

# Get the FACTS about SEER and Deliver Better Customer Value

## What is SEER?

SEER stands for **S**easonal **E**nergy **E**fficiency **R**atio. It's a number that describes how well air-conditioning equipment works. A higher SEER means better efficiency and lower energy bills. SEER is calculated by dividing the amount of cooling supplied by the air conditioner or heat pump (Btu's per hour) by the power (watts) used by the cooling equipment under a specific set of *seasonal* conditions.

SEER ratings are determined in a laboratory where the exact set of indoor and outdoor conditions—specified by the US Department of Energy—are guaranteed to exist. Because each piece of cooling equipment is evaluated using the exact same conditions, the SEER rating can be used in comparing the performance of equipment from different manufacturers.

Higher SEER ratings can be achieved by manufacturers who use newer or better technology in their equipment. That's why SEER ratings have a big influence on equipment costs. That's also why SEER has become an important part of manufacturer and HVAC marketing programs.

**Many people know that SEER ratings are important in selecting equipment. What most people don't realize is that the HVAC contractor has a major role in making equipment perform up to its real capabilities in the home environment. Knowing the SEER FACTS can help!**

When a manufacturer sends equipment to a laboratory to establish its SEER rating, you can bet the equipment is set to perform its best under the test conditions. But *real* conditions in a home, not controlled lab conditions, determine how equipment will perform for your customers. That's why understanding how SEER is affected by *actual field conditions* will help you deliver the most benefit from higher SEER equipment.

Many things affect how cooling equipment meets its anticipated performance level. Weather is one example. The same equipment installed in a northern climate will naturally use less energy to keep a home cool than a similar system installed in a southern climate. HVAC contractors cannot control Mother Nature. But there are key parts of the cooling system that affect SEER that HVAC contractors can control.

You owe it to your customers to be in control of the FACTS about SEER. The field adjustments that you'll need to master involve four key system factors, as illustrated in the diagram below. A contractor who masters the FACTS about SEER may even be able to deliver greater comfort and lower energy costs using SEER 10 equipment than another contractor delivers using SEER 14 equipment!

Look inside for surprising information about the impact the field adjustment factors can have on equipment performance (SEER rating). You'll also find tips that will help you master the **SEER FACTS** and deliver the best performance.

### Field Adjustment:

Airflow  
Charge  
Tight ducts  
Size

