

THE SMART SOLUTION FOR ENERGY EFFICIENCY

**TRANQUILITY MODULAR WATER-TO-WATER
(TMW) SERIES
100KW EARTH PURE[®] WATER-TO-WATER UNITS**



ClimateMaster Water-Source Heat Pumps Tranquility Modular Water-to-Water (TMW) Series 100kW EarthPure® Water-to-Water Units

THE TRANQUILITY MODULAR WATER-TO-WATER (TMW) SERIES

The TMW water-to-water series offers high efficiency and high capacity with advanced features, quiet operation and application flexibility at competitive prices. As ClimateMaster's largest water-to-water unit, the TMW series can be used for radiant floor heating, snow/ice melt, chilled water for fan coils, industrial process control, potable hot water generation*, hot/chilled water for make-up air, and many other types of HVAC and industrial applications that require cost effective heated or chilled water.

The Tranquility (TMW) Series exceeds ASHRAE 90.1 efficiencies, and also uses EarthPure® HFC-410A zero ozone depletion refrigerant, making it an extremely environmentally-friendly option. The unit is eligible for additional LEED® (Leadership in Energy and Environmental Design) points because of the "green" technology design.

Available in 28 ton capacity (100 kW), the TMW series provides high capacity in a small footprint, which saves mechanical room space. The TMW has an extended range refrigerant circuit (refrigerant and water circuit insulation is standard), capable of ground loop (geothermal) applications as well as water loop (boiler-tower) applications. Standard features are many. Microprocessor controls, galvanized steel cabinet, polyester powder coat paint and TXV refrigerant metering device are just some of the features of the flexible TMW series. The uniquely-designed coaxial heat exchangers are designed for many years of reliable operation.

ClimateMaster's dual-isolated compressor mounting and heavy gauge steel cabinet helps make the TMW series the quietest large capacity water-to-water unit on the market. Two scroll compressors operate quietly, and provide part load operation for capacity control. Options such as DDC controls and UltraQuiet™ sound attenuation package allow customized design solutions. For ease of installation and service, access to the refrigeration service and electrical control panel is located at the front of the unit, allowing units to be installed side-by-side for large capacity applications (see below).

The TMW Series water-to-water heat pumps are designed to meet the challenges of today's HVAC demands with a high efficiency, high value solution.

UNIT FEATURES

- Size 100 (100 kW, 28 ton)
- Two Copeland scroll compressors
- Dual independent refrigeration circuits
- Exclusive single side service access (front of unit) allows multiple units to be installed side-by-side for large capacity installations
- Top water connections, staggered for ease of manifolding multiple units
- Exceeds ASHRAE 90.1 efficiencies
- Heavy gauge galvanized steel construction with polyester powder coat paint and stainless steel front access panels
- Insulated compressor compartment
- Small footprint
- TXV metering devices
- Extended range (20 to 110°F, -6.7 to 43.3°C) operation
- Microprocessor controls standard (optional DXM and/or DDC controls)
- LonWorks, BACnet, Modbus and Johnson N2 compatibility options for DDC controls
- Compressor "run" and "fault" lights on the front of the cabinet
- Seven safeties standard
- Options include UltraQuiet™ sound attenuation package and Cupro-Nickel heat exchanger(s)

*Requires field supplied secondary heat exchanger.

