

## Overview

- Rental Duty Portable Load Bank
- 3200kw Resistive at 600vAC
- 2720kw Resistive at 480vAC
- Configurable for 480v, 600v
- Digital Load Control
- Capable of Parallel Operation and Control to Form Large Systems

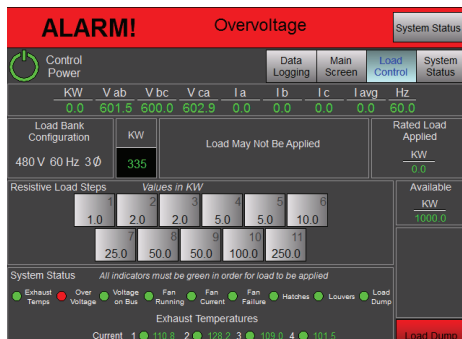
## Description

A versatile and capable test instrument, the Simplex SATURN-R Rental Duty Load Bank provides high power, dual voltage capability in a compact, rugged and portable package. A UL/ CUL Listed Product, the Saturn-R hits the high power mark at 3200kw/600v or 2720kw/480v. Digital load control provides the user with direct, keypad entry load control and allows networking of multiple units. All power connections are via Cam-Type connectors. Pass-through bus bar design with Cam-Type connectors on both sides allow the paralleling of an inductive load bank with totalized instrumentation and single-station digital load control. Electrically operated exhaust louvers plus hinge-open inlet doors allow the load bank to be closed up tight for transport then operated outdoors in all-weather conditions. Control is digital with touchscreen operator interface. Operator controller can be local or remote. Multiple units are easily networked.

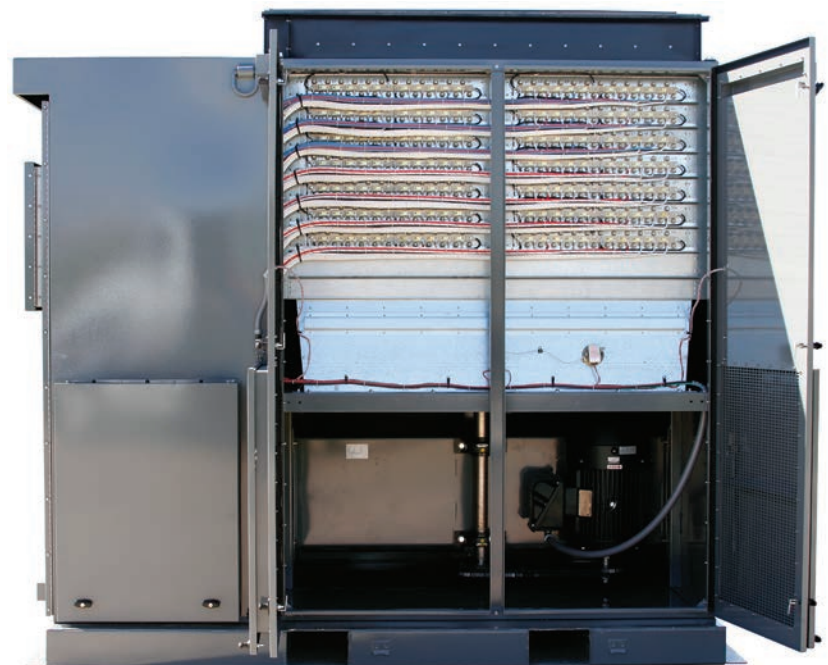
The enclosure is skidded and includes forklift channels and lifting eyes. Floors are solid permitting placement in non-paved areas.



<b>CAPACITY:</b>	3200kw Resistive at 600vAC; 2720kw Resistive at 480vAC
<b>VOLTAGE:</b>	Reconnectable: 480v, 600v, 3-phase, 60 Hertz
<b>FREQUENCY:</b>	60 Hertz, 50 Hertz at reduced voltage
<b>LOAD STEPS:</b>	Digital load control, 25 kw resolution. Circuits of 25-25-25-25-100-100-200-250-250-500-1000 kw
<b>DUTY CYCLE:</b>	Continuous
<b>AMBIENT TEMP.:</b>	125°F
<b>EXHAUST RISE:</b>	220°F
<b>AIRFLOW:</b>	Approx 60,000 cfm
<b>CONTROL POWER:</b>	Internal, 600/480V, 3-phase. Control circuits at 120V via transformer and 24vDC via power supply. Cooling fan motor at line voltage. Control circuits fused, 100,000 A.I.C. current limiting type, 600V fuses. Includes on-board autotransformer to enable dual 480/600v operation
<b>COOLING FAN:</b>	30.0 HP, 480v, 36.0a, 60 hertz; 600:480v autotransformer
<b>CONTROL LOAD:</b>	Approx 750VA, 460v, 1.5a
<b>HEATER LOAD:</b>	2000w, 16.6a, External, 120v, 20A service for heaters and including power inlet



Right Side View with Cam-Type Connectors and Fan Intake Doors Open



Right Side View with Load Section Doors Open

The Load Bank is a completely self-contained, freestanding unit which includes all resistive load elements, load control devices, load element branch circuit fuse protection, main load bus and terminals, cooling system, control power supply, unit controller and malfunction detection system and type enclosure.

