



Applications

- Air-source heat pump conversions are available to existing single-family and existing manufactured homes with whole-home centrally ducted electric forced-air furnaces.
- Variable-speed air-source heat pump conversions are available to existing single-family and existing manufactured homes with whole-home centrally ducted electric forced-air furnaces.
- Variable-speed air-source heat pump upgrades are available when: installing in an existing single-family or existing manufactured home without any previously existing primary heating system; adding to a nonelectric heating system (e.g., gas, oil, propane, or wood); upgrading from a zonal heating system (including zonal hydronic systems that do not utilize a duct system for distribution); or, replacing a ductless mini-split heat pump.
- Generally, homes with less than 4,500 square feet of heated floor area may qualify for only one heat pump rebate.



Connect with the local serving utility to confirm pre- and post-condition requirements.

PRE-CONDITION:

Electric forced air furnace

Electric forced air furnace, ducted air-source heat pump, ductless mini-split heat pump, electric resistance zonal heat, wood, oil, propane, gas, or no existing primary heating system.

POST-CONDITION:

Air-Source Heat Pump

Variable-Speed Air-Source Heat Pump

SPECIFICATION CHECKLIST

- The new air-source heat pump (ASHP) or variable-speed heat pump (VSHP) must have an HSPF2 and SEER2 efficiency rating that meets or exceeds the federal minimum efficiency standards as certified by the Air-Conditioning, Heating, and Refrigeration Institute (AHRI).
- HSPF2 and SEER2 apply to units manufactured after January 1, 2023, based on DOE's change to the national standard testing methodology. If a unit was manufactured before January 1, 2023, it must meet the current federal minimum efficiency standard for HSPF and SEER per the AHRI certificate.
- Variable-Speed Heat Pumps: Installation contractor must provide utility with manufacturer documentation that the outdoor compressor includes variable-speed or inverter-driven technology (e.g., specification sheet or brochure that documents the model has a variable-speed or inverter-driven compressor.)

Recommended

Below are some best practices to consider when installing the new air-source heat pump. For more installation best practices, please refer to the [BPA ASHP and VSHP Specifications and Installation Best Practices guide](#). Be sure to check with your local utility for specific program requirements.

- System should be sized using a balance point based on equipment manufacturer's balance point worksheet.
- Follow industry best practices for vacuum decay test and refrigerant leak test.
- If the basement is part of the conditioned space (i.e. duct work provides conditioned air to a finished or unfinished basement), it should be included in the sizing calculations.
- Variable-Speed Heat Pumps: External Static Pressure should match the target airflow rate as per manufacturer's documentation.

AT A GLANCE

AIR SOURCE HEAT PUMPS

Installation Examples



ALL LINE SET/REFRIGERANT LINES PROPERLY INSULATED
 Courtesy of PTCS



LINE SET/REFRIGERANT LINES NOT COMPLETELY INSULATED
 Courtesy of NW Ductless Heat Pump Project



OUTDOOR UNIT SET ON A STABLE, LEVEL SURFACE AND SECURE TO THE PAD USING BOLTS



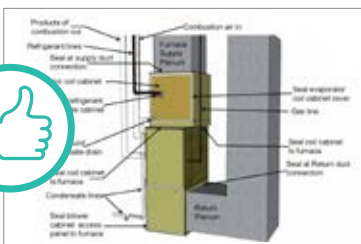
OUTDOOR UNIT SET DIRECTLY ON THE GROUND



OUTDOOR UNIT INSTALLED IN CLEAR AREA THAT ALLOWS OPTIMAL AIRFLOW THROUGH FAN



OUTDOOR UNIT INSTALLED IN A CONSTRAINED AREA THAT LIMITS OPTIMAL AIRFLOW THROUGH FAN



OPENINGS IN THE UNIT CABINET SHOULD BE PROPERLY SEALED
 Courtesy of Building America Solutions Center



OPENINGS IN THE UNIT CABINET NOT PROPERLY SEALED
 Courtesy of Building America Solutions Center

MINIMUM REQUIRED DOCUMENTATION

Contact the serving [utility](#) for specifics on required documentation.

- Manufacturer, model number, type, size and quantity of product installed.
- Invoice showing order or purchase date, cost.
- [AHRI Certificate](#) documenting that the product meets Federal minimum HSPF2 and SEER2.
- If the unit has a variable-speed compressor, include manufacturer documentation that the outdoor compressor includes variable-speed or inverter driven technology.

QUALIFIED PRODUCT LIST AND GUIDES

[BPA ASHP Specifications and Best Practices](#)

[NEEP's Cold Climate Air-Source Heat Pump Specification and Product List](#)

[NEEP's Guide to Sizing & Selecting Air-Source Heat Pumps in Cold Climates](#)

PAIRS WELL WITH

- Prescriptive Air Sealing.
- Prescriptive Duct Sealing.
- Duct Insulation.
- Insulation.
- Heat Pump Water Heater.
- Smart Thermostats.