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**MPD-PLB-500KVA-380V-50HZ-TM-N3R-M1**

# 500 KVA Portable Load Bank (Resistive and Inductive) - 380V Rated, 3-Phase, 50 Hz, Trailer Mount Capable, NEMA 3R, Yellow and black, W/O Air Duct

**Product ID: 320559**



**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-PLB-500KVA-380V-50HZ-TM-N3R-M1 Portable Load Bank**
**Unit Type: Portable Load Bank, Resistive/Inductive**
**Load Element: Alloy Resistors and Inductors**
**Load Voltage: 380V AC, Wye Connection, 3Ph, 4 Wire or 220V AC, 1Ph**
**Nominal Frequency: 50 Hz**
**Rated Power: 500 KVA (400 KW Resistive Load, 300 KVAR Inductive Load), Continuous Duty**
**Load Steps: Resistive Steps: 1KW, 2KW, 2KW, 5KW, 10KW, 20KW, 30KW, 30KW, 50KW, 50KW, 100KW, 100KW**
**Inductive Steps: 0.75KVAR, 1.5KVAR, , 1.5KVAR, 3.75KVAR, 7.5KVAR, 15KVAR, 22.5KVAR, 22.5KVAR, 37.5KVAR, 37.5KVAR, 75KVAR, 75KVAR**
**Insulation Class: F**
**Operating Condition: Continuous**
**Power Factor: 1.0 for resistive load, 0.8-1.0 for RL load (Adjustable)**
**Load Accuracy: ±5%**

**Sampling Accuracy:** 0.5 class

**Display: Voltage, current, active power, reactive power, apparent power, power factor, frequency, etc**

**Wire Connection: Copper bar (L1, L2, L3 and N)**

**Cooling Mode: Force-air cooling, air entry from bottom and outlet to the top.**

**Control Power: Fan Motor & Control Circuit (3ph@60Hz 480V)**

**Control Mode: PC software remote control with RS485 connection with load bank**

**Resistive Load Elements: Composed of multiple special alloy resistors in parallel. The outer part of the alloy resistor is made of 304 stainless steel sheet as the heat-dissipating material, the outer tube is made of 304 stainless steel tube as anti-rust**

**Ratings**
NRTL Listed Service Equipment
NRTL Listed to UL 1008
NRTL Listed to UL 98
Outdoor Type

Made in the USA

**Features**
Compact load bank unit with user friendly control panel.
Effectively applied for full load test of generator set, UPS and other AC power systems.
Sectionalized control of input power enables any customized setting of load step and time
Real-time display of test current, voltage, power, power factor, time and frequency.
Alternative control modes by local control of circuit breaker/push button or PC control
Emergency stop button for quick termination of AC load test
Protection upon over load, over voltage, over temperature, short circuit and so on

It adopts latest load element with high density power, safer and more durable

**and anti-corrosion component. The inside is filled with the Magnesium Oxide powder which is thermal conductive and insulating medium, and the power consumption component Nickel-Chromium alloy resistor is packaged therein**

**Inductive Load Elements:** Composed of multiple groups of solid-state dry-type reactors. The iron core is made of high-quality low-loss cold-rolled silicon steel sheet. The air gap is spaced by epoxy laminated glass cloth to ensure that the reactor air gap is operating No changes occur during the process. Reactor core part fasteners use non-magnetic materials to reduce eddy current heating during operation

**Protection Function:**

**Over-voltage protection:** When input voltage exceeds the safety threshold, it will automatically unload and alarm.

**Over-current protection: When load main circuit current exceeds the safety threshold, automatically unloaded and protected.**

**Over-temperature protection: When temperature exceeds the safety threshold, it will automatically unload and alarm**

**Fan under-volume protection: When any fan fails to operate normally, it will automatically unload and alarm**

**Fan power phase protection: When fan power phase sequence is wrong, the fan cannot be started and load will not work**

**Emergency stop button: Manually unloaded by one button, and it cannot be loaded in the state of emergency stop lock.**

**Standard Parts: AC power cord and RS485-USB cable**

**Air Duct:** N/A

**Handling:** Forklift and Lifting rings for easy transportation

**Wheels: N/A**

**Operating Atmospheric Pressure: 86 - 106kPa**

**Operating Temperature: -10°C to +50°C**

**Humidity: 95%**

**Altitude: 8,200ft**

**Protection Level: IP44 when in storage, IP20 during operation. This is an outdoor type and can be placed outdoors. However, it cannot be tested on rainy days. If a test on rainy days is required, air duct installation is needed.**

**Enclosure Finish: Yellow and black**

**Enclosure Type: NEMA 3R**

**Mount: Ground/Trailer Mount Capable**

**Dimensions: 63"-L x 63"-W x 78.74"-H**

**Weight: 1,323 Lbs**

**Shipping Dimensions: TBD**

**Shipping Weight: TBD**

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.

Axial flow fans with big blast capacity for quick ventilation with low noise

**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*

## Made in the USA

**The Larson Electronics MPD-PLB-500KVA-380V-50HZ-TM-N3R-M1 Portable Load Bank is essential for maintenance to ensure your generator performs to the required engine wattage. Normally a generator runs at a level less than its rated output; therefore a load bank test provides an artificial load to ensure the generator is running at the correct wattage if needed.**

The MPD-PLB-500KVA-380V-50HZ-TM-N3R-M1 portable load bank provides a safe and reliable way for operators in industrial settings to test generators' wattage. Compatible with three-phase 380V AC, the PLB features 400 KW/300 KVAR minimum load step resolution. This 3-phase load bank carries a 500 KVA at 380V AC operating voltage.

**Operation:** The MPD-PLB-500KVA-380V-50HZ-TM-N3R-M1 features a locking door. The door provides access to a permanently attached operating handle.

**Enclosure Design:** This portable load bank is a compartmental design. The housing is fabricated from steel. The front electrical enclosure carries a NEMA 3R rating. Two hinged exterior doors allow for access into the compartments. A steel plate allows for underground conduit entry into the enclosure compartments. A removable steel plate at the base of the power compartment prevents rodents and other intrusions from entering the enclosure once installed. Four removable caster wheels are installed in Load bank base to enable easy move.

**Certification:** This PLB is NRTL listed to UL 98 and UL 1008, as well as NRTL listed for service equipment.
**Mount:** Ground/Trailer mount capable
**Applications:** This Load bank has a wide variety of applications such as: Generator servicing, generating set exercising and / or testing, keeping generating set above minimum loading (load shedding), battery discharge and UPS systems exercising, and /or testing to reduce 'Wet Stacking' problems and ground power testing.
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)