

LS50 Stationary Load Bank

High capacity stationary load bank, outdoor rated - built to last.

LS50

50 kW

Features



Construction | Built to Last

The LS50 is constructed of galvanized steel with the highest quality durable powder-coat paint finish, and external stainless steel fasteners. All power, motor, and control connections are provided in a sealed thermostatically controlled heated compartment to limit any harmful effects of moisture and condensation.

Horizontal and vertical airflow options are available. Vertical airflow provides the advantage of exhausting hot-air away from personnel and other installed equipment.

The enclosure is stationary-type, outdoor construction, to be installed and operated on a floor, roof-top, or concrete pad. Forklift channels are provided within the base for ease of lifting and handling during installation.

Remote Indication and Alarm

Contact closure [form-c-type normally open and normally closed] provides user interface to your building management system for indication, detection, and alarm of "Air-Flow Failure," "Over-Temperature", and "Load Dump".

PowerDyne™ | When Quality Matters

PowerDyne™ Resistors are the most rugged in the industry. The non-corrosive resistance alloy can fully handle the effects of an outdoor installation. They are completely supported across their entire length within the air stream by stainless steel support rods which are insulated with heavy-duty, high-temperature ceramic insulators. Change in resistance is minimized by maintaining conservative resistor designs.

Control Power

External 120 Volt AC, 1-phase, 60 Hertz power required for control circuit operation. When 120 VAC control power is not readily available, units can be provided with a control power transformer.

The LS50 Stationary Load Bank

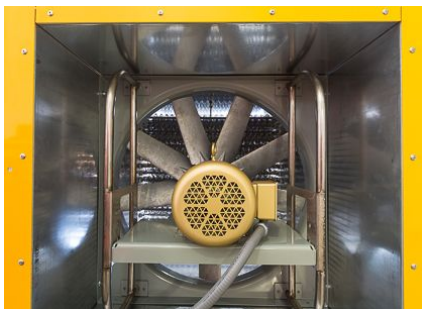
A robust, high capacity load bank ready for the great outdoors.

The LS50 Stationary Load Bank offers the most robust, high-capacity, outdoor design in the industry. LBD is setting the standard with intelligent operator controls, safety indication layouts, adjustable load step resolution, and ease of installation. The LS50 is the perfect solution for regularly scheduled testing and commissioning of mission-critical standby emergency power systems.

- > Outdoor Weatherproof Construction
- > Rated for continuous duty with no cool-down period
- > Highest Capacity in the smallest installed footprint
- > Branch circuit fusing virtually eliminates catastrophic failure
- > Slide Out Resistor Case Assemblies
- > Intelligent Safety Circuits, Indicators, and Operator Controls

Digital Power Meter

A fully equipped, 3-phase Digital Power Metering System that measures a standard range of 16 load parameters. Includes RS485 (Modbus protocol) for remote reading - compatible with PC, PLC, and data loggers.



Operator Protection | When Safety Matters

The LS50 comes equipped with an Emergency-Stop push button allowing the operator to take the unit off-line should a critical hard-stop condition occur. Branch circuit fuse protection provides short-circuit fault protection of all load steps eliminating the potential for catastrophic failure. Blower On, Motor Overload, Air-Flow Failure, and Over-temperature circuits disable all load steps during a fault condition with operator visual indicators. Dual Voltage units feature a Wrong Voltage Applied protection circuit which prevents the application of 480 VAC with the Load Voltage Selector switch in the 240 VAC position. The Load Dump circuit provides the operator visual indication if all load steps have been removed.

Operator Controls

- Emergency Stop (E-Stop)
- Illuminated Main Power On/Off switch
- Illuminated Blower Start/Stop Switch
- Load Voltage Selector switch (dual voltage units)
- Master Load On/Off switch
- Individual Load Step Switches
- Fault condition smart indicators provide operator display and load disconnect during Air-Flow Failure, Overtemperature, Motor Overload, Load Dump, and Wrong Voltage Applied



Automatic Load Dump

This circuit provides user interface provisions to the generator controls, automatic transfer switch, or building management system, to disconnect and disable all load steps from a normally closed (NC) set of auxiliary contacts. In the event of an actual power failure, all load bank load is removed from the source under test.

Cooling System

- Integrally mounted blower motor with high-performance, direct-driven fan blade delivers the required airflow volume (CFM) for cooling resistor load elements
- Blower motors can be wired to operate internally off the main input load bus or from an external 3-phase power source
- Motor circuits are short-circuit protected by current-limiting fuses and thermally protected by overload relays

Specs & Options

SPECIFICATIONS

	LS50-240-480-10	LS50-480-10	LS50-600-10
Capacity (kW)	50	50	50
Voltage (VAC, 3-Phase)	240/480	480	600
Load Type	Resistive	Resistive	Resistive
Amps per Phase (A)	120/60	60	48
Load Step Resolution (kW)	10	10	10
Frequency (Hz)	60	60	60
Power Factor	1.0	1.0	1.0
Motor HP	0.5	0.5	0.5
Airflow CFM	4300	4300	4300
Airflow Discharge	Vertical or Horizontal	Vertical or Horizontal	Vertical or Horizontal
SPL dB(A)	74	74	74
Dimensions	27"W x 31"D x 52"H	27"W x 31"D x 52"H	27"W x 31"D x 52"H
Weight (lbs)	400	400	400

Sound Pressure [SPL db(A)] is all octave band frequencies at a distance of 10 feet using a propagation of 1/8 spherical. These are calculated values and should be used a guideline only.

NOTE: Specifications subject to change.

OPTIONS

The Automatic Load Level Controller [A] will add/subtract load bank load in response to dynamic power fluctuations of the connected building load. It utilizes the load bank as a "supplemental load" for maintaining a minimum load on the power source. Customer "transfer of control" contact closure initiates the load bank and time delay load application circuit. A separately supplied current transformer provides the necessary feedback signal for sensing building load.

Integral Control Power Transformer [T] which delivers the necessary 120 Volt AC, 1-phase, 60 Hertz power required for control circuit operation. Control power transformer is wired to blower motor circuit and is primary and secondary fuse protected.

Local Operator Control Panel [L] - The Remote Operator Control Panel is provided as a Local Control Panel which is mounted and wired to the Load Bank Enclosure.

Digital Power Meter [M]: Fully equipped, 3-phase Digital Metering System that measures a standard range of 16 load parameters. Includes RS485 (Modbus protocol) for remote reading - compatible with PC, PLC, and data loggers. See additional details at: <http://www.multitek-ltd.com/HTMs/M800/M850.htm>.

Horizontal Airflow Discharge [LB] units are available up to 500kW.

LBD Part Numbering System

LS - 750 - 480 - 25 M

Type

LP = Portable
LS = Stationary
LD = Duct Mount
LT = Trailer Mount

Voltage

480 = 480 V
240 - 480 = 240/480 V
Dual Voltage

Options

M = Digital Power Meter
T = Control Power Transformer
A = Automatic Load Level
G = Gravity Louver
L = Local Operator Control

Capacity

750 = 750 kW

Resolution

25 = 25 kW