



# Tranquility Split (TTS/TTP/TAC/TAH) Series

TWO-STAGE  
INDOOR AND OUTDOOR SPLIT EARTHPURE® SYSTEMS  
SIZES 026 - 064 [7.0 - 19.3 kW]

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## Rounding Out the Product Line

Building upon the overwhelming market success of the Tranquility 27<sup>®</sup> packaged unit, the split system uses the same components in a more flexible configuration. The Tranquility split system compressor section can be coupled with TAH air handlers and TAC furnace coils to achieve ultra high efficiencies, while still providing the flexibility of an all-electric or dual fuel system and a remote compressor section location. Split systems are often used in areas where it would be difficult to install a packaged unit, such as in an attic, crawl space or even outdoors.

### EarthPure<sup>®</sup> Refrigerant

EarthPure<sup>®</sup> is a non-chlorine based (HFC-410A) refrigerant, that with R-407C and R-134A, is seen as the future of all refrigerants used worldwide.

HFC 410A characteristics compared to R-22 are:

- Binary and near azeotropic mixture of 50% R-32 and 50% R-125.
- Higher efficiencies (50-60% higher operating pressures)
- Zero ozone depletion potential and low global warming potential.
- Virtually no glide. Unlike other alternative refrigerants, the two components in HFC-410A have virtually the same leak rates. Therefore, refrigerant can be added if necessary without recovering the charge.

### Copeland Scroll Compressor

Achieve a greater level of comfort. The Copeland Scroll UltraTech™ provides superior comfort than fixed-capacity compressors by incorporating a revolutionary two-step design. With a unique 67% part-load capacity step, systems with UltraTech™ maintain precise temperature levels and lower relative humidity. This eliminates uneven peaks and valleys and allows for steady cooling comfort. Homeowners now have a better, more efficient way to power their heating and cooling system, raising their level of comfort, while lowering energy bills. So when your customers need a new heating and cooling system, make sure it has the best technology inside – the Copeland Scroll UltraTech™ compressor.



Save with superior efficiency. Over 40% of summer utility bills can come from the air conditioner compressor operation. A system with the Copeland Scroll UltraTech™ compressor delivers higher efficiency than any other single compressor system. In fact, systems with UltraTech™ provide up to 50% greater energy efficiency as compared to 13-SEER systems – which can save homeowners hundreds of dollars a year in energy costs.

Take it easy with quieter control. Copeland Scroll UltraTech™ is remarkably quiet at both full- and part-load capacity. In fact, it is up to four times quieter than a reciprocating compressor. Homeowners can enjoy its superior efficiency and comfort without having to hear the operation.

Learn the beauty of the design. With Copeland Scroll UltraTech™, two internal bypass ports enable the system to run at 67% part-load capacity for better

67% Capacity



100% Capacity



efficiency and humidity control. Based on demand, the modulation ring is activated, sealing the bypass ports and instantly shifting capacity to 100%. Take advantage of “shift on the fly” stage changing (no stopping and starting required like other two-stage compressors).

Choose proven scroll performance. While Copeland Scroll UltraTech™ builds on established scroll technology, it is still a scroll at heart, which means it operates with fewer moving parts, no volumetric efficiency drop-off or compression leakage. The result is unsurpassed reliability and virtually silent operation for both indoor and outdoor applications.

### Other New Features (Indoor Unit)

- Stylish two-tone look with textured black powder coat paint and stainless steel front access panel.
- Liftout handles for front access panel.
- Factory supplied filter drier for trouble free reliability.
- Easy access low profile horizontal control box.
- Double isolated compressor for quiet and vibration free operation.
- Open Service-Friendly Cabinet (i.e., all components in compressor section can be serviced from the front).

### Other New Features (Outdoor Unit)

- Stylish and durable silver baked-on powder coat finish.
- Large, easy access service panels.
- Double isolated compressor for quiet and vibration-free operation.
- Easy access spacious control box.
- Built-in Earth loop circulating pump and flushing valves.
- Built-in expansion tank for more stable Earth loop pressures.

## Tranquility Split (TTS/TTP) Design Features

The Tranquility Split (TTS/TTP) Series has abundant features and industry leading efficiency.

### Application Flexibility

- Four Capacities 026, 038, 049, and 064.
- Extended range operation (20-120°F EWT) and flow rates as low as 1.5 gpm per ton.
- Circuit breaker protected loop and hot water generator pumps (indoor model).
- Field selectable low-temperature protection setting for GWHP or GLHP (indoor model).
- Open service-friendly cabinet (i.e., all components in compressor section can be serviced from the front).
- Precharged compressor section with back-seating service valves for quick installation.
- Indoor and outdoor models available.
- Built-in earth loop circulating pump, flushing valves, hose kit and loop expansion tank for easy loop connection (outdoor model).
- AHRI matched and rated with TAC and TAH products.
- Exceeds Federal requirements for 30% tax credit on installation costs.\*
- Exceeds ASHRAE 90.1 and Energy Star 3.0 efficiencies.\*
- Thru-the-Bottom loop access (outdoor model).
- Ideal for remote applications like 2nd floor or crawl space areas.
- Can be used as a total electric heat pump or add on heat pump with fossil fuel backup.

\* When installed with a ClimateMaster TAC or TAH product.

### Operating Efficiencies

- EarthPure® HFC-410A zero ozone depletion refrigerant.
- Among the highest efficiencies in AHRI/ISO/ASHRAE/ANSI 13256-1 ratings for heating COP's, cooling EER's with low water flow rates.
- 26 EER/4.7 COP.
- Two-stage operation for ultra high efficiencies and unsurpassed comfort.
- Optional hot water generator generates hot water at considerable savings.
- Rugged and highly efficient next generation Copeland UltraTech™ scroll compressors provide the industry's highest efficiencies and full capacity with reduced cycling losses.
- Oversized coaxial tube water-to-refrigerant heat exchangers operate at low liquid pressure drop. Convoluted copper (and optional cupro-nickel) water tube functions efficiently at low-flow rates and provides low-temperature-damage resistance.

### Service & Installation Advantages

- Large removable access panels provide an open service-friendly.
- Control box provides easy access to all internal components.
- Ideal for unit replacement market, designed for quiet outdoor installations with weather tight cabinet (outdoor model).
- Factory installed liquid line filter/drier.
- Brass swivel-type water connections for quick connection and elimination of wrenches or sealants during installation (indoor model).

- Bi-directional thermal expansion valve.
- CXM control features status lights with memory for easy diagnostics.
- High and low pressure service ports on refrigerant circuit.
- Accurate refrigerant sensing low-temperature protection.
- Exclusive UPS (Unit Performance Sentinel) feature provides early warning of inefficient operating conditions before unit shutdown actually occurs reducing the need for emergency service work, thus letting you fix problems in the early stages. Fault types are not only indicated at the control, but are stored in memory after a user reset for future service use. Fault types can be displayed at the thermostat if equipped with fault LED or display.
- Brass service valves.

### Factory Quality & Industry Certifications

- All units are built 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 highly detailed run test unparalleled in the HVAC industry.
  - Automatically disables packaging for a "failed" unit.
  - Creates computer database for future service analysis and diagnostics from run test results.
- 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.
- Coaxial heat exchanger, refrigerant suction lines and all water lines are fully insulated to eliminate condensation problems in low temperature applications.
- Noise Reduction features include: dual level compressor isolation; insulated compressor compartment; interior cabinet insulation using 1/2" coated glass fiber.
- Safety features include: high pressure and loss of charge to protect the compressor, low temperature protection sensors to safeguard the coaxial heat exchanger, hot water high-limit, and low compressor discharge temperature switch provided to shut down the hot water generator when conditions dictate. Fault lockout enables emergency heat and prevents compressor operation until thermostat or circuit breaker has been reset.
- Standard 10-year limited warranty on all parts with 5-year labor allowance; Optional additional extended 5-year limited labor allowance available.
- AHRI/ASHRAE/ANSI/ISO 13256-1 certified.
- ETL listed.
- US EPA "Energy Star" compliant.
- ISO 9001:2000 Certified.

## Tranquility Split (TTS/TTP) Design Features

### **Simplified Controls**

- CXM solid state control module.
- 'CFM' LED displays airflow.

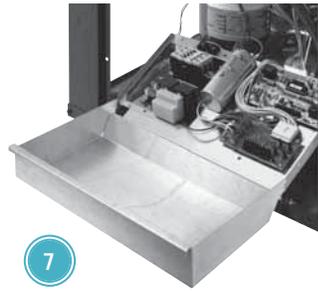
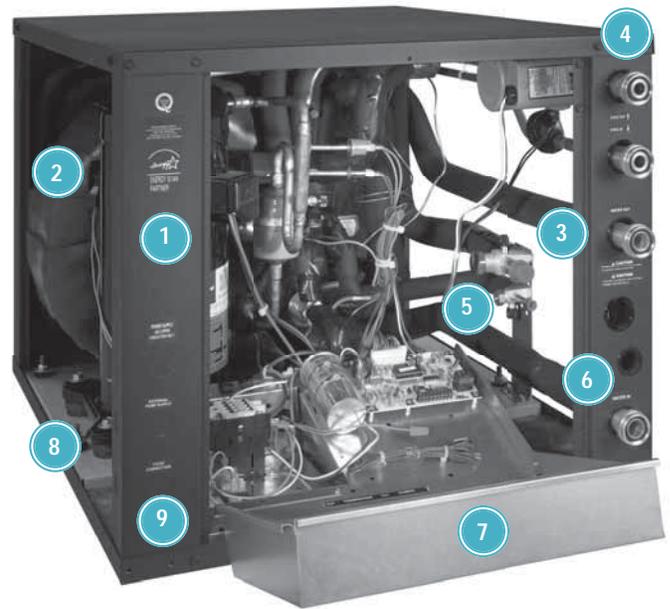
### **Options & Accessories**

- Hot water generator with internally mounted pump (indoor models), external on outdoor models.
- Cupro-nickel coaxial heat exchanger.
- Electronic thermostat.
- Closed loop Flow Controller (standard on outdoor model).
- Electronic auto-changeover thermostat with 3-stage heat, 2-stage cool and indicator LEDs.
- Hose kits.
- Additional extended 5-year limited labor allowance.

## Tranquility (TTS) Indoor Split Design Features

- 1 Copeland™ Ultra-Tech™ Two-Stage Unloading Scroll Compressor
- 2 Oversized Water Coil
- 3 Fully Insulated Water and Refrigerant Lines
- 4 Factory Installed Hot Water Generator with Internal Pump
- 5 Backseating Brass Service Valves with Service Port
- 6 Brass Swivel Water Connections
- 7 Unit Performance Sentinel: Automatic Alert System Lets You Know if the System is Not Running at Peak Performance\*
- 8 Dual Level Compressor Isolation for Ultra Quiet Operation
- 9 Three Easy Lift-out Service Access Panels with Stainless Steel Front Panels

\* When installed with a ClimateMaster Residential Thermostat.



Features EarthPure®  
HFC-410A Zero Ozone  
Depletion Refrigerant

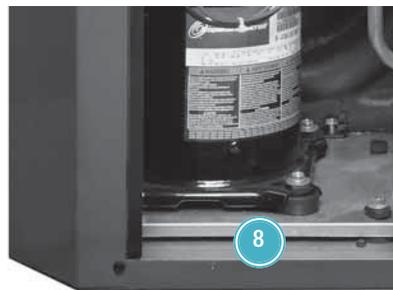
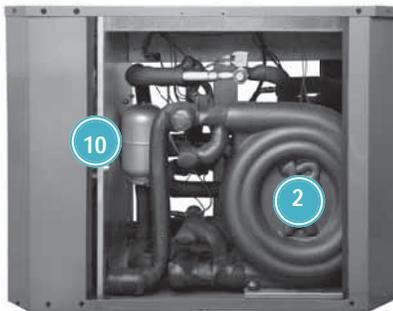
## Tranquility (TTP) Outdoor Split Design Features

- 1 Copeland™ Ultra-Tech™ Two-Stage Unloading Scroll Compressor
- 2 Oversized Water Coil
- 3 Fully Insulated Water and Refrigerant Lines
- 4 Large Easily Accessible Control Box
- 5 Backseating Brass Service Valves with Service Port
- 6 Stainless Steel Braided Hoses for Easy Connection to Loop Piping
- 7 Unit Performance Sentinel: Automatic Alert System Lets You Know if the System is Not Running at Peak Performance\*
- 8 Dual Level Compressor Isolation for Ultra Quiet Operation
- 9 Factory Built-In Loop Pump with Flushing Valves
- 10 Factory Built-In Expansion Tank for More Stable Loop Pressure

\* When installed with a ClimateMaster Residential Thermostat.



Features EarthPure®  
HFC-410A Zero Ozone  
Depletion Refrigerant



## Tranquility Split (TAC) Design Features

The Tranquility Split (TAC) Series has abundant features and industry leading efficiency.

### Application Flexibility

- Four Capacities 026, 038, 049, & 064.
- Fully convertible vertical upflow or downflow, and horizontal left or horizontal right airflow.
- Thermoset plastic drain pan.
- AHRI matched and rated with TTP and TTS products.
- Easily connects to a new or existing fossil fuel furnaces.
- Large removable access panel provide an open service-friendly cabinet.
- Heavy gauge galvanized steel construction with attractive grey powder coat finish.

### Operating Efficiencies

- EarthPure® HFC-410A zero ozone depletion refrigerant.
- Highest efficiencies in AHRI/ISO/ASHRAE/ANSI 13256-1 ratings for heating COP's, cooling EER's with low water flow rates when matched with TTP/TTS models.
- Exceeds federal requirements for 30% tax credit on installation costs.\*
- Exceeds ASHRAE 90.1 and Energy Star 3.0 efficiencies.\*

\* When matched with a ClimateMaster Tranquility split compressor sections.

### Service & Installation Advantages

- Large removable access panels.
- Bi-directional thermal expansion valve.
- Fully convertible.

### Factory Quality & Industry Certifications

- All units are built 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.
- All refrigerant brazing is done in a nitrogen atmosphere.
- All joints are both helium and halogen leak tested to insure annual leak rate of less than 1/4 ounce.
- Refrigerant suction lines are fully insulated to eliminate condensation problems in low temperature applications.
- Standard 10-year limited warranty on all parts with 5-year labor allowance; Optional additional extended 5-year limited labor allowance available.
- AHRI/ASHRAE/ANSI/ISO 13256-1 certified.
- NRTL & CSA listed.
- US EPA "Energy Star" compliant.
- ISO 9001:2000 Certified.

### Features

- Fully convertible vertical upflow or downflow, and horizontal left or horizontal right airflow.

- Thermoset plastic drain pan.
- Large easily removable access panel provide an open service-friendly cabinet.
- Heavy gauge galvanized steel construction with attractive grey powder coat finish.

## Tranquility Split (TAH) Design Features

The Tranquility Split (TAH) Series has abundant features and industry leading efficiency.

### Application Flexibility

- Four Capacities 026, 038, 049, & 064.
- Variable speed ECM fan motor adapts to various duct systems.
- Condensate over-flow protection.
- 230v and 115v field convertible
- Fully field convertible for vertical upflow, downflow, horizontal left and horizontal right airflow.
- Less than 2% air leakage.
- AHRI matched and rated with TTP and TTS products.
- Three cabinet foot prints: 026 - 18" wide, 026-049 - 22.5" wide, & 038-064 - 25.5" wide.
- Ideal for remote applications like a 2nd floor, crawl spaces, and attics.
- Air coil temperature sensor factory mounted.
- Dehumidification mode for high latent cooling (when matched with ATP32UO4 thermostat)
- 1 or 2" compatible filterbase.

### Operating Efficiencies

- EarthPure® HFC-410A zero ozone depletion refrigerant.
- Large low RPM blowers with variable speed fan motors provide quiet, efficient air movement with high static capability.
- Exceeds federal requirements for 30% tax credit on installation costs.\*
- Exceeds ASHRAE 90.1 and Energy Star 3.0 efficiencies.\*
- Highest efficiencies in AHRI/ISO/ASHRAE/ANSI 13256-1 ratings for heating COP's, cooling EER's with low water flow rates when matched with TTP/TTS models.

\* When matched with a ClimateMaster Tranquility split compressor sections.

### Service & Installation Advantages

- Low profile control box grants easy access to all internal components.
- Bi-directional thermal expansion valve.
- Circuit breaker protected 75VA control transformer.
- ECM control board features thermostat signal diagnostic LED's, airflow display LED (100 CFM per flash), and simplified CFM selection.
- Fan motors have quick attach wiring harness for fast removal.
- Internal dropout blower for easy servicing.
- Accurate refrigerant sensing low-temperature protection.
- Intelligent fault retry -condensate overflow protection.
- Air coil low temperature cut-out using high accuracy thermistor.
- 24vac accessory relays.
- Electronic fan control module (units with ECM fan motor): Independent Heating and Cooling CFM selection, CFM display LED, Input status LEDs, & Dehumidification mode.
- Thermostat fault recognition with ATP32 Series thermostat.
- Large removable access panel provides an open service-friendly cabinet.
- 20 gauge galvanized steel construction with attractive pewter epoxy powder coat paint and stainless steel service access panels.

### Factory Quality & Industry Certifications

- All units are built 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 highly detailed run test unparalleled in the HVAC industry.
  - Automatically disables packaging for a "failed" unit.
  - Creates computer database for future service analysis and diagnostics from run test results.
- 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 joints are both helium and halogen leak tested to insure annual leak rate of less than 1/4 ounce.
- Standard 10-year limited warranty on all parts with 5-year labor allowance; Optional additional extended 5-year limited labor allowance available.
- AHRI/ASHRAE/ANSI/ISO 13256-1 certified.
- ETL listed.
- US EPA "Energy Star" compliant.
- ISO 9001:2000 Certified.

### Options & Accessories

- Electronic thermostat.
- Electronic auto-changeover thermostat with 3-stage heat, 2-stage cool and indicator LED's.
- Additional extended 5-year limited labor allowance.
- Internal Electric Heat for Easy Field Installation.
- Dehumidification mode for high latent cooling (when matched with ATP32UO4 thermostat).

## Tranquility (TAC) Cased Air Coil Design Features

- 1 Fully convertible vertical upflow or downflow, and horizontal left or horizontal right airflow
- 2 Thermoset plastic drain pan
- 3 Large easily removable access panel provide an open service-friendly cabinet
- 4 Heavy gauge galvanized steel construction with attractive grey powder coat finish



Features EarthPure®  
HFC-410A Zero Ozone  
Depletion Refrigerant



## Tranquility (TAH) Air Handler Design Features

- 1 State-of-the-Art Variable Speed Blower Motor
- 2 Foil faced insulation
- 3 Two Lift-out Service Access Panels with Stainless Steel Front Panels
- 4 FP2 sensor factory mounted
- 5 20 gauge galvanized steel construction with attractive pewter epoxy powder coat paint and stainless steel service access panels
- 6 Condensate over-flow protection

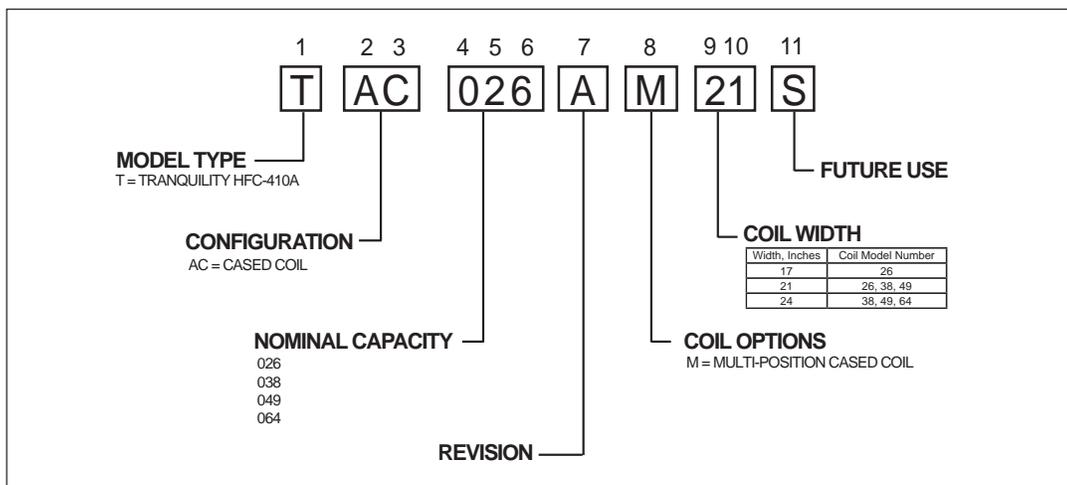
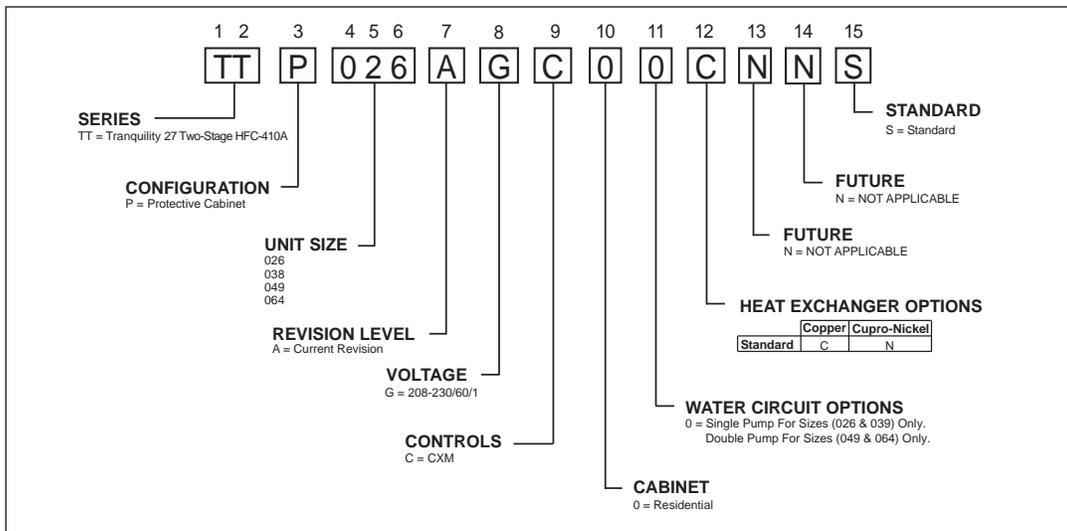
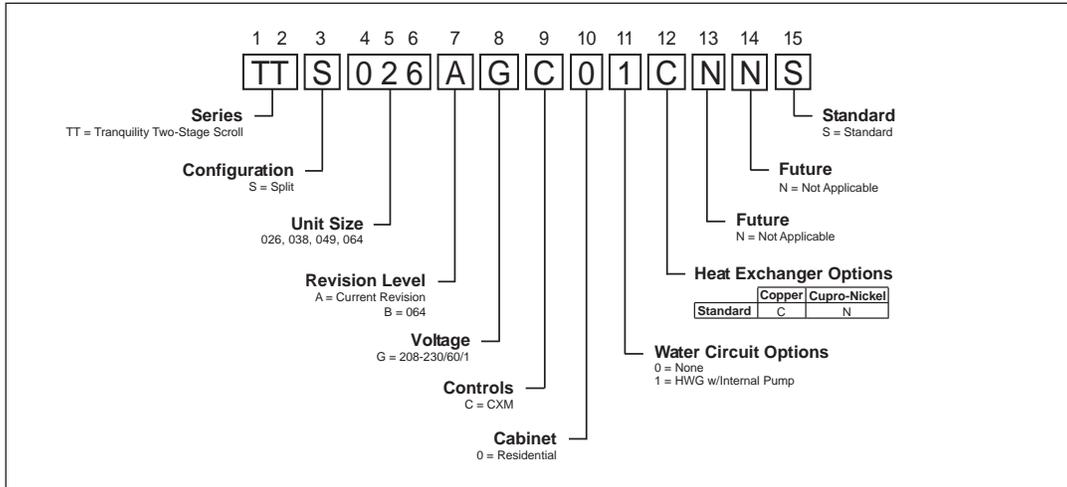


