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MPD-MES-VCB-3P4W-21-15KV-1200A-40K-DO-FM-BEBE-S.R.M.-N3R-M1

Metal Enclosed Switchgear, Vacuum Circuit Breaker Switchgear, 3 Pole/3 Phase, 4 wire, 2 In/1 Out, 15kV, 1200A, 40 kA, Draw-Out Type, Floor-Mounted, Bottom Entry/Bottom Exit, SurgeArr + Relay + Meter + CT/PT, Automatic Transfer Controls, Copper, NEMA 3R, Dead Front, Model 1

Product ID: 338377



Image: MPD-MES-VCB-3P4W-21-15KV-1200A-40K-DO-FM-BEBE-S.R.M.-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-3P4W-21-15KV-1200A-40K-DO-FM-BEBE-S.R.M.-N3R-M1 MV Metal Enclosed Switchgear Cabinet

Made in the USA

Unit Type: Medium Voltage Switchgear Cabinet, Vacuum Circuit Breaker Switchgear, Automatic Transfer Scheme

Line-In (Utility Source): 12.45-13.8kV, 3-Phase, 4-Wire (Customer Provided)

Line-In (Generator Source): 12.45-15kV Class, 3-Phase, 4-Wire (Customer Provided)

Line-In Connections: Bottom Entry

Line-In Orientation: Bottom Feed

Protection: Dual SEL-751 Relay Protection, Protection CT/PT, Metering CT/PT Included

Nominal Voltage: 15 kV AC

Rated Max Voltage: 15 kV AC
Rated BIL Voltage: 95 kV
Continuous and Load Interrupting Current: 1200A
Short-Time and Short-Circuit Interrupting Current: 40 kA
Phase: 3-Phase

Frequency: 60 Hz

Features Of Every Vertical Section

Structural design and anchorage adequate to resist loads imposed by 125 mph wind.

Space heater operating at one-half or less of rated voltage, sized to prevent condensation, controlled by thermostats to maintain temperature of each section above expected dew point.

Louvers equipped with insect and rodent screens and filters, arranged to permit air circulation while excluding rodents and exterior dust.

Weatherproof ground-fault circuit interrupter duplex receptacles.

Skid mounted; each shipping group mounted on an integral weatherproof base frame.

Shipping

Shipped on pallet on open flatbed.
Palletized on wooden pallet with skid pockets.
Pallet skid facing outward sides of truck.
Note: Crated shipping in lieu of palletizing can be done upon request for an additional fee.

Wire: 4-Wire
Neutral Connection: Included

Incoming Breakers
(1) Utility Source Vacuum Circuit Breaker, 1200A, 15kV, 40kA, Draw-Out, Motorized, Remote Open/Close, Trip & Close Coils Included
(1) Generator Source Vacuum Circuit Breaker, 1200A, 15kV, 40kA, Draw-Out, Motorized, Remote Open/Close, Trip & Close Coils Included

Automatic Transfer Scheme
1200A Closed Transition ATS (<100ms)
Automatic Utility / Generator Source Transfer Controls
Synchronism Check Supervision (ANSI 25)
Mechanical and Electrical Utility / Generator Source Interlocking

Metering Section
(1) SEL-735 Power Quality Meter
Metering CTs: 1200:5A, Accuracy Class 0.3
Metering PTs: 15kV:120/240V, Accuracy Class 0.3
Meter Test Switch Included

Relay Quality Wiring and Harness

Ratings / Approvals
ANSI and IEEE Standards for Switchgear
NEMA 3R Indoor/Outdoor Use
IEEE C37.20.3
IEEE C37.2
IEEE C37.04
IEEE C37.06
IEEE C37.09
IEEE 1815
IEC 61850 Communications
Service Rated
All grounding shall comply with state and local codes and meet the minimum requirements of NEC Article 250.

