet. | For use where cabinet is located at the end of an aisle, or when cabinet is single stand-alone. |
| 1600297779A | Lockable side panel kit for 7' enclosures (G007). Includes 2 panels for one side of the cabinet. | For use where cabinet is located at the end of an aisle, or when cabinet is single stand-alone. |
| 1600264824A | Lockable door for 8' enclosures (G008) Includes door and mounting hardware | |
| 1600297778A | Lockable door for 7' enclosures (G007) Includes door and mounting hardware | |
| 1600305789A | Isolation pad for Edge enclosures. Includes mounting bushings. | Mounting hardware sold separately. |
| 1600305805A | Shim kit for Edge enclosure including the following: (8) 1/2", (4) 1/4", (4) 1/8", and (4) 1/16" shim | (4) shim sets, one set for each corner. |
| 1600439993A | Edge cabinet skirt - air dam | Includes mounting hardware. |
| 1600480879A | 8' cabinet seismic brace kit for earthquake zones | For high seismic zone 4 areas. |
| 1600480880A | 7' cabinet seismic brace kit for earthquake zones | For high seismic zone 4 areas. |
| 1600480775A | Edge AC current limiter G390 | Fused AC current limit at 65kA. Terminal block connections. |
| 1600481709A | Edge AC current limiter G391 | Fused AC current limit at 65kA. CS8164 locking plug connections. |

Additional Support Materials

| Ordering Code | Description | |
|---------------|---|--|
| 8600279070P | Ramp for off-loading enclosures off of shipping pallet. The ramp is 80" long to allow lifting equipment free removal of the enclosure off of the shipping pallet. | |

Step 5: Accessories and Adapters (cont.)

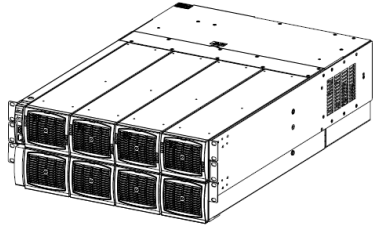
Equipment Specific Modifications

The following modification kits were created to support specific equipment that was not designed to fit in a 19" frame. These kits are installed as a replacement to the right side rail of the Edge enclosure.

| Ordering Code | Description | |
|---------------|---|--|
| 1600301440A | Nokia 7950XRS mounting kit. Supports the installation of one 7950XRS in an 8' cabinet (not 7' compatible). Includes offset rails, mounting hardware, 80A circuit breakers and 48 cables kits to support DC installation | |
| 1600301441A | Cisco side air flow kit. Supports the installation of Cisco servers that require side air flow. Includes rails with air dams, chassis support and mounting hardware | |

In Bay Inverter Solutions

The following inverter kits are purchased separately for addition to any Edge enclosure for

| Ordering Code | Description | Image |
|---------------|--|---|
| 1600294637A | Edge 8kW A & B input 240Vac inverter. Equipped with two 200A DC feeds (requires G411 distribution unit 1600250698A) and two L630 output receptacles fed from 30A breakers. Inverter modules can be found in Section 2: Pluggable Power Modules |  |

| Ordering Code | Description | Details |
|---------------|--------------------------------------|---|
| 1600286003A | EDGE CABG802-CC CONTROLLER | Replacement controller for Edge product family. |
| 1600482728A | FUSES, G390 G391 REPLACEMENT KIT | Pack of 6 replacement fuses for use with G390 or G391 current limiting unit |
| 1600482034A | EDGE CURRENT LIMITER SPARE PARTS KIT | Bulk pack of 40 replacement fuses for use with G390, G391 current limiting unit |

OmniOn Power Inc.

601 Shiloh Rd.
Plano, TX USA

omnionpower.com

We reserve the right to make technical changes or modify the contents of this document without prior notice. OmniOn Power does not accept any responsibility for errors or lack of information in this document and makes no warranty with respect to and assumes no liability as a result of any use of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of OmniOn Power. This document does not convey license to any patent or any intellectual property right. Copyright© 2023 OmniOn Power Inc. All rights reserved.