Features EarthPure®  
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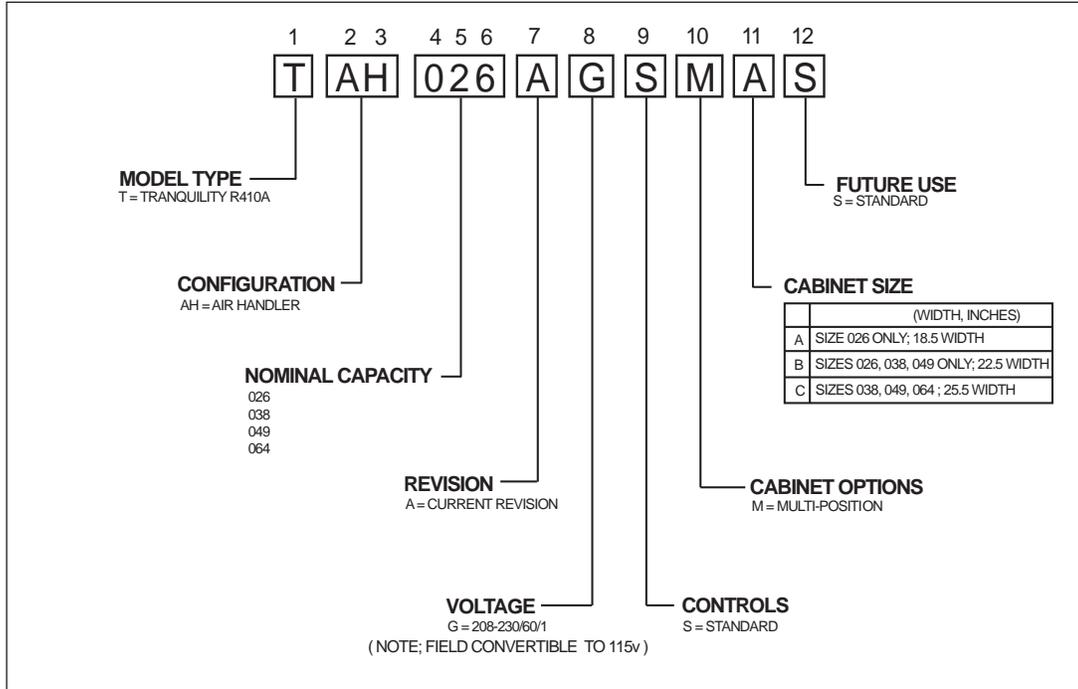
## Model Key

## Unit Model Key



## Model Key, Reference Calculations & Legend

### Unit Model Key



Heating	Cooling	
$LWT = EWT - \frac{HE}{GPM \times 500}$	$LWT = EWT + \frac{HR}{GPM \times 500}$	$LC = TC - SC$
$LAT = EAT + \frac{HC}{CFM \times 1.08}$	$LAT (DB) = EAT (DB) - \frac{SC}{CFM \times 1.08}$	$S/T = \frac{SC}{TC}$

Hot Water Generator capacities (HWC) are based on potable water flow rate of 0.4 gpm per nominal equipment ton and 90°F entering potable water temperature.

CFM = airflow, cubic feet/minute	HE = total heat of extraction, Mbtuh
EWT = entering water temperature, °F	HWC = Hot Water Generator (desuperheater) capacity, Mbtuh
GPM = water flow in US gallons/minute	WPD = Water coil pressure drop (psi & ft hd)
EAT = entering air temperature, Fahrenheit (dry bulb/wet bulb)	EER = Energy Efficiency Ratio = BTU output/Watt input
HC = air heating capacity, Mbtuh	COP = Coefficient of Performance = BTU output/BTU input
TC = total cooling capacity, Mbtuh	LWT = leaving water temperature, °F
SC = sensible cooling capacity, Mbtuh	LAT = leaving air temperature, °F
KW = total power unit input, KiloWatts	LC = latent cooling capacity, Mbtuh
HR = total heat of rejection, Mbtuh	S/T = sensible to total cooling ratio

## About AHRI/ISO/ASHRAE 13256-1

### About AHRI/ISO/ASHRAE 13256-1

AHRI/ASHRAE/ISO 13256-1 (Air-Conditioning and Refrigeration Institute/American Society of Heating, Refrigerating and Air Conditioning Engineers/International Standards Organization) is a certification standard for water-source heat pumps used in the following applications:

- WLHP (Water Loop Heat Pump – Boiler/Tower)
- GWHP (Ground Water Heat Pump – Open Loop)
- GLHP (Ground Loop Heat Pump – Geothermal)

The directory at <http://www.ahrinet.org/> is constantly being updated and immediately available on the Internet. All ratings are submitted by the manufacturer for certification, and must be approved by AHRI. Therefore, there is a significant difference between AHRI “certified” and AHRI “rated.” Thirty percent of a manufacturer’s basic models must be tested each year. AHRI selects models at random from stock for testing on the basis of its evaluation of a participant’s certification data.

Units that fail one or more certified test (90% of declared performance or lower) may be declared defective. If the initial failure is a performance test, the manufacturer must obsolete all units within the same basic model group or elect to have a second sample tested. If the second unit fails a performance test, it must be obsoleted, together with all units within the same basic model group. ClimateMaster takes certification seriously. We were recently awarded a certificate for consecutive years of no AHRI failures.

Temperatures used in AHRI certification standards are S.I. (Système International – metric) based. For example, typical catalog data for cooling is shown at 80°F DB/67°F WB [26.7°C DB/19.4°C] entering air temperature, but the AHRI standard for cooling is 80.6°F DB/66.2°F WB [27°C DB/19°C], since it is based upon whole numbers in degrees Celsius. Water and air temperatures for the standard are shown below.

### Test Condition Comparison Table

	WLHP	GWHP	GLHP
<b>Cooling</b>			
Entering Air Temperature - DB/WB °F [°C]	80.6/66.2 [27/19]	80.6/66.2 [27/19]	80.6/66.2 [27/19]
Entering Water Temperature - °F [°C]	86 [30]	59 [15]	77 [25]
Fluid Flow Rate	*	*	*
<b>Heating</b>			
Entering Air Temperature - DB/WB °F [°C]	68 [20]	68 [20]	68 [20]
Entering Water Temperature - °F [°C]	68 [20]	50 [10]	32 [0]
Fluid Flow Rate	*	*	*

\*Flow rate is specified by the manufacturer

Data certified by AHRI include heating/cooling capacities, EER (Energy Efficiency Ratio – Btuh per Watt) and COP (Btuh per Btuh) at the various conditions shown above. Pump power correction is calculated to adjust efficiencies for pumping Watts. Within each model, only one water flow rate is specified for all three groups, and pumping Watts are calculated using the formula below. This additional power is added onto the existing power consumption.

- Pump power correction =  $(\text{gpm} \times 0.0631) \times (\text{Press Drop} \times 2990)/300$

Fan power is corrected to zero external static pressure using the equation below. The nominal airflow is rated at a specific external static pressure. This effectively reduces the power consumption of the unit and increases cooling capacity but decreases heating capacity.

- Fan Power Correction =  $(\text{cfm} \times 0.472) \times (\text{esp} \times 249)/300$

Capacities and efficiencies are calculated using the following equations:

- ISO Cooling Capacity = Cooling Capacity (Btuh) + [Fan Power Correction (Watts) x 3.412]
- ISO EER Efficiency (Btuh/W) =  
ISO Cooling Capacity (Btuh)/[Power Input (Watts) – Fan Power Correction (Watts) + Pump Power Correction (Watts)]
- ISO Heating Capacity = Heating Capacity (Btuh) – [Fan Power Correction (Watts) x 3.412]
- ISO COP Efficiency (Btuh/Btuh) =  
ISO Heating Capacity (Btuh) x 3.412/[Power Input (Watts) - Fan Power Correction (Watts) + Pump Power Correction (Watts)]

# Tranquility Split (TTS/TTP/TAC/TAH) Series

## AHRI/ISO/ASHRAE/ANSI 13256-1 Performance

ASHRAE/AHRI/ISO 13256-1. English (IP) Units with Tranquility Air Handler

Model	Capacity	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump			
		Cooling 86°F		Heating 68°F		Cooling 59°F		Heating 50°F		Cooling 77°F		Heating 32°F	
	Modulation	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP
TTS/P026	Full	25,800	15.60	28,100	5.00	29,200	23.40	25,100	4.70	26,600	17.70	20,000	4.00
	Part	19,800	18.80	22,200	6.20	22,700	31.70	18,900	5.40	21,400	26.20	16,600	4.70
TTS/P038	Full	37,300	15.40	44,500	5.30	41,500	22.40	36,900	4.80	37,600	17.00	28,400	4.00
	Part	27,000	17.80	31,700	6.10	30,300	29.80	26,200	5.10	28,600	24.80	22,700	4.50
TTS/P049	Full	47,600	14.80	59,500	5.20	52,300	21.50	48,600	4.80	48,100	16.50	37,600	4.00
	Part	35,700	16.20	44,500	6.20	40,100	26.70	36,100	5.30	37,800	22.30	31,400	4.70
TTS/P064	Full	58,900	14.00	71,700	4.70	64,100	20.30	60,100	4.20	60,400	16.00	45,800	3.50
	Part	45,000	16.10	53,900	5.40	51,200	27.10	42,800	4.40	48,100	22.40	37,200	3.90

Cooling capacities based upon 80.6°F DB, 66.2°F WB entering air temperature  
 Heating capacities based upon 68°F DB, 59°F WB entering air temperature  
 All TT ratings based upon 208V operation

ASHRAE/AHRI/ISO 13256-1. English (IP) Units with Tranquility Cased Coil

Model	Capacity	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump			
		Cooling 86°F		Heating 68°F		Cooling 59°F		Heating 50°F		Cooling Full Load 77°F Part Load 68°F		Heating Full Load 32°F Part Load 41°F	
	Modulation	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP
TTS/P026	Full	25,500	14.90	29,300	5.10	28,900	22.50	25,400	4.70	26,700	17.30	20,300	4.00
	Part	19,400	17.60	22,300	6.40	22,100	29.30	18,800	5.30	21,200	24.90	16,800	4.70
TTS/P038	Full	37,400	15.40	42,400	5.10	42,000	22.60	35,500	4.70	39,100	17.60	28,300	4.10
	Part	27,600	18.30	30,700	6.20	30,500	30.10	25,300	5.20	29,800	25.80	22,500	4.60
TTS/P049	Full	49,200	15.40	55,300	5.10	54,900	22.20	46,300	4.70	50,300	17.20	35,800	4.00
	Part	37,200	17.50	42,900	6.10	42,700	28.50	34,400	5.10	39,800	23.60	30,100	4.50
TTS/P064	Full	57,100	13.70	68,700	4.60	62,400	19.90	56,200	4.10	60,100	16.00	45,300	3.60
	Part	44,400	15.70	51,900	5.30	50,600	25.60	42,400	4.50	49,000	22.10	37,900	4.00

Cooling capacities based upon 80.6°F DB, 66.2°F WB entering air temperature  
 Heating capacities based upon 68°F DB, 59°F WB entering air temperature  
 All TT ratings based upon 208V operation

ASHRAE/AHRI/ISO 13256-1. Metric (SI) Units with Tranquility Cased Coil

Model	Capacity	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump			
		Cooling 30°C		Heating 20°C		Cooling 15°C		Heating 10°C		Cooling Full Load 25°C Part Load 20°C		Heating Full Load 0°C Part Load 5°C	
	Modulation	Capacity Watts	EER W/W	Capacity Watts	COP	Capacity Watts	EER W/W	Capacity Watts	COP	Capacity Watts	EER W/W	Capacity Watts	COP
TTS/P026	Full	7,239	4.4	9,203	5.3	8,382	6.8	7,503	4.7	7,737	5.3	5,715	3.9
	Part	5,363	4.8	7,122	5.4	6,448	8.6	5,627	4.6	6,096	7.2	4,865	4.1
TTS/P038	Full	10,522	4.3	13,101	5.0	11,753	6.3	10,522	4.5	10,932	4.9	7,913	3.8
	Part	7,151	4.8	8,880	5.6	8,206	7.9	7,151	4.6	7,943	6.9	6,272	4.1
TTS/P049	Full	14,097	4.3	17,409	5.2	15,797	6.1	13,980	4.6	14,713	4.9	10,903	4.0
	Part	9,760	4.7	12,309	5.4	11,342	7.9	9,906	4.7	10,844	6.7	8,763	4.2
TTS/P064	Full	16,676	4.2	21,688	4.7	18,699	5.6	17,233	4.3	17,438	4.5	13,394	3.6
	Part	11,958	4.6	15,445	5.2	13,482	7.5	12,397	4.4	13,130	6.5	10,991	4.0

Cooling capacities based upon 80.6°F DB, 66.2°F WB entering air temperature  
 Heating capacities based upon 68°F DB, 59°F WB entering air temperature  
 Ground Loop Heat Pump ratings based on 15% methanol antifreeze solution  
 All ratings based upon operation at lower voltage of dual voltage rated models

ClimateMaster: Smart. Responsible. Comfortable.

## Full Load Correction Factors

### Air Flow Correction Table

Airflow % of Nominal	Heating				Cooling			
	Htg Cap	Power	Heat of Extraction	Total Cap	Sens Cap	S/T	Power	Heat of Rejection
60.00	0.946	1.153	0.896	0.925	0.788	0.852	0.913	0.922
68.75	0.959	1.107	0.924	0.946	0.829	0.876	0.926	0.942
75.00	0.969	1.078	0.942	0.960	0.861	0.897	0.937	0.955
81.25	0.977	1.053	0.959	0.972	0.895	0.921	0.950	0.968
87.50	0.985	1.032	0.974	0.983	0.930	0.946	0.965	0.979
93.75	0.993	1.014	0.988	0.992	0.965	0.973	0.982	0.990
100.00	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
106.25	1.006	0.989	1.011	1.007	1.033	1.027	1.020	1.009
112.50	1.012	0.982	1.019	1.012	1.064	1.052	1.042	1.018
118.75	1.018	0.979	1.027	1.016	1.092	1.075	1.066	1.025
125.00	1.022	0.977	1.033	1.018	1.116	1.096	1.091	1.032
130.00	1.026	0.975	1.038	1.019	1.132	1.110	1.112	1.037

### Entering Air Correction Table

Full Load Heating Corrections			
Entering Air DB°F	Heating Capacity	Power	Heat of Extraction
40	1.052	0.779	1.120
45	1.043	0.808	1.102
50	1.035	0.841	1.084
55	1.027	0.877	1.065
60	1.019	0.915	1.045
65	1.010	0.957	1.023
68	1.004	0.982	1.010
70	1.000	1.000	1.000
75	0.989	1.045	0.974
80	0.976	1.093	0.946

\* = Sensible capacity equals total capacity  
 AHRI/ISO/ASHRAE 13256-1 uses entering air conditions of Cooling - 80.6°F DB/66.2°F WB, 1 and Heating - 68°F DB/59°F WB entering air temperature

Cooling													
Entering Air WB°F	Total Capacity	Sensible Cooling Capacity Multiplier - Entering DB °F										Power	Heat of Rejection
		60	65	70	75	80	80.6	85	90	95	100		
45	0.832	1.346	1.461	1.603	*	*	*	*	*	*	*	0.946	0.853
50	0.850	1.004	1.174	1.357	*	*	*	*	*	*	*	0.953	0.870
55	0.880	0.694	0.902	1.115	1.331	*	*	*	*	*	*	0.964	0.896
60	0.922		0.646	0.875	1.103	1.329	1.356	*	*	*	*	0.977	0.932
65	0.975			0.639	0.869	1.096	1.123	1.320	*	*	*	0.993	0.979
66.2	0.990			0.582	0.812	1.039	1.066	1.262	1.482	*	*	0.997	0.991
67	1.000			0.545	0.774	1.000	1.027	1.223	1.444	*	*	1.000	1.000
70	1.040				0.630	0.853	0.880	1.075	1.297	1.517	*	1.011	1.035
75	1.117					0.601	0.627	0.821	1.046	1.275	1.510	1.033	1.101

\* Sensible capacity equals total capacity.

## Part Load Correction Factors

### Air Flow Correction Table

Airflow % of Nominal	Heating				Cooling			
	Htg Cap	Power	Heat of Extraction	Total Cap	Sens Cap	S/T	Power	Heat of Rejection
60.00	0.946	1.153	0.896	0.925	0.788	0.852	0.913	0.922
68.75	0.959	1.107	0.924	0.946	0.829	0.876	0.926	0.942
75.00	0.969	1.078	0.942	0.960	0.861	0.897	0.937	0.955
81.25	0.977	1.053	0.959	0.972	0.895	0.921	0.950	0.968
87.50	0.985	1.032	0.974	0.983	0.930	0.946	0.965	0.979
93.75	0.993	1.014	0.988	0.992	0.965	0.973	0.982	0.990
100.00	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
106.25	1.006	0.989	1.011	1.007	1.033	1.027	1.020	1.009
112.50	1.012	0.982	1.019	1.012	1.064	1.052	1.042	1.018
118.75	1.018	0.979	1.027	1.016	1.092	1.075	1.066	1.025
125.00	1.022	0.977	1.033	1.018	1.116	1.096	1.091	1.032
130.00	1.026	0.975	1.038	1.019	1.132	1.110	1.112	1.037

### Entering Air Correction Table

Full Load Heating Corrections			
Entering Air DB°F	Heating Capacity	Power	Heat of Extraction
40	1.084	0.732	1.161
45	1.073	0.764	1.140
50	1.060	0.802	1.117
55	1.046	0.846	1.090
60	1.031	0.893	1.061
65	1.016	0.945	1.031
68	1.006	0.978	1.013
70	1.000	1.000	1.000
75	0.984	1.058	0.968
80	0.968	1.117	0.936

\* = Sensible capacity equals total capacity  
 AHRI/ISO/ASHRAE 13256-1 uses entering air conditions of Cooling - 80.6°F DB/66.2°F WB, 1 and Heating - 68°F DB/59°F WB entering air temperature

Cooling													
Entering Air WB°F	Total Capacity	Sensible Cooling Capacity Multiplier - Entering DB °F										Power	Heat of Rejection
		60	65	70	75	80	80.6	85	90	95	100		
45	0.876	1.286	1.302	1.389	*	*	*	*	*	*	*	0.981	0.895
50	0.883	1.002	1.099	1.241	*	*	*	*	*	*	*	0.985	0.901
55	0.903	0.706	0.871	1.060	1.271	*	*	*	*	*	*	0.989	0.918
60	0.935		0.617	0.844	1.079	1.319	1.349	*	*	*	*	0.993	0.945
65	0.979			0.595	0.849	1.096	1.128	1.342	*	*	*	0.998	0.982
66.2	0.991			0.531	0.789	1.040	1.070	1.284	1.522	*	*	0.999	0.993
67	1.000			0.486	0.747	1.000	1.030	1.245	1.481	*	*	1.000	1.000
70	1.035				0.583	0.842	0.873	1.090	1.327	1.552	*	1.003	1.030
75	1.105					0.552	0.584	0.811	1.057	1.290	1.510	1.008	1.086

\* Sensible capacity equals total capacity.

## 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.

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

$$TD = 22,500 / (1.5 \times 500)$$

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

$$LWT = EWT - TD$$

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

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 (open loop systems, for example, require at least 2 gpm/ton when EWT is below 50°F).

