



Power resistors



Functional description

Power resistors are used to dissipate or process generated energy. This can be deliberately generated energy or energy that is generated anyway in a process or action.

Braking resistors

Heating Group International supplies various forms of resistance heating that can be applied as braking resistors.

A braking resistor is used in applications through which the operation of the system generates energy that must be dissipated at some point.

The resistance is then used to convert the excess energy into heat.

This heat can then be "destroyed" or reused in water, for example.

Types of braking resistors

Brake resistors can be made in different designs:

- Water-cooled resistors
- Air-cooled resistors
- Convection



Air-cooled resistor

Braking resistor applications

Brake resistors are used in a variety of industries and applications:

Marine

Many ships have electrically powered systems on board that generate energy when stopping. For example, on board machinery, cranes and when lowering the anchor.

Wind energy

When a wind turbine stops, an amount of energy is still released that can no longer be absorbed. A braking resistor is used to destroy this energy.

Automotive

When a wind turbine stops, an amount of energy is still released that can no longer be absorbed. A braking resistor is used to destroy this energy.

Automisation

Many automated systems such as filling machines, welding robots, transportation systems and amusement park attractions generate their own energy when the system comes to a stop. Without the use of a braking resistor, this excess energy can lead to dangerously high voltage in the system.

Loadbanks

Power resistors can also be used as load banks. A load bank is used to provide an electrical load for testing power sources. For example, generators and batteries.

Heating Group International can supply loadbanks up to 36000 VAC and from 50kW - 1MW.



Brake resistor with aluminium housing



Loadbank