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## MPD-MCS-VCB-3P4W-25-35KV-2500A-BE-FM-MET-CU-N1-SAR-GIS-M1

# Metal Clad Switchgear, Gas Insulated, 2500 Amp, 35 KV AC, 3-Pole 4-Wire, 2 IN 5 OUT, Floor Mount, Bottom Entry, Copper Bus, NEMA 1

**Product ID: 325644**



Image: MPD-MCS-VCB-3P4W-25-35KV-2500A-BE-FM-MET-CU-N1-SAR-GIS-M1

**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-3P4W-25-35KV-2500A-BE-FM-MET-CU-N1-SAR-GIS-M1 Metal Clad Switchgear - Non-Fused Disconnect**

**Unit Type:** Metal Clad Switchgear - Vacuum Disconnect Switch
**Line-In Connections:** Terminal Lugs, Accepts 750MCM-1/0
**Line-In Orientation:** Bottom Feed
**Configuration:** Live Front
**Frequency:** 60 Hz
**Nominal Voltage:** 33 KV AC, 3 Phase
**Maximum Voltage Rating:** 35 KV AC, 3 Phase
**Voltage BIL:** 200 KV
**Current:** Alternate 3 Phase Current
**Protection Method:** N/A
**Fuse Max. Rating:** N/A
**Fuse Holder Rating:** N/A
**Spare Fuses:** N/A
**Main Bus Continuous Current Rating:** 2500 A
**Switch Load-Interrupting Current Rating:** 2500 A
**Switch Short Circuit Rating:** 50 kA (1 Sec.)
**Main Bus Short Circuit Rating:** 50 kA
**Cubicle Lighting:** Internal LED type.
**Front Compartment Doors:** Steel hinged, padlocking and view window provisions, arc fault

**Ratings**

NRTL Listed Service Equipment
NRTL Listed to UL 891 Dead Front Switchboards
NEMA 1 Rated for Indoor Use
Made in the USA

withstand capability per IEEE Std. C37.20.7, single handle, interlock to prevent racking with door open or unlatched, viewing window on load-breaking device cubicles.
**Rear Compartment Doors:** Steel hinged, padlocking provisions, arc fault withstand capability per IEEE Std. C37.20.7 Type 2, single handle, interlock to prevent opening unless the removable element is disconnected.

**Instrument Compartment Doors:** Comply with IEEE Std. C37.20.7 testing.

**Ventilation:** Louvers with filters (MERV 11, removable), roof ventilation to prevent animal and insect access.
**Arc Fault Withstand:** Design to IEEE standard to withstand arcing fault, prevent material entrapment in louvers.
**Assembly and Interconnection:** Coordinated by seller, assembled prior to shipment, complete shipment.

**Cable Termination:** Depth sufficient for cable entrance, individual units for bottom entrance

**Safety Interlocks and Barriers:** To prevent personnel exposure to energized bus

**Incomers:** (2) 1200A Circuit Breakers

**Outgoings:** (5) 600A Circuit Breakers

**Bus Incomer Bays:** 2 bus sections, each with integrated control, protection, and communication interface
**Auxiliary Transformers:** Included, For substation power supply, with integrated control, protection, and communication interface
**Bus Section Bays:** Equipped with integrated control, protection, and communication interface

**Earthing System:** Complete earthing with protection system included

**Metering:** Smart meters provided on all feeders with IED (Intelligent Electronic Device) interface

**UPS System:** Uninterruptible Power Supply provided for control and protection systems

**Primary Voltage Bus:** Copper bar, silver-plated connections, insulated, flame retardant, track resistant, supported by insulators, bolted joints, A-B-C orientation

**Grounding:** Ground bus, facilities, and connections per ANSI C37.20

**Control and Secondary Wiring:** AWG No. 14, 12, 10 CU stranded, 600 V

**Cubicle Heaters:** Electric, thermally insulated, guarded, 240 Vac/120 Vac, as required watts, control switch, ammeter.

