Larson Electronics LLC
9419 E US HWY 175, Kemp, TX 75143
Phone: 800.369.6671

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.765.7664

MPD-MES-VCB-3P3W-1.12-5KV-1200A-BE-FM-MAR-CU-N3R-M1

Metal-Enclosed MV Switchgear & MCC, 1200 Amp, 5kV Class, 2400V AC, 3-Phase 3-Wire, 1IN-12OUT, Draw-Out Vacuum Circuit Breaker, Withdrawable Vacuum Motor Starters, Copper Bus, Arc-Resistant, Containerized NEMA 3R E-House

Product ID: 338034

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



Image: MPD-MES-VCB-3P3W-1.12-5KV-1200A-BE-FM-MAR-CU-N3R-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-MES-VCB-3P3W-1.12-5KV-1200A-BE-FM-MAR-CU-N3R-M1 Metal Enclosed MV Switchgear & Motor Control Center (MCC)

Unit Type: Metal Enclosed MV Switchgear & Motor Control Center (MCC) - Vacuum Circuit Breaker Switchgear

Line-In Connections: Terminal Lugs, Accepts 750MCM-1/0

Line-In Orientation: Bottom Feed
Nominal Operating Voltage: 2400V AC, 3 Phase, 50Hz
Maximum Design Voltage: 5kV Class
Voltage BIL: 60 KV
Current: Alternate 3 Phase Current
Incomer: (1) Draw-Out Vacuum Circuit Breaker, 1200A
Outgoing: (12) Withdrawable Vacuum Contactor Motor Starter Feeders, 150HP–400HP, Two-High MV MCC Configuration
Protection Method: Vacuum Circuit Breaker and Vacuum Contactor Motor Controller Protection
Protection Ampacity: 1200A
Mains Rating (Amps): 1200A
Short-circuit Withstand Current: 25 kA Symmetrical
Fault-Close Current: 65 kA Asymmetrical

Ratings

NRTL Listed Service Equipment

NRTL Listed to IEEE C37.20.2 Metal-Enclosed Medium Voltage Switchgear
NEMA 3R Rated for Indoor and Outdoor Use
Arc Resistance Standard: IEEE C37.20.7
Made in the USA

Disconnect Means: Manual/Electrical Operation via VCB Mechanism
Protection Relay Functions: ANSI 50/51, 50G/51G, 27, 50BF
Metering Current & Potential Transformer (CT/PT): Included Mount and Termination CT/PT
SCADA/DCS Interface: Modbus TCP/IP communications capable for integration with customer SCADA and DCS systems
Remote Monitoring: Breaker status, alarm indication, protective relay data, and metering available via communications interface
Line-Out Connection: Compression Lugs, Accepts (2) 750MCM – 350MCM
Line-Out Orientation: Bottom Feed
Form Factor: Arc-Resistant Containerized MV Switchgear & MCC E-House w/ Walk-In Access, Lockable Doors, Internal Lighting and HVAC
Panel Configuration: (1) Incoming Vacuum Circuit Breaker Section, (12) Withdrawable MV Motor Starter Sections
Starter Type: Vacuum Contactor Motor Controllers
MCC Configuration: Two-High Medium Voltage Motor Control Center
Motor Feeder Ratings: 150HP to 400HP @ 2400V AC
Motor Protection: Overload (49), Short Circuit, Ground Fault, Phase Loss, Phase Imbalance
Starter Construction: Withdrawable Vacuum Starter Cells
Bushing Configuration: Dead Front Medium Voltage Construction
Motor Load Capacity: (12) Motors, 150HP to 400HP
Bus Material: Copper Bus
Bus Rating: 1200A Fully Insulated Copper Bus
Insulation: Air Insulated Medium Voltage Switchgear
Mounting: Floor/Pad Mounted
Housing Type: 40FT High Cube Containerized Structural Steel E-House with Marine Epoxy Coating, Dual Redundant HVAC, Arc Exhaust Plenums, and Pressure Relief Blast Flaps
Internal Wiring: Factory-installed power and control wiring throughout E-House
Grounding: High Resistance Grounded (HRG) Compatible
Enclosure Material: Heavy Gauge Welded Steel
Enclosure Finish: Marine Grade Industrial Epoxy Coating
Enclosure Type: NEMA 3R Arc-Resistant Containerized E-House with dual redundant industrial HVAC systems, internal thermostatically controlled anti-condensation heaters, emergency lighting, and integrated 125VDC station battery rack with smart charging system for breaker tripping and control power backup.
Fire Detection: Included, integrated fire detection system
Clean-Agent Fire Suppression: Optional, factory-installed clean-agent fire suppression system available upon request
Dimensions: 40FT High Cube ISO Containerized E-House
Weight: Approx. 48,000 lbs
Shipping Dimensions: 56' L x 14' W x 14' H
Shipping Weight: 48,000 lbs
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.

