



The Avtron Model 9800 is a Medium Voltage Load Bank. It is an AC resistive, skid mounted design for outdoor use when up to 3000 kW is required.

LOAD BANK RATINGS

Standard capacity ratings

- 600 kW
- 750 kW
- 1000 kW
- 1250 kW
- 1500 kW
- 2000 kW
- 2500 kW
- 3000 kW

Standard load step resolution of either 5 or 50 kW.

The 9800 comes standard with a step-down power transformer which is factory mounted on an industrial skid. Typical input voltages are:

- 4160
- 12470
- 13200
- 13800

Please consult factory for non-standard ratings.

Blower Motor Control

The blower motor(s) are factory wired to the low voltage load bank input. An optional 120V, 1 Phase, 60 Hz control power transformer is available for control circuit operation.

The control power transformer receives its power from the blower motor circuit.

Cooling System

Approximately 20,000 CFM cooling (per individual vertical frame) 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.

Operator Controls

The standard load control for the 9800 is a remote manual toggle. Controls include: Power On/Off switch, Blower Start/Stop push buttons, Master Load On/Off switch, and Individual Load Step switches. Visual indicators include: Power On, Blower On, and Blower/Air Failure.

Digital Monitoring

Available with SIGMA 2 as an option.

Construction

The load bank is constructed using heavy gauge aluminized steel per ASTM A463. It is designed for continuous outdoor weatherproof operation.

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

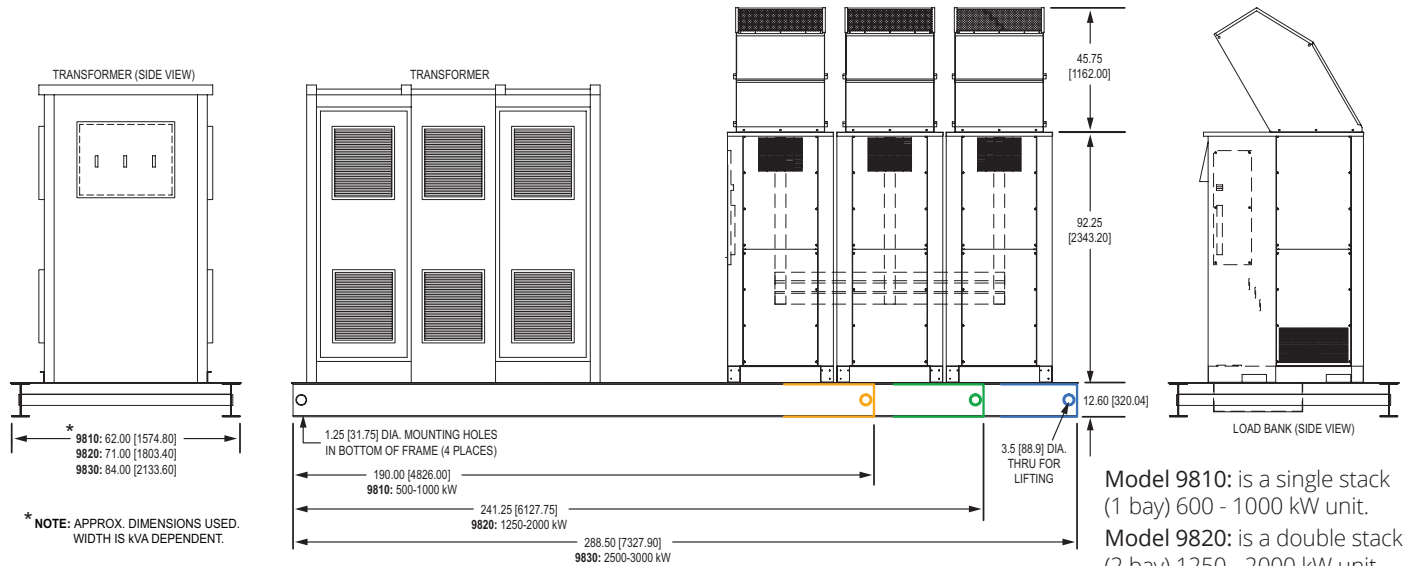
Finish

The 9800 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 9800 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 9800 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 9800 is designed to prevent objects greater than 0.50" diameter from being ingested into the unit.

Vertical air discharge is provided and exhaust air is directed upward away from personnel.

Ambient Temperature

The 9800 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).

Optional Accessories

- Control Power Transformer
- NEMA 4 Type Control Panel Enclosure
- SIGMA 2 Digital Controls
- Remote I/O Control
- Arctic Rating (low temperature)

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

Weight and Dimensions for Load Bank System

| Capacity (kW) | Dimensions (approx. in/mm) | | | Weight (approx. lb/kg) |
|---------------|----------------------------|---------|------------|------------------------|
| | Length | Width | Height | |
| 600-1000 | 190/4826 | 62/1574 | 150.5/3822 | 10,000/4536 |
| 1250-2000 | 241.25/6127.75 | 71/1803 | 150.5/3822 | 19,000/8618 |
| 2500-3000 | 288.5/7327.9 | 84/2134 | 150.5/3822 | 20,500/9298 |

Transformer

Outdoor construction, dry type designed for 150°C rise (220°C insulation system) with secondary fusing. Primary protection, disconnect, or circuit breaker provided by others.

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.