Performance capacities shown in thousands of Btu/h

		Heating - EAT 70°F					
R	HWC	HC	kW	HE	LAT	COP	HW
		39.4	3.90	26.5	93.2	2.96	4.0
		40.0	3.78	27.2	90.0	3.10	3.5
19.3	-	43.5	4.06	30.0	95.6	3.14	4.1
18.6	-	44.1	3.93	30.8	92.1	3.29	3.6
20.5	-	45.3	4.11	31.7	96.6	3.23	4.1
19.8	-	46.0	3.98	32.5	93.0	3.39	3.5
21.4	-	46.2	4.14	32.5	97.2	3.27	4.0
20.6	-	46.9	4.01	33.4	93.5	3.43	3.5
18.5	-	50.1	4.29	35.9	99.5	3.42	4.3
17.9	-	50.8	4.16	36.8	95.4	3.58	3.7
19.8	-	52.2	4.36	37.7	100.7	3.51	4.2
19.1	-	53.0	4.22	38.7	96.5	3.68	3.6
20.4	-	53.4	4.39	38.8	101.4	3.57	4.1
19.6	-	54.2	4.25	39.8	97.1	3.74	3.6
	2.0	57.0	4.53	41.8	103.5	3.69	4.1
	2.1	57.8	4.39	42.9	98.9	3.86	3.6
	1.8	59.5	4.60	44.1	105.0	3.79	4.1
	1.8	60.4	4.46	45.3	100.2	3.97	3.6
		61.0	4.64	45.4	105.9	3.97	4.1
		61.9	4.50	46.6	101.0	4.14	3.6
				47.8	48.1		

### 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

# Tranquility Split (TTS/TTP/TAC/TAH) Series

## Performance Data — TTS/TTP026 Part Load With TAH

825 CFM Nominal (Rated) Airflow Heating, 725 CFM Nominal (Rated) Airflow Cooling

Performance capacities shown in thousands of Btu/h

EWT °F	GPM	PD		Cooling - EAT 80/67°F								Heating - EAT 70°F								
		PSI	FT	Airflow CFM	TC	SC	kW	HR	EER	TTS HWC	TTP HWC	Airflow CFM	HC	kW	HE	LAT	COP	TTS HWC	TTP HWC	
20	7.0	4.5	10.4	590	Operation Not Recommended								670	12.6	1.21	8.7	87.4	3.1	1.9	1.8
	7.0	4.5	10.4	725									825	12.9	1.12	9.1	84.4	3.4	1.7	1.6
30	3.5	1.2	2.8	590	20.3	12.7	0.58	22.2	35.2			670	14.0	1.22	10.0	89.4	3.4	2.0	1.9	
	3.5	1.2	2.8	725	20.9	14.1	0.59	22.9	35.4			825	14.4	1.13	10.5	86.1	3.7	1.7	1.6	
	5.3	2.9	6.7	590	19.3	11.9	0.55	21.2	35.4			670	14.5	1.22	10.5	90.0	3.5	2.0	1.9	
	5.3	2.9	6.7	725	19.9	13.2	0.56	21.9	35.6			825	14.8	1.13	10.9	86.6	3.8	1.7	1.6	
	7.0	4.1	9.5	590	18.8	11.5	0.54	20.6	35.1			670	14.7	1.22	10.7	90.3	3.5	1.9	1.8	
	7.0	4.1	9.5	725	19.4	12.8	0.55	21.3	35.3			825	15.0	1.13	11.2	86.9	3.9	1.7	1.6	
40	3.5	1.1	2.5	590	21.5	14.0	0.65	23.8	33.0			670	16.1	1.23	12.0	92.3	3.8	2.0	1.9	
	3.5	1.1	2.5	725	22.2	15.5	0.67	24.5	33.2			825	16.5	1.14	12.6	88.5	4.2	1.8	1.7	
	5.3	2.6	6.0	590	21.1	13.5	0.61	23.2	34.4			670	16.6	1.23	12.5	93.0	4.0	2.0	1.9	
	5.3	2.6	6.0	725	21.8	15.0	0.63	23.9	34.6			825	17.0	1.14	13.1	89.1	4.4	1.7	1.6	
	7.0	3.6	8.3	590	20.8	13.2	0.60	22.9	34.4			670	16.9	1.23	12.8	93.4	4.0	2.0	1.9	
	7.0	3.6	8.3	725	21.5	14.7	0.62	23.6	34.6			825	17.3	1.14	13.4	89.4	4.4	1.7	1.6	
50	3.5	1.0	2.3	590	21.8	14.5	0.75	24.4	29.0	0.7	0.7	670	18.2	1.23	14.1	95.1	4.3	2.1	2.0	
	3.5	1.0	2.3	725	22.5	16.1	0.77	25.1	29.2	0.7	0.7	825	18.6	1.14	14.7	90.9	4.8	1.8	1.7	
	5.3	2.4	5.5	590	21.8	14.3	0.70	24.2	31.0	0.6	0.6	670	18.8	1.23	14.6	95.9	4.5	2.1	2.0	
	5.3	2.4	5.5	725	22.5	15.9	0.72	24.9	31.2	0.6	0.6	825	19.2	1.14	15.3	91.5	4.9	1.8	1.7	
	7.0	3.4	7.9	590	21.7	14.2	0.68	24.0	31.8	0.6	0.6	670	19.1	1.23	14.9	96.4	4.6	2.0	1.9	
	7.0	3.4	7.9	725	22.4	15.8	0.70	24.8	32.0	0.6	0.6	825	19.5	1.14	15.6	91.9	5.0	1.8	1.7	
60	3.5	1.0	2.3	590	21.4	14.6	0.86	24.3	24.9	1.1	1.0	670	20.2	1.23	16.0	97.9	4.8	2.2	2.1	
	3.5	1.0	2.3	725	22.1	16.2	0.88	25.0	25.1	1.1	1.0	825	20.6	1.14	16.7	93.2	5.3	1.9	1.8	
	5.3	2.3	5.3	590	21.6	14.6	0.80	24.4	27.1	1.0	1.0	670	20.8	1.23	16.6	98.8	5.0	2.2	2.1	
	5.3	2.3	5.3	725	22.3	16.2	0.82	25.1	27.2	1.0	1.0	825	21.3	1.14	17.4	93.9	5.5	1.9	1.8	
	7.0	3.2	7.4	590	21.7	14.6	0.78	24.4	27.9	0.9	0.9	670	21.1	1.23	16.9	99.2	5.1	2.1	2.0	
	7.0	3.2	7.4	725	22.4	16.2	0.80	25.1	28.0	0.9	0.9	825	21.6	1.14	17.7	94.3	5.6	1.9	1.8	
70	3.5	0.9	2.1	590	20.5	14.2	0.98	23.8	21.0	1.4	1.3	670	22.0	1.23	17.8	100.4	5.3	2.3	2.2	
	3.5	0.9	2.1	725	21.1	15.8	1.00	24.5	21.1	1.5	1.4	825	22.5	1.14	18.6	95.3	5.8	2.0	1.9	
	5.3	2.1	4.9	590	20.9	14.4	0.92	24.1	22.8	1.3	1.2	670	22.6	1.23	18.4	101.3	5.4	2.3	2.2	
	5.3	2.1	4.9	725	21.6	16.0	0.94	24.8	23.0	1.4	1.3	825	23.1	1.14	19.2	96.0	5.9	2.0	1.9	
	7.0	3.0	6.9	590	21.1	14.5	0.89	24.2	23.8	1.2	1.1	670	22.9	1.23	18.7	101.7	5.5	2.2	2.1	
	7.0	3.0	6.9	725	21.8	16.1	0.91	24.9	24.0	1.2	1.1	825	23.4	1.14	19.5	96.3	6.0	1.9	1.8	
80	3.5	0.8	1.8	590	19.3	13.7	1.11	23.1	17.3	1.8	1.7	670	23.6	1.23	19.3	102.5	5.6	2.4	2.3	
	3.5	0.8	1.8	725	19.9	15.2	1.14	23.8	17.4	1.8	1.7	825	24.1	1.14	20.2	97.0	6.2	2.1	2.0	
	5.3	2.0	4.6	590	19.8	14.0	1.05	23.4	18.8	1.6	1.5	670	24.1	1.24	19.8	103.2	5.7	2.4	2.3	
	5.3	2.0	4.6	725	20.5	15.5	1.08	24.1	19.0	1.7	1.6	825	24.6	1.15	20.7	97.6	6.3	2.1	2.0	
	7.0	2.8	6.5	590	20.1	14.1	1.01	23.6	19.8	1.5	1.4	670	24.3	1.24	20.0	103.6	5.8	2.4	2.3	
	7.0	2.8	6.5	725	20.8	15.7	1.04	24.3	20.0	1.5	1.4	825	24.8	1.15	20.9	97.9	6.3	2.1	2.0	
85	3.5	0.8	1.8	590	18.6	13.4	1.19	22.6	15.7	2.0	1.9	670	24.1	1.23	19.8	103.3	5.7	2.5	2.4	
	3.5	0.8	1.8	725	19.2	14.9	1.23	23.3	15.8	2.0	1.9	825	24.7	1.15	20.7	97.7	6.3	2.2	2.1	
	5.3	1.95	4.5	590	19.2	13.7	1.13	23.0	17.1	1.8	1.7	670	24.5	1.24	20.2	103.9	5.8	2.5	2.4	
	5.3	1.95	4.5	725	19.8	15.2	1.16	23.7	17.2	1.9	1.8	825	25.1	1.15	21.1	98.1	6.4	2.2	2.1	
	7.0	2.75	6.4	590	19.5	13.8	1.09	23.2	18.0	1.7	1.6	670	24.7	1.24	20.4	104.1	5.8	2.5	2.4	
	7.0	2.75	6.4	725	20.1	15.3	1.12	23.9	18.1	1.7	1.6	825	25.2	1.16	21.3	98.3	6.4	2.2	2.1	
90	3.5	0.8	1.8	590	17.9	13.1	1.28	22.2	14.0	2.4	2.3	670	24.7	1.24	20.4	104.1	5.8	2.6	2.5	
	3.5	0.8	1.8	725	18.5	14.6	1.31	22.9	14.1	2.5	2.4	825	25.2	1.15	21.3	98.3	6.4	2.2	2.1	
	5.3	1.9	4.4	590	18.5	13.4	1.20	22.6	15.4	1.9	1.8	670	25.0	1.24	20.6	104.5	5.9	2.6	2.5	
	5.3	1.9	4.4	725	19.1	14.9	1.23	23.3	15.5	2.0	1.9	825	25.5	1.15	21.6	98.7	6.5	2.2	2.1	
	7.0	2.7	6.2	590	18.8	13.5	1.17	22.8	16.1	1.8	1.7	670	25.1	1.25	20.7	104.7	5.9	2.5	2.4	
	7.0	2.7	6.2	725	19.4	15.0	1.20	23.5	16.2	1.8	1.7	825	25.6	1.16	21.7	98.8	6.5	2.2	2.1	
100	3.5	0.8	1.8	590	16.5	12.6	1.45	21.4	11.4	2.4	2.3	670	Operation Not Recommended							
	3.5	0.8	1.8	725	17.0	13.9	1.49	22.1	11.4	2.5	2.4	825								
	5.3	1.8	4.2	590	17.1	12.8	1.37	21.8	12.4	2.2	2.1	670								
	5.3	1.8	4.2	725	17.6	14.2	1.41	22.4	12.5	2.3	2.2	825								
	7.0	2.6	6.0	590	17.4	12.9	1.34	21.9	13.0	2.0	1.9	670								
	7.0	2.6	6.0	725	18.0	14.3	1.37	22.6	13.1	2.0	1.9	825								
110	3.5	0.7	1.6	590	15.3	12.1	1.65	20.9	9.3	2.7	2.6	670	Operation Not Recommended							
	3.5	0.7	1.6	725	15.7	13.5	1.69	21.5	9.3	2.8	2.7	825								
	5.3	1.7	3.9	590	15.7	12.3	1.56	21.1	10.1	2.5	2.4	670								
	5.3	1.7	3.9	725	16.3	13.6	1.60	21.7	10.2	2.5	2.4	825								
	7.0	2.5	5.8	590	16.0	12.4	1.52	21.2	10.5	2.2	2.1	670								
	7.0	2.5	5.8	725	16.5	13.7	1.56	21.8	10.6	2.3	2.2	825								
120	3.5	0.7	1.6	590	14.2	12.0	1.89	20.6	7.5	3.0	2.9	670	Operation Not Recommended							
	3.5	0.7	1.6	725	14.7	13.3	1.94	21.3	7.6	3.0	2.9	825								
	5.3	1.7	3.9	590	14.7	12.0	1.76	20.7	8.3	2.7	2.6	670								
	5.3	1.7	3.9	725	15.1	13.3	1.81	21.3	8.4	2.7	2.6	825								
	7.0	2.4	5.5	590	14.8	12.0	1.73	20.7	8.6	2.4	2.3	670								
	7.0	2.4	5.5	725	15.3	13.3	1.77	21.4	8.6	2.5	2.4	825								

Interpolation is permissible; extrapolation is not.  
 All entering air conditions are 80°F DB and 67°F WB in cooling, and 70°F DB in heating.  
 AHRI/ISO certified conditions are 80.6°F DB and 66.2°F WB in cooling and 68°F DB in heating.  
 Table does not reflect fan or pump power corrections for AHRI/ISO conditions.  
 All performance is based upon the lower voltage of dual voltage rated units.  
 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.  
 For operation in the shaded areas, please see the Performance Data Selection Notes.

# ClimateMaster Geothermal Heat Pump Systems

## Performance Data — TTS/TTP026 Full Load With TAH

950 CFM Nominal (Rated) Airflow Heating, 850 CFM Nominal (Rated) Airflow Cooling

Performance capacities shown in thousands of Btu/h

EWT °F	GPM	PD		Cooling - EAT 80/67°F								Heating - EAT 70°F								
		PSI	FT	Airflow CFM	TC	SC	kW	HR	EER	TTS HWC	TTP HWC	Airflow CFM	HC	kW	HE	LAT	COP	TTS HWC	TTP HWC	
20	8.0	5.6	12.9	690	Operation Not Recommended								770	18.0	1.68	12.4	91.6	3.1	2.4	2.3
	8.0	5.6	12.9	850									950	18.4	1.60	12.9	87.9	3.4	2.1	2.0
30	4.0	1.5	3.5	690	26.6	16.8	1.05	31.6	25.4			770	19.8	1.73	14.1	93.8	3.4	2.4	2.3	
	4.0	1.5	3.5	850	28.9	18.7	1.10	32.6	26.2			950	20.3	1.64	14.7	89.7	3.6	2.1	2.0	
	6.0	3.1	7.2	690	26.3	16.9	0.98	31.1	26.9			770	20.5	1.75	14.7	94.6	3.4	2.4	2.3	
	6.0	3.1	7.2	850	28.6	18.9	1.03	32.1	27.7			950	20.9	1.66	15.3	90.4	3.7	2.1	2.0	
	8.0	5.1	11.8	690	26.1	17.0	0.95	30.7	27.5			770	20.8	1.75	15.0	95.0	3.5	2.4	2.3	
	8.0	5.1	11.8	850	28.4	19.0	1.00	31.8	28.4			950	21.3	1.66	15.6	90.8	3.8	2.1	2.0	
40	4.0	1.4	3.2	690	26.6	16.5	1.16	32.0	23.0			770	22.4	1.79	16.4	97.0	3.7	2.5	2.4	
	4.0	1.4	3.2	850	28.9	18.4	1.22	33.1	23.7			950	22.9	1.70	17.1	92.4	4.0	2.2	2.1	
	6.0	2.8	6.5	690	26.7	16.7	1.10	31.8	24.2			770	23.2	1.81	17.1	97.9	3.8	2.5	2.4	
	6.0	2.8	6.5	850	29.0	18.6	1.16	32.9	25.0			950	23.7	1.72	17.8	93.1	4.0	2.2	2.1	
	8.0	4.6	10.6	690	26.6	16.7	1.06	31.7	25.0			770	23.6	1.82	17.5	98.4	3.8	2.4	2.3	
	8.0	4.6	10.6	850	28.9	18.7	1.12	32.7	25.8			950	24.1	1.73	18.2	93.5	4.1	2.1	2.0	
50	4.0	1.3	3.0	690	26.2	16.2	1.27	32.0	20.6	1.1	1.0	770	24.9	1.86	18.7	100.0	3.9	2.6	2.5	
	4.0	1.3	3.0	850	28.5	18.1	1.34	33.0	21.2	1.1	1.0	950	25.5	1.77	19.5	94.9	4.2	2.3	2.2	
	6.0	2.6	6.0	690	26.5	16.4	1.22	32.1	21.8	1.0	1.0	770	25.8	1.88	19.4	101.0	4.0	2.6	2.5	
	6.0	2.6	6.0	850	28.8	18.3	1.28	33.1	22.5	1.0	1.0	950	26.4	1.79	20.3	95.7	4.3	2.3	2.2	
	8.0	4.3	9.9	690	26.6	16.4	1.18	32.0	22.6	0.9	0.9	770	26.2	1.90	19.8	101.5	4.0	2.6	2.5	
	8.0	4.3	9.9	850	28.9	18.4	1.24	33.1	23.3	0.9	0.9	950	26.8	1.80	20.7	96.1	4.4	2.2	2.1	
60	4.0	1.2	2.8	690	25.4	15.9	1.40	31.6	18.2	1.5	1.4	770	27.3	1.94	20.8	102.9	4.1	2.8	2.7	
	4.0	1.2	2.8	850	27.6	17.8	1.47	32.6	18.8	1.6	1.5	950	28.0	1.84	21.7	97.3	4.5	2.5	2.4	
	6.0	2.5	5.8	690	25.9	16.1	1.33	31.8	19.5	1.3	1.2	770	28.2	1.96	21.6	103.9	4.2	2.8	2.7	
	6.0	2.5	5.8	850	28.1	18.0	1.40	32.9	20.1	1.4	1.3	950	28.8	1.86	22.5	98.1	4.5	2.4	2.3	
	8.0	4.0	9.2	690	26.1	16.2	1.29	31.9	20.2	1.1	1.0	770	28.6	1.97	21.9	104.4	4.3	2.7	2.6	
	8.0	4.0	9.2	850	28.3	18.1	1.36	33.0	20.8	1.2	1.1	950	29.3	1.87	22.9	98.5	4.6	2.4	2.3	
70	4.0	1.1	2.5	690	24.4	15.6	1.54	31.0	15.8	2.0	1.9	770	29.5	2.00	22.8	105.5	4.3	3.1	2.9	
	4.0	1.1	2.5	850	26.5	17.4	1.62	32.0	16.3	2.1	2.0	950	30.2	1.90	23.7	99.4	4.7	2.7	2.6	
	6.0	2.3	5.3	690	25.0	15.8	1.46	31.3	17.1	1.8	1.7	770	30.3	2.02	23.5	106.5	4.4	3.0	2.9	
	6.0	2.3	5.3	850	27.1	17.6	1.54	32.4	17.6	1.8	1.7	950	31.1	1.92	24.5	100.3	4.7	2.6	2.5	
	8.0	3.8	8.8	690	25.3	15.9	1.43	31.5	17.7	1.5	1.4	770	30.8	2.04	23.9	107.0	4.4	3.0	2.9	
	8.0	3.8	8.8	850	27.4	17.7	1.50	32.5	18.3	1.5	1.4	950	31.5	1.94	24.9	100.7	4.8	2.6	2.5	
80	4.0	1.0	2.3	690	23.1	15.2	1.70	30.2	13.6	2.6	2.5	770	31.5	2.06	24.5	107.8	4.5	3.4	3.2	
	4.0	1.0	2.3	850	25.1	17.0	1.79	31.2	14.0	2.6	2.5	950	32.2	1.96	25.5	101.4	4.8	2.9	2.8	
	6.0	2.2	5.1	690	23.8	15.4	1.62	30.6	14.7	2.2	2.1	770	32.2	2.08	25.2	108.8	4.5	3.3	3.1	
	6.0	2.2	5.1	850	25.9	17.2	1.70	31.7	15.2	2.3	2.2	950	33.0	1.98	26.2	102.2	4.9	2.9	2.8	
	8.0	3.5	8.1	690	24.1	15.5	1.57	30.8	15.4	1.9	1.8	770	32.6	2.10	25.5	109.2	4.6	3.3	3.1	
	8.0	3.5	8.1	850	26.2	17.4	1.65	31.9	15.9	1.9	1.8	950	33.4	1.99	26.6	102.5	4.9	2.8	2.7	
85	4.0	1.0	2.3	690	22.5	15.0	1.80	29.9	12.5	2.9	2.8	770	32.3	2.09	25.2	108.8	4.5	3.6	3.4	
	4.0	1.0	2.3	850	24.4	16.7	1.90	30.9	12.9	3.0	2.9	950	33.1	1.99	26.3	102.2	4.9	3.1	2.9	
	6.0	2.15	5.0	690	23.2	15.2	1.71	30.3	13.6	2.5	2.4	770	33.0	2.11	25.9	109.7	4.6	3.5	3.3	
	6.0	2.15	5.0	850	25.1	17.0	1.80	31.3	14.1	2.6	2.5	950	33.8	2.01	27.0	102.9	4.9	3.1	2.9	
	8.0	3.45	8.0	690	23.5	15.3	1.66	30.5	14.2	2.1	2.0	770	33.4	2.12	26.2	110.1	4.6	3.5	3.3	
	8.0	3.45	8.0	850	25.5	17.1	1.75	31.5	14.7	2.1	2.0	950	34.1	2.02	27.3	103.3	5.0	3.0	2.9	
90	4.0	1.0	2.3	690	21.8	14.8	1.90	29.5	11.5	3.2	3.0	770	33.1	2.12	26.0	109.9	4.6	3.7	3.5	
	4.0	1.0	2.3	850	23.6	16.5	2.00	30.5	11.8	3.3	3.1	950	33.9	2.01	27.1	103.1	4.9	3.3	3.1	
	6.0	2.1	4.9	690	22.5	15.0	1.80	29.9	12.5	2.8	2.7	770	33.8	2.14	26.5	110.6	4.6	3.7	3.5	
	6.0	2.1	4.9	850	24.4	16.8	1.89	30.9	12.9	2.8	2.7	950	34.6	2.03	27.7	103.7	5.0	3.2	3.0	
	8.0	3.4	7.9	690	22.8	15.1	1.75	30.1	13.1	2.3	2.2	770	34.1	2.15	26.8	111.0	4.7	3.6	3.4	
	8.0	3.4	7.9	850	24.8	16.9	1.84	31.1	13.5	2.3	2.2	950	34.9	2.04	28.0	104.0	5.0	3.1	2.9	
100	4.0	1.0	2.3	690	20.3	14.2	2.15	28.8	9.5	3.9	3.7	770	Operation Not Recommended							
	4.0	1.0	2.3	850	22.1	15.9	2.26	29.8	9.8	4.0	3.8									
	6.0	2.0	4.6	690	21.0	14.5	2.01	29.1	10.5	3.4	3.2									
	6.0	2.0	4.6	850	22.9	16.2	2.12	30.1	10.8	3.4	3.2									
	8.0	3.2	7.4	690	21.4	14.6	1.96	29.3	10.9	2.8	2.7									
	8.0	3.2	7.4	850	23.3	16.3	2.06	30.3	11.3	2.8	2.7									
110	4.0	0.9	2.1	690	18.9	13.5	2.44	28.3	7.7	4.7	4.5	770	Operation Not Recommended							
	4.0	0.9	2.1	850	20.5	15.1	2.57	29.3	8.0	4.8	4.6									
	6.0	1.9	4.4	690	19.6	13.9	2.29	28.5	8.6	4.0	3.8									
	6.0	1.9	4.4	850	21.3	15.5	2.41	29.5	8.8	4.1	3.9									
	8.0	3.1	7.2	690	19.9	14.0	2.21	28.7	9.0	3.3	3.1									
	8.0	3.1	7.2	850	21.7	15.7	2.33	29.6	9.3	3.4	3.2									
120	4.0	0.9	2.1	690	17.5	12.8	2.79	28.1	6.3	5.6	5.3	770	Operation Not Recommended							
	4.0	0.9	2.1	850	19.0	14.3	2.94	29.1	6.5	5.7	5.4									
	6.0	1.8	4.2	690	18.2	13.2	2.61	28.2	7.0	4.7	4.5									
	6.0	1.8	4.2	850	19.7	14.7	2.75	29.1	7.2	4.8	4.6									
	8.0	3.0	6.9	690	18.5	13.4	2.53	28.2	7.3	3.9	3.7									
	8.0	3.0	6.9	850	20.1	14.9	2.66	29.2	7.6	4.0	3.8									

Interpolation is permissible; extrapolation is not.  
 All entering air conditions are 80°F DB and 67°F WB in cooling, and 70°F DB in heating.  
 AHRI/ISO certified conditions are 80.6°F DB and 66.2°F WB in cooling and 68°F DB in heating.  
 Table does not reflect fan or pump power corrections for AHRI/ISO conditions.  
 All performance is based upon the lower voltage of dual voltage rated units.  
 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.  
 For operation in the shaded areas, please see the Performance Data Selection Notes.

