



## Portable Electric Heaters

Portable electric heaters are like all other electric heaters in that they are 100% efficient, in that the energy produced is used only to produce heat. A typical 1500-watt portable heater can warm a space from 185 to 215 square feet (17 to 20 square meters). Portable heaters come in a wide variety of shapes and sizes.

### Types of portable electric heaters

There are two basic types of portable electric heaters. One type is a convective heater, which works by moving hot air around the room either by a fan or by encouraging natural air currents. The second type is called a radiant heater, which emits infrared radiation from heat elements. There are several different kinds of heaters that are either convective or radiant. An Electric-element heater operates by moving air over heated wire or coil elements inside the heater. These heaters have responsive thermostats and can maintain a room temperature as effectively as a large heater. Liquid-filled heaters use an electric element to warm water or oil, which then heats a radiator creating natural convective air currents. These heaters maintain their heat for a long time but take longer to heat up and therefore are not more efficient than non-liquid filled heaters. Ceramic heaters use a fan to draw air through a special conducting ceramic element that in turn distributes it into a room. Metal-rod radiant heaters are good for space heating and are generally used for garages or basements. A heat element is placed in front of a shiny reflector that radiates heat. These heaters are a potential fire hazard because they produce a large amount of heat that can be focused at one specific place. Quartz heaters use electric elements packed inside a quartz glass tube that radiates heat to warm people and objects and therefore is best for spot heating. When purchasing a new heater, get one that does not easily tip over or that has an automatic shut-off mechanism when tipped. Also, the heater should have an overheat sensor that will shut the heater off when the internal temperature gets too high. It is important to keep newspapers, drapes, and other flammable objects away at a safe distance. You should never drape clothes over the heater or leave it unattended.