Utility Source Relay Protection (SEL-751)
ANSI 50/51 Phase Overcurrent
ANSI 50N/51N Ground Overcurrent
ANSI 50N/51N Ground Overcurrent
ANSI 67/67N Directional Overcurrent
ANSI 27 Undervoltage
ANSI 27N Neutral Undervoltage
ANSI 59 Overvoltage
ANSI 59N Neutral Overvoltage
ANSI 81U Under Frequency
ANSI 81O Over Frequency
ANSI 25 Synchronism Check
ANSI 86 Lockout

Generator Source Relay Protection (SEL-751)
ANSI 50/51 Phase Overcurrent
ANSI 50N/51N Ground Overcurrent
ANSI 46 Negative Sequence
ANSI 32 Reverse Power
ANSI 67/67N Directional Overcurrent
ANSI 27 Undervoltage
ANSI 27N Neutral Undervoltage
ANSI 59 Overvoltage
ANSI 59N Neutral Overvoltage
ANSI 81U Under Frequency
ANSI 81O Over Frequency
ANSI 25 Synchronism Check
ANSI 50BF Breaker Failure
ANSI 86 Lockout

Protection Relays: (2) SEL-751
Protection CTs: 1200:5A Phase CTs, C200 Accuracy Class
Protection CTs: 200:5A Neutral CTs, C200 Accuracy Class
Metering CTs: 1200:5A, Accuracy Class 0.3
Protection PTs: 15kV:120/240V, Accuracy Class 3P, 3V0 Output Included
Metering PTs: 15kV:120/240V, Accuracy Class 0.3
Auxiliary Transformer: 1-Phase, 15kV:120/240V
Control Voltage: 24VDC
Battery Charger: Included
Test Switches and PT Fuses: Included

Surge Arresters: 27kV Class, 22kV MCOV
Support Frame and Enclosure Base Material: Carbon Steel
Busbar Material: Copper
Busbar Rating: 40 kA
Enclosure Finish: Munsell™ 5BG 7.0/0.4 Light Grey (ANSI #70)
Enclosure Type: NEMA 3R, Dead Front, Ventilated, Weatherproof
Cable Entry: Bottom Entry
Mounting: Floor Mount / Pad Mount
Communications: SCADA-Ready, IEC 61850 Compatible
Dimensions: TBD
Weight: TBD
Shipping Dimensions: TBD
Shipping Weight: TBD

Special Orders - Special Requirements
Contact us for special requirements.
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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-MES-VCB-3P4W-21-15KV-1200A-40K-DO-FM-BEBE-S.R.M.-N3R-M1 Medium Voltage Automatic Transfer Switchgear provides centralized control, protection, and automatic source transfer for critical power distribution systems. This unit consists of two vacuum circuit breaker lineups configured in a utility-to-generator automatic transfer arrangement and is compatible with three-phase 15 kV AC systems. Designed for outdoor applications, the NEMA 3R metal-enclosed system features two 1200A vacuum circuit breakers, SEL-751 protection relays, and a closed-transition automatic transfer scheme.

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

The **MPD-MES-VCB-3P4W-21-15KV-1200A-40K-DO-FM-BEBE-S.R.M.-N3R-M1** medium voltage switchgear assembly protects, controls, and automatically transfers power between utility and generator sources in industrial and commercial facilities. Compatible with three-phase 12.45-13.8 kV AC systems, the unit features one 1200A, 15 kV vacuum circuit breaker dedicated to the utility source and one 1200A, 15 kV vacuum circuit breaker dedicated to the generator source. Both breakers are operated by SEL-751 protective relays and integrated with a 1200A closed-transition automatic transfer switch (ATS) for seamless source transfer.

Integrated protection CTs (1200:5A) and PTs (12 kV:120/240V) support phase overcurrent, ground overcurrent, directional protection, under/overvoltage, frequency monitoring, breaker failure, lockout, and synchronization functions. The switchgear includes multifunction power metering, SCADA-ready communications, surge protection, automatic transfer controls, and all required relay, metering, and control wiring.

