

**MT-LCVR-2.5MVA-480Y.277-480Y.277-3P-N3R-50.60HZ**

**2.5 MVA Power Conditioner/Electronic Voltage Regulator - 480Y/277V 3PH Input - 480Y/277V 3PH Output, 50/60 Hz - NEMA 3R**

**Product ID: 332450**

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



Image: MT-LCVR-2.5MVA-480Y.277-480Y.277-3P-N3R-50.60HZ

**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.**

**MT-LCVR-2.5MVA-480Y.277-480Y.277-3P-N3R-50.60HZ Power Conditioner**

**Unit Type:** Power Conditioner/Voltage Regulator

**Dimensions:** 204.72"-W x 55.11"-L x 80.71"-H

**Weight:** 11,023.11 lbs

**Size:** 2.5 MVA

**Input Voltage:** 480Y/277V AC

**Input Voltage Range:** 320-600V AC

**Input Voltage Variation Range:**  $\pm 10/-25$  %

**Max. Input Current:** 2,408 A

**Output Voltage:** 480Y/277V AC

**Output Voltage Accuracy:**  $\pm 3$  %

**Output Current Rating:** 3000 A

**Response Time:** 1 Cycle Typical, 1.5 Cycles Maximum

**Frequency:** 50/60 Hz

**Operating Frequency Range:**  $\pm 3$  % of Nominal

**Start to Correct:** < 5 Cycles

**Speed Regulation:** 22 ms/V

**Admitted Load Variation:** Up to 100%

**Admitted load imbalance :** 100%

**Ratings/Approvals**

Indoor and Outdoor Use (NEMA 3R)

Solid-state Performance

No-fan Design

Microprocessor-based Controls

97% Efficiency

Backlit LCD Display

Remote Alarm Dry Contacts

**Tap Switching:** No Interruption of Load Current During Tap Changes

**Surge Suppression:** ANSI/IEEE C62.41 Compliant

**Overload Capacity:** 6000% for 1 Cycle, 1000% for 1 Second, 500% for 5 Seconds, 200% for 1 Minute

**Fault Clearing Capacity:** 1000% Minimum to Permit Downstream Protection

**Minimum Load:** None Required

**Load Power Factor Limitation:** None

**Load Compatibility:** Compatible with All Load Types

**Current Zero Crossing Sensitivity:** Tap Switching Independent of Load Current Zero Crossing

**Cooling:** Integral Air Conditioning Units for Transformer and Component Cooling

**Efficiency:** 97% or Higher Down to 15% of Full Load

**Noise Attenuation:** 150 dB at 100 kHz (Common Mode), 65 dB at 100 kHz (Normal Mode)

**Max. Relative Humidity:** < 95 (non-condensing)

**Operating Altitude:** 0 to 100 ft (30m) continuous operation at full load without de-rating

**Internal Bypass:** Automatic Electronic Bypass Activates on Malfunction or Component Failure; Operable Indefinitely; Maintains Load Current; All Functions Except Voltage Regulation Remain Active

**Admitted Overload:** 100% 1min

**Technology:** Solid-State, Microprocessor-Based, Tap-Switching Regulation

**Switching Semiconductors:** Solid-State Electronic Tap-Switching (No Moving Contacts)

**Transformer:** Shielded isolation transformer (delta-wye), copper-wound, dry type with a typical impedance between 3 to 3.5% transformer insulation designed for a maximum temperature rise of 150 C.

**Harmonic Distortion:** N/A

**Instrumentation - HMI:** Display LCD 10" Touch - Input & output measurement-INSIDE

**Display:** Front-Mounted 2-Line Backlit LCD Indicating Buck/Boost Status and Unit Condition, with UV Shield Protection

**Remote Alarm Contacts:** Two Sets, Normally Closed, Rated 125VAC 0.6A / 110VDC 0.6A / 30VDC 2A; Indicate Auto-Bypass, Loss of Regulation, Breaker Trip, No Power, Supply Failure, or Overtemperature

**Multifunctional Power Quality Analyzer:** Input / Output JANITZA type UMG509-Pro

**Communication :** RS485 port / Ethernet RJ45 – MODBUS® TCP/IP communication protocol

**Installation:** Indoor

**Input Connection:** 3 phase wye (3W+N+G)

**Output Connection:** 3 phase wye (3W+N+G) hardwired to lug-type connector(s)

**Neutral Connection:** Newly Derived Neutral, Bonded to Enclosure with Lug-Type Connector(s)

**Grounding:** Internal Grounding Connection Provided as Standard

**Cable Entry/Exit:** Top, Bottom, or Side Cable Entry Permitted

**Input Circuit Breaker:** Molded Case Type Rated  $\geq 125\%$  Full Load Current, with External Handle or Pushbuttons for Operation

**Protection Degree:** NEMA 3R

**Operating Temperature Range:** -25°C to +45°C

**Storage Temperature Range:** -25°C to +60°C

**Materials:** 316 Stainless Steel

**Form Factor:** Cube Enclosure w/ I-beam Legs

**Color:** Natural Finish

#### **Special Orders - Special Requirements**

Contact us for special requirements

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**The Larson Electronics MT-LCVR-2.5MVA-480Y.277-480Y.277-3P-N3R-50.60HZ Power Conditioner/Electronic Voltage Regulator is ideal for protecting machines from sudden voltage fluctuations and low quality electrical currents. This 2.5 MVA unit supports three-phase**

480Y/277V AC input voltage and 480Y/277V AC output voltage, with a  $\pm 20\%$  input voltage range and  $\pm 0.5\%$  output range. The NEMA 3R rated voltage regulator is constructed of heavy-duty powder-coated steel and features a solid-state design.

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

The MT-LCVR-2.5MVA-480Y.277-480Y.277-3P-N3R-50.60HZ offers robust protection for sensitive machines and electronic devices in industrial buildings. This 2.5 MVA unit supports an input voltage of three-phase 480Y/277V AC, 60Hz and an output voltage of three-phase 480Y/277V AC, 50Hz. Input voltage may range between  $\pm 10/-25\%$ , while output voltage regulation ranges  $\pm 3\%$ . The voltage regulator does not have a minimum load, harmonic distortion, load current interruption and power factor limitations. Surge suppression and input circuit breaker are included with the unit. This electronic voltage regulator is 97% higher or down to 15% of full load.

The MT-LCVR-2.5MVA-480Y.277-480Y.277-3P-N3R-50.60HZ features a solid-state, no-fan design for quiet and efficient operation. All controls are microprocessor-based for consistent performance. This unit comes with a backlit LCD display for seamless monitoring. Constructed of heavy-duty powder-coated steel, the voltage regulator is housed in a NEMA 3R enclosure, making it suitable for indoor and outdoor environments. This level of protection allows the unit to withstand the ingress of solid objects, such as falling dirt.

**Applications:** Industrial facilities, indoor operations, large machines, processing plants, labs, commercial equipment, military, warehouses, digital processing systems, electrical current protection, EMI reduction and more.

At Larson Electronics, we do more than meet your lighting and power distribution needs. We also provide replacement, retrofit, and upgrade parts as well as industrial grade power accessories. Our craftsmen can custom build any lighting or power distribution 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](mailto: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 Fags



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**Export Control Classification Number (ECCN):** EAR99



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