

A NIBE GROUP MEMBER



RESIDENTIALTRANQUILITY® 30 PREMIER SPLIT SYSTEMS

PRODUCT CATALOG

Part#: RP3007 | Revised: May 2, 2025

Models: SJ/SP/SA/SK 024-060

60Hz - R-454B

Table of Contents

- 3 Introduction
- 5 Features, Options, and Accessories
- iGate 2 Communicating Controls Powered by DXM2.5 Advanced Communicating Controls
- 7 iGate 2 Communicating (AWC) Thermostat
- 8 myUplink: Web and Mobile Interface
- 9 vFlow Internal Variable Water Flow Control
- 11 iGate 2 Smart Tank
- 12 Selection Procedure
- 14 Tranquility SJ Model Nomenclature
- 15 Tranquility SP Model Nomenclature
- 16 Tranquility SA and SK Model Nomenclature
- 17 Performance Data: AHRI/ASHRAE/ISO 13256-1
- 19 Performance Data
- 27 Blower Performance: CV EC Standard Unit

- 28 Electrical Data
- **30** Part Load Performance: Correction Tables
- 31 Full Load Performance: Correction Tables
- 32 High Head and Standard Variable Pump Performance
- 33 Antifreeze Correction Table
- 34 Physical Data
- 36 Tranquility SJ Dimensional Data
- 37 Tranquility SP Dimensional Data
- 38 Tranquility SK Dimensional Data
- 39 Tranquility SA Dimensional Data
- 40 Minimum Installation Area
- 42 Accessories and Options
- 43 Warranty
- 44 Revision History

Introduction

THE TRANQUILITY® 30 PREMIER SPLIT SYSTEMS

The Tranquility Premier Split Systems showcase superb efficiency ratings, quiet operation, and application flexibility that are synonymous with the ClimateMaster Tranquility family. This category of the Tranquility family includes:

- Tranquility 30 (SJ) Premier Indoor Split Series
- Tranquility 30 (SP) Premier Outdoor Split Series
- Tranquility (SA) Premier Air Handler
- Tranquility (SK) Premier Cased Coil

Tranquility Premier Split Systems surpass ASHRAE 90.1 efficiency standards and utilize R-454B low Global Warming Potential (GWP) refrigerant, setting a high standard for eco-friendly performance.

Available is sizes 2 tons (7.0 kW) through 5 tons (17.6 kW), Tranquility Premier Split Systems offer application flexibility and a wide range of units for most any installation.

The Tranquility Premier Split Systems offer an extended-range circuit capable of ground-loop (geothermal) applications as well as open-loop applications. These innovative units incorporate ultra-efficient two-stage unloading scroll compressors, EC variable fan motor (SA), communicating controls, galvanized-steel cabinet construction, thermoset polymer drain pan (SA, SK), and acoustic type fiber insulation. When paired with the Tranquility (SA) Premier Air Handler, the SJ and SP deliver a fully electric-heating and cooling solution. For dual-fuel heating and cooling solutions, the Tranquility SJ and SP can also be paired with the Tranquility (SK) Premier Cased Coil.

The Tranquility 30 Premier Split Systems are ideal for both new and retrofit applications, offering a perfect fit for remote installations such as second floors, crawl spaces, and attics. Tranquility 30 Premier Split Systems exemplify innovation and efficiency, making them a versatile choice for various residential and light commercial applications.

Recent EPA mandates require an industry transition to low-GWP refrigerants, such as R-454B which is a gas that is classified as having low-toxicity, low flammability rating. Due to these characteristics, R-454B systems charged with over 62 ounces of refrigerant must contain an integrated Refrigerant Detection System (RDS). In the unlikely event of a system-refrigerant leak, the RDS shuts down compressor operation and runs the unit blower motor to disperse any concentration of leaked refrigerant in compliance with UL 60335-2-40 safety standards. For Tranquility SJ, SK, and SA, all sizes are required to have a factory-installed RDS.

ClimateMaster's double-isolation compressor mounting system makes the Tranquility Premier Split Systems some of the quietest units on the market. Compressors are mounted using specially engineered sound-tested EPDM grommets to a heavy-gauge mounting plate, which is then isolated from the cabinet base with EPDM grommets to minimize vibration transmission and maximize sound attenuation. Multiple removable access panels and an easily accessible control box make installation and maintenance user friendly. Options such as coated air coil, internal variable speed pump, modulating water valve, and high-efficiency MERV-rated air filters allow for customizable design solutions.

iGate® 2 technology provides technicians an interface into the operation of the system in real time without the need for hard tooling. On-board advanced controls communicate the key operating system temperatures allowing technicians to startup, commission, and service equipment remotely by smart phone or website interface. Communication can also be established at the unit via a communicating thermostat or handheld service tool. Not only does iGate 2 monitor current performance, it also allows the functionality to make system adjustments and captures operating conditions at time of fault. The data is presented in a user-friendly format, enhancing the overall usability of the experience.

Introduction

vFlow® is ClimateMaster's variable water flow technology. It represents a major advancement in water flow system management efficiency. vFlow not only builds major water circulation components into the unit for a clean installation, it also intelligently varies water flow to minimize pump energy consumption and improve system reliability.

The heart of vFlow is either a variable-speed pump or modulating water valve intelligently controlled with DXM2.5 Advanced Communicating Controls. Water flow is automatically varied based on changes in unit capacity level (stage) and sourcewater temperature to maintain optimum system performance. vFlow allows the use of direct-return piping, while eliminating external two-way valves and automatic flow regulators - making vFlow systems inherently self-balancing.

vFlow systems provide reduced water pumping power compared to traditional fixed-speed pumping systems. They also protect the unit against extreme operating conditions, thus extending the life of the compressor and air coil. Since vFlow is built inside the unit, it also saves on installation time and makes for a very clean and compact installation. The Tranquility Premier Split Systems are designed to meet the challenges of today's HVAC demands with one of the most innovative products available on the market.

Features, Options, and Accessories

FEATURES

- Sizes 024 (2 ton, 7 kW) through 060 (5 tons, 17.6 kW)
- Exceeds ASHRAE 90.1 efficiency standards
- Environmentally friendly R-454B low-GWP refrigerant
- Refrigerant Detection System (RDS) factory installed on all sizes (SJ, SA, SK)
- Intelligent variable speed Constant Volume (CV)
 EC blower motors for precise airflow control (SA)
- Part-load operation significantly lowers annual operating costs
- Galvanized-steel cabinet construction
 - The Tranquility SJ features a matte black polyester powder-coat finish with stainless steel access panels
 - The Tranquility SP features a bonded silver polyester powder coat finish
 - The Tranquility SA features a matte black polyester powder coat finish
- Sound-absorbing glass-fiber insulation
- Unique double-isolation compressor mounting with vibration isolation for quieter operation (SJ, SP)
- Separate compressor and air-handler sections for application flexibility
- TXV metering device
- Field-convertible supply and return configuration (SA, SJ)
- Unit Performance Sentinel performancemonitoring system
- Eight standard safety features
- Easy-to-clean thermoset drain pan (SA, SK)
- DXM2.5 Advanced Communicating Controls:
 - Multiple communication pathways for unite access and diagnosis:
 - Cloud-based remote monitoring via Wi-Fi communicating color touchscreen thermostat
 - Connect directly the system with a handheld service tool
 - Provides real-time unit operating conditions

- Reduces startup, commissioning, and service time by providing key system temperatures electronically
- Captures operating conditions in the event of a safety shutdown
- Anti-short cycle and over/under voltage protection
- Easy-access swing-out control box
- High-pressure, loss-of-charge, and condensate overflow protection
- LED fault and status indication at controller
- Corrosive resistant aluminum air coil (SA, SK)
- Convenient service-tool access port for controller configuration and diagnostics located on the front corner post.

OPTIONS

- Corrosion-resistant cupro-nickel water-heat exchanger (SJ)
- Domestic Hot Water Generator (HWG) (SJ)
- vFlow unit-integrated variable-speed water pump (SJ)
- vFlow unit-integrated modulating water valve for maximum water-flow control (SJ, SP)
- Factory-installed compressor soft starter to reduce inrush currents for more efficient startups (SJ, SP)
- Integrated power disconnect (SJ)

ACCESSORIES

- iGate 2 Communicating (AWC) Thermostat with color touchscreen (included with purchase of SA)
- iGate 2 Smart Tank
- Wide variety of thermostat options to meet your application needs
- Auxiliary electric heaters (SA)

iGATE 2 COMMUNICATION – CLOUD CONNECTED, WEB-ENABLED INFORMATION GATEWAY TO MONITOR, CONTROL, AND DIAGNOSE YOUR SYSTEM



The Tranquility
Premier Split Systems are
equipped with industryfirst, iGate 2 communication
information gateway that allows
users to interact with their
water-source system in easy
to read clear language AND
delivers improved reliability and

efficiency by precisely controlling smart components.

Monitor/Configure – Installers can configure from the myUplink PRO website, mobile app, AWC Thermostat, or diagnostic tool, including: airflow, unit family, size, accessory configuration, and demand reduction (optional, to limit unit operation during peak times). Users can look up the current system status: temperature sensor readings and operational status of the blower.