Protection Package: Utility and generator source breakers are protected by SEL-751 relays providing ANSI 50/51 phase overcurrent, 50N/51N ground overcurrent, 46 negative sequence current, 27 undervoltage, 59 overvoltage, 81 under/overfrequency, 67 directional overcurrent,

25 synchronism check, and 50BF breaker failure protection. The closed-transition transfer scheme maintains continuity of service during source transitions while minimizing load disturbances.

Power Metering: Revenue-grade multifunction metering is provided through SEL-735 power quality meters. Metering functions include voltage, current, power, energy, demand, frequency, and power quality monitoring. Metering PTs utilize 12 kV:120/240V ratios and dedicated metering-class CTs for accurate system measurements.

Surge Protection: The system includes medium-voltage surge arresters rated 27 kV MCOV and 22 kV duty cycle to protect switchgear components from transient overvoltage conditions and lightning-related disturbances.

Enclosure Design: A NEMA 3R ventilated enclosure design promotes natural cooling and protects internal components from rain, dust, and environmental exposure. The switchgear utilizes a floor-mounted, dead-front configuration with bottom cable entry and front-access maintenance provisions. Copper bus construction provides long-term reliability and conductivity for medium-voltage power distribution applications.

Certification: This switchgear assembly is designed in accordance with applicable ANSI, IEEE, and NEMA standards for medium-voltage metal-enclosed switchgear equipment.

Applications: This automatic transfer switchgear is suitable for indoor/outdoor use and applications including, but not limited to, utility interconnection systems, standby generator installations, industrial plants, manufacturing facilities, water treatment facilities, critical infrastructure, data centers, hospitals, commercial facilities, construction sites, plant maintenance operations, and emergency backup power systems.

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.

