

# ASCO® LOAD BANKS

4000 SERIES



AVTRON

ASCO®

# 4000 SERIES LOAD BANKS

ASCO Avtron 4000 SERIES load banks are outdoor rated resistive units for testing power supplies at unity power factor. Based on a rugged, heavy duty construction, 4000 SERIES are intended for continuous use and are built to withstand the rigors of varying climatic conditions.

All models can be customized for a particular application and are available from 50-4000 kW with a wide voltage test range. Each model in the 4000 SERIES range has common design features which results in a proven reliable load bank at a cost effective price. Remote manual control is standard on the 4000 SERIES. SIGMA 2 control and other digital controls are available as an option when networking, modbus, or building management system (BMS) interface is required.

Typical 4000 SERIES load bank applications include mission critical, data centers, rental, service and generator maintenance, OEM's, and renewable energy.

As well as the 4000 SERIES, an extensive range of other load bank SERIES are also available.

## 4000 SERIES MODELS

For more detailed technical specifications, please refer to the relevant model specific technical data sheet.

Model Name	Capacity (kW)	Frequencies Available (Hz)	Voltage Range (V)	Ambient Temperature Range	Hot Air Discharge Direction	Control Options	Optional Extras
4100	50-150	50, 60, 50/60	400-600	-20°F to 120°F	Horizontal	Remote, Local Manual Control, Pilot Relays, Remote I/O, PLC, SIGMA	Control Power Transformer, Digital Metering, Auto Load Control, Arctic Grade, Fine Resolution
4500	200-500	50, 60, 50/60	400-600	-20°F to 120°F	Horizontal	Remote, Local Manual Control, Pilot Relays, Remote I/O, PLC, SIGMA	Control Power Transformer, Digital Metering, Auto Load Control, Arctic Grade, Fine Resolution
4600	500-1250	50, 60, 50/60	400-600	-20°F to 120°F	Horizontal	Remote, Local Manual Control, Pilot Relays, Remote I/O, PLC, SIGMA	Control Power Transformer, Digital Metering, Auto Load Control, Arctic Grade, Fine Resolution
4800	400-3000	50, 60, 50/60	400-600	-20°F to 120°F	Vertical	Remote, Local Manual Control, Pilot Relays, Remote I/O, PLC, SIGMA	Control Power Transformer, Digital Metering, Auto Load Control, Arctic Grade, Fine Resolution
4900	1000-2500	50, 60, 50/60	400-600	-20°F to 120°F	Horizontal	Remote, Local Manual Control, Pilot Relays, Remote I/O, PLC, SIGMA	Control Power Transformer, Digital Metering, Auto Load Control, Arctic Grade, Fine Resolution
4950	3000-4000	50, 60, 50/60	400-600	-20°F to 120°F	Vertical	Remote, Local Manual Control, Pilot Relays, Remote I/O, PLC, SIGMA	Control Power Transformer, Digital Metering, Auto Load Control, Arctic Grade, Fine Resolution

## SIGMA PLATFORM



SIGMA is a multi functional embedded load control system specifically designed for ASCO Avtron and ASCO Froment load banks. Flexible, Feature Rich, and Cost Effective it is best-in-class providing a solution for any application.

SIGMA gives intelligent, fast, user-friendly, accurate control and instrumentation with outstanding test features and data acquisition capabilities. It brings cost effective solutions to today's power testing requirements which require high level instrumentation, data capture and verification to ISO 8528. SIGMA has the ability to network multiple load banks and control from one hand-held or PC. Alternatively, integrate SIGMA with existing BMS, Modbus, or SCADA systems for unified site control. For more information please see our SIGMA control brochure.



