Larson Electronics LLC
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MPD-MCS-VCB.LBS-3P3W-2.1-34.5KV-600A-25K-FX-PM-BE-GS-REM-CU-N3R-DF

34.5kV Class Metal-Clad Switchgear, Outdoor Pad-Mount, 600A (All Ways), 25kA, 3-Phase 3-Wire, 2 Fault-Interrupting (VCB) Ways + 1 Load-Interrupter (LBS) Way, Integrated Grounding Switches, Remote Operable, NEMA 3R

Product ID: 345492

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



Image: MPD-MCS-VCB.LBS-3P3W-2.1-34.5KV-600A-25K-FX-PM-BE-GS-REM-CU-N3R-DF

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.LBS-3P3W-2.1-34.5KV-600A-25K-FX-PM-BE-GS-REM-CU-N3R-DF - Metal-Clad Switchgear

Made in the USA

Unit Type: Outdoor Metal-Clad Switchgear, 2 Fault-Interrupting Ways + 1 Load-Interrupter Way

Configuration: 3-Phase, 3-Wire
Installation: Outdoor, Pad-Mounted
Nominal Voltage: 34.5kV

Maximum Design Voltage: 38kV

BIL: 150kV
Frequency: 60Hz
Continuous Current: 600A (All Ways)
Short-Circuit Rating: 25kA Symmetrical
Temperature Rise: Per IEEE C37.74 Limits at 40°C Ambient
Dielectric: Air Insulated

Bay 1 — Incoming Section (Load-Interrupter Way)

Features of Every Assembly

Dead Front, Compartmentalized Construction
Fixed-Mount, Air-Insulated Vacuum/Load-Break Construction
Grounding Switch, Each Way, Integrated and Interlocked with Way Isolation Switch, Fault-Making Rated
Each Way Lockable in the Open Position
Remote-Operable Incoming Way, Motor-Operated Mechanism
All-Way Remote Operability Available as an Option
Fiber Optic Communication Interface Provided

Ratings & Approvals

Designed in accordance with applicable ANSI/IEEE C37 series standards, including ANSI/IEEE C37.20.2 (Metal-Clad Switchgear) and IEEE C37.74 (Outdoor Distribution Switches)
Written IEEE C37.74-2025 compliance statement and test reports

(1) Load-Interrupter Switch, 600A, 34.5kV, Load-Break Only, Motor-Operated, DCS-Operable
Grounding Switch: Integrated, Interlocked with Isolation Switch, Fault-Making Rated
Lockable in Open Position

Bay 2 — Fault-Interrupting Way (Programmable)
(1) Vacuum Circuit Breaker/Interrupter, 600A, 34.5kV, Fault-Interrupting, Programmable Protection
Current Transformers, Ratio Per Breaker Rating (600A), Class C Accuracy, Each Way
Factory Wired to CT Shorting-Type Terminal Blocks
Grounding Switch: Integrated, Interlocked with Isolation Switch, Fault-Making Rated
Lockable in Open Position

Bay 3 — Fault-Interrupting Way (Programmable)
(1) Vacuum Circuit Breaker/Interrupter, 600A, 34.5kV, Fault-Interrupting, Programmable Protection
Current Transformers, Ratio Per Breaker Rating (600A), Class C Accuracy, Each Way
Factory Wired to CT Shorting-Type Terminal Blocks
Grounding Switch: Integrated, Interlocked with Isolation Switch, Fault-Making Rated
Lockable in Open Position

Protection & Relay Configuration
Bays 2/3 (Fault-Interrupting Ways): Digital Protection Relay, Programmable, Functions 50, 51, 50G, 51G
Bay 1 (Load-Interrupter Way): No Protection Relay (Load-Break Only, No Fault-Interrupting Function)

Communication & Control Power
Communication Interface: Fiber Optic; comms protocol, I/O list, and DCS link detail to be confirmed during detailed design
Control Power: 125Vdc, Externally Wetted (Standard); 120Vac or 240Vac control power available as a customer-specified alternative
Self-Powered Operator: Not currently offered on this product line; availability being confirmed

Bus System
Main Bus: Copper, Rated 600A Continuous
Bus Insulators: Standard for 34.5kV Class Air-Insulated Construction

