

# What Do All Those Heat Pump And Air Conditioner Ratings Mean?

**WE'RE GLAD YOU ASKED!**



*It's easy to feel overwhelmed by the array of efficiency ratings, abbreviations and acronyms used to describe or explain heat pumps and air conditioners! In this fact sheet, we'll tell you what they all mean and how you can use the knowledge gained to make a more informed choice on your comfort needs.*

## **EFFICIENCY RATINGS**

**SEER** - Seasonal Energy Efficiency Ratio. This is a system for rating the efficiency of cooling equipment. It is calculated by dividing the cooling capacity of a continuously operating air conditioner by the electric power input. The higher the SEER, the less your unit will cost to operate.

**HSPF** - Heating Seasonal Performance Factor. This measurement is similar to SEER, but it measures the efficiency of the heating portion of your heat pump. Like the SEER, HSPF industry minimums have risen in recent years. The current industry minimum is 6.80 HSPF.

## **SOUND RATINGS**

In recent years, HVAC equipment has not only gotten more energy efficient, it has gotten quieter. Although sound does not affect the efficiency of a unit, it can certainly affect your comfort. If your unit has a low sound level, you (and your neighbors) will hardly notice when it is operating.

**db** - Decibel. A term to describe the relative loudness of a sound. Typically, heat pumps and air conditioners are between the sound of a human voice (70 db) and a blender (88 db).

**SRN** - Sound Rating Number. A unit based on ARI tests. Average sound ratings range from 74 to 80 db. The lower the SRN rating, the quieter the unit.

## **GENERAL INDUSTRY TERMS**

**HVAC** - Heating, ventilating and air conditioning. This term applies both to the heating and cooling industry and to the products they manufacture.

**ARI** - Air Conditioning and Refrigeration Institute. A non-profit, voluntary organization comprised of HVAC manufacturers. ARI publishes standards for testing and rating heat pumps and air conditioners and ensures a level of quality within the industry.

**DOE** - The Department of Energy. This is the federal agency that sets the HVAC industry efficiency standards.

**Btu** - British thermal unit. This is the amount of heat that will raise or lower the temperature of one pound of water by one degree Fahrenheit.

**Btuh** - British thermal units per hour. A measure of heat transfer rate.

**COP** - Coefficient of Performance. This is a measurement of comparison of a heat pump's heating capacity to the amount of electricity required to operate it. Since a heat pump is less efficient at lower outside temperatures, the COP falls as the temperature drops. To aid you in comparing efficiency, ARI provides the COP for two temperatures, 47° F and 17° F.

**Ton** - A ton is 12,000 Btuh. A typical single family residence uses air conditioning or heat pumps ranging between two and five tons of capacity.

**Watt** - (W). A unit of electrical power.

**Kilowatt** - (kW). One thousand watts.

**KWh** - Kilowatt-hour. A unit of electrical energy equal to the work done by one kilowatt acting for one hour.

### **COMFORT SYSTEMS**

Heat pumps and air conditioner systems have an outdoor unit and an indoor unit. The outdoor unit is the actual heat pump or air

conditioner. The indoor unit includes the coil or blower coil. Combinations of various units result in vastly different efficiency ratings.

**Most Popular Coil** - A term meaning the highest sales volume indoor unit matched with the given outdoor unit. Sometimes, there are attempts to combine unrealistic indoor and outdoor equipment combinations to obtain a higher SEER. Ratings made in such a way may be simulated or unrealistic. Ratings obtained using the most popular coil, however, are attainable and closer to reality.

### **THE PRICE OF QUALITY**

There is more to buying a heat pump or air conditioner than ratings. The quality of construction and materials used as well as the reliability of the manufacturer and installing contractor can all affect your long-term satisfaction and comfort. Top quality, high-efficiency equipment will cost more initially, but it will save you money on utility bills and service calls for years to come. Be sure to weigh all the factors before choosing your new system.

Lennox offers a full line of top quality, high-efficiency heat pumps and air conditioners to meet any comfort needs. Let your Lennox dealer recommend the best system for your home and lifestyle.

# ***LENNOX***<sup>®</sup>

**ONE LESS THING TO WORRY ABOUT.<sup>®</sup>**

Lennox dealers include independently owned and operated businesses.

