king

Smart Heating Solutions

Using King Electric Heaters to Supplement a Ductless Mini-Split in Cold Weather

While high-efficiency VRF heat pumps and ductless mini-splits have grown in popularity among homeowners to keep their families warm during the heating season, a major limitation is their lack of performance in subfreezing temperatures.

Because Heat pump mini-splits transfer heat into your home from outside air, they don't work well in temperatures **below 30-45 degrees Fahrenheit**. They can be easily over-tasked when dealing with subfreezing temperatures, reducing the heat pumps' efficiency, the very thing that makes them so desirable. This causes them to produce less heat than the room requires, affecting the comfort of the room.

Installing a King electric heater for supplemental heating is one of the best ways to address this dilemma. The result is a far more efficiency in terms of the overall system's Heating Seasonal Performance Factor (HSPF).

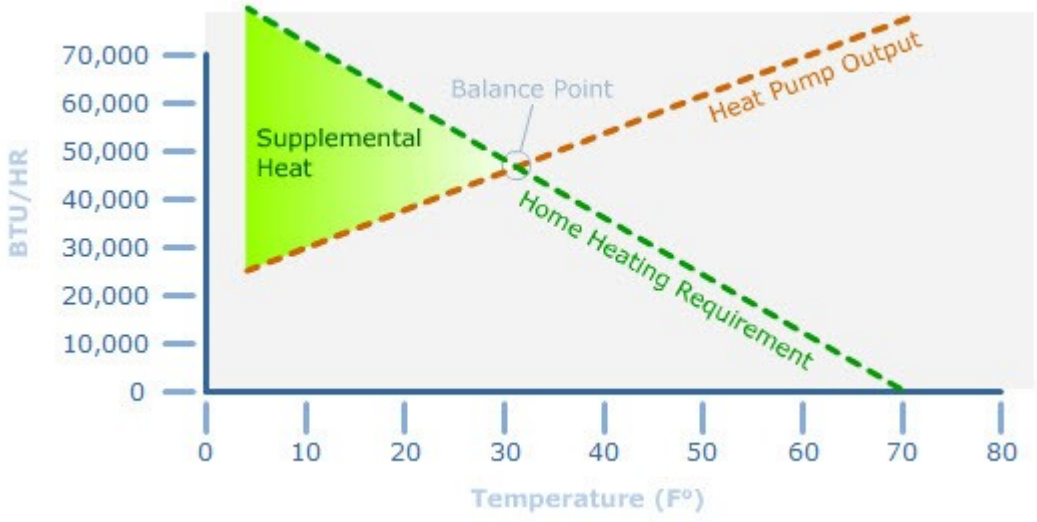
The Balance Point

As the outdoor temperature drops, the heating requirement of the house increases and the output of the heat pump decreases.

The balance point is when the temperature of the room's heating requirement and the heat pump output match. Typically between 30-45 degrees Fahrenheit. For any temperatures below the balance point, supplemental heat will be required.

To locate the balance point, the heating requirement (BTUs/h) of the house and the heat pump output (BTUs/h) are plotted against the changes in outside temperature. The place where the home heating requirement and heat pump output lines cross is the balance point.

Take a look at the graph of the Balance Point.



Before purchasing a ductless mini-split system, always discuss with your HVAC specialist or installer to calculate the room's Balance Point and recommend the appropriate sized heater to supplement the heat pump that is being recommended.

Choosing the right King Electric Heater for Supplemental Heating

BASEBOARD HEATERS

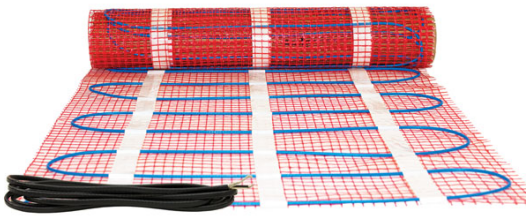
This is the most basic type of electric heater used in apartments and certainly the cheapest of all. Electric baseboard heaters work by drawing the cool air near the floor over heated metal fins and then the convection air current pushes the warm air back into the room. They are usually installed under the windows of each room but because of their large size take up valuable floor space which can affect furniture placement in the room.

FAN-DRIVEN HEATERS

A fan heater operates by using a fan to push cold air over a heating element to maximize the heat output as it pushes hot air out into the room. In 1984, King introduced the innovative Pic-A-Watt heating element, which offers multiple wattage options, which means most heaters can easily be tailored to the specific room's heating requirement. Available in wall mount, ceiling mount or installed in the kick space of cabinets.

COVE HEATERS

Cove heaters combine the quick comfort of radiant heat along with the sustained warmth of convection heat requiring a much lower temperature to achieve the same level of heat transfer. Installed high on the wall, close to the ceiling, and heat the objects in a room in much the same way as the sun heats the earth and the air outside. As objects in the room become warm, the surrounding air picks up heat by conduction and the entire room maintains consistently comfortable.



FLOOR HEAT

IN-FLOOR HEATING CABLE

An electric in-floor heating cable system consists of thin heating cables installed under ceramic tile. Because the cables are so thin, they don't raise the level of the flooring much; this makes them great for remodeling. Electric in-floor heating systems don't replace your main heating unit—they supplement it. They're typically installed in bathrooms, mudrooms and kitchens.

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