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Ceiling Fans Offer Comfort and Savings

Q: What are some ceiling fan efficiency tips? Which fans are best?

A: In addition to improved comfort during summer, ceiling fans reduce winter heating bills. This is why most ceiling fans have a switch to reverse the direction of the blade rotation.

A ceiling fan is not actually a cooling device like an air conditioner. You only feel more comfortable under a ceiling fan because of the windchill effect of room air moving over your skin. Room air is cooler than your skin temperature, and moisture evaporation further cools your skin.

Running a ceiling fan actually increases the room air temperature. The electricity used by the fan motor ends up as heat. Switch the fan off when the room is not being used.

The overall energy savings comes from being able to set your air-conditioning thermostat a few degrees warmer. For each degree the thermostat is set higher, the electricity savings can be up to 5% for each

eight-hour period. The actual savings depends on many factors, including your local climate and outdoor temperature.

During winter, flip the switch and reverse the rotation of the fan blades to blow air upward. This gently moves the warmest air, which stagnates up near the ceiling, out and down the walls where people are. Run it on the lowest speed so as to not create a chilly breeze. You should not feel the air movement.

If energy savings is your primary concern, the simplest way to select a ceiling fan is to pick one that is Energy Star certified.

It is important to size the ceiling fan properly. If it is too small, it won't create enough breeze to make you feel comfortably cool. If it is too big, it will flow too much air when rotation is reversed during winter.

A rule of thumb for sizing is 36-inch blades for rooms up to 75 square feet, 36 inches to 42 inches for rooms 75 to 144 square feet, 44 to 50 inches for rooms 144 to 225 square feet,

and 50 to 54 inches for rooms 225 to 400 square feet.

Fan style may be important to you. Lower-cost fans have five relatively narrow blades, but fans with three wide decorative blades are becoming more popular.

Always check the fan's air flow specification. The size and number of blades is not the best air flow indicator. The speed and pitch of the blades have a greater impact on air flow.

The best ceiling fans use efficient ECM motors, which simulate direct current motors, and use as little as 33 watts of electricity. These fan motors provide more speed settings and less noise. Generally, though, three speeds are more than adequate for comfort and saving, and are less expensive.

There are many options for lighting kits for ceiling fans. Some stylish models have an integrated circular LED mounted inside a glass globe. Most are dimmable and provide a moderate amount of brightness on high. The drawback is it can cost up to \$60 to replace the bulbs.

Lighting kits with three- or four-bulb medium base fixtures allow you to select the type of

dimmable LEDs you want to install. You may prefer warm white—3,000 Kelvin—or daylight—5,000 Kelvin—bulbs. These bulbs last as long as the integrated ones and cost about \$1.50 a bulb to replace.

Models with a hand-held remote control are the most convenient to adjust speed and turn off the fan when leaving a room. For high-tech homeowners, some fans can be controlled from your cellphone with an app.

When installing a fan, the blades should not be lower than 7 feet from the floor for safety. Most fans include 3- and 6-inch downrods.

For a high ceiling, select a long downrod length so the blades are 8 feet above the floor. A downrod is the piece that connects the motor housing to the ceiling mount. This is a good height for effective air flow.

For lower ceilings, select a ceiling-hugger model, but realize the flow will not be as effective that close to the ceiling. ■



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