

MPD-MT-UPS-3P-480V-750KVA-480V-R1-N1

750 KVA Redundant Uninterruptible Power Supply System – 480V Input/Output 60Hz, 3PH – 675 kW – Online Double Conversion – 30 Minute Battery Backup – Isolated Redundant Configuration – w/ Static & Maintenance Bypass

Product ID: 337645



Image: MPD-MT-UPS-3P-480V-750KVA-480V-R1-N1

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-MT-UPS-3P-480V-750KVA-480V-R1-N1 Uninterruptible Power Supply (Redundant Online Double Conversion UPS System)

Unit Type: Redundant Online Double Conversion UPS System

UPS Topology: True Online Double Conversion

System Configuration: Isolated Redundant / Segmented Redundant / Hot Standby Configuration

UPS Architecture: Reverse Transfer Static UPS System

UPS Cabinet: Approx. 84"H x 48"W x 36"D (each UPS module)

Battery Cabinet: Approx. 84"H x 52"W x 36"D (per battery string)

Maintenance Bypass Cabinet: Approx. 84"H x 48"W x 36"D

Total Dimensions: Approx. 84"H x 240"W x 36"D (Dual UPS Modules, Battery Cabinets & Maintenance Bypass Combined)

Installed Width: Approx. 300" including recommended service clearance

Weight: Approx. 18,000 lbs combined system

Input Voltage: 480V AC 3PH, 3-wire + ground

Input Frequency: 60 Hz

Input Power Factor: ≥ 0.99 at full load

Input Current Distortion: $\leq 5\%$ THD

Output Voltage: 480V AC 3PH

Output Power Capacity: 750 kVA / 675 kW (per UPS module)

Control System: DSP-Based Monitoring and Control System

Regulation: $\pm 1\%$ steady state

Ratings/Approvals

UL 1778

IEC 62040

IEEE 519

NEMA PE-1

NEMA 250 Enclosures

NFPA 70 (NEC)

True Online Double Conversion UPS
Static Transfer Switch (automatic, no interruption)
Manual Maintenance Bypass (external BDC sidecar)
DSP-Based Monitoring and Control System
NEMA 1 Indoor Enclosure

Output Voltage Distortion: $\leq 3\%$ THD linear load

Efficiency (AC-AC): Up to 95%

Crest Factor: 3:1

Load Power Factor Range: 0.9 lagging

Waveform Type: True Sine Wave

Energy Storage Type: VRLA Battery System or Approved Equivalent

DC Bus Voltage: Manufacturer Standard

Runtime: Minimum 30 Minutes at Full Load

Battery Capacity: 125% of full UPS kW load during startup

Recharge Time: Automatic Recharge Following Discharge

Filtering: Full-time power conditioning and harmonic mitigation

Synchronization: Automatic synchronization with bypass source

Isolation: Critical load isolation mechanism included

Interface: Ethernet, RS-232, RS-485, Modbus, SNMP

Monitoring: Real-time status, alarms and event logging

Display: Integrated LCD interface with system diagnostics

Safety Features:

- Automatic overload protection
- Internal fault protection
- Overtemperature shutdown protection
- Battery low voltage protection
- Remote EPO functionality

Configuration:

- Two UPS modules remain online simultaneously during normal operation
- Each UPS module independently supports the entire critical load
- If one UPS module fails or is removed from service, the remaining UPS supports the full critical load without interruption
- Includes external make-before-break maintenance bypass cabinet
- Includes static bypass transfer switch
- Includes battery protective devices
- Front access serviceability
- Top and bottom cable entry supported

Monitoring & Alarms:

- - Input / Output Voltage Monitoring
- Battery Status Monitoring
- Inverter Status Monitoring
- Temperature Monitoring
- Alarm Conditions: Overload, Over/Under Voltage, Overtemperature, System Fault, Battery Fault, Remote EPO

Operating Temp: 32°F to 104°F (0°C to 40°C)

Operating/Storage Relative Humidity: 0-95% non-condensing

Operating Elevation: Up to 5,000 ft

Storage Temp: -4°F to 158°F (-20°C to 70°C)