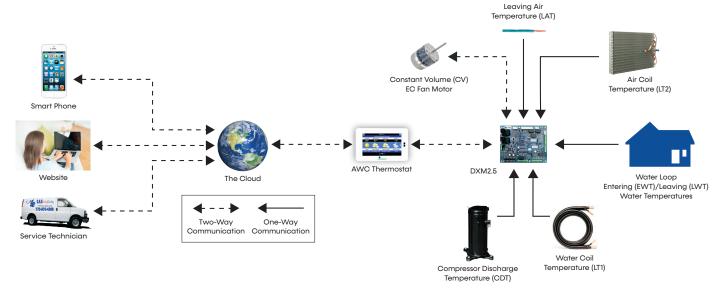
Precise Control – The DXM2.5 enables intelligent, two-way communication between the DXM2.5 and smart components like the communicating thermostat/diagnostic tool and constant volume CV EC blower motor. DXM2.5 Advanced Communicating Controls uses information received from the smart components and temperature sensors to precisely control operation of the variable speed CV EC fan to deliver higher efficiency, reliability and increased comfort.

Diagnostics – iGate 2 takes diagnosing water source heat pump units to a next level of simplicity, by providing a dashboard of system and fault information, in clear language, on the AWC Thermostat, handheld service tool and the web portal/mobile app on the internet.

iGate 2 Service Warnings notify the homeowner and contractor of a fault and displays fault descriptions by app notifications and email with possible causes. Additionally, the current system status can be viewed graphically on the web portal and mobile app.

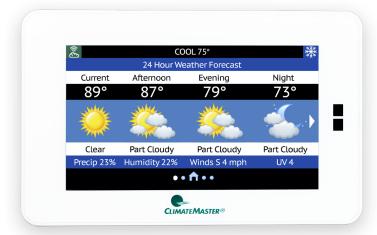
In iGate 2 Service Mode, the service personnel can access fault description, possible causes and most importantly, the conditions (temp, flow, i/o conditions, configuration) at the time of the fault. Manual Operation mode allows the service personnel to manually command operation for any of the thermostat outputs, blower speed, to help troubleshoot specific components. This operation can either be conducted at the unit with a diagnostic tool or remotely with mobile app/website when the AWC Thermostat controls are used.

With an iGate 2 communicating system, users and contractors have a web-enabled gateway to system information never before available and exclusive to ClimateMaster products.



iGate 2 Communicating (AWC) Thermostat

iGATE 2 COMMUNICATION – CLOUD CONNECTED, WEB-ENABLED INFORMATION GATEWAY TO MONITOR, CONTROL, AND DIAGNOSE YOUR SYSTEM



The iGate 2 Communicating (AWC) Thermostat is innovating the future of comfort technology, one building at a time. The inspired design of the touch screen interface allows you to see real-time data for the efficiency and health of your system, with early warnings for potential system faults. The cloud based information gateway allows technicians to remotely diagnose system issues before occupants even know there is a problem. Control and monitor the system in your home or business from anywhere in the world with an easy to use app on your phone.

Features with Efficiency in Mind



Touchscreen Interface

A brilliantly customizable touchscreen monitor for simple control.



Seamless Integration

Between your AWC Thermostat and comfort system.



(Mobile) Remote System Control

Control temperature and schedule from anywhere in the world.



Early Fault Warnings

Alerts the building owner and the contractor of potential system faults in the future.



Remote Diagnostics

Enable the contractor to remotely diagnose system issues, adjust system settings, and reset faults.



Real-Time Operations Data and System Schematics

Access simply via the myUplink PRO Account and web portal to view system diagrams with current operating temperatures.



Revenue Stream

HVAC professionals can offer owners service contracts with remote monitoring and diagnostic capabilities without the large expense of a building management system.



myUplink: Web and Mobile Interface

HVAC Professional | User Experience



iGate 2 establishes a two-way link between the AWC Thermostat and the cloud, adding significant value for both residential and commercial customers. Our new thermostat works with your customers' Tranquility comfort systems to

provide the most efficient link between their system and your services. The customizable monitoring from the myUplink PRO web portal or phone app account allows for continuous system monitoring, analysis, repair recognition, and early warnings for potential system faults that are sent to you and your customer.



Benefits

- Remote login from anywhere, anytime from any internet connected device
- View system fault history with possible root causes
- Information is available for contractors to troubleshoot and diagnose systems remotely
- Secure internet connection keeps homeowner information private
- Access thermostat(s) through Android and iPhone mobile apps

Homeowner | User Experience



iGate 2 advanced unit controls enable a two-way communication link for critical system information between the unit and the cloud. From any internet connected device or smart phone, building owners can control and monitor their systems

from anywhere in the world. iGate 2 offers building owners peace of mind their systems are operating at peak performance with advanced operational performance issue notifications. HVAC professionals get notifications when systems are operating out of range. They can log in remotely to check system faults, review current operating conditions, and diagnose issues remotely. This gives the HVAC technician the upper hand when showing up to perform service, saving time which in turn, saves money.



Benefits

- Communicates personal settings and reminders through the iGate 2 communication system
- Easy-to-use, full-color, high-resolution user interface
- Sleek, intuitive control panel
- Secure internet connection keeps your information private
- Contains unit model, serial number and your HVAC professionals contact information
- System monitoring automatically contacts HVAC system providers when service is needed

vFlow Internal Variable Water Flow Control

VFLOW INTERNAL VARIABLE WATER FLOW

Industry-first, built-in vFlow replaces a traditionally inefficient, external component of the system (water circulation) with an ultra-high-efficient, variable speed, internal water flow system. This saves 70-80% on water circulation compared to traditional single speed pump systems. Multi-unit installations are also much simpler with vFlow systems, as the units automatically adjust water flow across the system.

vFlow is enabled by iGate 2, which facilitates intelligent communication between the thermostat, DXM2.5 Advanced Communicating Controls, sensors, and internal water pump/valve to make true variable water flow a reality.

VFLOW IS AVAILABLE IN FOUR VARIATIONS:

- Low System Pressure Drop Modulating Valve
 The high CV motorized valve is used for a multi-unit or central pumping, closed loop application.
- High System Pressure Drop Modulating Valve
 Motorized valve for higher pressure water
 systems such as a water well or other open
 loop applications. A cupro-nickel water coil is
 standard with this option.
- 3. Standard Head Variable Pump Internal Flow Controller

Multi-unit or central pumping for a closed loop application. The Internal Flow Controller includes a variable speed pump, flushing ports, 3-way flushing valves, and an expansion tank.

4. High Head Variable Pump Internal Flow Controller

Multi-unit or individual unit for a closed loop application. The Internal Flow Controller includes a variable speed pump, flushing ports, 3-way flushing valves, and an expansion tank.

VFLOW DELIVERS THREE MAIN BENEFITS:

- Easier and quicker unit installation as the flow control is built in to the unit.
- 2. Superior reliability by varying the water flow to deliver more stable operation.
- 3. Increased cost savings by varying the flow (and pump watt consumption) to match the unit's mode of operation.

INTERNAL COMPONENTS

All Tranquility products can be installed more easily and compactly than their predecessors because vFlow components are internal to the unit. They also save installing contractors labor and time by eliminating the need for an external flow regulator or a bulky external pumping module.

VARIABLE FLOW

vFlow technology enables variable water flow through the unit, with the DXM2.5 adjusting the pump speed to maintain an installer-set loop ΔT . By controlling the water flow, the system is able to operate at its optimal capacity and efficiency. vFlow provides a lower flow rate for part load where units typically operate 80% of the time and a higher, more normal flow rate for full load operation.

Variable speed pump or motorized modulating valve delivers variable water-flow, controlled by DXM2.5, based on loop water ΔT .





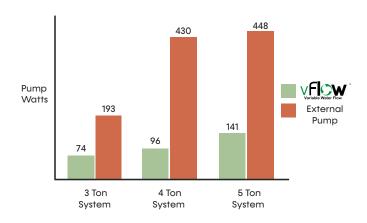
vFlow Internal Variable Water Flow Control

ENERGY SAVINGS WITH WATER CIRCULATION CONTROL

Units with vFlow deliver greater operating cost savings by varying the water flow to match the unit's operation (ex: lower water flow when unit is in part load operation). Lowering the flow results in lower energy consumption by the water pump and cost savings in vFlow units (whether internal or external pump).

In applications using vFlow with internal variable speed electronically commuted (EC) pump, the EC pump uses fewer watts than a fixed speed (PSC) pump even at full load. The EC pump excels in energy savings in part load, saving 70-80% watts compared to fixed speed pumps (see chart). The EC pump can operate with independent flow rates for both heating and cooling operations allowing for more energy savings.

