Tranquility® Water-To-Water (TMW) Series

Submittal Data

Models TMW036-340 60Hz - HFC-410A







TMW Water-To-Water Series

Introduction	3
uras Ontions and Accossorias	1

Features, Options and Accessories 4

iGate® 2 Communicating Controls Powered by CXM2 5

iGate® 2 Communicating Controls Powered by DXM2.5 6

iGate® 2 Communicating (AWC)Thermostat 7

myUplink – Web and Mobile Interface 8

Selection Procedure 9

TMW Series Nomenclature 11

Performance Data – AHRI/ASHRAE/ISO 13256-2 12

Performance Data – Selection Notes 13

Performance Data – TMW036 (60Hz I-P) - Cooling 14

Performance Data – TMW036 (60Hz I-P) - Heating 16

Performance Data – TMW060 (60Hz I-P) - Cooling 18

Performance Data – TMW060 (60Hz I-P) - Heating 20

Performance Data – TMW120 (60Hz I-P) - Cooling 22

Performance Data – TMW120 (60Hz I-P) - Heating 24

Performance Data – TMW170 (60Hz I-P) - Cooling 26

Performance Data – TMW170 (60Hz I-P) - Heating 27

Performance Data – TMW340 (60Hz I-P) - Cooling 29

Performance Data – TMW340 (60Hz I-P) - Heating 31

Antifreeze Correction Table 33

Physical & Electrical Data 35

Dimensional Data – TMW036 - 120 36

Dimensional Data – TMW170 & 340 37

TMW Series Wiring Diagram Matrix 38

Engineering Specifications 39

Performance Sheet 44

Revision History 46



Document page number is shown next to part number (e.g. LC402 - 3 = page 3). Since not all pages are typically used in the submittals process, the page number in the lower right corner can still be used (page ____of_____).

Introduction

THE 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 Tranquility® Modular Water-to-Water (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 3 to 28 ton capacities (10.6 kW and 100 kW), the TMW Series provides high capacity in a small footprint, which saves mechanical room space. The TMW Series 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. Scroll compressor(s) operate quietly, and provide part load operation (models 120 and 340) 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.

Features, Options and Accessories

FEATURES

- Size 036, 060, 120, 170 & 340
- Copeland scroll compressor(s)
- Dual independent refrigeration circuits on size 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
- 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
- iGate[®] 2 Communicating Controls Powered by CXM2
 - Multiple communication pathways,
 - Cloud-based connectivity via iGate 2 Wi-Fi communicating color touch screen thermostat for remote monitoring, access, and diagnosis. Including the new functionality for contractors/ building engineers to monitor and make mass changes on multi-unit systems
 - o Connect directly to the system with use of a handheld service tool
 - Provides real-time unit operating conditions
 - Reduces start-up, commissioning, and service time by removing the need for hard tooling to take temperature measurements
 - Captures operating conditions in the event of a safety shutdown
- Compressor "run" and "fault" lights on the front of the cabinet
- Six safeties standard
 - * Requires field supplied secondary heat exchanger.

OPTIONS

- Extended range insulation for geothermal applications
- BACnet, Modbus and Johnson N2 compatibility options for DDC controls
- Options include UltraQuiet sound attenuation package and cupro-nickel heat exchanger(s)

ACCESSORIES

- Wi-Fi communicating color touch screen thermostat for single zone in-floor radiant heating applications
- Wide variety of thermostat options for single zone in-floor radiant heating applications
- Various length braided hose kits with optional water
- valves, PT plugs, blow-down valve, flow limiting, and strainer options
- Externally mounted manual and motorized water valves
- DDC (MPC) controls

iGate® 2 Communicating Controls Powered by CXM2

iGate® 2 Communication – Cloud connected, web-enabled information gateway to monitor, control, and diagnose your system



The Tranquility® Modular Water-to-Water (TMW) Series is equipped with industry-first, iGate® 2 communication information gateway that allows users to interact with their water-source system in easy to read clear language.

Monitor/Configure – Installers can configure from the myUplink PRO website, mobile app, iGate 2

Communicating (AWC) Thermostat, or diagnostic tool, including: Unit family, size, accessory configuration, and demand reduction (optional, to limit unit operation during peak times). Users can look up the current system status: temperature sensor readings and operational status of the blower.

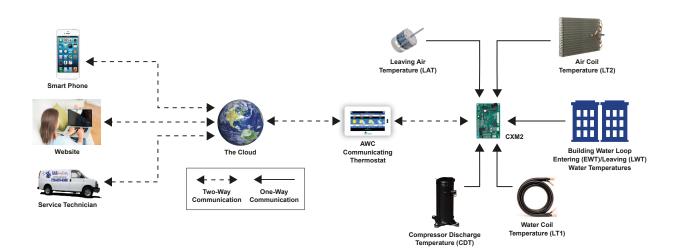
Precise Control – The new CXM2 board enables intelligent, 2-way communication between the CXM2 board and smart components like the communicating thermostat and diagnostic tool. The advanced CXM2 board uses information received from the temperature sensors to precisely control operation to deliver high efficiency, reliability and increased comfort.

Diagnostics – iGate 2 takes diagnosing water source heat pump units to a next level of simplicity, by providing a dashboard of system and fault information, in clear language, on the AWC Communicating Thermostat, handheld service tool and the web portal/mobile app on the internet.

iGate 2 Thermostat Service Warnings notify the homeowner and contractor of a fault and displays fault descriptions by app notifications/email with possible causes. Additionally, the current system status can be viewed graphically on the web portal and mobile app.

In iGate 2 Service Mode, the service personnel can access fault description, possible causes and most importantly, the conditions (temp, flow, i/o conditions, configuration) at the time of the fault. Manual Operation mode allows the service personnel to manually command operation for any of the thermostat outputs, blower speed, to help troubleshoot specific components. This operation can either be conducted at the unit with a communicating thermostat/diagnostic tool or remotely with mobile app/website when the AWC Communicating Thermostat controls are used.

With an iGate 2 communicating system, users and contractors have a web-enabled gateway to system information never before available and exclusive to ClimateMaster products.



iGate® 2 Communicating Controls Powered by DXM2.5

iGate® 2 Communication – Cloud connected, web-enabled information gateway to monitor, control, and diagnose your system



The Tranquility® Modular Water-to-Water (TMW) Series is equipped with industry-first, iGate® 2 communication information gateway that allows users to interact with their water-source system in easy to read clear language AND delivers improved reliability/ efficiency by precisely controlling smart components.

Monitor/Configure – Installers can configure from the myUplink PRO website, mobile app, iGate 2 Communicating AWC Thermostat, or diagnostic tool, including: Airflow, unit family, size, accessory configuration, and demand reduction (optional, to limit unit operation during peak times). Users can look up the current system status: temperature sensor readings and operational status of the blower.

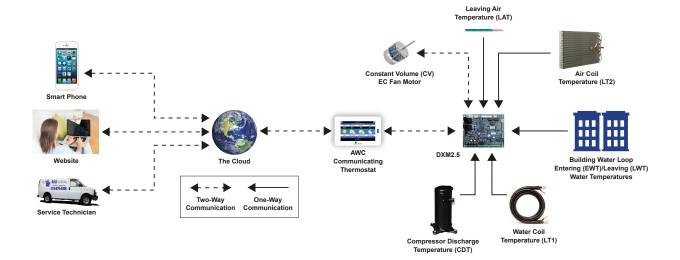
Precise Control – The new DXM2.5 board enables intelligent, 2-way communication between the DXM2.5 board and smart components like the communicating thermostat/diagnostic tool and constant volume (CV) EC fan motor. The advanced DXM2.5 board uses information received from the smart components and temperature sensors to precisely control operation of the variable speed CV EC fan motor to deliver higher efficiency, reliability and increased comfort.

Diagnostics – iGate 2 takes diagnosing water source heat pump units to a next level of simplicity, by providing a dashboard of system and fault information, in clear language, on the AWC Communicating Thermostat, handheld service tool and the web portal/mobile app on the internet.

iGate 2 Thermostat Service Warnings notify the homeowner and contractor of a fault and displays fault descriptions by app notifications/email with possible causes. Additionally, the current system status can be viewed graphically on the web portal and mobile app.

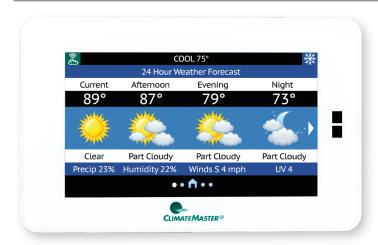
In iGate 2 Service Mode, the service personnel can access fault description, possible causes and most importantly, the conditions (temp, flow, i/o conditions, configuration) at the time of the fault. Manual Operation mode allows the service personnel to manually command operation for any of the thermostat outputs, blower speed, to help troubleshoot specific components. This operation can either be conduct at the unit with a communicating thermostat/diagnostic tool or remotely with mobile app/website when the AWC Communicating Thermostat controls are used.

With an iGate 2 communicating system, users and contractors have a web-enabled gateway to system information never before available and exclusive to ClimateMaster products.



iGate® 2 Communicating (AWC)Thermostat

iGate® 2 Communication – Cloud connected, web-enabled information gateway to monitor, control, and diagnose your system



The iGate® 2 Communicating (AWC) Thermostat is innovating the future of comfort technology, one building at a time. The inspired design of the touch screen interface allows you to see real-time data for the efficiency and health of your system, with early warnings for potential system faults. The cloud based information gateway allows technicians to remotely diagnose system issues before occupants even know there is a problem. Control and monitor the system in your home or business from anywhere in the world with an easy to use app on your phone.

Features with Efficiency in Mind



Touch Screen Interface

A brilliantly customizable touch screen monitor for simple control.



Seamless Integration

Between your iGate® 2 Communicating (AWC) Thermostat and Tranquility comfort system.



(Mobile) Remote System Control

Control temperature and schedule from anywhere in the world.



Early Fault Warnings

Alerts you and your contractor of potential system faults in the future.



Remote Diagnostics

Enable the contractor to remotely diagnose system issues, adjust system settings, and reset faults.



Real-Time Operations Data & System Schematics

Access simply via the myUplink Pro Account and web portal to view system diagrams with current operating temperatures.



Revenue Stream

HVAC professionals can offer owners service contracts with remote monitoring and diagnosis capabilities without the large expense of a building management system.



HVAC Professional | User Experience



The iGate® 2 is more than just a smart thermostat for your residential or commercial customer, it's a business opportunity. Our new thermostat works with your customers' Tranquility comfort systems to provide the most efficient link between their system and

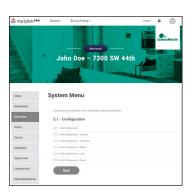
your services. The customization of monitoring from the myUplink PRO web portal or phone app account allows for continuous system monitoring, analysis, repair recognition, and early warnings for potential system faults that are sent to you and your customer.



Benefits

- Remote login from anywhere, anytime from any internet connected device
- View system fault history with possible root causes
- Information is available for contractors to troubleshoot and diagnosis systems remotely
- Secure internet connection keeps homeowner information private
- Access thermostat(s) through Android and iPhone mobile apps

Homeowner | User Experience



The iGate® 2 combines a Wi-Fi thermostat and advanced unit controls to communicate the systems operation information to the cloud. From any internet connected device or smart phone, homeowners can control and monitor their systems from anywhere in the

world. iGate 2 offers homeowners peace of mind their systems are operating at peak performance with advanced operational performance issue notifications. HVAC professionals get notifications when systems are operating out of range. They can log in remotely to check system faults, review current operating conditions, and diagnosis issues remotely. This gives the HVAC technician the upper hand when showing up to perform service, saving time which in turn saves money.

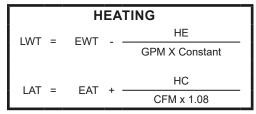


Benefits

- Communicates personal settings and reminders through the iGate 2 communication system
- Easy-to-use, full-color, high-resolution interface
- Sleek, intuitive button control
- Secure internet connection keeps your information private
- Contains unit model, serial number and your HVAC professionals contact information
- System monitoring automatically contacts HVAC system providers when service is needed

Selection Procedure

Reference Calculations



$$LWT = EWT + \frac{HR}{GPM \times Constant} \quad LC = TC - SC$$

$$LAT (DB) = EAT (DB) - \frac{SC}{CFM \times 1.08} \quad S/T = \frac{SC}{TC}$$

Constant = 500 for water, 485 for antifreeze

Conversion Table - to convert inch-pound (English) to S-I (Metric)

Airflow	Water Flow	Est Static Pressure	Water Pressure Drop
Airflow (L/s) = CFM x 0.472	Water Flow (L/s) = gpm x 0.0631	ESP (Pa) = ESP (in of wg) x 249	PD (kPa) = PD (ft of hd) x 2.99

Legend and Glossary of Abbreviations

Abbreviations	Descriptions
Btuh	Btu (British Thermal Unit) per hour
CDT	Compressor discharge temperature
CFM	Airflow, cubic feet per minute
СОР	Coefficient of performance = Btuh output/Btuh input
CT ECM	Electronic commutated constant torque fan motor
CV ECM	Electronic commutated constant volume fan motor
DB	Dry bulb temperature, °F
EAT	Entering air temperature
EER	Energy efficient ratio = Btuh output/Watt input
ESP	External static pressure, inches w.g.
EWT	Entering water temperature
FPT	Female pipe thread
GPM	Water flow in U.S., gallons per minute
НС	Air heating capacity, Btuh
HE	Total heat of extraction, Btuh
HR	Total heat of rejection, Btuh
HWC	Hot water generator (desuperheater) capacity, MBtuh
kW	Total power unit input, kilowatts
LAT	Leaving air temperature, °F
LC	Latent cooling capacity, Btuh
LOC	Loss of charge
LWT	Leaving water temperature, °F
MBtuh	1,000 Btu per hour
MPT	Male pipe thread
MWV	Motorized water valve
PSC	Permanent split capacitor
RDS	Refrigerant Detection System
SC	Sensible cooling capacity, Btuh
S/T	Sensible to total cooling ratio
TC	Total cooling capacity, Btuh
TD or delta T	Temperature differential
VFD	Variable frequency drive
WB	Wet bulb temperature, °F
WPD	Waterside pressure drop, psi or feet of head
WSE	Waterside economizer

Selection Procedure

- Step 1 Determine the actual heating and/or cooling loads at the applicable source (building loop) water temperature/flow rate and load water temperature/flow rate. The source heat exchanger is the condenser in cooling/evaporator in heating; the load heat exchanger is the evaporator in cooling/condenser in heating.
- Step 2 Obtain the following design parameters: Entering source/load water temperature, source/load water flow rate in GPM and water flow pressure drop. Water flow rate is generally between 2.25 and 3.00 GPM/ton for closed loop (boiler/tower and geothermal) systems, and between 1.5 and 2.0 GPM/ton for open loop (well water) systems. Unit water pressure drop should be kept as close as possible to each other to make water balancing easier. Go to the appropriate tables and find the proper indicated water flow and water temperature.
- Determine application requirements. Water-to-water applications are almost always designed for a particular installation, which will change how the data tables are used for unit selection. For example, a water-to-water unit used for radiant floor heating on a geothermal closed loop is significantly different in unit selection from a water-to-water unit on a boiler/tower application used for generating chilled water for fan coil units. It is especially important to note that the load water flow rate must be maintained above minimum flow rates as shown in the data tables for proper refrigerant circuit operation and unit longevity. For example, most radiant floor applications require buffer (storage) tanks because the flow rate through the floor is usually lower than the minimum flow rate for the water-to-water unit. Therefore, selection of the heat pump is dependent upon maintaining a certain tank temperature and unit load flow rate. There would be a pump between the heat pump and the buffer tank, and a pump(s) between the buffer tank and radiant floor to maintain design flow rate on both sides.
- Step 4 Enter tables at the design source water temperature and flow rate. Choose the appropriate load water temperature and flow rate. Read the total heating or cooling capacities (Note: interpolation is permissible; extrapolation is not).
- Step 5 If the units selected are not within 10% of the load calculations, then review what effect changing the GPM and water temperature would have on the capacities. If the desired capacity cannot be achieved, select the next larger or smaller unit and repeat the procedure.

Example Equipment Selection for Heating Step 1 Load Determination:

Assume we have determined that the application will be heating only (radiant floor) for a large commercial warehouse, and that the appropriate heating load at design conditions is as follows:

Total heating210,000 BTUH

Step 2 Design Conditions:

Entering source temperature.....30°F (geothermal closed loop)

Source flow rate	53 GPM
Entering load temperature	100°F
Load flow rate	53 GPM

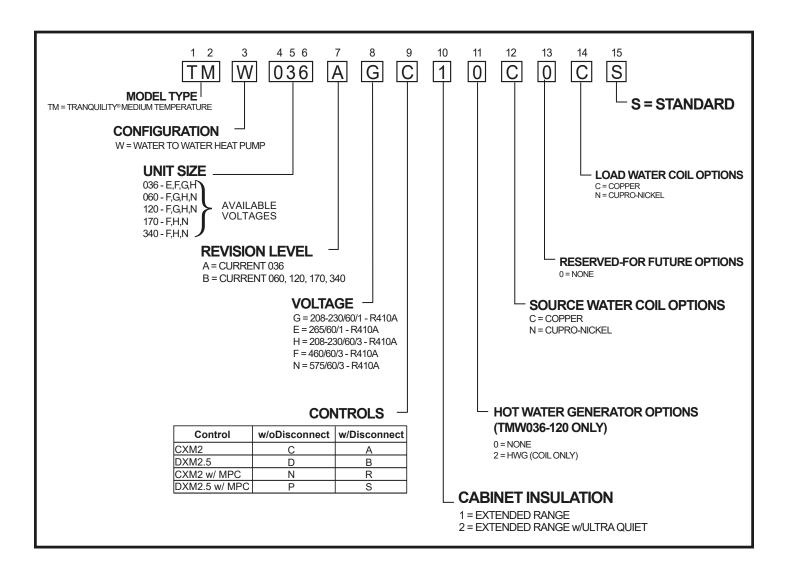
Steps 3, 4, 5 HP Selection:

We enter the tables at design source water temperature and flow rate, and select the appropriate load water temperature and flow rate. A TMW340 at design conditions supplies 211,100 BTUH, which meets the design heating load requirement.

ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time of 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. The latest version of this document is available at climateMaster.com. © ClimateMaster, Inc. All rights reserved 2009

LC402 - 10 Page _____ of ____

TMW Series Nomenclature



Performance Data - AHRI/ASHRAE/ISO 13256-2

TMW036-340 Performance Data AHRI/ASHRAE/ISO 13256-2 English (I-P) Units

	Wa	ter Loop I	leat Pump		Gro	und Water	Heat Pump		Gro	und Loop	Heat Pump	
	Cool	ing	Heatir	ıg	Cool	ing	Heati	ng	Cool	ing	Heatir	ng
Model	Indoor Outdoo		Indoor 1 Outdoor		Indoor Outdoo		Indoor 1 Outdoor		Indoor Outdoo		Indoor 1 Outdoor	
	Capacity Btuh	EER Btuh/W	Capacity Btuh	СОР	Capacity Btuh	EER Btuh/W	Capacity Btuh	СОР	Capacity Btuh	EER Btuh/W	Capacity Btuh	СОР
TMW036	32,300	14.60	43,100	4.90	36,200	23.10	35,300	4.00	33,300	16.40	27,400	3.10
TMW060	52,800	14.00	72,700	4.60	56,600	20.30	60,300	3.80	55,600	15.10	48,500	2.90
TMW120	105,600	13.80	145,400	4.50	113,200	20.10	120,600	3.70	111,200	15.00	97,000	2.90
TMW170	123,500	13.30	164,600	4.30	138,400	19.30	136,200	3.70	130,300	15.30	108,600	2.90
TMW340	253,500	13.60	336,000	4.40	282,000	19.60	277,000	3.70	266,600	15.60	220,000	3.00

All TMW036 ratings @ 9GPM load w/9GPM source.

TMW036-340 Performance Data AHRI/ASHRAE/ISO 13256-2 Metric (S-I) Units

	Wa	ter Loop I	Heat Pump		Gro	und Water	Heat Pump		Grou	ınd Loop	Heat Pump	
	Cooli	ing	Heatin	ıg	Cool	ing	Heatir	ng	Cooli	ing	Heatii	ng
Model	Indoor Outdoor		Indoor 4 Outdoor		Indoor Outdoo		Indoor 4 Outdoor		Indoor Outdoor		Indoor 4 Outdoor	
	Capacity kW	EER W/W	Capacity kW	СОР	Capacity kW	EER W/W	Capacity kW	СОР	Capacity kW	EER W/W	Capacity kW	СОР
TMW036	9.47	4.28	12.64	4.90	10.62	6.77	10.35	4.00	9.77	4.81	8.04	3.10
TMW060	15.48	4.10	21.32	4.60	16.60	5.95	17.68	3.80	16.31	4.43	14.22	2.90
TMW120	30.97	4.04	42.64	4.50	33.20	5.89	35.37	3.70	32.61	4.40	28.45	2.90
TMW170	36.22	3.90	48.27	4.30	40.59	5.66	39.94	3.70	38.21	4.49	31.85	2.90
TMW340	74.34	3.99	98.53	4.40	82.70	5.75	81.23	3.70	78.18	4.57	64.52	3.00

All TMW036 ratings @ 9GPM load w/15GPM source.
All TMW060 ratings @ 15GPM load w/15GPM source.
All TMW120 ratings @ 30GPM load w/30GPM source.
All TMW170 ratings @ 35GPM load w/35GPM source.
All TMW340 ratings @ 70GPM load w/70GPM source.

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

All TMW036 ratings @ 0.57 l/s load w/ 0.57 l/s source. All TMW060 ratings @ 0.95 l/s load w/0.95 l/s source. All TMW120 ratings @ 1.89 l/s load w/1.89 l/s source.

All TMW170 ratings @ 2.21 l/s load w/2.21 l/s source.

All TMW340 ratings @ 4.42 l/s load w/4.42 l/s source.
All ratings based upon operation at lower voltage of dual voltage rated models.

Performance Data – Selection Notes

For operation in the shaded area when water is used in lieu of an antifreeze solution, the LWT (Leaving Water Temperature) must be calculated. Flow must be maintained to a level such that the LWT is maintained above 40°F [4.4°C] when the JW3 jumper is not clipped (see example below). Otherwise, appropriate levels of a proper antifreeze should be used in systems with leaving water temperatures of 40°F [4.4°C] or below and the JW3 jumper should be clipped. This is due to the potential of the refrigerant temperature being as low as 32°F [0°C] with 40°F [4.4°C] LWT, which may lead to a nuisance cutout due to the activation of the Low Temperature Protection. JW3 should never be clipped for standard range equipment or systems without antifreeze.

Example:

At 50°F EWT (Entering Water Temperature) and 1.5 gpm/ton, a 3 ton unit has a HE of 22,500 Btuh. To calculate LWT, rearrange the formula for HE as follows:

 $HE = TD \times GPM \times 500$, where HE = Heat of Extraction (Btuh); TD = temperature difference (EWT - LWT) and GPM = U.S. Gallons per Minute.

 $TD = HE / (GPM \times 500)$

 $TD = 22,500 / (4.5 \times 500)$

 $TD = 10^{\circ}F$

LWT = EWT - TD

LWT = 50 - 10 = 40°F

									_		
			/								
											\rightarrow
	G	PM					Flo	w 70.0 G	PM		
	WT		W	PD	HC	Pow-	HE	LWT		W	PD
	∕°F	COP	PSI	FT	Mb- tuh	er KW	Mb- tuh	°F	COP	PSI	FT
	68.0	4.6	3.44	7.94	219.6	13.67	172.9	66.3	4.7	6.18	14.28
F	87.4	3.4	3.15	7.28	200.7	16.95	142.9	85.7	3.5	5.67	13.09
.7	68.5	4.5	3.44	7.94	229.8	13.72	183.0	66.6	4.9	6.18	14.28
.3	87.7	3.5	3.15	7.28	209.4	17.01	151.4	86.0	3.6	5.67	13.09
.3	68.7	4.6	3.44	7.94	235.0	13.75	188.1	66.7	5.0	6.18	14.28
.3	87.8	3.6	3.15	7.28	213.8	17.03	155.7	86.1	3.7	5.67	13.09
.0	69.1	5.1	3.44	7.94	251.4	14.84	200.7	67.2	5.0	6.18	14.28
7	88.4	3.8	3.15	7.28	229.8	17.14	171.3	86.6	3.9	5.67	13.09
6	107.7	3.0	2.89	6.68	208.9	19.61	142.0	106.0	3.1	5.32	12.28
6	69.6	5.0	3.44	7.94	262.2	14.85	211.5	67.5	5.2	6.18	14.28
/	88.8	4.0	3.15	7.28	239.6	17.21	180.8	86.8	4.1	5.67	13.09
1	108.0	3.1	2.89	6.68	217.2	19.68	150.0	106.2	3.2	5.32	12.28
	69.8	5.1	3.44	7.94	267.6	14.85	216.9	67.6	5.3	6.18	14.28
	6	4.0	3.15	7.28	244.5	17.25	185.6	87.0	4.2	5.67	13.09
		3.2	2.89	6.68	221.3	19.72	154.1	106.3	3.3	5.32	12.28
		6.6	3.44	7.94	277.2	14.86	226.5	67.9	5.5	6.18	14.7
			3.15	7.28	257.1	17.35	197.9	87.3	4.3	5.67	
			To the same of the	6.68	236.8	19.85	169.1	106.8	3.5	5	
				94	288.4	14.87	237.7	68.2		•	
						17.11	200				

In this example, as long as the EWT does not fall below 50°F, the system will operate as designed. For EWTs below 50°F, higher flow rates will be required (open loop systems, for example, require at least 2 gpm/ton when EWT is below 50°F).

