



50 HZ WATER-SOURCE HEAT PUMPS



TRANQUILITY THW SERIES

  
**CLIMATEMASTER**  
Water-Source Heat Pump Systems



The Tranquility® High Temperature Water-to-Water (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 63°C leaving load water temperature even at 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 sizes 8kW, 10kW and 12kW 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.

Fully Insulated Water and Refrigerant Lines



12-Point Terminal Strip For Ease of Low Voltage Wiring



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



**UNIT FEATURES**

- Models 8kW, 10kW, and 12kW
- High temperature scroll compressor, up to 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 cupro-nickel)
- 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” FPT 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
- Wide variety of options including dedicated mode for domestic hot water generation and factory installed internal load and source pump(s) with expansion tanks.

**PERFORMANCE AND SPECIFICATIONS**

AHRI/ISO/ASHRAE 13256-2 Data

Model	Refrigerant	Ground Loop Heat Pump				Ground Water Heat Pump			
		Heating				Heating			
		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 kW	COP W/W	Capacity kW	COP W/W	Capacity kW	COP W/W	Capacity kW	COP W/W
THW008	HFC-410A	7.81	4.2	7.20	3.2	10.68	5.5	9.85	4.2
THW010	HFC-410A	9.84	4.2	9.29	3.2	12.85	5.2	12.02	4.1
THW012	HFC-410A	13.15	4.2	12.44	3.3	15.74	4.8	15.69	4.1

\*Indoor temperature is also called “Load;” outdoor temperature is also called “Source.” 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.

**Dimensional Data**

Model		Overall Cabinet		
		W	D	H
008 - 012	cm	65.1	68.1	124.2

**Voltage Options**

Model	Volts	Hz	Phase
008 - 012	220/240 380/420	50 50	1 3



7300 S.W. 44th Street  
Oklahoma City, OK 73179  
Phone: +1-405-745-6000  
Fax: +1-405-745-6058  
climatemaster.com

ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time for order may be changed without notice and may not be as described herein. Please contact ClimateMaster's Customer Service Department at +1-405-745-6000 for specific information on the current design and specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties, but are merely ClimateMaster's opinion or commendation of its products.