



Tranquility (TBW) Water-To-Water Series

WATER-TO-WATER SYSTEMS
SIZES 036, 060, AND 120 [8.7, 13.5 and 26.9 kW]

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Tranquility Water-To-Water (TBW) Series Features

The Tranquility Water-To-Water (TBW) Series

The TBW water to water series offers a wide range of units for most any installation with an extended range refrigerant circuit, capable of ground loop (geothermal) applications. As ClimateMaster's most adaptable EarthPure® HFC-410A refrigerant units, the TBW Series can be used for radiant floor heating, snow/ice melt, chilled water for fan coils, potable hot water generation (with hot water generator option), hot/chilled water for make-up air, and many other types of HVAC applications.

Available in sizes 036 [8.7 kW], 060 [13.5 kW] and 120 [26.9 kW] the TBW Series offers a wide range of units for most any installation. The TBW has an extended range refrigerant circuit, capable of ground loop (geothermal) applications as well as water loop (boiler-tower) applications. Standard features are many. Brazed Plate heat exchanger, refrigerant suction lines and all water lines are fully insulated to eliminate condensation problems in low temperature applications. Microprocessor controls, galvanized steel cabinet, powder coat paint, stainless steel front access panels, TXV refrigerant metering device, and water flow switches to safeguard brazed plated heat exchangers, are just some of the features of the flexible TBW Series.

ClimateMaster's exclusive dual level compressor isolation mounting system makes the TBW Series the quietest water-to-water unit on the market. Compressors are mounted on vibration isolation grommets to a heavy gauge mounting plate, which is then isolated from the cabinet base with rubber grommets for maximized vibration/sound attenuation.

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

Application Flexibility

- Three Capacities 036 [8.7 kW], 060 [13.5 kW], & 120 [26.9 kW].
- Copeland scroll compressors.
- Dual refrigeration circuits on size 120.
- Galvanized steel construction with epoxy powder coat paint.
- Insulated compressor compartment.
- TXV metering device.
- Extended range (20 to 120°F, -6.7 to 48.9°C) operation.
- Microprocessor controls standard.
- 1" swivel-type water connections for models 036 & 060.
- Flush securely-mounted corner post water connections (no backup wrench required) for model 120.
- Compressor "run" and "fault" lights on the front of the cabinet.
- Seven Safeties Standard.
- Intended for closed loop (geothermal) applications only.

Service & Installation Advantages

- Three Removable access panels.
- Low profile control box grants easy access to all internal components.
- Factory installed liquid line filter/drier.
- EarthPure® HFC-410A zero ozone depletion refrigerant.

- Brass swivel-type water connections for quick connection and elimination of wrenches or sealants during installation (036, 060 models).
- Bi-directional thermal expansion valve.
- DXM2.5 control features status lights with memory for easy diagnostics.
- Circuit breaker protected 75VA control transformer.
- High and low pressure service ports on refrigerant circuit.
- Accurate refrigerant sensing low-temperature protection.
- Solid state DXM2.5 control features: Anti-short cycle, high & low pressure, loss of charge protection, LED fault, and status indication with memory for easy diagnostics.
- 24vac accessory relays.
- Strainers shipped loose for field installation in load and source water in lines.

Factory Quality & Certifications

- All units are built and factory run tested on our Integrated Process Control Assembly System (IPCS). The IPCS is a unique state-of-the-art manufacturing system that is designed to assure quality of the highest standards of any manufacturer in the water-source industry. Our IPCS system:
 - Verifies that the correct components are being assembled.
 - Automatically performs special leak tests on all joints.
 - Conducts pressure tests.
 - Performs detailed run test.
 - Automatically disables packaging for a "failed" unit.
 - Creates computer database for future service analysis and diagnostics from run test results.
- All units are water run-tested in all modes to insure efficiency and reliability.
- Heavy gauge galvanized steel cabinets are epoxy powder coated for durable and long-lasting finish.
- All refrigerant brazing is done in a nitrogen atmosphere.
- All units are deep evacuated to less than 100 microns prior to refrigerant charging.
- All joints are both helium and halogen leak tested to insure annual leak rate of less than 1/4 ounce.
- AHRI/ASHRAE/ANSI/ISO 13256-2 certified.
- ETL listed.
- US EPA "Energy Star" certified for GLHP applications.

Options & Accessories

- Hot water generator with internal pump.
- Geothermal pumping modules

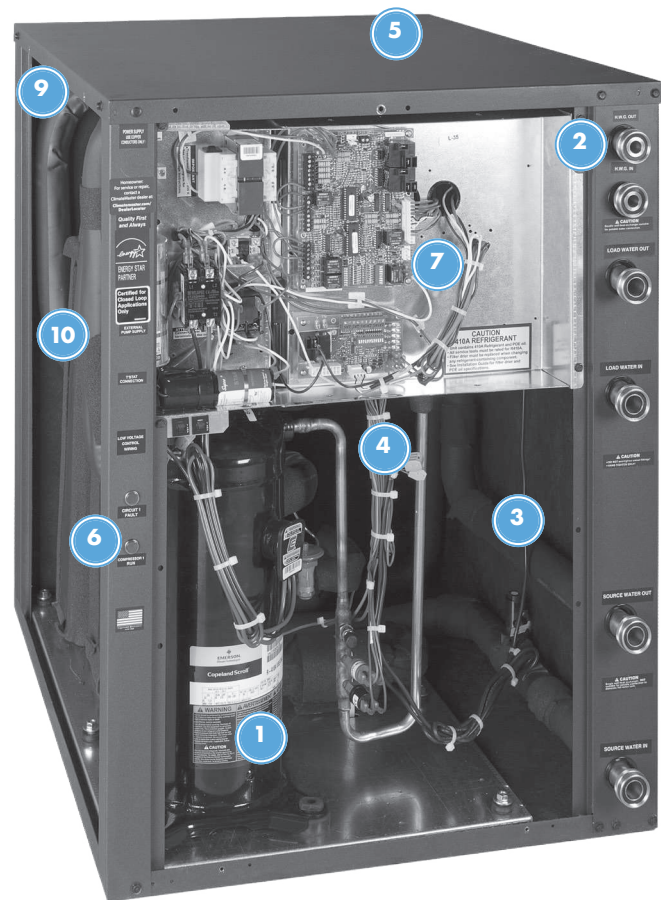
Warranty

- ClimateMaster residential class heat pumps are backed by a ten-year limited warranty on all unit parts, including the following accessory when installed with ClimateMaster units: Flow Controllers.
- ClimateMaster goes even further to back up its commitment to quality by including a service labor allowance for the first five years on unit parts and geothermal pumping modules.
- The Optional Extended Factory Service Labor Allowance Warranty offers additional length of term protection to the consumer by offsetting service labor costs for 10 years.