# Tranquility Split (TTS/TTP/TAC/TAH) Series

## Performance Data — TTS/TTP038 Part Load With TAH

1000 CFM Nominal (Rated) Airflow Heating, 1000 CFM Nominal (Rated) Airflow Cooling

Performance capacities shown in thousands of Btu/h

EWT °F	GPM	PD		Cooling - EAT 80/67°F								Heating - EAT 70°F								
		PSI	FT	Airflow CFM	TC	SC	kW	HR	EER	TTS HWC	TTP HWC	Airflow CFM	HC	kW	HE	LAT	COP	TTS HWC	TTP HWC	
20	8.0	4.7	10.9	810	Operation Not Recommended								810	17.2	1.71	11.6	89.7	2.9	2.4	2.3
	8.0	4.7	10.9	1000									1000	17.6	1.59	12.2	86.3	3.2	2.1	2.0
30	4.0	1.2	2.8	810	28.8	18.0	0.84	31.7	34.4			810	19.0	1.73	13.3	91.7	3.2	2.4	2.3	
	4.0	1.2	2.8	1000	29.8	20.0	0.86	32.7	34.6			1000	19.4	1.61	13.9	88.0	3.5	2.1	2.0	
	6.0	2.6	6.0	810	28.1	17.3	0.80	30.8	35.1			810	19.6	1.73	13.9	92.5	3.3	2.4	2.3	
	6.0	2.6	6.0	1000	29.0	19.3	0.82	31.8	35.3			1000	20.1	1.61	14.6	88.6	3.7	2.1	2.0	
	8.0	4.5	10.4	810	27.6	17.0	0.79	30.3	35.0			810	20.0	1.73	14.3	92.9	3.4	2.4	2.3	
	8.0	4.5	10.4	1000	28.5	18.8	0.81	31.2	35.2			1000	20.5	1.61	14.9	88.9	3.7	2.1	2.0	
40	4.0	1.1	2.5	810	29.5	18.7	0.95	32.7	31.2			810	21.7	1.75	15.9	94.8	3.6	2.5	2.4	
	4.0	1.1	2.5	1000	30.4	20.8	0.97	33.7	31.4			1000	22.2	1.63	16.7	90.6	4.0	2.2	2.1	
	6.0	2.6	6.0	810	29.2	18.4	0.89	32.3	33.0			810	22.6	1.75	16.7	95.8	3.8	2.5	2.4	
	6.0	2.6	6.0	1000	30.2	20.4	0.91	33.3	33.2			1000	23.1	1.63	17.5	91.4	4.1	2.1	2.0	
	8.0	4.4	10.2	810	29.0	18.2	0.86	32.0	33.8			810	23.0	1.75	17.2	96.3	3.8	2.4	2.3	
	8.0	4.4	10.2	1000	29.9	20.2	0.88	33.0	34.0			1000	23.5	1.63	18.0	91.8	4.2	2.1	2.0	
50	4.0	1.0	2.3	810	29.4	19.0	1.07	33.1	27.4	0.8	0.8	810	24.6	1.76	18.7	98.1	4.1	2.6	2.5	
	4.0	1.0	2.3	1000	30.3	21.0	1.10	34.1	27.6	0.8	0.8	1000	25.2	1.64	19.5	93.3	4.5	2.2	2.1	
	6.0	2.5	5.8	810	29.5	18.9	0.99	32.9	29.7	0.7	0.7	810	25.6	1.78	19.6	99.3	4.2	2.6	2.5	
	6.0	2.5	5.8	1000	30.5	21.0	1.02	34.0	29.9	0.8	0.8	1000	26.2	1.65	20.6	94.2	4.6	2.2	2.1	
	8.0	4.2	9.7	810	29.5	18.8	0.97	32.8	30.6	0.7	0.7	810	26.1	1.78	20.2	99.9	4.3	2.5	2.4	
	8.0	4.2	9.7	1000	30.5	20.9	0.99	33.8	30.8	0.7	0.7	1000	26.7	1.65	21.1	94.7	4.7	2.2	2.1	
60	4.0	0.9	2.1	810	28.7	18.8	1.23	32.9	23.4	1.3	1.2	810	27.5	1.79	21.5	101.5	4.5	2.7	2.6	
	4.0	0.9	2.1	1000	29.6	20.8	1.26	33.9	23.5	1.3	1.2	1000	28.1	1.66	22.5	96.1	5.0	2.3	2.2	
	6.0	2.4	5.5	810	29.1	18.9	1.14	33.0	25.6	1.2	1.1	810	28.7	1.80	22.6	102.8	4.7	2.7	2.6	
	6.0	2.4	5.5	1000	30.1	21.0	1.17	34.1	25.7	1.2	1.1	1000	29.3	1.67	23.6	97.2	5.1	2.3	2.2	
	8.0	4.1	9.5	810	29.3	18.9	1.09	33.1	26.8	1.1	1.0	810	29.3	1.80	23.2	103.5	4.8	2.6	2.5	
	8.0	4.1	9.5	1000	30.3	21.0	1.12	34.1	27.0	1.1	1.0	1000	30.0	1.67	24.3	97.8	5.3	2.3	2.2	
70	4.0	0.8	1.8	810	27.6	18.3	1.41	32.4	19.5	1.8	1.7	810	30.5	1.81	24.3	104.8	4.9	2.8	2.7	
	4.0	0.8	1.8	1000	28.5	20.3	1.45	33.4	19.6	1.8	1.7	1000	31.1	1.68	25.4	98.8	5.4	2.5	2.4	
	6.0	2.3	5.3	810	28.3	18.6	1.31	32.7	21.6	1.7	1.6	810	31.8	1.82	25.5	106.3	5.1	2.8	2.7	
	6.0	2.3	5.3	1000	29.2	20.7	1.34	33.7	21.8	1.7	1.6	1000	32.5	1.69	26.7	100.1	5.6	2.4	2.3	
	8.0	4.0	9.2	810	28.5	18.7	1.26	32.8	22.7	1.5	1.4	810	32.4	1.82	26.2	107.1	5.2	2.8	2.7	
	8.0	4.0	9.2	1000	29.5	20.8	1.29	33.9	22.8	1.5	1.4	1000	33.2	1.69	27.4	100.7	5.8	2.4	2.3	
80	4.0	0.7	1.6	810	26.2	17.7	1.62	31.7	16.2	2.3	2.2	810	33.3	1.83	27.0	108.1	5.3	3.0	2.9	
	4.0	0.7	1.6	1000	27.0	19.6	1.66	32.7	16.3	2.3	2.2	1000	34.1	1.70	28.3	101.6	5.9	2.6	2.5	
	6.0	2.3	5.3	810	27.0	18.0	1.50	32.1	18.0	2.1	2.0	810	34.7	1.84	28.4	109.7	5.5	3.0	2.9	
	6.0	2.3	5.3	1000	27.8	20.0	1.54	33.1	18.1	2.1	2.0	1000	35.5	1.71	29.7	102.9	6.1	2.6	2.5	
	8.0	3.9	9.0	810	27.4	18.2	1.44	32.3	19.0	1.9	1.8	810	35.4	1.84	29.0	110.5	5.6	2.9	2.8	
	8.0	3.9	9.0	1000	28.2	20.2	1.48	33.3	19.1	1.9	1.8	1000	36.2	1.71	30.4	103.5	6.2	2.6	2.5	
85	4.0	0.7	1.6	810	25.4	17.3	1.7	31.3	14.7	2.5	2.4	810	34.7	1.84	28.4	109.7	5.5	3.2	3.0	
	4.0	0.7	1.6	1000	26.2	19.2	1.78	32.3	14.8	2.6	2.5	1000	35.5	1.7	29.7	102.9	6.1	2.7	2.6	
	6.0	2.2	5.1	810	26.2	17.7	1.61	31.7	16.4	2.3	2.2	810	36.1	1.9	29.7	111.3	5.7	3.2	3.0	
	6.0	2.2	5.1	1000	27.1	19.6	1.65	32.7	16.5	2.3	2.2	1000	36.9	1.7	31.0	104.2	6.3	2.7	2.6	
	8.0	3.8	8.8	810	26.6	17.9	1.55	31.9	17.3	2.1	2.0	810	36.8	1.9	30.4	112.1	5.8	3.0	2.9	
	8.0	3.8	8.8	1000	27.5	19.8	1.59	32.9	17.4	2.1	2.0	1000	37.6	1.7	31.8	104.9	6.4	2.7	2.5	
90	4.0	0.7	1.6	810	24.6	16.9	1.85	30.9	13.3	2.7	2.6	810	36.1	1.85	29.7	111.2	5.7	3.2	3.0	
	4.0	0.7	1.6	1000	25.4	18.8	1.90	31.9	13.4	2.8	2.7	1000	36.9	1.72	31.0	104.2	6.3	2.8	2.7	
	6.0	2.1	4.9	810	25.5	17.3	1.72	31.3	14.8	2.5	2.4	810	37.5	1.86	31.0	112.8	5.9	3.2	3.0	
	6.0	2.1	4.9	1000	26.3	19.2	1.76	32.3	14.9	2.5	2.4	1000	38.3	1.73	32.4	105.5	6.5	2.8	2.7	
	8.0	3.7	8.5	810	25.9	17.5	1.66	31.6	15.6	2.2	2.1	810	38.2	1.87	31.7	113.7	6.0	3.1	2.9	
	8.0	3.7	8.5	1000	26.7	19.5	1.70	32.5	15.7	2.3	2.2	1000	39.1	1.74	33.1	106.2	6.6	2.7	2.6	
100	4.0	0.6	1.4	810	23.0	16.1	2.11	30.1	10.9	3.1	2.9	810								
	4.0	0.6	1.4	1000	23.7	17.9	2.16	31.1	11.0	3.2	3.0	1000								
	6.0	2.1	4.9	810	23.8	16.5	1.97	30.5	12.1	2.8	2.7	810								
	6.0	2.1	4.9	1000	24.6	18.3	2.02	31.5	12.2	2.9	2.8	1000								
	8.0	3.6	8.3	810	24.3	16.7	1.90	30.7	12.8	2.5	2.4	810								
	8.0	3.6	8.3	1000	25.0	18.6	1.95	31.7	12.8	2.6	2.5	1000								
110	4.0	0.6	1.4	810	21.4	15.3	2.40	29.5	8.9	3.5	3.3	810								
	4.0	0.6	1.4	1000	22.1	17.0	2.46	30.4	9.0	3.5	3.3	1000								
	6.0	2.0	4.6	810	22.2	15.7	2.24	29.8	9.9	3.1	2.9	810								
	6.0	2.0	4.6	1000	22.9	17.4	2.30	30.7	10.0	3.2	3.0	1000								
	8.0	3.4	7.9	810	22.6	15.9	2.17	30.0	10.4	2.8	2.7	810								
	8.0	3.4	7.9	1000	23.3	17.7	2.23	30.9	10.5	2.9	2.8	1000								
120	4.0	0.5	1.2	810	19.9	14.7	2.71	29.2	7.4	3.8	3.6	810								
	4.0	0.5	1.2	1000	20.6	16.3	2.78	30.1	7.4	3.9	3.7	1000								
	6.0	1.9	4.4	810	20.6	15.0	2.54	29.3	8.1	3.4	3.2	810								
	6.0	1.9	4.4	1000	21.3	16.6	2.61	30.2	8.2	3.5	3.3	1000								
	8.0	3.3	7.6	810	2															

# ClimateMaster Geothermal Heat Pump Systems

## Performance Data — TTS/TTP038 Full Load With TAH

1250 CFM Nominal (Rated) Airflow Heating, 1250 CFM Nominal (Rated) Airflow Cooling

Performance capacities shown in thousands of Btu/h

EWT °F	GPM	PD		Cooling - EAT 80/67°F								Heating - EAT 70°F								
		PSI	FT	Airflow CFM	TC	SC	kW	HR	EER	TTS HWC	TTP HWC	Airflow CFM	HC	kW	HE	LAT	COP	TTS HWC	TTP HWC	
20	9.0	5.9	13.6	1010	Operation Not Recommended								1010	24.6	2.25	17.1	92.5	3.2	2.9	2.8
	9.0	5.9	13.6	1250									1250	25.2	2.14	17.8	88.6	3.4	2.5	2.4
30	4.5	1.7	3.9	1010	38.2	23.6	1.53	45.5	25.0			1010	26.6	2.30	19.0	94.4	3.4	3.0	2.9	
	4.5	1.7	3.9	1250	41.5	26.4	1.61	47.0	25.8			1250	27.2	2.18	19.8	90.2	3.7	2.6	2.5	
	6.8	3.3	7.6	1010	37.3	22.8	1.42	44.1	26.3			1010	27.7	2.32	20.0	95.4	3.5	3.0	2.9	
	6.8	3.3	7.6	1250	40.5	25.4	1.49	45.5	27.2			1250	28.4	2.20	20.9	91.0	3.8	2.6	2.5	
	9.0	5.7	13.2	1010	36.5	22.2	1.35	43.1	27.1			1010	28.3	2.33	20.6	96.0	3.6	2.9	2.8	
	9.0	5.7	13.2	1250	39.7	24.8	1.42	44.5	27.9			1250	29.0	2.21	21.4	91.5	3.8	2.5	2.4	
40	4.5	1.5	3.5	1010	38.6	24.2	1.69	46.5	22.8			1010	30.3	2.38	22.3	97.7	3.7	3.1	2.9	
	4.5	1.5	3.5	1250	41.9	27.0	1.78	48.0	23.6			1250	31.0	2.26	23.3	92.9	4.0	2.7	2.6	
	6.8	3.2	7.4	1010	38.5	23.9	1.59	45.9	24.3			1010	31.6	2.42	23.5	99.0	3.8	3.0	2.9	
	6.8	3.2	7.4	1250	41.8	26.7	1.67	47.5	25.0			1250	32.4	2.30	24.5	94.0	4.1	2.6	2.5	
	9.0	5.4	12.5	1010	38.2	23.6	1.53	45.5	25.0			1010	32.4	2.44	24.2	99.7	3.9	3.0	2.9	
	9.0	5.4	12.5	1250	41.5	26.3	1.61	47.0	25.8			1250	33.2	2.32	25.2	94.6	4.2	2.6	2.5	
50	4.5	1.3	3.0	1010	38.0	24.2	1.85	46.4	20.5	1.4	1.3	1010	34.1	2.50	25.7	101.3	4.0	3.2	3.0	
	4.5	1.3	3.0	1250	41.3	27.0	1.95	48.0	21.2	1.4	1.3	1250	34.9	2.37	26.8	95.8	4.3	2.8	2.7	
	6.8	3.1	7.2	1010	38.5	24.2	1.74	46.5	22.2	1.2	1.1	1010	35.7	2.55	27.1	102.8	4.1	3.2	3.0	
	6.8	3.1	7.2	1250	41.8	27.1	1.83	48.1	22.9	1.2	1.1	1250	36.6	2.42	28.3	97.1	4.4	2.8	2.7	
	9.0	5.2	12.0	1010	38.6	24.2	1.68	46.4	23.0	1.0	1.0	1010	36.6	2.58	27.9	103.6	4.2	3.1	2.9	
	9.0	5.2	12.0	1250	41.9	27.0	1.77	48.0	23.7	1.0	1.0	1250	37.5	2.45	29.1	97.8	4.5	2.7	2.6	
60	4.5	1.2	2.8	1010	36.8	23.7	2.02	45.8	18.2	1.9	1.8	1010	38.0	2.63	29.1	104.8	4.2	3.5	3.3	
	4.5	1.2	2.8	1250	40.0	26.5	2.13	47.3	18.8	1.9	1.8	1250	38.9	2.50	30.4	98.8	4.6	3.0	2.9	
	6.8	3.0	6.9	1010	37.7	24.1	1.90	46.3	19.9	1.6	1.5	1010	39.8	2.69	30.7	106.5	4.3	3.4	3.2	
	6.8	3.0	6.9	1250	41.0	26.9	2.00	47.8	20.5	1.7	1.6	1250	40.8	2.55	32.0	100.2	4.7	3.0	2.9	
	9.0	5.0	11.6	1010	38.1	24.2	1.84	46.5	20.7	1.4	1.3	1010	40.8	2.73	31.6	107.4	4.4	3.4	3.2	
	9.0	5.0	11.6	1250	41.4	27.0	1.94	48.0	21.3	1.4	1.3	1250	41.8	2.59	32.9	100.9	4.7	2.9	2.8	
70	4.5	1.1	2.5	1010	35.2	23.1	2.22	44.7	15.8	2.5	2.4	1010	41.8	2.76	32.5	108.3	4.4	3.8	3.6	
	4.5	1.1	2.5	1250	38.2	25.8	2.34	46.2	16.3	2.6	2.5	1250	42.8	2.62	33.9	101.7	4.8	3.3	3.1	
	6.8	2.9	6.7	1010	36.4	23.6	2.08	45.5	17.5	2.2	2.1	1010	43.8	2.82	34.2	110.1	4.5	3.7	3.5	
	6.8	2.9	6.7	1250	39.5	26.3	2.19	47.0	18.0	2.2	2.1	1250	44.8	2.68	35.6	103.2	4.9	3.2	3.0	
	9.0	4.8	11.1	1010	36.9	23.8	2.01	45.8	18.3	1.8	1.7	1010	44.8	2.85	35.1	111.0	4.6	3.7	3.5	
	9.0	4.8	11.1	1250	40.1	26.6	2.12	47.3	18.9	1.9	1.8	1250	45.8	2.71	36.6	103.9	5.0	3.2	3.0	
80	4.5	1.0	2.3	1010	33.3	22.2	2.46	43.6	13.5	3.3	3.1	1010	45.4	2.87	35.7	111.6	4.6	4.2	4.0	
	4.5	1.0	2.3	1250	36.2	24.8	2.59	45.0	14.0	3.3	3.1	1250	46.5	2.73	37.2	104.4	5.0	3.6	3.4	
	6.8	2.8	6.5	1010	34.6	22.8	2.30	44.4	15.1	2.8	2.7	1010	47.4	2.94	37.4	113.4	4.7	4.1	3.9	
	6.8	2.8	6.5	1250	37.6	25.5	2.42	45.8	15.5	2.8	2.7	1250	48.5	2.79	39.0	105.9	5.1	3.6	3.4	
	9.0	4.5	10.4	1010	35.3	23.1	2.21	44.8	15.9	2.3	2.2	1010	48.3	2.96	38.2	114.3	4.8	4.0	3.8	
	9.0	4.5	10.4	1250	38.3	25.8	2.33	46.2	16.4	2.4	2.3	1250	49.5	2.81	39.9	106.6	5.2	3.5	3.3	
85	4.5	0.95	2.2	1010	32.4	21.8	2.60	43.1	12.5	3.7	3.5	1010	47.0	2.92	37.1	113.1	4.7	4.4	4.2	
	4.5	0.95	2.2	1250	35.1	24.4	2.74	44.5	12.9	3.8	3.6	1250	48.2	2.78	38.7	105.7	5.1	3.6	3.4	
	6.8	2.75	6.4	1010	33.6	22.4	2.43	43.8	13.9	3.2	3.0	1010	48.9	2.97	38.8	114.8	4.8	4.4	4.2	
	6.8	2.75	6.4	1250	36.5	25.0	2.56	45.2	14.4	3.2	3.0	1250	50.0	2.82	40.4	107.1	5.2	3.6	3.4	
	9.0	4.45	10.3	1010	34.3	22.7	2.34	44.2	14.7	2.6	2.5	1010	49.8	2.99	39.6	115.6	4.9	4.5	4.3	
	9.0	4.45	10.3	1250	37.2	25.3	2.46	45.6	15.2	2.4	2.3	1250	51.0	2.84	41.3	107.7	5.3	3.7	3.5	
90	4.5	0.9	2.1	1010	31.4	21.4	2.75	42.5	11.4	4.1	3.9	1010	48.7	2.97	38.6	114.6	4.8	4.6	4.4	
	4.5	0.9	2.1	1250	34.1	23.9	2.89	43.9	11.8	4.2	4.0	1250	49.8	2.82	40.2	106.9	5.2	4.0	3.8	
	6.8	2.7	6.2	1010	32.7	21.9	2.56	43.2	12.8	3.5	3.3	1010	50.4	3.00	40.2	116.2	4.9	4.6	4.4	
	6.8	2.7	6.2	1250	35.5	24.5	2.69	44.6	13.2	3.6	3.4	1250	51.6	2.85	41.9	108.2	5.3	4.0	3.8	
	9.0	4.4	10.2	1010	33.3	22.2	2.46	43.6	13.5	2.9	2.8	1010	51.2	3.01	40.9	117.0	5.0	4.5	4.3	
	9.0	4.4	10.2	1250	36.2	24.8	2.59	45.0	14.0	3.0	2.9	1250	52.5	2.86	42.7	108.9	5.4	3.9	3.7	
100	4.5	0.8	1.8	1010	29.5	20.6	3.11	41.8	9.5	5.0	4.8	1010	Operation Not Recommended							
	4.5	0.8	1.8	1250	32.0	23.0	3.27	43.2	9.8	5.1	4.8	1250								
	6.8	2.6	6.0	1010	30.7	21.1	2.87	42.2	10.7	4.3	4.1	1010								
	6.8	2.6	6.0	1250	33.3	23.6	3.02	43.6	11.0	4.3	4.1	1250								
	9.0	4.2	9.7	1010	31.3	21.3	2.76	42.5	11.4	3.5	3.3	1010								
	9.0	4.2	9.7	1250	34.0	23.9	2.90	43.9	11.7	3.6	3.4	1250								
110	4.5	0.8	1.8	1010	27.9	20.0	3.55	41.7	7.9	6.0	5.7	1010	Operation Not Recommended							
	4.5	0.8	1.8	1250	30.3	22.4	3.74	43.1	8.1	6.1	5.8	1250								
	6.8	2.5	5.8	1010	28.9	20.4	3.26	41.7	8.9	5.1	4.8	1010								
	6.8	2.5	5.8	1250	31.4	22.7	3.43	43.1	9.1	5.2	4.9	1250								
	9.0	4.0	9.2	1010	29.4	20.6	3.13	41.8	9.4	4.2	4.0	1010								
	9.0	4.0	9.2	1250	32.0	23.0	3.29	43.2	9.7	4.3	4.1	1250								
120	4.5	0.7	1.6	1010	26.8	19.9	4.12	42.5	6.5	7.2	6.8	1010	Operation Not Recommended							
	4.5	0.7	1.6	1250	29.1	22.2	4.34	43.9	6.7	7.3	6.9	1250								
	6.8	2.5	5.8	1010	27.4	19.9	3.74	41.9	7.3	6.1	5.8	1010								
	6.8	2.5	5.8	1250	29.8	22.3	3.94	43.3	7.6	6.2	5.9	1250								
	9.0	3.8	8.8	1010	27.9	20.0	3.58	41.7	7.8	5.0	4.8	1010								
	9.0	3.8	8.8	1250	30.2	22.4	3.77	43.1	8.0	5.1	4.8	1250								

