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-FDS-1P2W-2.1-15KV-600A-TE-FM-RTU-CU-N1-91.6HZ

15kV Duplex Metal Enclosed Fused Disconnect Switchgear, 600A, Single-Phase 91.6Hz, Top Entry, NEMA 1, Front Access Only, RTU Monitoring

Product ID: 344653



Image: MPD-MES-FDS-1P2W-2.1-15KV-600A-TE-FM-RTU-CU-N1-91.6HZ

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-FDS-1P2W-2.1-15KV-600A-TE-FM-RTU-CU-N1-91.6HZ Metal Enclosed Switchgear – Duplex Fused Disconnect

Unit Type: Metal Enclosed Switchgear – Duplex Fused Disconnect Switch, Front Access Only

Made in the USA

Configuration

Configuration: Dead Front

Line-In Connections: Terminal Lugs, Accepts 750MCM-1/0 (2 sets, one per incoming source)

Line-In Orientation: Top Feed

Nominal Voltage: 15 KV AC, Single-Phase, 2-Pole, 91.6 Hz
Load Break Capability Rating: 15 KV AC, Single-Phase

Maximum Design Voltage Rating: 17 KV AC

Voltage BIL: 95 KV
Current Rating: Single-Phase Current

Features of Every Assembly

Deadfront, Completely Metal-Enclosed, Fixed-Mount, Vertical Sections
Viewing Window — Interrupter Position and Fuse-Blown Indication
Mechanical Interlock — Door Cannot Open While Switch Is Closed
Padlocking and Tagging, Open or Closed Position
Switch Position Indicator, Each Switch
Full-Length Hinges, Front Flanged Door w/ Latching Hardware

Bay Configuration

Bay 1 (Incoming Source 1): Load Interrupter Switch, 600A, 15KV, Manually Operated, Key Interlocks, Copper Ground Bus, Top Entry
Bay 2 (Incoming Source 2): Load Interrupter Switch, 600A, 15KV, Manually Operated, Key Interlocks, Copper Ground Bus, Top Entry — Not Interlocked with Bay 1, Both May Be Closed Simultaneously
Bay 3 (Outgoing to Transformer): Outgoing Termination Section, Copper Ground Bus,

Top Entry

Protection
Protection Method: Fused, 2 x (3) Time Delay Fuses
Fuse Max. Rating: (6) 200E, SMU-20
Fuse Holder Rating: (6) 200A, SML-20
In-Use / Spare Fuses: 2 In-Use + 3 Spare Per Switch

Ratings
Main Bus Continuous Current Rating: 600 A
Switch Load-Interrupting Current Rating: 600 A
Switch Short-Time Withstand Current: 25 kA for 2 Seconds
Main Bus Short-Time Withstand Current: 25 kA for 2 Seconds
Momentary Withstand Current: 40 kA for 10 Cycles

Disconnect & Monitoring
Disconnect Means: Manual via Handle (Both Switches)
Remote Monitoring (RTU): Minimum (4) "a" + (4) "b" Dry Auxiliary Contacts Per Switch for Open/Close Status; Fuse-Blown Status Contacts Per Switch; Door Position Monitored via Dry Contacts

Line-Out
Line-Out Connection: Terminal Lugs, Accepts 750MCM-1/0
Line-Out Orientation: Top Feed

Construction
Form Factor: Rectangular, Slim-Profile Enclosure w/ Lockable Door — 3 Compartments, 36" Each (2 Incoming + 1 Outgoing)
Panel Configuration: 2 x Fused Switch Compartments, 1 x Outgoing Termination Compartment
Housing Type: Compartmental Air-Filled Cabinet, Front Access Only, Front Flanged Door w/ Pad Lockable Handle, Full-Length Hinges; Fuse Door and Switch Handle Kirk Key Interlocked Per Compartment

Bus Type: Silver-Plated Copper

Steel Fabrication: Hot Rolled, Pickled and Oiled Steel, 11GA Minimum
Enclosure Material: #12GA Sheet Steel
Enclosure Finish: Munsell™ 7GY 3.29/1.5 Bell Green
Enclosure Type: NEMA 1, Indoor
Mounting: Floor Mounted

