Becoming a Smarter Energy Consumer

Your Guide to Choosing the Right Heat Pump



Purchasing a Heat Pump?

Start with these questions!

1. What is a heat pump?

Air-source heat pumps are energy-efficient alternatives to traditional HVAC systems – helping lower both energy bills and carbon footprints.

2. Should I replace my HVAC system?

Typical **heating and cooling units last between 10-15 years**. Is your system within that timeframe? Check with an HVAC professional to check its performance.

3. How do I choose the right heat pump?

Choosing the right heat pump starts with understanding **size**, **efficiency** and **cost**. **Where you live** matters, too.



Climate regions are defined based on the average number of heating days in a given area. This helps determine how effectively a heat pump is likely to perform in that region.

Choosing a heat pump that's optimized for your local climate region ensures better performance and cost-efficiency – helping you avoid overpaying for unnecessary features or experiencing reduced performance in certain weather conditions.

SIZE

Here's a quick way to calculate the recommended size of your heat pump:



You'll need 1 ton of AC capacity per 500 square feet of your home.

For example:



A 2,500-square-foot home would need a 5-ton unit.



ENERGY EFFICIENCY

This is measured in two ways:

HSPF (Heating Seasonal Performance Factor) **for heating** **SEER** (Seasonal Energy Efficiency Rating) **for cooling**



Look for a heat pump with a SEER of at least 15 and an HSPF of at least 8.5.¹

COST

Heat pumps typically cost \$8,000-\$30,000 plus installation. **Check with your utility for available rebates and tax credits.**



A heat pump could reduce your home heating and cooling costs by \$300 to \$650 per year.²

BOOSTING EFFICIENCY

A well-insulated, sealed home helps your heat pump run more efficiently. Making sure your home is weatherized to stop air from escaping helps to save energy and money.

Tips to weatherize your home:



If you're not sure where to start, **check with your utility to see if they offer an energy audit** for your home.

- 1. The American Council for an Energy-Efficient Economy
- 2. The National Renewable Energy Laboratory

Common Types of Heat Pumps

Air-source heat pump

An air-source heat pump extracts heat from the air and transfers it to **raise or lower the temperature of a space**.

Geothermal heat pump

Geothermal heat pumps collect thermal energy from the ground or a water source. Energy is transferred inside a building to **heat an indoor space**.

Cold-climate heat pump

A cold-climate heat pump uses an inverter (or variable speed drive) to efficiently **heat homes in colder climates** (approximately -25 degrees Celsius, -13 degrees Fahrenheit).





DUCTED vs. DUCTLESS



Heat Pump Terms

Know the lingo!

Air Handler: Indoor component that circulates heated or cooled air.

Compressor: Compresses and pumps refrigerant to cool your home.

Condenser (AC Condensor): The outdoor unit that releases or collects heat depending on the season.

British Thermal Units (BTUs): This unit measures the thermal energy a heat pump releases to warm a space. The higher the BTU rating, the greater the system's heating capacity.

Energy Efficiency rating (EER): Measures heat pump efficiency. The higher the EER rating, the more efficient the heat pump.

Heating Seasonal Performance Factor (HSPF): The heating efficiency rating for heat pumps. The higher the rating, the more efficient the heat pump.

Seasonal Energy Efficiency Ratio (SEER): This measures the energy efficiency of your air conditioning system. The higher the SEER rating, the more efficient your air conditioner.

Thermostat: A thermostat controls your heating and cooling system. Smart thermostats can automate comfort and help you save with utility incentives.

Looking to have a conversation with your energy provider about heat pumps?

Be sure to **check out our tips** on how to become a smarter energy consumer.



