



# Tranquility<sup>®</sup> Compact (TC) Series

*Models TCH/V006 -060 60Hz - HFC - 410A*

The Tranquility<sup>®</sup> 16 Compact (TC) Series raises the bar for water-source heat pump application flexibility. Not only does the Tranquility<sup>®</sup> 16 Compact Series exceed ASHRAE 90.1 efficiencies, but with the new ECM fan motor option, it also delivers higher efficiencies up to 15.9 EER (Tower-Boiler) and 18.1 EER (Geothermal).

## Advantages of the Compat TC Series:

- ECM fan motor option
- EarthPure<sup>®</sup> (HFC-410A) refrigerant
- Exceeds ASHRAE 90.1 efficiencies
- Galvanized steel construction front access panel
- Epoxy powder painted galvanized steel drain pan
- Sound absorbing glass fiber insulation
- Unique double isolation compressor mounting for quiet operation
- Insulated divider and separate compressor/air handler compartments
- Copeland scroll compressors (size 024 and above)
- TXV metering device
- Microprocessor controls standard (optional DXM and/or DDC controls)
- Field convertible discharge air arrangement for horizontal units
- Optional water side economizer

## Unit Size

Horizontal Model		W	D	H
006 - 012	in. cm	19.1 48.5	34.1 86.6	11.1 28.2
015 - 018	in. cm	20.1 51.1	43.1 109.5	17.0 43.2
024 - 030	in. cm	20.1 51.1	43.1 109.5	18.3 46.5
036 - 042	in. cm	20.1 51.1	47.1 119.6	21.0 53.3
048 - 060	in. cm	24.1 61.2	54.1 137.4	21.0 53.3

Vertical Upflow Model		W	D	H
006 - 012	in. cm	19.1 48.5	19.1 48.5	22.0 55.9
015 - 018	in. cm	21.5 54.6	21.5 54.6	39.0 99.1
024 - 030, 041	in. cm	21.5 54.6	21.5 54.6	40.0 101.6
036 - 042	in. cm	21.5 54.6	26.0 66.0	45.0 114.3
048 - 060	in. cm	24.0 61.0	32.5 82.6	46.0 116.8

# Physical Data

TC Series	006	009	012	015	018	024	030	036	041	042	048	060
Compressor (1 Each)	Rotary					Scroll						
Factory Charge HFC-410A (oz)	17	18.5	23	32	43	40	47	50	70	70	74	82
<b>ECM Fan Motor &amp; Blower</b>												
Blower Wheel Size (Dia x w)	N/A	N/A	N/A	9x7	9x7	9x7	9x7	9x8	N/A	9x8	10x10	11x10
<b>PSC Fan Motor &amp; Blower</b>												
Fan Motor Type/Speeds	PSC/3	PSC/3	PSC-3	PSC/3	PSC/3	PSC/3	PSC/3	PSC/3	PSC/3	PSC/3	PSC/3	PSC/3
Blower Wheel Size (Dia x w)	5x5	5x5	6x5	8x7	8x7	9x7	9x7	9x8	9x8	9x8	10x10	11x10
<b>Water Connection Size</b>												
FPT	1/2"	1/2"	1/2"	1/2"	1/2"	3/4"	3/4"	3/4"	3/4"	3/4"	1"	1"
Coax Volume (gallons)	0.123	0.143	0.167	0.286	0.450	0.286	0.323	0.323	0.890	0.890	0.738	0.939
<b>Vertical</b>												
Air Coil Dimensions (H x W)	10x15	10x15	10x15	20x17.25	20x17.25	20x17.25	20x17.25	24x21.75	20x17.25	24x21.76	24x28.25	24x28.25
Filter Standard - 1" Throwaway	10x18	10x18	10x18	20x20	20x20	20x20	20x20	24x24	20x20	24x24	1-14x24, 1-18x24	1-14x24, 1-18x24
Weight - Operating (lbs.)	103	105	114	153	158	189	197	203	210	218	263	278
Weight - Packaged (lbs.)	113	115	124	158	163	194	202	209	217	224	270	285
<b>Horizontal</b>												
Air Coil Dimensions (H x W)	10x15	10x15	10x15	16x22	16x22	16x22	16x22	20x25	N/A	20x25	20x35	20x35
Filter Standard - 1" Throwaway	10x18	10x18	10x18	16x25	16x25	18x25	18x25	20x28 or 2-20x14	N/A	20x28 or 2-20x14	1-20x24, 1-20x14	1-20x24, 1-20x14
Weight - Operating (lbs.)	103	105	114	153	158	174	182	203	N/A	218	263	278
Weight - Packaged (lbs.)	113	115	124	158	163	179	187	209	N/A	224	270	285

