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MPD-PLB-1MVA-2400.4160V-50.60.400HZ-N4X-M1

1 MVA Portable Load Bank (Resistive) - Dual 2.4/4.16 kV Rated, 3Ph, 50/60/400 Hz, Trailer Mounted, NEMA 4X, Yellow and Black, W/ Air Duct

Product ID: 341420

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



Image: MPD-PLB-1MVA-2400.4160V-50.60.400HZ-N4X-M1

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-1MVA-2400.4160V-50.60.400HZ-N4X-M1 Portable Load Bank
Unit Type: Portable Load Bank, Resistive
Load Element: Alloy Resistors
Load Voltage: Dual 2400/4160V AC, 3Ph
Nominal Frequency: 60 Hz

Rated Power: 1 MVA (1000 KW Resistive Load), 100% Continuous Duty

Insulation Class: F
Power Factor: 1.0
Maximum Capacity: Designed for up to 1000 kW
Load Accuracy: ±5%

Load Resolution: 25 kW (nominal digital step control)

Display: Real time display of voltage, current, power, frequency and other parameters

Wire Connection: 4-wire plus ground

Cooling Mode: Forced air cooling, air entry from side and outlet to the top

Air Flow: 27,700 CFM, Vertical Direction

Ratings
NRTL Listed Service Equipment
NRTL Listed to UL 1008
NRTL Listed to UL 98
Outdoor Type
Compliant grounding, medium-voltage connection points, and safety interlocks to ensure proper operation with BPUs
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

Temperature Rise: Up to 480°F

Max. Air Intake Temperature: 120°F

Cooling System: 10 HP fan motor

Control Power: User selectable internal or external (e.g., 230/460V 3Ph 60 Hz) with internal transformer and 15-ft cord
Way of Control: 3 optional ways of control mode:
1- Local manual control with circuit breaker
2- Optional control via local touchscreen tablet
3- 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 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
Protection: Emergent stop button, over temperature alarm and over temperature/over voltage protection
Standard Parts: AC power cord and RS485-USB cable
Air Duct: Included
Handling: With forklift position
Wheels: Trailer mounted dual axle system
Operating Atmospheric Pressure: 86 - 106kPa
Operating Temperature: -10°C to +50°C
Humidity: 5-90%
Altitude: ≤ 8,200ft
Noise Level: 75 dbA
Protection Level: IP56 when storage, IP20 during operation. This is outdoor type and can be placed outdoors. However, it cannot be tested on rainy days. If test on rainy days is required, air duct installation is needed.
Enclosure Finish: Yellow and black
Enclosure Type: NEMA 4X, 316L Stainless Steel, Weatherproof
Mount: Road-ready Trailer Mounted, with Stabilizing Outriggers
Dimensions (Load Bank Only): 81"H x 48"W x 96"D
Dimensions (With Trailer): 98"H x 84"W x 180"D
Weight (Load Bank Only): 2,500 lbs
Weight (With Trailer): 4,000 lbs
Shipping Dimensions: TBD
Shipping Weight: TBD
Trailer Details:
Formed steel channel frame, 12 ga deck plate, dual fenders; conforms to Federal and DOT standards
Dual axles with ST205-75-R14 tires
Electric and mechanical parking brakes; electric break-away battery and switch; 36" safety chains
Adjustable 2 5/16" ball hitch or 3" pintle ring hitch
Warranty: 12-month limited warranty
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.

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
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-1MVA-2400.4160V-50.60.400HZ-N4X-M1 Portable Load

Bank is essential for maintenance to ensure your generator performs to the required engine wattage. Normally, a generator operates below its rated output; therefore, a load bank test provides an artificial load to verify the generator is running at the correct capacity when required.

The MPD-PLB-1MVA-2400.4160V-50.60.400HZ-N4X-M1 portable load bank provides a safe and reliable solution for operators in industrial environments to test generator performance. This trailer-mounted unit supports dual 240/480V AC operation and is compatible with three-phase systems at 50, 60, and 400 Hz. The system delivers up to 1000 kW resistive load capacity with digital load step control at nominal 25 kW resolution. This unit is capable of handling 2400V and 4160V.

Operation: The MPD-PLB-1MVA-2400.4160V-50.60.400HZ-N4X-M1 features an integrated control system with multiple operation modes, including local manual control, optional touchscreen interface, and remote PC operation via RS485 communication. Real-time monitoring of voltage, current, power, frequency, and power factor allows precise load testing and adjustment.

Enclosure Design: This portable load bank features a rugged, compartmentalized enclosure constructed from 316L stainless steel with a NEMA 4X rating for corrosion resistance and outdoor durability. The unit incorporates high-density alloy resistive elements and a forced-air cooling system powered by a 10 HP fan delivering up to 27,700 CFM. Air intake occurs from the sides with vertical exhaust, ensuring efficient thermal management under continuous operation.

Trailer Design: The system is mounted on a heavy-duty trailer with a formed steel channel frame and 12-gauge deck plate. It includes dual axles with ST205-75-R14 tires, electric and mechanical braking systems, break-away safety features, and 36-inch safety chains. The unit supports both a 2 5/16" ball hitch and 3" pintle ring connection for transport flexibility.

Certification: This PLB is NRTL listed to UL 98 and UL 1008, as well as NRTL listed for service equipment.

Mount: Trailer Mounted

Applications: This load bank is ideal for generator commissioning, preventative maintenance, load testing, UPS system testing, battery discharge testing, and reducing wet stacking in diesel generators. It is also suitable for ground power testing and other industrial power validation applications.

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

Export Control Classification Number (ECCN): EAR99

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