Construction
Enclosure Material: Coated Steel
Enclosure Finish: Munsell Green, ANSI 61 or ANSI 70 (or Equivalent RAL Color Code)
Enclosure Type: NEMA 3R, Outdoor, IP54 Minimum
Mounting: Pad-Mounted, Fixed
Cable Entry: Bottom
Operable Components (Switches, Pushbuttons, Handles, Keypads, HMIs): Fully Enclosed Behind Hinged, Lockable Doors/Panels; No Physical Panel Removal Required for Regular-Use Access
Exposed Electrical Parts: No Field-Installed Safety Barriers Required

Dimensions & Shipping

to be furnished upon final design review

NEMA 3R Rated for Outdoor Use, IP54 Minimum

NRTL Listed Service Equipment

Shipping

Overall Dimensions: 120 in W × 60 in D × 84 in H (estimated)
Approximate Weight: 5,500 lbs (estimated)
Shipping Dimensions: TBD
Shipping Weight: TBD

Shipped on Skid or in Crate
Crated Shipment Available Upon Request
Final Shipping Configuration Subject to Approved Design

Special Features
2 Fault-Interrupting Ways + 1 Load-Interrupter Way, Integrated Grounding Switches, Remote-Operable Incoming Way, Fiber Optic Ready

Special Orders – Special Requirements
Contact us for special requirements

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Customer Compliance
Final arrangements, sizes, ratings, settings, configuration, and installation details will be finalized during detailed engineering review and customer approval prior to release for manufacture.

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.

Made in the USA

The Larson Electronics MPD-MCS-VCB.LBS-3P3W-2.1-34.5KV-600A-25K-FX-PM-BE-GS-REM-CU-N3R-DF Metal-Clad Switchgear is designed for reliable, safe, and convenient medium-voltage power distribution and switching at outdoor utility and industrial power sites. This 34.5kV class switchgear combines two fault-interrupting ways with one load-interrupter way in a single lineup, rated 600A continuous with a 25kA symmetrical short-circuit rating, housed in a weatherproof, outdoor metal-clad enclosure.

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

The **MPD-MCS-VCB.LBS-3P3W-2.1-34.5KV-600A-25K-FX-PM-BE-GS-REM-CU-N3R-DF** switchgear provides a safe and reliable means of switching, isolating, and protecting medium-voltage circuits at outdoor pad-mounted installations. Compatible with 34.5kV nominal systems (38kV maximum design voltage), the switchgear is rated 150kV BIL, with compartmentalized, dead-front, air-insulated construction throughout.

Configuration: The lineup consists of one incoming load-interrupter way, equipped with a motor-operated load-break switch for digital control system (DCS) operation, and two fault-interrupting ways, each equipped with a vacuum circuit breaker and programmable protective relay for coordinated fault interruption. Each way is furnished with an integrated, fault-making-rated grounding switch, mechanically interlocked with that way's isolation switch to prevent grounding an energized circuit, and each way is lockable in the open position for safety isolation.

Protection & Relay Configuration: The two fault-interrupting ways are each equipped with a digital protection relay carrying overcurrent functions (50, 51, 50G, 51G) for coordination with the supply circuit's fault protective device, with current transformers sized to each way's 600A

rating at Class C accuracy, factory wired to CT shorting-type terminal blocks. The incoming load-interrupter way carries no protection relay, consistent with its load-break-only, non-fault-interrupting function.

Remote Operation & Communication: The incoming way is furnished with a motor-operated mechanism for digital control system operation, with provisions for remote operability on the additional ways as an available option. A fiber optic communication interface is provided, and the switchgear accepts externally wetted 125VDC control power.

Bus System: The main bus is copper, rated 600A continuous, with insulators sized for 34.5kV class air-insulated construction.

Construction: The switchgear enclosure is constructed of coated steel, rated NEMA 3R for outdoor service, with a minimum IP54 ingress protection rating. The unit is pad-mounted, fixed construction, with bottom cable entry.

Special Features: Two fault-interrupting ways plus one load-interrupter way, integrated grounding switches on every way lockable in the open position, remote-operable incoming way, and fiber optic communication readiness.