Resistive Only



Capacities from 50 - 4000 kW



Best-in-Class SIGMA2 Digital Controls



Permanent or Trailer Mounted Options

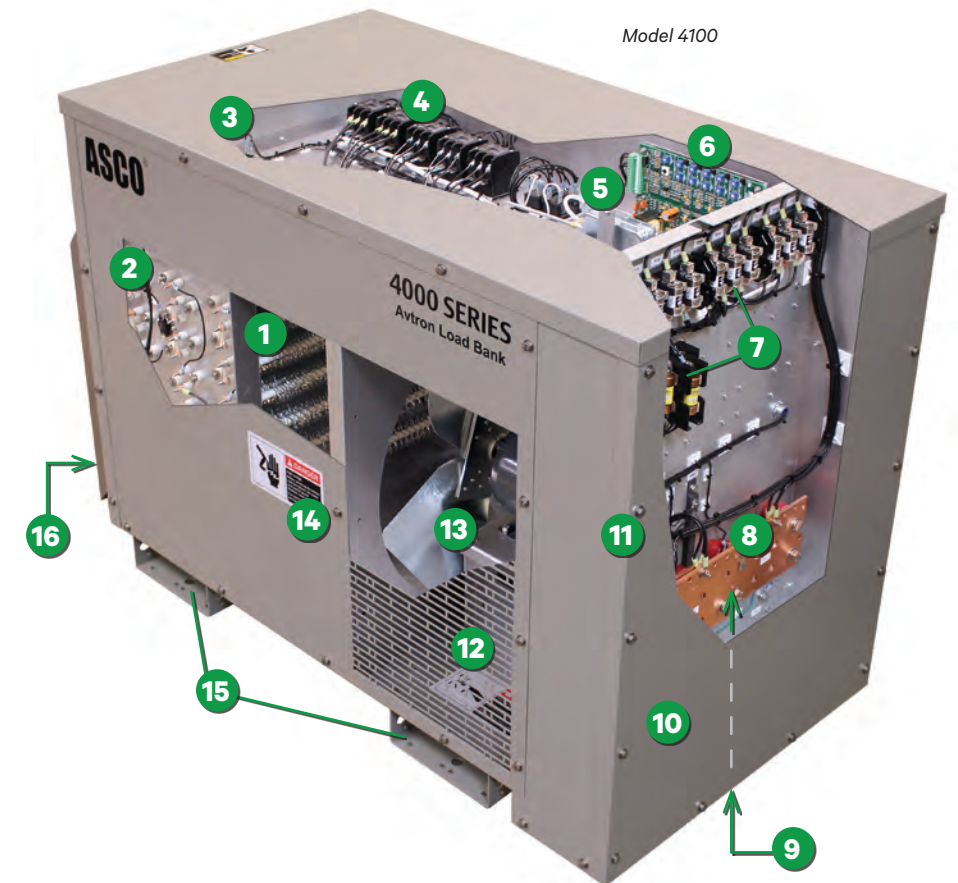


Model 4950 installed at a financial headquarters. Unit is rated 3500 kW at 600 VAC. The load bank has modbus protocol to communicate with Building Management Systems (BMS).

## TECHNICAL FEATURES

4000 SERIES load banks are designed and manufactured with a number of unique technical features to provide reliable and accurate load testing for any application.

- ASCO Avtron Helidyne Resistor Elements are designed and manufactured in house. They provide extended, reliable performance. These elements utilize a proprietary corrosion resistant chromium alloy and will provide years of trouble free service.
- Segmented Ceramic Insulators & Stainless Steel Rods provide unmatched element support. Years of design innovations and field studies have resulted in the most reliable resistive element assembly available.
- Over Temperature Protection will automatically drop applied load if an over temperature condition is detected.
- Load Contactors are properly engineered to match the required load step value.
- Differential Air Pressure Switch provides unit protection by dropping applied load if cooling airflow is not detected.
- Automatic Load Control (Optional) maintains a minimum load value on power source by monitoring building load. The load controller will automatically add or subtract load values to maintain its target window. A loose current transformer is provided for feedback, back to the controller.
- Branch Circuit Fuse Protection is provided to limit fault current and protect components in the unlikely event of a phase to phase or phase to ground short.
- Input Bus Bars are the main landing area for incoming power cables.
- Conduit Entry Area, a removable gland plate is provided for easy stub up access to input bus bars.
- Aluminized Steel Construction with Powder Coat Paint Finish are utilized for superior heat deflection and corrosion protection
- Stainless Steel Hardware is used for corrosion protection in various installation climates.
- Screened Cool Air Intake is located on both sides of the load bank. It allows cool air intake and prevents foreign object damage.



- Blower Motor and Fan Blade are integral to load bank and engineered to provide proper cooling CFM and motor circuit protection.
- Safety & Warning Labels are positioned across the unit to alert user prior to operation.
- Fork Lift Pockets are provided for easy transport and mounting.
- Louvered Exhaust will direct hot air downward and away from personnel.

**PROOF OF  
POWER ANYWHERE**

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