Ratings & Approvals

NRTL Listed Service Equipment

NRTL Listed to UL 891 Dead Front Switchboards

Designed in accordance with IEEE C37.20.3, C37.47; NECA 430; NFPA 70

All grounding shall comply with state and local codes and NEC Section 250

Dimensions & Shipping
Overall Dimensions: 108"W x 95.46"H x 70"D (estimated)
Approximate Weight: 3,400 lbs (estimated)
Shipping Dimensions: TBD
Shipping Weight: TBD

Shipping
Shipped on pallet or skid
Crated shipment available upon request
Final shipping configuration subject to approved design

Special Features
Dual Non-Interlocked Manual Switches, Single-Phase 91.6Hz, Front-Access-Only, RTU Hard-Wire Monitoring

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 one-line diagram.

Made in the USA

The Larson Electronics MPD-MES-FDS-1P2W-2.1-15KV-600A-TE-FM-RTU-CU-N1-91.6HZ Metal Enclosed Switchgear is designed for reliable, safe duplex power switching at Amtrak signal power facilities. This switchgear includes two independent, non-interlocked load interrupter switches — one per incoming source — plus fuses protecting the downstream transformer and medium-voltage cable, arranged in a three-compartment assembly: one compartment per incoming source and one outgoing compartment to the transformer. Designed for floor mounting installations. This top feed switchgear is protected by a NEMA 1 rated, steel enclosure for indoor use.

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

The **MPD-MES-FDS-1P2W-2.1-15KV-600A-TE-FM-RTU-CU-N1-91.6HZ** provides a dependable way to feed signal power loads from two independent sources. Compatible with 15KV AC, single-phase, 91.6Hz, the switchgear features two manually operated switch handles with no automatic transfer or interlock between them, allowing both sources to be closed simultaneously to feed through the common bus. This top feed switchgear carries a 25kA for 2 seconds short-time withstand rating and a 40kA for 10 cycles momentary withstand rating at 15KV AC. Each switch compartment comes with and accepts three 200E time delay fuses, with two in use and three spares provided per switch.

Operation:
The switchgear features front-access-only compartment doors, each equipped with a permanently attached operating handle used for manually disconnecting or connecting power. A dead front cover protects operators from the fuses for safety, with a viewing window allowing inspection of interrupter position and fuse-blown status without opening the compartment. A mechanical interlock prevents the door from opening while the switch is closed, and requires the door to be closed before the switch can be closed. Each switch and its fuse door are Kirk Key Interlocked. Switches may be padlocked and tagged in either the open or closed position.

Time Delay vs. Fast Acting Fuses
Two of the most common types of fuses found in power distribution equipment are time delay and fast acting fuses.

Time Delay: Time delay fuses are tripped once overcurrent heat builds up enough to melt the fuse element over a period of time. That period of time varies between different time delay fuses depending on the application. Time delay fuses decrease the chances of false tripping. During startup, many components require a large current for a very short amount of time. In other words, a time delay fuse disconnects the circuit only when the overcurrent persists in the line.

Fast Acting: Fast acting fuses are tripped immediately upon sensing an overcurrent or short circuit in the line. They are ideal for electronics, components, or systems that cannot withstand sudden changes in current. A fast acting fuse will not withstand a temporary overload such as

one that occurs during the startup process.

Remote Monitoring: Each switch provides a minimum of four normally-open and four normally-closed dry auxiliary contacts for hard-wire connection to the customer's RTU, reporting open/closed position of each interrupter switch independently. Fuses are capable of hard-wire remote monitoring to report a blown condition to the RTU, and each compartment door position is monitored through dry contacts.

Enclosure Design: The duplex disconnect switch is protected by a 12GA sheet steel enclosure with Munsell™ 7GY 3.29/1.5 Bell Green finish. The enclosure is NEMA 1 rated for protection against water, moisture and debris, suitable for indoor areas.

Certification: This switchgear is NRTL listed to UL 891 dead front switchboards and NRTL listed for service equipment, designed in accordance with IEEE C37.20.3, C37.47, NECA 430, and NFPA 70.

Mount: Operators can mount the switchgear on floors and flat surfaces.

Applications: This switchgear is suitable for indoor signal power distribution applications, including Amtrak traction power substations supplying signaling systems.

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.

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Frequently Asked Questions (FAQ)

There are no Faqs