

THERMAL  **LOAD**
INTELLIGENT LOAD BANKS

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VULCANIC TEE

VERSION 2.0



WHAT ARE LOAD BANKS?

The necessity and dependence on power at mining sites; oil and gas refining; in hospitals; transport and many other essential services has meant a rapid growth of back up generators and UPS systems for back up power. The increase of computers and telecommunications equipment demands faultless performance in the event of power down conditions. This can only be fully achieved by resistive load testing the stand by systems on installation and at regular intervals.

The life and efficiency of diesel generators can be greatly reduced when running underloaded, causing damage to the engine, to a point where engines could stall or completely fail to start when they are needed most.



BENEFITS

Only resistive load banks can guarantee the ultimate operating conditions and efficiencies of stand by generators. Auxiliary equipment such as resistive load banks ensure regular and reliable load testing can be performed without interruption to mains power supply and leaving you confident that your emergency power system will function during any mains power interruption.

Regular load testing also ensures back up generators are used, maintaining the life of its parts which can deteriorate or fail if never used. Build up of dust, water and other elements in outdoor situations can affect the efficiency of your back up power system.



SPECIFICATIONS

ThermaLoad resistive load banks are available in manually switched to fully automatic-controlled units.

Ranging in sizes from 0.2kW to 2MW (and beyond) with safety interlocks such as high temperature overloads, low air flow switches, phase sequence control and fan motor overloads.

We can also supply units with step down transformers to be used with medium voltage generators.



FEATURES & OPTIONS



- Low temp stainless steel finned air resistors
- Powder coated rigid housing
- High air flow axial fan(s) with safeties
- Auto and manual load switching/shedding
- Load switching from 0.5kW increments
- LCD multifunction metering
- Data extraction and fault log capability
- Auxiliary power outlet for cooling fan operation
- Emergency stop
- Power on - Resistors on - Fan on - Fault indication
- Manual reset over temperature safety thermostat
- IP55 rated
- Lockable castors
- Power-loc connectors and 6m cables
- Real time graphic display
- Provision for forklift tynes
- Overhead lifting access

Spare parts such as individual resistors, castor wheels, grills, connections and more are also available.

TOUCH SCREEN CONTROL

Vulcanic TEE can supply resistive load banks with a touch screen controller for fully automatic operation.

DESIGN FEATURES

Control Management Setup

- Manual override = Yes/No
- Load dump = Yes/No

Monitor Button

This will present the user with real time data of the system in operation, either in auto or manual.

Values presented graphically can be scrolled

- Generator load kW
- Load Bank engaged kW
- Volts, Amps, Hz, Cos
- Load Bank temperature
- Fan status
- Cool down time elapsed
- Cool down time remaining



Auto/Manual Button

When Auto is selected the unit will automatically select the required resistor steps based on the setup criteria. In the event mains power is selected, the system will dump the load and initiate the system cool down function.

When MANUAL is selected, the unit will present the user with a window to enter a kW value as a number. The system will engage the required steps to reach the desired value. There is also an UP/DOWN button to allow the user to increase or decrease the kW value incrementally.

Load Dump Button

At any time while the system is operating in Auto or Manual mode, the user can press the Load Dump Button on the screen to cancel all load steps immediately.

Remote Connection

The ability to connect remotely through the Schneider app.

Data Logging

Optional data logging of testing reports into Excel format.

PORTABLE LOAD BANKS



Portable load banks offer a simple and compact solution for load testing.

While all ThermaLoad load banks feature castors, our portable range provide a more compact and portable unit for ease of manoeuvrability.

ThermaLoad portable load banks make it easy to access out of the way testing locations or roof top generators only accessible by elevators.

OPTIONAL FEATURES

- Single and Three phase power
- Centrifugal fan
- Manual or Auto operation
- Available with main leads or surface socket
- Light weight but still rigid
- Compact size
- Lockable castors for transport
- Weatherproof for site operation
- Optional metering
- Powder coated housing
- Simple operation
- Emergency Stop



WATER-COOLED LOAD BANKS



Vulcanic TEE design and manufacture water-cooled load banks for a wide range of applications, including yachts, ships, high-rise buildings or applications where a fan-cooled unit would be too large, bulky or noisy.

Water-cooled load banks can use all types of water (including recycled water from chiller systems or sea water pumped directly into a ship) offering a flexible, quiet and efficient design for load testing.

FEATURES

- Vertical or horizontal mount
- High grade 316L stainless steel resistive elements
- Full 316 stainless steel construction
- Power ratings from 10kW up to 1MW
- Incorporates the digital touch screen control seen on our standard range of ThermaLoad load banks
- Supplied complete with circulation pump and control cabinet ready for installation
- Quiet operation
- Ideal for use in super yachts, naval ships, ferries, cargo vessels, indoor installations, offshore platforms, HVAC, city buildings and more



BRAKING RESISTORS

Braking Resistors are used in motion systems to convert excess electrical energy (when decelerating) into thermal energy through electric heater elements inside the unit.

This is known as **dynamic braking**.

Vulcanic TEE design and manufacture custom braking resistors to suit the load and spatial requirements of your application. Our braking resistor units can be air cooled or water cooled, based on your needs.



Vulcanic TEE can supply a complete braking resistor unit or individual replacement parts, from controls and accessories, to the finned heater elements used inside the unit.



Braking resistors are used in a range of applications, including conveyors, engines, cranes, trains and more...

FEATURES

- Painted, galvanised or stainless steel finish
- Aluminium grilles
- Air pressure switch
- IP Rated
- Lockable castors
- Isolation switch
- Axial fan
- Laser cut grill/assembly
- High temperature overload





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