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-MCS-VCB-3P4W-21-5KV-2400A-40K-DO-FM-BEBE-SAR-CTB-CU-N3R-DF-WSP-M4

Metal Clad Switchgear, Vacuum Circuit Breaker, 3-Ph 4-Wire, 2 Incoming/1 Outgoing (Bussed, No Outgoing Breaker), 5kV, 2400A Bus (1200A per Breaker), 40kA, Draw-Out, Floor-Mounted, Bottom Entry/Bottom Exit, Surge Arrester + CT/PT Terminal Block Package, Copper, NEMA 3R, Dead Front, wFeat, Model 4

Product ID: 339442

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



Image: MPD-MCS-VCB-3P4W-21-5KV-2400A-40K-DO-FM-BEBE-SAR-CTB-CU-N3R-DF-WSP-M4

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-21-5KV-2400A-40K-DO-FM-BEBE-SAR-CTB-CU-N3R-DF-WSP-M4 Metal Clad Switchgear

Made in the USA

Unit Type: Metal Clad Switchgear, Vacuum Circuit Breaker Switchgear
Configuration: 3-Phase, 4-Wire
Assembly Type: 2 Incoming Generator Breakers / 1 Outgoing (Bussed) — bus terminates with field-connection lugs to feed a main disconnect switch furnished and located outside this assembly. No outgoing breaker is included.
Voltage Class: 5kV AC (generator nominal: 4160V, 3-Ph, 60Hz)
Frequency: 60Hz

Main Bus Rating: 2400A

Each Incoming Breaker: 1200A Continuous
Short Circuit Rating: 40kA
BIL Rating: 95kV
Bus Material: Copper

Mounting Style: Draw-Out Type

Features of Every Vertical Section

Draw-Out Vacuum Circuit Breaker Construction
Dead Front Construction
Copper Bus Construction
Manual Generator Synchronizing Provisions — both incoming breakers operate normally closed for parallel generator operation (synchroscope and sync-check monitoring, per customer's one-line)
Front Accessible Compartments
Rack-In/Rack-Out Breaker Design
Local and Remote Operating Capability
Surge Arrester per Incoming Breaker
CT/PT Provisions Wired to Terminal Blocks — Confirm Intent: Protection/Metering Devices to be Housed in

Customer's Remote Control Panel Rather than Mounted in This Assembly

Mounting Configuration: Floor Mounted
Cable Entry: Bottom Entry / Bottom Exit

Enclosure Type: NEMA 3R

Front Type: Dead Front

Ratings & Approvals
Designed in accordance with applicable ANSI, IEEE, NEC, and NEMA standards
Suitable for Indoor/Outdoor Installations pending enclosure confirmation
All grounding shall comply with applicable state/local codes and NEC requirements

Incoming Breakers
Quantity: Two (2) Draw-Out Vacuum Circuit Breakers
Voltage Class: 5kV
Continuous Current Rating: 1200A (each)
Short Circuit Rating: 40kA
Motor Charged Mechanism
Trip & Close Coils
Local/Remote Operation
Mechanical Position Indicator
Breaker Truck Position Indication
Both breakers arranged for normally-closed parallel operation between two synchronous generator sources — not mutually-exclusive source selection

Outgoing Connection
No breaker included. Bus terminates with field-connection lugs sized for a main disconnect switch (likely 89GB) furnished and located outside this assembly.

Surge Protection
One (1) surge arrester per incoming breaker (2 total)

Protection & Metering

No relay or meter mounted in this assembly, pending confirmation

Customer intends CT/PT to feed relay/metering devices housed in their own remote control panel — need to confirm this reading before finalizing

Protection CT included, per incoming breaker
Metering CT included, per incoming breaker
Protection PT included, per incoming breaker
Metering PT included, per incoming breaker
CT/PT secondary wiring terminated to terminal blocks for customer field connection

Bus System
2400A Copper Main Bus
Copper Ground Bus
Fully Insulated Bus Supports
Dead Front Bus Construction