In loop applications, when the motorized modulating valve slows down the water flow during part load operation, the external pump consumes fewer watts, thus saving more energy.



iGate 2 Smart Tank





iGate 2 Smart Tank Features

- 1. Brass temperature and pressure relief valve
- 2. iGate 2 Smart Tank communicates with the geothermal heat pump through DXM2.5 Advanced Communicating Controls
- 3. Polyethylene outer jacket is car bumper tough
- Water temperature sensors continuously monitor water temperature and communicate this information to the heat pump. When water temperature falls below preference settings, the heat pump generates hot water.

iGate 2 Smart Tank Features

- 5. Inlet port for incoming water from the heat pump
- 6. Full port ball valve for fast water drainage
- 7. Seamless polybutene tank is impervious to rust
- 8. 2.5-inch insulation for reduced standby heat loss.
- 9. Titanium heating elements for longevity and superior corrosion resistance
- 10. Bowl-shaped bottom for more complete sediment drainage

Selection Procedure

Reference Calculations

Heating	Cooling							
LWT = EWT - HE	LWT = EWT + HR LC = TC - SC							
GPM x Constant	GPM x Constant							
LAT = EAT + HC	LAT (DB) = EAT (DB) - SC S/T = SC							
CFM x 1.08	LAT (DB) = EAT (DB) - CFM x 1.08 S/T = TC							

Constant = 500 for water, 485 for antifreeze

Conversion Table - to convert inch-pound (English) to S-I (Metric)

Airflow	Water Flow	External Static Pressure	Water Pressure Drop		
Airflow (L/s) = CFM \times 0.472	Water Flow (L/s) = GPM x 0.0631	ESP (Pa) = ESP (in of wg) \times 249	PD (kPa) = PD (ft of hd) x 2.99		

Legend and Glossary of Abbreviations

Abbreviations	Descriptions
Btuh	Btu (British Thermal Unit) per hour
BMS	Building Management System
CDT	Compressor discharge temperature
CFM	Airflow, cubic feet per minute
COP	Coefficient of performance = Btuh output/Btuh input
CT EC	Electronically commutated constant torque blower motor
CV EC	Electronically commutated constant volume blower motor
DB	Dry bulb temperature, °F
DT	Delta T
EAT	Entering air temperature
EER	Energy efficient ratio = Btuh output/Watt input
ESP	External static pressure, inches w.g.
EWT	Entering water temperature
FPT	Female pipe thread
GPM	Water flow in U.S., gallons per minute
HC	Air heating capacity, Btuh
HE	Total heat of extraction, Btuh
HR	Total heat of rejection, Btuh

Abbreviations	Descriptions
HWG	Hot water generator (desuperheater) capacity, MBtuh
kW	Total power unit input, kilowatts
LAT	Leaving air temperature, °F
LC	Latent cooling capacity, Btuh
LOC	Loss of charge
LWT	Leaving water temperature, °F
MBtuh	1,000 Btu per hour
MPT	Male pipe thread
MWV	Motorized water valve
PSC	Permanent split capacitor
RDS	Refrigerant Detection System
SC	Sensible cooling capacity, Btuh
S/T	Sensible to total cooling ratio
TC	Total cooling capacity, Btuh
TD or delta T	Temperature differential
VFD	Variable frequency drive
WB	Wet bulb temperature, °F
WPD	Waterside pressure drop, psi or feet of head
WSE	Waterside economizer

Selection Procedure

USE THE FOLLOWING SELECTION STEPS

- Determine the actual heating and cooling loads at the desired dry bulb and wet bulb conditions.
- 2. Obtain the following design parameters: Entering water temperature, water flow rate in GPM, airflow in CFM, water flow pressure drop and design wet and dry bulb temperatures. Airflow CFM should be between 300 and 450 CFM per ton. Unit water pressure drop should be kept as close as possible to each other to make water balancing easier. Go to the appropriate tables and find the proper indicated water flow and water temperature.
- Select a unit based on total and sensible cooling conditions. Select a unit which is closest to, but no larger than, the actual cooling load.
- Enter tables at the design water flow and water temperature. Read the total and sensible cooling capacities

Note: interpolation is permissible, extrapolation is not.

- 5. Read the heating capacity. If it exceeds the design criteria it is acceptable. It is quite normal for water-source heat pumps to be selected on cooling capacity only since the heating output is usually greater than the cooling capacity.
- 6. Determine the correction factors associated with the variable factors of dry bulb and wet bulb.

Corrected Total Cooling = tabulated total cooling x wet bulb correction.

Corrected Sensible Cooling = tabulated sensible cooling x wet/dry bulb correction.

- 7. Compare the corrected capacities to the load requirements. Normally if the capacities are within 10% of the loads, the equipment is acceptable. It is better to undersize than oversize, as undersizing improves humidity control, reduces sound levels and extends the life of the equipment.
- 8. When completed, calculate water temperature rise and assess the selection. If the units selected are not within 10% of the load calculations, then review what effect changing the GPM, water temperature and/or air flow and air temperature would have on the corrected capacities. If the desired capacity cannot be achieved, select the next larger or smaller unit and repeat the procedure. Remember, when in doubt, undersize slightly for best performance.

EXAMPLE EQUIPMENT SELECTION FOR COOLING

Step 1: Load Determination

Assume we have determined that the appropriate cooling load at the desired dry bulb 80°F and wet bulb 65°F conditions is as follows:

Total Cooling	22,000	Btuh
Sensible Cooling	18,200	Btuh
Entering Air Temp	80°F Dry Bulb / 65°F Wet	Bulb

Step 2: Design Conditions

Similarly, we have also obtained the following design parameters:

Entering Water Temp90)°F
Water Flow (Based upon 10°F rise in temp).4.5 GF	M
Airflow600 CF	М

Steps 3, 4, and 5: HP Selection

After making our preliminary selection (SJ024), we enter the tables at design water flow and water temperature and read Total Cooling, Sensible Cooling and Heat of Rejection capacities:

Total Cooling	22,500 Btuh
Sensible Cooling	16,500 Btuh
Heat of Rejection	28.800 Btuh

Steps 6 and 7: Entering Airflow Corrections

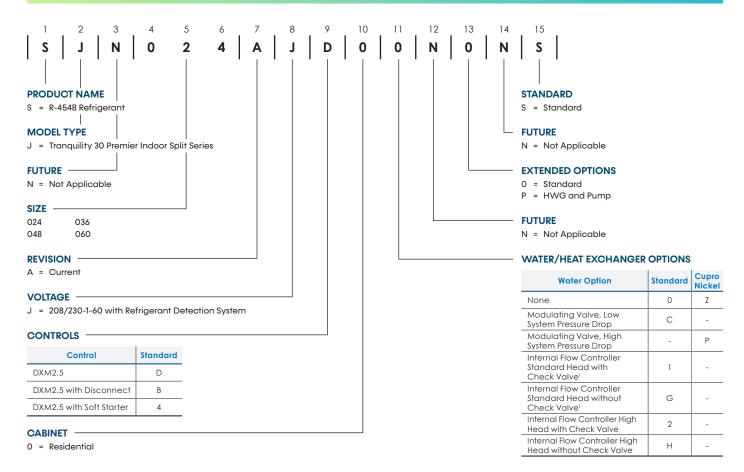
Next, we determine our correction factors.

Corrected Values	Table		Ent Air		Airflow		Corrected
Corrected Total Cooling	22,500	×	0.976	X	0.967	=	21,235
Corrected Sensible = Cooling	16,500	х	0.919	Х	1.089	=	16,513
Corrected Heat of Rejection							

Step 8: Water Temperature Rise Calculation and Assessment

When we compare the Corrected Total Cooling and Corrected Sensible Cooling figures with our load requirements stated in Step 1, we discover that our selection is within ±10% of our sensible load requirement. Furthermore, we see that our Corrected Total Cooling figure is within 1,000 Btuh the actual indicated load.

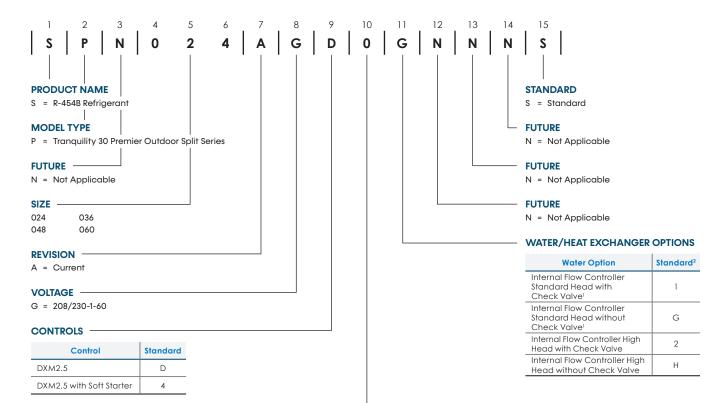
Tranquility SJ Model Nomenclature



NOTES:

- Available with sizes 024-036
- 2. All Open Loop vFlow Water Circuit Options require a Cupro-Nickel Heat Exchanger.
 All Closed Loop vFlow Water Circuit Options require a Standard Heat Exchanger.
 If no Water Circuit Option is selected, then the Heat Exchanger can be either Standard or Cupro-Nickel.

