

# TRANQUILITY® 20 SINGLE-STAGE (TS)

The Tranquility® 20 Series utilizes EarthPure® HFC-410A refrigerant along with advanced scroll compressor technology and microprocessor controls allow the Tranquility® 20 to operate at the most efficient level for all weather conditions.

The Tranquility® 20 Series was designed for both new construction and retrofit applications. The narrow cabinet was designed for easy movement through doorways, crawl spaces, and attic access.

At 20 EER, the Tranquility® 20 has some of the industry's highest single stage efficiency ratings.\*

\*Rated at ground loop conditions ISO 13256-1



## Features

- 1 Copeland™ High Efficiency Scroll Compressor
- 2 Optional variable speed ECM fan motor adapts to various duct systems
- 3 Tin Plated Air Coil- Long Life, Easy Cleaning, and Better Condensate Runoff
- 4 Foil Faced Insulation In The Blower Section, Fully Insulated Compressor Section
- 5 Two Inch Filter Frame With High Performance MERV 11 Pleated Air Filter
- 6 Stainless Steel Drain Pan For Long Life
- 7 Unit Performance Sentinel: Automatic Alert System Lets You Know If The System Is Not Running At Peak Performance\*
- 8 Dual Level Compressor Isolation For Ultra Quiet Operation
- 9 Five Easy, Lift-out Service Access Panels with Stainless Steel Front Panels

\*When installed with a ClimateMaster Residential Thermostat.

## Application Flexibility

- Eight Capacities 018, 024, 030, 036, 042, 048, 060 and 070
- Single-Stage upflow, downflow, and horizontal right or left return
- Extended range operation (20-120°F EWT) and flow rates as low as 1.5 gpm per ton
- Internal electric heat unit (optional) designed for easy field installation
- Circuit breaker protected loop and hot water generator pumps
- Field selectable low-temperature protection setting for GWHP or GLHP
- Among the highest efficiencies in AHRI/ISO/ASHRAE/ANSI 13256-1 single stage ratings for heating COP's, cooling EER's with low water flow rates
- Exceeds federal requirements for 30% tax credit on installation costs
- Exceeds ASHRAE 90.1 and Energy Star 3.0 efficiencies
- Standard 10-year limited warranty on all parts with 5-year labor allowance; Optional additional extended 5-year limited labor allowance available

CLIMATEMASTER® GEOTHERMAL HEAT PUMP SYSTEMS

SMART | RESPONSIBLE | COMFORTABLE

# Tranquility® 20 Single-Stage Series (TS)

## Performance and Specifications

Tranquility® TS ISO Ratings

AHRI/ISO/ASHRAE 13256-1 Data (English (IP) 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 |
| TS018 | PSC       | 18,600               | 15.0       | 23,000        | 5.2 | 21,300                 | 24.8       | 18,800        | 4.5 | 19,500                | 18.4       | 14,500        | 3.6 |
|       | ECM       | 19,200               | 16.5       | 23,300        | 5.9 | 22,100                 | 26.3       | 18,900        | 4.9 | 20,200                | 19.4       | 14,500        | 3.9 |
| TS024 | PSC       | 23,800               | 16.9       | 30,800        | 5.9 | 26,500                 | 26.4       | 24,100        | 5.0 | 25,300                | 18.9       | 19,200        | 4.0 |
|       | ECM       | 23,900               | 17.9       | 30,400        | 6.1 | 26,900                 | 28.5       | 23,800        | 5.2 | 25,500                | 20.9       | 19,100        | 4.2 |
| TS030 | PSC       | 28,000               | 16.3       | 35,500        | 5.5 | 31,000                 | 24.9       | 28,400        | 4.7 | 29,200                | 18.5       | 22,200        | 3.9 |
|       | ECM       | 28,000               | 17.3       | 35,100        | 5.8 | 30,800                 | 26.7       | 28,000        | 4.9 | 29,200                | 19.4       | 22,000        | 4.1 |
| TS036 | PSC       | 33,400               | 17.0       | 40,400        | 5.6 | 35,400                 | 23.2       | 33,200        | 4.7 | 34,300                | 19.2       | 25,900        | 4.1 |
|       | ECM       | 33,500               | 18.1       | 39,900        | 5.9 | 35,400                 | 24.9       | 32,600        | 4.9 | 34,600                | 20.4       | 25,600        | 4.3 |
| TS042 | PSC       | 38,500               | 17.2       | 46,300        | 5.6 | 43,700                 | 25.4       | 36,200        | 4.7 | 40,100                | 19.4       | 28,700        | 3.8 |
|       | ECM       | 39,400               | 19.6       | 45,100        | 6.0 | 44,400                 | 29.5       | 35,200        | 5.2 | 40,700                | 21.9       | 27,400        | 4.1 |
| TS048 | PSC       | 47,100               | 14.8       | 58,000        | 4.7 | 53,600                 | 21.3       | 47,500        | 4.0 | 49,600                | 16.8       | 36,600        | 3.4 |
|       | ECM       | 48,900               | 17.2       | 57,700        | 5.2 | 53,700                 | 23.9       | 45,700        | 4.4 | 50,600                | 18.8       | 36,100        | 3.7 |
| TS060 | PSC       | 62,400               | 15.9       | 73,900        | 5.0 | 68,500                 | 23.1       | 58,200        | 4.2 | 63,900                | 17.2       | 46,900        | 3.7 |
|       | ECM       | 63,200               | 17.2       | 73,200        | 5.4 | 68,900                 | 24.9       | 58,200        | 4.6 | 64,400                | 18.4       | 46,400        | 3.9 |
| TS070 | ECM       | 71,100               | 15.7       | 82,100        | 4.6 | 78,000                 | 21.1       | 66,100        | 4.0 | 72,900                | 16.2       | 53,800        | 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

### Dimensional Data

| Vertical Upflow Model |    | Overall Cabinet |         |          |
|-----------------------|----|-----------------|---------|----------|
|                       |    | A Width         | B Depth | C Height |
| TS018                 | in | 22.4            | 25.6    | 44.6     |
|                       | cm | 56.8            | 65.1    | 123.2    |
| TS024-030             | in | 22.4            | 25.6    | 48.5     |
|                       | cm | 56.8            | 65.1    | 123.2    |
| TS036                 | in | 25.4            | 30.6    | 50.5     |
|                       | cm | 64.5            | 77.8    | 128.3    |
| TS042-048             | in | 25.4            | 30.6    | 54.5     |
|                       | cm | 64.5            | 77.8    | 138.4    |
| TS060-070             | in | 25.4            | 30.6    | 58.5     |
|                       | cm | 64.5            | 77.8    | 148.6    |

### Options

|  | Standard | Factory Option | Dealer Option |
|--|----------|----------------|---------------|
| Hot Water Generator with Internally Mounted Pump   | ●        |                |               |
| Cupro-Nickel Coaxial Heat Exchanger  |          | ●              |               |
| Closed Loop Flow Controller  |          |                | ●             |
| Electronic Auto-Changeover Thermostat with 3-Stage Heat, 2-Stage Cool and Indicator LEDs |          |                | ●             |
| Hose Kits  |          |                | ●             |
| ClimaDry® Whole House Dehumidification   |          | ●              |               |
| Extended 5-Year Limited Labor Allowance  |          | ●              |               |
| Internal Electric Heat (Optional) for Easy Field Installation                            |          |                | ●             |



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