



SmithHeat™

Ceramic Strip Heater

COMPOSITION

"This material is named for its 'positive thermal coefficient' of resistance means resistance increases upon heating."

Most ceramics have a negative coefficient, whereas most metals have positive values. While metals do become slightly more resistant at higher temperatures, this class of ceramics has a highly nonlinear thermal response, so that it becomes extremely resistant above a composition-dependent threshold temperature. This behaviour causes the material to act as its own thermostat, since current passes when it is cool, and does not when it is hot.

The dynamic resistance and output of PTC heaters makes them an excellent choice for providing controlled electrical heat. In many applications it is possible to do away entirely with thermostatic controls.

APPLICATIONS

Thin films of this material are used in automotive rear-window defrost heaters, and honeycomb-shaped elements are used in more expensive hair dryers and space heaters, air heaters, drying appliances, compartment heaters, warming plates, glue guns, tool heating, heating systems for vehicles, dehumidifiers, tumble Driers.

Since it advantages in temperature-sensitive, current limiting, time delay and noise-free, it could be applied to initiating refrigerator, protecting transformer as well as mosquito dispellers, iron, roller etc. The glow type material has characters such as stable performance, rapid heating-up and reliability. Therefore, it becomes the most ideal replacement for metal fuse. Now PTC has been used on heater, dryer, air curtain, air conditioner etc..

PTC Heating Element

SmithHeat® PTC heaters with insulation film is composed of PTC stone, electrode, lead and insulation film. PTC stone is sandwiched between aluminium strip as electrode with the terminal connections in aluminium electrode strip.

FEATURES

- High reliability with self-regulating characteristic(No thermostat is required)
- Automatic control of temperature
- Long-life
- Safety
- High heating efficiency
- Low electricity consumption
- Low cost
- Available in wide voltage range (12V~600V)

APPLICATIONS

It applies to Heater Fan, Hair Curler, Drying Machines, Hair Dryer, Hot melt glue gun, Foot warmer, diesel / fuel heater, Iron, hair straight, electronic appliances etc.

PTC heater with Shell

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APPLICATIONS

It applies to Heater Fan, Hair Curler, Drying Machines, Hair Dryer, Hot melt glue gun, Foot warmer, diesel / fuel heater, Iron, hair straight, electronic appliances etc.

PTC enclosure heater

SmitHeat® PTC Enclosure Heaters are used for enclosures where damage from condensation must be prevented, or where the temperature may not fall below a minimum value. The aluminium profile heater body design has a chimney effect and distributes the heat evenly. The heaters are designed for permanent operation. Pressure clamp connector saves time and simple installation.

The heater body are made by extruded aluminium profile with mounting clip as per standards for the vertical or horizontal air flow. .

APPLICATIONS

This product is used as high technology and street cabinets, Control panel heating, small switchgear and electric enclosures etc.

All values are attributes of the used raw materials.

The physical data contained in this table are typical values. They are obtained on test specimens under specific conditions and represent average values of a large number of tests. The results obtained on these tests specimens cannot be applied to finished parts without reservations, as behaviour is influenced by processing and shaping.