

Load Banks

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PD Systems offers a wide range of Trailer and Skid Base Mounted Load Bank solutions that meet or exceed all mission capability requirements, with a significantly low mission capability risk rating. The 1250KVA load bank is trailer mounted, compact, and designed and packaged for military applications.

The PD Systems 1250KVA load bank is designed to provide high capacity resistive and reactive loading of AC power systems such as diesel generator sets, turbines, or Uninterruptible Power Supplies (UPS).

Many specifications and local codes demand that such testing be performed at less than unity power factor, typically 0.8 PF lagging. To achieve a 0.8 power factor, the load banks combine resistive load (KW) with reactive load (KVAR). This combination provides a **true test of the actual generator** or UPS nameplate rating (KVA) and simulates a "real-world" load.

The load bank incorporates state-of-the-art load bank design using heavy-duty resistance elements. The resistor elements, reactive elements, blowers, and controls are all manufactured from the **highest quality components** available for long life and reliability.

Generator connections are made to the load banks via the 200 amp load break or 600 amp dead break connectors. The 4160 VAC is then stepped down to 480 VAC for loading the resistive and reactive elements. There are two (2) load break input connects per phase on this model. **Shore power or generator power may be used** to provide control power to the load bank controls via control panel selection.



General Equipment Data

Part Number: PDS-LB-1250/RR

Input Voltage: 4160, 3-phase, 60Hz or 3800, 3-phase, 50Hz

Load bank Voltage: Rated at 480V, 3 Phase, 50/60Hz.

Maximum Current: 1,504 A (1250 KVA)

Rating: Continuous duty

Power Factor: Variable

Model: PDS-LB-1250/RR

Total KVA @ 0.8 PF Load: 1250

Resistive Load KW: 1000

Reactive Load KVAR: 750

Minimum Load Step Resolution: 50 KW, 37.5 KVAR

Construction: The load bank consists of a rugged enclosure housing the resistive and reactive components, blowers, associated controls, and interconnections. Each assembly (resistive and reactive) is housed independently in its own section.

Resistor Elements: The resistive elements are manufactured from corrosion-resistant chromium alloy wire and are fully supported on stainless steel rods for long life. The use of continuous stainless steel ribbon in manufacturing eliminates welds.

Reactive Elements: The reactive elements are of non-saturating single and three-phase iron-core construction impregnated with high dielectric varnish. Smaller KVAR elements than the standard 37.5KW elements are available for a more finite KVAR control and better power factor accuracy.

Control Power: 120 VAC, 1-Phase, 60 Hz provided by an integral control power transformer.

Metering: Digital metering with data logging is provided to measure voltage, current, frequency, KW, KVAR, and power factor.

Cooling: The resistive elements are cooled by integrally mounted blower motors- each rated 460 VAC, 3-Phase, 60 Hz.

Controls: The Load Bank features both local and remote load control. The remote control panel provides load metering, element control, fan control, individual element overcurrent indication, and general protective indications.

Protection: The Load Bank features branch circuit protection on all load steps and over-temperature protection. Air switches on the blowers are electrically interlocked to remove load if the airflow is not sufficient to provide proper cooling

Transportability: PD Systems' Load Banks meet transportability requirements without shoring on C-17 aircraft, based on design criteria of MIL-HDBK-1791.



For more information on PD Systems Load Banks, contact Mazen Badr, Vice President and General Manager

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