

Identifying Variable Speed Heat Pumps: Quick Guide

This guide can be used to help identify if the outdoor compressor in a ducted air source heat pump is **variable speed** or **inverter-driven**, in order to satisfy the manufacturer documentation requirement in the Implementation Manual. AHRI does not clearly identify the outdoor compressor type, and manufacturers vary in where and how that information is listed. This guide provides an overview for the top 9 manufacturers from our existing HVAC program. However, the guidance below can apply to any manufacturer.

Documentation includes, but is not limited to: specification sheets, brochures, fact sheets, and screen shots with the family of model numbers (i.e. Trane XV19). Whichever documentation type you choose should include the following:

- Model number or model family, and
- Language stating that the outdoor compressor is variable speed, variable capacity, or inverter-driven.

Clarifications:

- Manufacturer documentation must be provided. “Variable speed” wording on a customer invoice alone is not adequate.
- Verification can be found on either manufacturer or distributor websites, or on physical print-outs.
- Some manufacturers use the term “variable speed” or “inverter driven” interchangeably.
- Multi-stage, two-stage, and single-stage compressors are not considered variable speed.
- The indoor air handler is not considered. Only the outdoor compressor must be variable speed or inverter-driven.

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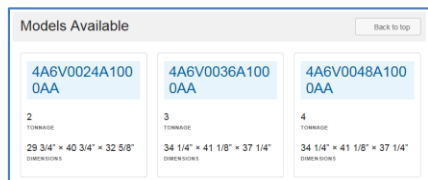
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American Standard

Website: <https://www.americanstandardair.com/products/heating-and-cooling/heat-pumps.html>


Navigation:

1. Click on applicable model family
2. The compressor type can be found in the product description
3. Specific model numbers in each model family are listed near the bottom



Documentation suggestions (include the model and language that it is a variable speed heat pump):

- Screen shot
- Brochure
- Specification



AccuComfort™ Platinum 20 Heat Pump

Comfort + + + + ?

Efficiency + + + + + + ?

Cost \$ \$ \$ \$ \$?

Why we love this product.

- ♥ High efficiency
- ♥ Maximum comfort through variable speed heating and cooling
- ♥ Quietest operation compared to nearest competitors

Your American Standard Dealer

Contractor Name, LLC

Call to discuss this unit

1-800-XXXX-XXXX

Or schedule a dealer visit Book Online

Showing specialists for 97232. Not your zipcode? [Change Location](#)

A system that works smarter.

Welcome home to comfort. Our AccuComfort™ Platinum 20 Variable Speed Heat Pump comes with AccuComfort™ technology that allows the multi-stage heating and cooling system to consistently adjust to run at a more efficient speed to maintain your personal level of comfort. Plus, with up to 20.00 SEER and 10HSPF, the AccuComfort™ Platinum 20 Variable Speed Heat Pump is both efficient and quiet.

Bryant Heating & Cooling Systems

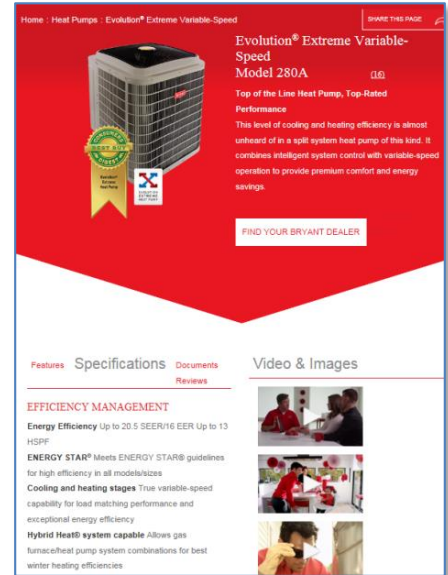
Website: <https://www.bryant.com/bryant/en/us/products/heat-pumps/>

Navigation:

1. Refine by Compressor Type: Variable Speed
2. Click on applicable model family
3. The compressor type can be found in the “Features” or “Specifications” sections

Documentation suggestions (include the model number family (i.e. 280A) and language that it has variable-speed operation):

- Screen shot
- Brochure
- Owner’s Manual
- Specification



Carrier

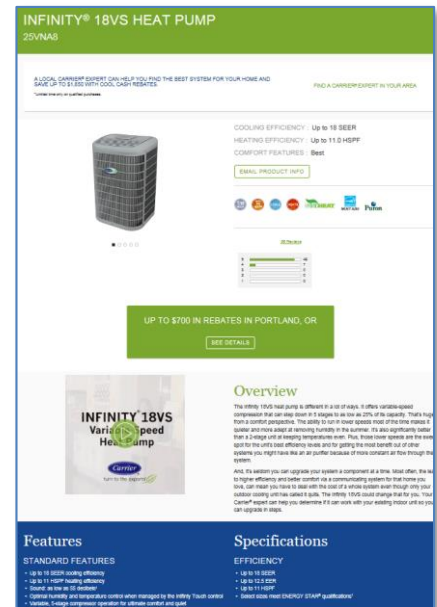
Website: <https://www.carrier.com/residential/en/us/>

