## **Choosing the right electric heater**

Portable electric resistance heaters can be handy for getting a temporary source of heat where you need it, or adding warmth to rooms where the main heating system needs some help.

There are three main categories of electric resistance heaters: High-Temp Radiant, Natural Convection and Fan-Forced.



Every electric resistance heater uses the **SAME** process to change electricity into heat. They all have the **SAME** efficiency — 100 percent. Whatever the heater's shape or

size, the amount of heat coming out is determined by the amount of electricity going in. Therefore, any two heaters with a rating of 1,500 watts on the nameplate will deliver the same amount of heat, no matter what they look like. The difference is in how the heat is transferred from the heat source to the person or space being warmed.

For example: One 1,500-watt space heater any shape or size — running for 6 hours a day at a cost of \$0.12 per kilowatt-hour, would add an additional \$32.40 to your monthly electric bill. \* One kilowatt-hour (kwh) equals 1,000 watthours — the equivalent of 10 light bulbs (100) watts each) burning for one hour.

#### Want something more efficient?

While electric resistance heat is 100 percent efficient, which means you get one unit of heat for one unit of electricity, there are other options.

Air-source heat pumps are around 250 percent efficient

-2.5 units of heat for one unit of electricity. An air-source heat pump operates for less than half the cost of electric resistance heat.

A geothermal or ground source heat pump can be up to 400 percent efficient — a quarter of the cost of electric resistance heat.

Visit *adamsec.coop* for more information on heat pumps.



#### Safety

1. For all resistance heaters, a tipover switch, which automatically cuts power, is a must. 2. Use a sturdy screen or grill to cover the heating elements. 3. Avoid using an extension cord.



High-Temperature Radiant — Characterized by easily visible heating elements, often quartz infrared tubes, with a shiny reflector behind them.

#### PROS

- Won't heat the air, but instead "beams" warmth directly to objects in front of it.
- Delivers heat instantly to objects in its path.
- Offers better "coverage" to more of your body, whereas a smaller box heater will just warm your ankles.

CONS

- Won't keep you warm unless you are standing in its airflow path.
- Ålthough some wall-mounted plug-in heater designs put warming rays on your shoulders, they are not as portable.

Natural Convection — Characterized by a long, slender baseboard design.

#### PROS

- Warm to the touch, but not hot enough to burn vou.
- Creates a cycle of air flow to transfer warmth from the heater to the air.
- Can be placed in a room with small children without the fear of accidental burns.
- Relatively quiet.

#### CONS

- Takes up more floor space than other units.
- Does not provide instant heat.

**Fan-Forced** — Characterized by the use of a fan to push air over the heating coils and into a room.

#### PROS

- Often smaller in size than the other designs; an advantage if the heater will be moved frequently.
- Delivers a constant flow of hot air.
- Offers a short "recovery time" to add heat back to a room.

#### CONS

- These "mini furnaces" can only warm a modest-size room.
- Fan's noise will affect your surroundings.

Source: Rural Electricity Resource Council, www.rerc.org

### **Space Heaters**





• May be located closer to furniture or near window curtains without the hazard of fire.



## Save 50% on energy supply

Space heaters have their uses, but if you want to heat a room or your entire house and save money — consider interruptible off-peak electric heating.

Electric thermal storage (ETS) units and Heat Pump Plus (HPP) heating systems use off-peak electricity for heating. During off-peak hours, when electricity costs are lower, an electric coil heats high-density ceramic bricks located inside the insulated metal cabinet. The stored heat is released and circulated by a fan to warm a home. ETS room units come in a variety of sizes to



heat living rooms, family rooms, dining rooms, bedrooms and even basements.

HPP combines an air-source electric heat pump and an ETS "booster" in one system to heat and cool an entire house. The booster backs up the heat pump when the outside temperature drops lower than the heat pump's efficiency. It also monitors the temperature of the air cir-



Exercise the power to use energy wisely visit togetherwesave.com and take the Energy Savings Home Tour.

culated throughout the home to assure maximum comfort.

All electricity used by ETS room units and HPP boosters is charged at the co-op's lower U-Shift off-peak rate. A U-Shift switch (a \$215-value) is installed at no charge. The rate reflects a reduction in energy supply charges of about 50 percent. When demand for electricity peaks during different times of the month, the co-op turns off the switch, avoiding the high demand-peak charges. This helps to maintain lower electric prices for everyone.

For a free, online home energy audit, visit adamsec.coop For more information, call 888/232-6732 or 717/334-9211.



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# **Electric Resistance Heaters** Which style best suits your space?







