

The Avtron Model 9950 is a Medium Voltage Load Bank. It is an AC resistive skid mount design for outdoor use when up to 5000 kW is required.

Typical image shown. Actual product will vary according to transformer selection and load bank capacity. All specifications are subject to change.

LOAD BANK RATINGS

Standard capacity ratings of:
3000 kW up to 5000 kW

Standard load step resolution of 50 kW.

The Model 9950 comes standard with step-down power transformer, factory mounted on an industrial skid.

Standard three phase voltage ratings of:
4,160V to 34,500V, 60Hz Primary
480V, 60Hz Secondary

Blower Motor Control

Internal blower connection to the main load bus and external blower power connections are included.

Control circuit powered by internal 120V control power transformer or external 120V, 1 phase, 60Hz supply. Transformer receives its power from blower motor circuit.

Cooling System

Approximately 66,000 CFM cooling is provided by integral TEFC or TEAO motor which is direct coupled to the cooling fan blade.

The fan motor is fully protected with fuses, motor starter contractor, and overload relay.

Load Control

The resistive elements are connected to the supply on test by electromechanical contactors fitted internally within the load bank. These are controlled by the SIGMA 2 load control system.

For comprehensive information on SIGMA control please see separate data sheet for further details.

Construction

The 9950 is constructed using heavy gauge aluminized steel per ASTM A463. It is designed for continuous outdoor weatherproof operation. Load bank and power transformer mounted to industrial skid.

All exterior fasteners are stainless steel. The main input bus, load step relays, fuses, and blower/control relays are located in the main enclosure.

Finish

The 9950 has a high quality baked polyester powder coated finish with a film thickness of 2.8 +/- 0.4 mils per coat. The standard color is gray (ANSI 61).

Two Year Warranty Included

The equipment is covered by an industry exclusive 24-month parts and labor warranty.

Model 9950 Specifications

Resistor Elements

Avtron load banks use helically wound chromium alloy Helidyne elements. Elements are fully supported across their entire length by segmented ceramic insulators on stainless steel rods. These elements are designed to operate at approximately 1/2 of their maximum continuous wire rating.

Elements are positioned within the cooling airstream for optimal performance. Changes in resistance due to temperature are minimized by maintaining conservative watt densities.

The overall load tolerance of the 9950 load bank is -0, +5%. This ensures that advertised kW is delivered at rated voltage.

The elements are continuously rated at the specific voltage. Tests at lower voltages, with a corresponding reduction in overall rating, may be carried out.

Safety Features

A differential pressure switch is interlocked with the load application controls to prevent load from being supplied if cooling air is not present.

An overtemperature switch is provided to sense the load bank exhaust. The switch is interlocked with the load application controls to disable load from being supplied if an overtemperature condition is present.

The fan motors are protected with fuses and overloads.

Major fault protection is provided by branch circuit fuse protection. Fuse protection is provided on all load steps.

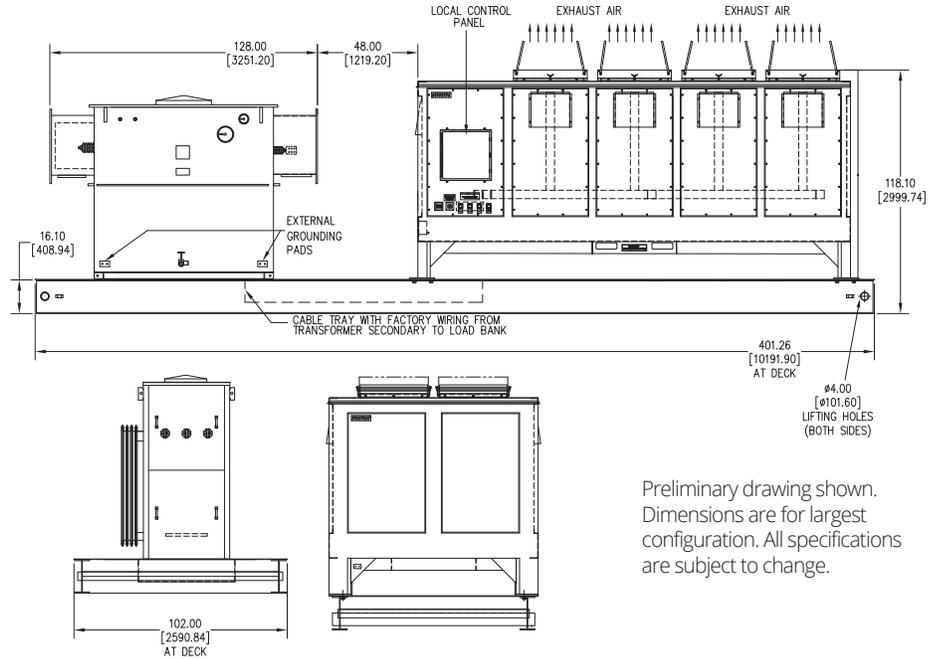
The exterior of the load bank has appropriate warning and caution statements on access panels.

Internal access is restricted by bolt on exterior panels.

The air intake on the 9950 is designed to prevent objects greater than 0.50" diameter from being ingested into the unit.

Environmental Specifications

The 9950 load bank is designed for continuous duty cycle with no limitations. The ambient temperatures range is -20°F to 120°F (-28°C to 50°C) at up to 3000' elevation.



Preliminary drawing shown. Dimensions are for largest configuration. All specifications are subject to change.

All dimensions are in inches [millimeters]. Specifications subject to change without notice.

Mounting

The 9950 is designed for outdoor installation on a concrete pad or structural base. The skid system may also be mounted to a semi-trailer or transported for mobile use.

Power Terminals and Cable Entry

The power terminals are located behind a removable, bolt on access panel. The 9950 has a recommended conduit entry area underneath the power terminal assembly to facilitate load cable installation.

Transformer

Outdoor construction, designed with secondary fusing. Primary protection or circuit breaker provided by others. Transformer may be oil-filled or dry-type, depending on application.

Optional Accessories

- NEMA 4 Type Control Panel Enclosure
- Automatic Load Control
- Digital Metering with Data Logging
- Remote I/O Control
- Pilot Relay Control
- Arctic Rating (low temperature)

Documentation - Operating Manual

A comprehensive operator's manual is supplied electronically via a USB drive.

Sections include: Safety, Installation, Operation, Maintenance, and Troubleshooting.

Testing and Standards

Avtron load banks comply with NEMA, NEC, and ANSI standards. Quality control system is certified to ISO9001 standards.

Weight and Dimensions of Load Bank System*

Dimensions (approx. in/mm)			Weight (approx. lb/kg)
Length	Width	Height	
401.26/ 10191.0	102/ 2590.84	118.10/ 2999.74	49,000/ 22,226

* Weights and dimensions are for largest configuration option. Consult factory for dimension of other options.