REV	DESCRIPTION	DATE

MES-VCB-3P4W-21-15KV-1200A-40K-DO-FM-BEBE-S.R.M-N3R-M1

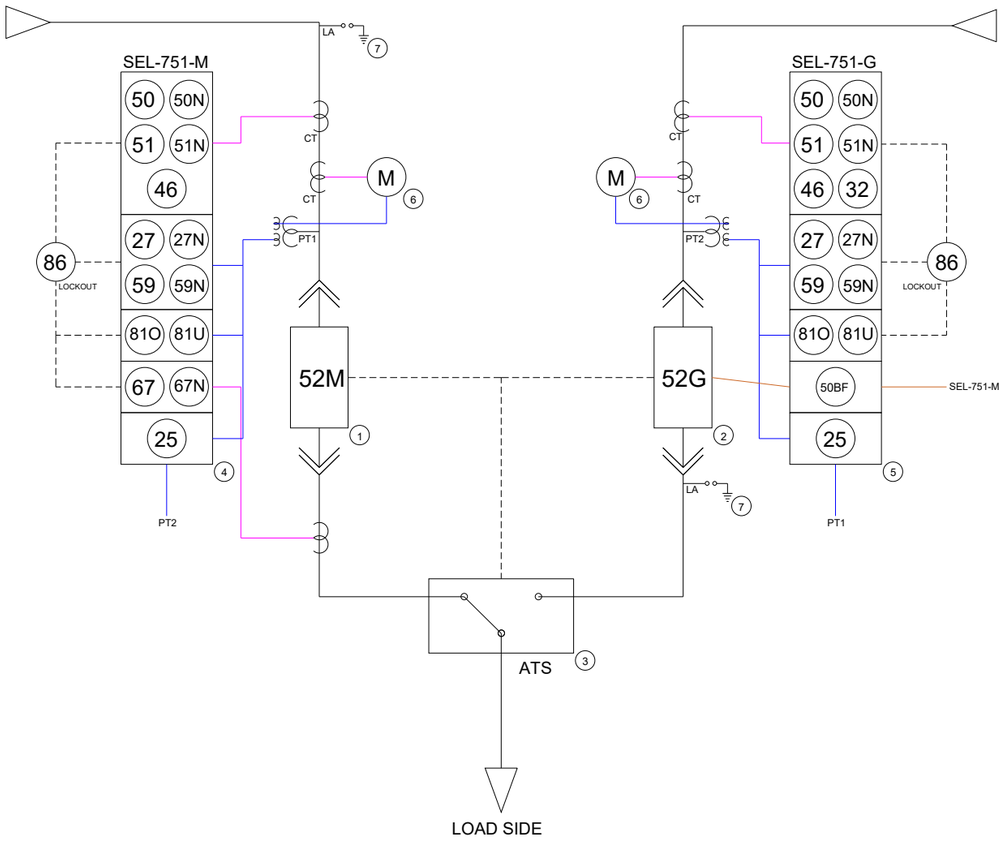
LARSON ELECTRONICS®

SKU: MPD-MES-VCB-3P4W-21-15KV-1200A-40K-DO-FM-BEBE-S.R.M.-N3R-M1

Unit Details: Metal Enclosed Switchgear, Vacuum Circuit Breaker Switchgear, 3 Pole/3 Phase, 4 wire, 2 In/1 Out, 15kV, 1200A, 40 kA, Draw-Out Type, Floor-Mounted, Bottom Entry/Bottom Exit, SurgeArr + Relay + Meter + CT/PT, Automatic Transfer Controls, Copper, NEMA 3R, Dead Front, Model 1

UTILITY SUPPLY (CNP):
12.45-13.8kV, 3P4W

GENERATOR SUPPLY



SINGLE LINE DIAGRAM
MV Switchgear by Larson Electronics

① **Vacuum Circuit Breaker (Main):**
15kVAC, 3-Ph, 60-Hz
1200A (Cu), 40kA
BIL = 95kV
Ctrl Voltage: 120V
NEMA 3R, Rack-In/-Out
Local/Remote
Pilot Light Indicators (O/C/T)

② **Vacuum Circuit Breaker (Gen-Set):**
15kVAC, 3-Ph, 60-Hz
1200A (Cu), 40kA
BIL = 95kV
Ctrl Voltage: 120V
NEMA 3R, Rack-In/-Out
Local/Remote
Pilot Light Indicators (O/C/T)

③ **Automatic Transfer Switch (ATS):**
1200A, Close Transition (≤100ms)
Utility & Gen-Set Interlock

④ **Protection Relay (Main):**
SEL 751
CT - Protection Core: 1200:5 A, C200 (Ph), 200:5 A, C200 (N)
CT - Metering Core: 1200:5 A, Accuracy Class 0.3
PT1 – Protection Core: 15kV/120-240V, Class 3P, 3V0 Output for 27N/59N/67N
PT1 - Metering Core: 15kV/120/240 V, Accuracy Class 0.3
Test Switches & PT Fuses Included
Functions:
50/51, 50N/51N, 46, 67/67N
27/59, 27N/59N, 81O, 81U, 25
Lockout (86) & Breaker Failure (50BF)
SCADA-Ready, IEC 61850

⑤ **Protection Relay (Gen-Set):**
SEL 751
CT - Protection Core: 1200:5 A, C200 (Ph), 200:5 A, C200 (N)
CT - Metering Core: 1200:5 A, Accuracy Class 0.3
PT2 – Protection Core: 15kV/120-240V, Class 3P, 3V0 Output for 27N/59N/67N
PT2 - Metering Core: 15kV/120/240 V, Accuracy Class 0.3
Test Switches & PT Fuses Included
Functions:
50/51, 50N/51N, 46, 32, 67/67N
27/59, 27N/59N, 81O, 81U, 25
Lockout (86) & Breaker Failure (50BF)
SCADA-Ready, IEC 61850

⑥ **Power Meter:**
SEL 735 (P, V, I, f, pf, kWh, VA, VAR)
CT - Metering Core: 1200:5 A, Accuracy Class 0.3
PT1 - Metering Core: 15kV/120/240 V, Accuracy Class 0.3
SCADA-Ready

