



50 HZ WATER-SOURCE HEAT PUMPS



TRANQUILITY™ TMW SERIES


CLIMATEMASTER
Water-Source Heat Pump Systems

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



The Tranquility® Modular Water-to-Water (TMW) 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 TMW Series offers high 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 10.5 to 100 kW capacities, 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.

Advanced digital controls with Remote Service Sentinel and compressor "run" and "fault" LED



Small footprint with convenient front service access (TMW036 shown)



Copeland scroll compressors with dual-isolation mounting for quiet operation



TMW 170 & 340 offer exclusive single-side service access. Units may be installed side-by-side

Extended range insulated water/refrigerant circuit standard

Optional enhanced controls (DXM) & DDC Controllers



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Two scroll compressors operate quietly, and provide part load operation for capacity control (120 and 340). 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 water-to-water units are designed to meet the challenges of today's HVAC demands with a high efficiency, high value solution.

UNIT FEATURES

- Models 036 (10.5 kW) through 340 (100 kW)
- Copeland scroll compressors
- Dual independent refrigeration circuits (120 and 340)
- 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 (170 and 340)
- 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 (-5 to 45°C) capable
- 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 (170 and 340)
- Seven safeties standard
- Options include UltraQuiet sound attenuation package and Cupro-Nickel heat exchanger(s)

*Requires field supplied secondary heat exchanger.

PERFORMANCE AND SPECIFICATIONS

AHRI/ISO/ASHRAE 13256-2 Data

Model	Refrigerant	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump			
		Cooling		Heating		Cooling		Heating		Cooling		Heating	
		Indoor 12°C Outdoor 30°C		Indoor 40°C Outdoor 20°C		Indoor 12°C Outdoor 15°C		Indoor 40°C Outdoor 10°C		Indoor 12°C Outdoor 25°C		Indoor 40°C Outdoor 0°C	
		Capacity kW	EER W/W	Capacity kW	COP	Capacity kW	EER W/W	Capacity kW	COP	Capacity kW	EER W/W	Capacity kW	COP
TMW036	HFC-410A	8.64	4.64	11.32	5.20	9.71	7.31	9.28	4.27	8.91	5.32	7.14	3.27
TMW060	HFC-410A	14.39	4.45	19.37	5.01	15.50	6.64	16.00	4.01	15.12	4.87	12.81	3.09
TMW120	HFC-410A	28.78	4.41	38.75	4.98	31.01	6.58	32.01	3.99	30.25	4.83	25.62	3.07
TMW170	HFC-410A	34.13	4.30	45.92	5.00	37.28	6.41	36.71	4.08	36.82	4.99	28.89	3.18
TMW340	HFC-410A	68.23	4.30	91.56	5.00	78.45	6.38	73.15	3.97	73.81	4.99	57.34	3.18

Cooling capacities based upon 27°C DB, 19°C WB entering air temperature
 Heating capacities based upon 20°C DB, 15°C WB entering air temperature
 Ground loop heat pump ratings based on 15% methanol antifreeze solution
 All ratings based upon operation at lower voltage of dual voltage rated models

Dimensional Data

Model		Overall Cabinet		
		W	D	H
036 - 060	cm	64.5	77.8	83.8
120	cm	134.4	77.8	94.0
170 - 340	cm	66.9	114.6	163.8

Voltage Options

Model	Volts	Phase
036	220/240	1
	380/420	3
060-340	380/420	3



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