Tranquility SP Model Nomenclature



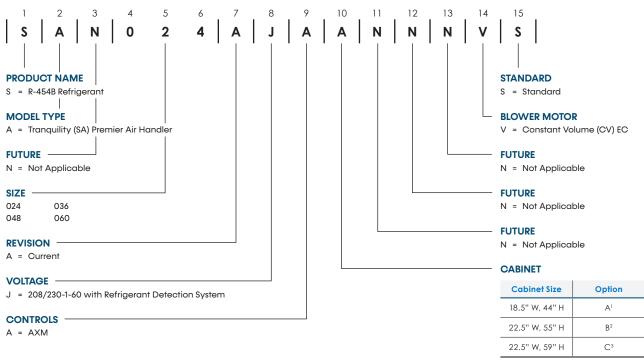
CABINET — 0 = Residential

NOTES:

- . Available with sizes 024-036
- 2. Available only with Standard Heat Echanger for Closed-Loop applications

Tranquility SA and SK Model Nomenclature

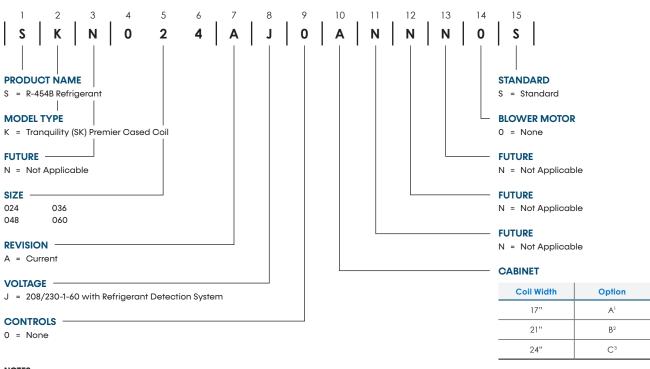
Tranquility SA Model Nomenclature



NOTES:

- Available with size 024
- Available with sizes 036 and 048
- 3. Available with size 060

Tranquility SK Model Nomenclature



NOTES:

- Available with size 024
- 2. Available with sizes 036 and 048
- 3. Available with size 060

Performance Data: AHRI/ASHRAE/ISO 13256-1

ASHRAE/AHRI/ISO 13256-1 SJ/SP with Tranquility SA (Part Load) (English IP)

Model		Wa	ter Loop H	leat Pump	Grou	ınd Water	Heat Pump	Ground Loop Heat Pump					
	Motor	Cooling 86°F		Heating 68°F		Cooling 59°F		Heating 50°F		Cooling 68°F		Heating 41°F	
	Туре	Capacity Btuh	EER Btuh/W	Capacity Btuh	СОР	Capacity Btuh	EER Btuh/W	Capacity Btuh	СОР	Capacity Btuh	EER Btuh/W	Capacity Btuh	СОР
SJ/SP024	EC	16,700	17.2	19,800	6.1	18,400	30.1	16,300	5.0	18,000	24.7	14,500	4.4
SJ/SP036	EC	27,200	17.7	28,800	5.5	30,200	31.2	24,000	4.7	28,700	23.1	21,000	4.3
SJ/SP048	EC	32,200	17.0	39,000	5.6	38,500	31.3	31,500	4.6	36,800	25.0	27,500	4.1
SJ/SP060	EC	41,300	17.1	45,900	5.3	47,400	28.7	38,200	4.5	45,200	23.8	33,900	4.1

- 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
- Ground Loop Heat Pump ratings based on 15% methanol antifreeze solution
- · All ratings based upon operation at lower voltage of dual-voltage rated models

ASHRAE/AHRI/ISO 13256-1 SJ/SP with Tranquility SA (Full Load) (English IP)

Model Motor Type	Motor	Wa	ter Loop H	leat Pump	Grou	ınd Water	Heat Pump	Ground Loop Heat Pump					
		Cooling 86°F		Heating 68°F		Cooling 59°F		Heating 50°F		Cooling 68°F		Heating 41°F	
	Type	Capacity Btuh	EER Btuh/W	Capacity Btuh	СОР	Capacity Btuh	EER Btuh/W	Capacity Btuh	СОР	Capacity Btuh	EER Btuh/W	Capacity Btuh	СОР
SJ/SP024	EC	23,200	16.5	27,200	5.5	24,700	25.2	22,500	4.8	23,900	19.0	17,900	4.0
SJ/SP036	EC	36,400	17.3	39,400	5.3	41,800	25.0	33,700	4.7	38,300	18.4	26,900	4.0
SJ/SP048	EC	48,000	16.6	56,100	5.0	51,900	22.2	46,000	4.4	49,000	18.1	35,500	3.7
SJ/SP060	EC	59,700	16.0	63,900	5.0	65,000	22.9	55,100	4.3	60,200	17.6	45,000	3.7

- 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
- Ground Loop Heat Pump ratings based on 15% methanol antifreeze solution
- All ratings based upon operation at lower voltage of dual-voltage rated models

ASHRAE/AHRI/ISO 13256-1 SJ/SP with Tranquility SK (Part Load) (English IP)

Model Motor Type		Wa	ter Loop H	leat Pump	Grou	ınd Water	Heat Pump	Ground Loop Heat Pump					
		Cooling 86°F		Heating 68°F		Cooling 59°F		Heating 50°F		Cooling 68°F		Heating 41°F	
	lype	Capacity Btuh	EER Btuh/W	Capacity Btuh	СОР	Capacity Btuh	EER Btuh/W	Capacity Btuh	СОР	Capacity Btuh	EER Btuh/W	Capacity Btuh	СОР
SJ/SP024	EC	16,400	16.5	19,900	5.9	18,100	28.5	16,400	4.8	18,000	24.0	14,700	4.3
SJ/SP036	EC	26,300	18.4	29,500	5.5	29,500	30.4	24,000	4.6	28,300	24.6	21,600	4.2
SJ/SP048	EC	31,500	16.3	38,400	5.5	38,100	29.0	31,300	4.6	35,300	21.9	28,500	4.0
SJ/SP060	EC	40,800	15.7	46,700	5.2	46,500	25.8	38,900	4.4	44,400	22.0	34,500	4.0

- 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
- Ground Loop Heat Pump ratings based on 15% methanol antifreeze solution
- All ratings based upon operation at lower voltage of dual-voltage rated models

ASHRAE/AHRI/ISO 13256-1 SJ/SP with Tranquility SK (Full Load) (English IP)

		Wa	ter Loop H	leat Pump		Grou	ınd Water	Heat Pump		Grou	nd Loop	Heat Pump)
Model	Motor	Cooling	3 86°F	Heating	68°F	Coolin	g 59°F	Heating !	50°F	Cooling	3 68°F	Heating	41°F
	Туре	Capacity Btuh	EER Btuh/W	Capacity Btuh	СОР	Capacity Btuh	EER Btuh/W	Capacity Btuh	СОР	Capacity Btuh	EER Btuh/W	Capacity Btuh	СОР
SJ/SP024	EC	23,000	15.6	27,500	5.2	24,700	23.6	22,800	4.6	23,700	17.8	18,300	3.8
SJ/SP036	EC	36,900	15.8	41,100	5.1	41,000	23.6	33,200	4.4	36,800	18.2	27,300	3.9
SJ/SP048	EC	47,000	15.1	56,500	5.0	51,100	21.0	46,800	4.2	48,500	16.7	36,500	3.6
SJ/SP060	EC	57,300	14.3	65,000	5.0	63,900	20.3	56,200	4.2	59,600	16.1	46,500	3.6

- 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
- Ground Loop Heat Pump ratings based on 15% methanol antifreeze solution
- All ratings based upon operation at lower voltage of dual-voltage rated models

Performance Data: AHRI/ASHRAE/ISO 13256-1

ASHRAE/AHRI/ISO 13256-1 SJ/SP with Tranquility SA (Part Load) (Metric SI)

		Wat	er Loop I	leat Pump		Gro	und Water	Heat Pump		Grou	nd Loop	Heat Pump	,
Model	Motor	Cooling	30°C	Heating 2	20°C	Coolin	g 15°C	Heating 1	l0°С	Full Coolir	ng 20°C	Full Heatin	ıg 5°C
	Туре	Capacity kW	EER W/W	Capacity kW	СОР	Capacity kW	EER W/W	Capacity kW	СОР	Capacity kW	EER W/W	Capacity kW	СОР
SJ/SP024	EC	5	5.0	6	6.1	5	8.8	5	5.0	5	7.2	4	4.4
SJ/SP036	EC	8	5.2	8	5.5	9	9.1	7	4.7	8	6.8	6	4.3
SJ/SP048	EC	9	5.0	11	5.6	11	9.2	9	4.6	11	7.3	8	4.1
SJ/SP060	EC	12	5.0	13	5.3	14	8.4	11	4.5	13	7.0	10	4.1

- 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
- Ground Loop Heat Pump ratings based on 15% methanol antifreeze solution
- All ratings based upon operation at lower voltage of dual-voltage rated models

ASHRAE/AHRI/ISO 13256-1 SJ/SP with Tranquility SA (Full Load) (Metric SI)

		Wat	er Loop I	leat Pump		Gro	und Water	Heat Pump		Grou	nd Loop	Heat Pump	•
Model	Motor	Cooling	30°C	Heating 2	20°C	Coolin	g 15°C	Heating 1	0°C	Full Coolir	ng 20°C	Full Heatin	ıg 5°C
	Туре	Capacity kW	EER W/W	Capacity kW	СОР	Capacity kW	EER W/W	Capacity kW	СОР	Capacity kW	EER W/W	Capacity kW	СОР
SJ/SP024	EC	7	4.8	8	5.5	7	7.4	7	4.8	7	5.6	5	4.0
SJ/SP036	EC	11	5.1	12	5.3	12	7.3	10	4.7	11	5.4	8	4.0
SJ/SP048	EC	14	4.9	16	4.9	15	6.5	13	4.4	14	5.3	10	3.7
SJ/SP060	EC	17	4.7	19	4.9	19	6.7	16	4.3	18	5.2	13	3.7

- 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
- Ground Loop Heat Pump ratings based on 15% methanol antifreeze solution
- All ratings based upon operation at lower voltage of dual-voltage rated models

ASHRAE/AHRI/ISO 13256-1 SJ/SP with Tranquility SK (Part Load) (Metric SI)