The Smart Choice for Energy Efficiency



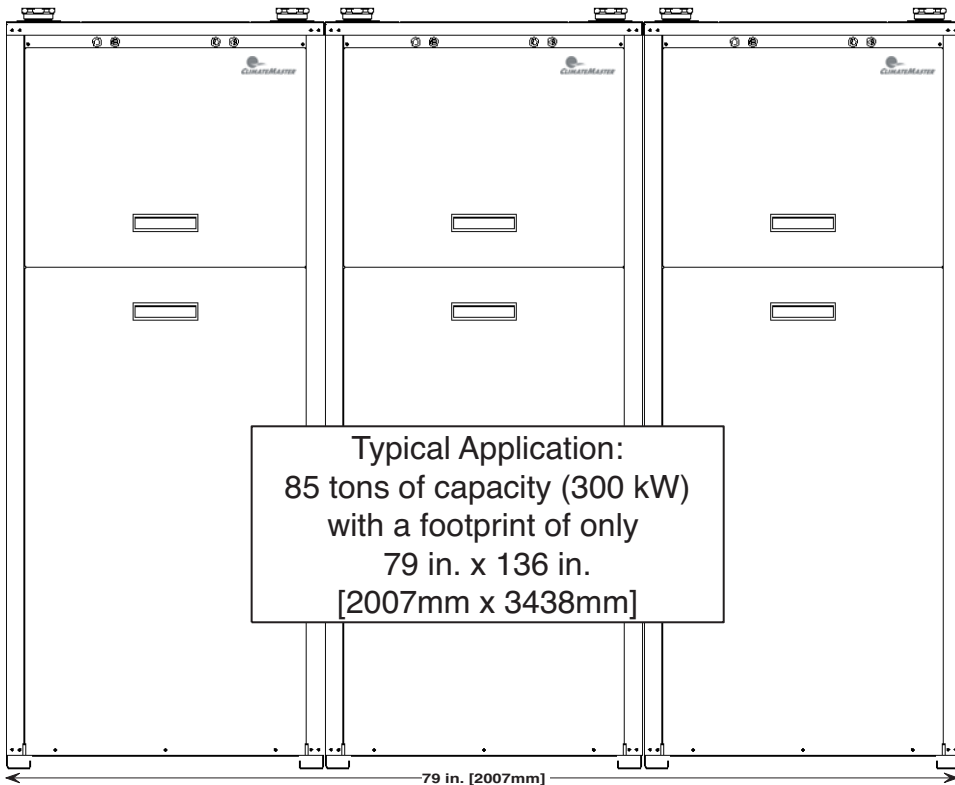
Copeland scroll compressors with dual-isolation mounting for quiet operation

Extended range insulated water/refrigerant circuit standard



Advanced digital controls with Remote Service Sentinel and compressor "run" and "fault" LED. Optional Enhanced controls (DXM) & DDC Controllers

Manifold top water connections of multiple "modules" to handle large capacity hot or chilled water applications.



Exclusive single-side service access. Units may be installed side-by-side.



Dual compressor refrigeration circuit

PERFORMANCE AND SPECIFICATIONS

ARI/ISO/ASHRAE 13256-2 Data (English (IP) Units & Metric (SI) Units)*

Model	Voltage & Refrigerant	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump			
		Cooling		Heating		Cooling		Heating		Cooling		Heating	
		Indoor 53.6°F [30°C] Outdoor 86°F [30°C]		Indoor 104°F [40°C] Outdoor 68°F [20°C]		Indoor 53.6°F [12°C] Outdoor 59°F [15°C]		Indoor 104°F [40°C] Outdoor 50°F [10°C]		Indoor 53.6°F [12°C] Outdoor 77°F [25°C]		Indoor 104°F [40°C] Outdoor 32°F [0°C]	
		Capacity	EER	Capacity	COP	Capacity	EER	Capacity	COP	Capacity	EER	Capacity	COP
		MBtuh [kW]	Btuh/W [W/W]	MBtuh [kW]		MBtuh [kW]	Btuh/W [W/W]	MBtuh [kW]		MBtuh [kW]	MBtuh [kW]	Btuh/W [W/W]	
	60Hz - R410A	kW	W/W	kW		kW	W/W	kW		kW	W/W	kW	
	50Hz - R410A	kW	W/W	kW		kW	W/W	kW		kW	W/W	kW	
TMW100	60Hz - R410A	253 [74.30]	13.6 [4.0]	336 [98.54]	4.4	282 [82.65]	19.6 [5.7]	277 [81.18]	3.7	267 [78.14]	15.6 [4.6]	220 [64.48]	3.0
	50Hz - R410A	68.23	4.3	91.56	5.0	78.45	6.4	73.15	4.0	73.81	5.0	57.37	3.2

All ratings based upon operation at the lower voltage of dual voltage rated models.

* Indoor = Load side heat exchanger; Outdoor = Source side heat exchanger.

Dimensional Data

Model		Overall Cabinet		
		W	D	H
100	in.	26.3	45.1	63.2
	mm.	669	1146	1604

Voltage Options

Model	Volts	Hz	Phase
100	208/230	60	3
	460	60	3
	575	60	3
	380/420	50	3



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