**Disconnect Means:** Manual via Handle

**Metering Current & Potential Transformer (CT/PT):** Included Mount and Termination CT/PT

**Line-Out Connection:** Terminal Lugs, Accepts 750MCM-1/0

**Line-Out Orientation:** Bottom Feed

**Surge Arrestors:** Included, Metal Oxide, Station Class, (1) Per Each Phase

**Surge Arrestor Voltage Rating:** 36 kV

**Surge Arrestor MCOV Rating:** 29 kV

**Insulation Medium:** Gas Insulated (GIS)

**Form Factor:** Rectangular, Slim-profile Enclosure w/ Lockable Door, 1 incoming panel, 5 outgoing panel

**Panel Configuration:** -

**Housing Type:** Compartmental Air-Filled Cabinet, (1) Front Left Hinged Door w/ Pad Lockable Handle and (1) Rear Right Hinged Door w/ Pad Lockable Handle, Fuse Door and Switch handle are Kirk Key Interlocked

**Enclosure Material:** #12GA Sheet Steel

**Enclosure Finish:** Buckey Tan
**Enclosure Type:** NEMA 1 Ventilated, internal thermostatically controlled 250W, 120VAC heaters to prevent condensation in the enclosure, Automation control includes a 120VAC to 24VDC power supply capable of powering the entire control. A battery charger is provided and utilize 120VAC from the internal CPTs
**Mounting:** Pad Mounted
**Dimensions:** 75"-W x 69.75"-L x 45.5"-H
**Weight:** 1800 lbs

**Special Orders - Special Requirements**

Contact us for special requirements
**Toll Free:** 1-800-369-6671
**Intl:** 1-903-270-1187

**Shipping Dimensions:** TBD
**Shipping Weight:** TBD
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.

**Fax:** 1-903-765-7664
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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-3P4W-25-35KV-2500A-BE-FM-MET-CU-N1-SAR-GIS-M1 Metal Clad Switchgear is designed for reliable, safe and convenient power distribution at industrial work sites. This switchgear includes one disconnect switch rated at 2500-amp rated. Designed for floor mounting installations. This bottom feed switchgear is protected by a NEMA 1 rated, steel enclosure with a ventilated design.**

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

The MPD-MCS-VCB-3P4W-25-35KV-2500A-BE-FM-MET-CU-N1-SAR-GIS-M1 service entrance switchgear provides a safe and reliable way for operators in industrial settings to tap into and utilize power sources independently of the work area. Compatible with 35KV AC, the switchgear features a manual operating handle. This bottom feed disconnect carries a 50 kA at 33KV AC interrupt rating. The switchgear comes with and accepts 2500-amprating.

**Operation:** The switchgear features a front control panel and rear termination equipped with a locking door. The door provides access to a permanently attached operating handle, which is used for manually disconnecting or connecting power and bus bars (at rear). A dead front cover protects operators from the fuses for safety. Operators can inspect the switches through the dead front via a vented cover. Removing the dead front allows access to the switches.

**Time Delay vs. Fast Acting Fuses** Two of the most common types of fuses found in power distribution equipment are time delay and fast acting fuses.

> **Time Delay:** Time delay fuses are tripped once overcurrent heat builds up enough to melt the fuse element over a period of time. That period of time varies between different time delay fuses depending on the application. Time delay fuses decrease the chances of false tripping. During startup, many components require a large current for a very short amount of time. In other words, a time delay fuse disconnects the circuit only when the overcurrent persists in the line.
>
> **Fast Acting:** Fast acting fuses are tripped immediately upon sensing an overcurrent or short circuit in the line. They are ideal for electronics, components, or systems that cannot withstand sudden changes in current. A fast acting fuse will not withstand a temporary overload such as one that occurs during the startup process.

**Enclosure Design:** The switchgear is protected by an 11GA sheet steel enclosure with ANSI Buckey Tan finish. A ventilated design promotes natural cooling and improves performance. The enclosure is NEMA 1 rated for protection against water, moisture and debris. This rating allows the fused disconnect to be used in indoor and outdoor areas.

**Certification:** This switchgear is NRTL listed to UL 891 dead front switchboards and NRTL listed for service equipment.

**Mount:** Operators can mount the service entrance switchgear on floors and flat surfaces.

**Customization:** The MPD-MCS-VCB-3P4W-25-35KV-2500A-BE-FM-MET-CU-N1-SAR-GIS-M1 can be customized to meet specific operating and power requirements. Example of customizations include:

• Making the fused disconnect portable and certified to NRTL UL 1640 for portable equipment

• Adding single pole camlock connectors for quick connections

• Adding heaters for cold environments

• Aiding alarm relays for trip notification downstream

• Adding power meters

**Applications:** This switchgear is suitable for indoor use and applications including, but not limited to, solar equipment, construction sites, plant maintenance, plant turnarounds, hazardous location operations, shows, exhibits, and shipyard operations.

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