



TRANQUILITY TC SERIES


CLIMATEMASTER
Water-Source Heat Pump Systems

TRANQUILITY COMPACT (TC) SERIES



Available in sizes 6 tons (21.1 kW) through 10 tons (35.2 kW) with multiple cabinet configurations, the Tranquility Compact (TC) Series offers a wide range of units for most any installation. The Tranquility Compact Series has an extended range refrigerant circuit, capable of ground loop (geothermal) applications (may require optional extended range insulation), ground water (geothermal) applications, as well as water loop (boiler-tower) applications. Standard features are many. Microprocessor controls, galvanized steel cabinet, epoxy powder coat painted front access panel, galvanized steel with epoxy powder coat painted drain pan and TXV refrigerant metering device are just some of the features of the flexible Tranquility Compact Series.

UNIT FEATURES

- Sizes 072 (6 tons, 21.1 kW), 096 (8 tons, 28.1 kW), 120 (10 tons, 35.2 kW)
- Horizontal unit configuration can be ordered with left or right return air and straight or back supply air discharge. Discharge is field convertible. Field conversion uses all existing parts including panels and belts
- Vertical unit configuration can be ordered with front or back return air and top, front, or back supply air discharge. Discharge is field convertible. Field conversion uses all existing parts including panels and belts.
- Electrical box is on right side and can be field converted to left side of unit
- Electric power can enter from either side of front
- Water can be connected to either side
- Copeland scroll compressors
- Dual refrigeration circuits (All Models)
- Exceeds ASHRAE 90.1 efficiencies
- Galvanized steel construction with attractive matte black epoxy powder coat painted front access panel
- Insulated divider and separate compressor/air handler compartments
- TXV metering device
- Extended range (20 to 120°F, -6.7 to 48.9°C) operation (may require optional extended range insulation)

Dual compressor refrigeration circuit



Belt drive blower with high efficiency motor and multiple pulley adjustments



Galvanized steel cabinet

Optional insulated water/refrigerant circuits allow extended range operation (ground loop applications)



Condensate overflow is one of the 8 standard safeties provided by the microprocessor controls in all TC Series units



PERFORMANCE AND SPECIFICATIONS

AHRI/ISO/ASHRAE 13256-1 Data (English (I-P) Units & Metric (S-I) Units)

Model	Refrigerant	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump							
		Cooling 86°F [30°C]		Heating 68°F [20°C]		Cooling 59°F [15°C]		Heating 50°F [10°C]		Cooling 77°F [25°C]		Heating 32°F [0°C]					
		Capacity		EER		Capacity		COP		Capacity		EER		Capacity		COP	
		Btuh [kW]	Btuh/W [W/W]	Btuh [kW]	COP	Btuh [kW]	Btuh/W [W/W]	Btuh [kW]	COP	Btuh [kW]	Btuh/W [W/W]	Btuh [kW]	COP				
TC-072	HFC-410A	69,000 [20.22]	13.3 [3.9]	92,500 [27.11]	5.0	78,500 [23.01]	19.7 [5.8]	75,500 [22.13]	4.4	71,000 [20.80]	14.6 [4.3]	58,000 [17.00]	3.5				
TC-096	HFC-410A	95,000 [27.84]	13.7 [4.0]	123,000 [36.04]	5.0	104,500 [30.63]	20.0 [5.9]	101,000 [29.60]	4.4	98,000 [28.72]	15.2 [4.5]	77,000 [22.57]	3.6				
TC-120	HFC-410A	119,000 [34.88]	13.3 [3.9]	160,000 [46.89]	4.6	134,000 [39.27]	19.3 [5.7]	132,500 [38.83]	4.0	122,500 [35.90]	14.5 [4.2]	103,000 [30.19]	3.3				

Cooling capacities based upon 80.6°F [27°C] DB, 66.2°F [19°C] WB entering air temperature.

Heating capacities based upon 68°F [20°C] DB, 59°F [15°C] WB entering air temperature.

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

Dimensional Data

Horizontal Model		Overall Cabinet		
		W	D	H
072 - 120	in.	36.3	84.9	21.6
	cm	92.2	215.6	54.9

Vertical Model		Overall Cabinet		
		W	D	H
072 - 120	in.	41.0	29.0	69.8
	cm	104.1	73.7	177.2

Voltage Options

Model	Volts	Hz	Phase
072 - 120	208/230	60	3
	460	60	3
	575	60	3



UNIT FEATURES

Product Series	Standard Features											Factory Installed Options																
	EarthPure® (HFC-410A) Refrigerant	Microprocessor CXM Controls*	Standard Entering Water Temperature Range (60 to 95°F)	Copper Water Coil**	TXV	Dual Level Compressor Vibration Isolation	Field Convertible Discharge (Horizontal Units)	Multiple Access Panels for Installation and Service Ease	Scroll Compressors	Factory Installed Hanger Brackets (Horizontal Units)	Remote Reset at Thermostat	Condensate Overflow Protection	Cupro-Nickel Coil***	High Static Blower	UltraQuiet (Mute) Package	Extended Entering Water Temperature †	Auto-Flow Water Regulation	Two-Way Control Valve	Downflow Configuration	Desuperheater Coil	DDC Controller	Deluxe DXM Controller*	Coated Air Coil	Internal Secondary Pump	ECM Fan Motor***	Climadry Reheat	Internal Service Disconnect	
Tranquility 27® Two-Stage (TT)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility 20 Single-Stage (TS)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility High Efficiency (TR)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility 16 Compact (TC)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility Vertical Stack (TRM)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility Vertical Stack (TRW)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility Console (TRC)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility Compact (TC)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility Large (TL)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility Water-to-Water (TMW)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Rooftop (TRE)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Rx Energy Recovery Ventilator (ERV)			•					•																				
Vertical Dedicated Outdoor Air (TOV)	•		•	•	•			•	•					•	†					•			•					
Horizontal Dedicated Outdoor Air (TOH)	•		•	•	•			•	•				•		†				•			•						

Some exceptions may apply to standard features and options, consult product submittal materials to determine availability.

* Control for TO Series is DDC with modulating HGR. Control for TMW 360-600 is DDC.

** Water coil construction for TO Series and TMW 360-600 is stainless steel.

*** Standard on TT Series

† Standard on TMW Series

‡ Extended Range = 35°F-95°F EWT



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