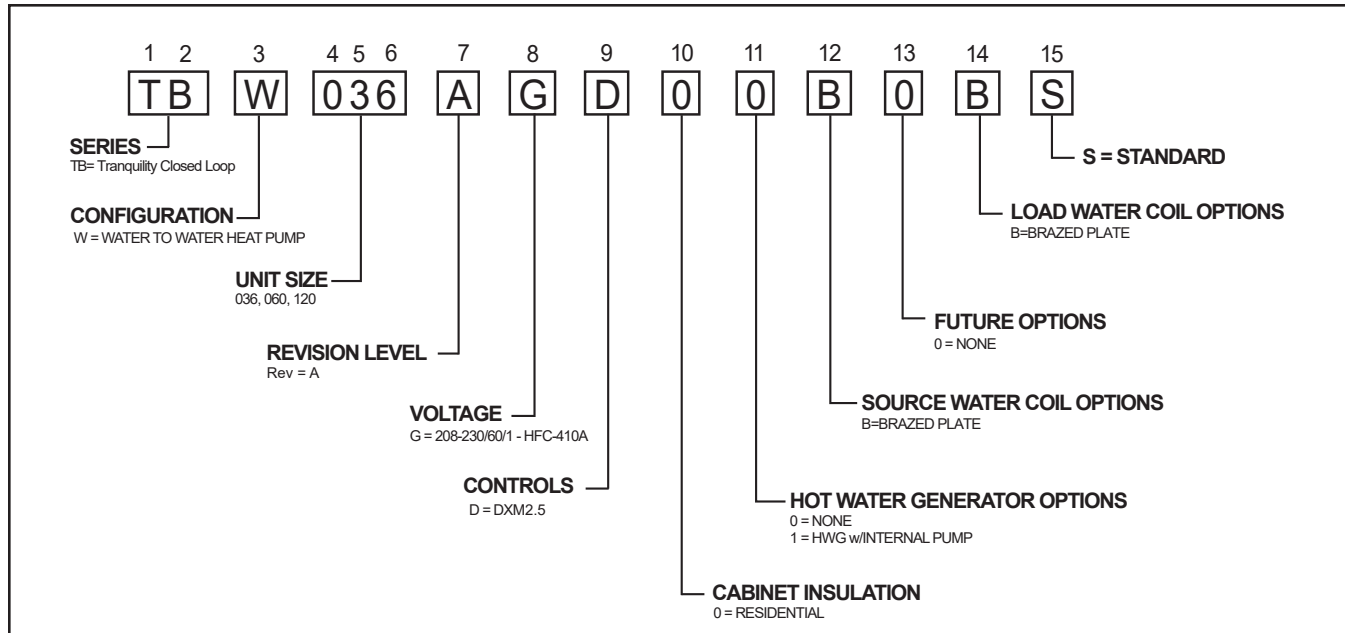
Tranquility Water-To-Water (TBW) Series

Tranquility Water-To-Water (TBW) Series Features

- 1 Copeland™ High Efficiency Scroll Compressor
- 2 Optional Hot Water Generator With Internal Pump
- 3 Fully Insulated Water and Refrigerant Lines
- 4 Fully Insulated Compressor Section
- 5 Powder Coated Steel Cabinet with Stainless Steel Access Panels For Long Life
- 6 System Operating LED Lights
- 7 Unit Performance Sentinel: Automatic Alert System Lets You Know If The System Is Not Running At Peak Performance
- 8 Dual Level Compressor Isolation Mounting for Ultra Quiet Operation
- 9 Multiple Removable Access Panels for Service
- 10 Brazed Plate heat exchangers



Unit Model Key



WARNING!

WARNING! TBW is for GROUND LOOP INSTALLATIONS ONLY. Installing TBW on open loop system will void warranty and unit will not be eligible for federal tax credit.

Tranquility Water-To-Water (TBW) Series

AHRI/ISO/ASHRAE/ANSI 13256-2 Performance

ASHRAE/AHRI/ISO 13256-2. English (I-P) Units

Model	Ground Loop Heat Pump			
	Cooling		Heating	
	Indoor 53.6°F Outdoor 77°F		Indoor 104°F Outdoor 32°F	
	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP
TBW036	30,400	16.5	26,900	3.1
TBW060	56,700	17.3	47,100	3.1
TBW120	113,400	17.3	94,200	3.1

All ratings based upon 208V operation
Indoor coil also called "Load" and outdoor coil also called "Source"

ASHRAE/AHRI/ISO 13256-2. Metric (S-I) Units

Model	Ground Loop Heat Pump			
	Cooling		Heating	
	Indoor 12°C Outdoor 25°C		Indoor 40°C Outdoor 0°C	
	Capacity Watts	EER W/W	Capacity Watts	COP
TBW036	8.91	4.8	7.88	3.1
TBW060	16.62	5.1	13.80	3.1
TBW120	33.24	5.1	27.61	3.1

All ratings based upon 208V operation
Indoor coil also called "Load" and outdoor coil also called "Source"

Performance Data Selection Notes

For operation in the shaded area when water is used in lieu of an anti-freeze 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 anti-freeze should be used in systems with leaving water temperatures of 40°F 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 x GPM x 500, where HE = Heat of Extraction (Btuh);
TD = temperature difference (EWT - LWT) and GPM = U.S. Gallons per Minute.

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

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

$$TD = 10^\circ\text{F}$$

$$LWT = EWT - TD$$

$$LWT = 50 - 10 = 40^\circ\text{F}$$

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.

Antifreeze Correction Table

Antifreeze Type	Antifreeze %	Cooling			Heating		WPD Corr. Fct. EWT 30°F
		EWT 90°F			EWT 30°F		
		Total Cap	Sens Cap	Power	Htg Cap	Power	
Water	0	1.000	1.000	1.000	1.000	1.000	1.000
Propylene Glycol	5	0.995	0.995	1.003	0.989	0.997	1.070
	15	0.986	0.986	1.009	0.968	0.990	1.210
	25	0.978	0.978	1.014	0.947	0.983	1.360
Methanol	5	0.997	0.997	1.002	0.989	0.997	1.070
	15	0.990	0.990	1.007	0.968	0.990	1.160
	25	0.982	0.982	1.012	0.949	0.984	1.220
Ethanol	5	0.998	0.998	1.002	0.981	0.994	1.140
	15	0.994	0.994	1.005	0.944	0.983	1.300
	25	0.986	0.986	1.009	0.917	0.974	1.360
Ethylene Glycol	5	0.998	0.998	1.002	0.993	0.998	1.040
	15	0.994	0.994	1.004	0.980	0.994	1.120
	25	0.988	0.988	1.008	0.966	0.990	1.200

Flow 15.0 GPM										
	WPD		HC Mbtuh	Power KW	HE Mbtuh	LWT F	COP	WPD		
	PSI	FT						PSI	FT	
50	3.3	7.7	45.3	2.70	36.1	66.0	4.9	6.0	13.8	
48	3.1	7.1	45.1	3.43	33.4	86.0	3.8	5.6	13.0	
46	2.9	6.7	43.6	4.48	28.3	105.8	2.9	5.3	12.3	
5.1	3.3	7.7	48.5	2.69	39.4	66.5	5.3	6.0	13.8	
4.1	3.1	7.1	48.7	3.42	37.0	86.5	4.2	5.6	13.0	
3.1	2.9	6.7	47.7	4.46	32.5	106.4	3.1	5.3	12.3	
2.3	2.8	6.4	45.6	5.82	25.8	126.1	2.3	5.1	11.7	
5.7	3.3	7.7	53.9	2.70	44.7	67.2	5.8	6.0	13.8	
4.5	3.1	7.1	53.9	3.44	42.2	87.2	4.6	5.6	13.0	
3.4	2.9	6.7	52.5	4.48	37.2	107.0	3.4	5.3	12.3	
2.5	2.8	6.4	49.8	5.84	29.9	126.6	2.5	5.1	11.7	
5.5	3.3	7.7	52.0	2.71	42.7	66.9	5.6	6.0	13.8	
4.3	3.1	7.1	51.8	3.46	40.0	86.9	4.4	5.6	13.0	
3.2	2.9	6.7	50.2	4.51	34.8	106.7	3.3	5.3	12.3	
2.4	2.8	6.4	47.1	5.86	27.1	126.3	2.4	5.1	11.7	
5.3	3.3	7.7	55.1	2.70	45.8	67.3	6.0	6.0	13.8	
4.1	3.1	7.1	55.4	3.44	43.7	87.4	4.7	5.6	13.0	
3.0	2.9	6.7	54.2	4.47	39.0	107.2	3.6	5.3	12.3	
2.2	2.8	6.4	52.0	5.84	32.1	126.9	2.6	5.1	11.7	
5.1	3.3	7.7	54.1	2.71	44.9	68.5	6.9	6.0	13.8	
4.0	3.1	7.1	54.5	3.45	42.5	88.6	4.5	5.6	13.0	