Interpolation is permissible; extrapolation is not.  
 All entering air conditions are 80°F DB and 67°F WB in cooling, and 70°F DB in heating.  
 AHRI/ISO certified conditions are 80.6°F DB and 66.2°F WB in cooling and 68°F DB in heating.  
 Table does not reflect fan or pump power corrections for AHRI/ISO conditions.  
 All performance is based upon the lower voltage of dual voltage rated units.  
 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.  
 For operation in the

# Tranquility Split (TTS/TTP/TAC/TAH) Series

## Performance Data — TTS/TTP049 Part Load With TAH

1400 CFM Nominal (Rated) Airflow Heating, 1300 CFM Nominal (Rated) Airflow Cooling

Performance capacities shown in thousands of Btu/h

EWT °F	GPM	PD		Cooling - EAT 80/67°F								Heating - EAT 70°F								
		PSI	FT	Airflow CFM	TC	SC	kW	HR	EER	TTS HWC	TTP HWC	Airflow CFM	HC	kW	HE	LAT	COP	TTS HWC	TTP HWC	
20	11.0	4.0	9.2	1060	Operation Not Recommended								1140	24.2	2.41	16.3	89.6	2.9	3.3	3.1
	11.0	4.0	9.2	1300									1400	24.7	2.24	17.1	86.3	3.2	2.8	2.7
30	5.5	1.1	2.5	1060	38.8	22.8	1.38	43.6	28.0			1140	26.4	2.44	18.4	91.4	3.2	3.4	3.2	
	5.5	1.1	2.5	1300	40.1	25.3	1.42	44.9	28.2			1400	27.0	2.27	19.2	87.8	3.5	2.9	2.8	
	8.3	2.3	5.3	1060	38.2	22.5	1.32	42.7	29.0			1140	27.2	2.45	19.2	92.1	3.3	3.3	3.1	
	8.3	2.3	5.3	1300	39.4	24.9	1.35	44.0	29.2			1400	27.8	2.28	20.1	88.4	3.6	2.9	2.8	
	11.0	3.9	9.0	1060	37.7	22.3	1.28	42.1	29.5			1140	27.7	2.45	19.6	92.5	3.3	3.0	2.9	
	11.0	3.9	9.0	1300	38.9	24.7	1.31	43.4	29.7			1400	28.3	2.28	20.5	88.7	3.6	2.9	2.8	
40	5.5	1.0	2.3	1060	39.2	23.0	1.54	44.5	25.5			1140	30.1	2.49	21.9	94.4	3.5	3.5	3.3	
	5.5	1.0	2.3	1300	40.5	25.6	1.58	45.9	25.6			1400	30.8	2.31	22.9	90.4	3.9	3.0	2.9	
	8.3	2.2	5.1	1060	39.1	22.9	1.45	44.1	26.9			1140	31.3	2.50	23.0	95.4	3.7	3.4	3.2	
	8.3	2.2	5.1	1300	40.4	25.5	1.49	45.5	27.1			1400	32.0	2.32	24.1	91.1	4.0	3.0	2.9	
	11.0	3.7	8.5	1060	39.0	22.9	1.41	43.8	27.6			1140	31.9	2.51	23.6	95.9	3.7	3.4	3.2	
	11.0	3.7	8.5	1300	40.2	25.4	1.45	45.2	27.7			1400	32.6	2.33	24.7	91.6	4.1	2.9	2.8	
50	5.5	0.9	2.1	1060	38.8	23.0	1.71	44.6	22.7	0.9	0.9	1140	34.2	2.53	25.8	97.8	4.0	3.6	3.4	
	5.5	0.9	2.1	1300	40.0	25.5	1.75	46.0	22.9	0.9	0.9	1400	35.0	2.35	27.0	93.2	4.4	3.1	2.9	
	8.3	2.1	4.9	1060	39.1	23.0	1.61	44.6	24.3	0.8	0.8	1140	35.7	2.55	27.2	99.0	4.1	3.5	3.3	
	8.3	2.1	4.9	1300	40.4	25.6	1.65	46.0	24.5	0.9	0.9	1400	36.5	2.37	28.5	94.2	4.5	3.1	2.9	
	11.0	3.6	8.3	1060	39.2	23.0	1.57	44.6	25.0	0.8	0.8	1140	36.6	2.55	28.0	99.7	4.2	3.5	3.3	
	11.0	3.6	8.3	1300	40.4	25.6	1.61	45.9	25.1	0.8	0.8	1400	37.4	2.37	29.3	94.7	4.6	3.0	2.9	
60	5.5	0.8	1.8	1060	37.7	22.6	1.91	44.2	19.7	1.6	1.5	1140	38.6	2.57	29.9	101.4	4.4	3.7	3.5	
	5.5	0.8	1.8	1300	38.9	25.1	1.96	45.6	19.8	1.6	1.5	1400	39.5	2.39	31.3	96.1	4.8	3.3	3.1	
	8.3	2.0	4.6	1060	38.4	22.8	1.79	44.5	21.4	1.4	1.3	1140	40.4	2.59	31.6	102.8	4.6	3.7	3.5	
	8.3	2.0	4.6	1300	39.6	25.4	1.84	45.9	21.5	1.5	1.4	1400	41.3	2.41	33.1	97.3	5.0	3.2	3.0	
	11.0	3.5	8.1	1060	38.6	22.9	1.75	44.6	22.1	1.3	1.2	1140	41.3	2.60	32.5	103.6	4.7	3.7	3.5	
	11.0	3.5	8.1	1300	39.9	25.4	1.79	46.0	22.3	1.3	1.2	1400	42.3	2.42	34.0	97.9	5.1	3.2	3.0	
70	5.5	0.8	1.8	1060	36.1	22.1	2.14	43.4	16.9	2.2	2.1	1140	43.0	2.63	34.1	104.9	4.8	3.9	3.7	
	5.5	0.8	1.8	1300	37.3	24.5	2.19	44.7	17.0	2.2	2.1	1400	44.0	2.44	35.6	99.1	5.3	3.4	3.2	
	8.3	2.0	4.6	1060	37.0	22.4	2.01	43.9	18.4	2.0	1.9	1140	44.9	2.65	35.9	106.5	5.0	3.9	3.7	
	8.3	2.0	4.6	1300	38.2	24.9	2.06	45.2	18.5	2.0	1.9	1400	46.0	2.46	37.6	100.4	5.5	3.4	3.2	
	11.0	3.3	7.6	1060	37.4	22.6	1.94	44.1	19.3	1.8	1.7	1140	46.0	2.66	36.9	107.4	5.1	3.9	3.7	
	11.0	3.3	7.6	1300	38.6	25.0	1.99	45.4	19.4	1.8	1.7	1400	47.0	2.47	38.6	101.1	5.6	3.4	3.2	
80	5.5	0.7	1.6	1060	34.2	21.4	2.40	42.4	14.3	2.8	2.7	1140	47.2	2.67	38.1	108.4	5.2	4.2	4.0	
	5.5	0.7	1.6	1300	35.3	23.8	2.46	43.7	14.3	2.8	2.7	1400	48.3	2.48	39.8	101.9	5.7	3.6	3.4	
	8.3	1.9	4.4	1060	35.3	21.8	2.25	42.9	15.7	2.5	2.4	1140	49.2	2.70	40.0	110.0	5.3	4.1	3.9	
	8.3	1.9	4.4	1300	36.4	24.2	2.31	44.3	15.7	2.6	2.5	1400	50.4	2.51	41.8	103.3	5.9	3.6	3.4	
	11.0	3.2	7.4	1060	35.8	22.0	2.18	43.2	16.4	2.3	2.2	1140	50.3	2.71	40.9	110.8	5.4	4.1	3.9	
	11.0	3.2	7.4	1300	36.9	24.4	2.24	44.5	16.5	2.3	2.2	1400	51.4	2.52	42.8	104.0	6.0	3.6	3.4	
85	5.5	0.7	1.6	1060	33.1	21.0	2.6	41.8	13.0	3.1	2.9	1140	49.2	2.70	39.9	109.9	5.3	4.4	4.2	
	5.5	0.7	1.6	1300	34.2	23.3	2.62	43.1	13.1	3.1	2.9	1400	50.3	2.5	41.7	103.2	5.9	3.8	3.6	
	8.3	1.9	4.3	1060	34.2	21.4	2.40	42.4	14.3	2.8	2.7	1140	51.1	2.7	41.7	111.5	5.5	4.3	4.1	
	8.3	1.9	4.3	1300	35.3	23.8	2.46	43.7	14.4	2.9	2.8	1400	52.3	2.5	43.6	104.6	6.0	3.8	3.6	
	11.0	3.2	7.3	1060	34.8	21.6	2.32	42.7	15.1	2.5	2.4	1140	52.1	2.7	42.6	112.3	5.6	4.3	4.1	
	11.0	3.2	7.3	1300	35.9	24.0	2.38	44.0	15.1	2.6	2.5	1400	53.3	2.5	44.6	105.2	6.1	3.7	3.5	
90	5.5	0.7	1.6	1060	32.0	20.6	2.71	41.3	11.8	3.3	3.1	1140	51.1	2.72	41.7	111.5	5.5	4.5	4.3	
	5.5	0.7	1.6	1300	33.1	22.9	2.78	42.6	11.9	3.4	3.2	1400	52.3	2.53	43.6	104.6	6.1	3.9	3.7	
	8.3	1.8	4.2	1060	33.2	21.0	2.54	41.8	13.0	3.0	2.9	1140	53.0	2.75	43.5	113.1	5.6	4.4	4.2	
	8.3	1.8	4.2	1300	34.2	23.4	2.61	43.1	13.1	3.1	2.9	1400	54.2	2.56	45.5	105.8	6.2	3.9	3.7	
	11.0	3.1	7.2	1060	33.8	21.3	2.46	42.1	13.7	2.7	2.6	1140	53.9	2.77	44.3	113.8	5.7	4.4	4.2	
	11.0	3.1	7.2	1300	34.8	23.6	2.52	43.4	13.8	2.8	2.7	1400	55.1	2.57	46.4	106.5	6.3	3.8	3.6	
100	5.5	0.7	1.6	1060	29.8	19.7	3.07	40.2	9.7	3.8	3.6	1140								
	5.5	0.7	1.6	1300	30.7	21.9	3.15	41.5	9.8	3.9	3.7	1400								
	8.3	1.8	4.2	1060	30.9	20.2	2.88	40.8	10.8	3.5	3.3	1140								
	8.3	1.8	4.2	1300	31.9	22.4	2.95	42.0	10.8	3.5	3.3	1400								
	11.0	3.0	6.9	1060	31.5	20.4	2.79	41.0	11.3	3.1	2.9	1140								
	11.0	3.0	6.9	1300	32.5	22.7	2.86	42.3	11.4	3.2	3.0	1400								
110	5.5	0.6	1.4	1060	27.5	18.8	3.50	39.4	7.9	4.3	4.1	1140								
	5.5	0.6	1.4	1300	28.4	20.9	3.59	40.7	7.9	4.3	4.1	1400								
	8.3	1.7	3.9	1060	28.6	19.3	3.28	39.8	8.7	3.9	3.7	1140								
	8.3	1.7	3.9	1300	29.6	21.4	3.36	41.0	8.8	3.9	3.7	1400								
	11.0	2.8	6.5	1060	29.2	19.5	3.17	40.0	9.2	3.5	3.3	1140								
	11.0	2.8	6.5	1300	30.2	21.6	3.25	41.3	9.3	3.5	3.3	1400								
120	5.5	0.6	1.4	1060	25.4	17.9	4.00	39.0	6.4	4.7	4.5	1140								
	5.5	0.6	1.4	1300	26.2	19.9	4.10	40.2	6.4	4.8	4.6	1400								
	8.3	1.7	3.9	1060	26.4	18.3	3.74	39.2	7.1	4.2	4.0	1140								
	8.3	1.7	3.9	1300	27.3	20.3	3.84	40.4	7.1	4.3	4.1	1400								

# ClimateMaster Geothermal Heat Pump Systems

## Performance Data — TTS/TTP049 Full Load With TAH

1650 CFM Nominal (Rated) Airflow Heating, 1550 CFM Nominal (Rated) Airflow Cooling

Performance capacities shown in thousands of Btu/h

EWT °F	GPM	PD		Cooling - EAT 80/67°F								Heating - EAT 70°F								
		PSI	FT	Airflow CFM	TC	SC	kW	HR	EER	TTS HWC	TTP HWC	Airflow CFM	HC	kW	HE	LAT	COP	TTS HWC	TTP HWC	
20	12.0	4.8	11.1	1250	Operation Not Recommended								1340	32.8	3.16	22.4	92.6	3.0	3.8	3.6
	12.0	4.8	11.1	1550									1650	33.5	3.00	23.3	88.8	3.3	3.3	3.1
30	6.0	1.3	3.0	1250	47.9	28.8	2.16	57.9	22.2			1340	35.4	3.23	24.7	94.5	3.2	4.0	3.8	
	6.0	1.3	3.0	1550	52.1	32.1	2.27	59.8	22.9			1650	36.3	3.07	25.8	90.3	3.5	3.5	3.3	
	9.0	2.7	6.2	1250	44.0	26.4	1.85	52.7	23.8			1340	36.8	3.26	26.0	95.4	3.3	3.9	3.7	
	9.0	2.7	6.2	1550	47.8	29.5	1.95	54.5	24.5			1650	37.7	3.10	27.1	91.2	3.6	3.4	3.2	
	12.0	4.6	10.6	1250	41.6	24.9	1.69	49.6	24.6			1340	37.6	3.30	26.7	96.0	3.3	3.9	3.7	
	12.0	4.6	10.6	1550	45.2	27.9	1.78	51.2	25.4			1650	38.5	3.13	27.8	91.6	3.6	3.3	3.1	
40	6.0	1.1	2.5	1250	50.6	30.5	2.48	61.8	20.4			1340	40.3	3.37	29.0	97.8	3.5	4.1	3.9	
	6.0	1.1	2.5	1550	55.0	34.1	2.61	63.9	21.1			1650	41.2	3.20	30.3	93.1	3.8	3.6	3.4	
	9.0	2.6	6.0	1250	49.2	29.6	2.27	59.6	21.7			1340	42.1	3.43	30.7	99.1	3.6	4.0	3.8	
	9.0	2.6	6.0	1550	53.4	33.0	2.39	61.6	22.3			1650	43.1	3.26	32.0	94.2	3.9	3.5	3.3	
	12.0	4.4	10.2	1250	48.0	28.8	2.16	57.9	22.2			1340	43.1	3.46	31.5	99.8	3.6	4.0	3.8	
	12.0	4.4	10.2	1550	52.1	32.2	2.27	59.8	22.9			1650	44.1	3.29	32.9	94.8	3.9	3.4	3.2	
50	6.0	1.1	2.5	1250	50.6	30.7	2.71	62.6	18.7	1.9	1.8	1340	45.5	3.54	33.6	101.4	3.8	4.3	4.1	
	6.0	1.1	2.5	1550	54.9	34.3	2.85	64.6	19.3	2.0	1.9	1650	46.6	3.36	35.1	96.1	4.1	3.7	3.5	
	9.0	2.5	5.8	1250	50.8	30.7	2.56	62.3	19.9	1.7	1.6	1340	47.7	3.61	35.6	102.9	3.9	4.2	4.0	
	9.0	2.5	5.8	1550	55.2	34.3	2.69	64.3	20.5	1.7	1.6	1650	48.8	3.43	37.1	97.4	4.2	3.7	3.5	
	12.0	4.2	9.7	1250	50.5	30.5	2.46	61.7	20.5	1.4	1.3	1340	48.9	3.65	36.6	103.8	3.9	4.2	4.0	
	12.0	4.2	9.7	1550	54.9	34.0	2.59	63.7	21.2	1.4	1.3	1650	50.0	3.47	38.2	98.1	4.2	3.6	3.4	
60	6.0	1.0	2.3	1250	48.9	30.0	2.92	61.5	16.8	2.8	2.7	1340	50.8	3.72	38.3	105.1	4.0	4.6	4.4	
	6.0	1.0	2.3	1550	53.1	33.5	3.07	63.6	17.3	2.8	2.7	1650	52.0	3.53	39.9	99.2	4.3	4.0	3.8	
	9.0	2.4	5.5	1250	50.2	30.6	2.77	62.4	18.1	2.4	2.3	1340	53.2	3.80	40.4	106.8	4.1	4.5	4.3	
	9.0	2.4	5.5	1550	54.5	34.2	2.92	64.5	18.7	2.4	2.3	1650	54.5	3.61	42.1	100.6	4.4	3.9	3.7	
	12.0	4.0	9.2	1250	50.6	30.7	2.70	62.6	18.8	2.0	1.9	1340	54.5	3.84	41.5	107.7	4.2	4.5	4.3	
	12.0	4.0	9.2	1550	55.0	34.3	2.84	64.7	19.4	2.0	1.9	1650	55.8	3.65	43.3	101.3	4.5	3.9	3.7	
70	6.0	0.9	2.1	1250	46.3	28.8	3.14	59.6	14.8	3.8	3.6	1340	55.9	3.90	42.8	108.6	4.2	5.0	4.8	
	6.0	0.9	2.1	1550	50.3	32.1	3.30	61.6	15.2	3.8	3.6	1650	57.2	3.70	44.6	102.1	4.5	4.4	4.2	
	9.0	2.3	5.3	1250	48.2	29.7	2.98	61.0	16.2	3.2	3.0	1340	58.4	3.99	44.9	110.3	4.3	5.0	4.8	
	9.0	2.3	5.3	1550	52.4	33.2	3.14	63.0	16.7	3.3	3.1	1650	59.8	3.79	46.8	103.5	4.6	4.3	4.1	
	12.0	3.8	8.8	1250	49.0	30.1	2.91	61.6	16.9	2.7	2.6	1340	59.7	4.03	46.0	111.2	4.3	4.9	4.7	
	12.0	3.8	8.8	1550	53.3	33.6	3.06	63.7	17.4	2.7	2.6	1650	61.1	3.83	48.0	104.3	4.7	4.2	4.0	
80	6.0	0.9	2.1	1250	43.3	27.3	3.40	57.3	12.7	4.9	4.7	1340	60.5	4.06	46.8	111.8	4.4	5.6	5.3	
	6.0	0.9	2.1	1550	47.0	30.5	3.58	59.2	13.1	5.0	4.8	1650	62.0	3.86	48.8	104.8	4.7	4.8	4.6	
	9.0	2.3	5.3	1250	45.4	28.3	3.21	58.9	14.1	4.2	4.0	1340	62.8	4.15	48.8	113.4	4.4	5.5	5.2	
	9.0	2.3	5.3	1550	49.3	31.6	3.38	60.8	14.6	4.3	4.1	1650	64.3	3.94	50.9	106.1	4.8	4.8	4.6	
	12.0	3.6	8.3	1250	46.4	28.8	3.13	59.7	14.8	3.5	3.3	1340	63.9	4.19	49.7	114.2	4.5	5.4	5.1	
	12.0	3.6	8.3	1550	50.4	32.2	3.29	61.6	15.3	3.5	3.3	1650	65.4	3.98	51.8	106.7	4.8	4.7	4.5	
85	6.0	0.9	2.1	1250	41.7	26.5	3.58	56.3	11.7	5.6	5.3	1340	62.4	4.14	48.4	113.2	4.4	5.9	5.6	
	6.0	0.9	2.1	1550	45.3	29.6	3.77	58.1	12.1	6.3	6.0	1650	63.9	3.93	50.5	105.9	4.8	5.1	4.8	
	9.0	2.25	5.2	1250	43.8	27.5	3.36	57.7	13.1	4.8	4.6	1340	64.5	4.22	50.2	114.5	4.5	5.8	5.5	
	9.0	2.25	5.2	1550	47.5	30.7	3.54	59.6	13.5	4.9	4.7	1650	66.0	4.01	52.3	107.0	4.8	5.1	4.8	
	12.0	3.55	8.2	1250	44.8	28.0	3.26	58.5	13.8	3.9	3.7	1340	65.3	4.25	50.9	115.1	4.5	5.4	5.1	
	12.0	3.55	8.2	1550	48.7	31.3	3.44	60.4	14.2	4.0	3.8	1650	66.9	4.04	53.1	107.5	4.9	5.0	4.8	
90	6.0	0.9	2.1	1250	40.1	25.8	3.75	55.2	10.7	6.2	5.9	1340	64.4	4.21	50.1	114.5	4.5	6.2	5.9	
	6.0	0.9	2.1	1550	43.6	28.8	3.95	57.0	11.0	6.3	6.0	1650	65.9	4.00	52.2	107.0	4.8	5.4	5.1	
	9.0	2.2	5.1	1250	42.2	26.7	3.52	56.5	12.0	5.3	5.0	1340	66.1	4.29	51.6	115.7	4.5	6.1	5.8	
	9.0	2.2	5.1	1550	45.8	29.9	3.70	58.4	12.4	5.4	5.1	1650	67.6	4.07	53.8	108.0	4.9	5.3	5.0	
	12.0	3.5	8.1	1250	43.2	27.3	3.40	57.3	12.7	4.3	4.1	1340	66.8	4.32	52.1	116.1	4.5	6.0	5.7	
	12.0	3.5	8.1	1550	46.9	30.5	3.58	59.2	13.1	4.4	4.2	1650	68.3	4.10	54.4	108.3	4.9	5.2	4.9	
100	6.0	0.8	1.8	1250	37.2	24.4	4.23	53.9	8.8	7.6	7.2	1340								
	6.0	0.8	1.8	1550	40.4	27.3	4.45	55.6	9.1	7.8	7.4	1650								
	9.0	2.1	4.9	1250	39.0	25.2	3.91	54.6	10.0	6.5	6.2	1340								
	9.0	2.1	4.9	1550	42.3	28.2	4.12	56.4	10.3	6.6	6.3	1650								
	12.0	3.3	7.6	1250	40.0	25.7	3.77	55.1	10.6	5.3	5.0	1340								
	12.0	3.3	7.6	1550	43.4	28.7	3.97	56.9	10.9	5.4	5.1	1650								
110	6.0	0.8	1.8	1250	35.2	23.7	4.91	54.0	7.2	9.2	8.7	1340								
	6.0	0.8	1.8	1550	38.2	26.5	5.17	55.8	7.4	9.4	8.9	1650								
	9.0	2.0	4.6	1250	36.3	24.1	4.47	53.7	8.1	7.8	7.4	1340								
	9.0	2.0	4.6	1550	39.4	26.9	4.70	55.5	8.4	7.9	7.5	1650								
	12.0	3.2	7.4	1250	37.1	24.4	4.28	53.8	8.7	6.4	6.1	1340								
	12.0	3.2	7.4	1550	40.2	27.2	4.50	55.6	8.9	6.5	6.2	1650								
120	6.0	0.8	1.8	1250	34.6	24.1	5.89	56.9	5.9	10.9	10.4	1340								
	6.0	0.8	1.8	1550	37.6	27.0	6.20	58.8	6.1	11.1	10.5	1650								
	9.0	2.0	4.6	1250	34.7	23.7	5.23	54.7	6.6	9.3	8.8	1340								
	9.0	2.0	4.6	1550	37.7	26.5	5.50	56.5	6.9	9.4	8.9									