## System Protection

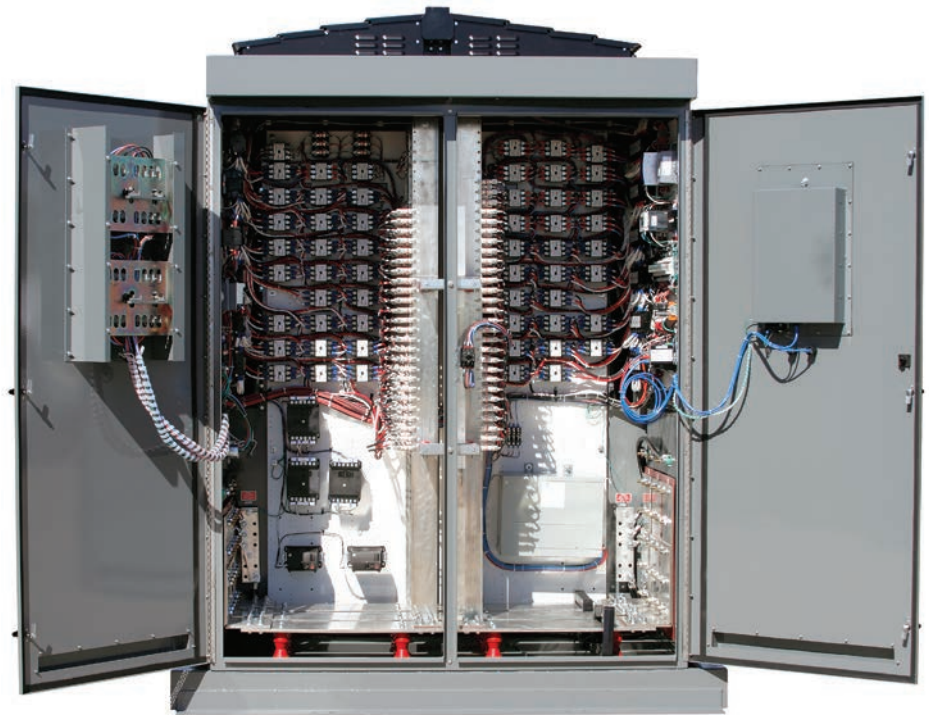
Sensors, alarms (alarm message on remote operator interface terminal), lock-outs as appropriate, for the following:

- Fan failure
- High exhaust temperature
- High intake temperature
- Louver/door open/closed

## Load Elements

**Simplex Powr-Web:** Open wire, helically wound, chromium alloy, load element thermally derated to 60%. 5% tolerance, 2% balance. .995 p.f. Element wire mechanically supported over entire length such that if a wire should break, the broken wire segments will not short to adjacent conductors or to ground. Load elements are individually serviceable and replaceable in the field without major disassembly of the load bank. The load elements are installed in slide-out, removable trays such that any element is easily accessed without disturbing any other elements.

All materials used in the mounting and installation of the load elements are suitable for the temperatures encountered, in both normal operation and under fault conditions. Materials in direct contact with the element wire are ceramic. Other materials which structurally support the load elements and/or which form the hot air duct within which the elements are mounted are steel, stainless steel or aluminum. Plastics and glass reinforced plastic materials and flammable materials are not used for installation, support and mounting of load elements or in the construction of the load bank hot air duct.



## Basic Dimensions

84"W x 109"H x 114"D.

## Load Control

Branch circuit contactors, each 50 KW resistive circuit max. Contactors have enclosed silver surfaced contacts, 120V coils; electrically operated and electrically held.

## Element Circuit Protection

Branch circuit fuses, each 50KW resistive branch circuit max. 600v, 200kAIC, current limiting type.

## Power Wiring

150°C insulated; color-coded and numbered.

## Control Wiring

105°C

## Power Connection

Plated bus bar behind hinge-up access door.

## Control Connection

Connector plugs with recessed protective well.

## Cooling

Forced air, vertical airflow. 1 x 30HP, 3-phase, TEFC motor direct driving cast aluminum fan blades. Circuit breaker combination motor starter.

## Enclosure

Type 3R control section; Type 3R power section. Epoxy primed, polyurethane finish coating, dark gray. Power operated ventilation louvers. Lifting eyes, forklift channels, hinged, lockable, access doors with flush latches.

## Weight

7,400 lbs.

## Dimensions and Key Features

