



SMART.
RESPONSIBLE.
COMFORTABLE.



TRANQUILITY
HIGH TEMPERATURE
WATER-TO-WATER
(THW) SERIES
EARTHPURE®
WATER-TO-WATER UNITS

SIZE 10KW [32,600 BTUH] FOR 60HZ
SIZES 8KW, 10KW, AND 12KW FOR 50HZ



TRANQUILITY HIGH TEMPERATURE WATER-TO-WATER (THW) SERIES EARTHPURE® WATER-TO-WATER UNITS

The Tranquility High Temperature (THW) Series Water-to-Water Heat Pump

The THW series is unlike any other water-to-water heat pump on the market today. The large operating map of the scroll compressor allows high temperature operation, up to 145°F [63°C] leaving load water temperature even at 32°F [0°C] entering source water temperature. The combination of a coaxial (tube-in-tube) heat exchanger for the source (ground loop) side and a brazed plate heat exchanger for the load (heating/hot water) side provides very high efficiencies. Integral controls for hydronic heating and domestic water heating avoid the need for external microprocessor-based controls for outdoor temperature reset, warm weather shutdown, staging and other controls.

Available in size 10kW [32,600 Btuh] for 60Hz voltages, and sizes 8kW, 10kW and 12kW for 50Hz voltages, the THW offers a heat pump for most any installation. The THW has an extended range refrigeration circuit, capable of ground loop (geothermal) applications as well as open loop (well water) applications. Standard features and factory-installed options are many. Unique application-specific controls make the THW series ideal for hydronic heating and domestic hot water generation. The heating-only refrigeration circuit is optimized for high water temperatures, heating efficiencies, and capacities.

ClimateMaster's exclusive double isolation compressor mounting system, insulated compressor enclosure, and compressor discharge muffler make the THW series one of the quietest water-to-water heat pumps available. The attractive "Euro-style" cabinet allows the unit to fit into any decor.

Unit Features

- Size 10kW [32,600 Btuh] for 60Hz voltages; sizes 8kW, 10kW, and 12kW for 50Hz voltages
- High temperature scroll compressor, up to 145°F [63°C] leaving water temperature
- Ultra high efficiencies (4.2 COP at ground loop conditions; up to 5.5 COP at ground water conditions!)
- Built-in programmable controller with Outdoor Temperature Reset and Warm Weather Shutdown
- Large, back-lit digital user interface
- Rugged coaxial (tube-in-tube) "Source" heat exchanger (copper or cupronickel)
- Close approach temperature brazed plate stainless steel "Load" heat exchanger
- Galvanized steel construction with protective powder coat paint and stainless steel, hinged front access door
- Unique double compressor isolation, compressor enclosure, and discharge muffler for Ultra quiet operation
- "Euro-style" cabinet for attractive look
- Hinged front access door and 3 removable panels for ease of installation and service
- Insulated cabinet with foil backed insulation for ease of cleaning
- Flush-mount 1" IPT fittings, secured to the cabinet (no backup wrench required)
- TXV metering device
- 12-point low voltage terminal strip for ease of installation
- Disconnect and CE Mark controls for 50Hz units
- ETL safety listing for 60Hz units
- Wide variety of options including dedicated mode for domestic hot water generation (60Hz units include secondary heat exchanger and bronze potable water circulating pump) and factory installed internal load and source pump(s) with expansion tanks.

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- Euro-Style Cabinet For Attractive Look
- High Temperature Scroll Compressor
- Rugged Coaxial "Source" Heat Exchanger
- Close Approach Temperature Brazed Plate Stainless Steel "Load" Heat Exchanger
- Optional Full Condensing Hot Water Generation (60Hz Units Include Internal Heat Exchanger and Potable Water Pump)
- Optional Factory Installed "Load" and "Source" Pumps
- Fully Insulated Water and Refrigerant Lines
- Fully Insulated Compressor Section
- Powder Coated Galvanized Steel Cabinet and Stainless Steel Front Access Panel For Long Life
- Large Backlight User Interface
- Built-In Programmable Controller With Outdoor Temperature Reset and Warm Weather Shutdown
- Exclusive Double Compressor Isolation, and Compressor Discharge Muffler For Ultra Quiet Operation
- Hinged Front Access Door and Three Removable Panels For Ease of Installation and Service
- 12-Point Terminal Strip For Ease of Low Voltage Wiring
- Disconnect and CE Controls (50Hz Units)



THW Performance and Specifications

60Hz Units	Ground Loop Heat Pump				Ground Water Heat Pump			
	Heating				Heating			
Model	Indoor 86/95°F, Outdoor 32/27°F*		Indoor 104/113°F, Outdoor 32/27°F*		Indoor 86/95°F, Outdoor 50/45°F*		Indoor 104/113°F, Outdoor 50/45°F*	
	Indoor 30/35°C, Outdoor 0/-3°C*		Indoor 40/45°C, Outdoor 0/-3°C*		Indoor 30/35°C, Outdoor 10/7°C*		Indoor 40/45°C, Outdoor 10/7°C*	
	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP
	Btuh [kW]	W/W	Btuh [kW]	W/W	Btuh [kW]	W/W	Btuh [kW]	W/W
THW010	32.6 [9.57]	4.2	30.8 [9.03]	3.3	42.6 [12.50]	5.2	39.9 [11.69]	4.1

*Indoor temperature is also called "Source;" outdoor temperature is also called "Load." Numbers shown with "/" indicate entering/leaving water temperatures. Bold outline indicates typical radiant floor application temperatures. Ratings at 40°C [104°F] are based upon ARI/ISO Standard 13256-2; all other ratings are based upon Standard EN 14511-2.

50Hz Units	Ground Loop Heat Pump				Ground Water Heat Pump			
	Heating				Heating			
Model	Indoor 30/35°C, Outdoor 0/-3°C*		Indoor 40/45°C, Outdoor 0/-3°C*		Indoor 30/35°C, Outdoor 10/7°C*		Indoor 40/45°C, Outdoor 10/7°C*	
	Capacity	COP	Capacity	COP	Capacity	COP	Capacity	COP
	kW	W/W	kW	W/W	kW	W/W	kW	W/W
	THW008	7.81	4.2	7.20	3.2	10.68	5.5	9.85
THW010	9.84	4.2	9.29	3.2	12.85	5.2	12.02	4.1
THW012	13.15	4.2	12.44	3.3	15.74	4.8	15.69	4.1

*Indoor temperature is also called "Source;" outdoor temperature is also called "Load." Numbers shown with "/" indicate entering/leaving water temperatures. Bold outline indicates typical radiant floor application temperatures. All ratings are based upon standard EN 14511-2.

THW Dimensions

Model	Overall Cabinet			
	A Depth	B Width	C Height	
008	in.	26.8	25.6	48.9
	cm.	68.1	65.1	124.2
010	in.	26.8	25.6	48.9
	cm.	68.1	65.1	124.2
012	in.	26.8	25.6	48.9
	cm.	68.1	65.1	124.2



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