# Tranquility Split (TTS/TTP/TAC/TAH) Series

## Performance Data — TTS/TTP064 Part Load With TAH

1650 CFM Nominal (Rated) Airflow Heating, 1550 CFM Nominal (Rated) Airflow Cooling

Performance capacities shown in thousands of Btu/h

EWT °F	GPM	PD		Cooling - EAT 80/67°F								Heating - EAT 70°F								
		PSI	FT	Airflow CFM	TC	SC	kW	HR	EER	TTS HWC	TTP HWC	Airflow CFM	HC	kW	HE	LAT	COP	TTS HWC	TTP HWC	
20	14.0	4.1	9.5	1220	Operation Not Recommended								1340	28.7	3.26	18.1	89.8	2.6	3.4	3.2
	14.0	4.1	9.5	1500									1650	29.3	3.03	19.0	86.5	2.8	3.0	2.9
30	7.0	0.5	1.2	1220	42.0	22.1	1.64	47.6	25.6			1340	30.9	3.29	20.3	91.4	2.8	3.5	3.3	
	7.0	0.5	1.2	1500	43.3	24.6	1.68	49.1	25.8			1650	31.6	3.06	21.2	87.8	3.0	3.1	2.9	
	11.0	1.9	4.4	1220	39.8	19.6	1.56	45.1	25.5			1340	31.8	3.30	21.1	92.0	2.8	3.5	3.3	
	11.0	1.9	4.4	1500	41.1	21.8	1.60	46.5	25.7			1650	32.5	3.07	22.0	88.2	3.1	3.0	2.9	
	14.0	3.9	9.0	1220	38.9	18.7	1.54	44.1	25.2			1340	32.2	3.31	21.4	92.2	2.8	3.4	3.2	
	14.0	3.9	9.0	1500	40.1	20.7	1.58	45.5	25.4			1650	32.9	3.08	22.4	88.5	3.1	3.0	2.9	
40	7.0	0.4	0.9	1220	44.6	25.7	1.82	50.9	24.5			1340	35.1	3.35	24.2	94.2	3.1	3.6	3.4	
	7.0	0.4	0.9	1500	46.1	28.5	1.87	52.5	24.6			1650	35.9	3.11	25.3	90.1	3.4	3.1	2.9	
	11.0	1.8	4.2	1220	43.5	24.0	1.73	49.4	25.2			1340	36.4	3.36	25.4	95.1	3.2	3.6	3.4	
	11.0	1.8	4.2	1500	44.9	26.7	1.77	50.9	25.4			1650	37.2	3.12	26.6	90.9	3.5	3.1	2.9	
	14.0	3.7	8.5	1220	43.0	23.3	1.69	48.7	25.5			1340	36.9	3.36	25.9	95.5	3.2	3.5	3.3	
	14.0	3.7	8.5	1500	44.3	25.9	1.73	50.2	25.6			1650	37.7	3.12	27.1	91.2	3.5	3.1	2.9	
50	7.0	0.3	0.7	1220	45.4	27.4	2.06	52.4	22.1	1.0	1.0	1340	40.0	3.39	28.8	97.6	3.5	3.7	3.5	
	7.0	0.3	0.7	1500	46.8	30.4	2.11	54.0	22.2	1.0	1.0	1650	40.9	3.15	30.1	92.9	3.8	3.2	3.0	
	11.0	1.8	4.2	1220	45.2	26.6	1.92	51.7	23.5	0.9	0.9	1340	41.7	3.41	30.4	98.8	3.6	3.7	3.5	
	11.0	1.8	4.2	1500	46.6	29.6	1.97	53.3	23.7	0.9	0.9	1650	42.6	3.17	31.8	93.9	3.9	3.2	3.0	
	14.0	3.6	8.3	1220	45.0	26.2	1.88	51.4	23.9	0.8	0.8	1340	42.4	3.41	31.1	99.3	3.6	3.6	3.4	
	14.0	3.6	8.3	1500	46.4	29.1	1.93	53.0	24.0	0.8	0.8	1650	43.3	3.17	32.5	94.3	4.0	3.2	3.0	
60	7.0	0.3	0.7	1220	44.8	27.8	2.32	52.7	19.3	1.7	1.6	1340	45.2	3.44	33.7	101.2	3.8	3.9	3.7	
	7.0	0.3	0.7	1500	46.2	30.8	2.38	54.3	19.4	1.7	1.6	1650	46.2	3.20	35.3	95.9	4.2	3.4	3.2	
	11.0	1.7	3.9	1220	45.3	27.7	2.16	52.7	20.9	1.5	1.4	1340	47.2	3.46	35.6	102.6	4.0	3.8	3.6	
	11.0	1.7	3.9	1500	46.7	30.8	2.22	54.3	21.0	1.6	1.5	1650	48.2	3.22	37.3	97.1	4.4	3.3	3.1	
	14.0	3.4	7.9	1220	45.4	27.6	2.12	52.6	21.4	1.4	1.3	1340	48.0	3.46	36.4	103.2	4.1	3.8	3.6	
	14.0	3.4	7.9	1500	46.8	30.6	2.17	54.2	21.6	1.4	1.3	1650	49.1	3.22	38.1	97.5	4.5	3.3	3.1	
70	7.0	0.2	0.5	1220	43.1	27.1	2.63	52.1	16.4	2.3	2.2	1340	50.3	3.49	38.6	104.7	4.2	4.1	3.9	
	7.0	0.2	0.5	1500	44.5	30.1	2.70	53.7	16.5	2.4	2.3	1650	51.4	3.24	40.3	98.8	4.6	3.6	3.4	
	11.0	1.7	3.9	1220	44.1	27.6	2.46	52.5	18.0	2.1	2.0	1340	52.4	3.51	40.6	106.2	4.4	4.1	3.9	
	11.0	1.7	3.9	1500	45.6	30.6	2.52	54.1	18.1	2.2	2.1	1650	53.6	3.26	42.4	100.1	4.8	3.5	3.3	
	14.0	3.3	7.6	1220	44.5	27.7	2.39	52.6	18.6	1.9	1.8	1340	53.2	3.52	41.3	106.8	4.4	4.0	3.8	
	14.0	3.3	7.6	1500	45.9	30.7	2.45	54.2	18.7	2.0	1.9	1650	54.4	3.27	43.3	100.5	4.9	3.5	3.3	
80	7.0	0.2	0.5	1220	40.8	25.9	2.98	51.0	13.7	3.0	2.9	1340	54.9	3.54	42.9	107.9	4.5	4.4	4.2	
	7.0	0.2	0.5	1500	42.1	28.8	3.06	52.5	13.8	3.0	2.9	1650	56.1	3.29	44.9	101.5	5.0	3.8	3.6	
	11.0	1.6	3.7	1220	42.1	26.7	2.79	51.6	15.1	2.7	2.6	1340	56.8	3.56	44.8	109.3	4.7	4.3	4.1	
	11.0	1.6	3.7	1500	43.5	29.6	2.86	53.2	15.2	2.7	2.6	1650	58.1	3.31	46.8	102.6	5.1	3.7	3.5	
	14.0	3.1	7.2	1220	42.6	26.9	2.71	51.9	15.7	2.4	2.3	1340	57.5	3.56	45.4	109.8	4.7	4.3	4.1	
	14.0	3.1	7.2	1500	44.0	29.9	2.78	53.5	15.8	2.5	2.4	1650	58.8	3.31	47.5	103.0	5.2	3.7	3.5	
85	7.0	0.2	0.3	1220	39.4	25.2	3.2	50.2	12.4	3.5	3.3	1340	56.7	3.56	44.7	109.2	4.7	4.6	4.4	
	7.0	0.2	0.3	1500	40.6	28.0	3.27	51.8	12.5	3.6	3.4	1650	58.0	3.3	46.7	102.6	5.1	4.0	3.8	
	11.0	1.6	3.6	1220	40.8	26.0	2.97	51.0	13.8	3.0	2.9	1340	58.4	3.6	46.2	110.3	4.8	4.5	4.3	
	11.0	1.6	3.6	1500	42.1	28.8	3.05	52.6	13.9	3.0	2.9	1650	59.7	3.3	48.3	103.5	5.3	3.9	3.7	
	14.0	3.1	7.0	1220	41.4	26.2	2.90	51.2	14.4	2.7	2.6	1340	58.9	3.6	46.7	110.7	4.8	4.5	4.3	
	14.0	3.1	7.0	1500	42.7	29.1	2.97	52.8	14.5	2.7	2.6	1650	60.2	3.3	48.9	103.8	5.3	3.9	3.7	
90	7.0	0.1	0.2	1220	38.0	24.5	3.38	49.5	11.2	3.5	3.3	1340	58.6	3.57	46.4	110.5	4.8	4.7	4.5	
	7.0	0.1	0.2	1500	39.2	27.1	3.47	51.0	11.3	3.6	3.4	1650	59.9	3.32	48.5	103.6	5.3	4.1	3.9	
	11.0	1.5	3.5	1220	39.5	25.3	3.16	50.3	12.5	3.2	3.0	1340	59.9	3.59	47.7	111.4	4.9	4.6	4.4	
	11.0	1.5	3.5	1500	40.8	28.0	3.24	51.9	12.6	3.3	3.1	1650	61.3	3.34	49.9	104.4	5.4	4.0	3.8	
	14.0	3.0	6.9	1220	40.1	25.6	3.08	50.6	13.0	2.9	2.8	1340	60.3	3.60	48.0	111.7	4.9	4.6	4.4	
	14.0	3.0	6.9	1500	41.4	28.4	3.16	52.2	13.1	2.9	2.8	1650	61.6	3.35	50.2	104.6	5.4	4.0	3.8	
100	7.0	0.1	0.2	1220	35.0	22.9	3.82	48.0	9.2	4.1	3.9	1340	Operation Not Recommended							
	7.0	0.1	0.2	1500	36.1	25.5	3.92	49.5	9.2	4.2	4.0	1650								
	11.0	1.5	3.5	1220	36.6	23.7	3.59	48.8	10.2	3.7	3.5	1340								
	11.0	1.5	3.5	1500	37.7	26.3	3.68	50.3	10.3	3.8	3.6	1650								
	14.0	2.8	6.5	1220	37.2	24.0	3.50	49.1	10.6	3.3	3.1	1340								
	14.0	2.8	6.5	1500	38.4	26.7	3.59	50.6	10.7	3.4	3.2	1650								
110	7.0	0.1	0.2	1220	32.0	21.6	4.32	46.7	7.4	4.6	4.4	1340	Operation Not Recommended							
	7.0	0.1	0.2	1500	33.0	24.0	4.43	48.1	7.4	4.7	4.5	1650								
	11.0	1.5	3.5	1220	33.5	22.2	4.07	47.3	8.2	4.1	3.9	1340								
	11.0	1.5	3.5	1500	34.6	24.7	4.17	48.8	8.3	4.2	4.0	1650								
	14.0	2.7	6.2	1220	34.1	22.5	3.97	47.6	8.6	3.7	3.5	1340								
	14.0	2.7	6.2	1500	35.2	25.0	4.07	49.1	8.6	3.8	3.6	1650								
120	7.0	0.1	0.2	1220	29.2	20.7	4.88	45.8	6.0	5.0	4.8	1340	Operation Not Recommended							
	7.0	0.1	0.2	1500	30.1	22.9	5.00	47.2	6.0	5.1	4.8	1650								
	11.0	1.4	3.2	1220	30.5	21.1	4.59	46.2	6.6	4.5	4.3	1340								
	11.0	1.4	3.2	1500	31.5	23.4	4.71	47.6	6.7	4.6	4.4	1650								
	14.0	2.6	6.0	1220	31.1	21.3	4.49	46.3	6.9	4.1	3.9	1340								
	14.0	2.6	6.0	1500	32.0	23.6	4.61	47.8	7.0	4.1	3.9	1650								

Interpolation is permissible; extrapolation is not.  
 All entering air conditions are 80°F DB and 67°F WB in cooling, and 70°F DB in heating.  
 AHRI/ISO certified conditions are 80.6°F DB and 66.2°F WB in cooling and 68°F DB in heating.  
 Table does not reflect fan or pump power corrections for AHRI/ISO conditions.  
 All performance is based upon the lower voltage of dual voltage rated units.  
 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