Tranquility Water-To-Water (TBW) Series

Performance Data — TBW036 - Cooling

SOURCE				LOAD																													
EWT °F	Flow			EWT °F	Flow 4.5 GPM								Flow 6.8 GPM								Flow 9.0 GPM												
	GPM	WPD			TC Mbtuh	Power kW	HR Mbtuh	LWT °F	EER	WPD		TC Mbtuh	Power kW	HR Mbtuh	LWT °F	EER	WPD		TC Mbtuh	Power kW	HR Mbtuh	LWT °F	EER	WPD		TC Mbtuh	Power kW	HR Mbtuh	LWT °F	EER	WPD		
		PSI	FT							PSI	FT						PSI	FT	PSI							FT							
50	4.5	1.3	3.1	50	32.5	1.49	37.6	35.6	21.8	0.6	1.4	34.5	1.52	39.7	39.8	22.7	1.4	3.2	35.3	1.5	40.5	42.1	23.2	2.6	5.9								
				60	36.8	1.53	42.0	43.6	24.1	0.5	1.2	38.4	1.54	43.6	48.6	24.9	1.3	3.1	39.2	1.5	44.5	51.3	25.3	2.5	5.8								
				70	40.4	1.55	45.7	52.0	26.0	0.5	1.1	41.6	1.56	47.0	57.7	26.6	1.3	2.9	42.4	1.6	47.8	60.6	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	66.9	28.0	1.2	2.8	44.8	1.6	50.3	70.0	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	76.3	28.9	1.1	2.6	46.6	1.6	52.1	79.7	28.9	2.2	5.1								
	6.8	3.4	7.8	50	32.9	1.41	37.7	35.4	23.3	0.6	1.4	34.9	1.44	39.8	39.7	24.2	1.4	3.2	35.8	1.4	40.7	42.0	24.8	2.6	5.9								
				60	37.3	1.45	42.2	43.4	25.7	0.5	1.2	38.9	1.46	43.9	48.5	26.6	1.3	3.1	39.7	1.5	44.7	51.2	27.1	2.5	5.8								
				70	40.9	1.47	46.0	51.8	27.8	0.5	1.1	42.2	1.48	47.2	57.5	28.4	1.3	2.9	42.9	1.5	48.0	60.5	28.8	2.4	5.6								
				80	43.8	1.49	48.9	60.5	29.4	0.4	0.9	44.8	1.50	49.9	66.7	29.9	1.2	2.8	45.4	1.5	50.6	69.9	30.0	2.3	5.4								
				90	45.7	1.50	50.8	69.7	30.5	0.3	0.8																						
	9.0	6.0	13.9	50	33.3	1.33	37.8	35.2	25.1	0.6	1.4	35.4	1.35	40.0	39.5	26.1	1.4	3.2	36.2	1.4	40.9	41.9	26.8	2.6	5.9								
				60	37.8	1.36	42.4	43.2	27.8	0.5	1.2	39.4	1.37	44.0	48.3	28.7	1.3	3.1	40.2	1.4	44.9	51.1	29.2	2.5	5.8								
				70	41.5	1.38	46.2	51.6	30.0	0.5	1.1	42.7	1.39	47.5	57.3	30.7	1.3	2.9	43.5	1.4	48.3	60.3	31.1	2.4	5.6								
				80	44.3	1.40	49.1	60.3	31.7	0.4	0.9	45.4	1.41	50.2	66.6	32.3	1.2	2.8	46.0	1.4	50.8	69.8	32.5	2.3	5.4								
				90	46.3	1.41	51.1	69.4	33.0	0.3	0.8																						
	Operation not recommended																																
70	4.5	1.0	2.3	50	30.1	1.96	36.8	36.6	15.3	0.6	1.4	32.1	1.95	38.8	40.5	16.4	1.4	3.2	33.0	2.0	39.7	42.7	16.7	2.6	5.9								
				60	34.1	1.98	40.9	44.8	17.2	0.5	1.2	37.6	1.96	44.3	48.9	19.2	1.3	3.1	36.6	2.0	43.3	51.9	18.7	2.5	5.8								
				70	39.0	2.01	45.9	52.7	19.4	0.5	1.1	41.7	1.98	48.5	57.6	21.0	1.3	2.9	39.9	2.0	46.7	61.1	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	66.5	22.5	1.2	2.8	42.9	2.0	49.8	70.5	21.1	2.3	5.4								
				90	46.2	2.05	53.2	69.5	22.5	0.3	0.8																						
	6.8	2.8	6.5	50	30.5	1.86	36.8	36.5	16.4	0.6	1.4	32.5	1.85	38.8	40.4	17.5	1.4	3.2	33.4	1.9	39.8	42.6	17.8	2.6	5.9								
				60	34.6	1.88	41.0	44.6	18.4	0.5	1.2	38.1	1.86	44.4	48.7	20.4	1.3	3.1	37.1	1.9	43.4	51.8	19.9	2.5	5.8								
				70	39.5	1.90	46.0	52.4	20.8	0.5	1.1	42.3	1.88	48.7	57.5	22.4	1.3	2.9	40.4	1.9	46.9	61.0	21.3	2.4	5.6								
				80	43.3	1.93	49.9	60.8	22.5	0.4	0.9	46.0	1.91	52.5	66.4	24.1	1.2	2.8	43.4	1.9	50.0	70.3	22.5	2.3	5.4								
				90	46.8	1.95	53.4	69.2	24.0	0.3	0.8																						
	9.0	5.1	11.9	50	30.8	1.74	36.8	36.3	17.7	0.6	1.4	32.9	1.74	38.8	40.2	19.0	1.4	3.2	33.8	1.8	39.8	42.5	19.3	2.6	5.9								
				60	35.0	1.76	41.0	44.4	19.9	0.5	1.2	38.6	1.75	44.5	48.6	22.1	1.3	3.1	37.5	1.7	43.5	51.7	21.5	2.5	5.8								
				70	40.0	1.78	46.1	52.2	22.4	0.5	1.1	42.8	1.77	48.8	57.3	24.2	1.3	2.9	40.9	1.8	47.0	60.9	23.0	2.4	5.6								
				80	43.8	1.81	50.0	60.5	24.3	0.4	0.9	46.6	1.79	52.7	66.2	26.0	1.2	2.8	44.0	1.8	50.2	70.2	24.3	2.3	5.4								
				90	47.4	1.83	53.6	68.9	26.0	0.3	0.8																						
90	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	41.4	11.1	1.4	3.2	29.7	2.6	38.4	43.4	11.5	2.6	5.9								
				60	31.1	2.58	39.9	46.2	12.1	0.5	1.2	34.0	2.60	42.8	49.9	13.1	1.3	3.1	33.6	2.6	42.3	52.5	13.1	2.5	5.8								
				70	36.2	2.60	45.1	53.9	13.9	0.5	1.1	38.9	2.62	47.8	58.5	14.9	1.3	2.9	37.4	2.6	46.2	61.7	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	67.3	16.2	1.2	2.8	41.1	2.6	50.0	70.9	15.6	2.3	5.4								
				90	44.2	2.64	53.2	70.4	16.7	0.3	0.8																						
	6.8	2.4	5.4	50	27.3	2.42	35.6	37.9	11.3	0.6	1.4	29.3	2.46	37.7	41.3	11.9	1.4	3.2	30.0	2.4	38.4	43.3	12.3	2.6	5.9								
				60	31.5	2.44	39.8	46.0	12.9	0.5	1.2	34.4	2.46	42.8	49.8	14.0	1.3	3.1	34.0	2.4	42.3	52.4	14.0	2.5	5.8								
				70	36.7	2.47	45.1	53.7	14.9	0.5	1.1	39.4	2.48	47.9	58.3	15.9	1.3	2.9	37.8	2.5	46.2	61.6	15.4	2.4	5.6								
				80	41.0	2.49	49.5	61.8	16.5	0.4	0.9	43.5	2.51	52.1	67.1	17.3	1.2	2.8	41.6	2.5	50.1	70.8	16.7	2.3	5.4								
				90	44.7	2.50	53.3	70.1	17.9	0.3	0.8																						
	9.0	4.5	10.3	50	27.7	2.27	35.4	37.7	12.2	0.6	1.4	29.6	2.31	37.5	41.2	12.9	1.4	3.2	30.4	2.3	38.2	43.2	13.3	2.6	5.9								
				60	31.9	2.29	39.7	45.8	13.9	0.5	1.2	34.8	2.31	42.7	49.7	15.1	1.3	3.1															