## Tested To ASHRAE/AHRI/ISO 13256-1 English (I-P) Units

Model	Fan Motor	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump			
		Cooling 86°F		Heating 68°F		Cooling 59°F		Heating 50°F		Cooling 77°F		Heating 32°F	
		Capacity Btuh	EER Btuh/W	Capacity Btuh	COP	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP
TC-006	PSC	5,800	13.2	7,500	4.7	6,900	21.1	6,200	4.0	6,200	15.4	4,900	3.4
TC-009	PSC	8,800	13.4	11,600	4.3	10,100	21.0	9,800	3.9	9,300	15.7	7,900	3.4
TC-012	PSC	11,700	13.5	15,200	4.3	13,700	20.8	12,500	3.8	12,000	14.9	9,900	3.2
TC-015	PSC	14,500	15.4	17,300	5.0	16,800	24.5	14,400	4.4	15,000	17.2	11,100	3.6
	ECM	14,500	15.5	16,800	5.1	16,800	25.0	13,800	4.4	15,000	17.9	10,900	3.6
TC-018	PSC	17,300	14.3	21,500	5.0	20,600	21.6	17,200	4.2	18,400	16.3	13,900	3.4
	ECM	19,600	15.9	22,000	5.3	22,300	23.6	18,200	4.4	20,200	18.1	14,100	3.8
TC-024	PSC	23,700	13.4	28,500	4.7	26,700	20.9	24,000	4.1	24,900	15.4	18,500	3.3
	ECM	23,800	14.3	27,700	4.9	26,700	21.5	23,400	4.1	24,900	16.4	18,500	3.5
TC-030	PSC	28,100	13.4	35,100	4.6	31,700	20.1	29,600	4.1	28,900	15.1	23,400	3.4
	ECM	28,300	14.3	35,800	4.8	32,400	22.0	30,000	4.4	29,300	16.5	23,600	3.7
TC-036	PSC	34,500	13.5	45,200	4.4	38,700	20.7	37,500	4.0	35,300	14.9	29,600	3.3
	ECM	34,500	14.0	43,400	4.5	39,000	20.9	35,800	4.0	35,400	15.5	28,700	3.4
TCV-041	PSC	36,500	13.2	45,700	4.3	41,400	19.7	38,000	3.7	38,000	14.8	30,000	3.2
TC-042	PSC	40,100	13.2	52,700	4.3	45,900	19.6	44,000	3.8	40,500	14.4	34,300	3.2
	ECM	42,100	14.9	50,400	4.5	46,400	22.0	42,400	4.0	42,200	16.8	33,900	3.4
TC-048	PSC	47,700	13.3	55,900	4.7	54,300	20.5	46,500	4.1	49,000	14.7	36,400	3.4
	ECM	47,900	14.2	53,000	4.8	53,600	21.0	45,600	4.3	49,000	16.2	36,400	3.6
TC-060	PSC	59,400	13.4	72,000	4.3	66,600	19.9	60,000	3.9	60,100	14.8	47,500	3.3
	ECM	60,000	14.8	71,200	4.4	67,000	21.0	59,600	4.0	61,400	16.5	47,500	3.4

Cooling capacities based upon 80.6°F DB, 66.2°F WB entering air temperature  
 Heating capacities based upon 68°F DB, 59°F WB entering air temperature  
 All ratings based upon operation at lower voltage of dual voltage rated models



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LC1027  
 Rev. : 3-9-17

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