Performance Data – TMW036 (60 Hz I-P) - Cooling

Figure F		Sou	ırce												LOAD											
Part	EWT		Flow				Flow	4.5 GP	M		W	PD		Flow	6.75 G	PM		W	PD		Flov	w 9GPN	/		W	PD
1		GPM								EER	PSI	FT				1	EER	PSI	FT					EER	PSI	FT
1					50	32.5	1.49	37.6	35.6	21.8	0.6	1.4	34.5	1.52	39.7	34.7	22.7	1.4	3.2	35.3	1.52	40.5	34.3	23.2	2.6	5.9
1																								_	_	
1		4.5	1.3	3.1	70	40.4	1.55	45.7	52.0	26.0	0.5	1.1	41.6	1.56	47.0	51.5	26.6	_	2.9	42.4	1.57	47.8	51.2	27.0	2.4	5.6
					80	43.2	1.57	48.6	60.8	27.5	0.4	0.9	44.2	1.58	49.6	60.3	28.0	1.2	2.8	44.8	1.59	50.3	60.1	28.1	2.3	5.4
					90	45.1	1.58	50.5	69.9	28.6	0.3	0.8	46.2	1.60	51.7	69.5	28.9	1.1	2.6	46.6	1.61	52.1	69.3	28.9	2.2	5.1
1					50	32.9	1.41	37.7	40.3	23.3	0.6	1.4	34.9	1.44	39.8	39.7	24.2	1.4	3.2	35.8	1.44	40.7	39.4	24.8	2.6	5.9
1					60	37.3	1.45	42.2	49.0	25.7	0.5	1.2	38.9	1.46	43.9	48.5	26.6	1.3	3.1	39.7	1.47	44.7	48.2	27.1	2.5	5.8
1	50	6.75	3.4	7.8	70	40.9	1.47	46.0	57.9	27.8	0.5	1.1	42.2	1.48	47.2	57.5	28.4	1.3	2.9	42.9	1.49	48.0	57.3	28.8	2.4	5.6
No column Part					80	43.8	1.49	48.9	67.0	29.4	0.4	0.9	44.8	1.50	49.9	66.7	29.9	1.2	2.8	45.4	1.51	50.6	66.5	30.0	2.3	5.4
Parish P					90	45.7	1.50	50.8	76.5	30.5	0.3	0.8					Oper	ation	not	recomn	nended					
Parish P					50	33.3	1.33	37.8	42.6	25.1	0.6	1.4	35.4	1.35	40.0	42.1	26.1	1.4	3.2	36.2	1.35	40.9	41.9	26.8	2.6	5.9
No					60	37.8	1.36	42.4	51.6	27.8	0.5	1.2	39.4	1.37	44.0	51.3	28.7	1.3	3.1	40.2	1.38	44.9	51.1	29.2	2.5	5.8
1		9	6.0	13.9	70	41.5	1.38	46.2	60.8	30.0	0.5	1.1	42.7	1.39	47.5	60.5	30.7	1.3	2.9	43.5	1.40	48.3	60.3	31.1	2.4	5.6
The last last last last last last last last					80	44.3	1.40	49.1	70.1	31.7	0.4	0.9	45.4	1.41	50.2	69.9	32.3	1.2	2.8	46.0	1.42	50.8	69.8	32.5	2.3	5.4
					90	46.3	1.41	51.1	79.7	33.0	0.3	0.8														
14.5 1.0 1.0 2.1 1.0 2.1 1.0 2.1					50	30.1	1.96	36.8	36.6	15.3	0.6	1.4	32.1	1.95	38.8	35.7	16.4	1.4	3.2	33.0	1.98	39.7	35.3	16.7	2.6	5.9
No 10 10 10 10 10 10 10 1					60	34.1	1.98	40.9	44.8	17.2	0.5	1.2	37.6	1.96	44.3	43.3	19.2	1.3	3.1	36.6	1.96	43.3	43.7	18.7	2.5	5.8
1		4.5	1.0	2.3	70	39.0	2.01	45.9	52.7	19.4	0.5	1.1	41.7	1.98	48.5	51.5	21.0	1.3	2.9	39.9	2.00	46.7	52.3	19.9	2.4	5.6
					80	42.7	2.03	49.7	61.0	21.1	0.4	1.0	45.4	2.01	52.3	59.8	22.5	1.2	2.8	42.9	2.04	49.8	60.9	21.1	2.3	5.4
Parish P					90	46.2	2.05	53.2	69.5	22.5	0.3	0.8														
Parison Pari					50	30.5	1.86	36.8	41.0	16.4	0.6	1.4	32.5	1.85	38.8	40.4	17.5	1.4	3.2	33.4	1.87	39.8	40.1	17.8	2.6	5.9
No book No b					60	34.6	1.88	41.0	49.8	18.4	0.5	1.2	38.1	1.86	44.4	48.7	20.4	1.3	3.1	37.1	1.86	43.4	49.0	19.9	2.5	5.8
Parish P	70	6.75	2.8	6.5	70	39.5	1.90	46.0	58.3	20.8	0.5	1.1	42.3	1.88	48.7	57.5	22.4	1.3	2.9	40.4	1.90	46.9	58.0	21.3	2.4	5.6
Parish P					80	43.3	1.93	49.9	67.2	22.5	0.4	0.9	46.0	1.91	52.5	66.4	24.1	1.2	2.8	43.4	1.93	50.0	67.1	22.5	2.3	5.4
9					90	46.8	1.95	53.4	76.1	24.0	0.3	0.8														
9 5.1 11.9 70 40.0 1.78 46.1 61.1 22.4 0.5 1.1 42.8 1.77 48.8 60.5 24.2 1.3 2.9 40.9 1.78 47.0 60.9 23.0 2.4 5.6 80 43.8 1.81 50.0 70.3 24.3 0.4 0.9 46.6 1.79 52.7 69.6 26.0 1.2 2.8 44.0 1.81 50.2 70.2 24.3 2.3 5.4 90 47.4 1.83 53.6 79.5 26.0 0.3 0.8					50	30.8	1.74	36.8	43.1	17.7	0.6	1.4	32.9	1.74	38.8	42.7	19.0	1.4	3.2	33.8	1.76	39.8	42.5	19.3	2.6	5.9
No. 10 10 10 10 10 10 10 1					60	35.0	1.76	41.0	52.2	19.9	0.5	1.2	38.6	1.75	44.5	51.4	22.1	1.3	3.1	37.5	1.74	43.5	51.7	21.5	2.5	5.8
90 47.4 1.83 53.6 79.5 26.0 0.3 0.8 4.5 0.8 1.8 70 36.2 2.60 45.1 53.9 13.9 0.5 1.1 38.9 2.62 47.8 52.7 14.9 1.3 2.9 37.4 2.59 46.2 53.4 14.4 2.4 5.6 80 44.5 2.64 53.2 70.4 16.7 0.3 0.8 90 44.2 2.64 53.2 70.4 16.7 0.3 0.8 60 31.5 2.44 39.8 50.7 12.9 0.5 1.2 34.0 2.60 42.8 44.9 13.1 1.3 3.1 33.6 2.56 42.3 45.1 13.1 2.5 5.8 80 41.0 2.60 42.8 42.9 2.65 52.0 60.9 16.2 1.2 2.8 41.1 2.63 50.0 61.7 15.6 2.3 5.4 14.4 2.4 5.6 80 40.5 2.62 49.4 62.0 15.5 0.4 0.9 42.9 2.65 52.0 60.9 16.2 1.2 2.8 41.1 2.63 50.0 61.7 15.6 2.3 5.4 14.4 2.4 5.6 80 41.9 11.3 0.6 1.4 29.3 2.46 37.7 41.3 11.9 1.4 3.2 30.0 2.44 38.4 41.1 12.3 2.6 5.9 14.9 14.9 1.3 14.9 14.9 14.9 14.9 14.9 14.9 14.9 14.9		9	5.1	11.9	70	40.0	1.78	46.1	61.1	22.4	0.5	1.1	42.8	1.77	48.8	60.5	24.2	1.3	2.9	40.9	1.78	47.0	60.9	23.0	2.4	5.6
4.5 0.8 1.8 50 27.0 2.55 35.7 38.0 10.6 0.6 1.4 28.9 2.59 37.7 37.2 11.1 1.4 3.2 29.7 2.57 38.4 36.8 11.5 2.6 5.9 4.5 0.8 1.8 60 31.1 2.58 39.9 46.2 12.1 0.5 1.2 34.0 2.60 42.8 44.9 13.1 1.3 3.1 33.6 2.56 42.3 45.1 13.1 2.5 5.8 80 40.5 2.62 49.4 62.0 15.5 0.4 0.9 42.9 2.65 52.0 60.9 16.2 1.2 2.8 41.1 2.63 50.0 61.7 15.6 2.3 5.4 90 44.2 2.64 53.2 70.4 16.7 0.3 0.8 1.2 34.4 2.46 37.7 41.3 11.9 1.4 3.2 30.0 2.44 38.4					80	43.8	1.81	50.0	70.3	24.3	0.4	0.9	46.6	1.79	52.7	69.6	26.0	1.2	2.8	44.0	1.81	50.2	70.2	24.3	2.3	5.4
90 4.5 0.8 1.8 60 31.1 2.58 39.9 46.2 12.1 0.5 1.2 34.0 2.60 42.8 44.9 13.1 1.3 3.1 33.6 2.56 42.3 45.1 13.1 2.5 5.8 90 4.5 2.62 49.4 62.0 15.5 0.4 0.9 42.9 2.65 52.0 60.9 16.2 1.2 2.8 41.1 2.63 50.0 61.7 15.6 2.3 5.4 90 44.2 2.64 53.2 70.4 16.7 0.3 0.8 8 9.0 40.2 2.64 53.2 70.4 16.7 0.3 0.8 9.0 40.2 2.64 53.2 70.4 16.7 0.3 0.8 9.0 41.3 11.3 0.6 1.4 29.3 2.46 37.7 41.3 11.9 1.4 3.2 30.0 2.44 38.4 41.1 12.3 2.6 5.9					90	47.4	1.83	53.6	79.5	26.0	0.3	0.8														
4.5 0.8 1.8 70 36.2 2.60 45.1 53.9 13.9 0.5 1.1 38.9 2.62 47.8 52.7 14.9 1.3 2.9 37.4 2.59 46.2 53.4 14.4 2.4 5.6 80 40.5 2.62 49.4 62.0 15.5 0.4 0.9 42.9 2.65 52.0 60.9 16.2 1.2 2.8 41.1 2.63 50.0 61.7 15.6 2.3 5.4 90 44.2 2.64 53.2 70.4 16.7 0.3 0.8 6.75 2.4 3.5 2.44 39.8 50.7 12.9 0.5 1.2 34.4 2.46 42.8 49.8 14.0 1.3 3.1 34.0 2.43 42.3 49.9 14.0 2.5 5.8 60 31.5 2.44 39.8 50.7 12.9 0.5 1.1 39.4 2.48 47.9 58.3 15.9 1.3 2.9 37.8 2.46 46.2 58.8 15.4 2.4 5.6 80 41.0 2.49 49.5 67.9 16.5 0.4 0.9 43.5 2.51 52.1 67.1 17.3 1.2 2.8 41.6 2.50 50.1 67.7 16.7 2.3 5.4 90 44.7 2.50 53.3 76.7 77.9 0.3 0.8 90 44.7 2.50 53.3 76.7 77.9 0.3 0.8 90 44.7 2.50 53.3 76.7 77.9 0.3 0.8 90 44.7 2.50 53.3 76.7 77.9 0.3 0.8 90 44.7 2.50 2.77 2.27 35.4 43.8 12.2 0.6 1.4 29.6 2.31 37.5 43.4 12.9 1.4 3.2 30.4 2.29 38.2 43.2 13.3 2.6 5.9 90 44.5 2.33 49.5 70.8 17.8 0.4 0.9 44.0 2.35 52.1 70.2 18.7 1.2 2.8 42.1 2.34 50.1 70.6 18.0 2.3 5.4 90 44.5 2.33 49.5 70.8 17.8 0.4 0.9 44.0 2.35 52.1 70.2 18.7 1.2 2.8 42.1 2.34 50.1 70.6 18.0 2.3 5.4 90 44.5 2.33 49.5 70.8 17.8 0.4 0.9 44.0 2.35 52.1 70.2 18.7 1.2 2.8 42.1 2.34 50.1 70.6 18.0 2.3 5.4 90 44.5 2.33 49.5 70.8 17.8 0.4 0.9 44.0 2.35 52.1 70.2 18.7 1.2 2.8 42.1 2.34 50.1 70.6 18.0 2.3 5.4 90 44.5 2.33 49.5 70.8 17.8 0.4 0.9 44.0 2.35 52.1 70.2 18.7 1.2 2.8 42.1 2.34 50.1 70.6 18.0 2.3 5.4 90 44.5 2.33 49.5 70.8 17.8 0.4 0.9 44.0 2.35 52.1 70.2 18.7 1.2 2.8 42.1 2.3					50	27.0	2.55	35.7	38.0	10.6	0.6	1.4	28.9	2.59	37.7	37.2	11.1	1.4	3.2	29.7	2.57	38.4	36.8	11.5	2.6	5.9
90 44.2 2.64 53.2 70.4 16.7 0.3 0.8 90 44.2 2.64 53.2 70.4 16.7 0.3 0.8 50 31.5 2.44 39.8 50.7 12.9 0.5 1.2 34.4 2.46 42.8 49.8 14.0 1.3 3.1 34.0 2.43 42.3 49.9 14.0 2.5 5.8 6.75 2.4 5.4 5.5 5.4 5.5 5.5 5.5 5.5 5.5 5.5 5					60			39.9	46.2		0.5	-			42.8	44.9	13.1	_	_	33.6		42.3	45.1	13.1	⊢	
90 44.2 2.64 53.2 70.4 16.7 0.3 0.8 80 27.3 2.42 35.6 41.9 11.3 0.6 1.4 29.3 2.46 37.7 41.3 11.9 1.4 3.2 30.0 2.44 38.4 41.1 12.3 2.6 5.9 60 31.5 2.44 39.8 50.7 12.9 0.5 1.2 34.4 2.46 42.8 49.8 14.0 1.3 3.1 34.0 2.43 42.3 49.9 14.0 2.5 5.8 80 41.0 2.49 49.5 67.9 16.5 0.4 0.9 43.5 2.51 52.1 67.1 17.3 1.2 2.8 41.6 2.50 50.1 67.7 16.7 2.3 5.4 90 44.7 2.50 53.3 76.7 17.9 0.3 0.8 80 41.0 2.49 49.5 67.9 16.5 0.4 0.9 43.5 2.51 52.1 67.1 17.3 1.2 2.8 41.6 2.50 50.1 67.7 16.7 2.3 5.4 90 44.7 2.50 53.3 76.7 17.9 0.3 0.8 80 41.5 2.31 37.5 43.4 12.9 1.4 3.2 30.4 2.29 38.2 43.2 13.3 2.6 5.9 10.3 10.3 10.3 10.3 10.3 10.3 10.3 10.3		4.5	8.0	1.8		-	-									-	-	-		-				_	-	
90													42.9	2.65	52.0	60.9	16.2	1.2	2.8	41.1	2.63	50.0	61.7	15.6	2.3	5.4
90 44.7 2.50 53.3 76.7 17.9 0.3 0.8 10.3 1.5 2.44 39.8 50.7 12.9 0.5 1.2 34.4 2.46 42.8 49.8 14.0 1.3 3.1 34.0 2.43 42.3 49.9 14.0 2.5 5.8 15.4 2.4 5.6 80 41.0 2.49 49.5 67.9 16.5 0.4 0.9 43.5 2.51 52.1 67.1 17.3 1.2 2.8 41.6 2.50 50.1 67.7 16.7 2.3 5.4 17.9 17.9 18.1 18.1 18.1 18.1 18.1 18.1 18.1 18																										
90									41.9			1.4					11.9		_					12.3	_	
80 41.0 2.49 49.5 67.9 16.5 0.4 0.9 43.5 2.51 52.1 67.1 17.3 1.2 2.8 41.6 2.50 50.1 67.7 16.7 2.3 5.4 90 44.7 2.50 53.3 76.7 17.9 0.3 0.8 90 44.7 2.50 53.3 76.7 17.9 0.3 0.8 50 27.7 2.27 35.4 43.8 12.2 0.6 1.4 29.6 2.31 37.5 43.4 12.9 1.4 3.2 30.4 2.29 38.2 43.2 13.3 2.6 5.9 60 31.9 2.29 39.7 52.9 13.9 0.5 1.2 34.8 2.31 42.7 52.3 15.1 1.3 3.1 34.4 2.28 42.2 52.3 15.1 2.5 5.8 70 37.2 2.31 45.1 61.7 16.1 0.5 1.1 39.9 2.33 47.8 61.1 17.1 1.3 2.9 38.3 2.31 46.2 61.5 16.6 2.4 5.6 80 41.5 2.33 49.5 70.8 17.8 0.4 0.9 44.0 2.35 52.1 70.2 18.7 1.2 2.8 42.1 2.34 50.1 70.6 18.0 2.3 5.4					60	31.5	2.44	39.8				_		2.46			_		-		2.43	42.3	49.9	14.0	2.5	5.8
90 44.7 2.50 53.3 76.7 17.9 0.3 0.8 50 27.7 2.27 35.4 43.8 12.2 0.6 1.4 29.6 2.31 37.5 43.4 12.9 1.4 3.2 30.4 2.29 38.2 43.2 13.3 2.6 5.9 60 31.9 2.29 39.7 52.9 13.9 0.5 1.2 34.8 2.31 42.7 52.3 15.1 1.3 3.1 34.4 2.28 42.2 52.3 15.1 2.5 5.8 70 37.2 2.31 45.1 61.7 16.1 0.5 1.1 39.9 2.33 47.8 61.1 17.1 1.3 2.9 38.3 2.31 46.2 61.5 16.6 2.4 5.6 80 41.5 2.33 49.5 70.8 17.8 0.4 0.9 44.0 2.35 52.1 70.2 18.7 1.2 2.8 42.1 2.34 50.1 70.6 18.0 2.3 5.4	90	6.75	2.4	5.4												1			_				_		_	
9 4.5 10.3 50 27.7 2.27 35.4 43.8 12.2 0.6 1.4 29.6 2.31 37.5 43.4 12.9 1.4 3.2 30.4 2.29 38.2 43.2 13.3 2.6 5.9 10.3 70 37.2 2.31 45.1 61.7 16.1 0.5 1.1 39.9 2.33 47.8 61.1 17.1 1.3 2.9 38.3 2.31 46.2 61.5 16.6 2.4 5.6 80 41.5 2.33 49.5 70.8 17.8 0.4 0.9 44.0 2.35 52.1 70.2 18.7 1.2 2.8 42.1 2.34 50.1 70.6 18.0 2.3 5.4 1.5													43.5	2.51	52.1	67.1	17.3	1.2	2.8	41.6	2.50	50.1	67.7	16.7	2.3	5.4
9 4.5 10.3 60 31.9 2.29 39.7 52.9 13.9 0.5 1.2 34.8 2.31 42.7 52.3 15.1 1.3 3.1 34.4 2.28 42.2 52.3 15.1 2.5 5.8 70 37.2 2.31 45.1 61.7 16.1 0.5 1.1 39.9 2.33 47.8 61.1 17.1 1.3 2.9 38.3 2.31 46.2 61.5 16.6 2.4 5.6 80 41.5 2.33 49.5 70.8 17.8 0.4 0.9 44.0 2.35 52.1 70.2 18.7 1.2 2.8 42.1 2.34 50.1 70.6 18.0 2.3 5.4																				26						
9 4.5 10.3 70 37.2 2.31 45.1 61.7 16.1 0.5 1.1 39.9 2.33 47.8 61.1 17.1 1.3 2.9 38.3 2.31 46.2 61.5 16.6 2.4 5.6 80 41.5 2.33 49.5 70.8 17.8 0.4 0.9 44.0 2.35 52.1 70.2 18.7 1.2 2.8 42.1 2.34 50.1 70.6 18.0 2.3 5.4																_	_		_					_		
80 41.5 2.33 49.5 70.8 17.8 0.4 0.9 44.0 2.35 52.1 70.2 18.7 1.2 2.8 42.1 2.34 50.1 70.6 18.0 2.3 5.4																_	_		_				_	_		
		9	4.5	10.3														_	_							
													44.0	2.35	52.1	70.2	18.7	1.2	2.8	42.1	2.34	50.1	70.6	18.0	2.3	5.4
90 45.3 2.35 53.3 79.9 19.3 0.3 0.8 Interpolation is permissible; extrapolation is not					90	45.3	2.35	53.3	79.9	19.3	0.3	8.0														

Interpolation is permissible; extrapolation is not.

All performance is based upon the lower voltage of dual voltage rated units.

Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated.

Operation below 40°F EWT is based upon a 15% methanol antifreeze solution.

Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above.

See Performance Data Selection Notes for operation in the shaded areas. Operation in shaded areas requires antifreeze.

Table Continued on Next Page

Performance Data – TMW036 (60 Hz I-P) - Cooling

Table Continued from Previous Page

	Sou	ırce												LOAD											
EWT		Flow				Flow	4.5 GP	M		W	PD		Flow	6.75 GI	PM		W	PD		Flo	w 9GPI	/		W	PD
°F	GPM	WPD PSI	WPD FT	EWT °F	TC Mbtuh	Power KW	HR Mbtuh	LWT °F	EER	PSI	FT	TC Mbtuh	Power KW	HR Mbtuh	LWT °F	EER	PSI	FT	TC Mbtuh	Power KW	HR Mbtuh	LWT °F	EER	PSI	FT
				50	23.3	3.27	34.4	39.7	7.1	0.6	1.4	24.9	3.33	36.2	38.9	7.5	1.4	3.2	25.3	3.33	36.7	38.7	7.6	2.6	5.9
	4.5	0.6	1.4	60	27.7	3.30	39.0	47.7	8.4	0.5	1.2	29.4	3.33	40.8	46.9	8.8	1.3	3.1	30.2	3.33	41.6	46.6	9.1	2.5	5.8
	4.5	0.0	1.4	70	32.1	3.33	43.5	55.7	9.6	0.5	1.1	33.9	3.34	45.3	54.9	10.2	1.3	2.9	34.9	3.35	46.3	54.5	10.4	2.4	5.6
				80	36.4	3.34	47.8	63.8	10.9	0.4	0.9	38.4	3.36	49.8	63.0	11.4	1.2	2.8	39.4	3.37	50.9	62.5	11.7	2.3	5.4
				50	23.5	3.10	34.1	43.0	7.6	0.6	1.4	25.2	3.16	36.0	42.5	8.0	1.4	3.2	25.7	3.16	36.4	42.4	8.1	2.6	5.9
110	6.75	2.0	4.7	60	28.1	3.14	38.8	51.7	9.0	0.5	1.2	29.8	3.16	40.6	51.2	9.4	1.3	3.1	30.6	3.16	41.4	50.9	9.7	2.5	5.8
1	0.70	2.0	7.7	70	32.5	3.16	43.3	60.4	10.3	0.5	1.1	34.3	3.17	45.1	59.8	10.8	1.3	2.9	35.3	3.18	46.2	59.5	11.1	2.4	5.6
				80	36.9	3.17	47.7	69.1	11.6	0.4	0.9	38.8	3.19	49.7	68.5	12.2	1.2	2.8	39.9	3.20	50.8	68.2	12.5	2.3	5.4
				50	23.8	2.91	33.8	44.7	8.2	0.6	1.4	25.5	2.96	35.6	44.3	8.6	1.4	3.2	26.0	2.96	36.1	44.2	8.8	2.6	5.9
	9	4.0	9.2	60	28.4	2.94	38.5	53.7	9.7	0.5	1.2	30.2	2.96	40.3	53.3	10.2	1.3	3.1	31.0	2.97	41.1	53.1	10.4	2.5	5.8
			0.2	70	32.9	2.96	43.0	62.7	11.1	0.5	1.1	34.8	2.97	44.9	62.3	11.7	1.3	2.9	35.8	2.98	45.9	62.1	12.0	2.4	5.6
				80	37.4	2.97	47.5	71.7	12.6	0.4	0.9	39.3	2.99	49.5	71.3	13.1	1.2	2.8	40.4	3.00	50.6	71.0	13.5	_	5.4
				50	20.7	3.55	32.8	43.9	5.8	0.6	1.4	22.1	3.60	34.4	43.4	6.1	1.4	3.2	22.5	3.61	34.9	43.3	6.2	2.6	5.9
	6.75	1.9	4.4	60	25.3	3.59	37.6	52.5	7.1	0.5	1.2	26.9	3.61	39.2	52.0	7.5	1.3	3.1	27.6	3.62	39.9	51.8	7.6	2.5	5.8
				70	30.0	3.60	42.3	61.1	8.3	0.5	1.1	31.7	3.61	44.0	60.6	8.8	1.3	2.9	32.6	3.63	45.0	60.3	9.0	2.4	5.6
120				80	34.4	3.61	46.8	69.8	9.5	0.4	0.9	36.2	3.64	48.6	69.3	9.9	1.2	2.8	37.2	3.65	49.7	69.0	10.2	2.3	5.4
				50	21.0	3.39	32.6	45.3	6.2	0.6	1.4	22.5	3.45	34.2	45.0	6.5	1.4	3.2	22.9	3.45	34.7	44.9	6.6	2.6	5.9
	9	3.8	8.8	60	25.7	3.43	37.4	54.3	7.5	0.5	1.2	27.3	3.45	39.1	53.9	7.9	1.3	3.1	28.0	3.46	39.8	53.8	8.1	2.5	5.8
				70	30.5	3.45	42.2	63.2	8.8	0.5	1.1	32.2	3.46	44.0	62.8	9.3	1.3	2.9	33.1	3.47	44.9	62.6	9.5	2.4	5.6

Interpolation is permissible; extrapolation is not.

All performance is based upon the lower voltage of dual voltage rated units.

Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated.

Operation below 40°F EWT is based upon a 15% methanol antifreeze solution.

Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above.

See Performance Data Selection Notes for operation in the shaded areas. Operation in shaded areas requires antifreeze.

Performance Data – TMW036 (60 Hz I-P) - Heating

	SOUF	RCE												LOAI)										
		Flow					Flow 4	.5 GPN	vi					Flow 6	6.8 GPI	и					Flow 9	.0 GPI	И		
EWT	GPM	W	PD	EWT	НС	Power	HE	LWT	СОР	W	PD	НС	Power	HE	LWT	COP	W	PD	НС	Power	HE	LWT	COP	W	PD
	GFIVI	PSI	FT		Mbtuh	KW	Mbtuh	°F	COF	PSI	FT	Mbtuh	KW	Mbtuh	°F	COF	PSI	FT	Mbtuh	KW	Mbtuh	°F	COF	PSI	FT
				60	26.1	1.53	20.9	71.6	5.0	0.5	1.2	26.4	1.45	21.5	67.8	5.3	1.3	3.1	26.5	1.41	21.7	65.9	5.5	2.5	5.8
20	9.0	7.7	17.9	80	25.7	1.96	19.0	91.4	3.8	0.4	0.9	25.9	1.86	19.6	87.7	4.1	1.2	2.8	25.9	1.81	19.8	85.8	4.2	2.3	5.4
				100	25.0	2.56	16.3	111.1	2.9	0.3	0.7	25.0	2.42	16.7	107.4	3.0	1.1	2.5	24.9	2.36	16.9	105.5	3.1	2.1	4.9
				60	27.1	1.54	21.9	72.1	5.2	0.5	1.2	27.5	1.45	22.5	68.1	5.5	1.3	3.1	27.6	1.42	22.7	66.1	5.7	2.5	5.8
	4.5	1.7	4.0	80	26.7	1.97	20.0	91.9	4.0	0.4	0.9	27.0	1.86	20.6	88.0	4.2	1.2	2.8	27.0	1.81	20.8	86.0	4.4	2.3	5.4
				100	26.1	2.56	17.3	111.6	3.0	0.3	0.7	26.1	2.43	17.8	107.7	3.2	1.1	2.5	26.0	2.36	18.0	105.8	3.2	2.1	4.9
				120	25.1	3.32	13.8	131.2	2.2	0.2	0.5	24.9	3.14	14.2	127.4	2.3	0.9	2.1	24.7	3.06	14.3	125.5	2.4	1.8	4.3
				60	28.4	1.54	23.2	72.6	5.4	0.5	0.9	28.8	1.46	23.8	68.5	5.8	1.3	3.1	28.9	1.42	24.1	66.4	6.0	2.5	5.8
30	6.8	4.1	9.4	80 100	27.9 27.1	1.97 2.57	21.2 18.3	92.4 112.0	3.1	0.4	0.9	28.2	1.87	21.8 18.9	108.0	4.4 3.3	1.2 1.1	2.8	27.1	2.37	19.0	86.3 106.0	3.4	2.3	5.4 4.9
			1	120	25.9	3.33	14.6	131.5	2.3	0.3	0.7	25.7	3.15	15.0	127.6	2.4	0.9	2.5	25.6	3.07	15.1	125.7	2.4	1.8	4.9
				60	29.2	1.54	23.9	73.0	5.5	0.5	1.2	29.6	1.46	24.6	68.8	5.9	1.3	3.1	29.7	1.42	24.8	66.6	6.1	2.5	5.8
			1	80	28.6	1.98	21.9	92.7	4.2	0.4	0.9	28.9	1.87	22.5	88.6	4.5	1.2	2.8	28.9	1.82	22.7	86.4	4.7	2.3	5.4
	9.0	7.1	16.4	100	27.7	2.58	18.9	112.3	3.2	0.3	0.7	27.8	2.44	19.5	108.2	3.3	1.1	2.5	27.7	2.37	19.6	106.2	3.4	2.1	4.9
				120	26.4	3.34	15.0	131.7	2.3	0.2	0.5	26.2	3.16	15.4	127.8	2.4	0.9	2.1	26.1	3.08	15.6	125.8	2.5	1.8	4.3
				60	30.7	1.41	25.9	71.5	6.4	0.5	1.2	31.2	1.33	26.7	67.9	6.9	1.3	3.1	31.3	1.30	26.9	66.0	7.1	2.5	5.8
	4.5	4.5	ا م	80	30.6	1.81	24.4	90.8	4.9	0.4	0.9	31.0	1.72	25.1	87.4	5.3	1.2	2.8	31.1	1.67	25.3	85.6	5.4	2.3	5.4
	4.5	1.5	3.5	100	29.9	2.39	21.7	109.7	3.7	0.3	0.7	30.1	2.27	22.4	106.6	3.9	1.1	2.5	30.1	2.21	22.6	105.0	4.0	2.1	4.9
			İ	120	28.8	3.17	18.0	128.0	2.7	0.2	0.5	28.7	3.00	18.5	125.5	2.8	0.9	2.1	28.6	2.92	18.6	124.1	2.9	1.8	4.3
				60	32.6	1.48	27.5	72.2	6.4	0.5	1.2	33.1	1.40	28.3	68.4	6.9	1.3	3.1	33.3	1.37	28.6	66.4	7.1	2.5	5.8
40	6.8	3.7	8.6	80	32.1	1.90	25.6	91.4	4.9	0.4	0.9	32.5	1.80	26.3	87.8	5.3	1.2	2.8	32.6	1.75	26.6	85.9	5.4	2.3	5.4
70	0.0	5.7	0.0	100	31.1	2.49	22.6	110.0	3.7	0.3	0.7	31.3	2.36	23.3	106.9	3.9	1.1	2.5	31.3	2.30	23.5	105.2	4.0	2.1	4.9
				120	29.7	3.26	18.6	128.3	2.7	0.2	0.5	29.7	3.09	19.1	125.7	2.8	0.9	2.1	29.6	3.01	19.3	124.3	2.9	1.8	4.3
				60	34.5	1.55	29.2	73.0	6.5	0.5	1.2	35.0	1.47	30.0	68.9	7.0	1.3	3.1	35.2	1.43	30.3	66.7	7.2	2.5	5.8
	9.0	6.5	15.1	80	33.6	1.99	26.8	91.9	4.9	0.4	0.9	34.0	1.89	27.6	88.2	5.3	1.2	2.8	34.1	1.84	27.8	86.2	5.4	2.3	5.4
				100	32.3	2.59	23.5	110.4	3.7	0.3	0.7	32.5	2.45	24.2	107.2	3.9	1.1	2.5	32.5	2.39	24.4	105.4	4.0	2.1	4.9
				120	30.7	3.36	19.2	128.5	2.7	0.2	0.5	30.6	3.18	19.8	125.9	2.8	0.9	2.1	30.5	3.09	20.0	124.4	2.9	1.8	4.3
				60	35.9	1.55	30.6	76.0	6.8	0.5	1.2	36.5	1.47	31.5	70.8	7.3	1.3	3.1	36.7	1.43	31.8	68.2	7.5	2.5	5.8
	4.5	1.3	3.1	80 100	35.0 33.8	2.00 2.60	28.2	95.6 115.0	5.1 3.8	0.4	0.9	35.5 34.0	1.89 2.46	29.0 25.6	90.5	5.5 4.1	1.2 1.1	2.8	35.6 34.0	1.84 2.39	29.3 25.9	87.9 107.6	5.7 4.2	2.3	5.4 4.9
	4.5	1.3	3.1	120	32.2	3.36	20.7	134.3	2.8	0.3	0.7	32.1	3.18	21.3	129.5	3.0	0.9	2.5	32.1	3.09	21.5	127.1	3.0	1.8	4.9
			ŀ	130	32.2		ion not			-	0.5	31.1	3.59	18.8	139.2	2.5	0.8	1.9	30.9	3.50	19.0	136.9	2.6	1.7	3.9
				60	37.7	1.56	32.4	76.8	7.1	0.5	1.2	38.4	1.48	33.3	71.4	7.6	1.3	3.1	38.5	1.44	33.6	68.6	7.9	2.5	5.8
				80	36.6	2.00	29.8	96.3	5.4	0.4	0.9	37.1	1.89	30.7	91.0	5.7	1.2	2.8	37.3	1.84	31.0	88.3	5.9	2.3	5.4
50	6.75	3.4	7.8	100	35.2	2.60	26.3	115.6	4.0	0.3	0.7	35.5	2.46	27.1	110.5	4.2	1.1	2.5	35.5	2.40	27.3	107.9	4.3	2.1	4.9
				120	33.4	3.37	21.9	134.8	2.9	0.2	0.5	33.4	3.19	22.5	129.9	3.1	0.9	2.1	33.3	3.10	22.7	127.4	3.1	1.8	4.3
				130								32.2	3.60	19.9	139.5	2.6	0.8	1.9	32.0	3.51	20.1	137.1	2.7	1.7	3.9
				60	38.6	1.56	33.3	77.2	7.2	0.5	1.2	39.3	1.48	34.3	71.7	7.8	1.3	3.1	39.5	1.44	34.6	68.8	8.0	2.5	5.8
				80	37.5	2.01	30.7	96.7	5.5	0.4	0.9	38.0	1.90	31.6	91.3	5.9	1.2	2.8	38.2	1.85	31.9	88.5	6.1	2.3	5.4
	9.0	6.0	13.9	100	36.0	2.61	27.1	116.0	4.0	0.3	0.7	36.3	2.47	27.9	110.8	4.3	1.1	2.5	36.3	2.40	28.1	108.1	4.4	2.1	4.9
				120	34.0	3.37	22.5	135.1	3.0	0.2	0.5	34.1	3.19	23.2	130.1	3.1	0.9	2.1	34.0	3.11	23.4	127.6	3.2	1.8	4.3
				130								32.8	3.61	20.5	139.7	2.7	8.0	1.9	32.6	3.52	20.6	137.3	2.7	1.7	3.9
	1 12 2				olation is																				

Interpolation is permissible; extrapolation is not. All performance is based upon the lower voltage of dual voltage rated units.

Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated.

Operation below 40°F EWT is based upon a 15% methanol antifreeze solution.

Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above.

See Performance Data Selection Notes for operation in the shaded areas. Operation in shaded areas requires antifreeze.

Table Continued on Next Page

Performance Data – TMW036 (60 Hz I-P) - Heating

Table Continued from Previous Page

	SOUF	RCE												LOAI)										
EWT	ı	Flow		ПАСТ			Flow 4	.5 GPN	/					Flow 6	6.8 GPI	И					Flow 9	.0 GPI	Л		
°F	GPM	W	PD	€WT	HC	Power	HE	LWT	СОР	WI	PD	HC	Power	HE	LWT	СОР	WI	PD	HC	Power	HE	LWT	СОР	WI	PD
	O. III	PSI	FT	-	Mbtuh	KW	Mbtuh	°F		PSI	FT	Mbtuh	KW	Mbtuh	°F		PSI	FT	Mbtuh	KW	Mbtuh	°F		PSI	FT
				60	39.0	1.57	33.6	77.3	7.3	0.5	1.2	39.7	1.48	34.6	71.8	7.8	1.3	3.1	39.9	1.44	34.9	68.9	8.1	2.5	5.8
				80	38.6	2.01	31.8	97.2	5.6	0.4	0.9	39.2	1.90	32.7	91.6	6.0	1.2	2.8	39.3	1.85	33.0	88.7	6.2	2.3	5.4
	4.5	1.2	2.7	100	37.6	2.61	28.7	116.7	4.2	0.3	0.7	38.0	2.47	29.6	111.3	4.5	1.1	2.5	38.0	2.40	29.8	108.5	4.6	2.1	4.9
				120	36.0	3.37	24.5	136.0	3.1	0.2	0.5	36.1	3.19	25.2	130.7	3.3	0.9	2.1	36.0	3.11	25.4	128.0	3.4	1.8	4.3
				130	40.0	· ·	tion not				4.0	34.8	3.61	22.5	140.3	2.8	0.8	1.9	34.7	3.51	22.7	137.7	2.9	1.7	3.9
				60	40.6	1.57	35.3	78.1	7.6	0.5	1.2	41.4	1.49	36.3	72.3	8.2	1.3	3.1	41.6	1.45	36.6	69.2	8.4	2.5	5.8
	C 75	2.4	7.4	80	40.2	2.01	33.4	97.9	5.9	0.4	0.9	40.8	1.90	34.3	92.1	6.3	1.2	2.8	41.0	1.85	34.6	89.1	6.5	2.3	5.4
60	6.75	3.1	7.1	100	39.1	2.61	30.2	117.4	4.4	0.3	0.7	39.5	2.47	31.0	111.7	4.7	1.1	2.5	39.5	2.41	31.3	108.8	4.8	2.1	4.9
				120	37.2	3.38	25.7	136.5	3.2	0.2	0.5	37.3	3.20	26.4	131.1	3.4	0.9	2.1	37.3	3.11	26.6	128.3	3.5	1.8	4.3
				130	44.5	4.57	20.4	70.4	7 7	0.5	4.0	35.9	3.62	23.6	140.6	2.9	0.8	1.9	35.8	3.52	23.8	138.0	3.0	1.7	3.9
				60 80	41.5	1.57	36.1	78.4	7.7	0.5	1.2	42.2	1.49	37.2	72.5	8.3	1.3	3.1	42.4	1.45	37.5	69.4	8.6	2.5	5.8
	9.0	E G	10.0		41.0	2.01	34.1	98.2	6.0	0.4	0.9	41.6	1.91	35.1	92.3	6.4	1.2	2.8	41.8	1.86	35.5	89.3	6.6	2.3	5.4
	9.0	5.6	12.8	100	39.8	2.62	30.9	117.7	4.5	0.3	0.7	40.2	2.48	31.8	111.9	4.8	1.1	2.5	40.3	2.41	32.0	109.0	4.9	2.1	4.9
				120 130	37.8	3.38	26.3	136.8	3.3	0.2	0.5	38.0 36.5	3.20	27.0 24.1	131.2	3.5	0.9	2.1	37.9	3.12	27.3	128.4	3.6	1.8 1.7	4.3
				60	42.1	1.58	36.7	78.7	7.8	0.5	1.2	42.9	1.49	37.8	72.7	8.4	1.3	1.9 3.1	36.4 43.1	1.46	38.1	138.1 69.6	3.0 8.7	2.5	3.9 5.8
				80	42.1	2.02	35.5	98.8	6.2	0.5	0.9	43.0	1.49	36.5	92.7	6.6	1.2	2.8	43.1	1.86	36.8	89.6	6.8	2.3	5.4
	4.5	1.0	2.3	100	41.6	2.62	32.7	118.5	4.7	0.4	0.5	42.1	2.48	33.6	112.5	5.0	1.1	2.5	42.2	2.41	33.9	109.4	5.1	2.1	4.9
	4.5	1.0	2.5	120	39.8	3.38	28.3	137.7	3.5	0.3	0.7	40.0	3.20	29.1	131.9	3.7	0.9	2.3	40.0	3.12	29.4	128.9	3.8	1.8	4.3
				130	55.0	3.30	20.0	107.7	5.5	0.2	0.5	38.6	3.62	26.3	141.4	3.1	0.8	1.9	38.5	3.53	26.5	138.6	3.2	1.7	3.9
				60	43.6	1.58	38.2	79.4	8.1	0.5	1.2	44.4	1.50	39.3	73.2	8.7	1.3	3.1	44.7	1.46	39.7	69.9	9.0	2.5	5.8
				80	43.8	2.02	36.9	99.5	6.4	0.4	0.9	44.5	1.91	38.0	93.2	6.8	1.2	2.8	44.7	1.86	38.4	89.9	7.0	2.3	5.4
70	6.75	2.8	6.5	100	43.0	2.62	34.0	119.1	4.8	0.3	0.7	43.5	2.49	35.0	112.9	5.1	1.1	2.5	43.6	2.42	35.3	109.7	5.3	2.1	4.9
, ,	0.70	2.0	0.0	120	41.0	3.39	29.5	138.2	3.5	0.2	0.5	41.3	3.21	30.3	132.2	3.8	0.9	2.1	41.3	3.13	30.6	129.2	3.9	1.8	4.3
				130	11.0	0.00	20.0	100.2	0.0	0.2	0.0	39.7	3.63	27.3	141.8	3.2	0.8	1.9	39.7	3.54	27.6	138.8	3.3	1.7	3.9
				60	44.3	1.59	38.9	79.7	8.2	0.5	1.2	45.1	1.50	40.0	73.4	8.8	1.3	3.1	45.4	1.46	40.4	70.1	9.1	2.5	5.8
				80	44.5	2.02	37.6	99.8	6.4	0.4	0.9	45.2	1.92	38.7	93.4	6.9	1.2	2.8	45.4	1.87	39.1	90.1	7.1	2.3	5.4
	9.0	5.1	11.9	100	43.6	2.63	34.6	119.4	4.9	0.3	0.7	44.1	2.49	35.6	113.1	5.2	1.1	2.5	44.2	2.42	36.0	109.8	5.4	2.1	4.9
				120	41.6	3.40	30.0	138.5	3.6	0.2	0.5	41.8	3.22	30.9	132.4	3.8	0.9	2.1	41.8	3.13	31.1	129.3	3.9	1.8	4.3
ı				130								40.2	3.64	27.8	141.9	3.2	0.8	1.9	40.2	3.54	28.1	138.9	3.3	1.7	3.9
				60	45.3	1.59	39.8	80.1	8.3	0.5	1.2	46.1	1.51	41.0	73.7	9.0	1.3	3.1	46.4	1.47	41.4	70.3	9.3	2.5	5.8
				80	46.2	2.03	39.2	100.5	6.7	0.4	0.9	46.9	1.92	40.4	93.9	7.2	1.2	2.8	47.1	1.87	40.8	90.5	7.4	2.3	5.4
	4.5	0.9	2.0	100	45.7	2.63	36.7	120.3	5.1	0.3	0.7	46.3	2.49	37.8	113.7	5.4	1.1	2.5	46.4	2.42	38.1	110.3	5.6	2.1	4.9
				120	43.8	3.40	32.2	139.5	3.8	0.2	0.5	44.1	3.22	33.2	133.1	4.0	0.9	2.1	44.2	3.13	33.5	129.8	4.1	1.8	4.3
				130								27.9	3.61	15.6	138.3	2.3	0.8	1.9	27.7	3.51	15.7	136.2	2.3	1.7	3.9
				60	46.6	1.59	41.2	80.7	8.6	0.5	1.2	47.5	1.51	42.4	74.1	9.2	1.3	3.1	47.8	1.47	42.8	70.6	9.5	2.5	5.8
				80	47.5	2.03	40.6	101.1	6.9	0.4	0.9	48.3	1.92	41.7	94.3	7.4	1.2	2.8	48.5	1.87	42.1	90.8	7.6	2.3	5.4
80	6.75	2.6	5.9	100	46.9	2.64	37.9	120.9	5.2	0.3	0.7	47.5	2.50	39.0	114.1	5.6	1.1	2.5	47.7	2.43	39.4	110.6	5.8	2.1	4.9
				120	44.9	3.40	33.3	140.0	3.9	0.2	0.5	45.3	3.22	34.3	133.4	4.1	0.9	2.1	45.3	3.14	34.6	130.1	4.2	1.8	4.3
ı				130								28.5	3.62	16.1	138.4	2.3	0.8	1.9	28.3	3.52	16.3	136.3	2.4	1.7	3.9
				60	47.1	1.60	41.7	81.0	8.7	0.5	1.2	48.1	1.51	42.9	74.2	9.3	1.3	3.1	48.3	1.47	43.3	70.7	9.6	2.5	5.8
		4.0	44.0	80	48.0	2.03	41.1	101.3	6.9	0.4	0.9	48.8	1.93	42.3	94.5	7.4	1.2	2.8	49.0	1.88	42.7	90.9	7.7	2.3	5.4
	9.0	4.8	11.0	100	47.4	2.64	38.4	121.1	5.3	0.3	0.7	48.1	2.50	39.5	114.2	5.6	1.1	2.5	48.2	2.43	39.9	110.7	5.8	2.1	4.9
				120	45.4	3.41		140.2			0.5	45.7	3.23		133.5	1		2.1	45.8	3.14		130.2		1.8	4.3
					olation is																				

Interpolation is permissible; extrapolation is not.

All performance is based upon the lower voltage of dual voltage rated units.

Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated.

Operation below 40°F EWT is based upon a 15% methanol antifreeze solution.

Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above.

See Performance Data Selection Notes for operation in the shaded areas. Operation in shaded areas requires antifreeze.

ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time of 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. The latest version of this document is available at **climatemaster.com**. © ClimateMaster, Inc. All rights reserved 2009

Page _____ of ____

Performance Data – TMW060 (60 Hz I-P) - Cooling

	SOUR	CE												LOAD											
E)A/T	F	low		EVA/E			Flow 7.5	GPM					F	low 11.2	5 GPN	/					Flow 15	.0 GP	VI		
°F	GPM	WI	_	°F	тс	Power	HR	LWT	EER	WP		TC	Power	HR	LWT	EER	WI		тс	Power	HR	LWT	EER		PD
		PSI	FT	50	Mbtuh	kW	Mbtuh	°F		PSI		Mbtuh	kW	Mbtuh	°F		PSI		Mbtuh	kW	Mbtuh	°F		PSI	FT
				50	52.6	2.20	60.1	38.2	23.9		3.3	53.5	2.23	61.1	41.0	24.0	3.5	8.0	55.3	2.25	63.0	42.5	24.6	4.8	11.0
	7.5	1.3	2.9	60 70	53.2 53.8	2.22	60.8 61.4	47.1 56.0	23.9		3.2	54.1 54.7	2.25 2.26	61.7 62.4	50.5	24.1	3.3	7.7 7.4	55.9 56.6	2.27	63.7 64.4	52.4 62.2	24.7	4.6	10.6 10.1
	7.5	1.3	2.9	80	55.5	2.24	63.2	64.7	24.0		2.9	56.4	2.20	64.1	69.4	24.1	3.1	7.4	58.4	2.29	66.2	72.0	25.5	4.4	9.8
				90	57.2	2.25	64.9	73.5	25.5		2.7	58.1	2.27	65.9	78.9	25.6	3.0	6.9	60.2	2.29	68.0	81.8	26.3	4.1	9.5
				50	53.4	2.23	61.0	38.0	24.0		3.3	54.1	2.25	61.8	40.8	24.1	3.5	8.0	56.0	2.27	63.8	42.3	24.7	4.8	11.0
				60	55.5	2.25	63.1	46.7	24.7		3.2	56.2	2.27	64.0	50.1	24.8	3.3	7.7	58.2	2.29	66.0	52.0	25.4	4.6	10.6
50	11.25	3.4	7.9	70	57.5	2.26	65.3	55.4	25.4		3.0	58.3	2.29	66.1	59.4	25.5	3.2	7.4	60.4	2.31	68.3	61.6	26.1	4.4	10.2
				80	58.1	2.27	65.8	64.3	25.6		2.9	58.9	2.29	66.7	69.0	25.7	3.1	7.1	60.9	2.31	68.8	71.5	26.4	4.3	9.8
				90	58.6	2.27	66.3	73.2	25.8		2.7	59.4	2.29	67.2	78.5	25.9	3.0	6.9	61.5	2.31	69.4	81.4	26.6	4.1	9.5
				50	55.6	2.25	63.2	35.8	24.7	1.4	3.3	56.5	2.27	64.2	40.3	24.9	3.5	8.0	57.9	2.29	65.8	42.1	25.2	4.8	11.1
				60	57.5	2.27	65.2	45.0	25.3	1.4	3.2	58.7	2.29	66.6	49.8	25.6	3.3	7.7	61.5	2.31	69.4	51.5	26.6	4.6	10.6
	15.0	6.2	14.2	70	59.4	2.29	67.2	54.1	26.0	1.3	3.0	61.0	2.31	68.9	59.3	26.4	3.2	7.4	65.1	2.33	73.1	60.9	27.9	4.4	10.1
				80	60.3	2.29	68.1	63.5	26.4	1.2	2.9	61.8	2.31	69.7	68.7	26.7	3.1	7.1	65.8	2.34	73.8	70.8	28.2	4.2	9.8
				90	61.3	2.29	69.1	72.8	26.7	1.2	2.7	62.6	2.31	70.5	78.1	27.0	3.0	6.9	66.6	2.34	74.6	80.7	28.5	4.1	9.4
				50	49.1	2.82	58.7	38.1	17.4	1.4	3.3	50.3	2.85	60.0	41.1	17.7	3.5	8.0	52.0	2.88	61.8	42.9	18.1	4.7	11.0
				60	53.2	2.84	62.9	46.4	18.7	1.4	3.2	54.5	2.87	64.3	50.0	19.0	3.3	7.7	56.3	2.90	66.2	52.3	19.4	4.6	10.5
	7.5	1.1	2.5	70	57.2	2.86	67.0	54.8	20.0	1.3	3.0	58.7	2.89	68.5	59.1	20.3	3.2	7.4	60.6	2.92	70.6	61.7	20.8	4.4	10.1
				80	59.3	2.92	69.3	63.4	20.3	1.2	2.9	60.8	2.95	70.9	68.3	20.6	3.1	7.1	62.9	2.98	73.0	71.4	21.1	4.3	9.8
				90	61.4	2.98	71.6	71.9	20.6	1.2	2.7	63.0	3.01	73.3	77.6	20.9	3.0	6.9	65.1	3.04	75.5	81.1	21.4	4.1	9.5
				50	50.2	2.85	59.9	38.0	17.6	1.4	3.3	51.4	2.88	61.2	41.0	17.8	3.5	8.0	53.1	2.91	63.0	42.8	18.3	4.8	11.0
				60	54.5	2.87	64.3	46.2	19.0	1.4	3.2	55.9	2.90	65.8	49.8	19.3	3.3	7.7	57.7	2.93	67.7	52.1	19.7	4.6	10.6
70	11.25	3.0	6.9	70	58.9	2.89	68.8	54.5	20.4	1.3	3.0	60.4	2.92	70.3	58.8	20.7	3.2	7.4	62.4	2.94	72.4	61.4	21.2	4.4	10.2
				80	60.8	2.95	70.8	63.1	20.6		2.9	62.3	2.98	72.4	68.1	20.9	3.1	7.1	64.4	3.01	74.6	71.1	21.4	4.3	9.9
				90	62.6	3.01	72.9	71.7	20.8		2.7	64.2	3.04	74.5	77.3	21.1	3.0	6.9	66.3	3.07	76.8	80.8	21.6	4.1	9.6
				50	51.2	2.88	61.0	36.9	17.8		3.3	53.3	2.91	63.2	40.8	18.3	3.5	8.0	54.3	2.94	64.3	42.6	18.5	4.8	11.0
	45.0		40.0	60	55.6	2.90	65.5	45.4	19.2		3.2	57.6	2.93	67.6	49.6	19.7	3.3	7.7	59.4	2.96	69.5	51.8	20.1	4.6	10.6
	15.0	5.5	12.8	70	60.1	2.92	70.1	53.9	20.6		3.0	61.9	2.94	72.0	58.5	21.0	3.2	7.4	64.5	2.97	74.6	61.1	21.7	4.4	10.1
				80	62.3	2.98	72.5	62.7	20.9		2.9	64.1	3.01	74.4	67.8	21.3	3.1	7.1	67.1	3.04	77.5	70.6	22.1	4.2	9.8
			_	90	64.6	3.04	74.9	71.5	21.3		2.7	66.3	3.07	76.8	77.1	21.6		6.9	69.8	3.10	80.3	80.2 43.4	22.5	4.1	9.5
				50 60	44.8 50.7	3.57	57.0 63.0	38.7 46.8	12.5 14.0		3.3	46.3 52.3	3.61	58.6 64.8	50.3	12.8 14.3	3.5	8.0 7.7	47.5 53.7	3.65	59.9	52.6	13.0	4.7	10.9 10.5
	7.5	0.9	2.1	70	56.6	3.65	69.0	54.9	15.5		3.2	58.4	3.69	70.9	59.1	15.8		7.4	59.9	3.72	72.6	61.8	14.6	4.3	10.5
	7.5	0.5	2.1	80	59.6	3.73	72.4	63.4	16.0		2.9	61.5	3.77	74.4	68.2	16.3	3.1	7.1	63.1	3.81	76.1	71.3	16.6	4.3	9.8
				90	62.7	3.82	75.7	71.9	16.4		2.7	64.7	3.86	77.9	77.3	16.8		6.9	66.4	3.90	79.7	80.9	17.0	4.1	9.6
				50	45.9	3.61	58.2	38.6	12.7		3.3	47.4	3.65	59.8	41.5	13.0	3.5	8.0	48.6	3.68	61.2	43.4	13.2	4.8	11.0
				60	51.8	3.65	64.3	46.7	14.2		3.2	53.5	3.68	66.0	50.2	14.5	3.3	7.7	54.9	3.72	67.6	52.5	14.7	4.6	10.6
90	11.25	2.7	6.1		57.7	3.69	70.3					59.6	3.72	72.3	1				61.1	3.76	73.9		16.2		
				80	60.7	3.77	73.6		16.1				3.81	75.7	68.0					3.85	77.4		16.7		
				90	63.7	3.86	76.9		16.5				3.90	79.0	77.1					3.94	80.9		17.1		
				50	46.5	3.65	59.0		12.8				3.68	61.1	41.4					3.72	62.2	_	13.3		_
				60	52.4	3.68	64.9		14.2				3.72	66.9		14.6				3.76	68.6		14.8		
	15.0	5.0	11.6	70	58.2	3.72	70.9	1	15.6				3.76	72.7	1	15.9	1			3.80	75.0		16.3		
				80	61.6	3.81	74.6		16.2				3.85	76.6	67.8					3.89	79.0		16.9		9.8
				90	65.1	3.90	78.4		16.7				3.94	80.5	77.0					3.98	83.1		17.5		9.5

Interpolation is permissible; extrapolation is not.

All performance is based upon the lower voltage of dual voltage rated units.

Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated. Operation below 40°F EWT is based upon a 15% methanol antifreeze solution. Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above.

See Performance Data Selection Notes for operation in the shaded areas. Operation in shaded areas requires antifreeze.

Table Continued on Next Page

Performance Data – TMW060 (60 Hz I-P) - Cooling

Table Continued from Previous Page

	SOUR	CE												LOAD											
	F	low					Flow 7.5	GPM					F	ow 11.2	5 GPN	1					Flow 15	.0 GPI	VI		
°F	CDM	W	PD	EWT °F	тс	Power	HR	LWT	FED	WF	D	тс	Power	HR	LWT	FED	WF	PD	тс	Power	HR	LWT	FED	W	PD
	GPM	PSI	FT		Mbtuh	kW	Mbtuh	°F	EER	PSI	FT	Mbtuh	kW	Mbtuh	°F	EER	PSI	FT	Mbtuh	kW	Mbtuh	°F	EER	PSI	FT
				50	39.8	4.46	55.0	39.9	8.9	1.4	3.3	41.3	4.50	56.7	42.5	9.2	3.5	8.0	41.7	4.55	57.3	44.1	9.2	4.7	10.9
				60	45.8	4.54	61.3	48.2	10.1	1.4	3.2	47.5	4.58	63.1	51.2	10.4	3.3	7.7	48.0	4.63	63.8	53.2	10.4	4.5	10.4
	7.5	8.0	1.8	70	51.8	4.62	67.5	56.4	11.2	1.3	3.0	53.7	4.66	69.6	60.0	11.5	3.2	7.4	54.3	4.71	70.4	62.4	11.5	4.3	10.0
				80	56.4	4.69	72.4	64.9	12.0	1.2	2.9	58.5	4.74	74.7	69.0	12.3	3.1	7.1	59.1	4.79	75.5	71.7	12.3	4.2	9.8
				90	61.0	4.77	77.3	73.4	12.8	1.2	2.7	63.3	4.82	79.7	78.0	13.1	3.0	6.9	64.0	4.87	80.6	81.1	13.1	4.2	9.6
				50	40.6	4.50	56.0	39.9	9.0	1.4	3.3	42.2	4.55	57.7	42.4	9.3	3.5	8.0	42.6	4.60	58.3	44.1	9.3	4.8	11.0
				60	47.3	4.58	62.9	48.1	10.3	1.4	3.2	49.0	4.63	64.8	51.2	10.6	3.3	7.7	49.6	4.68	65.5	53.2	10.6	4.6	10.5
110	11.25	2.4	5.6	70	53.9	4.66	69.8	56.3	11.6	1.3	3.0	55.9	4.71	72.0	59.9	11.9	3.2	7.4	56.5	4.76	72.7	62.2	11.9	4.4	10.1
				80	57.9	4.74	74.0	64.7	12.2	1.2	2.9	60.0	4.79	76.4	68.8	12.5	3.1	7.1	60.7	4.84	77.2	71.5	12.5	4.2	9.8
				90	61.8	4.82	78.3	73.1	12.8	1.2	2.7	64.1	4.87	80.8	77.7	13.2	3.0	6.9	64.8	4.92	81.6	80.8	13.2	4.1	9.5
				50	41.5	4.55	57.1	39.4	9.1	1.4	3.3	42.3	4.60	58.0	42.4	9.2	3.5	8.0	43.8	4.64	59.7	44.0	9.4	4.7	10.8
				60	47.6	4.63	63.4	47.4	10.3	1.4	3.2	48.5	4.68	64.5	51.1	10.4	3.3	7.7	50.7	4.72	66.8	53.1	10.7	4.5	10.5
	15.0	4.6	10.7	70	53.7	4.71	69.8	55.3	11.4	1.3	3.0	54.7	4.76	70.9	59.9	11.5	3.2	7.4	57.6	4.80	74.0	62.2	12.0	4.4	10.2
				80	58.3	4.79	74.6	64.2	12.2	1.2	2.9	59.7	4.84	76.2	68.7	12.3	3.1	7.1	61.7	4.89	78.4	71.4	12.6	4.3	9.8
				90	62.8	4.87	79.4	73.0	12.9	1.2	2.7	64.8	4.92	81.6	77.6	13.2	3.0	6.9	65.8	4.97	82.8	80.7	13.2	4.1	9.5
				50	37.0	5.04	54.2	40.3	7.3	1.4	3.3	38.5	5.09	55.9	43.2	7.6	3.5	8.0	39.3	5.14	56.8	44.7	7.6	4.7	10.9
				60	42.7	5.13	60.2	48.6	8.3	1.4	3.2	44.4	5.18	62.1	52.0	8.6	3.3	7.7	45.3	5.23	63.2	53.8	8.7	4.5	10.5
	7.5	0.7	1.7	70	48.4	5.21	66.2	56.9	9.3	1.3	3.0	50.4	5.27	68.3	60.8	9.6	3.2	7.4	51.4	5.32	69.5	62.9	9.7	4.3	10.0
				80	53.0	5.31	71.1	65.2	10.0	1.2	2.9	55.1	5.36	73.4	69.7	10.3	3.1	7.1	56.2	5.42	74.7	72.1	10.4	4.2	9.7
				90	57.5	5.40	76.0	73.5	10.6	1.2	2.7	59.9	5.46	78.5	78.6	11.0	3.0	6.9	61.1	5.51	79.9	81.3	11.1	4.1	9.4
				50	37.2	5.09	54.6	40.3	7.3	1.4	3.3	38.8	5.14	56.3	43.1	7.5	3.5	8.0	39.6	5.19	57.3	44.6	7.6	4.8	11.1
				60	43.2	5.18	60.8	48.5	8.3	1.4	3.2	44.9	5.23	62.8	51.9	8.6	3.3	7.7	45.8	5.28	63.8	53.7	8.7	4.6	10.6
120	11.25	2.4	5.5	70	49.1	5.27	67.0	56.7	9.3	1.3	3.0	51.1	5.32	69.2	60.6	9.6	3.2	7.4	52.1	5.37	70.4	62.7	9.7	4.4	10.1
				80	53.6	5.36	71.9	65.0	10.0	1.2	2.9	55.8	5.42	74.3	69.6	10.3	3.1	7.1	57.0	5.47	75.6	72.0	10.4	4.2	9.8
				90	58.2	5.46	76.9	73.4	10.7	1.2	2.7	60.6	5.51	79.4	78.5	11.0	3.0	6.9	61.8	5.57	80.9	81.3	11.1	4.1	9.5
				50	38.5	5.14	56.0	40.0	7.5	1.4	3.3	40.1	5.19	57.8	42.9	7.7	3.5	8.0	40.8	5.25	58.7	44.5	7.8	4.7	11.0
				60	44.4	5.23	62.2	48.2	8.5	1.4	3.2	46.4	5.28	64.4	51.7	8.8	3.3	7.7	47.3	5.34	65.5	53.6	8.9	4.6	10.5
	15.0	4.5	10.3	70	50.3	5.32	68.4	56.5	9.5	1.3	3.0	52.7	5.37	71.1	60.5	9.8	3.2	7.4	53.8	5.43	72.3	62.6	9.9	4.4	10.1
				80	54.9	5.42	73.4	64.9	10.1	1.2	2.9	57.5	5.47	76.2	69.5	10.5	3.1	7.1	58.6	5.53	77.5	71.9	10.6	4.2	9.8
				90	59.6	5.51	78.4	73.3	10.8	1.2	2.7	62.3	5.57	81.3	78.5	11.2	3.0	6.9	63.4	5.63	82.6	81.2	11.3	4.1	9.5

Interpolation is permissible; extrapolation is not.

All performance is based upon the lower voltage of dual voltage rated units.

Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated. Operation below 40°F EWT is based upon a 15% methanol antifreeze solution.

Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above.

See Performance Data Selection Notes for operation in the shaded areas. Operation in shaded areas requires antifreeze.