Special Orders - Special Requirements

Contact us for special requirements

Toll Free: 1-800-369-6671
Intl: 1-903-270-1187
Fax: 1-903-765-7664
E-mail: sales@larsonelectronics.com

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-MES-VCB-3P3W-1.12-5KV-1200A-BE-FM-MAR-CU-N3R-M1 Metal Enclosed Medium Voltage (MV) Switchgear & Motor Control Center (MCC) is designed for reliable, safe, and convenient medium voltage power distribution and motor control in industrial and refinery environments. This integrated containerized MV E-House features one 1200-amp draw-out vacuum circuit breaker and twelve

withdrawable vacuum contactor motor starter feeders for controlling 2400V AC motors ranging from 150HP to 400HP. Designed for outdoor industrial installations, the system is housed inside a 40-foot high cube structural steel container with arc-resistant construction, dual redundant HVAC systems, and integrated fire detection systems.

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

The MPD-MES-VCB-3P3W-1.12-5KV-1200A-BE-FM-MAR-CU-N3R-M1 containerized MV MCC system provides operators with a safe and reliable solution for medium voltage motor distribution and control in refinery, petrochemical, utility, and heavy industrial operations. Compatible with 2400V AC 3-phase 50Hz systems utilizing 5kV class insulation, this integrated MV lineup combines a main incoming vacuum circuit breaker section with twelve withdrawable motor starter sections in a common copper bus arrangement. The system is designed for High Resistance Grounded (HRG) electrical distribution systems and complies with ANSI/IEEE medium voltage switchgear standards.

Operation: The MV switchgear and MCC lineup features an incoming draw-out vacuum circuit breaker with multifunction numerical protection relays and twelve vacuum contactor motor starter feeders with electronic motor protection relays. Protection functions include ANSI 50/51 overcurrent, 50G/51G ground fault, 27 undervoltage, and 50BF breaker failure protection. Motor protection includes overload, short circuit, phase loss, phase imbalance, and ground fault protection. Withdrawable starter construction allows operators to safely isolate and maintain motor feeders while minimizing system downtime.

Arc-Resistant Design: The integrated MV E-House is designed in accordance with IEEE C37.20.7 arc-resistant construction requirements. The enclosure incorporates pressure relief blast flaps, arc exhaust plenums, segregated compartments, dead front medium voltage construction, and lockable access doors for enhanced operator safety during maintenance and operation.

Containerized Enclosure Design: The MV switchgear and MCC lineup is housed inside a 40-foot high cube welded steel E-House enclosure with marine-grade epoxy coating for corrosion resistance in harsh industrial and coastal environments. The enclosure includes dual redundant lead/lag industrial HVAC systems sized for heat dissipation of medium voltage equipment, internal lighting, emergency lighting, anti-condensation heaters, and integrated grounding throughout the structure.

Auxiliary Systems: The containerized MV E-House includes integrated 125VDC station battery backup and smart charging systems for breaker tripping and control power support during utility disturbances. Fire detection systems are included standard, while optional clean-agent fire suppression systems are available for enhanced protection of critical equipment.

Certification: This medium voltage switchgear and MCC system is designed in accordance with ANSI/IEEE C37 medium voltage switchgear standards and is suitable for industrial medium voltage power distribution and motor control applications.

Mounting: The containerized MV E-House is designed for permanent floor or pad-mounted installations in outdoor industrial environments.

Customization: The MPD-MES-VCB-3P3W-1.12-5KV-1200A-BE-FM-MAR-CU-N3R-M1 can be customized to meet specific operating and site requirements. Examples of customizations include:

• Increased fault current ratings and custom bus configurations

• Integrated power quality and energy metering systems

• Utility synchronization and transfer schemes

• SCADA and plant DCS communication integration

• Clean-agent fire suppression systems

• Stainless steel or specialized corrosion-resistant enclosures

Applications: This integrated medium voltage switchgear and MCC system is suitable for industrial and outdoor applications including, but not limited to, refineries, petrochemical facilities, pump stations, compressor stations, mining operations, power generation facilities, water treatment plants, utility substations, and heavy industrial process 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

Export Control Classification Number (ECCN): EAR99

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