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MPD-MCS-VCB-3P3W-11-15KV-600A-BE-FM-REL-CU-N3R

Power Distribution Center with Metal Clad Switchgear, 600 Amp, 15kV AC, 3-Pole 3-Wire, 1 IN 1 OUT, Floor Mount Bottom Entry, Copper Bus, NEMA 3R

Product ID: 335505

Please see last page for supporting documentation for this product (certificates, CAD files & drawings, IES files, wiring diagrams, etc).



Image: MPD-MCS-VCB-3P3W-11-15KV-600A-BE-FM-REL-CU-N3R

Larson Electronics LLC manufactures a wide variety of products, including custom built to spec designs. The pictures displayed for this unit are a general representation of form factor for the product line and may not accurately represent this exact configuration in every detail due to custom builds and changes between similar products in our standard catalog. The specifics for this configuration are listed in the specification table and supporting documentation (CAD files, Dimensional Drawing, Name Plate Diagram, Wiring Diagram, etc.). This means that specific details (receptacles, plugs, wires, connections, mounting brackets, external finishes, etc.) may not be accurately represented in images vs specifications. Please review specifications and do not order based solely on images.

MPD-MCS-VCB-3P3W-11-15KV-600A-BE-FM-REL-CU-N3R Metal Clad Switchgear - Vacuum Circuit Breaker

Unit Type: Power Distribution Center with Metal Clad Switchgear - Vacuum Circuit Breaker

Line-In Connections: Pad-Type Copper Terminals, Bottom Cable Compartment

Line-In Orientation: Bottom Feed

Configuration: Live Front

Frequency: 60 Hz

Voltage Rating: 11 KV AC, 3 Phase

Voltage BIL: 95 KV

Current: Alternate 3 Phase Current

Protection Method: Vacuum Circuit Breaker with Numerical Relay Protection

Fuse Max. Rating: N/A

Fuse Holder Rating: N/A

Spare Fuses: N/A

Main Bus Continuous Current Rating: 2000 A

Short Circuit Withstand Rating: 25 kA for 3 Seconds

Asym. Short Circuit Rating: 63 kA

Cubicle Lighting: Internal LED type.

Front Compartment Doors: Steel hinged, padlocking provisions, viewing window,

Ratings

NRTL Listed Service Equipment

Cable Compartment Designed in accordance with IEEE C37.20.2

NEMA 3R Rated for Outdoor Use

Made in the USA

interlocked to prevent racking with door open.
Rear Compartment Doors: Steel hinged, padlocking provisions, interlocked to prevent access to energized compartments.
Instrument Compartment Doors: Separate low-voltage compartment with relay and control access.
Ventilation: Louvers with filters, designed to prevent ingress of dust, animals, and insects.
Arc Fault Withstand: Designed in accordance with IEEE standards for arc fault containment (optional arc-resistant design).
Assembly and Interconnection: Factory assembled, wired, and tested prior to shipment.
Cable Termination: Bottom cable entry, suitable for medium voltage terminations and stress cones.
Safety Interlocks and Barriers: Mechanical and electrical interlocks; grounded metal barriers between compartments.
Incomers: (1) Main Feeder Panel – Vacuum Circuit Breaker, 600A, 25 kAIC
Outgoings: (1) Feeder Panel – Vacuum Circuit Breaker, 600A, 25 kAIC
Current Transformers:
Installed on Incomer and Feeder Panels
- Ratio: 600/5A
- Protection Class: 5P20
- Metering Class: 0.5
Voltage Transformers:
Installed on Bus or Incomer Panel
- 12kV / √3 / 110V Secondary
- Fused Primary
Primary Voltage Bus: High Conductivity Copper Bus Bar, Silver-Plated Joints, Epoxy Insulated, Flame Retardant, Supported by Non-Hygroscopic Insulators, A-B-C Orientation
Grounding: Continuous Copper Ground Bus across lineup, ANSI compliant
Control Power: 125 VDC (Battery System with Redundant Chargers)
Control and Secondary Wiring: Stranded Copper, 600V rated, terminal block terminated
AC Panelboard: 240/120VAC, 1-Phase, 3-Wire, 400A Main, 42 Circuits, 10 kAIC
Automatic Transfer Switch: 400A, dual source automatic transfer
DC System: 125VDC Panel, VRLA Battery Bank, Dual Battery Chargers
Configuration: 4 Sections (Transformer, Feeder, Bus Section, Bus Coupler), Extensible Lineup
Protection Relay: Included, Numerical Protection Relay (OC/EF/UV/OV), Utility Grade
Line-Out Connection: Copper Pad Terminals
Line-Out Orientation: Bottom Feed
Form Factor: Walk-In Power Distribution Center (PDC), Metal-Clad Switchgear Enclosure
Panel Configuration: 1 Incomer, 1 Outgoing Panel (Expandable Lineup)
Housing Type: Compartmentalized Metal-Clad Switchgear within Prefabricated Steel Enclosure
Enclosure Material: Heavy Gauge Steel
Enclosure Finish: ANSI 70 Gray Powder Coat
Enclosure Type: NEMA 3R Weatherproof Structure
HVAC: Integrated Heating and Air Conditioning System (60°F to 80°F internal temperature)
Ambient Temperature: -10°C to +52°C
Humidity: Up to 80%
Seismic Rating: IEEE 693 High
Mounting: Floor Mounted Indoor Lineup
Dimensions: Approx. 30” W per Section x 90” H x 72” D (Varies by configuration)
Weight: Approx. 2000–3500 lbs per Section
Shipping Dimensions: TBD
Shipping Weight: TBD