Performance Data – TMW060 (60 Hz I-P) - Heating

	SOUR	CE												LOAD											
	ı	Flow					Flow 7.5	GPM					F	low 11.2	25 GPN	1					Flow 15	.0 GPN	/		
°F	GPM	W	PD	°F	нс	Power	HE	LWT	СОР	WF	D	нс	Power	HE	LWT	СОР	WI	PD	нс	Power	HE	LWT	СОР	W	PD
	GPIVI	PSI	FT		Mbtuh	kW	Mbtuh	°F	COP	PSI	FT	Mbtuh	kW	Mbtuh	°F	COP	PSI	FT	Mbtuh	kW	Mbtuh	°F	COP	PSI	FT
				60	41.1	2.43	32.8	71.5	5.0	1.4	3.2	41.3	2.38	33.2	67.4	5.1	3.3	7.7	41.5	2.33	33.5	65.3	5.2	6.0	13.8
20	15.0	7.3	16.9	80	40.5	3.17	29.6	91.2	3.7	1.2	2.9	40.6	3.11	30.0	87.2	3.8	3.1	7.1	40.7	3.05	30.3	85.3	3.9	5.6	13.0
				100	39.7	4.11	25.6	110.8	2.8	1.1	2.6	39.7	4.03	25.9	106.9	2.9	2.9	6.7	39.7	3.95	26.2	105.1	2.9	5.3	12.3
				60	47.8	2.52	39.2	73.3	5.6	1.4	3.2	48.0	2.47	39.6	68.6	5.7	3.3	7.7	48.3	2.42	40.0	66.3	5.8	6.0	13.8
	7.5	1.5	3.5	80 100	46.9 45.8	3.28 4.22	35.7 31.4	92.9	3.2	1.2	2.92.6	47.1 45.9	3.21	36.1 31.8	88.4 108.1	3.3	3.1	7.1 6.7	47.2 45.9	3.15 4.05	36.5	86.1 105.9	3.3	5.6	13.0 12.3
				120	44.6	5.36	26.3	131.9	2.4	1.1	2.4	44.5	5.25	26.6	127.7	2.5	2.8	6.4	44.4	5.14	26.9	125.7	2.5	5.1	11.7
				60	50.0	2.56	41.3	73.6	5.7	1.4	3.2	50.3	2.51	41.7	68.9	5.9	3.3	7.7	50.5	2.46	42.1	66.6	6.0	6.0	13.8
				80	49.0	3.33	37.6	93.3	4.3	1.2	2.9	49.1	3.26	38.0	88.7	4.4	3.1	7.1	49.3	3.20	38.4	86.5	4.5	5.6	13.0
30	11.25	4.0	9.2	100	47.8	4.29	33.2	112.8	3.3	1.1	2.6	47.9	4.21	33.5	108.4	3.3	2.9	6.7	47.9	4.12	33.9	106.2	3.4	5.3	12.3
				120	46.6	5.45	28.0	132.1	2.5	1.1	2.4	46.5	5.34	28.3	128.0	2.6	2.8	6.4	46.4	5.23	28.6	125.9	2.6	5.1	11.7
				60	52.0	2.61	43.1	73.9	5.8	1.4	3.2	52.2	2.55	43.5	69.1	6.0	3.3	7.7	52.5	2.50	43.9	66.8	6.1	6.0	13.8
	15.0	6.9	15.9	80	50.9	3.39	39.3	93.4	4.4	1.2	2.9	51.1	3.32	39.7	88.9	4.5	3.1	7.1	51.2	3.25	40.1	86.6	4.6	5.6	13.0
	15.0	0.9	15.9	100	49.6	4.36	34.7	112.9	3.3	1.1	2.6	49.7	4.28	35.1	108.6	3.4	2.9	6.7	49.7	4.19	35.4	106.4	3.5	5.3	12.3
				120	48.1	5.54	29.2	132.3	2.5	1.1	2.4	48.0	5.43	29.5	128.2	2.6	2.8	6.4	47.9	5.32	29.8	126.1	2.6	5.1	11.7
				60	54.4	2.61	45.5	75.0	6.1	1.4	3.2	54.7	2.56	46.0	69.7	6.3		7.7	55.1	2.51	46.5	67.2	6.4	6.0	13.8
	7.5	1.4	3.2	80	53.4	3.38	41.8	94.6	4.6	1.2	2.9	53.6	3.31	42.3	89.6	4.7	3.1	7.1	53.8	3.25	42.7	87.0	4.9	5.6	13.0
				100	52.0	4.33	37.2	114.0	3.5	1.1	2.6	52.1	4.24	37.6	109.2	3.6	2.9	6.7	52.2	4.16	38.0	106.7	3.7	5.3	12.3
				120	50.4	5.46	31.8	133.4	2.7	1.1	2.4	50.3	5.35	32.1	128.7	2.8	2.8	6.4	50.3	5.24	32.4	126.4	2.8	5.1	11.7
				60	57.4	2.65	48.3	75.5	6.4	1.4	3.2	57.7	2.59	48.8	70.1	6.5	3.3	7.7	58.0	2.54	49.3	67.5	6.7	6.0	13.8
40	11.25	3.7	8.5	80 100	55.9 54.3	3.42 4.38	44.2 39.4	95.1	4.8 3.6	1.2	2.92.6	56.1 54.4	3.36 4.30	44.7 39.8	90.0	3.7	3.1	7.1 6.7	56.4 54.5	3.29 4.21	45.1	87.4 107.1	3.8	5.6	13.0 12.3
				120	52.6	5.53	33.7	133.8	2.8	1.1	2.4	52.6	5.42	34.1	129.1	2.8	2.8	6.4	52.5	5.31	34.4	126.8	2.9	5.1	11.7
				60	59.2	2.68	50.1	75.9	6.5	1.4	3.2	59.6	2.63	50.6	70.5	6.6	3.3	7.7	59.9	2.58	51.1	67.9	6.8	6.0	13.8
				80	57.8	3.47	46.0	95.3	4.9	1.2	2.9	58.0	3.40	46.4	90.3	5.0	3.1	7.1	58.3	3.33	46.9	87.6	5.1	5.6	13.0
	15.0	6.5	15.1	100	56.1	4.44	40.9	114.7	3.7	1.1	2.6	56.2	4.35	41.3	109.9	3.8	2.9	6.7	56.3	4.27	41.7	107.3	3.9	5.3	12.3
				120	54.0	5.60	34.9	134.0	2.8	1.1	2.4	54.0	5.49	35.2	129.3	2.9	2.8	6.4	54.0	5.38	35.6	127.0	2.9	5.1	11.7
				60	61.1	2.70	51.9	76.8	6.6	1.4	3.2	61.5	2.65	52.4	70.8	6.8	3.3	7.7	61.8	2.60	53.0	68.1	7.0	6.0	13.8
				80	59.8	3.48	47.9	96.3	5.0	1.2	2.9	60.1	3.41	48.4	90.8	5.2	3.1	7.1	60.3	3.34	48.9	87.8	5.3	5.6	13.0
	7.5	1.3	2.9	100	58.2	4.43	43.0	115.6	3.8	1.1	2.6	58.3	4.34	43.5	110.4	3.9	2.9	6.7	58.5	4.26	43.9	107.5	4.0	5.3	12.3
				120	56.2	5.55	37.2	134.9	3.0		2.4	56.2	5.44	37.6	129.7	3.0	2.8	6.4	56.2	5.33	38.0	127.2	3.1	5.1	11.7
				130		•	on not r					55.2	6.16	34.2	139.8	2.6	2.7	6.2	55.1	6.03	34.5	137.2	2.7	5.0	11.5
				60	64.7	2.73	55.4	77.4	6.9		3.2	65.1	2.68	56.0	71.3	7.1	3.3	7.7	65.5	2.62	56.5	68.5	7.3	6.0	13.8
	44.05	2.4	7.0	80	62.8	3.52	50.8	96.9	5.2	1.2	2.9	63.1	3.45	51.4	91.3	5.4	3.1	7.1	63.4	3.38	51.9	88.3	5.5	5.6	13.0
50	11.25	3.4	7.9	100 120	60.8 58.6	4.48 5.61	45.5 39.4	116.2 135.4	4.0 3.1	1.1	2.6 2.4	61.0 58.6	4.39 5.50	46.0 39.8	110.9 130.2	4.1 3.1	2.9	6.7 6.4	61.1 58.6	4.30 5.39	46.5	108.0	3.2	5.3	12.3 11.7
				130	36.0	5.01	39.4	133.4	3.1	1.1	2.4	57.9	6.22	36.7	130.2	2.7	2.7	6.2	57.8	6.09	37.1	137.3	2.8	5.0	11.7
				60	66.5	2.76	57.1	78.0	7.1	1.4	3.2	66.9	2.70	57.7	71.9	7.3	3.3	7.7	67.3	2.65	58.3	69.0	7.4	6.0	13.8
				80	64.7	3.55	52.6	97.2	5.3	1.2	2.9	65.0	3.48	53.1	91.6	5.5	3.1	7.1	65.3	3.41	53.6	88.6	5.6	5.6	13.0
	15.0	6.2	14.2	100	62.5	4.52	47.1	116.4	4.1		2.6	62.7	4.43	47.6	111.1	4.1	ł	6.7	62.9	4.34	48.0	108.2	4.2	5.3	12.3
				120	60.0	5.67	40.6	135.6	3.1	1 1	2.4	60.0	5.55	41.0	130.5	3.2	2.8	6.4	60.0	5.44	41.4	127.9	3.2	5.1	11.7
				130								58.8	6.28	37.3	140.3	2.7	2.7	6.2	58.7	6.15	37.7	137.7	2.8	5.0	11.5
Internal												ī .					Î		1	1					

Interpolation is permissible; extrapolation is not.

All performance is based upon the lower voltage of dual voltage rated units.

Table Continued on Next Page

Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated. Operation below 40°F EWT is based upon a 15% methanol antifreeze solution.

Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above.

See Performance Data Selection Notes for operation in the shaded areas. Operation in shaded areas requires antifreeze.

Performance Data - TMW060 (60 Hz I-P) - Heating

Table Continued from Previous Page

	SOUR	CE											LOAD											
EVA/E	ı	Flow		EVACE			Flow 7.5	GPM				ı	low 11.	25 GPN	/					Flow 15	.0 GPN	/		
°F	GPM	W	PD	°F	НС	Power	HE	LWT	СОР	WP	р но	Power	HE	LWT	СОР	WF	PD	нс	Power	HE	LWT	СОР	W	PD
'	GPINI	PSI	FT	_ '	Mbtuh	kW	Mbtuh	°F	COP	PSI	FT Mbti	ıh kW	Mbtuh	°F	COP	PSI	FT	Mbtuh	kW	Mbtuh	°F	COP	PSI	FT
				60	64.9	2.76	55.5	78.5	6.9	1.4	3.2 65.	2 2.70	56.0	71.7	7.1	3.3	7.7	65.6	2.65	56.6	68.6	7.3	6.0	13.8
				80	64.8	3.54	52.7	98.1	5.4	1.2	2.9 65.	1 3.47	53.3	91.8	5.5	3.1	7.1	65.4	3.40	53.8	88.6	5.6	5.6	13.0
	7.5	1.2	2.7	100	63.7	4.49	48.3	117.6	4.2	1.1	2.6 63.	9 4.40	48.8	111.5	4.3	2.9	6.7	64.1	4.31	49.4	108.4	4.4	5.3	12.3
				120	61.4	5.60	42.3	136.7	3.2	1.1	2.4 61.	5 5.48	42.8	130.9	3.3	2.8	6.4	61.6	5.37	43.2	128.0	3.4	5.1	11.7
				130		Operati	on not r	ecomn	nende	d	60.	6.21	39.1	140.8	2.8	2.7	6.2	60.0	6.02	39.5	137.9	2.9	5.0	11.5
				60	67.7	2.78	58.2	79.0	7.1	1.4	3.2 68.	1 2.73	58.8	72.2	7.3	3.3	7.7	68.5	2.67	59.4	69.1	7.5	6.0	13.8
				80	67.7	3.58	55.5	98.7	5.5	1.2	2.9 68.	3.51	56.0	92.3	5.7	3.1	7.1	68.3	3.44	56.6	89.1	5.8	5.6	13.0
60	11.25	3.2	7.3	100	66.4	4.54	50.9	118.1	4.3	1.1	2.6 66.	6 4.45	51.5	112.0	4.4	2.9	6.7	66.9	4.36	52.0	108.9	4.5	5.3	12.3
				120	64.0	5.67	44.6	137.2	3.3	1.1	2.4 64.	5.56	45.1	131.3	3.4	2.8	6.4	64.2	5.45	45.6	128.5	3.5	5.1	11.7
				130							63.	1 6.27	41.7	141.0	3.0	2.7	6.2	62.9	6.08	42.2	138.1	3.0	5.0	11.5
				60	70.0	2.81	60.4	79.4	7.3	1.4	3.2 70.	1 2.76	61.0	72.6	7.5	3.3	7.7	70.8	2.70	61.6	69.5	7.7	6.0	13.8
				80	70.0	3.62	57.7	99.0	5.7	1.2	2.9 70.	3.54	58.3	92.6	5.8	3.1	7.1	70.7	3.47	58.9	89.4	6.0	5.6	13.0
	15.0	5.8	13.5	100	68.8	4.60	53.1	118.3	4.4		2.6 69.		53.6	112.2	4.5	2.9	6.7	69.2	4.41	54.2	109.1	4.6	5.3	12.3
				120	66.2	5.75	46.6	137.4	3.4	1.1	2.4 66.	5.63	47.1	131.6	3.4	2.8	6.4	66.4	5.52	47.5	128.7	3.5	5.1	11.7
				130														64.6	6.14	43.6	138.4	3.1	5.0	11.5
				60	68.6	2.81	59.0	80.1	7.2	1.4	3.2 69.	2.76	59.6	72.6	7.3	3.3	7.7	69.5	2.70	60.2	69.2	7.5	6.0	13.8
				80	69.8	3.61	57.5	100.0	5.7	1.2	2.9 70.	2 3.53	58.1	92.8	5.8	3.1	7.1	70.5	3.46	58.7	89.4	6.0	5.6	13.0
	7.5	1.1	2.5	100	69.2	4.55	53.6	119.5	4.5	1.1	2.6 69.	4.46	54.2	112.6	4.6	2.9	6.7	69.7	4.37	54.8	109.3	4.7	5.3	12.3
				120	66.7	5.64	47.4	138.5	3.5	1.1	2.4 66.	5.52	47.9	132.0	3.5	2.8	6.4	66.9	5.41	48.5	128.9	3.6	5.1	11.7
				130														65.0	6.01	44.5	138.6	3.2	5.0	11.5
				60	70.7	2.84	61.0	80.7	7.3	1.4	3.2 71.	2 2.78	61.7	73.2	7.5	3.3	7.7	71.6	2.73	62.3	69.7	7.7	6.0	13.8
				80	72.5	3.64	60.1	100.5	5.8	1.2	2.9 72.	3.57	60.7	93.3	6.0	3.1	7.1	73.2	3.50	61.3	89.9	6.1	5.6	13.0
70	11.25	3.0	6.9	100	72.1	4.61	56.3	119.9	4.6	1.1	2.6 72.	3 4.52	56.9	113.1	4.7	!	6.7	72.6	4.43	57.5	109.7	4.8	5.3	12.3
				120	69.4	5.73	49.9	139.0	3.5	1.1	2.4 69.	5.62	50.4	132.4	3.6	2.8	6.4	69.7	5.51	50.9	129.3	3.7	5.1	11.7
				130														68.0	6.07	47.3	138.9	3.3	5.0	11.5
				60	73.5	2.87	63.7	80.9	7.5	!!	3.2 73.	2.81	64.3	73.4	7.7		7.7	74.4	2.75	65.0	70.0	7.9	6.0	13.8
				80	75.4	3.68	62.8	100.7	6.0	1.2	2.9 75.	3.61	63.5	93.5	6.2	3.1	7.1	76.2	3.53	64.1	90.1	6.3	5.6	13.0
	15.0	5.5	12.8	100	75.1	4.67	59.1	120.2	4.7	1.1	2.6 75.	3 4.57	59.7	113.3	4.8		6.7	75.6	4.48	60.3	109.9	4.9	5.3	12.3
				120	72.5	5.83	52.6	139.2	3.6	1.1	2.4 72.	5.71	53.1	132.7	3.7	2.8	6.4	72.7	5.60	53.6	129.5	3.8	5.1	11.7
				130									,			,		70.4	6.13	49.5	139.2	3.4	5.0	11.5
				60	72.4	2.87	62.6	81.7	7.4	!!	3.2 72.		63.2	73.5	7.6	1	7.7	73.3	2.75	63.9	69.8	7.8	6.0	13.8
				80	74.8	3.67	62.3	101.8	6.0		2.9 75.	- 1	62.9	93.9	6.1	3.1	7.1	75.6	3.52	63.6	90.2	6.3	5.6	13.0
	7.5	1.0	2.3	100	74.7	4.61	58.9	121.4	4.8	!!	2.6 75.	-	59.6	113.8	4.9		6.7	75.3	4.42	60.2	110.2	5.0	5.3	12.3
				120	71.9	5.68	52.5	140.4	3.7	1.1	2.4 72.	1 5.56	53.1	133.2	3.8	2.8	6.4	72.3	5.45	53.7	129.8	3.9	5.1	11.7
				130														69.9	6.00	49.4	139.4	3.4	5.0	11.5
				60	73.7	2.89	63.9	82.3	7.5	!!	3.2 74.	2 2.84	64.5	74.1	7.7	3.3	7.7	74.7	2.78	65.2	70.3	7.9	6.0	13.8
				80	77.3	3.71	64.7	102.3	6.1	1.2	2.9 77.	1	65.3	94.3	6.3	3.1	7.1	78.2	3.56	66.0	90.6	6.4	5.6	13.0
80	11.25	2.8	6.5	100	77.7	4.67	61.8	121.8	4.9		2.6 78.		62.4	114.2	5.0		6.7	78.4	4.49	63.0	110.6	5.1	5.3	12.3
				120	74.8	5.79	55.1	140.7	3.8	1.1	2.4 75.	5.68	55.7	133.5	3.9	2.8	6.4	75.2	5.56	56.2	130.1	4.0	5.1	11.7
				130														73.1	6.06	52.4	139.7	3.5	5.0	11.5
				60	76.9	2.92	67.0	82.4	7.7	1.4	3.2 77.	1 2.87	67.6	74.2	7.9		7.7	77.9	2.81	68.3	70.4	8.1	6.0	13.8
				80	80.7	3.74	68.0	102.5	6.3	1.2	2.9 81.	2 3.67	68.7	94.5	6.5		7.1	81.6	3.60	69.3	90.8	6.7	5.6	13.0
	15.0	5.3	12.1	100	81.3	4.74	65.2	122.0	5.0	1.1	2.6 81.	7 4.64	65.8	114.4	5.2	2.9	6.7	82.0	4.55	66.5	110.8	5.3	5.3	12.3
				120	78.7	5.91	58.5	141.0	3.9	1.1	2.4 78.	5.79	59.1	133.8	4.0	2.8	6.4	79.1	5.68	59.7	130.4	4.1	5.1	11.7
				130														76.3	6.12	55.4	139.9	3.6	5.0	11.5
Intornal:	ation io r	ormic	ciblo: c	vetranal.	ation is no	+																		

Interpolation is permissible; extrapolation is not.

All performance is based upon the lower voltage of dual voltage rated units.

Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated. Operation below 40°F EWT is based upon a 15% methanol antifreeze solution.

Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above.

See Performance Data Selection Notes for operation in the shaded areas. Operation in shaded areas requires antifreeze.

Performance Data - TMW120 (60 Hz I-P) - Cooling

	SOUR	RCE												LOAD											
EWT		Flow		EWT		F	low 15.0	GPM					F	low 22.	5 GPM						Flow 30.	0 GPN	1		
°F	GPM	PSI	PD FT	°F	TC Mbtuh	Power kW	HR Mbtuh	°F	EER	PSI		TC Mbtuh	Power kW	HR Mbtuh	°F	EER	PSI		TC Mbtuh	Power kW	HR Mbtuh	°F	EER	PSI	PD FT
		1 01		50	105.2	4.41	120.3	38.2	23.9		3.7	106.9	4.45	122.1	41.0	24.0		8.8	110.7	4.50	126.0	42.5	24.6	6.8	15.7
				60	106.4	4.45	121.6	47.1	23.9	1.5	3.5	108.1	4.49	123.4	50.5	24.1	3.7	8.4	111.9	4.54	127.4	52.4	24.7	6.6	15.2
	15.0	1.4	3.2	70	107.6	4.48	122.9	56.0	24.0	1.4	3.3	109.3	4.53	124.8	60.0	24.1	i	8.1	113.1	4.57	128.7	62.2	24.7	6.4	14.7
				80	111.0	4.49	126.3	64.7	24.7	1.4	3.2	112.8	4.53	128.3	69.4	24.9	i	7.9	116.7	4.58	132.4	72.0	25.5	6.2	14.3
				90	114.4	4.49	129.8	73.5	25.5	1.3	3.0	116.3	4.54	131.8	78.9	25.6	3.3	7.6	120.3	4.58	136.0	81.8	26.3	6.0	13.9
				50	106.8	4.45	122.0	38.0	24.0	1.6	3.7	108.3	4.50	123.6	40.8	24.1	3.8	8.8	112.1	4.54	127.6	42.3	24.7	6.8	15.7
				60	110.9	4.49	126.2	46.7	24.7	1.5	3.5	112.5	4.54	128.0	50.1	24.8	3.7	8.4	116.4	4.58	132.0	52.0	25.4	6.6	15.2
50	22.5	3.8	8.7	70	115.1	4.53	130.5	55.4	25.4	1.4	3.3	116.7	4.57	132.3	59.4	25.5	3.5	8.1	120.8	4.62	136.5	61.6	26.1	6.4	14.7
				80	116.1	4.53	131.6	64.3	25.6	1.4	3.2	117.7	4.58	133.4	69.0	25.7	3.4	7.9	121.9	4.62	137.6	71.5	26.4	6.2	14.3
				90	117.2	4.54	132.6	73.2	25.8	1.3	3.0	118.8	4.58	134.5	78.5	25.9	3.3	7.6	123.0	4.63	138.8	81.4	26.6	6.0	13.9
				50	111.1	4.50	126.5	35.8	24.7	1.6	3.7	113.0	4.54	128.5	40.3	24.9	3.8	8.8	115.9	4.59	131.5	42.1	25.2	6.8	15.7
				60	114.9	4.54	130.4	45.0	25.3	1.5	3.5	117.5	4.58	133.1	49.8	25.6	3.7	8.4	123.0	4.63	138.8	51.5	26.6	6.6	15.2
	30.0	6.8	15.6	70	118.8	4.57	134.4	54.1	26.0	1.4	3.3	122.0	4.62	137.8	59.3	26.4	3.5	8.1	130.2	4.67	146.1	60.9	27.9	6.4	14.7
				80	120.7	4.58	136.3	63.5	26.4	1.4	3.2	123.6	4.62	139.4	68.7	26.7	3.4	7.9	131.7	4.67	147.6	70.8	28.2	6.2	14.3
				90	122.5	4.58	138.2	72.8	26.7	1.3	3.0	125.2	4.63	141.0	78.1	27.0	3.3	7.6	133.2	4.68	149.1	80.7	28.5	6.0	13.9
				50	98.2	5.64	117.5	38.1	17.4	1.6	3.7	100.6	5.70	120.1	41.1	17.7	3.8	8.8	104.0	5.76	123.7	42.9	18.1	6.8	15.7
				60	106.3	5.68	125.7	46.4	18.7	1.5	3.5	109.0	5.74	128.6	50.0	19.0	3.7	8.4	112.6	5.79	132.4	52.3	19.4	6.6	15.2
	15.0	1.2	2.7	70	114.4	5.71	133.9	54.8	20.0	1.4	3.3	117.3	5.77	137.0	59.1	20.3	3.5	8.1	121.3	5.83	141.2	61.7	20.8	6.4	14.7
				80	118.7	5.83	138.6	63.4	20.3	1.4	3.2	121.7	5.89	141.8	68.3	20.6	i	7.9	125.7	5.95	146.1	71.4	21.1	6.2	14.3
				90	122.9	5.95	143.2	71.9	20.6	1.3	3.0	126.0	6.02	146.5	77.6	20.9		7.6	130.2	6.08	151.0	81.1	21.4	6.0	13.9
				50	100.3	5.70	119.8	38.0	17.6	1.6	3.7	102.7	5.76	122.4	41.0	17.8		8.8	106.2	5.82	126.0	42.8	18.3	6.8	15.7
				60	109.1	5.74	128.7	46.2	19.0	1.5	3.5	111.7	5.79	131.5	49.8	19.3	3.7	8.4	115.5	5.85	135.4	52.1	19.7	6.6	15.2
70	22.5	3.3	7.6	70	117.9	5.77	137.6	54.5	20.4	1.4	3.3	120.7	5.83	140.6	58.8	20.7	i	8.1	124.8	5.89	144.9	61.4	21.2	6.4	14.7
				80	121.6	5.89	141.7	63.1	20.6	1.4	3.2	124.5	5.95	144.9	68.1	20.9	i	7.9	128.7	6.01	149.2	71.1	21.4	6.2	14.3
				90	125.2	6.02	145.8	71.7	20.8	1.3	3.0	128.3	6.08	149.1	77.3	21.1		7.6	132.6	6.14	153.6	80.8	21.6	6.0	13.9
				50	102.4	5.76	122.0	36.9	17.8	1.6	3.7	106.6	5.82	126.4	40.8	18.3		8.8	108.5	5.88	128.6	42.6	18.5	6.8	15.7
	30.0	6.1	14.1	60	111.3	5.79	131.1	45.4 53.9	19.2	1.5	3.5	115.2 123.9	5.85	135.2 144.0	49.6 58.5	19.7	3.7	8.4	118.8	5.91	138.9	51.8	20.1	6.6	15.2
	30.0	0.1	14.1	70 80	120.2 124.7	5.83 5.95	145.0	62.7	20.6	1.4	3.3	128.3	5.89 6.01	144.0	67.8	21.0	i	8.1 7.9	129.0 134.3	5.95 6.07	149.3	70.6	21.7	6.4	14.7
				90	129.1	6.08	149.9	71.5	21.3	1.3	3.0	132.6	6.14	153.6	77.1	21.6		7.6	139.5	6.20	160.7	80.2	22.1	6.0	13.9
				50	89.7	7.15	114.1	38.7	12.5	1.6	3.7	92.5	7.22	117.2	41.6	12.8		8.8	95.0	7.29	119.8	43.4	13.0	6.8	15.7
				60	101.4	7.13	126.0	46.8	14.0	1.5	3.5	104.6	7.30	129.5	50.3	14.3	3.7	8.4	107.4	7.25	132.5	52.6	14.6	6.6	15.2
	15.0	1.0	2.3	70	113.1	7.30	138.0	54.9	15.5	1.4	3.3	116.7	7.37	141.9	59.1	15.8	i	8.1	119.8	7.45	145.2	61.8	16.1	6.4	14.7
	10.0	1.0	2.0	80	119.3	7.47	144.8	63.4	16.0	1.4	3.2	123.1	7.54	148.8	68.2	16.3	i	7.9	126.3	7.62	152.3	71.3	16.6	6.2	14.3
				90	125.4	7.64	151.5	71.9	16.4	1.3	3.0	129.4	7.72	155.8	77.3	16.8	i	7.6	132.8	7.80	159.4	80.9	17.0	6.0	13.9
				50	91.8	7.22	116.4	38.6	12.7	1.6	3.7	94.7	7.29	119.6	41.5	13.0	3.8	8.8	97.2	7.37	122.4	43.4	13.2	6.8	15.7
				60	103.6	7.30	128.5	46.7	14.2	1.5	3.5	106.9	7.37	132.1	50.2	14.5	3.7	8.4	109.7	7.44	135.1	52.5	14.7	6.6	15.2
90	22.5	2.9	6.7	70	115.4	7.37	140.6	54.8		i	1	119.1	7.45		58.9		i	i	122.2	7.52	147.9	i i	16.2	i i	
				80	121.4	7.54	i	i i		i	i	125.3	7.62		i i	i	i		128.5	7.70	154.8				
				90	127.4	7.72	153.7	71.7	16.5	1.3	3.0	131.5	7.80	158.1	77.1	16.9	3.3	7.6	134.9	7.87	161.7	1 1	1		
				50	93.0	7.29	117.9						7.37	122.3	41.4					7.44		43.3			
				60	104.7	7.37	129.9				1		7.44	133.8					111.6	7.52	137.2	1		i i	
	30.0	5.5	12.7	70	116.4	7.45	141.8				1		7.52	145.3					124.0	7.60		61.5			
				80	123.3	7.62	149.3	62.9	16.2	1.4	3.2	126.9	7.70	153.1					131.5	7.78	158.0				
				90	130.2	7.80	i i	i i		i	i	134.1	7.87	160.9	1	i	i		139.0	7.95		1 1	1		
					ation is not																				

Interpolation is permissible; extrapolation is not.

All performance is based upon the lower voltage of dual voltage rated units.

Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated.

Operation below 40°F EWT is based upon a 15% methanol antifreeze solution.

Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above.

See Performance Data Selection Notes for operation in the shaded areas. Operation in shaded areas requires antifreeze.