Construction
Heavy Gauge Steel Construction
Metal Clad Construction
NEMA 3R Enclosure
Dead Front Design
Lockable Front Access Doors
ANSI 49 Gray Finish
Lifting Provisions Included
Floor Mounted Construction

Dimensions & Shipping
Overall Dimensions: 72 in W × 90 in D × 91 in H (estimated, based on standard 1200A/5kV frame, 2 vertical sections, NEMA 3R non-walk-in construction)

Shipping

Shipped on skid or in crate

Approximate Weight: 6,000 lbs (estimated)
Shipping Dimensions: TBD
Shipping Weight: TBD

Final shipping configuration subject to approved design

Special Features
Two Incoming/One Outgoing (Bussed) Configuration
Draw-Out Vacuum Circuit Breakers
Surge Arrester Package
CT/PT Field-Termination Package
Manual Synchronizing Provisions for Parallel Generator Operation

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

Customer Specific Requirements
Two incoming draw-out vacuum circuit breakers (1200A/5kV/40kA each), operating normally closed for parallel operation between two synchronous generator sources, load sides bussed to a common 2400A main bus. Bus terminates with field-connection lugs for a customer-furnished main disconnect switch located outside this assembly (likely the 89GB load interrupter switch shown on the customer's one-line, downstream of the padmount transformer). Surge arrester furnished at each incoming breaker. CT/PT furnished per breaker, wired to terminal blocks for field connection — customer's intent is understood to be housing relay and metering devices in their own remote control panel rather than mounting them in this assembly; confirm before finalizing. Neutral Grounding Resistor/Transformer units shown on the customer's one-line are excluded from this offer. Breaker manufacturer/model and UL891 applicability pending vendor confirmation. Enclosure environmental rating (indoor/outdoor) pending customer confirmation.

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.

Made in the USA

The Larson Electronics MPD-MCS-VCB-3P4W-21-5KV-2400A-40K-DO-FM-BEBE-SAR-CTB-CU-N3R-DF-WSP-M4 Metal Clad Switchgear is designed to provide dependable medium-voltage power distribution for parallel dual-generator applications. This metal clad switchgear lineup consists of two incoming draw-out vacuum circuit breakers bussed together on a common main bus, surge arrester protection at each incoming breaker, CT/PT provisions wired to terminal blocks for field connection, manual synchronizing provisions to support parallel generator operation, and a copper bus system housed within a floor-mounted enclosure. The bus terminates with field-connection lugs to feed a main disconnect switch furnished and located outside this assembly. Designed for operation on 5kV AC, three-phase, four-wire systems operating at 60Hz, the assembly is rated for 2400A continuous main bus current (1200A per incoming breaker), 40kA symmetrical interrupting capacity, and a 95kV Basic Insulation Level (BIL). The draw-out construction and dead front design provide safe operation, convenient maintenance, and long-term reliability.

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

The **MPD-MCS-VCB-3P4W-21-5KV-2400A-40K-DO-FM-BEBE-SAR-CTB-CU-N3R-DF-WSP-M4** is engineered for applications requiring two synchronous generator sources operating in parallel and bussed together, terminated for field connection to a downstream main disconnect

switch supplied by others. The assembly combines draw-out vacuum circuit breakers, surge arrester protection, manual synchronizing provisions, copper bus construction, and CT/PT field-termination provisions to support a customer-furnished remote protection and control scheme.

Source Configuration:
The switchgear incorporates two incoming source breakers with load sides bussed together on a common main bus. Both breakers are intended to operate normally closed for parallel operation between two synchronous generators, supported by manual synchronizing provisions (synchroscope and sync-check monitoring). No outgoing breaker is included in this assembly; the bus terminates with field-connection lugs sized for a main disconnect switch furnished and located outside this assembly.

Vacuum Circuit Breaker Package:
The assembly includes two draw-out vacuum circuit breakers, each rated 5kV, 1200A continuous current, and 40kA symmetrical interrupting capacity. Standard features include motor-charged operating mechanisms, trip and close coils, local and remote operating capability, mechanical position indication, breaker truck position indication, and draw-out construction to simplify inspection and maintenance activities.