Performance Data — TBW036 - Heating

Table Continued on Next Page

WPD Adder For Required Strainer			
CV	GPM	PSI	FT HD
11.2	4.5	.4	.9
11.2	6.8	.6	1.4
11.2	9.0	.8	1.8

Tranquility Water-To-Water (TBW) Series

Performance Data — TBW036 - Heating

Table Continued from Previous Page

SOURCE				LOAD																						
EWT °F	Flow			EWT °F	Flow 4.5 GPM						Flow 6.8 GPM								Flow 9.0 GPM							
	GPM	WPD			HC Mb- tuh	Pow- er KW	HE Mb- tuh	LWT °F	COP	WPD		HC Mb- tuh	Pow- er KW	HE Mb- tuh	LWT °F	COP	WPD		HC Mb- tuh	Pow- er KW	HE Mb- tuh	LWT °F	COP	WPD		
		PSI	FT							PSI	FT						PSI	FT						PSI	FT	
60	4.5	1.2	2.7	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	
				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	Operation not recommended						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		
	6.75	3.1	7.1	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	
				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	
				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							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		
	9.0	5.6	12.8	60	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	
				80	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	
				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	37.8	3.38	26.3	136.8	3.3	0.2	0.5	38.0	3.20	27.0	131.2	3.5	0.9	2.1	37.9	3.12	27.3	128.4	3.6	1.8	4.3	
				130							36.5	3.62	24.1	140.8	3.0	0.8	1.9	36.4	3.53	24.4	138.1	3.0	1.7	3.9		
70	4.5	1.0	2.3	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	3.1	43.1	1.46	38.1	69.6	8.7	2.5	5.8	
				80	42.4	2.02	35.5	98.8	6.2	0.4	0.9	43.0	1.91	36.5	92.7	6.6	1.2	2.8	43.2	1.86	36.8	89.6	6.8	2.3	5.4	
				100	41.6	2.62	32.7	118.5	4.7	0.3	0.7	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	
				120	39.8	3.38	28.3	137.7	3.5	0.2	0.5	40.0	3.20	29.1	131.9	3.7	0.9	2.1	40.0	3.12	29.4	128.9	3.8	1.8	4.3	
				130							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		
	6.75	2.8	6.5	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	
				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	
				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							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		
	9.0	5.1	11.9	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	
				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	
				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		
80	4.5	0.9	2.0	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	
				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		
	6.75	2.6	5.9	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	
				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	
				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		
	9.0	4.8	11.0	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	
				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	
				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	33.7	140.2	3.9	0.2	0.5	45.7	3.23	34.7	133.5	4.2	0.9	2.1	45.8	3.14	35.0	130.2	4.3	1.8	4.3	

Interpolation is permissible, extrapolation is not
 All performance data is based upon the lower voltage of dual voltage rated units
 Operation below 40°F EWT is based upon 15% methanol antifreeze solution
 See performance data notes for operation in the shaded areas. Calculation to determine
 percentage of antifreeze required on source side.
 Performance stated is at the rated power supply, performance may vary as the power supply
 varies from the rated

WPD Adder For Required Strainer			
CV	GPM	PSI	FT HD
11.2	4.5	.4	.9
11.2	6.8	.6	1.4
11.2	9.0	.8	1.8

ClimateMaster Geothermal Heat Pump Systems

Performance Data — TBW060 - Cooling

SOURCE				LOAD																					
EWT °F	Flow			EWT °F	Flow 7.5 GPM							Flow 11.25 GPM							Flow 15.0 GPM						
	GPM	WPD PSI	FT		TC Mbtuh	Power kW	HR Mbtuh	LWT °F	EER	WPD PSI	FT	TC Mbtuh	Power kW	HR Mbtuh	LWT °F	EER	WPD PSI	FT	TC Mbtuh	Power kW	HR Mbtuh	LWT °F	EER	WPD PSI	FT
50	7.5	1.3	2.9	50	52.6	2.20	60.1	38.2	23.9	1.4	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
				60	53.2	2.22	60.8	47.1	23.9	1.4	3.2	54.1	2.25	61.7	50.5	24.1	3.3	7.7	55.9	2.27	63.7	52.4	24.7	4.6	10.6
				70	53.8	2.24	61.4	56.0	24.0	1.3	3.0	54.7	2.26	62.4	60.0	24.1	3.2	7.4	56.6	2.29	64.4	62.2	24.7	4.4	10.1
				80	55.5	2.24	63.2	64.7	24.7	1.2	2.9	56.4	2.27	64.1	69.4	24.9	3.1	7.1	58.4	2.29	66.2	72.0	25.5	4.3	9.8
				90	57.2	2.25	64.9	73.5	25.5	1.2	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
	11.25	3.4	7.9	50	53.4	2.23	61.0	38.0	24.0	1.4	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	1.4	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
				70	57.5	2.26	65.3	55.4	25.4	1.3	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	1.2	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	1.2	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
	15.0	6.2	14.2	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
				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
70	7.5	1.1	2.5	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
				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
	11.25	3.0	6.9	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	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	1.2	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	1.2	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
	15.0	5.5	12.8	50	51.2	2.88	61.0	36.9	17.8	1.4	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
				60	55.6	2.90	65.5	45.4	19.2	1.4	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
				70	60.1	2.92	70.1	53.9	20.6	1.3	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	1.2	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	1.2	2.7	66.3	3.07	76.8	77.1	21.6	3.0	6.9	69.8	3.10	80.3	80.2	22.5	4.1	9.5
90	7.5	0.9	2.1	50	44.8	3.57	57.0	38.7	12.5	1.4	3.3	46.3	3.61	58.6	41.6	12.8	3.5	8.0	47.5	3.65	59.9	43.4	13.0	4.7	10.9
				60	50.7	3.61	63.0	46.8	14.0	1.4	3.2	52.3	3.65	64.8	50.3	14.3	3.3	7.7	53.7	3.68	66.3	52.6	14.6	4.5	10.5
				70	56.6	3.65	69.0	54.9	15.5	1.3	3.0	58.4	3.69	70.9	59.1	15.8	3.2	7.4	59.9	3.72	72.6	61.8	16.1	4.4	10.1
				80	59.6	3.73	72.4	63.4	16.0	1.2	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	1.2	2.7	64.7	3.86	77.9	77.3	16.8	3.0	6.9	66.4	3.90	79.7	80.9	17.0	4.1	9.6
	11.25	2.7	6.1	50	45.9	3.61	58.2	38.6	12.7	1.4	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	1.4	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
				70	57.7	3.69	70.3	54.8	15.7	1.3	3.0	59.6	3.72	72.3	58.9	16.0	3.2	7.4	61.1	3.76	73.9	61.6	16.2	4.4	10.2
				80	60.7	3.77	73.6	63.2	16.1	1.2	2.9	62.6	3.81	75.7	68.0	16.4	3.1	7.1	64.3	3.85	77.4	71.1	16.7	4.3	9.9
				90	63.7	3.86	76.9	71.7	16.5	1.2	2.7	65.7	3.90	79.0	77.1	16.9	3.0	6.9	67.4	3.94	80.9	80.6	17.1	4.1	9.6
	15.0	5.0	11.6	50	46.5	3.65	59.0	38.1	12.8	1.4	3.3	48.6	3.68	61.1	41.4	13.2	3.5	8.0	49.5	3.72	62.2	43.3	13.3	4.7	10.9
				60	52.4	3.68	64.9	46.2	14.2	1.4	3.2	54.2	3.72	66.9	50.1	14.6	3.3	7.7	55.8	3.76	68.6	52.4	14.8	4.6	10.5
				70	58.2	3.72	70.9	54.3	15.6	1.3	3.0	59.8	3.76	72.7	58.7	15.9	3.2	7.4	62.0	3.80	75.0	61.5	16.3	4.4	10.1
				80	61.6	3.81	74.6	62.9	16.2	1.2	2.9	63.4	3.85	76.6	67.8	16.5	3.1	7.1	65.8	3.89	79.0	70.8	16.9	4.3	9.8
				90	65.1	3.90	78.4	71.6	16.7	1.2	2.7	67.0	3.94	80.5	77.0	17.0	3.0	6.9	69.5	3.98	83.1	80.2	17.5	4.1	9.5