Table Continued on Next Page

Performance Data – TMW120 (60 Hz I-P) - Cooling

Table Continued from Previous Page

	SOUR	CE												LOAD											
EWT	F	low		E\A/T		F	low 15.0	0 GPM					F	low 22.	5 GPM						Flow 30.	0 GPN	1		
°F	GPM	W	PD	°F	TC	Power	HR	LWT	EER	WI	PD	TC	Power	HR	LWT	EER	WF	PD	TC	Power	HR	LWT	EER	W	PD
	OI W	PSI	FT	'	Mbtuh	kW	Mbtuh	°F	LLIX	PSI	FT	Mbtuh	kW	Mbtuh	°F	LLIX	PSI	FT	Mbtuh	kW	Mbtuh	°F	LLIX	PSI	FT
				50	79.6	8.92	110.0	39.9	8.9	1.6	3.7	82.6	9.01	113.3	42.5	9.2	3.8	8.8	83.5	9.10	114.5	44.1	9.2	6.8	15.7
				60	91.6	9.08	122.6	48.2	10.1	1.5	3.5	95.0	9.17	126.3	51.2	10.4	3.7	8.4	96.1	9.26	127.6	53.2	10.4	6.6	15.2
	15.0	8.0	2.0	70	103.6	9.23	135.1	56.4	11.2	1.4	3.3	107.4	9.32	139.3	60.0	11.5	3.5	8.1	108.6	9.42	140.8	62.4	11.5	6.4	14.7
				80	112.8	9.39	144.8	64.9	12.0	1.4	3.2	117.0	9.48	149.4	69.0	12.3	3.4	7.9	118.3	9.58	151.0	71.7	12.3	6.2	14.3
				90	122.0	9.55	154.6	73.4	12.8	1.3	3.0	126.6	9.64	159.5	78.0	13.1	3.3	7.6	128.0	9.74	161.2	81.1	13.1	6.0	13.9
				50	81.3	9.01	112.0	39.9	9.0	1.6	3.7	84.3	9.10	115.4	42.4	9.3	3.8	8.8	85.2	9.19	116.6	44.1	9.3	6.8	15.7
				60	94.5	9.17	125.8	48.1	10.3	1.5	3.5	98.0	9.26	129.6	51.2	10.6	3.7	8.4	99.1	9.35	131.0	53.2	10.6	6.6	15.2
110	22.5	2.7	6.2	70	107.8	9.32	139.6	56.3	11.6	1.4	3.3	111.8	9.42	143.9	59.9	11.9	3.5	8.1	113.0	9.51	145.5	62.2	11.9	6.4	14.7
				80	115.7	9.48	148.1	64.7	12.2	1.4	3.2	120.0	9.58	152.7	68.8	12.5	3.4	7.9	121.3	9.68	154.4	71.5	12.5	6.2	14.3
				90	123.7	9.64	156.6	73.1	12.8	1.3	3.0	128.3	9.74	161.5	77.7	13.2	3.3	7.6	129.7	9.84	163.3	80.8	13.2	6.0	13.9
				50	83.1	9.10	114.1	39.4	9.1	1.6	3.7	84.7	9.19	116.1	42.4	9.2	3.8	8.8	87.6	9.28	119.3	44.0	9.4	6.8	15.7
				60	95.2	9.26	126.8	47.4	10.3	1.5	3.5	97.0	9.35	128.9	51.1	10.4	3.7	8.4	101.4	9.45	133.7	53.1	10.7	6.6	15.2
	30.0	5.1	11.7	70	107.4	9.42	139.5	55.3	11.4	1.4	3.3	109.3	9.51	141.8	59.9	11.5	3.5	8.1	115.2	9.61	148.0	62.2	12.0	6.4	14.7
				80	116.5	9.58	149.2	64.2	12.2	1.4	3.2	119.5	9.68	152.5	68.7	12.3	3.4	7.9	123.4	9.77	156.8	71.4	12.6	6.2	14.3
				90	125.6	9.74	158.9	73.0	12.9	1.3	3.0	129.6	9.84	163.1	77.6	13.2	3.3	7.6	131.7	9.94	165.6	80.7	13.2	6.0	13.9
				50	74.0	10.08	108.4	40.3	7.3	1.6	3.7	77.0	10.18	111.8	43.2	7.6	3.8	8.8	78.6	10.28	113.7	44.7	7.6	6.8	15.7
				60	85.4	10.25	120.4	48.6	8.3	1.5	3.5	88.9	10.36	124.2	52.0	8.6	3.7	8.4	90.7	10.46	126.4	53.8	8.7	6.6	15.2
	15.0	8.0	1.8	70	96.8	10.42	132.4	56.9	9.3	1.4	3.3	100.8	10.53	136.7	60.8	9.6	3.5	8.1	102.8	10.64	139.1	62.9	9.7	6.4	14.7
				80	105.9	10.62	142.1	65.2	10.0	1.4	3.2	110.2	10.72	146.8	69.7	10.3	3.4	7.9	112.5	10.83	149.4	72.1	10.4	6.2	14.3
				90	115.1	10.81	151.9	73.5	10.6	1.3	3.0	119.7	10.92	157.0	78.6	11.0	3.3	7.6	122.2	11.03	159.8	81.3	11.1	6.0	13.9
				50	74.5	10.18	109.2	40.3	7.3	1.6	3.7	77.5	10.28	112.6	43.1	7.5	3.8	8.8	79.1	10.39	114.6	44.6	7.6	6.8	15.7
				60	86.3	10.36	121.6	48.5	8.3	1.5	3.5	89.8	10.46	125.5	51.9	8.6	3.7	8.4	91.6	10.57	127.7	53.7	8.7	6.6	15.2
120	22.5	2.6	6.0	70	98.1	10.53	134.0	56.7	9.3	1.4	3.3	102.1	10.64	138.4	60.6	9.6	3.5	8.1	104.2	10.74	140.8	62.7	9.7	6.4	14.7
				80	107.3	10.72	143.9	65.0	10.0	1.4	3.2	111.7	10.83	148.6	69.6	10.3	3.4	7.9	113.9	10.94	151.3	72.0	10.4	6.2	14.3
				90	116.5	10.92	153.7	73.4	10.7	1.3	3.0	121.2	11.03	158.9	78.5	11.0	3.3	7.6	123.7	11.14	161.7	81.3	11.1	6.0	13.9
				50	76.9	10.28	112.0	40.0	7.5	1.6	3.7	80.2	10.39	115.7	42.9	7.7	3.8	8.8	81.7	10.49	117.5	44.5	7.8	6.8	15.7
				60	88.8	10.46	124.4	48.2	8.5	1.5	3.5	92.8	10.57	128.9	51.7	8.8	3.7	8.4	94.6	10.67	131.0	53.6	8.9	6.6	15.2
	30.0	4.9	11.3	70	100.6	10.64	136.9	56.5	9.5	1.4	3.3	105.5	10.74	142.1	60.5	9.8	3.5	8.1	107.6	10.85	144.6	62.6	9.9	6.4	14.7
				80	109.9	10.83	146.8	64.9	10.1	1.4	3.2	115.1	10.94	152.4	69.5	10.5	3.4	7.9	117.2	11.05	154.9	71.9	10.6	6.2	14.3
				90	119.2	11.03	156.8	73.3	10.8	1.3	3.0	124.7	11.14	162.7	78.5	11.2	3.3	7.6	126.9	11.25	165.3	81.2	11.3	6.0	13.9

Interpolation is permissible; extrapolation is not.

All performance is based upon the lower voltage of dual voltage rated units.

Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated.

Operation below 40°F EWT is based upon a 15% methanol antifreeze solution.

Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above.

See Performance Data Selection Notes for operation in the shaded areas. Operation in shaded areas requires antifreeze.

Performance Data – TMW120 (60 Hz I-P) - Heating

	SOUR	RCE												LOAD											
EWT	ı	Flow		EWT		ı	low 15.	.0 GPM		_			F	low 22.	5 GPM						Flow 30	.0 GPN	1		
°F	GPM		PD	°F	НС	Power	HE	LWT	СОР	WF	_	НС	Power	HE	LWT	СОР	W	_	НС	Power	HE	LWT	СОР	_	PD
_		PSI	FI	60	Mbtuh 82.2	kW 4.86	Mbtuh 65.6	° F	5.0	PSI 1.5	_	Mbtuh 82.6	kW 4.76	Mbtuh 66.3	° F	5.1	PSI 3.3	7.7	Mbtuh 82.9	kW 4.67	Mbtuh 67.0	° F	5.2	PSI 6.0	FT 13.8
20	30.0	8.0	18.6	80	80.9	6.34	59.3	91.2	3.7	1.4	3.2	81.1	6.22	59.9	87.2	3.8	3.1	7.1	81.3	6.09	60.5	85.3	3.9	5.6	13.0
				100	79.3	8.23	51.3	110.8	2.8	1.3	2.9	79.3	8.06	51.8	106.9	2.9	2.9	6.7	79.3	7.90	52.4	105.1	2.9	5.3	12.3
				60	95.6	5.04	78.4	73.3	5.6	1.5	3.5	96.0	4.94	79.2	68.6	5.7	3.3	7.7	96.5	4.84	80.0	66.3	5.8	6.0	13.8
	15.0	1.7	3.9	80	93.8	6.55	71.5	92.9	4.2	1.4	3.2	94.1	6.42	72.2	88.4	4.3	3.1	7.1	94.4	6.29	73.0	86.1	4.4	5.6	13.0
				100 120	91.7 89.1	8.44	62.9 52.6	112.4	3.2	1.3	2.9	91.8 89.0	8.27 10.50	63.5	108.1	3.3	2.9	6.7	91.9 88.8	8.11	64.2	105.9	3.3	5.3 5.1	12.3
				60	100.0	5.13	82.5	73.6	5.7		3.5	100.5	5.02	83.4	68.9	5.9	3.3	7.7	101.0	4.92	84.2	66.6	6.0	6.0	13.8
	00.5	١.,	40.4	80	97.9	6.66	75.2	93.3	4.3	1.4	3.2	98.3	6.53	76.0	88.7	4.4	3.1	7.1	98.6	6.40	76.8	86.5	4.5	5.6	13.0
30	22.5	4.4	10.1	100	95.7	8.58	66.4	112.8	3.3	1.3	2.9	95.8	8.41	67.1	108.4	3.3	2.9	6.7	95.9	8.24	67.8	106.2	3.4	5.3	12.3
				120	93.2	10.89	56.0	132.1	2.5	1.2	2.7	93.0	10.67	56.6	128.0	2.6	2.8	6.4	92.9	10.46	57.2	125.9	2.6	5.1	11.7
				60	103.9	5.21	86.1	73.9	5.8	1.5	3.5	104.4	5.11	87.0	69.1	6.0	3.3	7.7	105.0	5.01	87.9	66.8	6.1	6.0	13.8
	30.0	7.6	17.5	80	101.8	6.77	78.7	93.4	4.4	1.4	3.2	102.1	6.64	79.5	88.9	4.5	3.1	7.1	102.5	6.50	80.3	86.6	4.6	5.6	13.0
				100	99.2	8.73	69.4	112.9	3.3		2.9	99.3	8.55	70.1	108.6	3.4	2.9	6.7	99.4	8.38	70.8	106.4	3.5	5.3	12.3
				120 60	96.1 108.9	11.08 5.22	58.3 91.1	75.0	6.1	1.2	2.7 3.5	95.9 109.5	10.85 5.12	58.9 92.0	128.2	6.3	3.3	7.7	95.8 110.1	10.64 5.02	59.5 93.0	126.1 67.2	2.6 6.4	5.1 6.0	11.7
	45.0			80	106.7	6.76	83.6	94.6	4.6	1.4	3.2	107.1	6.62	84.5	89.6	4.7	3.1	7.1	107.6	6.49	85.4	87.0	4.9	5.6	13.0
i	15.0	1.5	3.5	100	104.0	8.65	74.5	114.0	3.5		2.9	104.2	8.48	75.3	109.2	3.6	2.9	6.7	104.4	8.31	76.1	106.7	3.7	5.3	12.3
				120	100.7	10.91	63.5	133.4	2.7	1.2	2.7	100.7	10.69	64.2	128.7	2.8	2.8	6.4	100.6	10.48	64.9	126.4	2.8	5.1	11.7
				60	114.7	5.29	96.7	75.5	6.4	1.5	3.5	115.4	5.19	97.7	70.1	6.5	3.3	7.7	116.0	5.08	98.7	67.5	6.7	6.0	13.8
40	22.5	4.1	9.3	80	111.8	6.85	88.5	95.1	4.8	1.4	3.2	112.3	6.71	89.4	90.0	4.9	3.1	7.1	112.7	6.58	90.3	87.4	5.0	5.6	13.0
				100	108.6	8.77	78.7	114.5	3.6	1.3		108.8	8.59	79.5	109.7	3.7	2.9	6.7	109.1	8.42	80.3	107.1	3.8	5.3	12.3
				120 60	105.2 118.5	11.06 5.36	67.4 100.2	133.8 75.9	2.8 6.5	1.2	2.7 3.5	105.1	10.84 5.26	68.1	70.5	2.8 6.6	3.3	7.7	105.1	10.62 5.15	68.8	126.8 67.9	6.8	5.1 6.0	11.7
				80	115.6	6.94	91.9	95.3	4.9	1.4	3.2	116.1	6.80	92.8	90.3	5.0	3.1	7.1	116.5	6.67	93.8	87.6	5.1	5.6	13.0
	30.0	7.2	16.6	100	112.1	8.89	81.8	114.7	3.7		2.9	112.3	8.71	82.6	109.9	3.8	2.9	6.7	112.6	8.54	83.5	107.3	3.9	5.3	12.3
				120	108.0	11.21	69.8	134.0	2.8		2.7	108.0	10.98	70.5	129.3	2.9	2.8	6.4	107.9	10.76	71.2	127.0	2.9	5.1	11.7
				60	122.2	5.40	103.8	76.8	6.6	1.5	3.5	122.9	5.30	104.9	70.8	6.8	3.3	7.7	123.7	5.19	106.0	68.1	7.0	6.0	13.8
		l		80	119.6	6.97	95.8	96.3	5.0	1.4	3.2	120.1	6.83	96.8	90.8	5.2	3.1	7.1	120.7	6.69	97.9	87.8	5.3	5.6	13.0
	15.0	1.4	3.2	100	116.3	8.87	86.1	115.6	3.8		2.9	116.6	8.69	87.0	110.4	3.9	2.9	6.7	117.0	8.52	87.9	107.5	4.0	5.3	12.3
				120 130	112.3	11.11 Oporati	74.4 on not r	134.9	3.0	1.2	2.1	112.4	10.89 12.31	75.2 68.3	129.7	3.0	2.8	6.4	112.5	10.67	76.1 69.1	127.2	3.1	5.1	11.7 11.5
				60	129.4	5.46	110.8	77.4	6.9	1.5	3.5	130.2	5.35	111.9	71.3	7.1	3.3	7.7	131.0	5.24	113.1	68.5	7.3	6.0	13.8
				80	125.7	7.04	101.7	96.9	5.2	1.4	3.2	126.3	6.90	102.7	91.3	5.4	3.1	7.1	126.8	6.76	103.8	88.3	5.5	5.6	13.0
50	22.5	3.8	8.7	100	121.6	8.96	91.0	116.2	4.0	1.3	2.9	121.9	8.78	92.0	110.9	4.1	2.9	6.7	122.3	8.60	92.9	108.0	4.2	5.3	12.3
				120	117.2	11.22	78.9	135.4	3.1	1.2	2.7	117.2	11.00	79.7	130.2	3.1	2.8	6.4	117.3	10.78	80.5	127.7	3.2	5.1	11.7
				130								115.8	12.43	73.4	139.9	2.7	2.7	6.2	115.7	12.19	74.1	137.3	2.8	5.0	11.5
				60	133.0	5.51	114.2	78.0	7.1	1.5	3.5	133.8	5.40	115.3	71.9	7.3	3.3	7.7	134.6	5.30	116.5	69.0	7.4	6.0	13.8
	30.0	6.8	15.6	80 100	129.4 125.0	7.11 9.05	105.1 94.2	97.2 116.4	5.3	1.4	3.2	130.0 125.4	6.97 8.87	106.2 95.1	91.6	5.5	2.9	6.7	130.6 125.7	6.83	107.3	88.6	5.6	5.6	13.0
	55.0	0.0	10.0	120	119.9	11.34	81.2	135.6	3.1		2.7	120.0	11.11	82.1	130.5	3.2	2.8	6.4	120.0	10.89	82.9	127.9	3.2	5.1	11.7
				130	11010	11101	0112	100.0	0.1	112		117.5	12.56	74.7	140.3	2.7	2.7	6.2	117.4	12.31	75.4	137.7	2.8	5.0	11.5
				60	129.7	5.51	110.9	78.5	6.9	1.5		130.5	5.40	112.1	71.7	7.1	3.3		131.3	5.30	113.2	68.6	7.3	6.0	13.8
				80	129.6	7.09	105.4	98.1				130.2	6.95	106.5	91.8	5.5			130.9	6.81	107.6	88.6	5.6		13.0
	15.0	1.3	3.0	100	127.3	8.98	96.7	117.6				127.7	8.80	97.7	111.5				128.2	8.63	98.7	108.4			12.3
				120	122.8	11.19	84.7	136.7	3.2	1.2	2.7	123.0	10.97	85.6	130.9				123.2	10.75	86.5	128.0			
				130 60	135.5	5.57	116.4	79.0	7.1	1.5	3.5	120.5 136.3	12.42 5.46	78.1 117.6	140.8 72.2	7.3			120.1 137.1	12.04 5.35	79.0 118.8	137.9 69.1	7.5		11.5 13.8
				80	135.3	7.16	110.4	98.7				136.0	7.02	112.1	92.3				136.7	6.88	113.2	89.1			13.0
60	22.5	3.5	8.1	100	132.9	9.09	101.9	118.1				133.3	8.90	102.9	112.0				133.7	8.73	104.0	108.9			12.3
				120	128.0	11.34	89.3	137.2				128.2	11.12	90.2	131.3				128.3	10.89	91.2	128.5			
				130								126.3	12.54	83.5	141.0	3.0	2.7	6.2	125.9	12.17	84.4	138.1	3.0	5.0	11.5
				60	140.0	5.63	120.8	79.4				140.8	5.51	122.0	72.6	7.5			141.7	5.40	123.2	69.5			13.8
	00.0		44.5	80	140.1	7.23	115.4	99.0				140.8	7.09	116.6	92.6	5.8			141.5	6.95	117.7	89.4			13.0
	30.0	6.4	14.8	100	137.6	9.19						138.0	9.01	107.3					138.5 132.7	8.83	108.4				12.3
				120 130	132.4	11.50	93.2	13/.4	ა.4	1.2	2.1	132.6	11.27	94.1	131.0	J.4	۷.ک	0.4	132.7	11.04 12.29	95.1 87.2	128.7 138.4		5.1 5.0	11.7 11.5
		_			tion is no														12J. I	12.29	01.2	130.4	J. I	5.0	11.0

Interpolation is permissible; extrapolation is not.

All performance is based upon the lower voltage of dual voltage rated units.

Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated. Operation below 40°F EWT is based upon a 15% methanol antifreeze solution.

Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above.

See Performance Data Selection Notes for operation in the shaded areas. Operation in shaded areas requires antifreeze.

Table Continued on Next Page

Performance Data - TMW120 (60 Hz I-P) - Heating

Table Continued from Previous Page

	SOUR	CE												LOAD											
EWT		Flow		EWT		ı	Flow 15.	0 GPM					F	low 22.	5 GPM						Flow 30	.0 GPN	1		
°F	GPM	W	PD	°F	HC	Power	HE	LWT	СОР	WF	PD	HC	Power	HE	LWT	СОР	WI	PD	HC	Power	HE	LWT	СОР	W	PD
	GFIVI	PSI	FT		Mbtuh	kW	Mbtuh	°F	COF	PSI	FT	Mbtuh	kW	Mbtuh	°F	COF	PSI	FT	Mbtuh	kW	Mbtuh	°F	СОГ	PSI	FT
				60	137.2	5.62	118.0	80.1	7.2			138.1	5.51	119.3	72.6	7.3	3.3	!	138.9	5.40	120.5	69.2	7.5	6.0	13.8
				80	139.6	7.21	115.0	100.0	5.7	1.4	3.2	140.3	7.07	116.2	92.8	5.8	3.1	!	141.1	6.93	117.4	89.4	6.0	5.6	13.0
	15.0	1.2	2.7	100	138.3	9.01	107.3	119.5	4.5		2.9	138.8	8.92	108.4	112.6	4.6	2.9		139.4	8.74	109.6	109.3	4.7	5.3	12.3
				120	133.3	11.27	94.9	138.5		1.2			11.05	95.9	132.0	3.5	2.8	6.4		10.83	96.9	128.9	3.6	5.1	11.7
				130								recomr							130.0	12.02	88.9	138.6	3.2	5.0	11.5
				60	141.5	5.68	122.1	80.7	7.3	1.5			5.57	123.3	73.2	7.5	3.3		143.2	5.46	124.6	69.7	7.7		13.8
				80	145.0	7.29	120.1	100.5	5.8			145.7	7.14	121.4	93.3	6.0	3.1	1	146.5	7.00	122.6	89.9	6.1	5.6	13.0
70	22.5	3.3	7.6	100	144.1	9.22	112.7	119.9	4.6	1.3		144.7	9.03	113.9	113.1	4.7	2.9		145.2	8.85	115.0	109.7	4.8	5.3	12.3
				120	138.9	11.46	99.7	139.0	3.5	1.2	2.7	139.1	11.24	100.8	132.4	3.6	2.8	6.4	139.4	11.01	101.8	129.3	3.7	5.1	11.7
				130															136.1	12.15	94.6	138.9	3.3	5.0	11.5
				60	146.9	5.74	127.3	80.9	7.5				5.62	128.6	73.4	7.7		7.7	148.7	5.50	129.9	70.0	7.9	6.0	13.8
				80	150.8	7.36	125.7	100.7	6.0				7.21	126.9	93.5	6.2	!	7.1		7.07	128.2	90.1	6.3		13.0
	30.0	6.1	14.1	100	150.1	9.33	118.3	120.2	4.7	1.3			9.15	119.5	113.3	4.8		6.7		8.97	120.7	109.9	4.9		12.3
				120	144.9	11.66	105.1	139.2	3.6	1.2	2.7	145.2	11.43	106.2	132.7	3.7	2.8	6.4	145.5	11.20	107.3	129.5	3.8	5.1	11.7
				130															140.8	12.27	98.9	139.2	3.4	-	11.5
				60	144.7	5.73	125.2	81.7	7.4		3.5		5.62	126.5	73.5	7.6	3.3		146.5	5.51	127.8	69.8	7.8	6.0	13.8
				80	149.6	7.34	124.6	101.8	6.0	1.4	3.2	150.4	7.19	125.9	93.9	6.1	3.1	1	151.2	7.05	127.2	90.2	6.3	5.6	13.0
	15.0	1.1	2.5	100	149.3	9.21	117.9	121.4	4.8	1.3		149.9	9.03	119.1	113.8	4.9		6.7		8.85	120.4	110.2	5.0	5.3	12.3
				120	143.8	11.35	105.1	140.4	3.7	1.2	2.7	144.2	11.13	106.2	133.2	3.8	2.8	6.4		10.91	107.3	129.8	3.9	5.1	11.7
				130	447.5	F 70	407.7	00.0	7.5	4.5	0.5	440.4	5.07	100.0	74.4	7 7	0.0		139.8	12.00	98.9	139.4	3.4		11.5
				60	147.5	5.79	127.7	82.3	7.5				5.67	129.0	74.1	7.7		7.7	149.3	5.56	130.3	70.3	7.9	6.0	13.8
	00.5	24	7.4	80	154.7	7.41	129.4	102.3	6.1	1.4		155.5	7.26	130.7	94.3	6.3	3.1		156.3	7.12	132.0	90.6	6.4	5.6	13.0
80	22.5	3.1	7.1	100	155.4	9.34	123.5	121.8	4.9	1.3		156.0	9.16	124.8	114.2	5.0	2.9		156.7	8.97	126.1	110.6	5.1	5.3	12.3
				120	149.7	11.59	110.2	140.7	3.8	1.2	2.7	150.1	11.35	111.3	133.5	3.9	2.8	6.4	150.4	11.13	112.5	130.1	4.0	5.1	11.7
				130	152.0	0.05	122.0	00.4	7 7	1 E	2 5	154.0	F 72	125.2	74.0	7.0	2.2	7 7	146.2	12.13	104.9	139.7 70.4	3.5		11.5
				60 80	153.9 161.5	8.85 7.49	133.9	82.4 102.5	7.7 6.3			154.8	5.73	135.3	74.2 94.5	7.9 6.5	3.3	1	155.8	5.62 7.19	136.6 138.7	90.8	8.1 6.7	6.0 5.6	13.8 13.0
	30.0	5.8	13.4	100	162.7	9.48	135.9	102.5	5.0	1.4		162.3 163.3	7.34 9.29	137.3	114.4	5.2	3.1	6.7	163.2 164.0	9.10	138.7	110.8	5.3		12.3
	30.0	3.0	13.4	120	157.4	11.82	117.1	141.0		1.2			11.59	118.3	133.8	4.0		6.4		11.36	119.4	130.4	4.1		11.7
				130	137.4	11.02	117.1	141.0	3.9	1.2	2.1	137.0	11.59	110.3	100.0	4.0	2.0	0.4	152.5	12.25	110.7	139.9			11.7
		<u> </u>			tion is no														102.0	12.23	110.7	100.8	5.0	5.0	11.0

Interpolation is permissible; extrapolation is not.

All performance is based upon the lower voltage of dual voltage rated units.

Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated. Operation below 40°F EWT is based upon a 15% methanol antifreeze solution.

Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above.

See Performance Data Selection Notes for operation in the shaded areas. Operation in shaded areas requires antifreeze.

