

Overview

- Rental Duty Portable Load Bank
- 3000kw Resistive
- Configurable for 480v or 600v
- Digital Load Control
- Capable of Parallel Operation and Control to Form Large Systems

Description

The Simplex Load Ranger-R is a very large capacity, fully portable, resistive Load Bank System intended for field use in testing, maintenance and performance proving of large generating systems. The Load Ranger-R is rated 3000kw and is configurable at the Rental Center for operation at 480v or 600v. The Load Ranger-R is typically used to test large diesel generators, turbines, paralleled generators and shipboard generators. For 0.8 power factor testing, combine the Load Ranger-R with the Inductive Load Ranger-R.

With a purpose-built design consisting of rugged, all-welded, monolithic steel frame, heavy gauge steel sides, guarded hinged doors, power-operated ventilation louvers, the Load Ranger-R is far superior to designs which use refurbished and modified ISO shipping containers. Three-sided access allows ready service of all components and facilitates the ultra-compact design.

Compact and easily transportable, the Load Ranger-R is ideal for rental use. With a footprint of only 8 x 7 feet and a height of less than 8 feet, the Load Ranger-R is easily transportable by drop-deck flat bed trailer. Lifting eyes and forklift channels simplify site movement.

The Load Ranger-R utilizes digital load control for direct access of load values, block transitions, and user programmable automation.

The Simplex Load Ranger-R represents the ultimate technology in large generator load testing performance. They can be digitally networked to other Load Rangers or to any large Simplex rental load bank to form ultra-large systems.



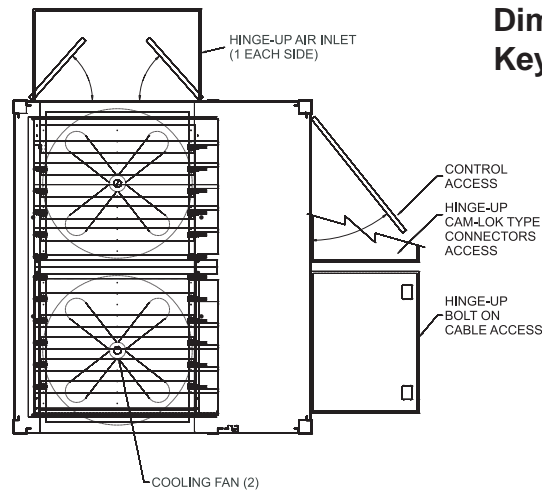
CAPACITY:	3000kw, resistive
VOLTAGE:	Rental Center Configurable: 480v, 600v, 3-phase, 60 Hertz
FREQUENCY:	60 Hertz, 50 Hertz
LOAD STEPS:	Digital load control, 5 kw resolution
DUTY CYCLE:	Continuous
AMBIENT TEMP.:	125°F
EXHAUST RISE:	220°F
AIRFLOW:	Approx 60,000 cfm divided between two cooling fans
CONTROL POWER:	Internal, derived from power source under load. Rental Center Configurable: 480v, 600v, 3-phase, 60 Hertz. Control circuits at 120v via internal isolation transformer. Fan motor load: 2 x 10hp, 13A. Control power load: 3.0 kva, 6.25A.

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.

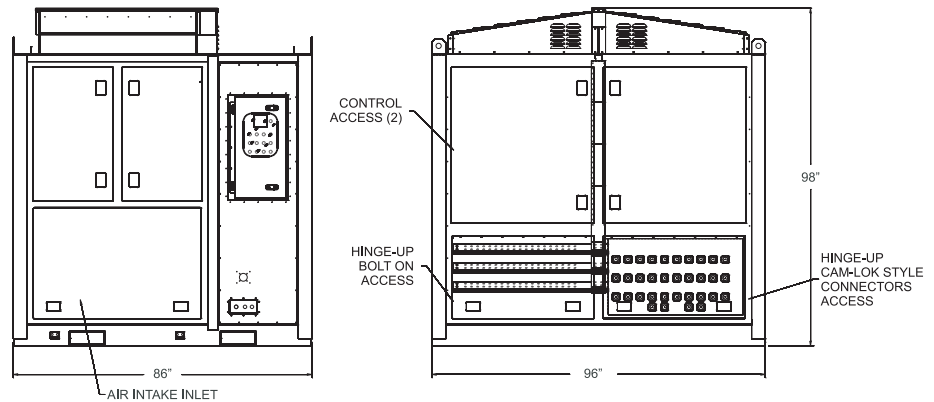
System Protection

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

- Fan failure, each of two fans
- High exhaust temperature, each of two fans
- High intake temperature
- High interior temperature
- Louver open/closed



Dimensions and Key Features



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.

Power Connection

Bolt on bus bar and cam-lock style connectors behind hinge-up access door.

Cooling

Forced air, vertical airflow. 2 x 10HP, 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 exhaust ventilation louvers. Lifting eyes, forklift channels, hinged, lockable, access doors with flush latches.