



TRANQUILITY® TRM SERIES


CLIMATEMASTER®
Water-Source Heat Pump Systems

TRANQUILITY[®] VERTICAL STACK (TRM) SERIES



Installed System

The Tranquility[®] Vertical Stack (TRM) Series offers an innovative, labor-saving solution for spaces where individual, quiet control of the heating and cooling system is important. Using EarthPure[®] (HFC-410A) refrigerant, the Tranquility[®] Vertical Stack (TRM) Series not only protects the environment, it does so while delivering unprecedented comfort, efficiency, and reliability.

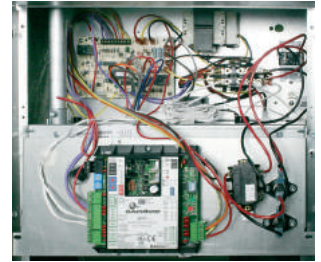
UNIT FEATURES

- Sizes 09 (3/4 ton, 2.6 kW) through 36 (3 ton, 10.6 kW)
- Environmentally-friendly EarthPure[®] (HFC-410A) zero ozone depletion refrigerant
- High efficiency rotary and scroll compressors
- Exceeds ASHRAE 90.1 efficiencies
- Removable chassis allows staged installation and ease of maintenance
- Galvanized steel cabinet
- Unique double isolation compressor mounting for quiet operation
- TXV metering device
- Unit or remote-mounted controls available
- Optional ECM Motor for all models
- Microprocessor controls standard (optional DXM and/or DDC controls)
- LonWorks, BACnet, Modbus and Johnson N2 compatibility options for DDC controls
- Unit Performance Sentinel performance monitoring system
- Attractive return air panel with hinged access door ("G" panel)
- Multiple supply air discharge options
- Stainless steel braided hose kits for connection from piping risers to chassis
- Eight safeties standard
- Wide variety of options including disconnect switch and extended range

Torsion-flex blower motors TRM09-12



Advanced digital controls with Remote Service Sentinel. Shown with optional DDC Controller (Optional Enhanced controls (DXM) also available)



Exclusive dual-level compressor isolation lowers vibration and reduces noise for quiet operation

Removable chassis allows staged installation and ease of maintenance/ service once installation is complete



Integrated Drain Pan with condensate overflow protection (Optional Stainless Steel Drain Pan)



PERFORMANCE AND SPECIFICATIONS

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

Model with PSC Motor	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 60°F [10°C]		Cooling 77°F [25°C]		Heating 32°F [0°C]	
		Capacity	EER	Capacity	COP	Capacity	EER	Capacity	COP	Capacity	EER	Capacity	COP
		Btuh [kW]	Btuh/W [W/W]	Btuh [kW]		Btuh [kW]	Btuh/W [W/W]	Btuh [kW]		Btuh [kW]	Btuh [kW]	Btuh/W [W/W]	
TRM-09	HFC-410A	8,800 [2.58]	13.0 [3.8]	12,500 [3.66]	4.6	10,100 [2.93]	19.5 [5.7]	9,800 [2.87]	3.8	9,300 [2.73]	14.7 [4.3]	7,200 [2.11]	3.1
TRM-12	HFC-410A	11,600 [3.40]	13.0 [3.8]	15,400 [4.51]	4.5	13,200 [3.87]	20.0 [5.9]	12,700 [3.72]	3.8	12,200 [3.58]	15.0 [4.4]	9,500 [2.78]	3.1
TRM-15	HFC-410A	13,800 [4.05]	13.0 [3.8]	18,800 [5.51]	4.7	16,500 [4.84]	20.0 [5.9]	15,500 [4.54]	3.8	14,600 [4.28]	14.6 [4.3]	11,500 [3.37]	3.1
TRM-18	HFC-410A	16,200 [4.75]	13.0 [3.8]	22,600 [6.62]	4.7	19,600 [5.74]	19.5 [5.7]	18,200 [5.33]	3.8	17,600 [5.16]	13.9 [4.1]	14,000 [4.10]	3.1
TRM-24	HFC-410A	22,100 [6.48]	13.0 [3.8]	29,400 [8.62]	4.5	26,400 [7.74]	20.0 [5.9]	23,100 [6.77]	3.8	23,600 [6.92]	14.8 [4.3]	18,000 [5.28]	3.1
TRM-30	HFC-410A	27,100 [7.94]	13.0 [3.8]	33,100 [9.70]	4.6	30,600 [8.97]	18.6 [5.5]	27,200 [7.97]	3.9	29,200 [8.56]	15.1 [4.4]	20,600 [6.04]	3.1
TRM-36	HFC-410A	32,000 [9.38]	12.5 [3.7]	37,400 [10.96]	4.6	36,700 [10.76]	18.8 [5.5]	32,000 [9.38]	3.8	33,000 [9.67]	14.3 [4.2]	23,500 [6.89]	3.0

