

MPD-ST5-1P3W-100A-208.120V-1PH-N12

100A-Static Transfer Switch - 208V/120V Single Phase 3-Wire - 60 Hz - Automatic Dual-Source - NEMA 12

Product ID: 345209

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



Image: MPD-ST5-1P3W-100A-208.120V-1PH-N12

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-ST5-1P3W-100A-208.120V-1PH-N12 Switch

Unit Type: Static Transfer Switch

Configuration: 1-Phase, 3-Wire (2 Hot + Neutral)

Voltage: 208/120V, 60hz

Current Rating: 100A

Duty: Continuous Duty, 100% Rated

Short Circuit Withstand Rating: 20,000A symmetrical, with internal fusing

Mounting Style: Floor Mount, Top Feed

Enclosure Type: NEMA 12, Indoor, Welded Steel, 2-section, Keylock

Input/Output

Input: (2) Circuit Breakers, 2-Pole, 100A

Output: (4) Circuit Breakers, 2-Pole, 100A

Load Transition Type: Break-Before-Make, Automatic; < 6ms Interruption (Manual Transfer and Bypass $\leq$ 2.5ms)

Preferred Source: User-Selectable Without De-Energizing the Load or Rewiring

Transfer Limits: $\pm 10\%$ of Nominal Voltage; Retransfer Delay 1–60s Adjustable; Phase Sync Window 1–20°

Modes of Operation: Normal, Load Current Inhibit, Manual Transfer, Emergency Transfer,

Made in the USA

Features of Every Assembly

Digital Power Technology (DPM)

Assy Transfer Control

NRTL Listed for United States & Canada

Fully Break-Before-Make Transfer, Sources Never Connected Together

Ratings & Approvals

Complies with NEMA ST-20 and IEEE C57.12.91

UL 1008 Automatic Transfer Switch Standard

FCC Part 15 Class A EMI Limits

ANSI/IEEE C62.41 Category A3 Surge Withstand

SCR Failure, Maintenance Bypass

Construction

Materials: TBD

Finish: TBD

Lug Range: TBD

Maintenance Bypass: Key-Locked; Hot-Swappable Electronics Module

Cooling: Natural Convection, No Fans; < 45 dBA at 5 ft

Electrical & Environmental

Load Capability: PF 0.5–1.0; Crest Factor up to 3.5; Overload 125% for 2h, 1000% for 2 Cycles

Source Voltage Distortion: up to 10% THD

Surge Protection: MOV-Based on Each Input, Exceeds ANSI/IEEE C62.41 Category A3; ESD Withstand up to 10 kV

Environment: Operating 0–40°C; Storage -40 to 60°C; 0–95% RH Non-Condensing; up to 5,000 ft Without Derating

Reliability: Output Voltage MTBF > 1,000,000 Hours with at Least One Source Available

Factory Testing: Hi-Pot (2x Rated Voltage + 1000V), Transfer Tests, Metering Calibration

Accessories

LED Source and Status Indicators

(8) Isolated N.O. Relay Contacts, 1A at 125VAC / 30VDC: Preferred Available, Alternate Available, On Preferred, On Alternate, Transfer Inhibited, On Bypass, Power Supply Fault, Summary Alarm

RS-232 Port for Remote Monitoring

Low Voltage Control Junction Box, 24Vdc DPDT, Contacts Rated 10A at 240Vac

Remote Alarm Monitoring Interface to EPMS

Network Adapter and Software

Seismic Rating: As Per Local Building Codes

Dimensions & Shipping

Overall Dimensions: TBD

Approximate Weight: TBD

Shipping Dimensions: TBD

Shipping Weight: TBD

Special Orders – Special Requirements

Contact us for special requirements

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Larson Electronics manufacture 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 one-time custom builds. The specifics for this configuration are listed in the specification table and one-line diagram.

Made in the USA

The MPD-ST5-1P3W-100A-208.120V-1PH-N12 from Larson Electronics is a 100-amp static transfer switch engineered to supply critical loads from two independent AC power sources in industrial and commercial facilities. Built in a NEMA 12 indoor enclosure, this unit provides automatic, break-before-make transfer between a preferred and an alternate source in under 6 milliseconds, for single-phase, 208/120V, 3-wire loads with a neutral.

PLEASE NOTE: ANY FREE SHIPPING OFFERS DO NOT APPLY TO POWER

DISTRIBUTION PANELS, TRANSFORMERS, OR SUBSTATIONS

This unit is a point-of-use static transfer switch that supplies a critical load from two independent AC sources in locations where uninterrupted power is required. Configured for 208/120V single-phase, three-wire, 60 Hz service (derived from two legs of a three-phase 208Y system), the switch monitors both sources and handles sensing, transfer timing, retransfer delay, and phase synchronization through a hot-swappable electronics module. Either source can be selected as the preferred source without de-energizing the load. During abnormal conditions, the unit can withstand up to 20,000 symmetrical amps, protected by internal fusing.

Construction

The enclosure is a welded steel NEMA 12 design, built for floor-mounted, top-feed installation. It is divided into two sections: one houses the input and output connections and the bypass switch, and the other houses the electronics and power supplies, so the electronics can be removed and replaced without disturbing the load connections. A keylock prevents unauthorized removal of the electronics section or operation of the bypass switch. Internally, the unit houses (2) 2-pole, 100A input circuit breakers and (4) 2-pole, 100A output circuit breakers. The unit is rated for 100A continuous duty (100% rated) and is cooled by natural convection with no fans (under 45 dBA at 5 ft). The switch performs break-before-make load transfer in under 6 milliseconds, so the two sources are never connected together.

Control & Monitoring

LED indicators show the connected source, source status, transfer inhibit conditions, power supply fault, and summary alarm. Eight isolated, normally open relay contacts (rated 1A at 125VAC or 30VDC) provide remote indication of: preferred source available, alternate source available, on preferred source, on alternate source, transfer inhibited, on bypass, power supply fault, and summary alarm. An RS-232 port is provided for remote monitoring. A low-voltage control junction box with a 24Vdc DPDT relay (contacts rated 10A at 240Vac), a remote alarm monitoring interface to EPMS, and a network adapter with software are included. Operating modes include Normal Mode, Load Current Inhibit, Manual Transfer, Emergency Transfer, SCR (or equivalent) Failure, and Maintenance Bypass.

Ratings & Approvals

This equipment is NRTL listed to UL 1008 for the United States and Canada and complies with FCC Part 15 Class A limits. It includes surge suppression on each input that exceeds ANSI/IEEE C62.41 Category A3 requirements and withstands electrostatic discharge up to 10 kV.

Applications

Data processing and distributed computing, high-tech manufacturing, laboratory and medical equipment, and other critical loads that need dual-feed power.

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.

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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.



Frequently Asked Questions (FAQ)

There are no Fags



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Export Control Classification Number (ECCN): EAR99



Links (Click on the below items to view):

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