# ClimateMaster Geothermal Heat Pump Systems

## Performance Data — TTS/TTP064 Full Load With TAH

2050 CFM Nominal (Rated) Airflow Heating, 1825 CFM Nominal (Rated) Airflow Cooling

Performance capacities shown in thousands of Btu/h

EWT °F	GPM	PD		Cooling - EAT 80/67°F								Heating - EAT 70°F								
		PSI	FT	Airflow CFM	TC	SC	kW	HR	EER	TTS HWC	TTP HWC	Airflow CFM	HC	kW	HE	LAT	COP	TTS HWC	TTP HWC	
20	15.0	5	11.6	1480	Operation Not Recommended								1660	40.1	4.31	26.0	92.4	2.7	4.0	3.8
	15.0	5	11.6	1825									2050	41.1	4.09	27.1	88.6	2.9	3.5	3.3
30	7.0	0.6	1.4	1480	55.7	31.6	2.77	68.2	20.1			1660	43.3	4.40	28.8	94.2	2.9	4.1	3.9	
	7.0	0.6	1.4	1825	60.5	35.4	2.92	70.5	20.7			2050	44.3	4.18	30.1	90.0	3.1	3.6	3.4	
	11.0	2.3	5.3	1480	54.0	29.9	2.66	66.0	20.3			1660	45.2	4.45	30.6	95.2	3.0	4.1	3.9	
	11.0	2.3	5.3	1825	58.7	33.4	2.80	68.2	21.0			2050	46.3	4.23	31.9	90.9	3.2	3.5	3.3	
	15.0	4.8	11.1	1480	53.1	28.9	2.62	64.9	20.2			1660	46.3	4.49	31.5	95.8	3.0	4.0	3.8	
40	15.0	4.8	11.1	1825	57.6	32.3	2.76	67.0	20.9			2050	47.4	4.26	32.8	91.4	3.3	3.5	3.3	
	7.0	0.5	1.2	1480	57.0	33.5	2.99	70.3	19.0			1660	49.4	4.58	34.3	97.6	3.2	4.3	4.1	
	7.0	0.5	1.2	1825	61.8	37.5	3.15	72.6	19.6			2050	50.6	4.35	35.7	92.8	3.4	3.7	3.5	
	11.0	2.2	5.1	1480	56.1	32.2	2.83	68.8	19.8			1660	52.0	4.65	36.6	99.0	3.3	4.2	4.0	
	11.0	2.2	5.1	1825	61.0	36.0	2.98	71.1	20.5			2050	53.2	4.42	38.1	94.0	3.5	3.6	3.4	
50	15.0	4.5	10.4	1480	55.6	31.5	2.76	68.0	20.1			1660	53.3	4.69	37.7	99.7	3.3	4.1	3.9	
	15.0	4.5	10.4	1825	60.3	35.2	2.91	70.3	20.7			2050	54.5	4.45	39.4	94.6	3.6	3.6	3.4	
	7.0	0.4	0.9	1480	57.1	34.7	3.26	71.4	17.5	2.0	1.9	1660	55.9	4.77	40.1	101.2	3.4	4.5	4.3	
	7.0	0.4	0.9	1825	62.0	38.8	3.43	73.7	18.1	2.1	2.0	2050	57.2	4.53	41.8	95.8	3.7	3.9	3.7	
	11.0	2.1	4.9	1480	57.1	33.9	3.05	70.6	18.7	1.8	1.7	1660	58.9	4.85	42.7	102.9	3.6	4.4	4.2	
60	11.0	2.1	4.9	1825	62.0	37.8	3.21	72.9	19.3	1.8	1.7	2050	60.3	4.61	44.6	97.2	3.8	3.8	3.6	
	15.0	4.3	9.9	1480	56.9	33.4	2.96	70.1	19.2	1.5	1.4	1660	60.4	4.90	44.1	103.7	3.6	4.3	4.1	
	15.0	4.3	9.9	1825	61.8	37.3	3.12	72.4	19.8	1.5	1.4	2050	61.8	4.65	46.0	97.9	3.9	3.8	3.6	
	7.0	0.4	0.9	1480	56.3	35.2	3.60	71.6	15.6	2.9	2.8	1660	62.3	4.95	45.7	104.7	3.7	4.8	4.6	
	7.0	0.4	0.9	1825	61.1	39.3	3.79	74.0	16.1	3.0	2.9	2050	63.7	4.70	47.7	98.8	4.0	4.2	4.0	
70	11.0	2.1	4.9	1480	57.0	34.9	3.33	71.5	17.1	2.5	2.4	1660	65.3	5.03	48.5	106.4	3.8	4.7	4.5	
	11.0	2.1	4.9	1825	61.9	39.0	3.51	73.8	17.6	2.5	2.4	2050	66.9	4.78	50.6	100.2	4.1	4.1	3.9	
	15.0	4.1	9.5	1480	57.1	34.6	3.23	71.3	17.7	2.1	2.0	1660	66.8	5.08	49.8	107.3	3.9	4.7	4.5	
	15.0	4.1	9.5	1825	62.0	38.6	3.40	73.6	18.2	2.1	2.0	2050	68.4	4.82	51.9	100.9	4.2	4.0	3.8	
	7.0	0.3	0.7	1480	54.6	35.1	4.00	71.2	13.6	4.0	3.8	1660	67.9	5.11	50.8	107.9	3.9	5.3	5.0	
80	7.0	0.3	0.7	1825	59.3	39.2	4.21	73.6	14.1	4.0	3.8	2050	69.5	4.85	52.9	101.4	4.2	4.6	4.4	
	11.0	2.0	4.6	1480	55.9	35.2	3.69	71.6	15.2	3.4	3.2	1660	70.5	5.18	53.1	109.3	4.0	5.2	4.9	
	11.0	2.0	4.6	1825	60.7	39.4	3.88	74.0	15.7	3.4	3.2	2050	72.2	4.92	55.4	102.6	4.3	4.5	4.3	
	15.0	3.9	9.0	1480	56.4	35.2	3.55	71.6	15.9	2.8	2.7	1660	71.6	5.21	54.1	109.9	4.0	5.1	4.8	
	15.0	3.9	9.0	1825	61.3	39.3	3.74	74.0	16.4	2.9	2.8	2050	73.3	4.95	56.4	103.1	4.3	4.4	4.2	
85	7.0	0.2	0.5	1480	52.1	34.4	4.46	70.3	11.7	5.2	4.9	1660	72.1	5.22	54.5	110.2	4.0	5.8	5.5	
	7.0	0.2	0.5	1825	56.6	38.5	4.69	72.6	12.1	5.3	5.0	2050	73.8	4.96	56.8	103.3	4.4	5.1	4.8	
	11.0	2.0	4.6	1480	54.1	35.0	4.10	71.1	13.2	4.4	4.2	1660	73.5	5.25	55.8	111.0	4.1	5.7	5.4	
	11.0	2.0	4.6	1825	58.7	39.1	4.32	73.4	13.6	4.5	4.3	2050	75.2	4.99	58.2	104.0	4.4	5.0	4.8	
	15.0	3.7	8.5	1480	54.8	35.2	3.94	71.3	13.9	3.6	3.4	1660	73.7	5.25	56.0	111.1	4.1	5.6	5.3	
90	15.0	3.7	8.5	1825	59.5	39.3	4.15	73.7	14.3	3.7	3.5	2050	75.4	4.99	58.4	104.1	4.4	4.9	4.7	
	7.0	0.2	0.5	1480	50.6	33.8	4.72	69.6	10.8	5.9	5.6	1660	72.9	5.24	55.3	110.7	4.1	6.2	5.9	
	7.0	0.2	0.5	1825	54.9	37.8	4.97	71.9	11.1	6.0	5.7	2050	74.6	4.98	57.6	103.7	4.4	5.4	5.1	
	11.0	1.95	4.5	1480	52.7	34.6	4.34	70.5	12.2	5.0	4.8	1660	73.1	5.23	55.5	110.8	4.1	6.1	5.8	
	11.0	1.95	4.5	1825	57.3	38.7	4.57	72.9	12.6	5.1	4.8	2050	74.8	4.97	57.9	103.8	4.4	5.5	5.2	
100	15.0	3.6	8.3	1480	53.6	34.8	4.18	70.9	12.9	4.1	3.9	1660	72.7	5.21	55.2	110.6	4.1	6.0	5.7	
	15.0	3.6	8.3	1825	58.2	38.9	4.40	73.2	13.3	4.2	4.0	2050	74.4	4.95	57.5	103.6	4.4	5.2	4.9	
	7.0	0.2	0.5	1480	49.0	33.2	4.99	68.9	9.8	6.5	6.2	1660	73.7	5.25	56.0	111.1	4.1	6.5	6.2	
	7.0	0.2	0.5	1825	53.2	37.1	5.25	71.2	10.1	6.6	6.3	2050	75.5	4.99	58.4	104.1	4.4	5.6	5.3	
	11.0	1.9	4.4	1480	51.4	34.2	4.58	70.0	11.2	5.5	5.2	1660	72.8	5.21	55.3	110.6	4.1	6.4	6.1	
110	11.0	1.9	4.4	1825	55.8	38.2	4.82	72.3	11.6	5.6	5.3	2050	74.5	4.95	57.6	103.6	4.4	5.5	5.2	
	15.0	3.5	8.1	1480	52.4	34.5	4.41	70.4	11.9	4.6	4.4	1660	71.7	5.17	54.3	110.0	4.1	6.3	6.0	
	15.0	3.5	8.1	1825	56.9	38.6	4.64	72.8	12.3	4.6	4.4	2050	73.4	4.91	56.6	103.1	4.4	5.4	5.1	
	7.0	0.1	0.2	1480	45.4	31.5	5.58	67.1	8.1	8.0	7.6	1660	Operation Not Recommended							
	7.0	0.1	0.2	1825	49.2	35.2	5.87	69.3	8.4	8.2	7.8	2050								
11.0	1.8	4.2	1480	48.1	32.8	5.14	68.4	9.4	6.8	6.5	1660									
11.0	1.8	4.2	1825	52.2	36.7	5.41	70.7	9.7	6.9	6.6	2050									
15.0	3.3	7.6	1480	49.3	33.4	4.94	69.0	10.0	5.6	5.3	1660									
120	15.0	3.3	7.6	1825	53.6	37.3	5.20	71.3	10.3	5.7	5.4	2050								
	7.0	0.1	0.2	1480	41.1	29.3	6.24	65.0	6.6	9.7	9.2	1660								
	7.0	0.1	0.2	1825	44.7	32.8	6.57	67.1	6.8	9.9	9.4	2050								
	11.0	1.8	4.2	1480	44.2	30.9	5.77	66.5	7.7	8.2	7.8	1660								
	11.0	1.8	4.2	1825	48.0	34.6	6.07	68.7	7.9	8.4	8.0	2050								
120	15.0	3.1	7.2	1480	45.6	31.6	5.55	67.2	8.2	6.7	6.4	1660								
	15.0	3.1	7.2	1825	49.5	35.3	5.84	69.4	8.5	6.9	6.6	2050								
	7.0	0.1	0.2	1480	36.5	26.6	6.98	62.6	5.2	11.5	10.9	1660								
	7.0	0.1	0.2	1825	39.6	29.8	7.35	64.7	5.4	11.7	11.1	2050								
	11.0	1.7	3.9	1480	39.7	28.5	6.47	64.3	6.1	9.8	9.3	1660								
120	11.0	1.7	3.9	1825	43.2	31.9	6.81	66.4	6.3	9.9	9.4	2050								
	15.0	2.9	6.7	1480	41.2	29.4	6.23	65.0	6.6	8.0	7.6	1660								
	15.0	2.9	6.7	1825	44.8	32.8	6.56	67.2	6.8	8.1	7.7	2050								

Interpolation is permissible; extrapolation is not.  
 All entering air conditions are 80°F DB and 67°F WB in cooling, and 70°F DB in heating.  
 AHRI/ISO certified conditions are 80.6°F DB and 66.2°F WB in cooling and 68°F DB in heating.  
 Table does not reflect fan or pump power corrections for AHRI/ISO conditions.  
 All performance is based upon the lower voltage of dual voltage rated units.  
 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

# Tranquility Split (TTS/TTP/TAC/TAH) Series

## Physical Data

Physical Data	TTS				TTP			
	026	038	049	064	026	038	049	064
Compressor [1 Each]	Copeland UltraTech Two-Stage Scroll				Copeland UltraTech Two-Stage Scroll			
Factory Charge HFC-410A (oz) [kg]	92 [2.61]	120 [3.40]	142 [4.02]	204 [5.78]	92 [2.61]	120 [3.40]	142 [4.02]	204 [5.78]
<b>Water Connection Size</b>								
(In)	1 (Swivel)				3/4 (Swivel)		1 (Swivel)	
<b>HWG Connection Size</b>								
(In)	1 (Swivel)				5/8 (O.D. Sweat)			
<b>Line Set Connection Size</b>								
Vapor Line Sweat Connection (in.)	7/8	7/8	7/8	7/8	7/8	7/8	7/8	7/8
Liquid Line Sweat Connection (in.)	3/8	3/8	1/2	1/2	3/8	3/8	1/2	1/2
Weight - Operating, (lbs) [kg]	203 [92]	221 [100]	250 [113]	265 [120]	223 [101]	241 [109]	250 [113]	265 [120]
Weight - Packaged, (lbs) [kg]	218 [99]	236 [107]	265 [120]	280 [127]	238 [108]	256 [116]	285 [129]	300 [136]
Maximum Working Water Press (psi) [kPa]	500 [3,445]	500 [3,445]	500 [3,445]	500 [3,445]	100 [689]	100 [689]	100 [689]	100 [689]

Units have grommet compressor mountings, TXV expansion devices, and 1/2" [12.2mm] & 3/4" [19.1mm] electrical knockouts.

Model	TAC						
	026-17	026-21	038-21	038-24	049-21	049-24	064-24
<b>Connections - Sweat (in.)</b>							
Liquid I.D.	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Suction I.D.	3/4	3/4	7/8	7/8	7/8	7/8	7/8
<b>Cased Coil Dimensions (in.)</b>							
A - Width	17 1/2	21	21	24 1/2	21	24 1/2	24 1/2
B - Coil Height	14 1/2	17 1/2	25 7/8	25 3/8	25 7/8	25 3/8	30 1/4
C - Height	20	20	28	32	28	32	32
<b>Weight</b>							
Coil Weight (lbs.)	46	54	76	89	76	89	108
Shipping Weight (lbs.)	51	60	83	99	83	99	118

Model	TAH						
	026-A	026-B	038-B	038-C	049-B	049-C	064-C
<b>Emerson ECM Fan Motor &amp; Blower</b>							
Liquid I.D.	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Suction I.D.	3/4	3/4	7/8	7/8	7/8	7/8	7/8
Fan Motor Type/Speeds	ECM Variable						
Fan Motor (hp)	1/2				1		
Blower Wheel Size (Dia x W)	9 x 7			12 x 10			
Air Coil Dimensions (H x W)	3 - 2 Row 14 x 17			3 - 2 Row 24 x 17			3 - 3 Row 24x17
Filter Standard - 1" Throwaway	16 x 20	20 x 20		20 x 24	20 x 20	20 x 24	
Weight - Operating (lbs.)	80	163	173	181	180	188	198
Weight - Packaged (lbs.)	96	179	198	206	218	226	236

### Electrical Data (TTS)

Model	Compressor			HWG Pump FLA	External Pump FLA	Total Unit FLA	Min Circuit Amps	Max Fuse/HACR
	RLA	LRA	Qty					
026	10.3	52.0	1	0.4	4.0	14.7	17.3	25
038	16.7	82.0	1	0.4	4.0	21.1	25.3	40
049	21.2	96.0	1	0.4	4.0	25.6	30.9	50
064	25.6	118.0	1	0.4	4.0	30.0	36.4	60

Rated Voltage of 208/230/60/1  
HACR circuit breaker in USA only

Min/Max Voltage of 197/254  
All fuses Class RK-5

### Electrical Data (TTP)

Model	Compressor			Internal Loop Pump FLA	Total Unit FLA	Min Circuit Amps	Max Fuse/HACR
	RLA	LRA	Qty				
026	10.3	52.0	1	0.8	11.1	13.7	20
036	16.7	82.0	1	0.8	17.5	21.7	35
048	21.2	96.0	1	1.6	22.8	28.1	45
062	25.6	118.0	1	1.6	27.2	33.6	50

Rated Voltage of 208/230/60/1  
HACR circuit breaker in USA only

Min/Max Voltage of 197/254  
All fuses Class RK-5

HWG Module	Voltage	Pump FLA	Total FLA	Min Circuit Amps
AHWG1AARS	115/60/1	0.52	0.52	1.20
AHWG1AGRS	208/230/60/1	0.40	0.40	0.90

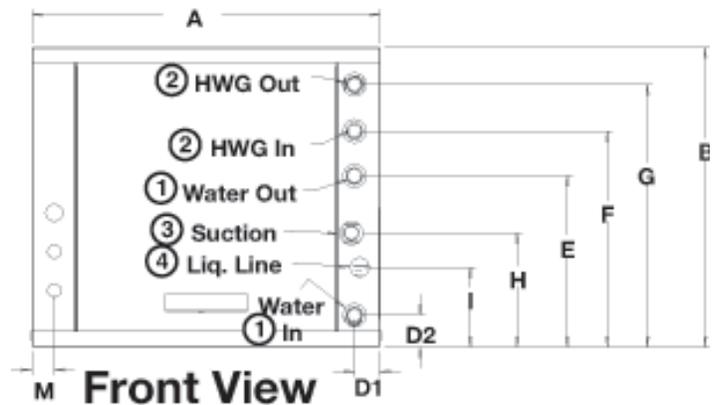
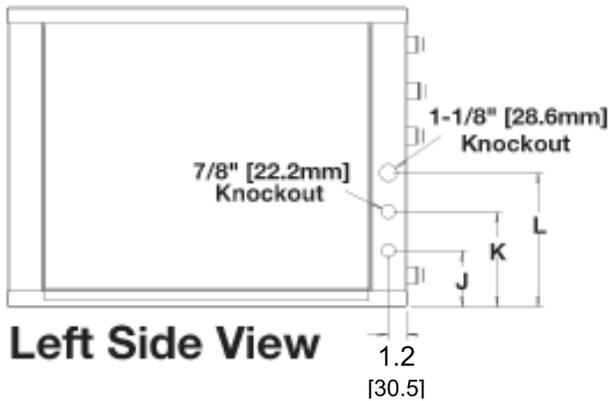
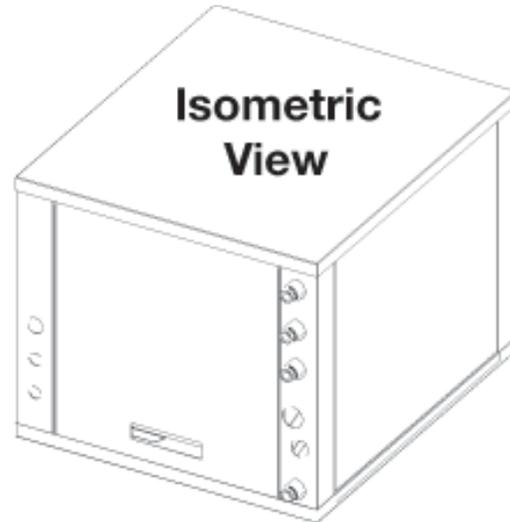
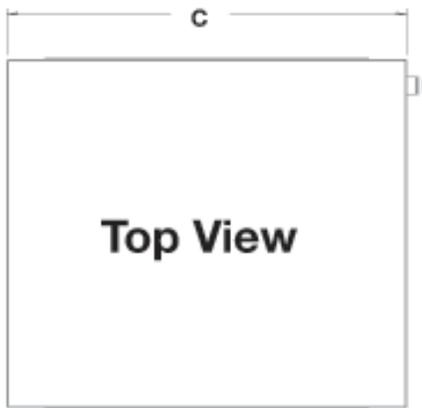
### Electrical Data (TAH)

Model	Volt Code Dual Rated (115) 208/230	Rated Voltage Dual Rated (115) 208/230	Voltage Min/Max Dual Rated (115) 208/230	Fan Motor FLA	Fan Motor HP	Max Fan ESP	Min Circ Amp (120) 208/230	Total Unit FLA	Max Fuse/HACR (120) 208/230
026	(A) G	(120) 208/230	(114/132) 197/254	(7.7) 4.3	1/2	0.5	(7.8) 4.9	(7.7) 4.3	(15) 15
038	(A) G	(120) 208/230	(114/132) 197/254	(7.7) 4.3	1/2	0.5	(7.8) 4.9	(7.7) 4.3	(15) 15
049	(A) G	(120) 208/230	(114/132) 197/254	(12.8) 7	1	1	(14.4) 8.6	(12.8) 7	(25) 15
064	(A) G	(120) 208/230	(114/132) 197/254	(12.8) 7	1	1	(14.4) 8.6	(12.8) 7	(25) 15

Rated Voltage of 208/230/60/1

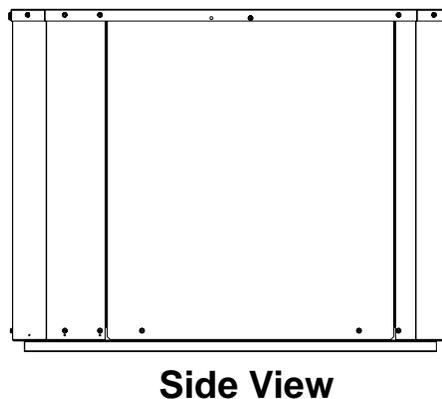
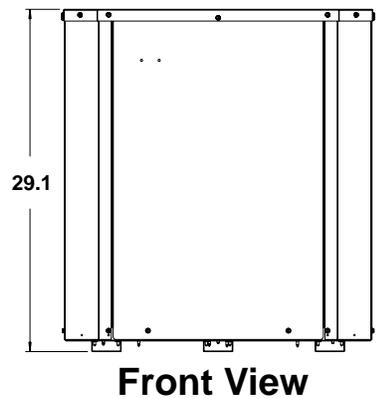
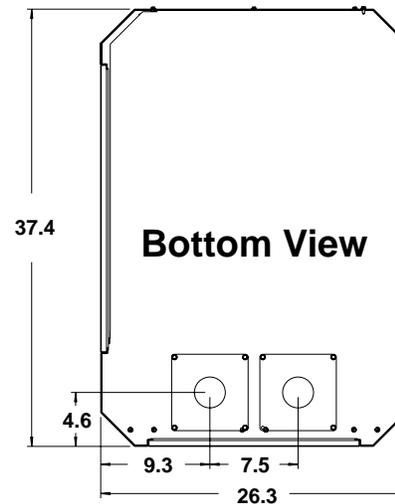
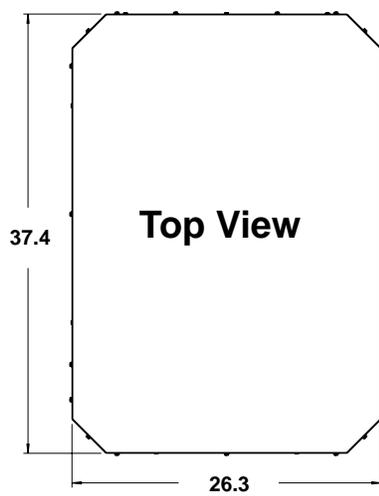
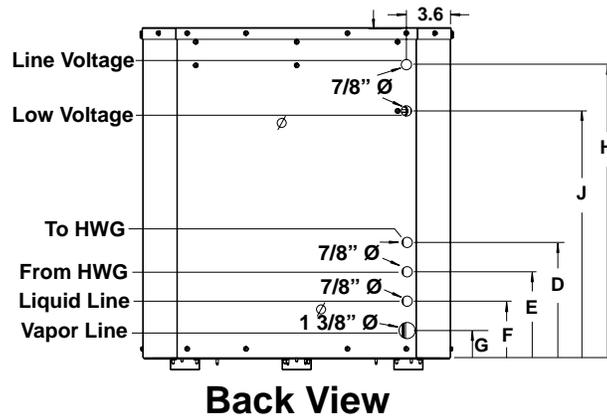
## Tranquility Indoor (TTS) Dimensional Data

Model	Overall Cabinet			Water Connections							Refrigerant Connection				Electrical Knockouts				
	A Width	B Height	C Depth	1 Water In/Out	2 HWG In/Out	D1 Water In	D2 Water In	E Water Out	F HWG In	G HWG Out	3 Suction	4 Liquid	H	I	J	K	L	M	
				Swivel															
026	in	22.4	19.3	25.6	1"	1"	1.6	2.1	11.0	13.9	16.9	7/8"	3/8"	7.3	5.1	3.6	6.1	8.6	1.4
	cm	56.9	49.0	65.0			4.1	5.3	27.9	35.3	42.9			18.5	13.0	9.1	15.5	21.8	3.6
038	in	25.4	21.3	30.6	1"	1"	1.7	3.4	12.1	15.6	18.9	7/8"	3/8"	8.4	6.1	3.6	6.1	8.6	1.7
	cm	64.5	54.1	77.7			4.3	8.6	30.7	39.6	48.0			21.3	15.5	9.1	15.5	21.8	4.3
049	in	25.4	21.3	30.6	1"	1"	1.7	3.4	12.1	15.6	18.9	7/8"	1/2"	8.4	6.1	3.6	6.1	8.6	1.7
	cm	64.5	54.1	77.7			4.3	8.6	30.7	39.6	48.0			21.3	15.5	9.1	15.5	21.8	4.3
064	in	25.4	21.3	30.6	1"	1"	1.7	3.4	12.1	15.6	18.9	7/8"	1/2"	8.4	6.1	3.6	6.1	8.6	1.7
	cm	64.5	54.1	77.7			4.3	8.6	30.7	39.6	48.0			21.3	15.5	9.1	15.5	21.8	4.3