		Wat	er Loop H	leat Pump		Gro	und Water	Heat Pump		Grou	nd Loop	Heat Pump	
Model	Motor	Cooling	30°C	Heating :	20°C	Coolin	g 15°C	Heating 1	l0°С	Full Coolir	ng 20°C	Full Heatin	g 5°C
	Туре	Capacity kW	EER W/W	Capacity kW	СОР	Capacity kW	EER W/W	Capacity kW	СОР	Capacity kW	EER W/W	Capacity kW	СОР
SJ/SP024	EC	5	4.8	6	5.9	5	8.4	5	4.8	5	7.0	4	4.3
SJ/SP036	EC	8	5.4	9	5.5	9	8.9	7	4.6	8	7.2	6	4.2
SJ/SP048	EC	9	4.8	11	5.5	11	8.5	9	4.6	10	6.4	8	4.0
SJ/SP060	EC	12	4.6	14	5.2	14	7.6	11	4.4	13	6.5	10	4.0

- 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 Ground Loop Heat Pump ratings based on 15% methanol antifreeze solution
- All ratings based upon operation at lower voltage of dual-voltage rated models

ASHRAE/AHRI/ISO 13256-1 SJ/SP with Tranquility SK (Full Load) (Metric SI)

		Wat	er Loop H	leat Pump		Gro	und Water	Heat Pump		Grou	nd Loop	Heat Pump	
Model	Motor	Cooling	30°C	Heating 2	20°C	Coolin	g 15°C	Heating 1	0°C	Full Coolir	ng 20°C	Full Heatin	g 5°C
	Туре	Capacity kW	EER W/W	Capacity kW	СОР	Capacity kW	EER W/W	Capacity kW	СОР	Capacity kW	EER W/W	Capacity kW	СОР
SJ/SP024	EC	7	4.6	8	5.2	7	6.9	7	4.6	7	5.2	5	3.8
SJ/SP036	EC	11	4.6	12	5.1	12	6.9	10	4.4	11	5.3	8	3.9
SJ/SP048	EC	14	4.4	17	4.7	15	6.2	14	4.2	14	4.9	11	3.6
SJ/SP060	EC	17	4.2	19	4.7	19	6.0	16	4.2	17	4.7	14	3.6

- 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
- Ground Loop Heat Pump ratings based on 15% methanol antifreeze solution
- All ratings based upon operation at lower voltage of dual-voltage rated models

600 CFM Rated Airflow

EWT		WPD			Co	oling - E	AT 80/6	57°F		HWG		WPD			HE	ATING -	- EAT 70)°F	
°F	FLOW GPM	PSI	FT	TC	sc	Power kW	HR	EER	LWT	Сар	FLOW	PSI	FT	нс	Power kW	HE	СОР	LWT	HWG Cap
					N - I	D													
20			,	peran	on Not	Recomi	menae	a			4.50	0.9	2.1	10.8	1.12	6.9	2.8	16.8	1.1
											2.25	0.3	0.6	11.8	1.11	8.0	3.1	22.6	1.2
30	1.30	0.1	0.2	17.0	10.7	0.71	19.4	23.8	60.0	0.8	3.37	0.6	1.3	12.3	1.11	8.5	3.3	24.7	1.3
											4.50	0.8	1.9	12.8	1.11	9.0	3.4	25.8	1.3
											2.25	0.2	0.5	14.9	1.09	11.2	4.0	34.6	1.4
40	2.05	0.3	0.6	18.3	11.9	0.65	20.5	28.3	60.0	0.8	3.37	0.5	1.2	15.4	1.09	11.7	4.2	37.8	1.5
											4.50	0.8	1.8	15.9	1.09	12.2	4.3	39.3	1.5
	2.25	0.3	0.6	18.4	12.4	0.72	20.8	25.5	69.3	1.0	2.25	0.2	0.5	15.9	1.08	12.2	4.3	38.7	1.6
50	3.37	0.5	1.2	18.5	12.3	0.68	20.8	27.4	62.8	0.8	3.37	0.5	1.1	16.4	1.08	12.7	4.4	42.1	1.7
	4.50	0.8	1.8	18.5	12.1	0.63	20.7	29.4	59.6	0.8	4.50	0.8	1.8	17.0	1.08	13.3	4.6	43.9	1.7
	2.25	0.2	0.6	18.3	12.8	0.82	21.1	22.5	79.6	1.4	2.25	0.2	0.4	17.9	1.08	14.2	4.8	46.8	1.8
60	3.37	0.5	1.2	18.4	12.7	0.77	21.0	23.9	73.0	1.1	3.37	0.5	1.1	18.4	1.08	14.7	5.0	50.9	1.8
	4.50	0.8	1.8	18.5	12.6	0.73	21.0	25.5	69.7	1.0	4.50	0.7	1.7	18.9	1.08	15.3	5.1	52.9	1.9
	2.25	0.2	0.5	18.0	13.0	0.93	21.1	19.3	89.6	1.9	2.25	0.1	0.3	19.8	1.09	16.0	5.3	55.1	1.9
70	3.37	0.5	1.1	18.0	12.9	0.89	21.1	20.3	83.0	1.5	3.37	0.4	1.0	20.3	1.09	16.5	5.4	59.8	2.0
	4.50	0.7	1.7	18.1	12.8	0.84	21.0	21.5	79.7	1.3	4.50	0.7	1.6	20.8	1.09	17.1	5.6	62.1	2.1
	2.25	0.2	0.4	17.4	12.9	1.07	21.0	16.3	99.6	2.6	2.25	0.1	0.1	21.4	1.12	17.6	5.6	63.6	2.1
80	3.37	0.4	1.0	17.4	12.8	1.02	20.9	17.1	93.0	2.1	3.37	0.3	0.8	21.9	1.12	18.1	5.8	68.7	2.1
	4.50	0.7	1.6	17.5	12.7	0.98	20.8	17.9	89.7	1.9	4.50	0.6	1.4	22.5	1.12	18.7	5.9	71.3	2.1
	2.25	0.2	0.4	16.6	12.7	1.22	20.7	13.6	109.4	3.4									
90	3.37	0.4	0.9	16.6	12.5	1.18	20.7	14.2	102.9	2.8	1.86	0.1	0.2	22.6	1.16	18.6	5.7	70.0	2.1
	4.50	0.7	1.5	16.7	12.4	1.13	20.6	14.8	99.6	2.6									
	2.25	0.1	0.3	15.7	12.3	1.39	20.5	11.3	119.3	4.3									
100	3.37	0.4	0.9	15.8	12.2	1.35	20.4	11.7	112.8	3.7	1.24	0.1	0.2	22.6	1.16	18.6	5.7	70.0	2.1
	4.50	0.6	1.5	15.9	12.0	1.30	20.3	12.2	109.6	3.4									
	2.25	0.1	0.3	14.9	11.8	1.58	20.3	9.4	129.3	5.4									
110	3.37	0.4	0.8	15.0	11.7	1.54	20.2	9.7	122.8	4.7	0.93	0.1	0.2	22.6	1.16	18.6	5.7	70.0	2.1
	4.50	0.6	1.4	15.0	11.6	1.49	20.1	10.1	119.6	4.4									
	2.25	0.1	0.2	14.1	11.4	1.79	20.2	7.9	139.4	6.7									
120	3.37	0.4	0.8	14.2	11.2	1.74	20.1	8.1	132.9	5.9	0.74	0.1	0.2	22.6	1.16	18.6	5.7	70.0	2.1
	4.50	0.6	1.4	14.3	11.1	1.70	20.1	8.4	129.6	5.5									

- Interpolation is permissible; extrapolation is not.
 All entering air conditions are 80°F (26.6°C) DB and 67°F (19.4°C) WB in cooling, and 70°F (21°C) DB in heating.
- AHRI/ISO certified conditions are 80.6° [27°C] DB and 66.2°F [19°C] WB in cooling and 68°F (20°C) DB in heating. Table does not reflect fan or pump power corrections for AHRI/ISO conditions.

- All performance is based upon the lower voltage of dual voltage rated units.

 Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated.
- Operation below 50°F (10.0°C) EWT is based upon 15% methanol antifreeze solution.
- Operation below 60°F (15.5°C) EWT requires optional insulated water/refrigerant circuit.
- See performance correction tables for operating conditions other than those listed above. See Performance Data Selection Notes for operation in the shaded areas.
- Regular Cooling operation with an EWT of less than 50° F (10.0° C) is not recommended unless variable water flow is available. Regular Heating operation with an EWT of more than 90° F (32° C) is not recommended unless variable water flow is available.
- For quiet operation and long term reliability, it is recommended that systems be designed to avoid continuous operation in the outlined areas.
- Performance capacities shown in thousands of Btuh.
- The HWG option is available only on the Tranquility SJ.