Ratings & Approvals: The switchgear is designed in accordance with applicable ANSI/IEEE C37 series standards, and is NEMA 3R rated for outdoor use with a minimum IP54 ingress protection rating.

Customer Compliance: The final arrangements, sizes, ratings, settings, configuration, and installation details of this equipment will be established in accordance with detailed engineering review, applicable project documentation, and customer approval prior to manufacture.

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 applicable drawings.

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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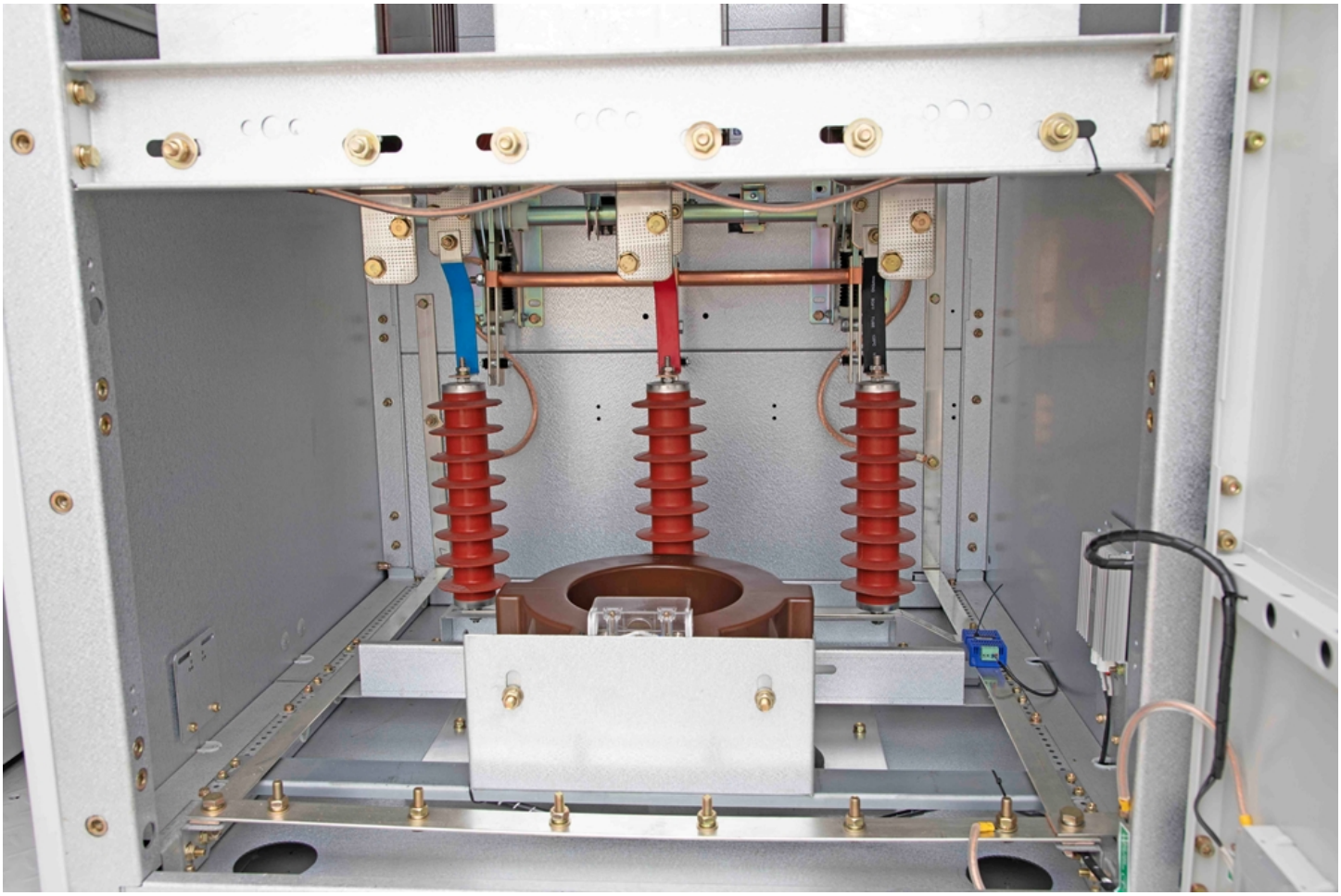


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