



ENERGY STAR® CERTIFIED MINI SPLIT HEAT PUMPS



An Ultra Efficient Way to Comfortably Heat and Cool Your Home

Keeping your home at a comfortable temperature can be expensive. A typical household's energy bill is around \$1,900 annually, and almost half of that goes to heating and cooling! To cut these costs, an increasingly popular and highly versatile system called a **mini split heat pump** can be professionally installed to comfortably heat and cool your home. Mini split heat pumps that earn the ENERGY STAR label are independently certified to save energy, save money, and protect the climate.

What is a Mini Split Heat Pump?

Ductless heat pumps, or mini split heat pumps, are an alternative to radiator or baseboard heating, as well as a replacement for window units for cooling. No duct work is needed. Instead, a head unit, or multiple head units, are mounted on an interior wall or ceiling, with an accompanying unit outside (Figure 1). The outside unit extracts heat from the air, even when it's cold. Refrigerant carries the heat directly to the head(s) inside, which then delivers heated air to occupied space. In warmer months, the system works in reverse for quiet, efficient air conditioning.



Figure 1. Ductless Mini Split Heat Pump Installed
Graphic courtesy of Mitsubishi Electric

Benefits of a Mini Split Heat Pump

- **Cut heating costs in half compared to conventional electric heating systems.** Because they transfer rather than generate heat, ENERGY STAR certified mini splits use up to 60% less energy than standard home electric radiators.
- **Provide quiet, high efficiency cooling.** ENERGY STAR certified mini splits use more sophisticated compressors and fans that can adjust speeds to save energy and money. They also cool directly from the unit, rather than passing through a network of fabricated ductwork, eliminating energy losses from ductwork which can account for more than 30% of a home's energy use for space conditioning.
- **Reducing greenhouse gas emissions.** A mini split is good for your home and good for the planet. ENERGY STAR certified systems used in a whole house setting avoid more than 4,500 lbs of greenhouse gas emissions, on average, over the course of their lifespan compared to standard systems.
- **Heating and cooling in one device.** Mini split heat pumps offer highly efficient heating and cooling in one integrated system.
- **Easy, ductwork-free installation.** Mini splits use narrow refrigerant lines positioned outside your home to deliver heating and cooling instead of conventional central heating and cooling which requires bulky, and often expensive ductwork. Only a three-inch hole in an outdoor wall is needed for the refrigeration lines to connect the outdoor unit to the indoor unit.
- **Custom comfort anywhere in your home.** Mini splits can maintain different customized temperatures in each room through control consoles (either wall-mounted or ceiling-inserted), remote controls, and smart phone apps.

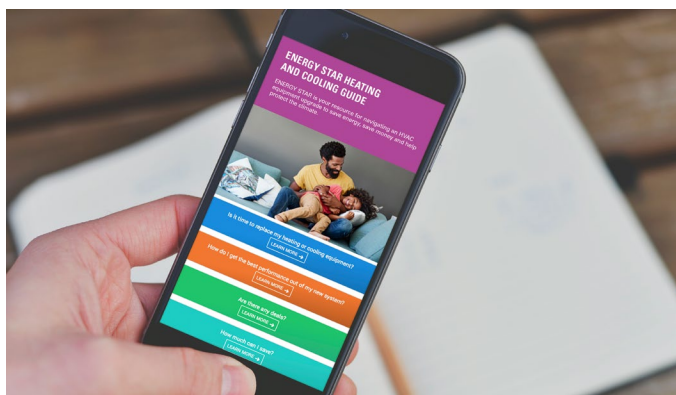
Is a Mini Split Heat Pump Right for You?

Mini splits are increasingly being used in the following situations:

- Homes with costly electric heat (e.g., baseboard, furnace, wall heaters, electric radiant) that will also benefit from cooling.
- Older homes with no existing ductwork (e.g., radiators or baseboard heat) that have never had central air conditioning before.
- Existing homes with high fuel costs.
- Additions or outbuildings (e.g., shed, barn, garage) where extending ductwork or heating/cooling capacity is difficult.
- Spaces adjacent to unconditioned spaces where ductwork would be exposed to harsher temperatures (e.g., a guest room above a garage).
- New high-efficiency homes, including ENERGY STAR certified homes.
- Older commercial buildings with no existing ductwork for air conditioning or expansions.
- Where hot or cold spots exist within homes including spaces which serve as home offices.

Mini splits come in a variety of styles to meet the unique heating and cooling applications and customer preferences to provide efficient comfort that traditional systems cannot provide. Styles include wall mounts, floor mounts, ceiling cassettes, and ducted options that can be concealed.

Check out the ENERGY STAR Heating and Cooling Guide (www.energystar.gov/HVACguide) to see if a mini split is right for you. Learn the symptoms of aging heating and cooling equipment and find product and rebate information.



What if I Live in a Cold Climate?







Many new ENERGY STAR certified mini split models excel at providing space heating even in the coldest of climates, as they use advanced compressors and refrigerants that allow for improved low temperature performance. If you live in a climate where winter temperatures regularly dip below freezing, talk to your contractor to choose an ENERGY STAR certified unit suited to your particular home.

Take Advantage of Incentives

Mini splits that earn the ENERGY STAR are eligible for a \$300 federal tax credit if installed in a primary residence by December 31, 2021. Learn more at www.energystar.gov/taxcredits.

Many utilities offer incentives for installing ENERGY STAR certified ductless mini split heat pumps. Table 1 below shows several examples from across the country. Check with your local utility for more details or go to www.energystar.gov/rebatefinder.

Table 1: ENERGY STAR Certified Mini Split Incentives

State	Utility	Incentive
CT		\$300-500
IL		\$400
LA		\$250-500
MI		\$250-350
OR		\$500-900
PA		\$75/ton-110/ton
PA		\$200