



50 HZ WATER-SOURCE HEAT PUMPS



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.



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

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



Belt drive blowers with high efficiency motors and multiple pulley adjustments

Wide variety of vertical configurations

Large capacity up to 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)



UNIT FEATURES

- Vertical sizes 084 (24.6 kW) through 300 (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 (-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

PERFORMANCE AND SPECIFICATIONS

AHRI/ISO/ASHRAE 13256-1 Data

Model	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 25°C		Heating 0°C	
	Capacity kW	EER W/W	Capacity kW	COP	Capacity kW	EER W/W	Capacity kW	COP	Capacity kW	EER W/W	Capacity kW	COP
TLV084	22.01	4.9	26.88	5.3	23.68	6.7	22.13	4.7	22.10	5.3	17.53	4.0
TLV096	24.97	4.8	31.01	5.2	27.52	6.6	25.21	4.6	25.15	5.1	19.34	3.8
TLV120	31.65	4.8	38.19	5.3	35.96	6.7	30.48	4.6	31.77	5.1	24.41	3.9
TLV150	40.06	4.5	48.65	5.1	45.93	6.4	39.92	4.5	40.71	4.9	30.78	3.8
TLV168	44.02	4.9	53.75	5.3	47.36	6.7	44.26	4.7	44.20	5.3	35.05	4.0
TLV192	49.94	4.8	62.02	5.2	55.04	6.6	50.41	4.6	50.29	5.1	38.69	3.8
TLV240	63.31	4.8	76.38	5.3	71.92	6.7	60.96	4.6	63.54	5.1	48.83	3.9
TLV300	80.13	4.5	97.31	5.1	91.85	6.4	79.84	4.5	81.42	4.9	61.55	3.8

Cooling capacities based upon 27°C DB, 19°C WB entering air temperature.
 Heating capacities based upon 20°C DB, 15°C WB entering air temperature.
 All ratings based upon operation at lower voltage of dual voltage rated models.
 Note 1 - All TLV084 ratings at 1321 l/s with sheave settings at 3.5 turns open.
 Note 1 - All TLV096 ratings at 1510 l/s with sheave settings at 3.5 turns open.
 Note 1 - All TLV120 ratings at 1888 l/s with sheave settings at 3.5 turns open.

Dimensional Data

Vertical Model		Overall Cabinet		
		W	D	H
084 -150	cm	134.9	86.4	200.7
168 -300	cm	270.9	86.4	200.7

Voltage Options

Vertical Model	Volts	Hz	Phase
084 - 300	380/420	50	3



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