Table Continued on Next Page

Interpolation is permissible, extrapolation is not
 All performance data is based upon the lower voltage of dual voltage rated units
 See performance data notes for operation in the shaded areas. Calculation to determine
 percentage of antifreeze required on load side.
 Performance stated is at the rated power supply, performance may vary as the power supply
 varies from the rated

WPD Adder For Required Strainer			
CV	GPM	PSI	FT HD
11.2	7.5	.7	1.6
11.2	11.25	1.0	2.3
11.2	15.0	1.3	3.0

Tranquility Water-To-Water (TBW) Series

Performance Data — TBW060 - Cooling

Table Continued from Previous Page

110	7.5	0.8	1.8	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
				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
	11.25	2.4	5.6	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
				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
	15.0	4.6	10.7	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
				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
120	7.5	0.7	1.7	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
				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
	11.25	2.4	5.5	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
				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
	15.0	4.5	10.3	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
				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 data is based upon the lower voltage of dual voltage rated units
 See performance data notes for operation in the shaded areas. Calculation to determine
 percentage of antifreeze required on load side.
 Performance stated is at the rated power supply, performance may vary as the power supply
 varies from the rated

WPD Adder For Required Strainer			
CV	GPM	PSI	FT HD
11.2	7.5	.7	1.6
11.2	11.25	1.0	2.3
11.2	15.0	1.3	3.0

Performance Data — TBW060 - Heating

Table Continued on Next Page

WPD Adder For Required Strainer			
CV	GPM	PSI	FT HD
11.2	7.5	.7	1.6
11.2	11.25	1.0	2.3
11.2	15.0	1.3	3.0

Tranquility Water-To-Water (TBW) Series

Performance Data — TBW060 - Heating

Table Continued from Previous Page

SOURCE				LOAD																					
EWT °F	Flow			EWT °F	Flow 7.5 GPM							Flow 11.25 GPM							Flow 15.0 GPM						
	GPM	WPD			HC Mbtuh	Power kW	HE Mbtuh	LWT °F	COP	WPD		HC Mbtuh	Power kW	HE Mbtuh	LWT °F	COP	WPD		HC Mbtuh	Power kW	HE Mbtuh	LWT °F	COP	WPD	
		PSI	FT							PSI	FT						PSI	FT						PSI	FT
60	7.5	1.2	2.7	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
				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	Operation not recommended							60.2	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
	11.25	3.2	7.3	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	68.0	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
				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	64.1	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	Operation not recommended							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
	15.0	5.8	13.5	60	70.0	2.81	60.4	79.4	7.3	1.4	3.2	70.4	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	70.4	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
				100	68.8	4.60	53.1	118.3	4.4	1.1	2.6	69.0	4.50	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	66.3	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	Operation not recommended							Operation not recommended							64.6	6.14	43.6	138.4	3.1	5.0	11.5
70	7.5	1.1	2.5	60	68.6	2.81	59.0	80.1	7.2	1.4	3.2	69.0	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
				100	69.2	4.55	53.6	119.5	4.5	1.1	2.6	69.4	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	66.8	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	Operation not recommended							Operation not recommended							65.0	6.01	44.5	138.6	3.2	5.0	11.5
	11.25	3.0	6.9	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	72.9	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
				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	2.9	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	69.6	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	Operation not recommended							Operation not recommended							68.0	6.07	47.3	138.9	3.3	5.0	11.5
	15.0	5.5	12.8	60	73.5	2.87	63.7	80.9	7.5	1.4	3.2	73.9	2.81	64.3	73.4	7.7	3.3	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	75.8	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
				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	2.9	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	72.6	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	Operation not recommended							Operation not recommended							70.4	6.13	49.5	139.2	3.4	5.0	11.5
80	7.5	1.0	2.3	60	72.4	2.87	62.6	81.7	7.4	1.4	3.2	72.8	2.81	63.2	73.5	7.6	3.3	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	1.2	2.9	75.2	3.60	62.9	93.9	6.1	3.1	7.1	75.6	3.52	63.6	90.2	6.3	5.6	13.0
				100	74.7	4.61	58.9	121.4	4.8	1.1	2.6	75.0	4.51	59.6	113.8	4.9	2.9	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	Operation not recommended							Operation not recommended							69.9	6.00	49.4	139.4	3.4	5.0	11.5
	11.25	2.8	6.5	60	73.7	2.89	63.9	82.3	7.5	1.4	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	77.7	3.63	65.3	94.3	6.3	3.1	7.1	78.2	3.56	66.0	90.6	6.4	5.6	13.0
				100	77.7	4.67	61.8	121.8	4.9	1.1	2.6	78.0	4.58	62.4	114.2	5.0	2.9	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	75.0	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	Operation not recommended							Operation not recommended							73.1	6.06	52.4	139.7	3.5	5.0	11.5
	15.0	5.3	12.1	60	76.9	2.92	67.0	82.4	7.7	1.4	3.2	77.4	2.87	67.6	74.2	7.9	3.3	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	3.1	7.1	81.6	3.60	69.3	90.8	6.7	5.6	13.0
				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	78.9	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	Operation not recommended							Operation not recommended							76.3	6.12	55.4	139.9	3.6	5.0	11.5

Interpolation is permissible, extrapolation is not
 All performance data is based upon the lower voltage of dual voltage rated units
 Operation below 40°F EWT is based upon 15% methanol antifreeze solution
 See performance data notes for operation in the shaded areas. Calculation to determine
 percentage of antifreeze required on source side.
 Performance stated is at the rated power supply, performance may vary as the power supply
 varies from the rated

WPD Adder For Required Strainer			
CV	GPM	PSI	FT HD
11.2	7.5	.7	1.6
11.2	11.25	1.0	2.3
11.2	15.0	1.3	3.0