Surge Protection:
One surge arrester is furnished at each incoming breaker position. Final surge arrester rating shall be determined during detailed engineering review.

Protection & Metering:
The switchgear includes protection and metering current transformers and potential transformers at each incoming breaker, with secondary wiring terminated to terminal blocks for field connection. No protection relays or metering devices are mounted within this assembly, consistent with the customer's intent to house these devices within their own remote control panel.

Bus System:
The assembly utilizes a 2400A copper main bus together with a copper ground bus, fully insulated bus supports, and dead front bus construction, sized to carry both generator sources simultaneously and terminate for the downstream main disconnect connection.

Assembly Construction:
The switchgear is furnished as a complete floor-mounted metal clad assembly incorporating two incoming vacuum circuit breakers, copper bus construction, and an enclosure rated for the specified service condition.

Construction:
The enclosure is fabricated from heavy-gauge steel and finished with ANSI 49 gray coating. Construction features include metal clad compartments, dead front construction, lockable front access doors, lifting provisions, floor-mounted installation, and bottom entry/bottom exit cable arrangement.

Special Features:
This switchgear incorporates a two-incoming, bussed configuration for parallel generator

operation, draw-out vacuum circuit breakers, surge arrester protection, manual synchronizing provisions, copper bus construction, and CT/PT field-termination provisions.

Ratings & Approvals:
The switchgear is designed in accordance with applicable ANSI, IEEE, NEC, and NEMA standards. All grounding provisions shall comply with applicable state and local electrical codes together with NEC requirements.

Customer Specific Requirements:
Final surge arrester ratings, CT/PT ratios, breaker manufacturer/model, and enclosure environmental rating shall be finalized during detailed engineering review and customer approval. The main disconnect switch shown downstream on the customer's one-line diagram — likely the 89GB load interrupter switch beyond the padmount transformer — is not included in this assembly. Neutral grounding resistor/transformer equipment shown on the customer's one-line is excluded from this offer.

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.

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

Frequently Asked Questions (FAQ)

