

# Trane® Axiom™ Variable Speed Water Source Heat Pumps



Imagine a product that delivers superior comfort and performance while reducing operating cost

## Models VSH and VSV – 2 to 5 tons

The Axiom model VS is Trane's most advanced water source comfort solution designed to meet these requirements. Trane achieves higher efficiency, reduced sound, improved indoor air quality and high reliability through variable speed compressor and fan technology.

Trane's design incorporates system advantages such as:

- **Higher Efficiency**

- Certified performance
- Exceeds ASHRAE 90.1-2016 standards for efficiency
- Efficiency increases as the system unloads with EER values up to 40 (ground loop) at part load operation

- **Indoor Air Quality**

- Foil faced insulation for cleanability
- Cleanable dual sloped non-corrosive drain pan to reduce microbial growth
- Full array of filter options including MERV 8 and MERV 13 to meet LEED EQ Credit 5

- **Comfort**

- Variable speed compressor varies the capacity to match the load requirements in the zone
- ECM motor varies supply airflow for superior comfort control

- **Integrated Controls**

- Fully mounted, wired, programmed and tested controls
- Trane engineered UC400 DDC controller for stand-alone applications or integration with Tracer SC™

- **Acoustics**

- Insulated compressor enclosure for quiet design
- Variable speed fan and compressor reduce sound levels at lower load conditions
- Advanced Vortica™ fan system uses less energy to produce more airflow with minimal sound



- **Reliability**

- Part load operation reduces cyclic operation
- Fewer on/off cycles reduce stress of the components
- Every unit is factory run tested in both cooling and heating cycle

- **Flexibility**

- Units support both boiler/cooling tower and ground source heat exchanger applications
- Supply and return airflow configuration flexibility
- Adjustable supply minimum and maximum airflow settings

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## AHRI - ISO Ratings

### Horizontal Model VSH

				Water Loop (WLHP)				Ground Loop (GLHP)			
				Cooling 86F		Heating 68F		Cooling 77F		Heating 32F	
Size	Loading	Waterflow	Airflow	Cooling capacity (BTUH)	EER	Heating capacity (BTUH)	COP	Cooling capacity (BTUH)	EER	Heating capacity (BTUH)	COP
024	Full	6.2	930	25,100	18.30	30,300	6.44	26,200	21.82	18,500	4.35
024	Part	6.2	625	13,800	23.67	15,900	8.64	15,000	36.43	10,300	4.99
033	Full	8.6	1200	33,800	15.79	40,200	5.85	35,300	18.51	24,700	4.10
033	Part	8.6	720	17,600	21.96	21,000	7.71	18,900	32.23	14,300	4.96
042	Full	10.5	1650	42,600	18.60	51,800	6.70	44,600	22.00	31,500	4.50
042	Part	10.5	1065	24,100	23.26	29,800	8.21	26,100	35.38	18,800	5.39
050	Full	12.7	1890	50,200	16.50	64,400	5.80	52,400	19.30	40,100	4.20
050	Part	12.7	1200	28,400	22.29	36,100	7.52	31,000	33.67	24,000	5.28
060	Full	15.6	2100	60,700	14.80	81,600	5.30	63,200	17.00	50,400	3.80
060	Part	15.6	1323	36,400	20.56	46,500	6.77	39,100	31.43	31,300	5.06

### Vertical Model VSV

				Water Loop (WLHP)				Ground Loop (GLHP)			
				Cooling 86F		Heating 68F		Cooling 77F		Heating 32F	
Size	Loading	Waterflow	Airflow	Cooling capacity (BTUH)	EER	Heating capacity (BTUH)	COP	Cooling capacity (BTUH)	EER	Heating capacity (BTUH)	COP
024	Full	6.2	930	24,600	18.44	30,300	6.10	25,900	22.32	18,400	4.17
024	Part	6.2	625	13,100	22.58	15,900	7.60	14,300	35.31	9,900	4.81
033	Full	8.3	1200	32,900	15.47	40,400	5.46	34,300	18.08	24,500	3.86
033	Part	8.3	720	17,100	20.81	21,500	7.00	18,500	31.59	14,100	4.60
042	Full	10.9	1650	44,100	18.25	54,700	5.95	46,200	22.03	31,900	3.98
042	Part	10.9	1200	25,500	24.17	29,400	7.50	26,900	40.50	17,800	4.59
050	Full	13.0	1890	51,200	15.72	68,800	5.32	54,100	18.76	41,400	3.75
050	Part	13.0	1200	29,900	22.08	36,800	6.90	32,800	34.00	23,400	4.62
060	Full	15.6	2100	61,800	15.60	81,200	5.50	64,600	18.30	50,000	4.00
060	Part	15.6	1323	35,900	21.28	46,300	7.30	39,600	32.88	30,400	5.29

**Note:** Rated in accordance ANSI/AHRI/ASHRAE/ISO13256-1. Certified conditions are 80.6°F DB/66.2°F WB EAT in cooling and 68°F DB/59°F WB EAT in heating. Entering liquid temperature in cooling is 86°F for Water Loop, 77°F for Ground Loop (full load), 68°F for Ground Loop (part load), and 59°F for Ground Water. Entering liquid temperature in heating is 68°F for Water Loop, 32°F for Ground Loop (full load), 41°F for Ground Loop (part load), and 50°F for Ground Water.

## Unit Size

Horizontal	024	033	042	050	060
Width (inch)	26	26	26	26	26
Length (inch)	60	60	81	81	81
Height (inch)	22	22	22	22	22

Vertical	024	033	042	050	060
Width (inch)	25	25	27	27	26
Length (inch)	27	27	31	31	31
Height (inch)	42	42	47	47	62

## General Data

Horizontal	024	033	042	050	060
Compressor Type	Rotary	Rotary	Scroll	Scroll	Scroll
Approximate Weight (lb)	333	333	524	524	524
Filter #1 Size	16x20	16x20	20x25	20x25	20x25
Filter #2 Size	20x20	20x20	20x30	20x30	20x30
Water In/Out Size (FPT) (in)	3/4	3/4	1	1	1
Condensate Size (NPTI) (in)	3/4	3/4	3/4	3/4	3/4
Blower Wheel Size (in)	11x10	11x10	11x10	11x10	11x10

Vertical	024	033	042	050	060
Compressor Type	Rotary	Rotary	Scroll	Scroll	Scroll
Approximate Weight (lb)	309	309	460	460	488
Filter #2 Size	20x25	20x25	24x30	24x30	20x30 (2)
Water In/Out Size (FPT) (in)	3/4	3/4	1	1	1
Condensate Size (NPTI) (in)	3/4	3/4	3/4	3/4	3/4
Blower Wheel Size (in)	11x8	11x8	12x11	12x11	11x10



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