ClimateMaster Geothermal Heat Pump Systems

Performance Data — TBW120 - Cooling

SOURCE				LOAD																								
EWT °F	Flow			EWT °F	Flow 15.0 GPM							Flow 22.5 GPM							Flow 30.0 GPM									
	GPM	WPD			TC Mbtuh	Power kW	HR Mbtuh	LWT °F	EER	WPD		TC Mbtuh	Power kW	HR Mbtuh	LWT °F	EER	WPD		TC Mbtuh	Power kW	HR Mbtuh	LWT °F	EER	WPD				
		PSI	FT							PSI	FT						PSI	FT						PSI	FT			
50	15.0	1.4	3.2	50	105.2	4.41	120.3	38.2	23.9	1.6	3.7	106.9	4.45	122.1	41.0	24.0	3.8	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			
				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	3.5	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	3.4	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						
	22.5	3.8	8.7	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			
				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			
	30.0	6.8	15.6	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			
				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			
70	15.0	1.2	2.7	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			
				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	3.4	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	3.3	7.6	130.2	6.08	151.0	81.1	21.4	6.0	13.9			
	22.5	3.3	7.6	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	3.8	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	117.9	5.77	137.6	54.5	20.4	1.4	3.3	120.7	5.83	140.6	58.8	20.7	3.5	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	3.4	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	3.3	7.6	132.6	6.14	153.6	80.8	21.6	6.0	13.9			
	30.0	6.1	14.1	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	3.8	8.8	108.5	5.88	128.6	42.6	18.5	6.8	15.7			
				60	111.3	5.79	131.1	45.4	19.2	1.5	3.5	115.2	5.85	135.2	49.6	19.7	3.7	8.4	118.8	5.91	138.9	51.8	20.1	6.6	15.2			
				70	120.2	5.83	140.1	53.9	20.6	1.4	3.3	123.9	5.89	144.0	58.5	21.0	3.5	8.1	129.0	5.95	149.3	61.1	21.7	6.4	14.7			
				80	124.7	5.95	145.0	62.7	20.9	1.4	3.2	128.3	6.01	148.8	67.8	21.3	3.4	7.9	134.3	6.07	155.0	70.6	22.1	6.2	14.3			
				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	3.3	7.6	139.5	6.20	160.7	80.2	22.5	6.0	13.9			
90	15.0	1.0	2.3	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	3.8	8.8	95.0	7.29	119.8	43.4	13.0	6.8	15.7			
				60	101.4	7.22	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	7.37	132.5	52.6	14.6	6.6	15.2			
				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	3.5	8.1	119.8	7.45	145.2	61.8	16.1	6.4	14.7			
				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	3.4	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	3.3	7.6	132.8	7.80	159.4	80.9	17.0	6.0	13.9			
	22.5	2.9	6.7	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			
				70	115.4	7.37	140.6	54.8	15.7	1.4	3.3	119.1	7.45	144.5	58.9	16.0	3.5	8.1	122.2	7.52	147.9	61.6	16.2	6.4	14.7			
				80	121.4	7.54	147.2	63.2	16.1	1.4	3.2	125.3	7.62	151.3	68.0	16.4	3.4	7.9	128.5	7.70	154.8	71.1	16.7	6.2	14.3			
				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	80.6	17.1	6.0	13.9			
	30.0	5.5	12.7	50	93.0	7.29	117.9	38.1	12.8	1.6	3.7	97.2	7.37	122.3	41.4	13.2	3.8	8.8	99.1	7.44	124.5	43.3	13.3	6.8	15.7			
				60	104.7	7.37	129.9	46.2	14.2	1.5	3.5	108.4	7.44	133.8	50.1	14.6	3.7	8.4	111.6	7.52	137.2	52.4	14.8	6.6	15.2			
				70	116.4	7.45	141.8	54.3	15.6	1.4	3.3	119.7	7.52	145.3	58.7	15.9	3.5	8.1	124.0	7.60	149.9	61.5	16.3	6.4	14.7			
				80	123.3	7.62	149.3	62.9	16.2	1.4	3.2	126.9	7.70	153.1	67.8	16.5	3.4	7.9	131.5	7.78	158.0	70.8	16.9	6.2	14.3			
				90	130.2	7.80	156.8	71.6	16.7	1.3	3.0	134.1	7.87	160.9	77.0	17.0	3.3	7.6	139.0	7.95	166.2	80.2	17.5	6.0	13.9			

Tranquility Water-To-Water (TBW) Series

Performance Data — TBW120 - Cooling

Table Continued from Previous Page

110	15.0	0.8	2.0	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
				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
	22.5	2.7	6.2	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
				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
	30.0	5.1	11.7	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
				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
120	15.0	0.8	1.8	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
				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
	22.5	2.6	6.0	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
				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
	30.0	4.9	11.3	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
				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 data is based upon the lower voltage of dual voltage rated units
 See performance data notes for operation in the shaded areas. Calculation to determine
 percentage of antifreeze required on load side.
 Performance stated is at the rated power supply, performance may vary as the power supply
 varies from the rated

WPD Adder For Required Strainer			
CV	GPM	PSI	FT HD
24	15.0	.6	1.4
24	22.5	.9	2.1
24	30.0	1.3	3.0

ClimateMaster Geothermal Heat Pump Systems

Performance Data — TBW120 - Heating

SOURCE				LOAD																							
EWT °F	Flow			EWT °F	Flow 15.0 GPM								Flow 22.5 GPM								Flow 30.0 GPM						
	GPM	WPD			HC Mbtuh	Power kW	HE Mbtuh	LWT °F	COP	WPD		HC Mbtuh	Power kW	HE Mbtuh	LWT °F	COP	WPD		HC Mbtuh	Power kW	HE Mbtuh	LWT °F	COP	WPD			
		PSI	FT							PSI	FT						PSI	FT						PSI	FT		
20	30.0	8.0	18.6	60	82.2	4.86	65.6	71.5	5.0	1.5	3.5	82.6	4.76	66.3	67.4	5.1	3.3	7.7	82.9	4.67	67.0	65.3	5.2	6.0	13.8		
				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		
30	15.0	1.7	3.9	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		
				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	91.7	8.44	62.9	112.4	3.2	1.3	2.9	91.8	8.27	63.5	108.1	3.3	2.9	6.7	91.9	8.11	64.2	105.9	3.3	5.3	12.3		
				120	89.1	10.71	52.6	131.9	2.4	1.2	2.7	89.0	10.50	53.2	127.7	2.5	2.8	6.4	88.8	10.29	53.7	125.7	2.5	5.1	11.7		
	22.5	4.4	10.1	60	100.0	5.13	82.5	73.6	5.7	1.5	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		
				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		
				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		
	30.0	7.6	17.5	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		
				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	1.3	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	96.1	11.08	58.3	132.3	2.5	1.2	2.7	95.9	10.85	58.9	128.2	2.6	2.8	6.4	95.8	10.64	59.5	126.1	2.6	5.1	11.7		
40	15.0	1.5	3.5	60	108.9	5.22	91.1	75.0	6.1	1.5	3.5	109.5	5.12	92.0	69.7	6.3	3.3	7.7	110.1	5.02	93.0	67.2	6.4	6.0	13.8		
				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		
				100	104.0	8.65	74.5	114.0	3.5	1.3	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		
	22.5	4.1	9.3	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		
				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	2.9	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	105.2	11.06	67.4	133.8	2.8	1.2	2.7	105.1	10.84	68.1	129.1	2.8	2.8	6.4	105.1	10.62	68.8	126.8	2.9	5.1	11.7		
	30.0	7.2	16.6	60	118.5	5.36	100.2	75.9	6.5	1.5	3.5	119.1	5.26	101.2	70.5	6.6	3.3	7.7	119.8	5.15	102.2	67.9	6.8	6.0	13.8		
				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		
				100	112.1	8.89	81.8	114.7	3.7	1.3	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	1.2	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		
50	15.0	1.4	3.2	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		
				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		
				100	116.3	8.87	86.1	115.6	3.8	1.3	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	112.3	11.11	74.4	134.9	3.0	1.2	2.7	112.4	10.89	75.2	129.7	3.0	2.8	6.4	112.5	10.67	76.1	127.2	3.1	5.1	11.7		
	22.5	3.8	8.7	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		
				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		
	30.0	6.8	15.6	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		
				80	129.4	7.11	105.1	97.2	5.3	1.4	3.2	130.0	6.97	106.2	91.6	5.5	3.1	7.1	130.6	6.83	107.3	88.6	5.6	5.6	13.0		
				100	125.0	9.05	94.2	116.4	4.1	1.3	2.9	125.4	8.87	95.1	111.1	4.1	2.9	6.7	125.7	8.69	96.1	108.2	4.2	5.3	12.3		
				120	119.9	11.34	81.2	135.6	3.1	1.2	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		
60	15.0	1.3	3.0	60	129.7	5.51	110.9	78.5	6.9	1.5	3.5	130.5	5.40	112.1	71.7	7.1	3.3	7.7	131.3	5.30	113.2	68.6	7.3	6.0	13.8		
				80	129.6	7.09	105.4	98.1	5.4	1.4	3.2	130.2	6.95	106.5	91.8	5.5	3.1	7.1	130.9	6.81	107.6	88.6	5.6	5.6	13.0		
				100	127.3	8.98	96.7	117.6	4.2	1.3	2.9	127.7	8.80	97.7	111.5	4.3	2.9	6.7	128.2	8.63	98.7	108.4	4.4	5.3	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	3.3	2.8	6.4	123.2	10.75	86.5	128.0	3.4	5.1	11.7		
	22.5	3.5	8.1	60	135.5	5.57	116.4	79.0	7.1	1.5	3.5	136.3	5.46	117.6	72.2	7.3	3.3	7.7	137.1	5.35	118.8	69.1	7.5	6.0	13.8		
				80	135.3	7.16	110.9	98.7	5.5	1.4	3.2	136.0	7.02	112.1	92.3	5.7	3.1	7.1	136.7	6.88	113.2	89.1	5.8	5.6	13.0		
				100	132.9	9.09	101.9	118.1	4.3	1.3	2.9	133.3	8.90	102.9	112.0	4.4	2.9	6.7	133.7	8.73	104.0	108.9	4.5	5.3	12.3		
				120	128.0	11.34	89.3	137.2	3.3	1.2	2.7	128.2	11.12	90.2	131.3	3.4	2.8	6.4	128.3	10.89	91.2	128.5	3.5	5.1	11.7		
	30.0	6.4	14.8	60	140.0	5.63	120.8	79.4	7.3	1.5	3.5	140.8	5.51	122.0	72.6	7.5	3.3	7.7	141.7	5.40	123.2	69.5	7.7	6.0	13.8		
				80	140.1	7.23	115.4	99.0	5.7	1.4	3.2	140.8	7.09	116.6	92.6	5.8	3.1	7.1	141.5	6.95	117.7	89.4	6.0	5.6	13.0		
				100	137.6	9.19	106.2	118.3	4.4	1.3	2.9	138.0	9.01	107.3	112.2	4.5	2.9	6.7	138.5	8.83	108.4	109.1	4.6	5.3	12.3		
				120	132.4	11.50	93.2	137.4	3.4	1.2	2.7	132.6	11.27	94.1	131.6	3.4	2.8	6.4	132.7	11.04	95.1	128.7	3.5	5.1	11.7		
130																											