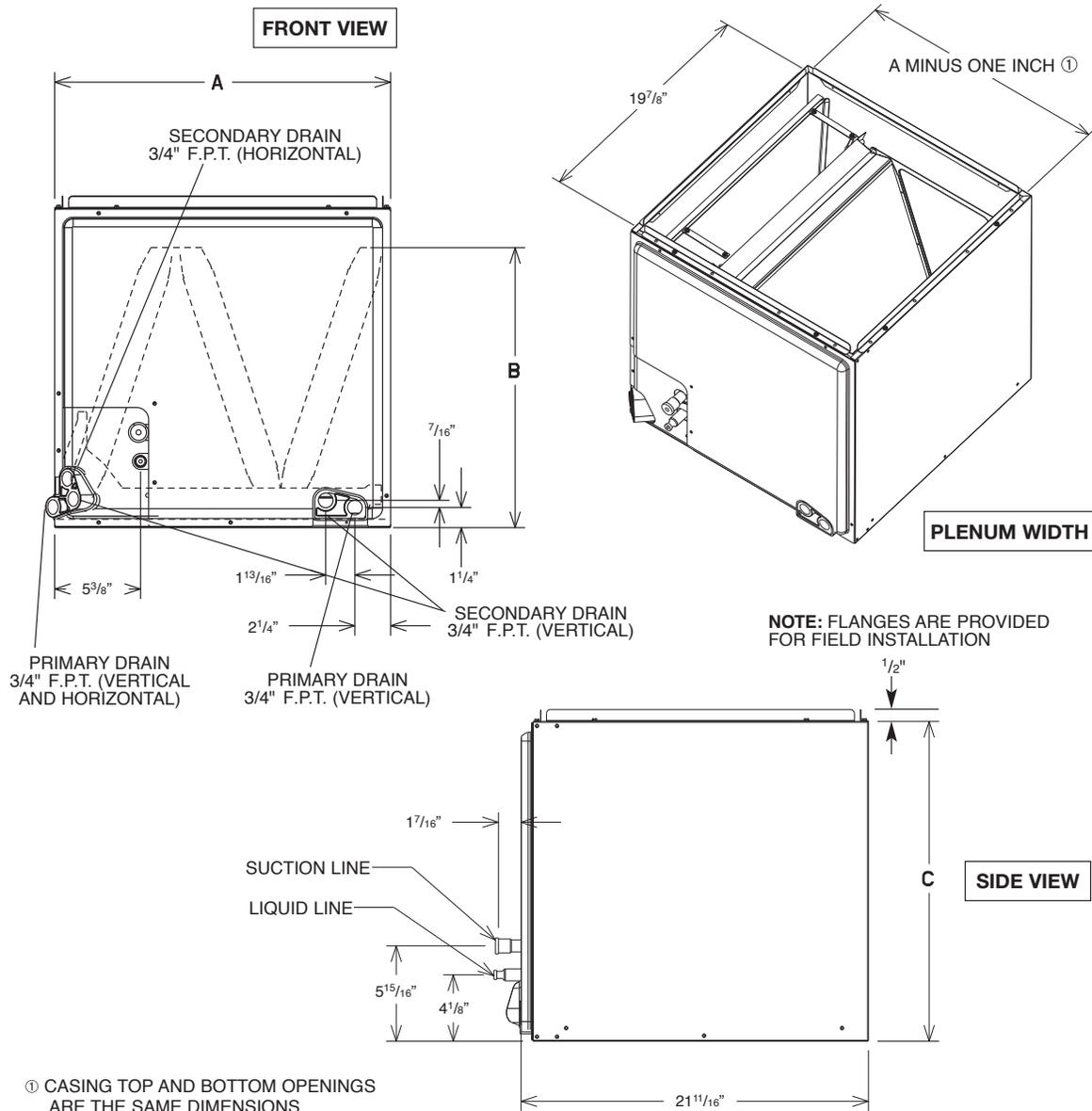
## Tranquility Outdoor (TTP) Dimensional Data

Model		Overall Cabinet			Refrigerant Line Connections								Electrical Knockouts			
		A Width	B Height	C Depth	1 To HWG	2 From HWG	D	E	3 Liquid Line	4 Vapor Line	F	G	Line Voltage	Low Voltage	H	J
026	in	26.3	29.1	37.4	5/8"	5/8"	13.0	10.0	3/8"	7/8"	7.0	4.0	7/8"	7/8"	26.1	22.1
038	in	26.3	29.1	37.4	5/8"	5/8"	13.0	10.0	3/8"	7/8"	7.0	4.0	7/8"	7/8"	26.1	22.1
049	in	26.3	29.1	37.4	5/8"	5/8"	13.0	10.0	1/2"	7/8"	7.0	4.0	7/8"	7/8"	26.1	22.1
064	in	26.3	29.1	37.4	5/8"	5/8"	13.0	10.0	1/2"	7/8"	7.0	4.0	7/8"	7/8"	26.1	22.1



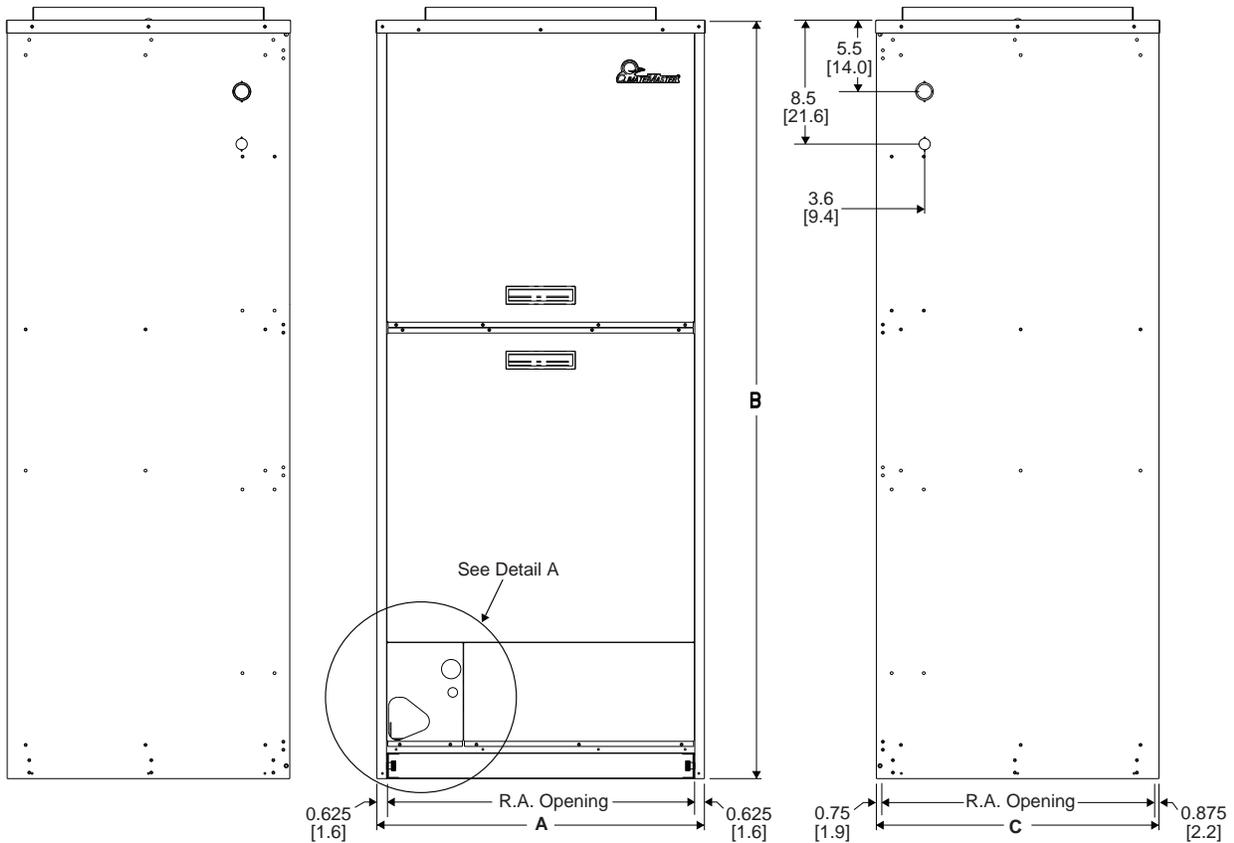
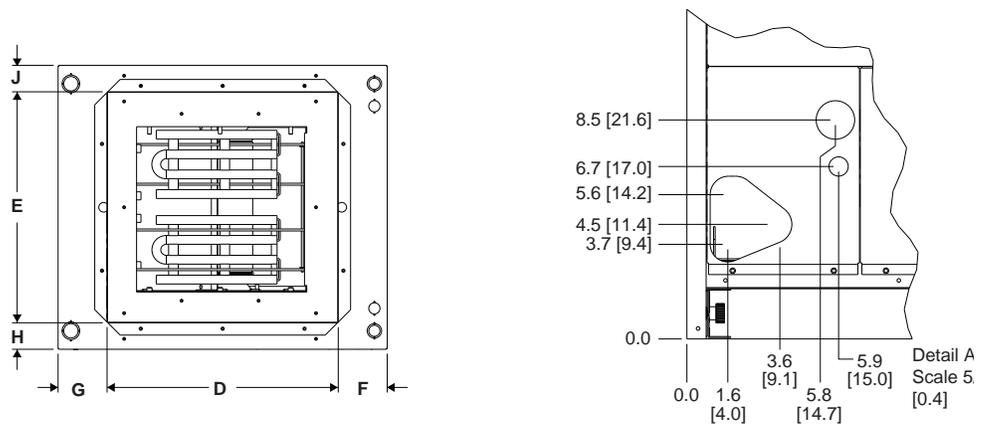
## Tranquility Cased Coil (TAC) Dimensional Data

Model	026-17	026-21	038-21	038-24	049-21	049-24	064-24
<b>Connections - Sweat (in.)</b>							
Liquid I.D.	3/8	3/8	3/8	3/8	3/8	3/8	3/8
Suction I.D.	3/4	3/4	7/8	7/8	7/8	7/8	7/8
<b>Cased Coil Dimensions (in.)</b>							
A - Width	17 1/2	21	21	24 1/2	21	24 1/2	24 1/2
B - Coil Height	14 1/2	17 1/2	25 7/8	25 3/8	25 7/8	25 3/8	30 1/4
C - Height	20	20	28	32	28	32	32
<b>Weight</b>							
Coil Weight (lbs.)	46	54	76	89	76	89	108
Shipping Weight (lbs.)	51	60	83	99	83	99	118



## Tranquility Air Handler (TAH) Dimensional Data

Cabinet Size		Overall Cabinet			1	2	3	4	5	6
		A Width	B Height	C Depth	D	E	F	G	H	J
A - Cabinet	in.	18.5	44.0	22.0	14.0	14.0	2.3	2.3	4.1	4.1
	cm.	47.0	111.8	55.9	35.6	35.5	5.8	5.8	10.3	10.3
B - Cabinet	in.	22.0	55.0	22.0	18.0	18.0	2.1	2.1	2.1	2.1
	cm.	55.9	139.7	55.9	45.7	45.7	5.2	5.2	5.2	5.2
C - Cabinet	in.	25.5	59.0	22.0	18.0	18.0	3.8	3.8	2.1	2.1
	cm.	64.8	149.9	55.9	45.7	45.7	9.9	9.9	5.2	5.2

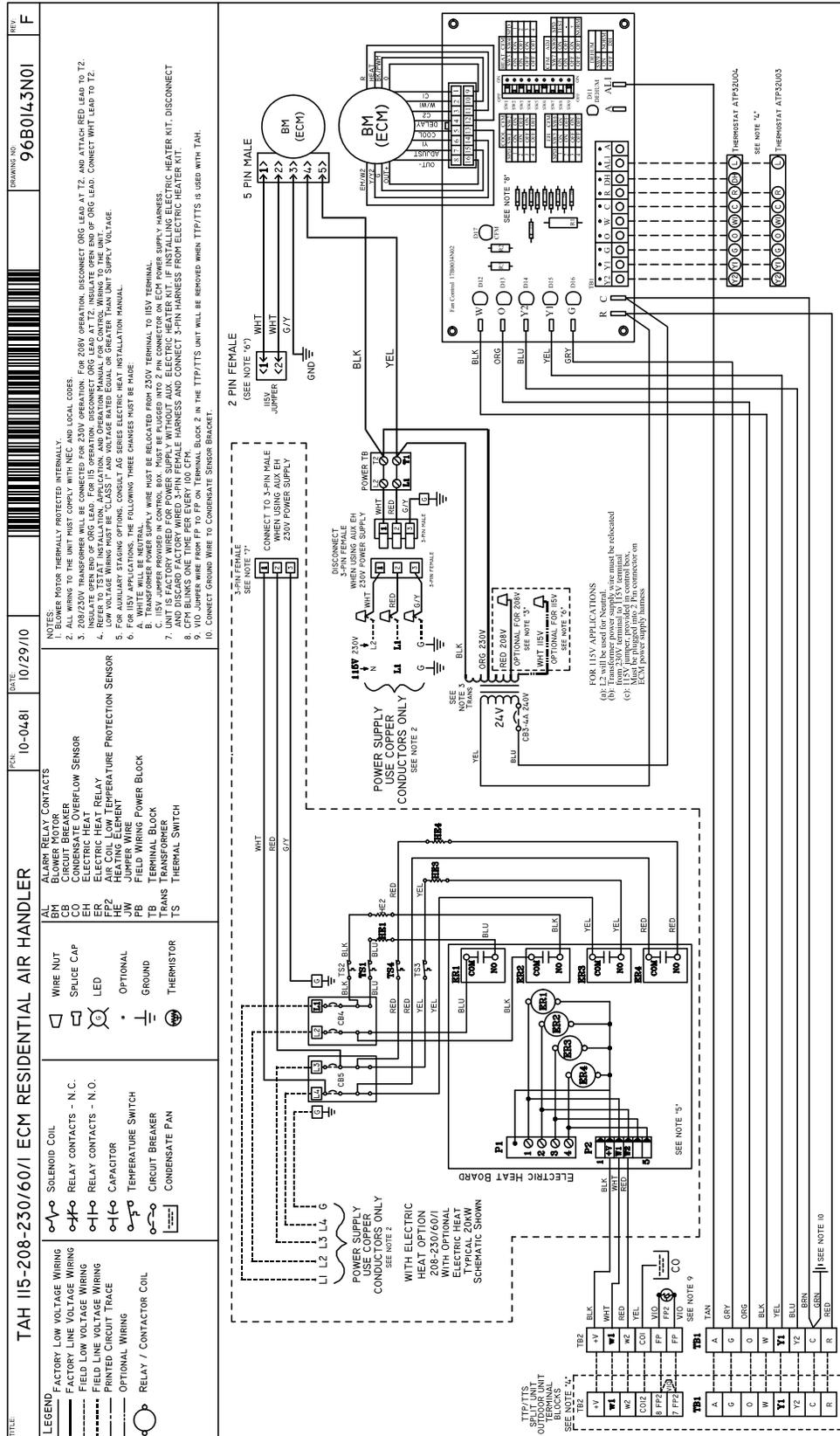






# Tranquility Split (TTS/TPP/TAC/TAH) Series

## Tranquility Air Handler (TAH) Electrical Wiring Diagram - 96B0143N01



## Engineering Guide Specifications

### General

The liquid source heating/cooling split condensing units shall be AHRI/ISO/ASHRAE 13256-1 (ground-source closed-loop) performance certified and listed by a nationally recognized safety-testing laboratory or agency. Each unit shall be water run-tested at the factory. Each unit shall be pallet mounted and shipped with appropriate protective packaging to help avoid damage in transportation.

Units shall be warranted by the manufacturer against defects in materials and workmanship for a period ten years on parts and a service labor allowance for the first five years parts. An optional extended labor warranty is available which extends the service labor allowance to ten.

The water source units shall be designed to operate with entering fluid temperature between 20°F and 120°F.

### Casing & Cabinet

The cabinet shall be fabricated from heavy-gauge galvanized steel and painted with an epoxy powder coating. The interior shall be insulated with 1/2" thick, multi-density, coated glass fiber. Three service access panels shall be provided and shall be removable with linesets and water piping in place. The internal component layout shall provide for major service with the unit in-place for restricted access installations.

### Refrigerant Circuit

All units shall contain EarthPure® (HFC-410A) sealed refrigerant circuit employing a hermetic motor compressor, bidirectional thermal expansion valve, reversing valve, coaxial tube water-to-refrigerant heat exchanger and service ports. An optional Hot Water Generator (desuperheater) coil shall be provided. Compressors shall be Copeland UltraTech™ Two-Stage scroll type designed for heat pump duty and mounted on vibration isolators. Compressor motors shall be single phase PSC with internal over load protection. A factory provided bidirectional filter drier shall be included in all models. The coaxial water-to-refrigerant heat exchangers shall be designed for close approach temperatures and be constructed of a convoluted copper (optional cupro-nickel) inner tube and a steel outer tube. The thermal expansion valve shall provide proper superheat over the entire fluid temperature range with minimal "hunting". The valve shall operate only in the heating mode with the use of an internal check valve. The water-to-refrigerant heat exchanger, optional desuperheater coil and refrigerant suction lines shall be insulated to prevent condensation at low liquid temperatures.

### Electrical

CXM Control - A microprocessor-based compressor controller shall be provided to monitor and control unit operation. The control shall provide compressor sequencing, high and low pressure monitoring, field selectable low water temperature sensing, over/under voltage monitoring, and unit performance sentinel (UPS). The control shall also provide for water valve connection, a test mode, short cycle protection, random start-up, as well as fault LED, fault memory, and intelligent fault retry.

The control shall employ quick attach harness assemblies for low voltage connections to the control board to aid in troubleshooting or replacement. An integral terminal block with screw terminals shall be provided on the control for field low voltage connections. A circuit breaker protected 75VA transformer shall be employed. Line voltage box lugs shall be provided for unit wiring. Units shall have knockouts for entrance of low and line voltage wiring. The control box shall be harness plug-connected for easy removal. Residential models shall have a dual circuit-breaker protected power block for the connection of external Flow Controller pump module.

### Piping (Indoor Compressor Section Only)

Supply and return water connections, as well as Hot Water Generator (desuperheater) connections shall be 1" FPT brass swivel fittings which provide a union and eliminate the need for pipe wrenches and sealants when making field connections. A thread by sweat fitting shall be provided for connection to the water heater. All water piping shall be insulated to prevent condensation at low liquid temperatures.

### Internal Flow Controller (Outdoor Compressor Section only)

The unit shall include a factory-installed Flow Controller. The internal Flow Controller shall include the loop circulating pump(s), flushing/fill valves, and an expansion tank to reduce loop pressure variation. The circulating pump head shall be removable from the volute for easy replacement and the circulating pump shall be multi-speed.

# Tranquility® Split (TTS/TTP/TAC/TAH) Series Submittal Data

Models 026 - 064  
60Hz - HFC-410A

Residential



### SUBMITTAL DATA - I-P UNITS

Unit Designation: \_\_\_\_\_

Job Name: \_\_\_\_\_

Architect: \_\_\_\_\_

Engineer: \_\_\_\_\_

Contractor: \_\_\_\_\_

### PERFORMANCE DATA

Cooling Capacity: \_\_\_\_\_ Btuh

EER: \_\_\_\_\_

Heating Capacity: \_\_\_\_\_ Btuh

COP: \_\_\_\_\_

Ambient Air Temp: \_\_\_\_\_ °F

Entering Water Temp (Clg): \_\_\_\_\_ °F

Entering Air Temp (Clg): \_\_\_\_\_ °F

Entering Water Temp (Htg): \_\_\_\_\_ °F

Entering Air Temp (Htg): \_\_\_\_\_ °F

Airflow: \_\_\_\_\_ CFM

Fan Speed or Motor/RPM/Turns: \_\_\_\_\_

Operating Weight: \_\_\_\_\_ (lb)

### ELECTRICAL DATA

Power Supply: 208/230 Volts    Single Phase    60 Hz

Minimum Circuit Ampacity: \_\_\_\_\_

Maximum Overcurrent Protection: \_\_\_\_\_

## Accessories & Options

### Hot Water Generator (Indoor Compressor Section Only)

An optional heat reclaiming desuperheater coil of vented double-wall copper construction suitable for potable water shall be provided. The coil and hot water circulating pump shall be factory mounted inside the unit. A high limit and low compressor discharge line temperature switch shall be provided to disable the pump when these conditions occur.

### Hot Water Generator (Outdoor Compressor Section Only)

An optional external heat reclaiming desuperheater module including a vented double-wall heat cupro-nickel exchanger suitable for potable water use shall be provided. The heat exchanger, hot water circulating pump, and a microprocessor control shall be factory installed in an external cabinet. A sensor shall be provided to monitor the entering potable water temperature. A second sensor shall be used to monitor the compressor discharge temperature. A microprocessor shall be provided to control the desuperheater based on the sensor inputs. The Hot Water Generator module shall be 115 vac and listed by a nationally recognized safety-testing laboratory or agency.

### Cupro-Nickel Heat Exchanger

An optional corrosion resistant CuNi coaxial heat exchanger shall be factory installed in lieu of standard copper construction.

### Thermostat (field installed)

A multistage auto-changeover electronic digital thermostat shall be provided. The thermostat shall offer 3 heating and 2 cooling stages with precise temperature control. An OFF-HEAT-AUTO-COOL-EMERG system switch, OFF-AUTO fan switch, and indicating LED's shall be provided. The thermostat shall read out in °F or °C and be calibratable.

### Flow Controller (Field Installed Indoor Compressor Section Only)

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.

### Hose Kits (field installed)

A rubber hose kit shall provide connections between the unit and Flow Controller. Rubber 1" hose allows flexible connection and absorbs vibration transmission between unit and Flow Controller. Brass elbows with MPT fittings for unit connection, barbed fittings for hose connection and FPT fittings for Pressure/Temperature ports shall be included to allow service and troubleshooting of the unit. Hose clamps shall be used to connect the hose to the brass elbows and Flow Controller.

## Warranty Information

The 2010 standard warranty applies to units ordered on or after May 1, 2010. See ClimateMaster's 2010 Limited Express Residential Warranty Certificate RP851 for specific coverage and limitation.

ClimateMaster residential class heat pumps are backed by a ten-year limited warranty on all unit parts, including the following accessories when installed with ClimateMaster units: Flow Controllers, Thermostats & Electric Heaters.

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.

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.



## Revision History

Date	Page #	Description
2 May, 12	167	'Return Air Opening' Added to Dimensional Drawing
23 April, 12	172	Submittal Page Added
23 April, 12	147, 162	TAC 026-B Dimensions Corrected
31 Jan., 10	162	Refrigerant Charge Information Updated
29 Sept., 10	163	Electrical Data Updated
26 July, 10	Wire Diagram Pages	Wire Diagram revision: water-side high pressure switches added
15 July, 10	123	Compressor isolation upgrade from Springs to grommets
17 June, 10	All	TAC/TAH Information Added
03 Aug, 09	All	TTP Information Added
05 June, 08	All	Reformatted Document Size
03 Mar, 08	Various	Various Minor Corrections
01 Mar, 07	20	Added New Notes to Electrical Data
01 Oct, 06	All	First Published