Performance Data - TMW170 (60 Hz I-P) - Cooling

	SOUR	CE												LOAD											
EWT	F	low		EW/T		ı	Flow 18.	0 GPN	1					Flow 27.	0 GPN	1					Flow 35	0 GPN	ı		
°F	GPM	WP		°F	TC	Power	HR	LWT	EER	WP		TC	Power	HR	LWT	EER	WP		TC	Power	HR	LWT	EER	WPI	_
		PSI	FT	50	Mbtuh 129.3	KW 6.84	Mbtuh 152.7	° F	18.6	PSI 0.54	FT	Mbtuh 135.6	KW 6.93	Mbtuh 159.3	°F 39.8	19.6	PSI 1.69	_	Mbtuh 138.7	KW 6.97	Mbtuh 162.4	°F 42.1	19.9	PSI 3.28	FT
				60	141.0	6.90	164.5	43.9	20.1		0.7	147.1	6.96	170.8	48.9	21.1		3.7	149.9	6.98	173.8	51.4	21.5		7.2
	18.0	0.43	1.0	70	151.3	7.00	175.2	52.7	21.3		0.4	156.9	7.05	181.0	58.2	22.3		3.4	159.5	7.07	183.6	60.9	22.6	2.98	
				80	160.2	7.08	184.4	61.7	22.4	0.15	0.3	165.1	7.12	189.4	67.5	23.2	1.42	3.3	167.2	7.14	191.6	70.4	23.4	2.87	6.6
				90	167.5	7.14	191.9	70.9	23.3		0.3	171.3	7.17	195.8	77.1	23.9		3.1	172.9	7.19	197.4	80.1	24.0		6.4
				50 60	131.1 142.7	6.34	152.8 164.6	35.0 43.7	20.2	0.54	1.2	137.5 148.8	6.38 6.45	159.3 170.8	39.6 48.8	21.5	1.69	3.9	140.5	6.40 6.47	162.4 173.7	42.0 51.3	22.0 23.4		7.6
50	27.0	1.69	3.9	70	152.9	6.47	175.0	52.5	23.3		0.7	158.4	6.51	180.6	58.0	24.3		3.4	151.6 160.9	6.52	183.2	60.8	24.7		7.2 6.9
	27.0	1.00	0.0	80	161.6	6.53	183.8	61.5	24.5		0.3	166.3	6.55	188.7	67.4	25.4		3.3	168.4	6.57	190.8	70.4	25.6		6.6
				90	168.6	6.57	191.0	70.7	25.5	0.12	0.3	172.4	6.59	194.9	77.0	26.2	1.35	3.1	173.9	6.60	196.5	80.1	26.4	2.76	6.4
				50	131.7	6.12	152.6	35.0	21.1	0.54	1.2	138.1	6.15	159.1	39.6	22.5	1.69	3.9	141.2	6.17	162.3	41.9	22.9		7.6
	05.0		- 0	60	143.4	6.18	164.4	43.6	22.8		0.7	149.5	6.20	170.6	48.7	24.1		3.7	152.3	6.22	173.5	51.3	24.5		7.2
	35.0	3.28	7.6	70	153.5 162.2	6.22 6.26	174.8 183.5	52.5	24.3 25.6		0.4	159.1 166.9	6.25 6.28	180.4 188.3	58.0 67.4	25.5 26.6		3.4	161.6	6.26 6.29	182.9 190.4	60.8 70.3	25.8 26.8	2.98	
				80 90	169.1	6.29	190.6	70.7	26.7	1 1	0.3	172.8	6.31	194.3	77.0	27.4		3.3	168.9 174.3	6.32	195.9	80.0	27.6		6.6 6.4
				50	118.9	8.26	147.0	36.4	13.9	0.54	1.2	125.8	8.32	154.1	40.5	15.1	-	3.9	129.2	8.35	157.7	42.6	15.5	_	7.6
				60	132.6	8.38	161.2	44.8	15.4	0.30	0.7	139.5	8.44	168.3	49.5	16.5	1.59	3.7	142.8	8.47	171.7	51.8	16.9	3.13	7.2
	18.0	0.17	0.4	70	144.9	8.49	173.9	53.4	16.7		0.4	151.4	8.55	180.5	58.6	17.7		3.4	154.3	8.57	183.6	61.2	18.0	2.98	
				80	155.5	8.59	184.8	62.2	17.8	0.15		161.1	8.64	190.5	67.8	18.7	1.42		163.5	8.66	193.1	70.7	18.9		6.6
				90 50	164.0 122.4	8.66 7.84	193.6 149.1	71.3	18.7 15.1	0.12	0.3	168.4 129.2	8.70 7.88	198.1 156.1	77.3 40.2	19.4 16.4		3.1	170.1 132.6	8.72 7.90	199.9 159.5	80.3 42.4	19.5 16.8		6.4 7.6
				60	135.7	7.92	162.7	44.5	16.7		0.7	142.4	7.96	169.5	49.3	17.9		3.7	145.6	7.97	172.8	51.7	18.3		7.2
70	27.0	1.49	3.4	70	147.5	7.99	174.7	53.1	18.1		0.4	153.7	8.02	181.0	58.4	19.2		3.4	156.5	8.04	183.9	61.1	19.5		6.9
				80	157.5	8.04	184.9	62.0	19.3	0.15	0.3	162.8	8.07	190.3	67.7	20.2	1.42	3.3	165.1	8.09	192.6	70.6	20.4	2.87	6.6
				90	165.4	8.09	193.0	71.1	20.2		0.3	169.4	8.11	197.1	77.2	20.9		3.1	171.0	8.12	198.7	80.2	21.1	-	6.4
				50	124.0	7.64	150.0	35.8	15.7	0.54		130.8	7.67	156.9	40.1	17.0		3.9	134.1	7.68	160.3	42.3	17.5		7.6
	35.0	2.98	6.9	60 70	137.0 148.5	7.70 7.75	163.3 175.0	44.3 53.0	17.4 18.8	0.30	0.7	143.6 154.6	7.73 7.77	170.0 181.1	49.2 58.3	18.6		3.7 3.4	146.8 157.4	7.74	173.2 183.9	51.6 61.0	19.0 20.2	3.13 2.98	7.2 6.9
	00.0	2.50	0.5	80	158.3	7.79	184.9	61.9	20.0	0.15		163.5	7.81	190.1	67.7	20.9		3.3	165.7	7.82	192.4	70.5	21.2		6.6
				90	166.1	7.82	192.7	71.0	21.0	0.12	0.3	170.0	7.84	196.7	77.2	21.7	1.35	3.1	171.5	7.85	198.3	80.2	21.9	2.76	6.4
				50	106.2	9.76	139.4	37.9	10.3	0.54		112.9	9.82	146.4	41.5	11.5	1.69	3.9	116.3	9.85	149.9	43.4	11.8		7.6
	400	0.40	0.0	60	121.2	9.90	154.9	46.2	11.7		0.7	128.1	9.97	162.1	50.3	12.8		3.7	131.6	10.01	165.7	52.5	13.1		7.2
	18.0	0.12	0.3	70 80	134.8 147.2	10.04 10.16	169.1 181.9	54.6 63.2	13.0 14.1		0.4	141.8 154.0	10.11 10.23	176.3 188.9	59.3 68.4	14.0		3.4	145.2 157.2	10.14	179.8 192.2	61.7 71.0	14.3 15.3	2.98	6.6
				90	158.3	10.10	193.3	71.9	15.1		0.3	164.6	10.23	199.8	77.6	15.1		3.1	167.4	10.20	202.8	80.4	16.2		6.4
i				50	109.7	9.33	141.6	37.5	11.2		1.2	116.8	9.37	148.8	41.2	12.5		3.9	120.4	9.40	152.4	43.1	12.8		7.6
				60	125.0	9.42	157.1	45.7	12.7	0.30	0.7	132.2	9.47	164.5	50.0	14.0	1.59	3.7	135.7	9.49	168.1	52.2	14.3	3.13	7.2
90	27.0	1.35	3.1	70	138.6	9.51	171.1	54.2	14.1		0.4	145.6	9.55	178.2	59.0	15.2		3.4	149.0	9.57	181.6	61.5	15.6	2.98	
				80 90	150.6	9.58 9.65	183.3	62.8	15.3	1 1	0.3	157.1	9.62 9.68	190.0	68.1	16.3		3.3	160.1	9.64	193.0	70.8	16.6 17.4		6.6
				50	160.9 111.4	9.05	193.9 142.6	71.6 37.3	16.3 11.6	0.12	1.2	166.7 118.7	9.00	199.7 149.9	77.4 41.0	17.2		3.1	169.2 122.3	9.70 9.18	202.3 153.6	80.3 43.0	13.3		6.4 7.6
				60	126.7	9.20	158.1	45.5		0.30		134.0	9.23	165.5	49.9	14.5		3.7	137.5	9.25	169.1	52.1	14.9	3.13	
	35.0	2.76	6.4	70	140.3	9.26	171.9	54.0		0.17		147.3	9.29	179.0	58.9	15.8		3.4	150.6	9.31	182.3	61.4		2.98	6.9
				80	152.1	9.32						158.4	9.35	190.3	68.0					9.36	193.2			2.87	
_				90	162.0	9.36	193.9			0.12		167.3	9.39	199.3	77.4					9.40	201.6	80.3		2.76	
				50 60	89.4 106.9	11.42 11.62	128.3 146.6	39.8 47.8	7.2 8.6	0.43		96.0 114.5	11.50 11.71	135.2 154.4	42.8 51.4		1.69 1.59			11.54 11.76	138.8 158.4	44.3 53.2	8.6	3.28	
	18.0	0.08	0.2		123.4	11.82	163.7					130.7	11.91	171.3						11.76	174.7			2.98	
	10.0	0.00	0.2	80	136.6	1	177.5			0.15								0.1	100.0						0.0
				90		Operati	on not r	ecomi					Operati	on not r						Operati	on not r	ecomr	nende	d	
				50	94.6	10.98	132.0					101.2	11.02	138.9					104.7	11.05	142.4	44.0		3.28	
440	07.0	4 00	0.0	60	111.2	11.10	149.1	47.3		0.30			11.15	156.5			1.59			11.17				3.13	
110	27.0	1.23	∠.ŏ	70 80	126.7 140.2	11.21 11.31	164.9 178.8					134.0 146.7	11.26 11.36	172.4 185.5			1.49		137.5 149.6	11.29 11.38	176.0 188.5			2.98 2.87	
				90	151.0	11.39	189.8	1		0.13		155.8	11.42	194.8		l .	1.35			11.44	196.6			2.76	
				50	96.9	10.76	133.6			0.43		103.6	10.80	140.4	42.2		1.69			10.82	144.0	43.9	9.9	3.28	7.6
				60	113.3	10.85	150.3	47.1		0.30		120.6	10.89	157.7		11.1				10.91	161.4			3.13	
	35.0	2.57	5.9		128.4	1	165.7					135.8	10.97	173.3					139.4	10.99	176.9			2.98	
				80	142.0	i	179.6					149.0 159.5	11.04	186.6					152.2 162.0	11.06	189.9			2.87	
				90	153.5	11.07	191.3	12.5	13.5	U.12	U.3	109.5	11.10	197.3	/ ö.U	14.4	1.35	J.7	102.0	11.11	199.9	oU./	14.6	2.76	υ.4

Interpolation is permissible; extrapolation is not.

All performance is based upon the lower voltage of dual voltage rated units.

Performance stated is at the rated power supply, performance may vary as the power supply varies from the rated.

Operation below 40°F EWT is based upon a 15% methanol antifreeze solution.

Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above. $See\ Performance\ Data\ Selection\ Notes\ for\ operation\ in\ the\ shaded\ areas.\ Operation\ in\ shaded\ areas\ requires\ antifreeze.$

Performance Data - TMW170 (60 Hz I-P) - Heating

	SOU	RCE												LOAD											
		Flow					Flow 18	3.0 GPN	/I					Flow 27	7.0 GPN	/I					Flow 3	5.0 GPI	VI		
°F	CDM	W	PD	°F	нс	Power	HE	LWT	СОР	WI	PD	нс	Power	HE	LWT	COP	WI	PD	нс	Power	HE	LWT	СОР	WI	PD
	GPM	PSI	FT		Mbtuh	KW	Mbtuh	°F	COP	PSI	FT	Mbtuh	KW	Mbtuh	°F	COP	PSI	FT	Mbtuh	KW	Mbtuh	°F	COP	PSI	FT
	18.0	0.92	2.13	60	103.4	6.84	80.1	72.0	4.4	0.30	0.69	106.5	6.84	83.2	68.0	4.6	1.59	3.67	109.8	6.84	86.5	66.3	4.7	3.13	7.23
	10.0	0.52	2.10	80	95.1	8.48	66.2	91.0	3.3	0.15	0.35	97.7	8.48	68.7	87.4	3.4	1.42	3.28	100.4	8.48	71.4	85.7	3.5	2.87	6.63
	27.0	3.00	6.93	60	107.8	6.87	84.4	72.0	4.6	0.30	0.69	113.2	7.44	87.8	68.5	4.5	1.59	3.67	114.9	6.86	91.5	66.6	4.9	3.13	7.23
20	27.0	0.00	0.55	80	98.8	8.51	69.8	91.0	3.4	0.15	0.35	101.7	8.51	72.7	87.7	3.5	1.42	3.28	104.7	8.50	75.7	86.0	3.6	2.87	6.63
				60	110.0	6.88	86.5	73.0	4.7	0.30	0.69	115.6	7.44	90.2	68.7	4.6	1.59	3.67	117.5	6.87	94.1	66.7	5.0	3.13	7.23
	35.0	5.28	12.20	80	100.7	8.52	71.6	92.0	3.5	0.15	0.35	103.7	8.52	74.7	87.8	3.6	1.42	3.28	106.9	8.52	77.9	86.1	3.7	2.87	6.63
				100	92.3	9.73	59.1	110.5	2.8	0.09	0.21	92.6	9.73	59.4	107.0	2.8	1.28	2.96	95.1	9.73	61.9	105.4	2.9	2.65	6.12
				60	116.5	6.92	92.9	73.0	4.9	0.30	0.69	120.1	6.91	96.5	69.1	5.1	1.59	3.67	125.7	7.42	100.4	67.2	5.0	3.13	7.23
	18.0	0.84	1.94	80	108.5	8.58	79.3	92.0	3.7	0.15	0.35	111.6	8.58	82.4	88.4	3.8	1.42	3.28	114.9	8.57	85.6	86.6	3.9	2.87	6.63
				100	99.2	9.81	65.7	111.3	3.0	0.09	0.21	101.8	9.81	68.3	107.7	3.0	1.28	2.96	104.5	9.80	71.0	106.0	3.1	2.65	6.12
				60	121.1	6.95	97.4	74.0	5.1	0.30	0.69	126.9	7.45	101.5	69.6	5.0	1.59	3.67	131.1	7.43	105.8	67.5	5.2	3.13	7.23
	27.0	20		80	112.7	8.61	83.3	93.0	3.8	0.15	0.35	116.1	8.61	86.8	88.8	4.0	1.42	3.28	119.8	8.61	90.4	86.8	4.1	2.87	6.63
30	27.0	2.72	6.28	100	102.7	9.85	69.1	111.7	3.1	0.09	0.21	105.6	9.84	72.0	108.0	3.1	1.28	2.96	108.6	9.84	75.0	106.2	3.2	2.65	6.12
				120	,				Ор	eratio	n not	recomm	ended		,				103.5	12.42	61.1	125.9	2.4	2.50	5.78
				60	123.5	6.96	99.7	74.0	5.2	0.30	0.69	129.4	7.45	104.0	69.8	5.1	1.59	3.67	133.8	7.43	108.5	67.6	5.3	3.13	7.23
			44.40	80	114.8	8.63	85.4	93.0	3.9	0.15	0.35	118.4	8.63	89.0	88.9	4.0	1.42	3.28	122.3	8.63	92.8	87.0	4.2	2.87	6.63
	35.0	4.84	11.18	100	107.1	9.86	73.5	112.2	3.2	0.09	0.21	107.5	9.86	73.8	108.1	3.2	1.28	2.96	110.7	9.86	77.0	106.3	3.3	2.65	6.12
				120								102.6	12.43	60.2	127.7	2.4	1.19	2.75	105.2	12.43	62.8	126.0	2.5	2.50	5.78
				60	128.6	7.00	104.7	74.7	5.4	0.30	0.69	132.7	6.99	108.8	70.0	5.6	1.59	3.67	138.6	7.43	113.3	67.9	5.5	3.13	7.23
				80	121.2	8.69	91.5	93.8	4.1	0.15	0.35	124.8	8.68	95.1	89.4	4.2	1.42	3.28	128.6	8.67	99.0	87.3	4.3	2.87	6.63
	18.0	0.69	1.59	100	112.1	9.94	78.2	112.8	3.3	0.09	0.21	115.2	9.93	81.3	108.7	3.4	1.28	2.96	118.4	9.93	84.5	106.8	3.5	2.65	6.12
				120								111.3	12.48	68.7	128.4	2.6	1.19	2.75	114.0	12.48	71.4	126.5	2.7	2.50	5.78
				60	133.4	7.03	109.4	75.2	5.6	0.30	0.69	139.5	7.46	114.0	70.5	5.5	1.59	3.67	144.2	7.43	118.9	68.2	5.7	3.13	7.23
				80	125.6	8.73	95.9	94.4	4.2	0.15	0.35	129.6	8.72	99.9	89.8	4.4	1.42	3.28	133.8	8.72	104.1	87.6	4.5	2.87	6.63
40	27.0	2.44	5.64	100	116.1	9.98	82.0	113.3	3.4	0.09	0.21	119.5	9.97	85.4	109.0	3.5	1.28	2.96	123.1	9.97	89.1	107.0	3.6	2.65	6.12
				120	112.0	12.51	69.3	132.8	2.6	0.07	0.16	114.9	12.51	72.2	128.7	2.7	1.19	2.75	117.9	12.51	75.3	126.7	2.8	2.50	5.78
				60	135.8	7.05	111.7	75.5	5.6	0.30	0.69	142.0	7.46	116.5	70.7	5.6	1.59	3.67	147.0	7.44	121.6	68.4	5.8	3.13	7.23
				80	127.9	8.75	98.0	94.6	4.3	0.15	0.35	132.0	8.74	102.2	90.0	4.4	1.42	3.28	136.5	8.74	106.6	87.8	4.6	2.87	6.63
	35.0	4.40	10.16	100	121.2	10.00	87.1	113.9	3.6	0.09	0.21	121.6	10.00	87.5	109.2	3.6	1.28	2.96	125.4	9.99	91.3	107.2	3.7	2.65	6.12
				120	113.7	12.52	71.0	133.0	2.7	0.07	0.16	116.7	12.52	74.0	128.8	2.7	1.19	2.75	119.9	12.52	77.2	126.9	2.8	2.50	5.78
		\vdash		60	139.7	7.08	115.5	76.0	5.8	0.30	0.69	144.3	7.08	120.2	70.9	6.0	1.59	3.67	150.5	7.44	125.1	68.6	5.9	3.13	7.23
				80	132.9	8.80	102.9	95.2	4.4	0.15	0.35	137.0	8.79	107.0	90.3	4.6	1.42	3.28	141.4	8.78	111.4	88.1	4.7	2.87	6.63
	18.0	0.43	0.99	100	124.4	10.07	90.1	114.2	3.6	0.09	0.21	128.0	10.06	93.6	109.7	3.7	1.28	2.96	131.7	10.05	97.4	107.5	3.8	2.65	6.12
				120	120.8	12.58	77.9	133.8	2.8	0.07	0.16	123.9	12.58	81.0	129.4	2.9	1.19	2.75	127.2	12.57	84.3	127.3	3.0	2.50	5.78
				60	144.5	7.12	120.2	76.5	5.9	0.30	0.69	150.8	7.47	125.3	71.4	5.9	1.59	3.67	156.1	7.44	130.7	68.9	6.1	3.13	7.23
				80	137.6	8.85	107.4	95.7	4.6	0.15	0.35	142.1	8.84	111.9	90.7	4.7	1.42	3.28	146.9	8.84	116.7	88.4	4.9	2.87	6.63
50	27.0	1.69	3.90	100	128.8	10.12	94.2	114.7	3.7	0.09	0.21	132.7	10.11	98.2	110.0	3.8	1.28	2.96	136.8	10.11	102.3	107.8	4.0	2.65	6.12
				120	124.5	12.62	81.5	134.2	2.9	0.03	0.21	127.9	12.61	84.9	129.7	3.0	1.19	2.75	131.5	12.61	88.5	127.5	3.1	2.50	5.78
-				60	146.9	7.15	122.5	76.8	6.0	0.07	0.16	153.3	7.48	127.8	71.6	6.0	1.19	3.67	151.5	7.44	133.4	69.1	6.3	3.13	7.23
																				1	l				l
	35.0	3.28	7.58	100	139.9	8.87	109.6	96.0	4.6	0.15	0.35	144.6	8.87	114.3	90.9	4.8	1.42	3.28	149.6	8.86	119.3	88.5	4.9	2.87	6.63
				100	134.5	10.14	99.9	115.4	3.9	0.09	0.21	135.0	10.14	100.4	110.2	3.9	1.28	2.96	139.4	10.13	104.8	108.0	4.0	2.65	6.12
				120	126.3	12.63	83.2	134.4	2.9	0.07	0.16	129.9	12.63	86.8	129.8	3.0	1.19	2.75	133.7	12.63	90.6	127.6	3.1	2.50	5.78

Interpolation is permissible; extrapolation is not.

All performance is based upon the lower voltage of dual voltage rated units.

Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated.

Operation below 40°F EWT is based upon a 15% methanol antifreeze solution.

Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above.

See Performance Data Selection Notes for operation in the shaded areas. Operation in shaded areas requires antifreeze.

Table Continued on Next Page

Performance Data – TMW170 (60 Hz I-P) - Heating

Table Continued from Previous Page

	SOU	RCE												LOAD											
EWT		Flow		EWT			Flow 18	8.0 GPI	Л					Flow 27	7.0 GPN	И					Flow 3	5.0 GPI	VI		
°F	GPM	W	PD	°F	HC	Power	HE	LWT	СОР	WI		HC	Power	HE	LWT	СОР	WI		HC	Power	HE	LWT	СОР	WI	
	O. III	PSI	FT		Mbtuh	KW	Mbtuh	°F	001	PSI	FT	Mbtuh	KW	Mbtuh	°F	001	PSI	FT	Mbtuh	KW	Mbtuh	°F	001	PSI	FT
				60	149.8	7.18	125.3	77.1	6.1	0.30	0.69	154.9	7.17	130.5	71.7	6.3	1.59	3.67	161.3	7.45	135.9	69.2	6.3	3.13	7.23
	18.0	0.30	0.69	80	143.8	8.91	113.4	96.4	4.7	0.15	0.35	148.4	8.91	118.0	91.2	4.9	1.42	3.28	153.2	8.90	122.9	88.8	5.1	2.87	6.63
	10.0	0.00	0.00	100	136.1	10.20	101.3	115.6	3.9	0.09	0.21	140.1	10.20	105.3	110.6	4.0	1.28	2.96	144.4	10.19	109.6	108.3	4.2	2.65	6.12
				120	132.2	12.69	88.9	135.1	3.1	0.07	0.16	135.8	12.69	92.5	130.2	3.1	1.19	2.75	139.5	12.68	96.3	128.0	3.2	2.50	5.78
				60	154.5	7.22	129.9	77.7	6.3	0.30	0.69	161.0	7.48	135.4	72.1	6.3	1.59	3.67	166.8	7.45	141.3	69.5	6.6	3.13	7.23
60	27.0	1.59	3.67	80	148.5	8.97	117.9	97.0	4.9	0.15	0.35	153.5	8.97	122.9	91.6	5.0	1.42	3.28	158.8	8.96	128.2	89.1	5.2	2.87	6.63
60	27.0	1.59	3.07	100	140.7	10.26	105.7	116.1	4.0	0.09	0.21	145.2	10.26	110.2	111.0	4.1	1.28	2.96	149.8	10.25	114.9	108.6	4.3	2.65	6.12
				120	136.2	12.74	92.7	135.6	3.1	0.07	0.16	140.0	12.73	96.6	130.6	3.2	1.19	2.75	144.2	12.73	100.7	128.2	3.3	2.50	5.78
				60	156.8	7.25	132.0	77.9	6.3	0.30	0.69	163.3	7.48	137.8	72.3	6.4	1.59	3.67	169.3	7.45	143.9	69.7	6.7	3.13	7.23
	25.0	2 42	7 00	80	150.8	9.00	120.1	97.2	4.9	0.15	0.35	156.0	9.00	125.3	91.8	5.1	1.42	3.28	161.5	8.99	130.8	89.2	5.3	2.87	6.63
	35.0	3.13	7.23	100	147.1	10.29	112.0	116.8	4.2	0.09	0.21	147.6	10.29	112.5	111.1	4.2	1.28	2.96	152.6	10.28	117.5	108.7	4.3	2.65	6.12
				120	138.1	12.76	94.6	135.8	3.2	0.07	0.16	142.1	12.76	98.6	130.7	3.3	1.19	2.75	146.5	12.75	103.0	128.4	3.4	2.50	5.78
				60	158.9	7.27	134.1	78.2	6.4	0.30	0.69	164.4	7.27	139.6	72.4	6.6	1.59	3.67	171.0	7.45	145.5	69.8	6.7	3.13	7.23
	40.0	0.47	0.00	80	153.8	9.04	123.0	97.6	5.0	0.15	0.35	158.8	9.03	128.0	92.0	5.2	1.42	3.28	164.1	9.02	133.4	89.4	5.3	2.87	6.63
	18.0	0.17	0.39	100	147.2	10.35	111.9	116.8	4.2	0.09	0.21	151.7	10.34	116.4	111.4	4.3	1.28	2.96	156.4	10.33	121.2	108.9	4.4	2.65	6.12
				120	142.9	12.82	99.2	136.3	3.3	0.07	0.16	146.9	12.81	103.2	131.1	3.4	1.19	2.75	151.1	12.80	107.5	128.6	3.5	2.50	5.78
				60	163.3	7.33	138.3	78.7	6.5	0.30	0.69	169.8	7.49	144.3	72.8	6.6	1.59	3.67	176.1	7.46	150.6	70.1	6.9	3.13	7.23
				80	158.4	9.10	127.3	98.1	5.1	0.15	0.35	163.8	9.01	132.8	92.4	5.3	1.42	3.28	169.6	9.09	138.6	89.7	5.5	2.87	6.63
70	27.0	1.49	3.44	100	152.0	10.41	116.5	117.4	4.3	0.09	0.21	156.9	10.41	121.4	111.8	4.4	1.28	2.96	162.1	10.40	126.6	109.3	4.6	2.65	6.12
				120	146.9	12.87	103.0	136.8	3.3	0.07	0.16	151.3	12.86	107.4	131.4	3.4	1.19	2.75	155.9	12.86	112.1	128.9	3.6	2.50	5.78
				60	165.4	7.36	140.3	78.9	6.6	0.30	0.69	172.0	7.49	146.4	73.0	6.7	1.59	3.67	178.5	7.46	153.0	70.2	7.0	3.13	7.23
				80	160.6	9.14	129.4	98.4	5.2	0.15	0.35	166.2	9.13	135.1	92.5	5.3	1.42	3.28	172.2	9.13	141.1	89.8	5.5	2.87	6.63
	35.0	2.98	6.88	100	158.9	10.44	123.2	118.2	4.5	0.09	0.21	159.5	10.44	123.8	112.0	4.5	1.28	2.96	164.9	10.44	129.3	109.4	4.6	2.65	6.12
				120	148.9	12.90	104.9	137.0	3.4	0.07	0.16	153.4	12.89	109.5	131.6	3.5	1.19	2.75	158.3	12.89	114.3	129.0	3.6		
			71.1																		- 114				

Interpolation is permissible; extrapolation is not.

All performance is based upon the lower voltage of dual voltage rated units.

Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated.

Operation below 40°F EWT is based upon a 15% methanol antifreeze solution.

Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above.

See Performance Data Selection Notes for operation in the shaded areas. Operation in shaded areas requires antifreeze.

Performance Data - TMW340 (60 Hz I-P) - Cooling

	SOUI	RCE												LOA	\D										
		Flow					Flow 35	.0 GP	M					Flow 5	3.0 GF	PM					Flow	70.0 GI	PM		
ewt °F	GPM		PD	°F	TC	Power	HR	LWT	EER	WI	PD	тс	Power	HR	LWT	EER	W	PD	TC	Power	HR	LWT	EER	W	PD
	GPIVI	PSI	FT		Mbtuh	kW	Mbtuh	°F	CER	PSI	FT	Mbtuh	kW	Mbtuh	°F	EER	PSI	FT	Mbtuh	kW	Mbtuh	°F	CER	PSI	FT
				50	258.7	13.68	305.4	35.2	18.6	1.2	2.7	271.2	13.86	318.5	39.8	19.6	3.6	8.3	277.3	13.94	324.9	42.1	19.9	6.50	15.00
				60	282.0	13.81	329.1	43.9	20.1	1.1	2.5	294.1	13.92	341.6	48.9	21.1	3.44	7.94	299.9	13.97	347.5	51.4	21.5	6.18	14.28
	35.0	1.19	2.75	70	302.7	13.99	350.4	52.7	21.3	1.0	2.3	313.9	14.09	362.0	58.2	22.3	3.29	7.60	319.0	14.14	367.3	60.9	22.6	5.91	13.64
				80	320.5	14.15	368.8	61.7	22.4	0.9	2.2	330.2	14.24	378.8	67.5	23.2	3.15	7.28	334.5	14.28	383.2	70.4	23.4	5.67	13.09
				90	335.0	14.28	383.8	70.9	23.3	0.9	2.0	342.7	14.35	391.6	77.1	23.9	3.02	6.97	345.8	14.38	394.8	80.1	24.0	5.47	12.64
				50	262.2	12.69	305.5	35.0	20.2	1.2	2.7	275.0	12.76	318.5	39.6	21.5	3.6	8.3	281.1	12.80	324.8	42.0	22.0	6.50	15.00
				60	285.4	12.83	329.2	43.7	21.9	1.1	2.5	297.6	12.90	341.6	48.8	23.1	3.44	7.94	303.3	12.93	347.4	51.3	23.4	6.18	14.28
50	53.0	3.59	8.30	70	305.8	12.95	350.0	52.5	23.3	1.0	2.3	316.8	13.01	361.2	58.0	24.3	3.29	7.60	321.9	13.04	366.4	60.8	24.7	5.91	13.64
				80	323.1	13.05	367.7	61.5	24.5	0.9	2.2	332.6	13.11	377.4	67.4	25.4	3.15	7.28	336.8	13.13	381.6	70.4	25.6	5.67	13.09
				90	337.3	13.14	382.1	70.7	25.5	0.9	2.0	344.8	13.18	389.8	77.0	26.2	3.02	6.97	347.9	13.20	392.9	80.1	26.4	5.47	12.64
				50	263.4	12.24	305.1	35.0	21.1	1.2	2.7	276.2	12.30	318.2	39.6	22.5	3.6	8.3	282.4	12.33	324.5	41.9	22.9	6.50	15.00
				60	286.7	12.35	328.9	43.6	22.8	1.1	2.5	298.9	12.41	341.2	48.7	24.1	3.44	7.94	304.6	12.43	347.0	51.3	24.5	6.18	14.28
	70.0	6.50	15.02	70	307.1	12.44	349.6	52.5	24.3	1.0	2.3	318.1	12.50	360.7	58.0	25.5	3.29	7.60	323.1	12.52	365.8	60.8	25.8	5.91	13.64
				80	324.3	12.52	367.1	61.5	25.6	0.9	2.2	333.7	12.57	376.6	67.4	26.6	3.15	7.28	337.8	12.59	380.8	70.3	26.8	5.67	13.09
				90	338.2	12.59	381.2	70.7	26.7	0.9	2.0	345.6	12.62	388.7	77.0	27.4	3.02	6.97	348.6	12.63	391.7	80.0	27.6	5.47	12.64
				50	237.7	16.52	294.1	36.4	13.9	1.2	2.7	251.5	16.64	308.3	40.5	15.1	3.6	8.3	258.3	16.70	315.3	42.6	15.5	6.50	15.00
				60	265.3	16.76	322.5	44.8	15.4	1.1	2.5	279.0	16.88	336.6	49.5	16.5	3.44	7.94	285.6	16.94	343.4	51.8	16.9	6.18	14.28
	35.0	1.01	2.34	70	289.9	16.98	347.8	53.4	16.7	1.0	2.3	302.7	17.10	361.1	58.6	17.7	3.29	7.60	308.7	17.15	367.2	61.2	18.0	5.91	13.64
				80	311.0	17.17	369.6	62.2	17.8	0.9	2.2	322.2	17.27	381.1	67.8	18.7	3.15	7.28	327.1	17.32	386.2	70.7	18.9	5.67	13.09
				90	328.1	17.32	387.2	71.3	18.7	0.9	2.0	336.8	17.40	396.2	77.3	19.4	3.02	6.97	340.3	17.43	399.8	80.3	19.5	5.47	12.64
				50	244.7	15.68	298.2	36.0	15.1	1.2	2.7	258.4	15.76	312.2	40.2	16.4	3.6	8.3	265.2	15.80	319.1	42.4	16.8	6.50	15.00
	500		7.00	60	271.4	15.83	325.4	44.5	16.7	1.1	2.5	284.8	15.91	339.1	49.3	17.9	3.44	7.94	291.2	15.95	345.6	51.7	18.3	6.18	14.28
70	53.0	3.29	7.60	70	294.9	15.97	349.4	53.1	18.1	1.0	2.3	307.3	16.04	362.1	58.4	19.2	3.29	7.60	313.0	16.08	367.9	61.1	19.5	5.91	13.64
				80	315.0	16.09	369.8	62.0	19.3	0.9	2.2	325.5	16.15	380.6	67.7	20.2	3.15	7.28	330.1	16.17	385.3	70.6	20.4	5.67	13.09
				90	330.9	16.18	386.1	71.1	20.2	0.9	2.0	338.9	16.23	394.2	77.2	20.9	3.02	6.97	341.9	16.24	397.4	80.2	21.1	5.47	12.64
				50	247.9	15.28	300.1	35.8	15.7	1.2	2.7	261.5	15.34	313.9	40.1	17.0	3.6	8.3	268.2	15.37	320.6	42.3	17.5	6.50	15.00
	70.0	E 01	12.64	60	274.0 297.0	15.39	326.5	44.3	17.4	1.1	2.5	287.3	15.45	340.0	49.2	18.6	3.44	7.94	293.6	15.48	346.4	51.6	19.0	6.18	14.28
	70.0	5.91	13.64	70 80	316.6	15.49 15.58	349.9 369.7	53.0 61.9	18.8	1.0	2.3	309.2	15.55	362.3	58.3	19.9	3.29	7.60	314.8	15.57	367.9 384.8	70.5	20.2	5.91	13.64
				90		15.65	385.5	71.0	20.0	0.9	2.2	326.9	15.62 15.68	393.4		20.9	3.15		331.4		396.5	80.2	21.2	5.47	13.09
				50	332.1 212.3	19.51	278.9	37.9	10.3	1.2	2.7	225.8	19.64	292.8	77.2 41.5	11.5	3.6	6.97 8.3	232.6	15.69	299.8	43.4	11.8	6.50	12.64 15.00
				60	242.3	19.80	309.9	46.2	11.7	1.1	2.7	256.2	19.04	324.3	50.3	12.8	3.44	7.94	263.1	20.01	331.4	52.5	13.1	6.18	14.28
	35.0	0.88	2.03	70	269.7	20.08	338.2	54.6	13.0	1.0	2.3	283.6	20.22	352.6	59.3	14.0	3.29	7.60	290.4	20.01	359.6	61.7	14.3	5.91	13.64
	33.0	0.00	2.00	80	294.5	20.32	363.8	63.2	14.1	0.9	2.2	308.0	20.46	377.8	68.4	15.1	3.15	7.28	314.4	20.53	384.5	71.0	15.3	5.67	13.09
				90	316.5	20.55	386.6	71.9	15.1	0.9	2.0	329.1	20.40	399.7	77.6	15.1	3.02	6.97	334.9	20.74	405.6	80.4	16.2	5.47	12.64
				50	219.5	18.66	283.1	37.5	11.2	1.2	2.7	233.7	18.75	297.6	41.2	12.5	3.6	8.3	240.8	18.79	304.9	43.1	12.8	6.50	15.00
				60	249.9	18.85	314.2	45.7	12.7	1.1	2.5	264.3	18.94	329.0	50.0	14.0	3.44	7.94	271.4	18.98	336.1	52.2	14.3	6.18	14.28
90	53.0	3 02	6.97			19.02			14.1				19.10						297.9						13.64
30	33.0	3.02	0.51	80	301.3	19.17	366.7					314.3							320.3	1	386.1			5.67	
				90	321.9		387.7					333.3		1					338.4		404.6				
				50	222.8		285.1				2.7							8.3	244.5		307.2			6.50	+
				60	253.4	18.40	316.2				2.7	268.0		331.0		1	3.44		275.1		338.2			6.18	
	70.0	5.47	12.64		280.6	18.52	343.8				2.3	294.5		357.9			3.29		301.1		364.6	1		5.91	13.64
	70.0	J.41	12.04	80	304.2	18.63	367.7	62.6			2.3	316.8		380.6			3.15		322.5	1	386.4	70.8		5.67	13.09
						18.72													l						1
				90	ა∠ა.ყ	10.72	387.8	11.5	17.0	0.9	∠.∪	334.5	18.77	398.6	11.4	17.8	3.02	0.97	339.1	18.79	403.2	00.3	10.0	5.47	12.64

Interpolation is permissible; extrapolation is not.