800 CFM Rated Airflow

EWT		WPD			Co	oling - E	AT 80/8	57°F		HWG		WPD			HE	ATING -	- EAT 70)°F	
°F	FLOW GPM	PSI	FT	TC	sc	Power kW	HR	EER	LWT	Сар	FLOW GPM	PSI	FT	нс	Power kW	HE	СОР	LWT	HWG Cap
20) n o radi	on Not	Recomi		-d											
				peran	on Noi	Kecomi	nenae	a			6.00	1.4	3.1	15.0	1.47	10.0	3.0	16.5	1.5
											3.00	0.3	0.7	16.7	1.47	11.6	3.3	21.9	1.6
30	1.86	0.1	0.2	24.1	15.3	1.13	27.9	21.4	60.0	1.4	4.50	0.9	2.0	17.1	1.48	12.0	3.4	24.4	1.8
											6.00	1.4	3.3	17.5	1.49	12.4	3.4	25.7	1.8
											3.00	0.2	0.5	20.5	1.52	15.3	4.0	34.3	2.0
40	2.80	0.4	0.8	24.3	15.6	1.08	28.0	22.5	60.0	1.4	4.50	0.8	1.8	20.9	1.53	15.7	4.0	37.7	2.1
											6.00	1.3	3.1	21.3	1.53	16.1	4.1	39.4	2.2
	3.00	0.4	0.9	24.5	16.2	1.18	28.6	20.7	69.8	1.5	3.00	0.2	0.4	21.8	1.53	16.6	4.2	38.5	2.4
50	4.50	0.8	1.9	24.4	15.9	1.13	28.2	21.7	63.1	1.4	4.50	0.7	1.7	22.2	1.54	17.0	4.2	42.1	2.5
	6.00	1.3	2.9	24.3	15.7	1.07	27.9	22.7	59.7	1.4	6.00	1.3	3.0	22.6	1.55	17.3	4.3	44.0	2.6
	3.00	0.3	0.7	24.5	16.8	1.30	28.9	18.9	80.1	1.9	3.00	0.1	0.2	24.5	1.58	19.1	4.5	46.7	2.7
60	4.50	0.8	1.8	24.4	16.6	1.24	28.6	19.6	73.3	1.6	4.50	0.7	1.5	24.9	1.59	19.4	4.6	51.0	2.9
	6.00	1.2	2.8	24.3	16.3	1.19	28.3	20.4	69.8	1.4	6.00	1.2	2.8	25.2	1.60	19.8	4.6	53.1	3.0
	3.00	0.3	0.6	24.3	17.3	1.44	29.2	16.9	90.3	2.4	3.00	0.1	0.1	27.1	1.63	21.5	4.9	55.0	3.1
70	4.50	0.7	1.7	24.1	17.0	1.38	28.8	17.5	83.4	2.0	4.50	0.6	1.4	27.4	1.64	21.9	4.9	59.8	3.3
	6.00	1.2	2.7	24.0	16.8	1.32	28.5	18.1	79.9	1.9	6.00	1.2	2.7	27.8	1.65	22.2	5.0	62.3	3.4
	3.00	0.2	0.6	23.8	17.6	1.59	29.2	14.9	100.4	3.1	3.00	0.1	0.3	29.6	1.69	23.8	5.1	63.3	3.4
80	4.50	0.7	1.6	23.7	17.3	1.54	28.9	15.4	93.5	2.6	4.50	0.7	1.6	30.0	1.70	24.2	5.2	68.7	3.5
	6.00	1.1	2.6	23.5	17.0	1.48	28.6	15.9	90.0	2.4	6.00	1.3	2.9	30.4	1.71	24.6	5.2	71.4	3.5
	3.00	0.2	0.5	23.1	17.6	1.77	29.1	13.0	110.5	3.8									
90	4.50	0.7	1.5	23.0	17.3	1.72	28.8	13.4	103.5	3.3	2.59	0.1	0.2	31.8	1.75	25.9	5.3	70.0	3.5
	6.00	1.1	2.6	22.8	17.0	1.66	28.5	13.8	100.0	3.0									
	3.00	0.2	0.4	22.2	17.2	1.97	28.9	11.2	120.4	4.6									
100	4.50	0.6	1.4	22.1	16.9	1.92	28.6	11.5	113.5	4.0	1.72	0.1	0.2	31.8	1.75	25.9	5.3	70.0	3.5
	6.00	1.1	2.5	21.9	16.7	1.86	28.3	11.8	110.0	3.8									
	3.00	0.1	0.3	21.1	16.5	2.20	28.6	9.6	130.4	5.5									
110	4.50	0.6	1.4	21.0	16.2	2.14	28.3	9.8	123.4	4.9	1.29	0.1	0.2	31.8	1.75	25.9	5.3	70.0	3.5
	6.00	1.0	2.4	20.9	15.9	2.09	28.0	10.0	120.0	4.6									
	3.00	0.1	0.2	19.8	15.3	2.45	28.2	8.1	140.3	6.5									
120	4.50	0.6	1.3	19.7	15.0	2.39	27.9	8.2	133.4	5.8	1.03	0.1	0.2	31.8	1.75	25.9	5.3	70.0	3.5
	6.00	1.0	2.3	19.6	14.7	2.34	27.5	8.4	129.9	5.5									

- Interpolation is permissible; extrapolation is not.
 All entering air conditions are 80°F (26.6°C) DB and 67°F (19.4°C) WB in cooling, and 70°F (21°C) DB in heating.
- AHRI/ISO certified conditions are 80.6°F (27°C) DB and 66.2°F (19°C) WB in cooling and 68°F (20°C) DB in heating. Table does not reflect fan or pump power corrections for AHRI/ISO conditions.

- All performance is based upon the lower voltage of dual voltage rated units.

 Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated.
- Operation below 50°F (10.0°C) EWT is based upon 15% methanol antifereeze solution.

 Operation below 60°F (15.5°C) EWT requires optional insulated water/refrigerant circuit.
- See performance correction tables for operating conditions other than those listed above.
- See Performance Data Selection Notes for operation in the shaded areas.
- Regular Cooling operation with an EWT of less than 50°F (10.0°C) is not recommended unless variable water flow is available.
 Regular Heating operation with an EWT of more than 90°F (32°C) is not recommended unless variable water flow is available.
 For quiet operation and long term reliability, it is recommended that systems be designed to avoid continuous operation in the outlined areas.
- Performance capacities shown in thousands of Btuh.
- The HWG option is available only on the Tranquility SJ.

900 CFM Rated Airflow

EWT		WPD			Co	oling - E	AT 80/6	57°F		HWG		WPD			HEA	ATING	- EAT 70)°F	
°F	FLOW GPM	PSI	FT	TC	sc	Power kW	HR	EER	LWT	Cap	FLOW GPM	PSI	FT	нс	Power kW	HE	СОР	LWT	HWG Cap
) n a vailt	an Nat	D		al											
20			,	peran	оп мот	Recomi	nenae	a			6.75	5.2	12.1	17.4	1.79	11.3	2.8	16.5	1.6
											3.38	2.1	4.9	18.3	1.58	12.9	3.4	22.0	1.7
30	2.18	1.4	3.1	29.0	18.3	1.10	32.7	26.3	60.0	1.2	5.06	3.4	7.7	18.7	1.59	13.3	3.5	24.5	1.8
											6.75	4.6	10.6	19.2	1.60	13.7	3.5	25.7	1.9
											3.38	1.3	3.0	22.1	1.52	17.0	4.3	34.5	2.0
40	3.40	1.7	3.8	30.8	21.9	0.96	34.0	32.0	60.0	1.2	5.06	2.5	5.8	22.6	1.53	17.4	4.3	37.8	2.1
											6.75	3.7	8.6	23.1	1.54	17.8	4.4	39.5	2.2
	3.38	1.5	3.4	31.3	22.8	1.05	34.9	30.0	71.6	1.3	3.38	1.1	2.4	23.6	1.54	18.4	4.5	38.6	2.3
50	5.06	2.5	5.8	31.1	22.6	1.00	34.5	30.9	64.2	1.2	5.06	2.3	5.2	24.1	1.55	18.8	4.6	42.2	2.4
	6.75	3.6	8.2	30.8	22.4	0.96	34.1	32.0	60.5	1.2	6.75	3.5	8.1	24.6	1.55	19.2	4.6	44.1	2.5
	3.38	1.2	2.8	31.2	23.3	1.19	35.2	26.3	81.8	1.9	3.38	0.7	1.6	26.8	1.61	21.3	4.9	46.8	2.6
60	5.06	2.2	5.2	30.9	23.2	1.14	34.8	27.1	74.3	1.4	5.06	1.9	4.4	27.2	1.62	21.7	4.9	51.0	2.7
	6.75	3.3	7.6	30.7	23.0	1.10	34.4	27.9	70.6	1.3	6.75	3.1	7.2	27.7	1.62	22.2	5.0	53.2	2.8
	3.38	1.0	2.2	30.3	23.1	1.38	35.0	21.9	91.7	2.7	3.38	0.4	1.0	30.0	1.69	24.2	5.2	55.0	2.8
70	5.06	2.0	4.6	30.0	22.9	1.34	34.6	22.4	84.3	2.1	5.06	1.6	3.8	30.4	1.70	24.6	5.3	59.8	2.9
	6.75	3.0	7.0	29.8	22.7	1.30	34.2	22.9	80.6	1.8	6.75	2.8	6.6	30.9	1.70	25.1	5.3	62.2	3.0
	3.38	0.7	1.7	28.9	22.2	1.62	34.5	17.8	101.4	3.7	3.38	0.3	0.7	33.0	1.74	27.1	5.6	63.2	3.0
80	5.06	1.8	4.1	28.7	22.1	1.58	34.1	18.2	94.1	2.9	5.06	1.5	3.5	33.5	1.75	27.5	5.6	68.6	3.1
	6.75	2.8	6.5	28.4	21.9	1.54	33.7	18.5	90.5	2.6	6.75	2.7	6.3	33.9	1.76	27.9	5.7	71.3	3.1
	3.38	0.6	1.3	27.3	21.2	1.89	33.7	14.5	111.0	4.9									
90	5.06	1.6	3.7	27.0	21.0	1.84	33.3	14.7	103.9	4.0	2.96	0.1	0.2	35.5	1.72	29.6	6.0	70.0	3.1
	6.75	2.6	6.1	26.8	20.8	1.80	32.9	14.9	100.3	3.6									
	3.38	0.4	1.0	25.6	20.1	2.15	33.0	11.9	120.7	6.3									
100	5.06	1.5	3.4	25.4	20.0	2.11	32.6	12.0	113.6	5.2	1.97	0.1	0.2	35.5	1.72	29.6	6.0	70.0	3.1
	6.75	2.5	5.8	25.1	19.8	2.07	32.1	12.1	110.1	4.8									
	3.38	0.4	0.9	24.1	19.4	2.41	32.4	10.0	130.5	7.9									
110	5.06	1.4	3.3	23.9	19.3	2.37	32.0	10.1	123.5	6.7	1.48	0.1	0.2	35.5	1.72	29.6	6.0	70.0	3.1
	6.75	2.4	5.7	23.6	19.1	2.33	31.6	10.2	120.0	6.2									
	3.38	0.4	0.9	23.1	19.4	2.64	32.1	8.8	140.5	9.7									
120	5.06	1.4	3.3	22.8	19.2	2.59	31.7	8.8	133.5	8.5	1.18	0.1	0.2	35.5	1.72	29.6	6.0	70.0	3.1
	6.75	2.5	5.7	22.6	19.1	2.55	31.3	8.9	130.0	7.8									

