

Product ID: 342533

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

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-CSW-SF6-3P-4W-145KV-1200A-40KA-FX-SBM-N3R.C HV SF6 Circuit Switcher
Unit Type: SF6 Circuit Switcher, No Integrated Disconnect Switch

Made in the USA

Phase: Three Phase, 4-Wire (Solid Neutral)

Nominal Voltage: 138kV

Rated Maximum Voltage: 145kV

Rated Lightning Impulse Withstand Voltage (BIL): 650kV Peak

Rated Voltage Range Factor: 1.0

Rated Primary-Bus Fault Breaking Current: 40kA

Rated Short-Circuit Making Current: 61kA

Rated Short-Time Withstand Current Duration: 3 sec

Rated Interrupting Time: 3.0 Cycles

Cont. Current Rating: 1200A

Frequency: 60Hz

Rated Operating Sequence: C-O

Fault Closing, Duty-Cycle, Two-Time: 30,000

Features of Every Assembly

Outdoor SF6 Gas-Insulated Design
Manual Gang-Operated, Center-Break Switching Mechanism
Hand Crank Operating Mechanism
Dual Trip Coil / Single Close Coil Configuration
Fixed, Structure Base Mount Construction
Sealed SF6 Interrupter with Pressure Gauge and Desiccant Chamber
Local Control Cabinet, NEMA 3R Rated

Ratings & Approvals

NRTL Listed Service Equipment
NRTL Listed to UL 98 Dead Front Switchboards
Designed in accordance with applicable ANSI C37.30, C37.32, C37.34 standards
All grounding shall comply with state and local codes and NEC Section 250

Operation & Control

Operation: Manual, Gang Operated, Center Break, Warm Gear

Operation Mechanism: Hand Crank Mechanism

Control Voltage: 90-140V DC

Number of Trip Coils: (2)

Number of Close Coils: (1)

Operating Range of Trip Coils: 87.5 to 144 Volts DC

Maximum Closing Time: 5 sec

Operating Mechanism Supply Voltage: 120 Volts AC / 125 Volts DC

AC Heater, Receptacle Voltage: 240 Volts AC

Construction & Insulation

Construction: Phase poles securely affixed to a base of frame

Min. Creepage: Approx. 143 inches

Closing Resistor Size: 20 Ω

HV Terminal Type: NEMA 4-Hole Pads

SF6 Fill Pressure (@ 20°C): 87 psig

Min. Operating SF6 Pressure (@ 20°C): 72 psig

SF6 Weight: 23 lbs

Environmental / Site Conditions



Altitude: 3,300 ft Above Sea Level
Operating Temperature Range: -30°C to 40°C
Seismic Zone: Low, IEEE 693
Wind Speed Rating: 100 mph
Ice/Snow Load: 20 psf
Environment: Trace amounts of H₂S, SO₂, and coke dust

Enclosure / Control Cabinet

Control Cabinet Finish: ANSI 49 Grey
Control Cabinet Rating: NEMA 3R
Mounting: Fixed, Structure Base Mount

Dimensions & Shipping

Overall Dimensions: 290 in W x 40 in D x 195 in H (estimated)
Approximate Weight: 4,300 lbs (estimated)
Shipping Dimensions: TBD
Shipping Weight: TBD

Shipping

Shipped on flatbed/specialized transport
Crated/rigging requirements available upon request
Final shipping configuration subject to approved design

Special Features

Manual Gang-Operated Center-Break Design, Hand Crank Mechanism, Dual Trip Coil Configuration

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 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 applicable drawings.

Made in the USA

The Larson Electronics MPD-CSW-SF6-3P-4W-145KV-1200A-40KA-FX-SBM-N3R.C SF6 Circuit Switcher is an outdoor, gas-insulated switching device engineered for reliable, safe power distribution and isolation at electric utility and industrial substation sites. Designed for fixed, structure-mounted installation, this circuit switcher provides dependable manual switching and fault-interrupting capability for medium- and high-voltage distribution systems.

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

This SF6 circuit switcher combines a gas-insulated interrupter with a manually operated, gang-operated switching mechanism, allowing operators to safely energize or de-energize the circuit it protects. The assembly is constructed for direct outdoor exposure, relying on sealed gas insulation and weather-resistant construction rather than an enclosed housing for its high-voltage components.

Features of Every Assembly:

Each assembly incorporates an outdoor SF6 gas-insulated interrupter, a manual gang-

operated center-break switching mechanism with hand crank operation, dual trip coil and single close coil configuration, fixed structure base mount construction, and a local control cabinet rated NEMA 3R for outdoor service.

Operation & Control:

The unit is manually operated via a gang-operated, center-break mechanism using a hand crank operating mechanism. Trip and close coil provisions support remote/automatic tripping in addition to manual local operation, with a control cabinet housing the associated wiring terminals and secondary devices.

Construction & Insulation:

The circuit switcher's phase poles are securely affixed to a structural base frame, utilizing sealed SF6 gas insulation within the interrupter assembly. Insulator creepage distance and construction are sized appropriately for the equipment's voltage and BIL class.

Environmental / Site Conditions:

The assembly is designed for outdoor service under a range of environmental conditions, including elevated altitude, wide operating temperature range, wind and ice loading, and exposure to trace atmospheric contaminants, consistent with typical outdoor substation environments.

Enclosure / Control Cabinet:

The circuit switcher's local control cabinet is NEMA 3R rated, suitable for outdoor service. This rating applies to the control cabinet housing the switcher's secondary wiring and control devices, not the open-air high-voltage apparatus, which is inherently weatherproof by design.

Special Features:

This unit is offered with a manual gang-operated center-break design, hand crank operating mechanism, and dual trip coil configuration, providing dependable switching and isolation capability for the application it serves.

Ratings & Approvals:

The assembly is NRTL listed for service equipment and dead-front switchboard applications, and is designed in accordance with applicable ANSI C37.30, C37.32, and C37.34 standards for circuit switchers. All grounding provisions shall comply with applicable state and local codes and the National Electrical Code.

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.

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.

Frequently Asked Questions (FAQ)

There are no Faqs



Image:



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Links (Click on the below items to view):

- **Video1** (<https://www.youtube.com/watch?v=aOJY5E9e33I>)
- **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>)