Model with ECM Motor	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 60°F [10°C]		Cooling 77°F [25°C]		Heating 32°F [0°C]	
		Capacity	EER	Capacity	COP	Capacity	EER	Capacity	COP	Capacity	EER	Capacity	COP
		Btuh [kW]	Btuh/W [W/W]	Btuh [kW]		Btuh [kW]	Btuh/W [W/W]	Btuh [kW]		Btuh [kW]	Btuh [kW]	Btuh/W [W/W]	
TRM-09	HFC-410A	8,800 [2.58]	14.0 [4.1]	12,500 [3.66]	4.8	10,100 [2.93]	22.0 [6.5]	9,800 [2.87]	4.1	9,300 [2.73]	16.3 [4.8]	7,200 [2.11]	3.2
TRM-12	HFC-410A	11,600 [3.40]	13.4 [4.0]	15,800 [4.63]	4.6	13,700 [4.02]	20.2 [5.9]	12,700 [3.72]	3.9	12,200 [3.58]	15.7 [4.6]	9,500 [2.78]	3.2
TRM-15	HFC-410A	13,800 [4.05]	14.1 [4.2]	19,600 [5.74]	5.2	16,500 [4.84]	23.5 [6.9]	15,500 [4.54]	4.3	15,200 [4.46]	16.5 [4.8]	11,500 [3.37]	3.4
TRM-18	HFC-410A	16,700 [4.89]	14.0 [4.1]	22,600 [6.62]	5.0	19,600 [5.74]	22.3 [6.5]	18,200 [5.33]	4.1	17,600 [5.16]	16.4 [4.8]	14,000 [4.10]	3.4
TRM-24	HFC-410A	22,100 [6.48]	13.8 [4.1]	29,400 [8.62]	4.9	26,400 [7.74]	22.0 [6.5]	23,100 [6.77]	4.0	23,600 [6.92]	16.2 [4.8]	18,000 [5.28]	3.3
TRM-30	HFC-410A	27,100 [7.94]	13.6 [4.0]	33,100 [9.70]	4.7	30,600 [8.97]	19.6 [5.7]	27,700 [8.12]	4.1	29,200 [8.56]	16.2 [4.8]	20,600 [6.04]	3.2
TRM-36	HFC-410A	32,000 [9.38]	13.0 [3.8]	39,500 [11.58]	4.7	36,700 [10.76]	19.6 [5.7]	32,000 [9.38]	3.9	33,000 [9.67]	14.9 [4.4]	25,000 [7.33]	3.2

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 the lower voltage of dual voltage rated models.

Dimensional Data

Model		Overall Cabinet*		
		W	D	H **
09 - 12	in.	17.0	17.0	88.0
	cm	43.2	43.2	223.5
15 - 18	in.	20.0	20.0	88.0
	cm	50.8	50.8	223.5
24 - 36	in.	24.0	24.0	88.0
	cm	61.0	61.0	223.5

Voltage Options

Model	Volts	Hz	Phase
09 - 36	208/230	60	1
	265	60	1

* Not including risers or flanges.

** 80" [203.2cm] also standard.



UNIT FEATURES

Product Series	Standard Features													Factory Installed Options																			
	EarthPure® (HFC-410A) Refrigerant	Microprocessor CXM Controls *	iGate™ Advanced Control	ECM Fan Motor	Extended Range Capable Refrigerant Circuit (20°F to 120°F)	Copper Water Coil **	Modulating Water Valve †	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)	Condensate Overflow Protection	Remote Reset at Thermostat	Cupro-Nickel Coil **	High Static Blower	UltraQuiet (Water) Package	Extended Entering Water Temperature Insulation ***	Auto-Flow Water Regulation	Two-Way Control Valve	Downflow Configuration	Desuperheater Coil	DDC Controller	DXM Controller *	Coated Air Coil	Internal Secondary Pump	ECM Fan Motor	ClimateDy® Reheat	Internal Service Disconnect	vFlow™ Internal Variable Water Flow		
Tranquility® 30 Two-Stage (TT)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility® 20 Single-Stage (TS)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility® High Efficiency Two-Stage (TZ)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility® 22 High Efficiency Two-Stage (TY)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility® High Efficiency (TR)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility® 16 Compact (TC)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility® Vertical Stack (TSM)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility® Vertical Stack (TSL)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility® Console (TRC)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility® Compact Belt Drive (TC)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility® Large (TL)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tranquility® Modular 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 TMW Series.

† Extended Range = 35°F–95°F EWT.

‡ Low system pressure drop valve is a standard feature, high system pressure drop valve is optional.



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