There are no Faqs

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



Image: MPD-MCS-VCB-3P4W-21-5KV-2400A-40K-DO-FM-BEBE-SAR-CTB-CU-N3R-DF-WSP-M4

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

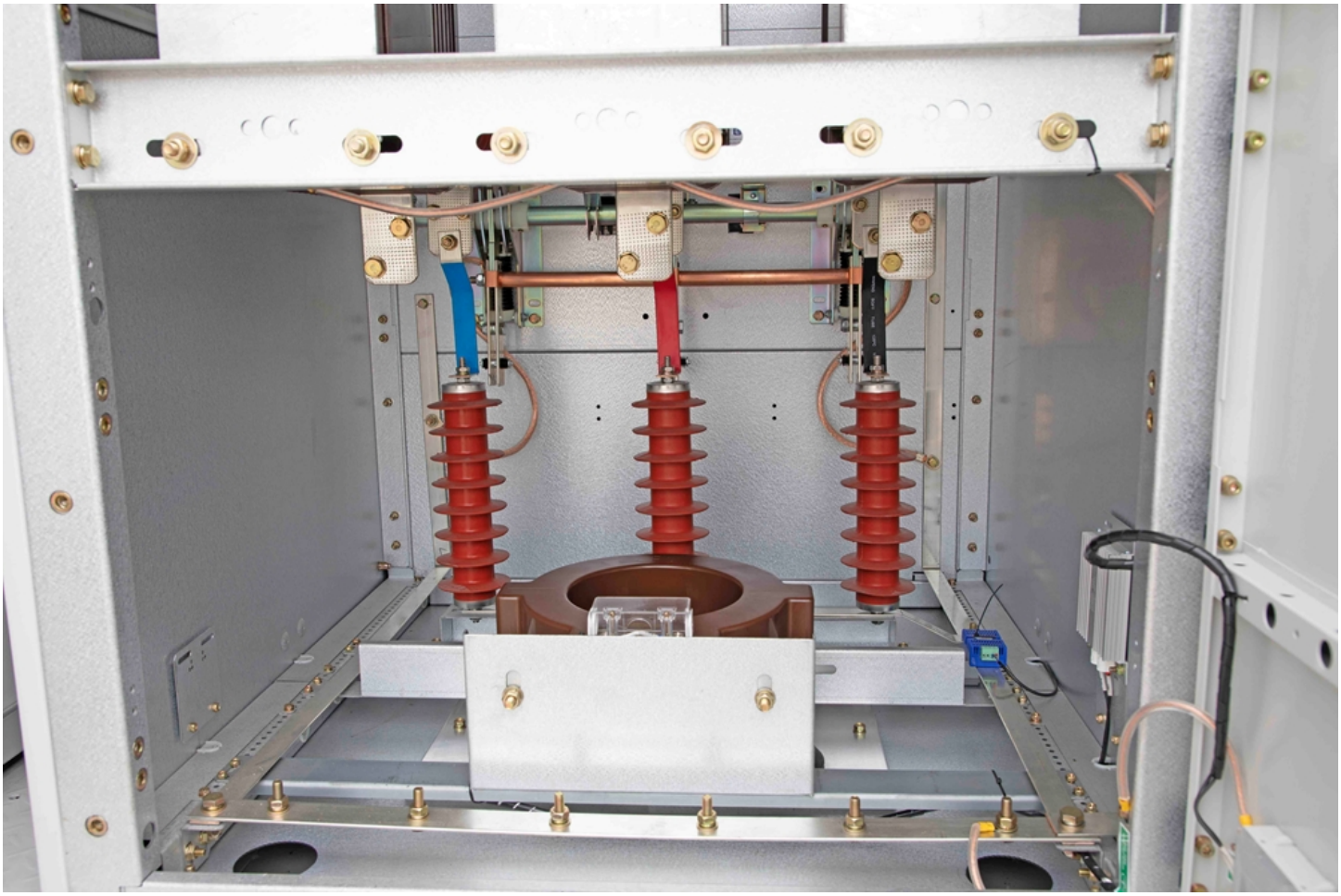


Image: MPD-MCS-VCB-3P4W-21-5KV-2400A-40K-DO-FM-BEBE-SAR-CTB-CU-N3R-DF-WSP-M4

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



Image: MPD-MCS-VCB-3P4W-21-5KV-2400A-40K-DO-FM-BEBE-SAR-CTB-CU-N3R-DF-WSP-M4

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



Image: MPD-MCS-VCB-3P4W-21-5KV-2400A-40K-DO-FM-BEBE-SAR-CTB-CU-N3R-DF-WSP-M4

Export Control Classification Number (ECCN): EAR99

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

Links (Click on the below items to view):

- **HigResPic1**(https://www.larsonelectronics.com/images/product/HigResPic1/339442.JPG)
- **HigResPic2**(https://www.larsonelectronics.com/images/product/HigResPic2/339442.JPG)
- **HigResPic3**(https://www.larsonelectronics.com/images/product/HigResPic3/339442.JPG)
- **HigResPic4**(https://www.larsonelectronics.com/images/product/HigResPic4/339442.JPG)
- **HigResPic5**(https://www.larsonelectronics.com/images/product/HigResPic5/339442.JPG)
- **HigResPic6**(https://www.larsonelectronics.com/images/product/HigResPic6/339442.JPG)
- **HigResPic7**(https://www.larsonelectronics.com/images/product/HigResPic7/339442.JPG)
- **HigResPic8**(https://www.larsonelectronics.com/images/product/HigResPic8/339442.JPG)
- **HigResPic9**(https://www.larsonelectronics.com/images/product/HigResPic9/339442.JPG)
- **HigResPic10**(https://www.larsonelectronics.com/images/product/HigResPic10/339442.JPG)
- **Video1**(https://www.youtube.com/watch?v=b5iyTFrkRes)
- **ISO 9001 Certification**(http://larsonelectronics.com/images/pdfdocs/ISO9001.PDF)
- **Business Certificate**(https://www.larsonelectronics.com/images/pdfdocs/w9.PDF)
- **Shipping Time Map**(https://www.larsonelectronics.com/images/product/ShippingTimeMap/ShippingTimeMap.pdf)