



# TF Series Water-to-Air & Water Heat Pump



- Geothermal forced air heating and cooling
- Radiant in-floor heating
- Field selectable air or water priority
- Desuperheater for domestic hot water
- COPh up to 4.7
- Available in sizes 3 to 6 nominal tons for whole home applications
- Open or closed loop



## TF Series Water to Air & Water Heat Pump

The Triple Function Series features air heating and air conditioning controlled by an air thermostat, and hydronic heating controlled by an aquastat. User can set the priority to be air or water heating.

### Features & Benefits

- Footprint** - A 28" x 34" footprint.
- Fan** - Oversized blower for quiet operation. Motor is constant airflow variable speed ECM, serviceable from one side, field changeable top to side discharge.
- Gen2 Board** - Includes built-in aquastat functionality, BACnet, data logging, electronic readout of refrigerant pressures and water in/out temperatures
- Filter Rack** - Filter can be changed from either side.
- Drip Tray** - Stainless steel with internally trapped clear vinyl drain.
- Compressor** - Copeland high efficiency two-stage scroll, with double isolation for quiet operation.
- Hard Start Kit** - Standard on all single phase models.
- TXV (Thermostatic Expansion Valve)** - Expansion valve maintains maximum capacity under all operating conditions.
- Filter Dryer** - Standard on all units.
- Sight Glass** - Standard on all units.
- Accumulator** - Protects compressor against liquid slugging.
- Coaxial Heat Exchangers** - Heavy duty for reliability and enhanced surface for efficiency (CuNi available).
- Domestic Hot Water** - Double wall heat exchanger and bronze head circulator factory installed.
- Cabinet** - Satin galvanized with powder coat finish. Acoustically insulated for quiet operation.
- Loop or Well** - Unit pre-wired for operation on a closed loop or a water well.
- Available Sizes** - 3 - 6 nominal tons.
- Distribution Type** - Heating and cooling via central forced air, hydronic in-floor heating and domestic hot water heating.

### Certifications



### Standard Capacity Ratings for Open Loop (60Hz)

Rating Conditions	Model	Tons	Flow (GPM)	Outdoor dP (psi)	Mode	Heating Capacity (Btu/hr)	Input Energy (Watts)	COPh (Heating)	Cooling Capacity (Btu/hr)	Input Energy (Watts)	COPc (Cooling)	EER
Heating ELT 50°F Cooling ELT 59°F	45	3	10	4.0	Stage 1	24,200	1,500	4.50	28,900	895	7.98	27.2
					Stage 2	34,300	2,480	4.20	39,200	1,640	6.10	20.8
	55	4	12	3.7	Stage 1	33,400	2,315	4.70	40,100	1,525	7.92	27.0
					Stage 2	47,100	3,305	4.40	51,100	2,515	6.60	22.5
	65	5	14	5.0	Stage 1	42,600	2,645	4.60	46,900	1,760	8.01	27.3
					Stage 2	58,400	3,790	4.40	62,500	2,950	6.36	21.7
	75	6	16	4.0	Stage 1	51,200	3,610	4.20	53,800	2,485	7.07	24.1
					Stage 2	67,200	4,880	4.10	70,200	3,875	5.66	19.3

### Standard Capacity Ratings for Closed Loop (60Hz)

Heating ELT 32°F (Stage 1 ELT 41°F) Cooling ELT 77°F (Stage 1 ELT 68°F)	45	3	10	6.2	Stage 1	20,100	1,550	4.10	27,400	1,060	7.48	25.5
					Stage 2	25,200	2,290	3.60	36,200	1,965	4.75	16.2
	55	4	12	5.8	Stage 1	28,300	2,250	4.17	36,300	1,750	6.98	23.8
					Stage 2	35,400	3,000	3.80	45,400	3,015	5.01	17.1
	65	5	14	7.6	Stage 1	35,500	2,615	4.00	45,200	2,025	6.54	22.3
					Stage 2	43,800	3,510	3.70	57,400	3,500	4.87	16.6
	75	6	16	6.2	Stage 1	42,300	3,600	3.70	51,800	2,790	6.01	20.5
					Stage 2	52,600	4,465	3.50	65,800	4,460	4.43	15.1

### Standard Capacity Ratings for Hydronic Heating (60Hz)

Rating Conditions	Model	Tons	Flow (GPM)	Outdoor dP (psi)	Mode	Closed Loop Heating Capacity (Btu/hr)	Input Energy (Watts)	COPh	Open Loop Heating Capacity (Btu/hr)	Input Energy (Watts)	COPh
Closed Loop ELT 32°F (Stage 1 ELT 41°F)	45	3	10	3.8	Stage 1	20,400	1,940	3.10	23,800	1,840	3.70
					Stage 2	24,000	2,665	3.10	33,500	2,595	3.70
	55	4	12	3.4	Stage 1	28,400	2,920	3.15	31,200	2,860	3.70
					Stage 2	34,300	3,950	3.10	44,200	3,910	3.80
Open Loop ELT 50°F	65	5	14	4.7	Stage 1	34,400	3,340	3.10	39,800	3,305	3.70
					Stage 2	43,000	4,340	3.10	55,200	4,365	3.70
	75	6	16	6.3	Stage 1	38,800	4,395	3.10	47,200	4,335	3.60
					Stage 2	48,500	5,425	3.10	64,100	5,565	3.80