Tranquility Water-To-Water (TBW) Series

Performance Data — TBW120 - Heating

Table Continued from Previous Page

SOURCE				LOAD																					
EWT °F	Flow			EWT °F	Flow 15.0 GPM							Flow 22.5 GPM							Flow 30.0 GPM						
	GPM	WPD PSI	FT		HC Mbtuh	Power kW	HE Mbtuh	LWT °F	COP	WPD PSI	FT	HC Mbtuh	Power kW	HE Mbtuh	LWT °F	COP	WPD PSI	FT	HC Mbtuh	Power kW	HE Mbtuh	LWT °F	COP	WPD PSI	FT
70	15.0	1.2	2.7	60	137.2	5.62	118.0	80.1	7.2	1.5	3.5	138.1	5.51	119.3	72.6	7.3	3.3	7.7	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	7.1	141.1	6.93	117.4	89.4	6.0	5.6	13.0
				100	138.3	9.01	107.3	119.5	4.5	1.3	2.9	138.8	8.92	108.4	112.6	4.6	2.9	6.7	139.4	8.74	109.6	109.3	4.7	5.3	12.3
				120	133.3	11.27	94.9	138.5	3.5	1.2	2.7	133.6	11.05	95.9	132.0	3.5	2.8	6.4	133.9	10.83	96.9	128.9	3.6	5.1	11.7
				130	Operation not recommended														130.0	12.02	88.9	138.6	3.2	5.0	11.5
	22.5	3.3	7.6	60	141.5	5.68	122.1	80.7	7.3	1.5	3.5	142.3	5.57	123.3	73.2	7.5	3.3	7.7	143.2	5.46	124.6	69.7	7.7	6.0	13.8
				80	145.0	7.29	120.1	100.5	5.8	1.4	3.2	145.7	7.14	121.4	93.3	6.0	3.1	7.1	146.5	7.00	122.6	89.9	6.1	5.6	13.0
				100	144.1	9.22	112.7	119.9	4.6	1.3	2.9	144.7	9.03	113.9	113.1	4.7	2.9	6.7	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
	30.0	6.1	14.1	60	146.9	5.74	127.3	80.9	7.5	1.5	3.5	147.8	5.62	128.6	73.4	7.7	3.3	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	1.4	3.2	151.6	7.21	126.9	93.5	6.2	3.1	7.1	152.3	7.07	128.2	90.1	6.3	5.6	13.0
				100	150.1	9.33	118.3	120.2	4.7	1.3	2.9	150.7	9.15	119.5	113.3	4.8	2.9	6.7	151.3	8.97	120.7	109.9	4.9	5.3	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	5.0	11.5
	80	15.0	1.1	2.5	60	144.7	5.73	125.2	81.7	7.4	1.5	3.5	145.6	5.62	126.5	73.5	7.6	3.3	7.7	146.5	5.51	127.8	69.8	7.8	6.0
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	7.1	151.2	7.05	127.2	90.2	6.3	5.6	13.0
100					149.3	9.21	117.9	121.4	4.8	1.3	2.9	149.9	9.03	119.1	113.8	4.9	2.9	6.7	150.6	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	144.5	10.91	107.3	129.8	3.9	5.1	11.7
130																			139.8	12.00	98.9	139.4	3.4	5.0	11.5
22.5		3.1	7.1	60	147.5	5.79	127.7	82.3	7.5	1.5	3.5	148.4	5.67	129.0	74.1	7.7	3.3	7.7	149.3	5.56	130.3	70.3	7.9	6.0	13.8
				80	154.7	7.41	129.4	102.3	6.1	1.4	3.2	155.5	7.26	130.7	94.3	6.3	3.1	7.1	156.3	7.12	132.0	90.6	6.4	5.6	13.0
				100	155.4	9.34	123.5	121.8	4.9	1.3	2.9	156.0	9.16	124.8	114.2	5.0	2.9	6.7	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															146.2	12.13	104.9	139.7	3.5	5.0	11.5
30.0		5.8	13.4	60	153.9	8.85	133.9	82.4	7.7	1.5	3.5	154.8	5.73	135.3	74.2	7.9	3.3	7.7	155.8	5.62	136.6	70.4	8.1	6.0	13.8
				80	161.5	7.49	135.9	102.5	6.3	1.4	3.2	162.3	7.34	137.3	94.5	6.5	3.1	7.1	163.2	7.19	138.7	90.8	6.7	5.6	13.0
				100	162.7	9.48	130.3	122.0	5.0	1.3	2.9	163.3	9.29	131.6	114.4	5.2	2.9	6.7	164.0	9.10	133.0	110.8	5.3	5.3	12.3
				120	157.4	11.82	117.1	141.0	3.9	1.2	2.7	157.8	11.59	118.3	133.8	4.0	2.8	6.4	158.2	11.36	119.4	130.4	4.1	5.1	11.7
				130															152.5	12.25	110.7	139.9	3.6	5.0	11.5

Interpolation is permissible, extrapolation is not
 All performance data is based upon the lower voltage of dual voltage rated units
 Operation below 40°F EWT is based upon 15% methanol antifreeze solution
 See performance data notes for operation in the shaded areas. Calculation to determine
 percentage of antifreeze required on source side.
 Performance stated is at the rated power supply, performance may vary as the power supply
 varies from the rated

WPD Adder For Required Strainer			
CV	GPM	PSI	FT HD
24	15.0	.6	1.4
24	22.5	.9	2.1
24	30.0	1.3	3.0

Physical Data

Model	036	060	120
Compressor (qty)	Scroll (1)		Scroll (2)
Factory Charge HFC-410A (oz) [kg] Per Circuit	50 [1.41]	68 [1.93]	68 [1.93]
Water Connection Size			
Source/Load	1" Swivel		1-1/2 FPT
HWG (in)	1" Swivel		1/2" FPT
Weight			
Weight - Operating (lbs) [kg]	295 [134]	268 [122]	541 [245]
Weight - Packaged (lbs) [kg]	320 [145]	293 [133]	585 [265]
Water Volume (Source)			
Gallons (Liters)	0.56 [2.1]	0.7 [2.7]	1.4 [5.3]