- Interpolation is permissible; extrapolation is not.
- All entering air conditions are 80°F (26.6°C) DB and 67°F (19.4°C) WB in cooling, and 70°F (21°C) DB in heating.
- AHRI/ISO certified conditions are 80.6°F (27°C) DB and 66.2°F (19°C) WB in cooling and 68°F (20°C) DB in heating. Table does not reflect fan or pump power corrections for AHRI/ISO conditions.

- All performance is based upon the lower voltage of dual voltage rated units.

 Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated.
- Operation below 50°F (10.0°C) EWT is based upon 15% methanol antifreeze solution.
 Operation below 60°F (15.5°C) EWT requires optional insulated water/refrigerant circuit.
 See performance correction tables for operating conditions other than those listed above.
- See Performance Data Selection Notes for operation in the shaded areas.
- Regular Cooling operation with an EWT of less than 50°F (10.0°C) is not recommended unless variable water flow is available.
 Regular Heating operation with an EWT of more than 90°F (32°C) is not recommended unless variable water flow is available.
 For quiet operation and long term reliability, it is recommended that systems be designed to avoid continuous operation in the outlined areas.
- Performance capacities shown in thousands of Btuh.
- The HWG option is available only on the Tranquility SJ.

1,200 CFM Rated Airflow

EWT		WPD			Cod	oling - E	AT 80/8	57°F		HWG		WPD			HE	ATING	- EAT 70)°F	
°F	FLOW GPM	PSI	FT	TC	sc	Power kW	HR	EER	LWT	Cap	FLOW GPM	PSI	FT	нс	Power kW	HE	СОР	LWT	HWG Cap
20			_) norati	on Not	Recomi	mondo	d											
				peran	on Noi	Kecomi	пепае	u			9.00	8.9	20.6	25.8	2.29	18.0	3.3	15.8	1.9
											4.50	2.6	6.1	25.7	2.18	18.3	3.5	21.5	2.2
30	3.03	2.1	4.8	39.5	25.5	1.74	45.5	22.7	60.0	1.8	6.75	4.9	11.3	26.5	2.19	19.0	3.5	24.1	2.4
											9.00	7.2	16.6	27.2	2.21	19.7	3.6	25.4	2.4
											4.50	0.8	1.7	31.0	2.25	23.3	4.0	34.2	2.7
40	4.77	2.2	5.2	41.7	28.4	1.75	47.7	23.8	60.0	1.8	6.75	3.0	7.0	31.7	2.26	24.0	4.1	37.6	2.8
											9.00	5.3	12.2	32.5	2.28	24.7	4.2	39.3	2.9
	4.50	1.7	4.0	41.8	29.6	1.90	48.3	22.0	72.4	1.8	4.50	0.3	0.7	33.2	2.30	25.4	4.2	38.3	3.1
50	6.75	3.6	8.2	41.8	29.2	1.83	48.0	22.8	64.8	1.8	6.75	2.6	6.0	33.9	2.32	26.0	4.3	42.0	3.3
	9.00	5.4	12.4	41.8	28.8	1.77	47.8	23.7	61.1	1.8	9.00	4.9	11.3	34.7	2.33	26.7	4.4	43.8	3.4
	4.50	1.4	3.1	41.2	30.1	2.05	48.1	20.1	82.3	2.5	4.50	0.1	0.2	37.7	2.42	29.4	4.6	46.4	3.6
60	6.75	3.2	7.3	41.2	29.7	1.98	47.9	20.8	74.8	2.0	6.75	2.0	4.7	38.4	2.43	30.1	4.6	50.7	3.8
	9.00	5.0	11.5	41.1	29.3	1.91	47.7	21.5	71.0	1.8	9.00	4.3	9.9	39.1	2.45	30.8	4.7	52.9	3.9
	4.50	1.1	2.7	39.8	29.8	2.21	47.3	18.0	92.0	3.2	4.50	0.1	0.2	41.6	2.51	33.0	4.8	54.7	4.1
70	6.75	3.0	6.8	39.8	29.4	2.15	47.1	18.6	84.6	2.7	6.75	1.8	4.2	42.3	2.53	33.7	4.9	59.6	4.3
	9.00	4.8	11.0	39.8	29.0	2.08	46.9	19.2	80.9	2.4	9.00	4.1	9.5	43.0	2.54	34.4	5.0	62.0	4.4
	4.50	1.1	2.5	38.0	29.0	2.40	46.2	15.8	101.5	4.1	4.50	0.1	0.2	44.1	2.55	35.5	5.1	63.5	4.5
80	6.75	2.9	6.6	38.0	28.6	2.34	46.0	16.3	94.3	3.5	6.75	2.0	4.6	44.9	2.56	36.1	5.1	68.8	4.6
	9.00	4.7	10.8	38.0	28.2	2.27	45.7	16.7	90.6	3.1	9.00	4.3	9.9	45.6	2.58	36.8	5.2	71.4	4.6
	4.50	1.1	2.5	36.1	27.9	2.63	45.1	13.7	111.1	5.1									
90	6.75	2.9	6.7	36.1	27.5	2.56	44.8	14.1	104.0	4.5	3.56	0.1	0.2	44.0	2.46	35.6	5.2	70.0	4.6
	9.00	4.7	10.8	36.1	27.1	2.49	44.6	14.5	100.4	4.1									
	4.50	1.1	2.6	34.5	26.8	2.90	44.3	11.9	120.9	6.3									
100	6.75	2.9	6.8	34.4	26.5	2.83	44.1	12.2	113.9	5.5	2.37	0.1	0.2	44.0	2.46	35.6	5.2	70.0	4.6
	9.00	4.7	10.9	34.4	26.1	2.76	43.9	12.5	110.3	5.1									
	4.50	1.2	2.7	33.3	26.1	3.21	44.3	10.4	131.1	7.7									
110	6.75	3.0	6.8	33.3	25.7	3.15	44.1	10.6	124.0	6.7	1.78	0.1	0.2	44.0	2.46	35.6	5.2	70.0	4.6
	9.00	4.8	11.0	33.3	25.3	3.08	43.8	10.8	120.4	6.4									
	4.50	1.1	2.6	33.1	26.0	3.59	45.4	9.2	141.8	9.2									
120	6.75	2.9	6.8	33.1	25.6	3.52	45.1	9.4	134.4	8.2	1.42	0.1	0.2	44.0	2.46	35.6	5.2	70.0	4.6
	9.00	4.7	10.9	33.1	25.2	3.45	44.9	9.6	130.8	7.7									

- Interpolation is permissible; extrapolation is not.
 All entering air conditions are 80°F (26.6°C) DB and 67°F (19.4°C) WB in cooling, and 70°F (21°C) DB in heating.
- AHRI/ISO certified conditions are 80.6°F (27°C) DB and 66.2°F (19°C) WB in cooling and 68°F (20°C) DB in heating. Table does not reflect fan or pump power corrections for AHRI/ISO conditions.

- All performance is based upon the lower voltage of dual voltage rated units.

 Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated.
- Operation below 50°F (10.0°C) EWT is based upon 15% methanol antifreeze solution.
 Operation below 60°F (15.5°C) EWT requires optional insulated water/refrigerant circuit. See performance correction tables for operating conditions other than those listed above.
- See Performance Data Selection Notes for operation in the shaded areas.

- Regular Cooling operation with an EWT of less than 50°F (10.0°C) is not recommended unless variable water flow is available.
 Regular Heating operation with an EWT of more than 90°F (32°C) is not recommended unless variable water flow is available.
 For quiet operation and long term reliability, it is recommended that systems be designed to avoid continuous operation in the outlined areas.
- Performance capacities shown in thousands of Btuh.
- The HWG option is available only on the Tranquility SJ.

