



VERTA SERIES

Air-to-Water Heat Pump

BETTER FOR YOUR JOB AND FOR THE PLANET

The Verta Series offers a smart, energy-efficient solution for modern hydronic heating and cooling needs.

KEY FEATURES:

- 7" LED Touchscreen with user-friendly system interface
- Eco-friendly R32 Refrigerant
- Designed to heat water in low ambient conditions
- Sleek, modern design
- Heating, cooling and domestic hot water capabilities
- Built-in controls for hybrid applications



FEATURES AND BENEFITS

The perfect fit for a single-family house or apartment with limited space.

- **7" LED Touchscreen System Control**

The intuitive system interface enables users to effortlessly connect and manage external products such as boilers or electric heaters, ensuring seamless integration for hybrid applications.

- **DHW Storage**

Set timer as needed for each day in a week.

- **Heating Curve**

Adjust outlet water temperature based on ambient temperature automatically.

- **Auto Heat Cool Switch**

Heating and cooling can be switched automatically based on ambient temperature or external signal.

- **Equipped with R32 Refrigerant**

Sustainable, economic and efficient, R32 is a high-performance gas that is good for the environment. Its Global Warming Potential (GWP) two third less than R410A.

- **High Temperatures even in Low Ambients**

The Verta Air-to-Water Heat Pump can achieve high delivered water temperatures in low ambient conditions while maintaining high efficiencies (see spec table for more details).

- **Limited Warranty**

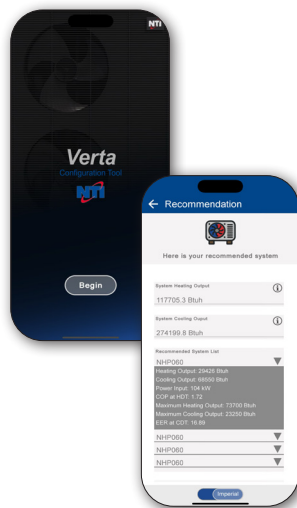
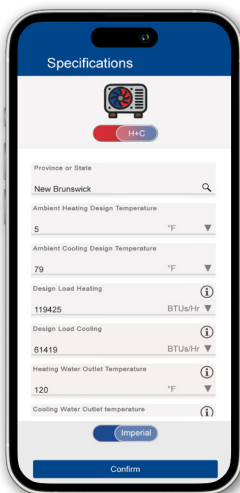
From installation date:

5 years - Compressor

3 years - All Other Parts



SIZING / PERFORMANCE APP



Scan to watch the NTI Verta Sizing tool in action!



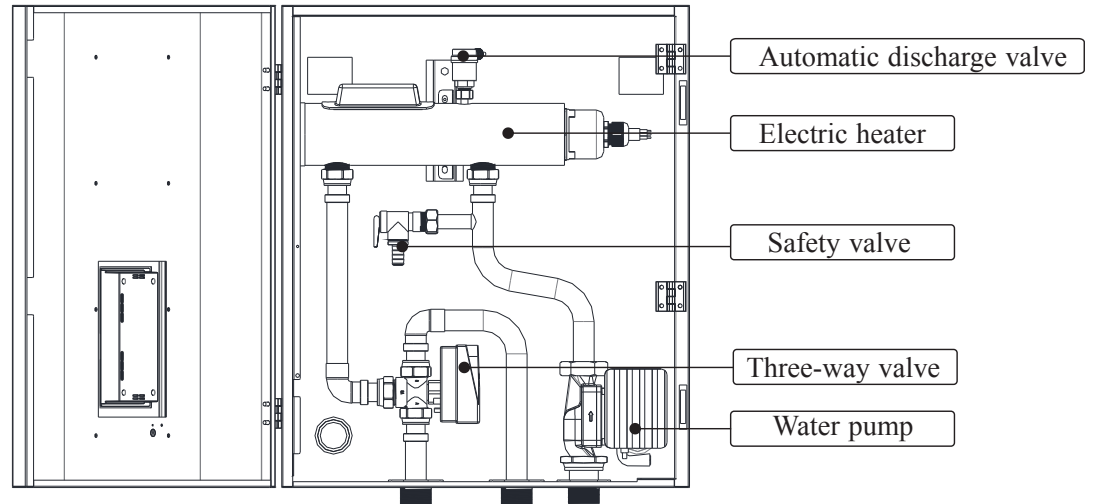
- **Smart system recommendations** for Heating only or Heating & Cooling—choose Imperial or Metric units with ease!
- **Real-time performance insights:** Instantly see recommended heating and cooling output in BTUH based on your custom design temperatures.
- **Clear model comparisons:** View model numbers side-by-side with all key specs—heating/cooling output, input power, unit efficiency (COP/EER), and maximum capacities.
- **Effortless decision-making:** Based on data provided, the app turns complex choices into clear and precise selections allowing the user to confidently apply the proper products.

TECHNICAL FEATURES

Hydrobox/Control Box

The Verta Series Monoblock Air-to-Water Heat Pump requires an indoor unit for installation, and NTI offers two options for this component: the Control Box (Control32-7) and the Hydrobox (Hydro32-7).