Navigation:

1. Click on “Products” then click “Heat Pumps”
2. Click on applicable model family
3. Compressor type can be found in the “Overview” and “Standard Features” sections

Documentation suggestions (include the model number family (i.e. 25VNA8) and language that it has variable-speed operation):

- Screen shot
- Specification sheet



Coleman by Johnson Controls

Website: <http://www.colemanac.com/Residential/Split-System-Heat-Pumps>

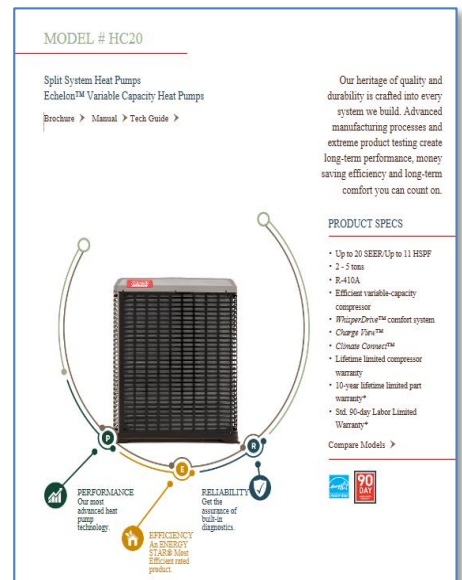
Navigation:

1. Click on the applicable model family
2. Compressor type can be found in the product description and “Product Specs” section

Documentation suggestions (include the model number family (i.e. HC20) and language that it has a variable-capacity compressor):

- Screen shot
- Specification sheet
- Brochure (lists all the model numbers)

HC20-VARIABLE CAPACITY HEAT PUMP						
MODEL	TONS	SEER	HSPF	H	W	D
HC2024B21SA	2.0	19.4	11.0	40-1/4	32	35-1/2
HC2036B21SA	3.0	20.0	11.0	40-1/4	32	35-1/2
HC2048B21SA	4.0	19.3	10.5	46-1/2	34-1/2	38-1/4
HC2060B21SA	5.0	18.8	10.5	46-1/2	34-1/2	38-1/4



Daikin Manufacturing Company

Website: <https://daikincomfort.com/products/heating-cooling/whole-house/heat-pumps>

Navigation:

1. Click on the applicable model family
2. Compressor type can be found in the product description and “Features” section. “Variable Speed” designation is also called “Swing” in the specification sheet.

Documentation suggestions (include the model number family (i.e. DZ18VC) and language that it has variable-capacity compressor):

- Screen shot
- Specification sheet

DZ18VC
Whole House Heat Pump
★★★★☆ (4.6)

When properly matched and installed, your ComfortNet™-compatible DZ18VC Variable-Speed Heat Pump offers up to 19 SEER high-efficiency performance. The higher the SEER, the greater the efficiency — and the lower the operating cost compared to lower SEER units. In many applications, the efficiency of your DZ18VC can be enhanced by using it in conjunction with a Daikin brand air handler that includes a variable-speed blower motor. This unit features a powder-quiet finish over heavy-gauge galvanized steel that provides premium durability and excellent UV protection.

Interested in this product?

[Find a Dealer](#) [View Features](#)

- Up to 19 SEER Performance
- Up to 10 HSPF
- Variable-speed swing and scroll compressors

Compressor Type	Variable-Speed
Cost Per Ton	\$5

Features

- ComfortNet™ Communicating System-compatible
- Daikin Inverter variable-speed swing compressor
- Quiet three-speed condenser fan motor
- Refrigeration-grade premium 7mm copper tubing and aluminum fin condenser coil
- Daikin Inverter Intelligence constantly monitor the system for trouble spots
- Acoustically engineered high-density sound control baffle for quiet operation
- Heavy-gauge galvanized steel cabinet with sound-control top
- Painted enamel finish protects the system from the elements
- AHRB certified, ETL listed

Specifications

Parts Replacement Limited Warranty	12 Year Parts Limited Warranty
ComfortNet™ Compatible	✓
SEER	Up to 19
Compressor Type	Variable-Speed
Remote Control	ComfortNet
Heater Technology	✓

Lennox

Website: <https://www.lennox.com/products/heating-cooling/heat-pumps>

Navigation:

