



TRANQUILITY LARGE (TL) SERIES



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The award-winning Tranquility Large (TL) Series raises the bar for water-source heat pump efficiencies, features and application flexibility. Not only does the Tranquility Large Series exceed ASHRAE 90.1 efficiencies, but it also uses EarthPure® (HFC-410A) zero ozone depletion refrigerant, making it an extremely environmentally-friendly option. Tranquility Large Series is eligible for additional LEED® (Leadership in Energy and Environmental Design) points because of the “green” technology design.

UNIT FEATURES

- Vertical sizes 084 (7 tons, 24.6 kW) through 300 (25 tons, 87.9 kW)
- Unit configuration can be ordered with, or converted to front or back return and top, front, or back discharge. Field conversion uses all existing parts including panels and belts
- Electrical box can be field converted to be on front or back of unit
- Electric power can enter from any side of unit
- Water and drain can be connected to either side
- Dual refrigeration circuits (TL168, 192, 240, 300)
- Exceeds ASHRAE 90.1 efficiencies
- TXV metering device
- Extended range (20 to 120°F, -6.7 to 48.9°C operation)
- 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

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



Belt drive blowers with high efficiency motors and multiple pulley adjustments

Wide variety of vertical configurations

Large capacity (up to 25 tons, 87.97 kW)

Galvanized steel cabinet with baked-on epoxy powder finish on all access panels



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



Dual compressor refrigeration circuit in TL 168-300 equipment single compressor refrigeration circuit in TL 084-150



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	Capacity	EER	Capacity	COP
		Btuh [kW]	Btuh/W [W/W]	Btuh [kW]		Btuh [kW]	Btuh/W [W/W]	Btuh [kW]		Btuh [kW]	Btuh/W [W/W]	Btuh [kW]	
TLV-084	HFC-410A	82,000 [24.03]	15.2 [4.5]	101,000 [29.60]	4.8	87,500 [25.65]	21.0 [4.3]	83,500 [24.33]	4.3	83,000 [24.33]	16.5 [4.8]	65,500 [19.20]	3.6
TLV-096	HFC-410A	94,000 [27.55]	15.0 [4.4]	118,000 [34.58]	4.7	102,500 [30.04]	20.5 [4.2]	96,500 [28.58]	4.2	97,500 [28.58]	16.5 [4.8]	76,500 [22.42]	3.6
TLV-120	HFC-410A	118,000 [34.58]	15.0 [4.4]	144,000 [42.20]	5.0	133,000 [38.98]	21.0 [4.2]	118,000 [34.58]	4.2	120,000 [35.17]	16.5 [4.8]	93,000 [27.26]	3.7
TLV-150	HFC-410A	150,000 [43.96]	14.0 [4.1]	186,000 [54.51]	4.7	170,000 [49.82]	20.0 [4.2]	155,000 [45.43]	4.2	156,000 [45.72]	15.8 [4.6]	122,000 [35.76]	3.6
TLV-168	HFC-410A	166,000 [48.65]	15.5 [4.5]	204,020 [59.80]	4.9	177,000 [51.87]	21.4 [4.4]	169,000 [49.53]	4.4	168,000 [49.24]	16.8 [4.9]	132,500 [38.83]	3.7
TLV-192	HFC-410A	190,000 [55.69]	15.3 [4.5]	238,360 [69.86]	4.8	207,000 [60.67]	20.9 [4.3]	195,000 [57.15]	4.3	197,000 [57.74]	16.8 [4.9]	155,000 [45.43]	3.7
TLV-240	HFC-410A	238,500 [69.90]	15.3 [4.5]	291,000 [85.29]	5.1	269,000 [78.84]	21.4 [4.3]	238,000 [69.90]	4.3	242,500 [71.07]	16.8 [4.9]	188,000 [55.10]	3.8
TLV-300	HFC-410A	300,000 [87.93]	14.0 [4.1]	372,000 [109.03]	4.7	340,000 [99.65]	20.0 [4.2]	310,000 [90.86]	4.2	312,000 [91.44]	15.8 [4.6]	244,000 [71.51]	3.6

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

Vertical Model		Overall Cabinet		
		W	D	H
084 -150	in.	53.1	34.0	79.0
	cm	134.9	86.4	200.7
168 -300	in.	106.7	34.0	79.0
	cm	270.9	86.4	200.7

Voltage Options

Vertical Model	Volts	Hz	Phase
084 - 300	208/230	60	3
	460	60	3
	575	60	3



UNIT FEATURES

Product Series	Standard Features											Factory Installed Options																
	EarthPur® (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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