Storage Elevation: Up to 39,370 ft

Materials: Heavy-duty industrial steel enclosure

Hardware Material: Zinc Plated Steel

Enclosure Rating: NEMA 1 Indoor

Enclosure Finish: Powder-coated industrial finish

Mount: Floor-standing system

Input Connections: Hardwire 3PH + Ground

Output Connections: Hardwire 3PH + Ground

Static Bypass Switch: Automatic Uninterrupted Transfer

Maintenance Bypass: External Make-Before-Break Maintenance Bypass Cabinet

Special Orders - Special Requirements

Contact us for special requirements

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All grounding shall comply with state and local codes and meet the minimum requirements of the National Electronic Code section 250

The MPD-MT-UPS-3P-480V-750KVA-480V-R1-N1 is an Industrial Uninterruptible Power Supply (UPS) system designed for critical backup power protection in large-scale industrial operations, mission-critical facilities, and infrastructure applications. This advanced redundant UPS system operates on three-phase 480V AC input/output at 60 Hz and features a continuous-duty, solid-state, true online double-conversion topology. An integrated LCD control interface enables real-time status monitoring, system diagnostics, alarm management, and performance tracking.

The MPD-MT-UPS-3P-480V-750KVA-480V-R1-N1 provides reliable uninterrupted backup power for critical equipment and sensitive electrical systems in industrial environments. This 750 kVA / 675 kW UPS system utilizes an isolated redundant (segmented redundant / hot standby) configuration consisting of two simultaneously operating UPS modules, where each module is independently capable of supporting the full critical load without interruption. Designed with a reverse transfer static UPS architecture, the system delivers conditioned true sine wave output power with low harmonic distortion and high operating efficiency.

The UPS system includes a VRLA battery system or approved equivalent energy storage solution designed to provide a minimum of 30 minutes runtime at full rated load. Battery protective devices allow independent isolation of each battery string for maintenance purposes while enabling the UPS system to continue operating normally without battery runtime capability when utility AC input remains within tolerance limits. The rectifier/charger continuously converts incoming AC power to regulated DC power, supplies the inverter DC bus, and float charges the battery system, while the inverter continuously converts DC power back to conditioned AC output power for uninterrupted critical load support.

A static bypass transfer switch and external make-before-break maintenance bypass cabinet are included for uninterrupted transfer and serviceability. The static bypass system automatically transfers the critical load to bypass power during overload conditions, inverter degradation, or abnormal operating conditions without interruption to connected equipment. The maintenance bypass cabinet allows manual isolation of the UPS system during service activities while maintaining continuous power to the critical load bus. Separate normal AC input and bypass AC input connections are supported.

This sine-wave UPS system features full-time power conditioning, low input current distortion ($\leq 5\%$ THD), automatic synchronization with the bypass source, and advanced DSP-based monitoring and control capabilities. Communication interfaces including Ethernet, RS-232, RS-485, Modbus, and SNMP are supported for integration into industrial automation, building management, and SCADA systems. Monitoring features include real-time input/output status, battery conditions, inverter and rectifier diagnostics, event logging, temperature monitoring, and alarm notifications.

Wiring: The MPD-MT-UPS-3P-480V-750KVA-480V-R1-N1 is designed for floor-mounted indoor installations and features heavy-duty industrial steel construction with a NEMA 1 enclosure rating. Front-accessible assemblies, hinged key-lockable doors, and dead-front construction allow safe operation and simplified maintenance access.

Mounting: The MPD-MT-UPS-3P-480V-750KVA-480V-R1-N1 is designed for floor-mounted

installations and features industrial-grade enclosures suitable for indoor environments.

Relay and Gateway: Includes industrial communication and monitoring interfaces for remote alarming, system integration, and facility management applications. Optional dry contact relay cards, remote monitoring gateways, and network management interfaces are available for integration with BMS and SCADA 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.

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Frequently Asked Questions (FAQ)

There are no Faqs