⑦ **Surge Arrestor:**
27kV, 22kV (MCOV)
Per Feeder or Whole Bus

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TITLE			
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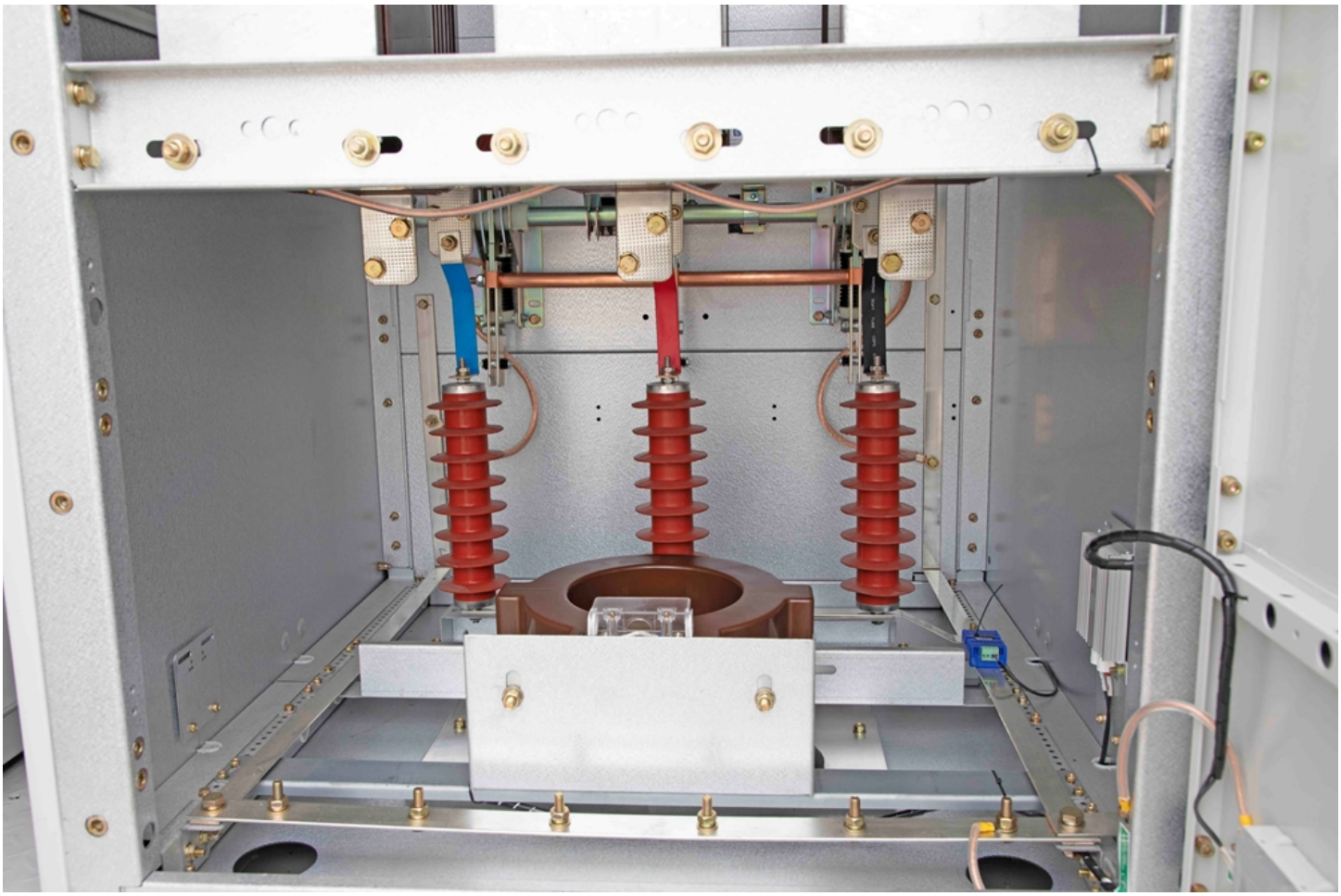
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Frequently Asked Questions (FAQ)

There are no Faqs