



Advanced Test Equipment Corp.

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AVTRON
POWER SOLUTIONS

2000 SERIES
Data Sheet

Model 2805



The Avtron Model 2805 are resistive, AC load banks designed for operation indoors when up to 500 kW of resistive load is required.

LOAD BANK RATINGS

Standard capacity ratings of:

- 500 kW

Standard load step resolution of 5 kW.

Standard three phase voltage ratings of:

- 240/480-60Hz
- 300/600-60Hz

Please consult factory for non-standard ratings.

Cooling Blower Motor Control

The motor obtains power from either the power source under test (motor connected to load bank main load bus) or from a remote source (external power source). When operating from the power source under test, the motor circuit connects the motor for high or low voltage.

Cooling System

Proper cooling is provided by integral blower motor. The blower motor circuit is fuse and overload protected.

Control Power

A 120V, single phase, 60 Hz source is provided by an integral dual voltage control power transformer.

Operator Controls

The standard local mode is manual control via "digital toggle" switches. The local mode features full digital monitoring and individual load steps with LED indications. The integral control panel is provided for load bank operation and includes the necessary controls and status indicators.

The optional remote control mode is via the hand-held touchscreen controller. It features a 4.3" color touchscreen housed in a rugged and easy to grip industrial grade enclosure. Load selection can be the sum of the entire load string (up to 25 load banks) or individual units within that string. Extremely fast and reliable CANbus communication protocol is used in the SIGMA LT for networking. CANbus protocol reduces network sag which is typically found in RS232 network load banks. A USB port is provided for data download and software updates.

Construction

The 2805 is constructed using heavy gauge aluminized steel per ASTM A463. It is designed for continuous indoor operation. Two (2) moveable and two (2) fixed casters are provided for easy mobility. Handles, lifting eyes, and forklift pockets are provided on the load bank for transport. All exterior fasteners are stainless steel. The 2805 load banks are listed to UL standard 508A (up to 500 kW).

Finish

The 2805 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 2805 Specifications

Resistor Elements

Avtron load banks use helically wound chromium alloy Helidyne elements. Elements are supported by ceramic insulators on internal frame supports. 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 2805 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. Power is proportional to voltage squared.

Safety Features

A differential pressure switch is provided to detect air loss. The 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 in the heater case assembly. The switch is interlocked with the load application controls to prevent load from being supplied if an over-temperature condition is present.

Major fault protection is provided by branch circuit fuse protection.

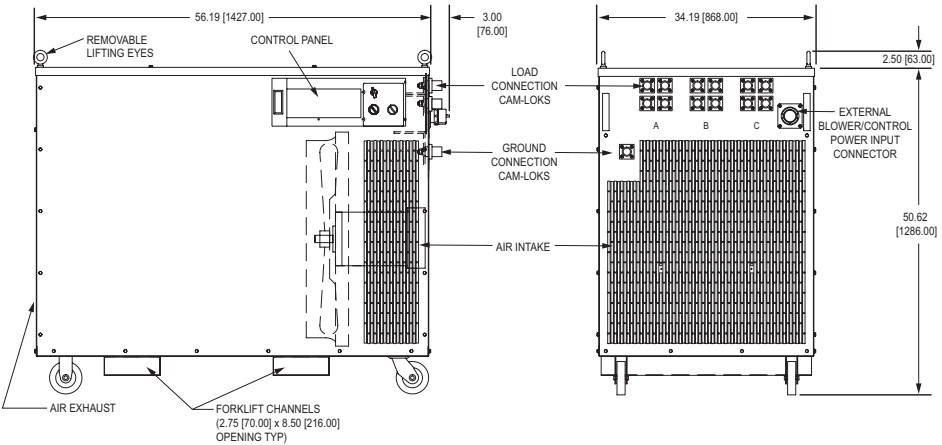
The load contactors are interlocked with the fan controls to ensure load can be applied only when the fan is running.

The blower circuit is protected by fuses and overload relays.

Internal access is restricted by bolt on exterior panels.

The air intake on the 2805 is designed to prevent objects greater than 0.50" diameter from being ingested into the unit.

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



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

Ambient Temperature

The 2805 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).

Environment

The 2805 is self-contained portable load bank designed for operation and storage indoors.

Power Terminals

Input connections are quick connect style receptacles mounted on the back of the load bank.

Optional Accessories

- 4.3" Color Touchscreen Hand-Held Controller
- 5 m Interconnection Cable (other lengths available)
- 20' Load Cable Set with Connectors

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

Dimensions (approx. in/mm)			Weight (approx. lb/kg)
Length	Width	Height	
59.19/ 1503	34.19/ 868	53.12/ 1349	950/431

Support

 SIGMA software can be updated free of charge through the Avtron website at the following [link](#).



Optional SIGMA LT Hand-Held Controller.