Additional Features:
SCADA Provision: Rack space, fiber connectivity, and control power included

Special Orders - Special Requirements
Contact us for special requirements
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Marshalling Cabinet: Terminal blocks for external wiring
Lighting: Interior LED lighting and exterior lighting with photocell
Fire Protection: Smoke detectors, fire alarm system with local panel and SCADA interface
Larson Electronics manufactures a wide variety of custom power distribution systems. The pictures displayed for this unit are a general representation of form factor and may not accurately represent this exact configuration in every detail due to being custom builds. The specifics for this configuration are listed in the specification table and one-line diagram.

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All grounding shall comply with state and local codes and meet the minimum requirements of the National Electronic Code section 250

Made in the USA

The Larson Electronics MPD-MCS-VCB-3P3W-11-15KV-600A-BE-FM-REL-CU-N3R Power Distribution Center with Metal Clad Switchgear is designed for reliable, safe and convenient medium voltage power distribution in substation and industrial utility applications. This unit is rated at 600 amps continuous current and 15 kV class. Designed for floor-mounted installations, this bottom feed system is housed within a NEMA 3R rated, weatherproof steel enclosure for outdoor use.

PLEASE NOTE: ANY FREE SHIPPING OFFERS DO NOT APPLY TO POWER DISTRIBUTION PANELS, TRANSFORMERS, OR SUBSTATIONS*

The MPD-MCS-VCB-3P3W-11-15KV-600A-BE-FM-REL-CU-N3R Power Distribution Center provides a safe and dependable method for distributing 12 kV power to downstream feeders. Compatible with 15 kV class systems, this unit features withdrawable vacuum circuit breakers (VCBs) with a 25 kA short circuit rating and 95 kV BIL insulation level. The switchgear lineup includes one incomer panel and one feeder panel in a fully compartmentalized metal-clad arrangement, with provisions for future expansion.

Operation: The system features front-accessible breaker compartments with draw-out type vacuum circuit breakers. Each cubicle includes mechanical and electrical interlocks to prevent unsafe operation. A racking mechanism allows operators to move the breaker between connected, test and disconnected positions. Separate compartments for bus, breaker, cable and control wiring enhance operator safety and system reliability. Rear access provides termination space for bottom cable entry and copper bus interconnections.

Protection & Control: The lineup includes numerical protection relays with overcurrent and earth fault protection, protection class CTs, and fused potential transformers. Control power is supplied via 125 VDC using an integrated battery system with redundant chargers. A continuous copper ground bus runs the full length of the lineup in compliance with ANSI standards. The unit also includes provisions for SCADA integration and remote monitoring.

Enclosure Design: The Power Distribution Center is constructed of heavy-duty steel with a powder-coated ANSI 70 gray finish. The walk-in enclosure houses the indoor metal-clad switchgear along with auxiliary systems including AC panelboards, automatic transfer switch, DC system, lighting, HVAC, and fire protection. The structure is insulated and environmentally controlled, maintaining internal temperatures suitable for equipment operation. The NEMA 3R enclosure provides protection against rain, sleet, and external environmental conditions.

Certification: Designed and manufactured in accordance with IEEE C37.20.2, ANSI, NEMA, NEC, and UL standards.

Mount: Operators can mount the Power Distribution Center on prepared foundations for substation installations.

Customization: The MPD-MCS-VCB-3P3W-11-15KV-600A-BE-FM-REL-CU-N3R can be customized to meet specific operating and power requirements. Example of customizations include:

• Increasing ampacity up to 1200A or higher
• Adding additional feeder or bus sections
• Integrating arc-resistant switchgear design
• Adding advanced metering and power monitoring systems
• Enhancing SCADA and communication interfaces
• Modifying enclosure size, layout, and environmental controls

Applications: This Power Distribution Center is suitable for outdoor use and applications including, but not limited to, substations, renewable energy facilities, industrial plants, utilities, data centers, and infrastructure projects.

At Larson Electronics, we do more than meet your lighting needs. We also provide replacement, retrofit, and upgrade parts as well as industrial grade power accessories. Our craftsmen can custom build any lighting system and/or accessories to fit the unique demands of your operation. A commitment to honesty, quality, and dependability has made Larson Electronics a leader in the lighting and electronics business since 1973. Contact us today at 800-369-6671 or message sales@larsonelectronics.com for more information about our custom options tailored to meet your specific industry needs.

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Frequently Asked Questions (FAQ)

There are no Faqs

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Export Control Classification Number (ECCN): EAR99

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