All performance is based upon the lower voltage of dual voltage rated units.

Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated. Operation below 40°F EWT is based upon a 15% methanol antifreeze solution.

Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above.

See Performance Data Selection Notes for operation in the shaded areas. Operation in shaded areas requires antifreeze.

Table Continued on Next Page

Performance Data - TMW340 (60 Hz I-P) - Cooling

Table Continued from Previous Page

													LOA	D										
	Flow		EWT			Flow 35	.0 GPI	VI					Flow 5	3.0 GF	M					Flow 7	0.0 GF	PM		
:PM	W	_	°F	TC	Power	HR	LWT	FFR	WF		TC	Power	HR	LWT	FFR			TC	Power	HR	LWT	FFR	W	PD
OF IVI	PSI	FT		Mbtuh	kW	Mbtuh	°F	LLIX	PSI	FT	Mbtuh	kW	Mbtuh	°F	LLIX	PSI	FT	Mbtuh	kW	Mbtuh	°F	LLIX	PSI	FT
			50	178.7	22.84	256.6	39.8	7.2	1.19	2.75	191.9	22.99	270.4	42.8	8.3	3.59	8.30	198.8	23.07	277.5	44.3	8.6	6.50	15.02
			60	213.9	23.25	293.2	47.8	8.6	1.10	2.53	229.0	23.42	308.9	51.4	9.8	3.44	7.94	236.6	23.51	316.8	53.2	10.1	6.18	14.28
35.0	0.79	1.82	70	246.8	23.64	327.4	55.9	9.9	1.01	2.34	261.3	23.81	342.6	60.1	11.0	3.29	7.60	267.9	23.89	349.4	62.3	11.2	5.91	13.64
			80	273.2	23.95	354.9	64.4	11.0	0.94	2.17					_									
			90												,	perati	on not	recomr	nenaea					
			50	189.2	21.95	264.1	39.2	8.0	1.19	2.75	202.5	22.05	277.7	42.4	9.2	3.59	8.30	209.3	22.10	284.7	44.0	9.5	6.50	15.02
		ĺ	60	222.5	22.19	298.2	47.3	9.4	1.10	2.53	237.0	22.30	313.1	51.1	10.6	3.44	7.94	244.3	22.35	320.6	53.0	10.9	6.18	14.28
53.0	2.77	6.40	70	253.3	22.41	329.8	55.5	10.8	1.01	2.34	268.0	22.52	344.8	59.9	11.9	3.29	7.60	275.0	22.57	352.0	62.1	12.2	5.91	13.64
			80	280.4	22.61	357.6	64.0	11.9	0.94	2.17	293.5	22.71	371.0	68.9	12.9	3.15	7.28	299.3	22.75	376.9	71.4	13.2	5.67	13.09
			90	302.0	22.77	379.7	72.7	12.9	0.88	2.03	311.6	22.85	389.5	78.2	13.6	3.02	6.97	315.2	22.87	393.3	81.0	13.8	5.47	12.64
			50	193.7	21.53	267.2	38.9	8.4	1.19	2.75	207.2	21.60	280.9	42.2	9.6	3.59	8.30	214.1	21.63	287.9	43.9	9.9	6.50	15.02
			60	226.6	21.70	300.6	47.1	9.8	1.10	2.53	241.1	21.78	315.4	50.9	11.1	3.44	7.94	248.4	21.81	322.8	52.9	11.4	6.18	14.28
70.0	5.20	12.02	70	256.9	21.86	331.5	55.3	11.2	1.01	2.34	271.6	21.94	346.5	59.7	12.4	3.29	7.60	278.8	21.98	353.8	62.0	12.7	5.91	13.64
			80	284.0	22.01	359.1	63.8	12.4				22.08	373.3	68.8	13.5	3.15	7.28	304.4	22.12	379.8	71.3	13.8	5.67	13.09
			90	307.1	22.13	382.6	72.5	13.5				22.19	394.6				6.97	324.0	22.22	399.8	80.7	14.6	5.47	12.64
3	3.0	PSI PSI PSI PSI PSI PSI PSI PSI PSI	5.0 0.79 1.82 3.0 2.77 6.40	SPM SPM	Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Fraction Mutuh Society Fraction Society Society Fraction Society Fraction Society Society Fraction Society Socie	F F F F F F F F F F	Fractal Nation Fractal Nation Fractal Nation Fractal Nation	Fractal Nation Frac	Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fractal Fr	Fractor Power HR LWT Power HR LWT Power RW Mbtuh Power Power RW Mbtuh Power Power RW Mbtuh Power Power Power RW Mbtuh Power Power Power RW Mbtuh Power Pow	FM FM FM FM FM FM FM FM	Fract Power HR LWT EER WFD TC Mbtuh KW Mbtuh Nbtuh Nbt	PM PS FT Power HR LWT FE Power PS FT Mbtuh KW Mbtuh PS FT Mbtuh KW PS FT Power PS PS PS PS PS PS PS P	FM FM FM FM FM FM FM FM	Fractal Frac	FM FM FM FM FM FM FM FM	FM FM FM FM FM FM FM FM	Fractage Fractage	Fractage Fractage	FM FM FM FM FM FM FM FM	Figure F	FM FM FM FM FM FM FM FM	FM FM FM FM FM FM FM FM	Figure Figure

Interpolation is permissible; extrapolation is not.

All performance is based upon the lower voltage of dual voltage rated units.

Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated.

Operation below 40°F EWT is based upon a 15% methanol antifreeze solution.

Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above.

See Performance Data Selection Notes for operation in the shaded areas. Operation in shaded areas requires antifreeze.

Performance Data – TMW340 (60 Hz I-P) - Heating

	SOU	RCE												LOAD											
E)A(T		Flow		E)A/T			Flow 35	.0 GPN	/					Flow 53	3.0 GPN	1					Flow 7	0.0 GP	M		
°F	GPM	W	PD	°F	НС	Power	HE	LWT	СОР	W	PD	нс	Power	HE	LWT	СОР	W	PD	нс	Power	HE	LWT	СОР	W	PD
	GFIVI	PSI	FT	·	Mbtuh	KW	Mbtuh	°F	COP	PSI	FT	Mbtuh	KW	Mbtuh	°F	COP	PSI	FT	Mbtuh	KW	Mbtuh	°F	COP	PSI	FT
	35.0	1.71	3.96	60	206.9	13.68	160.2	72	4.4	1.01	2.53	213.1	13.68	166.4	68.0	4.6	3.44	7.94	219.6	13.67	172.9	66.3	4.7	6.18	14.28
	00.0		0.00	80	190.2	16.96	132.4	91	3.3	0.94	2.17	195.3	16.96	137.5	87.4	3.4	3.15	7.28	200.7	16.95	142.9	85.7	3.5	5.67	13.09
	53.0	4.19	9.69	60	215.6	13.73	168.7	72	4.6	1.01	2.53	226.4	14.88	175.7	68.5	4.5	3.44	7.94	229.8	13.72	183.0	66.6	4.9	6.18	14.28
20	00.0	4.13	3.03	80	197.7	17.02	139.6	91	3.4	0.94	2.17	203.4	17.01	145.3	87.7	3.5	3.15	7.28	209.4	17.01	151.4	86.0	3.6	5.67	13.09
				60	220.0	13.76	173.0	73	4.7	1.01	2.53	231.1	14.88	180.3	68.7	4.6	3.44	7.94	235.0	13.75	188.1	66.7	5.0	6.18	14.28
	70.0	7.49	17.30	80	201.4	17.04	143.3	92	3.5	0.94	2.17	207.4	17.04	149.3	87.8	3.6	3.15	7.28	213.8	17.03	155.7	86.1	3.7	5.67	13.09
				100	184.6	19.46	118.2	110.5	2.8	0.83	1.91	185.2	19.46	118.8	107.0	2.8	2.89	6.68	190.3	19.46	123.9	105.4	2.9	5.32	12.28
				60	232.9	13.83	185.7	73	4.9	1.01	2.53	240.2	13.83	193.0	69.1	5.1	3.44	7.94	251.4	14.84	200.7	67.2	5.0	6.18	14.28
	35.0	1.63	3.77	80	217.1	17.16	158.5	92	3.7	0.94	2.17	223.3	17.15	164.7	88.4	3.8	3.15	7.28	229.8	17.14	171.3	86.6	3.9	5.67	13.09
				100	198.4	19.63	131.5	111.3	3.0	0.83	1.91	203.5	19.62	136.6	107.7	3.0	2.89	6.68	208.9	19.61	142.0	106.0	3.1	5.32	12.28
				60	242.3	13.89	194.9	74	5.1	1.01	2.53	253.8	14.90	203.0	69.6	5.0	3.44	7.94	262.2	14.85	211.5	67.5	5.2	6.18	14.28
	50.0	4.00	0.04	80	225.4	17.23	166.7	93	3.8	0.94	2.17	232.3	17.22	173.5	88.8	4.0	3.15	7.28	239.6	17.21	180.8	86.8	4.1	5.67	13.09
30	53.0	4.03	9.31	100	205.5	19.69	138.3	111.7	3.1	0.83	1.91	211.1	19.69	144.0	108.0	3.1	2.89	6.68	217.2	19.68	150.0	106.2	3.2	5.32	12.28
				120					Op	eratio	n not	recomm	ended						207.0	24.83	122.3	125.9	2.4	5.13	11.86
				60	246.9	13.92	199.4	74	5.2	1.01	2.53	258.8	14.91	207.9	69.8	5.1	3.44	7.94	267.6	14.85	216.9	67.6	5.3	6.18	14.28
				80	229.6	17.26	170.7	93	3.9	0.94	2.17	236.8	17.26	177.9	88.9	4.0	3.15	7.28	244.5	17.25	185.6	87.0	4.2	5.67	13.09
	70.0	7.18	16.58	100	214.3	19.72	147.0	112.2	3.2	0.83	1.91	215.0	19.72	147.7	108.1	3.2	2.89	6.68	221.3	19.72	154.1	106.3	3.3	5.32	12.28
				120			210.4	24.85	125.6	126.0	2.5	5.13	11.86												
				60	257.1	13.99	209.4	74.7	5.4	1.01	2.53	265.4	13.98	217.7	70.0	5.6	3.44	7.94	277.2	14.86	226.5	67.9	5.5	6.18	14.28
				80	242.3	17.37	183.1	93.8	4.1	0.94	2.17	249.5	17.36	190.3	89.4	4.2	3.15	7.28	257.1	17.35	197.9	87.3	4.3	5.67	13.09
	35.0	1.55	3.57	100	224.2	19.87	156.4	112.8	3.3	0.83	1.91	230.3	19.86	162.5	108.7	3.4	2.89	6.68	236.8	19.85	169.1	106.8	3.5	5.32	12.28
				120								222.6	24.97	137.4	128.4	2.6	2.66	6.15	228.1	24.96	142.9	126.5	2.7	5.13	11.86
				60	266.8	14.06	218.8	75.2	5.6	1.01	2.53	278.9	14.93	228.0	70.5	5.5	3.44	7.94	288.4	14.87	237.7	68.2	5.7	6.18	14.28
				80	251.3	17.45	191.7	94.4	4.2	0.94	2.17	259.2	17.44	199.7	89.8	4.4	3.15	7.28	267.7	17.44	208.2	87.6	4.5	5.67	13.09
40	53.0	3.87	8.94	100	232.2	19.96	164.1	113.3	3.4	0.83	1.91	238.9	19.95	170.9	109.0	3.5	2.89	6.68	246.1	19.94	178.1	107.0	3.6	5.32	12.28
				120	224.1	25.02	138.7	132.8	2.6	0.76	1.75	229.8	25.02	144.4	128.7	2.7	2.66	6.15	235.9	25.01	150.5	126.7	2.8	5.13	11.86
				60	271.6	14.10	223.4	75.5	5.6	1.01	2.53	284.0	14.93	233.0	70.7	5.6	3.44	7.94	294.0	14.87	243.2	68.4	5.8	6.18	14.28
				80	255.7	17.49	196.0	94.6	4.3	0.94	2.17	264.1	17.49	204.4	90.0	4.4	3.15	7.28	272.9	17.48	213.3	87.8	4.6	5.67	13.09
	70.0	6.87	15.87	100	242.4	19.99	174.2	113.9	3.6	0.83	1.91	243.3	19.99	175.1	109.2	3.6	2.89	6.68	250.8	19.99	182.7	107.2	3.7	5.32	12.28
				120	227.4	25.05	141.9	133.0	2.7	0.76	1.75	233.4	25.05	148.0	128.8	2.7	2.66	6.15	239.8	25.04	154.4	126.9	2.8	5.13	11.86
				60	279.4	14.17	231.1	76.0	5.8	1.01	2.53	288.7	14.15	240.4	70.9	6.0	3.44	7.94	301.0	14.88	250.2	68.6	5.9	6.18	14.28
				80	265.9	17.59	205.8	95.2	4.4	0.94	2.17	274.1	17.58	214.1	90.3	4.6	3.15	7.28	282.7	17.57	222.8	88.1	4.7	5.67	13.09
	35.0	1.19	2.75			1				l	1	1					ł			1	1	ŀ		1	
				100	248.8	20.14	180.1	114.2	3.6	0.83	1.91	255.9	20.12	187.3	109.7	3.7	2.89	6.68	263.4	20.11	194.8	107.5	3.8	5.32	12.28
				120	241.6	25.17	155.8	133.8	2.8	0.76	1.75	247.8	25.16	162.0	129.4	2.9	2.66	6.15	254.3	25.15	168.5	127.3	3.0	5.13	11.86
				60	289.1	14.25	240.5	76.5	5.9	1.01	2.53	301.6	14.95	250.6	71.4	5.9	3.44	7.94	312.2	14.89	261.4	68.9	6.1	6.18	14.28
50	53.0	3.59	8.30	80	275.2	17.69	214.8	95.7	4.6	0.94	2.17	284.1	17.68	223.8	90.7	4.7	3.15	7.28	293.7	17.67	233.4	88.4	4.9	5.67	13.09
				100	257.5	20.23	188.5	114.7	3.7	0.83	1.91	265.3	20.22	196.3	110.0	3.8	2.89	6.68	273.7	20.21	204.7	107.8	4.0	5.32	12.28
				120	249.0	25.23	162.9	134.2	2.9	0.76	1.75	255.8	25.23	169.7	129.7	3.0	2.66	6.15	263.0	25.22	177.0	127.5	3.1	5.13	11.86
				60	293.8	14.29	245.0	76.8	6.0	1.01	2.53	306.6	14.95	255.6	71.6	6.0	3.44	7.94	317.7	14.89	266.9	69.1	6.3	6.18	14.28
	70.0	6.50	15.02	80	279.7	17.74	219.2	96.0	4.6	0.94	2.17	289.1	17.73	228.6	90.9	4.8	3.15	7.28	299.1	17.72	238.6	88.5	4.9	5.67	13.09
				100	269.1	20.28	199.9	115.4	3.9	0.83	1.91	270.1	20.28	200.9	110.2	3.9	2.89	6.68	278.8	20.27	209.6	108.0	4.0	5.32	12.28
				120	252.7	25.27	166.5	134.4	2.9	0.76	1.75	259.8	25.26	173.6	129.8	3.0	2.66	6.15	267.3	25.26	181.2	127.6	3.1	5.13	11.86
ntornol	lation is	normi	a siblar a	vtranal	ation is n	o.t																			

All performance is based upon the lower voltage of dual voltage rated units.

Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated. Operation below 40°F EWT is based upon a 15% methanol antifreeze solution.

Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above.

See Performance Data Selection Notes for operation in the shaded areas. Operation in shaded areas requires antifreeze.

Table Continued on Next Page

Performance Data – TMW340 (60 Hz I-P) - Heating

Table Continued from Previous Page

	SOU	RCE												LOAD											
FIACE		Flow		FIACE			Flow 35	.0 GPN	/					Flow 53	3.0 GPN	/					Flow 7	0.0 GP	M		
EWT	GPM	W	PD	ewt °F	нс	Power	HE	LWT	СОР	WI	PD	нс	Power	HE	LWT	СОР	WI	PD	HC	Power	HE	LWT	СОР	W	/PD
	GPIVI	PSI	FT		Mbtuh	KW	Mbtuh	°F	COP	PSI	FT	Mbtuh	KW	Mbtuh	°F	COP	PSI	FT	Mbtuh	KW	Mbtuh	°F	COP	PSI	FT
				60	299.6	14.35	250.7	77.1	6.1	1.01	2.53	309.8	14.34	260.9	71.7	6.3	3.44	7.94	322.6	14.89	271.8	69.2	6.3	6.18	14.28
	35.0	1.01	2.53	80	287.6	17.83	226.8	96.4	4.7	0.94	2.17	296.8	17.82	236.0	91.2	4.9	3.15	7.28	306.5	17.80	245.7	88.8	5.1	5.67	13.09
	33.0	1.01	2.00	100	272.2	20.41	202.6	115.6	3.9	0.83	1.91	280.3	20.39	210.7	110.6	4.0	2.89	6.68	288.8	20.38	219.3	108.3	4.2	5.32	12.28
				120	264.5	25.39	177.8	135.1	3.1	0.76	1.75	271.6	25.38	185.0	130.2	3.1	2.66	6.15	279.1	25.36	192.5	128.0	3.2	5.13	11.86
				60	309.1	14.45	259.8	77.7	6.3	1.01	2.53	321.9	14.97	270.9	72.1	6.3	3.44	7.94	333.5	14.90	282.7	69.5	6.6	6.18	14.28
60	53.0	3.44	7.94	80	297.0	17.94	235.8	97.0	4.9	0.94	2.17	307.0	17.93	245.8	91.6	5.0	3.15	7.28	317.6	17.92	256.4	89.1	5.2	5.67	13.09
60	55.0	3.44	7.94	100	281.5	20.52	211.4	116.1	4.0	0.83	1.91	290.3	20.51	220.3	111.0	4.1	2.89	6.68	299.7	20.50	229.7	108.6	4.3	5.32	12.28
				120	272.3	25.47	185.4	135.6	3.1	0.76	1.75	280.1	25.46	193.2	130.6	3.2	2.66	6.15	288.3	25.46	201.5	128.2	3.3	5.13	11.86
				60	313.5	14.50	264.1	77.9	6.3	1.01	2.53	326.6	14.97	275.6	72.3	6.4	3.44	7.94	338.7	14.90	287.8	69.7	6.7	6.18	14.28
	70.0	C 40	44.00	80	301.5	18.00	240.1	97.2	4.9	0.94	2.17	311.9	17.99	250.5	91.8	5.1	3.15	7.28	323.0	17.98	261.6	89.2	5.3	5.67	13.09
		0.18	14.28	100	294.2	20.58	224.0	116.8	4.2	0.83	1.91	295.3	20.57	225.1	111.1	4.2	2.89	6.68	305.1	20.57	234.9	108.7	4.3	5.32	12.28
				120	276.2	25.52	189.1	135.8	3.2	0.76	1.75	284.3	25.51	197.2	130.7	3.3	2.66	6.15	292.9	25.50	205.9	128.4	3.4	5.13	11.86
				60	317.8	14.55	268.2	78.2	6.4	1.01	2.53	328.9	14.53	279.3	72.4	6.6	3.44	7.94	342.0	14.91	291.1	69.8	6.7	6.18	14.28
	05.0	4.04	0.04	80	307.6	18.08	245.9	97.6	5.0	0.94	2.17	317.6	18.06	256.0	92.0	5.2	3.15	7.28	328.3	18.05	266.7	89.4	5.3	5.67	13.09
	35.0	1.01	2.34	100	294.4	20.69	223.8	116.8	4.2	0.83	1.91	303.4	20.68	232.8	111.4	4.3	2.89	6.68	312.9	20.66	242.4	108.9	4.4	5.32	12.28
				120	285.8	25.63	198.3	136.3	3.3	0.76	1.75	293.8	25.62	206.4	131.1	3.4	2.66	6.15	302.3	25.61	214.9	128.6	3.5	5.13	11.86
				60	326.7	14.66	276.6	78.7	6.5	1.01	2.53	339.7	14.98	288.6	72.8	6.6	3.44	7.94	352.2	14.91	301.3	70.1	6.9	6.18	14.28
l			7.00	80	316.8	18.21	254.7	98.1	5.1	0.94	2.17	327.7	18.20	265.6	92.4	5.3	3.15	7.28	339.2	18.18	277.2	89.7	5.5	5.67	13.09
70	53.0	3.29	7.60	100	304.0	20.83	232.9	117.4	4.3	0.83	1.91	313.8	20.82	242.8	111.8	4.4	2.89	6.68	324.2	20.80	253.2	109.3	4.6	5.32	12.28
				120	293.9	25.74	206.1	136.8	3.3	0.76	1.75	302.6	25.73	214.8	131.4	3.4	2.66	6.15	311.9	25.72	224.1	128.9	3.6	5.13	11.86
				60	330.8	14.72	280.6	78.9	6.6	1.01	2.53	344.0	14.99	292.9	73.0	6.7	3.44	7.94	356.9	14.92	306.0	70.2	7.0	6.18	14.28
				80	321.2	18.27	258.8	98.4	5.2	0.94	2.17	332.4	18.26	270.1	92.5	5.3	3.15	7.28	344.4	18.25	282.1	89.8	5.5	5.67	13.09
	70.0	5.91	13.64	100	317.7	20.89	246.4	118.2	4.5	0.83	1.91	318.9	20.89	247.7	112.0	4.5	2.89	6.68	329.8	20.88	258.6	109.4	4.6	5.32	12.28
				120	297.8	25.79	209.8	137.0	3.4	0.76	1.75	306.9	25.79	218.9	131.6	3.5	2.66	6.15	316.5	25.78	228.6	129.0	3.6	5.13	11.86
					,																				

Interpolation is permissible; extrapolation is not.

All performance is based upon the lower voltage of dual voltage rated units.

Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated. Operation below 40°F EWT is based upon a 15% methanol antifreeze solution.

Operation below 60°F EWT requires optional insulated water/refrigerant circuit.

See performance correction tables for operating conditions other than those listed above.

See Performance Data Selection Notes for operation in the shaded areas. Operation in shaded areas requires antifreeze.

Antifreeze Correction Table

EWT	Austifus and Time	A maisus and 0/		Cooling		Heatir	ng	WPD	
EVVI	Antifreeze Type	Antifreeze %	Total Cap	Sensible Cap	Watts	Total Cap	Watts	WPD	
	Water	0%	1.000	1.000	1.000	1.000	1.000	1.000	
		5%	0.998	0.998	1.002	0.996	0.999	1.025	
		10%	0.996	0.996	1.003	0.991	0.997	1.048	
		15%	0.994	0.994	1.005	0.987	0.996	1.098	
		20%	0.991	0.991	1.006	0.982	0.994	1.142	
	Ethanol	25%	0.986	0.986	1.009	0.972	0.991	1.207	
	Lillatio	30%	0.981	0.981	1.012	0.962	0.988	1.265	
		35%	0.977	0.977	1.015	0.953	0.985	1.312	
		40%	0.972	0.972	1.018	0.943	0.982	1.370	
		45%	0.966	0.966	1.023	0.931	0.978	1.431	
		50%	0.959	0.959	1.027	0.918	0.974	1.494	
		5%	0.998	0.998	1.002	0.996	0.999	1.021	
		10%	0.996	0.996	1.003	0.991	0.997	1.040	
		15%	0.994	0.994	1.004	0.987	0.996	1.079	
		20%	0.991	0.991	1.005	0.982	0.995	1.114	
	Ethydana Chraal	25%	0.988	0.988	1.008	0.976	0.993	1.146	
	Ethylene Glycol	30%	0.985	0.985	1.010	0.969	0.990	1.175	
		35%	0.982	0.982	1.012	0.963	0.988	1.208	
		40%	0.979	0.979	1.014	0.956	0.986	1.243	
		45%	0.976	0.976	1.016	0.950	0.984	1.048 1.098 1.142 1.207 1.265 1.312 1.370 1.431 1.494 1.021 1.040 1.079 1.114 1.146 1.175 1.208 1.243 1.278 1.314 1.039 1.075 1.116 1.154 1.189 1.221 1.267 1.310 1.353 1.398 1.065 1.119 1.152 1.182	
90		50%	0.972	0.972	1.018	0.943	0.982	1.314	
		5%	0.997	0.997	1.002	0.993	0.998	1.039	
		10%	0.993	0.993	1.004	0.986	0.996	1.075	
		15%	0.990	0.990	1.007	0.979	0.994	1.116	
		20%	0.986	0.986	1.009	0.972	0.991	1.154	
	Mathanal	25%	0.982	0.982	1.012	0.964	0.989	1.189	
	Methanol	30%	0.978	0.978	1.014	0.955	0.986	1.221	
		35%	0.974	0.974	1.017	0.947	0.984	1.267	
		40%	0.970	0.970	1.020	0.939	0.981	1.310	
		45%	0.966	0.966	1.023	0.930	0.978	1.353	
		50%	0.961	0.961	1.026	0.920	0.975	1.398	
		5%	0.995	0.995	1.003	0.990	0.997	1.065	
		10%	0.990	0.990	1.006	0.980	0.994	1.119	
		15%	0.986	0.986	1.009	0.971	0.991	1.152	
		20%	0.981	0.981	1.012	0.962	0.988	1.182	
	Propulana Chuad	25%	0.978	0.978	1.014	0.956	0.986	1.227	
	Propylene Glycol	30%	0.975	0.975	1.016	0.950	0.984	1.267	
		35%	0.972	0.972	1.018	0.944	0.982	1.312	
		40%	0.969	0.969	1.020	0.938	0.980	1.356	
		45%	0.965	0.965	1.023	0.929	0.977	1.402	
		50%	0.960	0.960	1.026	0.919	0.974	1.450	
				on Next Page	1	î .	ſ	1	

