



The Avtron Model 4800 are resistive, AC load banks designed for outdoor installation when up to 3000 kW of resistive load is required.

LOAD BANK RATINGS

Standard capacity ratings of:

- 450 kW • 1000 kW • 2000 kW
- 500 kW • 1250 kW • 2500 kW
- 600 kW • 1500 kW • 3000 kW
- 750 kW • 1750 kW

Standard load step resolution of either 5 or 50 kW.

Select from standard three phase voltage ratings of:

- 208-60Hz • 600-60Hz
- 240-60Hz • 400-50Hz
- 480-60Hz • 240/480-60Hz*

*NOTE: available up to 1500 kW

Please consult factory for non-standard ratings.

Short Circuit Rating

Standard at 10kA or
Optional at 100kA

Blower Motor Control

The blower motor(s) are factory wired to the main load bus. If external blower connection is required, the factory installed wired must be removed. Refer to the load bank schematic for specific details.

An external 120V, 1 Phase, 60 Hz supply is required for control circuit operation.

An optional step-down transformer is available to provide the required control power. The transformer receives its power from the blower motor circuit described above.

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 4800 is a manual 19" rack mount panel. 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.

Other control options are available, please consult factory.

Construction

The 4800 is constructed using heavy gauge aluminized steel per ASTM A463. It is designed for continuous outdoor weatherproof operation. Forklift channels are provided in the base for lifting.

All exterior fasteners are stainless steel. The main input bus, load step relays, fuses, and blower/control relays are located in the main enclosure. The 4800 load bank is listed to UL standard 508A.

Finish

The 4800 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 4800 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 4800 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.

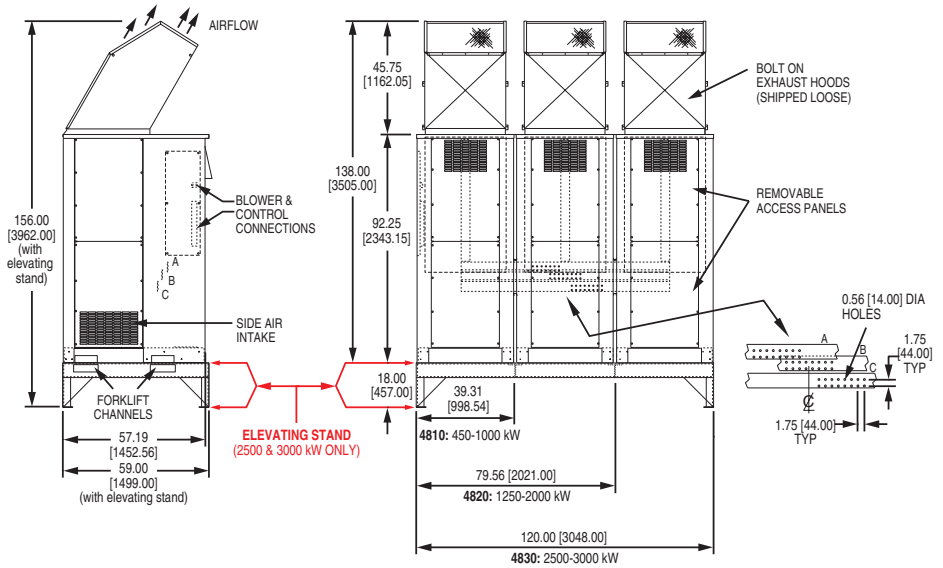
Major fault protection is provided by branch circuit fuse protection. Fuse protection is provided on all load steps.

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 4800 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 downward away from personnel.



Model 4810: is a single stack (1 bay) 450 - 1000 kW unit.

Model 4820: is a double stack (2 bay) 1250 - 2000 kW unit.

Model 4830: is a triple stack (3 bay) 2500 - 3000 kW unit, which includes the elevating stand.

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

Ambient Temperature

The 4800 load bank is designed for continuous duty cycle with no limitations. The ambient temperature range is -20°F to 120°F (-28°C to 50°C).

Mounting

The 4800 is designed for outdoor installation on a concrete pad or structural base.

Power Terminals and Cable Entry

The power terminals are located behind a removable, bolt on access panel. The 4800 has a recommended conduit entry area underneath the power terminal assembly to facilitate load cable installation.

Optional Accessories

- Control Power Transformer
- NEMA 4 Type Control Panel Enclosure
- Automatic Load Control
- Digital Metering with Data Logging
- SIGMA 2 Digital Controls
- Remote I/O Control
- Pilot Relay Control
- PLC Control
- Arctic Rating (low temperature)

Weight and Dimensions

Capacity (kW)	Dimensions (approx. in/mm)			Weight (approx. lb/kg)
	Length	Width	Height	
450-1000	57/1453	40/999	138/3505	1500/680
1250-2000	57/1453	80/2021	138/3505	3000/1360
2500-3000	59/1499	120/3048	156/3962	5500/2495

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.