The **Hydrobox** (pictured here), is a wall-mounted unit, and includes a 7" LED touchscreen system interface and main control board (PCB). In addition, the Hydrobox includes a 3kW backup heater, a hydronic circulating pump, and a 3-way valve for domestic hot water (DHW) applications. It communicates with the outdoor unit, only requiring a 24-gauge, 3-wire cable



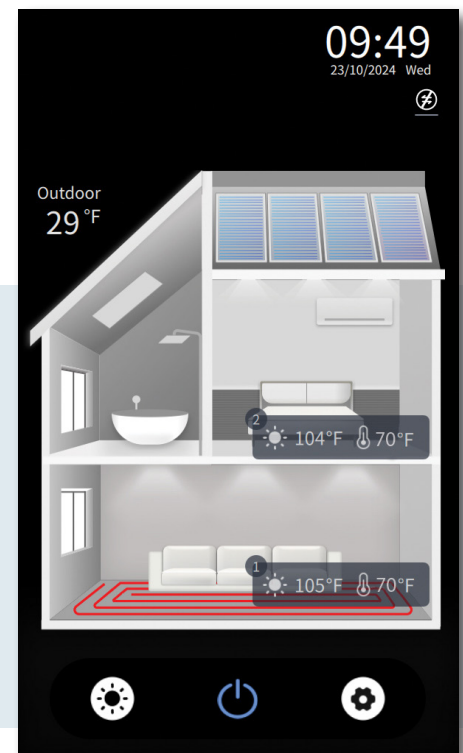
(provided by the factory). The Hydrobox requires a separate 208-230V power supply to operate the backup heater. Designed as a pre-piped solution, the Hydrobox simplifies installation and helps save time on the project, making it an ideal choice for installers seeking efficiency and ease of integration.

The **Control Box** is also a wall-mounted unit that includes the 7" LED user-friendly touchscreen system interface, the main control board (PCB), and all necessary field wiring, such as temperature sensors. Installation is straightforward, requiring only a 24-gauge, 3-wire communication cable, like the Hydrobox, to connect the control box to the outdoor unit, ensuring a seamless setup.

7" LED Touchscreen System Control

At the core of the Verta Series is its intuitive 7" LED touchscreen, designed to simplify the commissioning process. This user-friendly interface presents all parameters and options in clear, easy-to-read English, ensuring a fast and efficient setup for installers.

The touchscreen also provides real-time temperature readings (when applicable), displays the current unit status, and alerts users to any faults or warnings, offering clear instructions for troubleshooting and resolution.



OUTDOOR UNIT PRODUCT SPECIFICATIONS

		Units	NHP32-036	NHP32-060
Cooling	Nominal Capacity*	Tons	2.3	4.6
	Nominal Efficiency*	EER	8.57	9.19
	Efficiency**	IPLV/IP	20.64	21.04
	Ambient Temp Range	° F (° C)	55-125 (12.8-51.7)	
	Delivered Water Temp Range	° F (° C)	39-49 (3.9-9.4)	
Heating	Capacity Range	BTU/hr (kW)	1,600-42,900 (0.7-12.6)	3,400-73,500 (1-21.5)
	Efficiency Range	COP	0.96-7.10	0.58-6.97
	Ambient Temp Range	° F (° C)	-13-113 (-25-45)	
	Delivered Water Temp Range	° F (° C)	68-140 (20-60)	
Electrical	Power	V/Ph/Hz	208-230/1/60	
	Fan Motor	A	0.6	0.6 x 2
	Compressor Motor	A	14.0	28.7
	MCA	A	24.5	41
	MOPD	A	30	60
	SCCR	kA	5	
Refrigerant	Type		R32	
	Factory Charge	lbs (kg)	3.97 (1.8)	5.73 (2.6)
	Normal Pressure Low Side	PSI	609	
	Normal Pressure High Side	PSI	174	
Fan	Quantity		1	2
	Power Input	W	90	90 x 2
	Type		Brushless DC motor	
	Max Speed	RPM	900	
Sound (1 meter)	Range	dBa	40-50	44-54
Hydronic	Rated Flow	GPM	9.1	14.4
	Max Water Temp	° F (° C)	140 (60)	
	Piping Connections	Inch (mm)	NPT 1-1/4" (DN32)	
	Rated Pressure Drop	PSI (ft W.C)	3.6 (8.4)	7.66 (17.7)
Compressor	Type		Rotary Inverter	
	Speed Range	Hz	30-90	30-76
	Brand		Mitsubishi	
	Quantity		1	

INDOOR UNIT PRODUCT SPECIFICATIONS

	Units	HYDRO32-7	CONTROL32-7
Unit Power Supply	V/Ph/Hz	208-230/1/60	115/1/60
Input Power	kW	0.2	0.2
Unit Maximum Overload Protection	A	15	15
Heater Maximum Overload Protection	A	20	/
Heater Supply	V/Hz	208-230V/60	/
Heater Rated Input Power	kW	2.4/3.0	/
Piping Connection	Inch	NPT 1 1/4	/

*Nominal Capacity and efficiency are tested in accordance with NTI ACCL All Working Conditions Data Sheet Ver 2.01. For more specific data points/ranges, please refer to the graphs in this manual or to the Verta sizing tool located here <https://ntiboilers.com/product/verta-series>

**IPLV/IP and capacities are tested and certified in accordance with AHRI 550/590.

100% CHECKED AND TESTED

Every single NTI product undergoes a rigorous internal process of automated quality, efficiency and safety tests before coming to you.