Table Continued on Next Page

Antifreeze Correction Table

Table Continued from Previous Page

EVACE	A 415 -	A 415 04		Cooling		Heatir	ng	WDD
EWT	Antifreeze Type	Antifreeze %	Total Cap	Sensible Cap	Watts	Total Cap	Watts	WPD
	Water	0%	1.000	1.000	1.000	1.000	1.000	1.000
		5%	0.991	0.991	1.006	0.981	0.994	1.140
		10%	0.981	0.981	1.012	0.961	0.988	1.242
		15%	0.973	0.973	1.018	0.944	0.983	1.295
		20%	0.964	0.964	1.024	0.927	0.977	1.343
	Ethanol	25%	0.959	0.959	1.028	0.917	0.974	1.363
	Ethanor	30%	0.954	0.954	1.031	0.907	0.970	1.383
		35%	0.949	0.949	1.035	0.897	0.967	1.468
		40%	0.944	0.944	1.038	0.887	0.964	1.523
		45%	0.940	0.940	1.041	0.880	0.962	1.580
		50%	0.936	0.936	1.043	0.872	0.959	1.639
		5%	0.997	0.997	1.002	0.993	0.998	1.040
		10%	0.993	0.993	1.004	0.986	0.996	1.075
		15%	0.990	0.990	1.006	0.980	0.994	1.122
		20%	0.987	0.987	1.008	0.973	0.992	1.163
	Ethylene Glycol	25%	0.983	0.983	1.011	0.966	0.990	1.195
	Etriylerie Giycol	30%	0.979	0.979	1.013	0.958	0.987	1.225
		35%	0.976	0.976	1.016	0.951	0.927 0.977 1.3 0.917 0.974 1.3 0.907 0.970 1.3 0.887 0.967 1.4 0.887 0.964 1.3 0.880 0.962 1.3 0.872 0.959 1.4 0.993 0.998 1.6 0.980 0.996 1.6 0.980 0.994 1.6 0.973 0.992 1.6 0.958 0.990 1.6 0.951 0.985 1.2 0.993 0.982 1.3 0.937 0.980 1.3 0.939 0.997 1.6 0.978 0.993 1.7 0.978 0.993 1.7 0.949 0.984 1.3 0.941 0.981 1.3 0.933 0.979 1.3 0.941 0.981 1.3 0.9924 0.976 1.3 0.917 0.974 <t< td=""><td>1.279</td></t<>	1.279
		40%	0.972	0.972	1.018	0.943	0.982	1.324
		45%	0.969	0.969	1.021	0.937	0.980	1.371
30		50%	0.966	0.966	1.023	0.930	kap Watts 0 1.000 1.000 1 0.994 1.140 1 0.988 1.242 4 0.983 1.295 7 0.974 1.363 7 0.970 1.383 7 0.967 1.468 7 0.964 1.523 0 0.962 1.580 2 0.959 1.639 3 0.998 1.040 3 0.996 1.075 0 0.994 1.122 3 0.992 1.163 3 0.994 1.225 3 0.997 1.25 4 0.985 1.279 3 0.987 1.225 4 0.980 1.371 0 0.997 1.069 3 0.993 1.127 0 0.994 1.216 0 0.997 1.286 0 0.991	
		5%	0.995	0.995	1.004	0.989	0.997	1.069
		10%	0.989	0.989	1.007	0.978	0.993	1.127
		15%	0.984	0.984	1.011	0.968	0.990	1.164
		20%	0.979	0.979	1.014	0.957	0.986	1.197
	Methanol	25%	0.975	0.975	1.017	0.949	0.984	1.216
	IVIELITATIO	30%	0.971	0.971	1.019	0.941	0.981	1.235
		35%	0.967	0.967	1.022	0.933	0.979	1.286
		40%	0.963	0.963	1.025	0.924	0.976	1.323
		45%	0.959	0.959	1.028	0.917	0.974	1.360
		50%	0.955	0.955	1.030	0.910	0.971	1.399
		5%	0.995	0.995	1.004	0.989	0.997	1.071
		10%	0.989	0.989	1.007	0.978	0.993	1.130
		15%	0.985	0.985	1.010	0.968	1.000 1.000 0.981 0.994 0.961 0.988 0.944 0.983 0.927 0.977 0.917 0.974 0.907 0.970 0.887 0.967 0.888 0.962 0.872 0.959 0.993 0.998 0.986 0.996 0.980 0.994 0.973 0.992 0.966 0.990 0.958 0.987 0.951 0.985 0.943 0.982 0.937 0.980 0.937 0.980 0.939 0.978 0.993 0.997 0.978 0.993 0.968 0.990 0.957 0.986 0.941 0.981 0.975 0.986 0.941 0.981 0.976 0.917 0.978 0.993 0.968 0.997 0.978 <td>1.206</td>	1.206
		20%	0.980	0.980	1.013	0.958	0.987	1.270
	Propylene Glycol	25%	0.974	0.974	1.017	0.947	0.983	1.359
	1 Topylotie Glycol	30%	0.968	0.968	1.021	0.935	0.979	1.433
		35%	0.963	0.963	1.025	0.924	0.976	1.522
		40%	0.957	0.957	1.029	0.913	0.972	1.614
		45%	0.949	0.949	1.034	0.898	0.967	1.712
		50%	0.941	0.941	1.039	0.882	0.962	1.816

ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time of 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. The latest version of this document is available at **climatemaster.com**. © ClimateMaster, Inc., All rights reserved 2009

Page _____ of ____

Physical & Electrical Data

Physical Data

Model	TMW036	TMW060	TMW120	TMW170	TMW340			
Compressor (qty)	Scro	oll (1)	Scroll (2)	Scroll (1) Scroll (2)				
Factory Charge R410A (lbs) [kg] / Circuit	4.5 [2.04]	5.5 [2.49]	5.5 [2.49]	14.9 [6.75]	14.9 [6.75]			
Indoor / Load Water connection sizes FPT (in)	3/4"	1"	1-1/2"	2	2"			
Outdoor / Source Water connection Size FPT (in)	3/4"	1"	1-1/2"	2"				
HWG Water In/Out IPT (in)		1/2"		N	/A			
Weight - Operating (lbs) [kg]	348 [158]	360 [163]	726 [329]	790 [358]	1330 [603]			
Weight - Shipping (lbs) [kg]	373 [169]	385 [175]	770 [349]	800 [363]	1340 [608]			
Water Volume (Source)								
Gallons (Liters)	0.96 (3.64)	1.33 (5.04)	2.65 (10.02)	3.50 (13.27)	6.72 (25.44)			

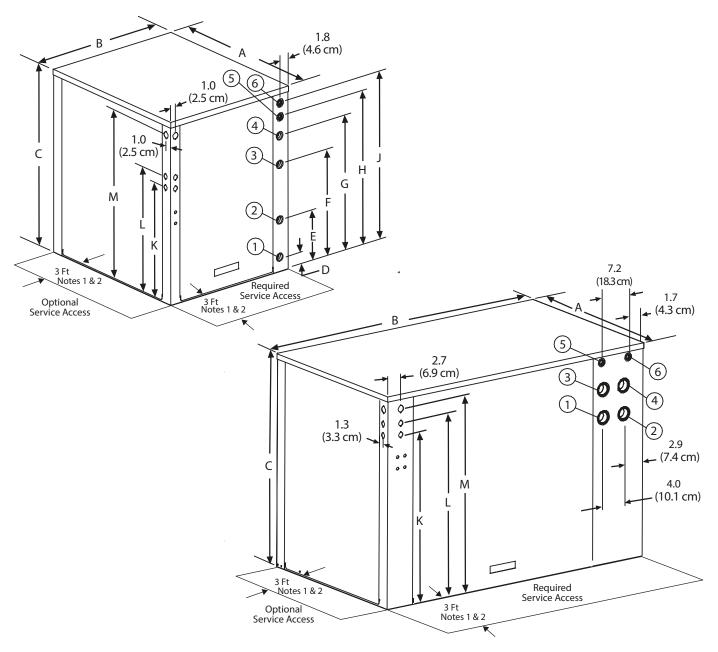
Dual isolated compressor mounting Balanced port expansion valve (TXV) Compressor on (green) and fault (red) light

Unit Maximum Water Working Pressure								
Options Max Working Pressure PSIG [kPa]								
Base Unit	300 [2,068]							

TMW Electrical Data

Maralal	Voltage	W-1-4	Voltage	С	ompresso	or	Total	Min	SCCR	SCCR	Max
Model	Code	Volatge	Min/Max	Qty	RLA	LRA	Unit FLA	Circuit Amps	rms Symetrical	Volts Maximum	Fuse/ HACR
	G	208-230/60/1	187/254	1	16.7	79	16.7	20.8	5	600	35
	E	265/60/1	239/292	1	13.5	72	13.5	16.8	5	600	30
TMW036	Н	208-230/60/3	187/254	1	10.4	73	10.4	13.1	5	600	20
	F	460/60/3	414/506	1	5.8	38	5.8	7.2	5	600	15
	N	575/60/3	518/633	1	3.8	36.5	3.8	4.7	5	600	15
	G	208-230/60/1	187/254	1	26.3	134	26.3	32.9	5	600	50
TMW060	Н	208-230/60/3	187/254	1	15.6	110	15.6	19.5	5	600	35
	F	460/60/3	414/506	1	7.8	52	7.8	9.8	5	600	15
	G	208-230/60/1	187/254	2	26.3	134	52.6	59.2	5	600	80
TMW120	Н	208-230/60/3	187/254	2	15.6	110	31.2	35.1	5	600	50
	F	460/60/3	414/506	2	7.8	52	15.6	17.6	5	600	25
	Н	208-230/60/3	187/254	1	53.6	245	53.6	67.0	5	600	110
TMW170	F	460/60/3	414/506	1	20.7	125	20.7	25.9	5	600	45
	N	575/60/3	518/633	1	16.4	100	16.4	20.5	5	600	35
	Н	208-230/60/3	187/254	2	53.6	245	107.2	120.6	5	600	150
TMW340	F	460/60/3	414/506	2	20.7	125	41.4	46.6	5	600	60
	N	575/60/3	518/633	2	16.4	100	32.8	36.9	5	600	50

Dimensional Data - TMW036-120



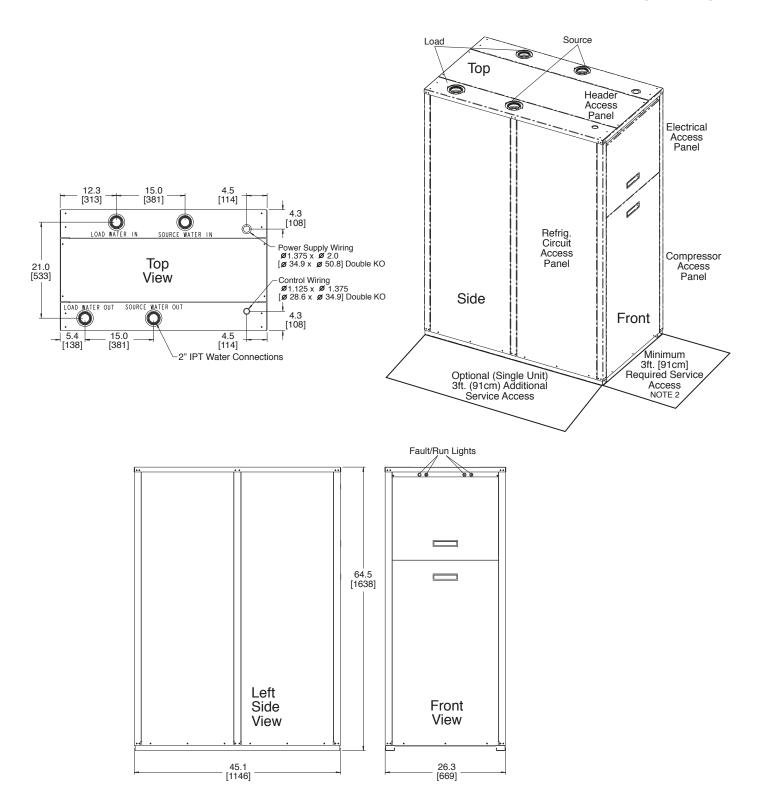
Notes: 1.

- 1. Dimensions shown in inches and [millimeters].
- 2. For multiple units placed side by side, allow sufficient space front or back to remove unit.

		0.4	orall Cabi	not			Water Co	nnections			Electr	io Access	Dluge
			Overall Cabinet			2	3	4	5	6	Electi	c Access Plugs	
Water to Water		A Depth	B Width	C Height	D Source (Outdoor) Water In	E Source (Outdoor) Water Out	F Load (Indoor) Water In	G Load (Indoor) Water Out	H HWG Return In	J HWG Water Out	K Low External Voltage Pump		M Power Supply
036-060	in.	30.6	25.4	33	2.7	9.4	19.4	24.5	27.9	30.4	20.9	22.9	30.9
030-000	cm.	77.8	64.5	83.8	6.9	23.9	49.3	62.2	70.9	77.2	53.1	58.2	78.5
120	in.	30.6	52.9	37	25.2	25.2	30.1	30.1	34.9	34.9	30.5	32.5	35
120	cm.	77.8	134.4	94	64.0	64.0	76.5	76.5	88.6	88.6	77.5	82.6	88.9

HACR circuit breaker in USA only

Dimensional Data - TMW170 & 340



Notes: 1. Dimensions shown in inches and [millimeters].
2. For multiple units placed side by side, allow sufficient space front or back to remove unit.

TMW Series Wiring Diagram Matrix

All current diagrams can be located online at climatemaster.com. Click 'Commercial Professional'.

- 1. Click 'Products' in the main navigation
- 2. Select 'Small Packaged Units'
- 3. Select the TMW product series
- 4. Click the Wire Diagrams tab in the middle of the page
- 5. Select your voltage and controls

lluit Cantuallan	Voltore	Size									
Unit Controller	Voltage	TMW036-060	TMW170	TMW120	TMW340						
CXM2	208-230/60/1, 265/60/1	96B0401N52		96B0401N58							
CAIVIZ	208-230/60/3, 460/60/3, 575/60/3	96B0401N53	96B0401N61	96B0401N59	96B0401N69						
AUX WD CXM2 w/MPC	All	96B0146N14	96B0401N76	96B0146N16	96B0401N76						
DVM2 5	208-230/60/1, 265/60/1	96B0402N38		96B0402N41							
DXM2.5	208-230/60/3, 460/60/3, 575/60/3	96B0402N39	96B0402N44	96B0402N42	96B0402N50						
AUX WD DXM2.5 w/ MPC	All	96B0146N14	96B0402N56	96B0146N16	96B0402N56						

General:

Furnish and install ClimateMaster "TMW" Water-Source Heat Pumps as indicated on the plans. Equipment shall be completely assembled, piped and internally wired. Capacities and characteristics as listed in the schedule and the specifications that follow.

Units shall be supplied completely factory built capable of operating over an entering water temperature range from 20° to 120°F (-6.7° to 48.9°C) as standard. All equipment listed in this section must be rated in accordance with Air-Conditioning, Heating and Refrigeration Institute/International Standards Organization (AHRI/ISO 13256-2). All equipment must be tested, investigated, and determined to comply with the requirements of the standards for Heating and Cooling Equipment UL-1995 for the United States and CAN/CSA-C22.2 NO.236 for Canada, by Intertek Testing Laboratories (ETL). The units shall have AHRI/ISO and ETL-US-C labels.

All units shall pass a factory acceptance test. The quality control system shall automatically perform the factory acceptance test via computer. A detailed report card from the factory acceptance test shall ship with each unit. (Note: If unit fails the factory acceptance test it shall not be allowed to ship. Unit serial number will be recorded by factory acceptance test and furnished on report card for ease of unit warranty status.)

Basic Construction:

All units must have multiple removable panels for serviceability of compressor compartment. **Units having only one access panel shall not be acceptable.** All units must have front access for side by side installations.

The heat pumps shall be fabricated from heavy gauge galvanized steel with powder coat paint finish. Both sides of the steel shall be painted for added protection. All interior surfaces shall be lined with 1/2 inch (12.7 mm) thick, 1-1/2 lb/ft3 (24 kg/m3) acoustic type glass fiber insulation. Insulation placement shall be designed in a manner that will eliminate any exposed edges.

Standard cabinet panel insulation must meet NFPA 90A requirements, air erosion and mold growth limits of UL-181, stringent fungal resistance test per ASTM-C1071 and ASTM G21, and shall meet zero level bacteria growth per ASTM G22. **Unit insulation must meet these stringent requirements or unit(s) will not be accepted.**

Cabinets shall have separate holes and knockouts for entrance of line voltage and low voltage control wiring. All factory-installed wiring passing through factory knockouts and openings shall be protected from sheet metal edges at openings by plastic ferrules. Supply and return water connections shall be copper FPT fittings. **Contractor shall be responsible for any extra costs involved in the installation of units that do not have this feature.** Contractor must ensure that units can be easily removed for servicing and coordinate locations of electrical conduit and lights with the electrical contractor.

Unit(s) shall have exterior indicator lights showing, 1) compressor operation (on/off) and 2) unit "fault" status. Contractor shall be responsible for providing control circuitry and indicator lights for units not providing this feature.

Option: UltraQuiet package - Size 036, 060, 120 include sound attenuating insulation on unit base pan and all removable panels plus a refrigerant line muffler. Size 170 and 340 have a sound blanket on each compressor.

Refrigerant Circuit:

Units shall have sealed, isolated refrigerant circuit(s), each including a high efficiency scroll compressor designed for heat pump operation, a thermostatic expansion valve for refrigerant metering, a reversing valve, load and source coaxial (tube in tube) refrigerant to water heat exchangers, and safety controls including a high pressure switch, low pressure switch (loss of charge), and low water temperature sensors. Access fittings shall be factory installed on high and low pressure refrigerant lines to facilitate field service. Activation of any safety device shall prevent compressor operation via a microprocessor lockout circuit. **Units with brazed plate heat exchangers will not be accepted.**

Unit shall be supplied with extended range insulation, which adds closed cell insulation to internal water lines, and provides insulation on suction side refrigeration tubing including refrigerant to water heat exchangers.

Hermetic compressors shall be internally sprung. The compressors shall have a dual level vibration isolation system. The compressors will be mounted on specially engineered sound-tested EPDM vibration isolation grommets to a large heavy gauge compressor mounting plate, which is then isolated from the cabinet base with rubber grommets for maximized vibration attenuation. Compressors shall have thermal overload protection.

Refrigerant to water heat exchangers shall be of copper inner water tube and steel refrigerant outer tube design, rated to withstand 625 PSIG (4309 kPa) working refrigerant pressure and 450 PSIG (3101 kPa) working water pressure. The refrigerant to water heat exchanger shall be "electro-coated" with a low cure cathodic epoxy material a minimum of 0.4 mils thick (0.4 – 1.5 mils range) on all surfaces. The black colored coating shall provide a minimum of 1000 hours salt spray protection per ASTM B117-97 on all external steel and copper tubing. The material shall be formulated without the inclusion of any heavy metals and shall exhibit a pencil hardness of 2H (ASTM D3363-92A), crosshatch adhesion of 4B-5B (ASTM D3359-95), and impact resistance of 160 in-lbs (184 kg-cm) direct (ASTM D2794-93). For all models except 170 & 340, which are powder coated.

Option: The unit will be supplied with cupro-nickel coaxial water to refrigerant heat exchanger (specify source and/or load heat exchanger).

Electrical:

A control box shall be located within the unit compressor compartment and shall contain a 75VA transformer, 24 volt activated, 3 pole compressor contactor, terminal block for thermostat wiring and solid-state controller for complete unit operation. Reversing valve wiring shall be routed through this electronic controller. Units shall be name-plated for use with time delay fuses or HACR circuit breakers. Unit controls shall be 24 Volt and provide heating or cooling as required by the remote aquastat / sensor. Units with two compressors (120 and 340) shall have a solid-state time delay relay and random start to prevent both compressors from starting simultaneously.

Enhanced Solid State Control System (CXM2):

Units shall have a solid-state control system. Units utilizing electro-mechanical control shall not be acceptable. The control system microprocessor board shall be specifically designed to protect against building electrical system noise contamination, EMI, and RFI interference. The control system shall interface with a heat pump type thermostat. The control system shall have the following features:

- a. Anti-short cycle time delay on compressor operation.
- b. Random start on power up mode.
- c. Low voltage protection.
- d. High voltage protection.
- e. Unit shutdown on high or low refrigerant pressures.
- f. Unit shutdown on low water temperature.
- g. Option to reset unit at thermostat or disconnect.
- h. Automatic intelligent reset. Unit shall automatically reset the unit 5 minutes after trip if the fault has cleared. If a fault occurs 3 times sequentially without thermostat meeting temperature, then lockout requiring manual reset will occur.
- i. Ability to defeat time delays for servicing.
- j. The low-pressure switch shall not be monitored for the first 120 seconds after a compressor start command to prevent nuisance safety trips.
- k. 24V output to cycle a motorized water valve or other device with compressor contactor.
- I. Unit Performance Sentinel (UPS). The UPS warns when the heat pump is running inefficiently.
- m. Water coil low temperature sensing (selectable for water or anti-freeze).

ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time of 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
Climate Mactaria aginian as commandation of its products. The letest varging of this degree of the degree of the state of the second 2000

- n. Air coil low temperature sensing.
- o. Minimized reversing valve operation (Unit control logic shall only switch the reversing valve when cooling is demanded for the first time. The reversing valve shall be held in this position until the first call for heating, ensuring quiet operation and increased valve life).
- Emergency shutdown contacts.
- q. Entering and leaving water temperature sensing.
- r. Leaving air temperature sensing.
- s. Compressor discharge temperature sensing.

NOTE: Units not providing the 8 safety protections of anti-short cycle, low voltage, high voltage, high refrigerant pressure, low pressure (loss of charge), air coil low temperature cut-out, water coil low temperature cut-out, and condensate overflow protections will not be accepted.

When CXM2 is connected to AWC99U01 thermostat or handheld service tool, the installer/service technician can; check DIP switch S2 settings; run operation modes manually; check all physical inputs from thermostat and refrigerant pressure switches status, (Y1, Y2, W, O, G, H, ESD, NSB, OR, HP switch, and LOC switch); current or at time of fault the following temperatures - water coil (LT1), compressor discharge, leaving air, leaving water, entering water and control voltage; record last five faults, list possible reasons, and clear faults. When the AWC99U01 communicating thermostat is used this same functionality can be viewed and adjusted remotely in the web portal or mobile app. Systems not providing remote access, diagnosis, and adjustment functionality will not be accepted.

Option: Enhanced Solid State Control System (DXM2.5)

This control system is a communicating controller.

Control shall have the above-mentioned features of the CXM2 control system along with the following expanded features:

- a. Removable thermostat connector.
- b. Night setback control.
- c. Random start on return from night setback.
- d. Override temperature control with 2-hour timer for room occupant to override setback temperature at the thermostat.
- e. Dry contact night setback output for digital night setback thermostats.
- f. Ability to work with heat pump or heat/cool (Y, W) type thermostats.
- q. Ability to work with heat pump thermostats using O or B reversing valve control.
- h. Boilerless system heat control at low loop water temperature.
- i. Ability to allow up to 3 units to be controlled by one thermostat.
- j. Relay to operate an external damper.
- k. Relay to start system pump.
- I. 75 VA control transformer. Control transformer shall have load side short circuit and overload protection via a built-in circuit breaker.

NOTE: Units not providing the 7 safety protections of anti-short cycle, low voltage, high voltage, high refrigerant pressure, low pressure (loss of charge), air coil low temperature cut-out, and water coil low temperature cut-out

When DXM2.5 is connected to AWC99U01 communicating thermostat or handheld service tool, the installer/service technician can; check and set CFM; check DIP switch S1, S2, and S3 settings; run operation modes manually; check all physical inputs from thermostat and refrigerant pressure switches status, (Y1, Y2, W, O, G, H, ESD, NSB, OR, HP switch, and LOC switch); current or at time of fault the following temperatures - water coil (LT1), air coil (LT2), compressor discharge, leaving air, leaving water, entering water and control voltage; record last five faults, list possible reasons, and clear faults. When the AWC99U01 communicating thermostat is used this same functionality can be viewed and adjusted remotely with the only portal or mobile app. **Systems not providing remote access,**

diagnosis, and adjustment functionality will not be accepted.

Option: MPC (Multiple Protocol Control) interface system

Units shall have all the features listed above (either CXM2 or DXM2.5) and the control board will be supplied with a Multiple Protocol interface board. Available protocols are BACnet MS/TP, Modbus, or Johnson Controls N2. The choice of protocol shall be field selectable/changeable via the use of a simple selector switch. Protocol selection shall not require any additional programming or special external hardware or software tools. This will permit all units to be daisy chain connected by a 2-wire twisted pair shielded cable. The following points must be available at a central or remote computer location:

- a. Source leaving water temperature
- b. Load leaving water temperature
- c. Command of space temperature setpoint
- d. Cooling status
- e. Heating status
- f. Low temperature sensor alarm
- g. Low pressure sensor alarm
- h. High pressure switch alarm
- i. Hi/low voltage alarm
- j. Unoccupied/occupied command
- k. Cooling command
- I. Heating command
- m. Fault reset command
- n. Itemized fault code revealing reason for specific shutdown fault (any one of 7)

This option also provides the upgraded 75VA control transformer with load side short circuit and overload protection via a built in circuit breaker.

Warranty:

ClimateMaster shall warranty equipment for a period of 12 months from start up or 18 months from shipping (which ever occurs first).

Option: Extended 4-year compressor warranty covers compressor for a total of 5 years.

Option: Extended 4-year refrigeration circuit warranty covers coils, reversing valve, expansion valve and compressor for a total of 5 years.

Option: Extended 4-year control board warranty covers the CXM2/DXM2.5 control board for a total of 5 years.

FIELD INSTALLED OPTIONS

Hose Kits:

All units shall be connected with hoses. The hoses shall be 2 feet (61 cm) long, braided stainless steel; fire rated hoses complete with adapters. Only fire rated hoses will be accepted.

Valves:

The following valves are available and will be shipped loose:

- a. Ball valve; bronze material, standard port full flow design, FPT connections.
- b. Ball valve with memory stop and PT port.
- c. "Y" strainer with blowdown valve; bronze material, FPT connections.
- d. Motorized water valve; slow acting, 24v, FPT connections.

Hose Kit Assemblies:

The following assemblies ship with the valves already assembled to the hose described:

- a. Supply and return hoses having ball valve with PT port.
- b. Supply hose having ball valve with PT port; return hose having automatic flow regulator valve with PT ports, and ball valve.
- c. Supply hose having "Y" strainer with blowdown valve, and ball valve with PT port; return hose having automatic flow regulator with PT ports, and ball valve.
- d. Supply hose having "Y" strainer with blowdown valve, and ball valve with PT port; return hose having ball valve with PT port.

NOTICE! This product specification document is furnished as a means to copy and paste ClimateMaster product information into project specification. It is not intended to be a complete list of product requirements. This document is an excerpt from the product submittal and must not be used without consulting the complete product submittal. For complete product installation and application requirements, please consult the complete product submittal. ClimateMaster is not responsible for misuse of this document or a failure to adequately review specific requirements in the product submittal.

ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time of 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. The latest version of this document is available at climatemaster com. © ClimateMaster. Inc. All rights reserved 2009

Performance Sheet

ENGINEERING GUIDE - I-P UNITS	5	ENGINEERING GUIDE - S-I UNITS	
Unit Designation:		Unit Designation:	
Job Name:		Job Name:	
Architect:		Architect:	
Engineer:		Engineer:	
Contractor:		Contractor:	
PERFORMANCE DATA		PERFORMANCE DATA	
Cooling Capacity:	Btuh	Cooling Capacity:	kW
EER:		EER:	
Heating Capacity:	Btuh	Heating Capacity:	kW
COP:		COP:	
Ambient Air Temp:	°F	Ambient Air Temp:	°C
Source Entering Water Temp (Clg):	°F	Source Entering Water Temp (Clg):	°C
Source Leaving Water Temp (Clg):	°F	Source Leaving Water Temp (Clg):	°C
Load Entering Water Temp (Clg):	°F	Load Entering Water Temp (Clg):	°C
Load Leaving Water Temp (Clg):	°F	Load Leaving Water Temp (Clg):	°C
Source Entering Water Temp (Htg):	°F	Source Entering Water Temp (Htg):	°C
Source Leaving Water Temp (Htg):	°F	Source Leaving Water Temp (Htg):	°C
Load Entering Water Temp (Htg):	°F	Load Entering Water Temp (Htg):	°C
Load Leaving Water Temp (Htg):	°F	Load Leaving Water Temp (Htg):	°C
Operating Weight:	(lb)	Operating Weight:	(kg)
ELECTRICAL DATA		ELECTRICAL DATA	
Power Supply:	Volts	Power Supply:	Volts
Phase	Hz	Phase	Hz
Minimum Circuit Ampacity:		Minimum Circuit Ampacity:	
Maximum Overcurrent Protection:		Maximum Overcurrent Protection:	

Notes

ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time of 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. The latest version of this document is available at **climatemaster.com**. © ClimateMaster, Inc., All rights reserved 2009

LC402 - 45 -

Revision History

Date:	Item:	Action:
08/15/24	Performance Data	036 Cooling: Aligned header units with other tables
02/28/23	All	Transitioned from CXM to CXM2 and DXM2 to DXM2.5 unit controls. Introduced AWC Wi-Fi cloud connected color touch screen thermostat
09/29/21	All	Removed LON controls
03/08/21	Pg. 30	Updated Electrical Data Table
10/12/20	Edits to specification verbiage	Updated page 41
07/20/20	Pgs. 9, 13, 17	Updated "Cooling" Performance tables
07/16/20	Pg. 29, 30,33-39, 45	Updated note on Electrical Data, Added sizes and notes to Dimensional Drawing, Reorganized Wire Diagram pages, updated Performance Sheet
06/11/20	Physical and Electrical Data, pg. 29	Updated
06/02/20	All	Updated format/font
11/15/16	Document Design Update	Updated
03/17/16	Pages 28 and 38	Edit 036-120 Dimensional Data and test run text
10/15/15	Wiring Diagram Matrix	Updated
02/26/13	AHRI Table	Size 120 Updated
02/04/13	TMW060 Htg/Clg Performance Data	Updated WPD and ELWT
01/11/12	Engineering Specifications	Removed references to air flow, air temperature
11/14/11	TMW170 & 340 Dimensional Data	Updated
08/09/11	Unit Maximum Working Water Pressure	Updated to Reflect New Safeties
08/03/11	Engineering Specifications	Added Digital Night Setback with Pump Restart (DXM w/ ATP32U03/04)
05/20/11	Performance Data	Updated
04/26/11	Performance Data	Updated Heating Table for TMW60, TMW120, & 340
04/07/11	Engineering Specification NOTICE	Updated
2/11/11	Performance Data Selection Notes	Updated
02/07/11	Performance Data	Updated Heating Table for TMW036, TMW120
02/03/11	Series Nomenclature	Updated Revision Level
01/03/11	Format - All Pages	Updated
11/30/10	Electrical Table	Updated
10/21/10	Load Coil Option "V"	Removed
10/21/10	Engineering Specifications	Updated
09/28/10	Engineering Specifications	Updated
07/26/10	Wiring Diagrams	Updated
06/11/10	Format - All Pages	Updated
06/11/10	Engineering Specifications	Updated



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