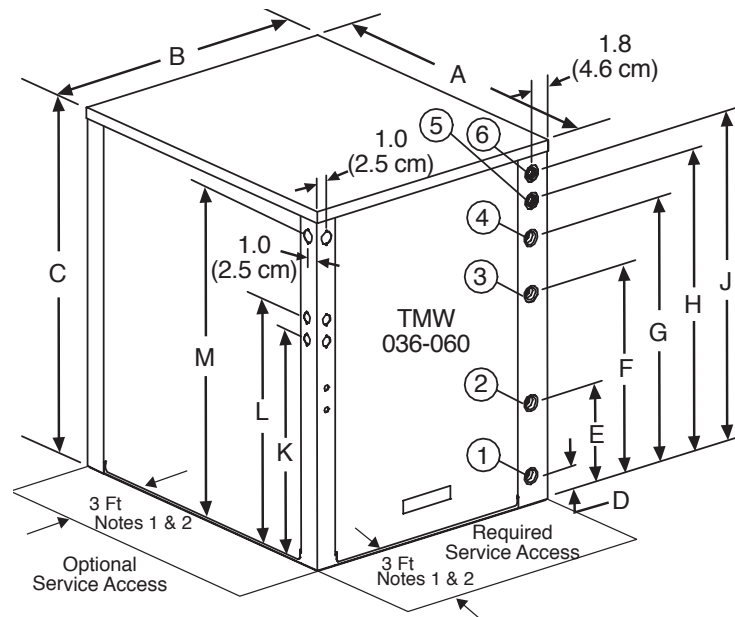
Dual isolated compressor mounting
 Balanced port expansion valve (TXV)
 Insulated Source and Load Water Coils standard
 Insulated Refrigerant Circuit standard
 Compressor on (green) and fault (red) light

Unit Maximum Water Working Pressure PSIG (kPa)	
Unit	145 [100]
Maximum Water Flow Through Unit GAL (L)	
036	25 [94.6]
060, 120	35 [132.5]

Note: During flushing or operation

Tranquility Water-To-Water (TBW) Series

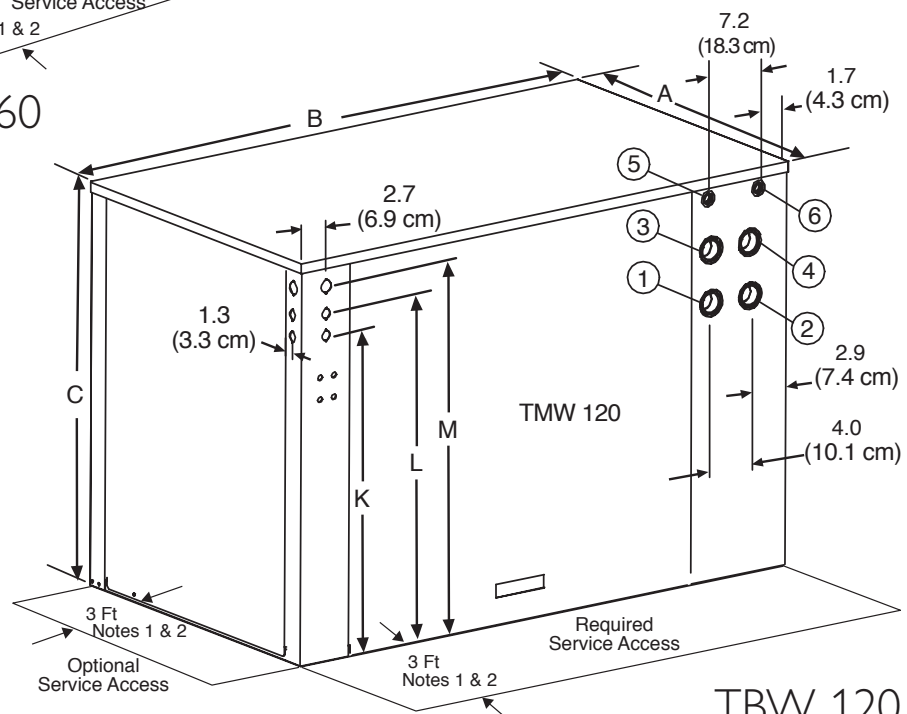
Dimensions - TBW036, TBW060 & TBW120



Notes:

1. Front & side access is preferred for service access. However, all components may be serviced from the front access panel if side access is not available.
2. While clear access to all removable panels is not required, installer should take care to comply with all building codes and allow adequate clearance for future field service.

TBW 036, 060



TBW 120

Water to Water		Overall Cabinet			Water Connections						Electric Access Plugs		
					1	2	3	4	5	6			
		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 Water In	J HWG Water Out	K Low Voltage	L External 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
	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	29.9	31.9	34.4
	cm.	77.8	134.4	94	64.0	64.0	76.5	76.5	88.6	88.6	75.9	81.0	87.4

Electrical Data

Model	Voltage Code	Rated Voltage	Min/Max Voltage	Compressor			HWG Pump FLA	EXT Loop Pump FLA	Total Unit FLA	Min Circuit Amps	Max Fuse/HACR
				RLA	LRA	QTY					
036	G	208-230/60/1	197/252	16.7	79.0	1	0.5	4.0	21.2	25.3	40
060	G	208-230/60/1	197/252	26.3	134.0	1	0.5	4.0	30.8	37.3	60
120	G	208-230/60/1	197/252	26.3	134.0	2	0.5	4.0	57.1	63.6	80

HACR circuit breaker in USA only
Residential units come standard with 75VA transformer, HWG pump, and HWG connections

TBW036 & TBW060 Electrical Wiring Diagram - 96B0223N10





Tranquility Water-To-Water (TBW) Series

Accessories & Warranty

Accessories & Options

Hot Water Generator

The optional Hot Water Generator includes an insulated double wall vented heat reclaiming heat exchanger suitable for potable water. The heat exchanger coil and hot water circulating pump are factory mounted internal to the unit. The microprocessor Hot Water Generator control uses sensors to monitor the entering potable water temperature and the compressor discharge line temperature and allows the Hot Water Generator to operate any time conditions permit. The Hot Water Generator includes a pump sampling mode to sense the hot water storage temperature while the Hot Water Generator is inactive.

Flow Controller (field installed)

A self-contained module shall provide all fluid pumping, fill and connection requirements for ground-source closed-loop systems up to 20 GPM. The Flow Controller shall provide 1" pump isolation valves and 3-way service valves. Pump heads shall be removable from the volute for easy replacement. The Flow Controller shall be enclosed in a polystyrene case and fully insulated with urethane foam to prevent condensation. The Flow Controller shall have a 5-year warranty on all parts.

Hose Connection Kit (field installed)

An accessory hose kit shall provide 150psi 1" rubber hose with brass fittings equipped with service pressure/temperature ports for connection between the unit and Flow Controller.

Warranty Information

ClimateMaster residential class heat pumps are backed by a ten-year limited warranty on all unit parts, including the following accessory when installed with ClimateMaster units: Geothermal Pump Modules.

ClimateMaster goes even further to back up its commitment to quality by including a service labor allowance for the first five years on unit parts and thermostats, auxiliary electric heaters and geothermal pumping modules.

See ClimateMaster's 2010 Limited Express Residential Warranty Certificate RP851 for specific coverage and limitation.

The Optional Extended Factory Service Labor Allowance Warranty offers additional length of term protection to the consumer by offsetting service labor costs for 10 years.

To order this warranty, contact your ClimateMaster distributor. This coverage must be purchased within 90 days of unit installation. See Limited Express Extended Labor Warranty Certificate RP852 for details.



Notes

Tranquility Water-To-Water (TBW) Series

Revision History

Date	Page #	Description
December 22, 2022	All	Transitioned from DXM2 to DXM2.5
April 14, 2016	3,7,19,20	Updated series features, warranty and deleted engineering specs.
January 4, 2016	8-19	Included WPD adder to performance data pages and edited strainer table
November 20, 2015	All	First Published



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