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MPD-MDS-CB-3P4W-1.6-480Y.277-2000A-42K-N3R-DF-M3

2000A Main Service Switchboard, 480Y/277V 3-Phase 4-Wire, 42kAIC, Electronic Trip, NEMA 3R

Product ID: 343958

Image: MPD-MDS-CB-3P4W-1.6-480Y.277-2000A-42K-N3R-DF-M3

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-MDS-CB-3P4W-1.6-480Y.277-2000A-42K-N3R-DF-M3 Switchboard
Unit Type: UL 891 Deadfront Switchboard

Configuration: 3-Phase, 4-Wire
Voltage: 480Y/277V

Main Bus / Main Breaker: 2000A, 3-Pole, Individually Mounted

Main Breaker Rating (Trip/Frame): 2000/2000, RG-Frame, Micrologic 6.0P Trip Unit or Equal
Short Circuit Rating: 42kAIC

Enclosure Type: NEMA 3R

Bus Material: Copper, Silver-Plated Contacts
Neutral Bus: 100% of Main Rating
Ground Bus: Min. 1/4" × 2" Copper

Feeder/Branch Breaker Schedule (6 Positions)
Position 1: 600A Frame (LG), 3-Pole, 600A Trip, Electronic Trip Unit
Position 2: 600A Frame (LG), 3-Pole, 600A Trip, Electronic Trip Unit
Position 3: 600A Frame (LG), 3-Pole, 600A Trip, Electronic Trip Unit
Position 4: 1200A Frame (PG), 3-Pole, 800A Trip, Micrologic 6.0P Trip Unit or Equal
Position 5: 1200A Frame (PG), 3-Pole, 800A Trip, Micrologic 6.0P Trip Unit or Equal
Position 6: 1200A Frame (PG), 3-Pole, 800A Trip, Micrologic 6.0P Trip Unit or Equal

Transition Section
Width: 20"W, **Height:** 91.5", **Depth:** Matches Main Assembly
Dimensions & Shipping

Made in the USA

Features of Every Assembly
Dead Front Construction
Digital Multifunction Power Meter — True RMS ±1%, THD to 31st Order, Modbus RTU/RS485, KYZ Pulse Output
Molded-Case Circuit Breakers Throughout — Series Rating Not Permitted
Electronic Trip Units, All Breakers, True RMS Sensing
120V Heaters, 250W Min. per Section, Thermostat Controlled (60–90°F)

Ratings & Approvals
Designed in accordance with UL 891, UL 489, NEMA PB 2
All grounding per NFPA 70

Shipping
Shipped on pallet or skid
Crated shipment available upon request

Overall Dimensions: 92"W (incl. 20"W transition section) × 60"D × 91.5"H
Approximate Weight: 2,600 lbs (estimated)
Shipping Dimensions: TBD
Shipping Weight: TBD

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 MPD-MDS-CB-3P4W-1.6-480Y.277-2000A-42K-N3R-DF-M3 from Larson Electronics is a UL 891 deadfront switchboard engineered as a direct replacement for existing unit substation-fed distribution equipment. This 2000A, 480Y/277V, three-phase, four-wire switchboard provides one main circuit breaker position and six outgoing feeder positions, matching the configuration and ratings of the equipment it replaces.

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

This switchboard reconnects to an existing unit substation-style transformer via a transition section, replacing existing switchgear at the same installed location. The main section includes a molded-case main circuit breaker rated 2000A trip within a 2000A frame, equipped with an electronic trip unit (Square D Micrologic 6.0P or approved equal) providing true RMS sensing with adjustable short-delay, instantaneous, and ground fault protection settings, along with a digital display of watts, VARs, VA, kWh, kvarh, kVAh, and kW/kVA demand and peak demand values. A digital multifunction power meter is provided at the incoming section for continuous monitoring of voltage, current, power, and power quality parameters.

Main Section
A 3-pole, individually mounted molded-case main circuit breaker (2000A trip / 2000A frame) with electronic trip unit serves as the main disconnecting means, paired with a digital multifunction power meter offering true RMS ±1% accuracy, total harmonic distortion measurement to the 31st order, Modbus RTU communication via RS485, and a Form C KYZ pulse output relay.

Feeder Section (Qty 6)
Six outgoing feeder positions are provided, each 3-pole with electronic trip units: three positions rated 600A frame at full 600A trip settings, and three positions rated 1200A frame at 800A trip settings, with Micrologic 6.0P trip units or approved equal, providing headroom for future load growth without requiring a frame change.

Construction
All circuit breakers are molded-case type with electronic trip units; series-rated breaker combinations are

not permitted. The bus is copper with silver-plated contact surfaces; the neutral bus is rated 100% of the main bus continuous current, and a continuous copper ground bus (minimum 1/4" × 2") runs the length of the assembly. Each section includes a 120V, 250W minimum thermostatically controlled heater to prevent condensation, maintaining section temperature between 60–90°F. The assembly includes a transition section for connection to the existing transformer throat opening.

Certification
Designed in accordance with UL 891 (Switchboards), UL 489 (Molded-Case Circuit Breakers), and NEMA PB 2. All grounding complies with NFPA 70.

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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