1. Click on the applicable model family
2. Click button to “View Full Product Specifications”




3. Click on the model family of your heat pump
4. Compressor type can be found in the Product Specifications as “Stages of Cooling: Variable-capacity operation”

Documentation suggestions (include the model number family (i.e. XP25) and language that it has variable-capacity operation):

- Screen shot
- Specification sheet

LENNOX MENU

PRODUCT SPECIFICATIONS

Feature  **XP25 Heat Pump**

Rating	★★★★☆ (4.6)
Energy Efficiency	Up to 23.50 SEER / 10.20 HSPF
Stages of Cooling	Variable-capacity operation
Sound Rating	As low as 58 dB
SilentComfort™ Technology	✓
Solar-Ready Design	✓
Environmentally Responsible	R-410A refrigerant and Solar Ready

Rheem

Website: <https://www.rheem.com/products/residential/heating-and-cooling/heat-pumps/>

Navigation:

1. Click on applicable model family
2. Compressor type can be found in the name and overview that it has a Copeland Scroll™ Variable Speed Compressor

Documentation suggestions (include the model number family (i.e. RP20) and language that it has a variable speed compressor):

- Screen shot
- Specification sheet
- Sales Fact Sheet

Rheem

RP20 EcoNet Variable Speed
MODEL # RP2024AJVCA

Tonnage	SEER	Warranty
2	Up to 20	10

Efficiencies up to 20 SEER
EcoNet™ Enabled
Copeland Scroll™ Variable Speed Compressor.

Overview

- PlusOne™ Energy Efficiency offers minimum of 20 SEER and up to 11 HSPF system performance
- PlusOne™ Expanded Valve Space – 3”-4”-5” service valve space – provides a minimum working area of 27-square inches for easier access
- PlusOne™ Triple Service Access – 15” wide, industry leading corner service access – makes repairs easier and faster. The two flatter removable corner allows optimal access to internal unit components. Individual lower panels come out once fastener is removed, for faster coil cleaning and easier cabinet assembly
- EcoNet™ Enabled product. The EcoNet Smart Home System provides advanced air & water control for maximum energy savings and ideal comfort.
- New composite base cap – dampens sound, captures lower panels, eliminates

Trane

Website: <https://www.trane.com/residential/p/products.html>

Navigation:

1. Click on menu button
2. Select "Outdoor Heat Pumps" then select applicable model family.
3. Compressor type is listed as "Climatuff® Variable Speed inverter compressor" or some variation of that in the description or specification.



Documentation suggestions (include the model number family (i.e. XV20i) and language that it has a variable speed compressor):

- Screen shot

UP TO 21.00 SEER/13.50 EER/10 HSPF

- 2, 3, 4 and 5 ton
- Woven Spine Fin™ coil
- Variable-speed fan motor
- Swept fan blade
- Compressor sound insulator
- Climatuff® Variable Speed inverter compressor
- ComfortLink™ II capability
- Two-wire connections
- ENERGY STAR® qualified system ratings available for select models

↑

XV20i

4TWW0

The XV20i TruComfort™ variable speed heat pump system is one

York by Johnson Controls

Website: <http://www.york.com/for-your-home/heat-pumps>

Navigation:

1. Click on the applicable model family
2. Compressor type is listed as variable-capacity in description

Documentation suggestions (include the model number family (i.e. YZV) and language that it has a variable-capacity compressor):

- Screen shot
- Specification sheet
- Technical Guide
- Brochure (lists all the model numbers)

YZV-VARIABLE CAPACITY HEAT PUMP						
MODEL	TONS	SEER	HSPF	H	W	D
YZV24B21SA	2.0	19.4	11.0	40-1/4	32	35-1/2
YZV36B21SA	3.0	20.0	11.0	40-1/4	32	35-1/2
YZV48B21SA	4.0	19.3	10.5	46-1/2	34-1/2	38-1/4
YZV60B21SA	5.0	18.8	10.5	46-1/2	34-1/2	38-1/4

YZV Heat Pump

YORK® Affinity™ Series

- Provides most efficient of ENERGY STAR® 2018 performance with up to 20 SEER and 11.0 HSPF.
- Variable-capacity compressor offers a higher degree of performance.
- QuietDrive™ system silences vibrations with swept wing fan and composite base.
- Charge Assurance™ allows for faster, more accurate installations.
- Climate Set™ maximizes overall efficiency and provides improved comfort by perfectly tuning the system to the indoor and outdoor environment.
- Automotive grade powder paint provides years of corrosion free performance.
- Lifetime compressor, 10-year parts and 1-year labor limited warranties ensure years of dependability with industry-leading quality.