1,200 CFM Rated Airflow

EWT		WPD			Co	oling - E	AT 80/6	57°F		HWG		WPD			HE	ATING	- EAT 70)°F	
°F	FLOW GPM	PSI	FT	TC	sc	Power kW	HR	EER	LWT	Сар	FLOW GPM	PSI	FT	нс	Power kW	HE	СОР	LWT	HWG Cap
20			_) nerati	on Not	Recomi	mende	Ч											
				perun		Kecoiiii		<u> </u>			9.00	2.1	4.9	18.3	2.14	11.0	2.5	17.4	2.3
											4.50	0.6	1.3	22.1	2.16	14.7	3.0	23.2	2.4
30	2.78	0.1	0.2	36.9	24.9	1.42	41.8	26.0	60.0	1.4	6.75	1.3	2.9	23.0	2.17	15.5	3.1	25.2	2.4
											9.00	2.0	4.5	23.8	2.18	16.4	3.2	26.2	2.4
											4.50	0.4	1.0	29.6	2.21	22.0	3.9	34.8	2.5
40	4.37	0.4	1.0	39.2	27.5	1.31	43.7	29.9	60.0	1.4	6.75	1.1	2.6	30.4	2.22	22.9	4.0	37.9	2.5
											9.00	1.8	4.2	31.3	2.22	23.7	4.1	39.5	2.5
	4.50	0.5	1.0	39.2	28.6	1.48	44.2	26.5	70.5	1.4	4.50	0.4	0.9	31.9	2.22	24.3	4.2	38.8	2.6
50	6.75	1.1	2.6	39.4	28.2	1.38	44.1	28.5	63.6	1.4	6.75	1.1	2.5	32.7	2.23	25.1	4.3	42.2	2.7
	9.00	1.8	4.2	39.5	27.9	1.29	44.0	30.7	60.2	1.4	9.00	1.8	4.2	33.6	2.24	25.9	4.4	44.0	2.7
	4.50	0.4	1.0	38.9	29.2	1.66	44.5	23.4	80.6	2.0	4.50	0.4	0.8	36.3	2.25	28.6	4.7	46.8	2.7
60	6.75	1.1	2.5	39.0	28.9	1.57	44.4	24.9	73.7	1.5	6.75	1.1	2.4	37.1	2.26	29.4	4.8	50.9	2.8
	9.00	1.8	4.1	39.2	28.5	1.47	44.2	26.6	70.2	1.4	9.00	1.8	4.1	38.0	2.27	30.2	4.9	53.0	2.8
	4.50	0.4	0.9	37.8	29.1	1.88	44.2	20.1	90.5	2.7	4.50	0.3	0.8	40.4	2.29	32.6	5.2	54.8	2.8
70	6.75	1.1	2.5	38.0	28.7	1.78	44.1	21.3	83.6	2.2	6.75	1.0	2.4	41.3	2.29	33.5	5.3	59.6	3.0
	9.00	1.8	4.1	38.2	28.4	1.69	44.0	22.6	80.2	1.9	9.00	1.7	4.0	42.2	2.30	34.3	5.4	62.0	3.0
	4.50	0.4	0.9	36.3	28.3	2.13	43.5	17.0	100.3	3.6	4.50	0.3	0.7	44.5	2.33	36.5	5.6	63.0	3.1
80	6.75	1.1	2.5	36.4	27.9	2.04	43.4	17.9	93.5	2.9	6.75	1.0	2.3	45.4	2.34	37.4	5.7	68.4	3.2
	9.00	1.7	4.0	36.6	27.6	1.94	43.3	18.9	90.1	2.7	9.00	1.7	4.0	46.2	2.35	38.2	5.8	71.1	3.2
	4.50	0.4	0.9	34.3	27.0	2.42	42.5	14.2	109.9	4.7									
90	6.75	1.1	2.4	34.5	26.7	2.32	42.4	14.9	103.2	3.9	4.01	0.1	0.2	48.2	2.39	40.1	5.9	70.0	3.2
	9.00	1.7	4.0	34.7	26.3	2.23	42.3	15.6	99.9	3.6									
	4.50	0.4	0.8	32.0	25.5	2.74	41.4	11.7	119.5	6.0									
100	6.75	1.0	2.4	32.2	25.2	2.64	41.2	12.2	113.0	5.1	2.67	0.1	0.2	48.2	2.39	40.1	5.9	70.0	3.2
	9.00	1.7	4.0	32.4	24.8	2.55	41.1	12.7	109.7	4.8									
	4.50	0.3	0.8	29.7	23.9	3.09	40.2	9.6	129.1	7.4									
110	6.75	1.0	2.4	29.8	23.6	3.00	40.1	10.0	122.7	6.5	2.00	0.1	0.2	48.2	2.39	40.1	5.9	70.0	3.2
	9.00	1.7	3.9	30.0	23.2	2.90	39.9	10.4	119.5	6.1									
	4.50	0.3	0.7	27.3	22.4	3.48	39.1	7.8	138.8	9.1									
120	6.75	1.0	2.3	27.4	22.1	3.38	39.0	8.1	132.5	8.1	1.60	0.1	0.2	48.2	2.39	40.1	5.9	70.0	3.2
	9.00	1.7	3.9	27.6	21.7	3.29	38.8	8.4	129.3	7.6									

- Interpolation is permissible; extrapolation is not.
 All entering air conditions are 80°F (26.6°C) DB and 67°F (19.4°C) WB in cooling, and 70°F (21°C) DB in heating.
- AHRI/ISO certified conditions are 80.6°F (27°C) DB and 66.2°F (19°C) WB in cooling and 68°F (20°C) DB in heating. Table does not reflect fan or pump power corrections for AHRI/ISO conditions.
- All performance is based upon the lower voltage of dual voltage rated units.

 Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated.

- Operation below 50°F (10.0°C) EWT is based upon 15% methanol antifreeze solution.
 Operation below 60°F (15.5°C) EWT requires optional insulated water/refrigerant circuit.
 See performance correction tables for operating conditions other than those listed above.
- See Performance Data Selection Notes for operation in the shaded areas.
- Regular Cooling operation with an EWT of less than 50°F (10.0°C) is not recommended unless variable water flow is available.

 Regular Heating operation with an EWT of more than 90°F (32°C) is not recommended unless variable water flow is available.

 For quiet operation and long term reliability, it is recommended that systems be designed to avoid continuous operation in the outlined areas.
- Performance capacities shown in thousands of Btuh.
- The HWG option is available only on the Tranquility SJ.

1,600 CFM Rated Airflow

EWT		WPD			Co	oling - E	AT 80/6	57°F		HWG		WPD			HE	ATING	- EAT 70)°F	
°F	FLOW GPM	PSI	FT	TC	sc	Power kW	HR	EER	LWT	Сар	FLOW GPM	PSI	FT	нс	Power kW	HE	СОР	LWT	HWG Cap
20			_)norati	on Not	Recomi	mondo	d											
				peran	OII NOI	Kecoiiii	Hende	u 			12.00	3.7	8.5	30.2	3.16	19.5	2.8	16.6	3.0
											6.00	0.9	2.2	33.3	3.13	22.6	3.1	22.1	3.2
30	3.81	0.2	0.4	48.9	31.7	2.44	57.2	20.0	60.0	2.3	9.00	2.1	5.0	34.7	3.15	23.9	3.2	24.4	3.2
											12.00	3.4	7.8	36.1	3.18	25.3	3.3	25.6	3.3
											6.00	0.7	1.5	41.9	3.24	30.8	3.8	34.3	3.4
40	6.05	0.8	2.0	52.4	35.7	2.36	60.5	22.2	60.0	2.3	9.00	1.9	4.3	43.3	3.26	32.2	3.9	37.5	3.5
											12.00	3.1	7.1	44.7	3.29	33.5	4.0	39.2	3.6
	6.00	0.8	1.8	53.0	37.1	2.59	61.8	20.5	71.5	2.4	6.00	0.6	1.4	44.7	3.29	33.5	4.0	38.4	3.7
50	9.00	1.9	4.5	52.9	36.7	2.47	61.3	21.4	64.2	2.3	9.00	1.8	4.2	46.1	3.32	34.8	4.1	41.9	3.8
	12.00	3.1	7.2	52.8	36.2	2.36	60.8	22.4	60.6	2.3	12.00	3.0	7.0	47.6	3.34	36.1	4.2	43.7	3.9
	6.00	0.7	1.7	52.8	37.9	2.81	62.4	18.8	81.7	2.9	6.00	0.6	1.3	50.3	3.42	38.6	4.3	46.6	4.1
60	9.00	1.9	4.4	52.7	37.5	2.70	61.9	19.5	74.3	2.5	9.00	1.8	4.1	51.7	3.45	39.9	4.4	50.7	4.2
	12.00	3.0	7.0	52.6	37.0	2.58	61.4	20.4	70.7	2.3	12.00	3.0	6.9	53.1	3.47	41.3	4.5	52.8	4.3
	6.00	0.7	1.6	51.5	37.6	3.07	62.0	16.8	91.6	3.7	6.00	0.5	1.3	55.7	3.57	43.5	4.6	54.8	4.5
70	9.00	1.8	4.3	51.4	37.2	2.95	61.5	17.4	84.3	3.1	9.00	1.8	4.1	57.2	3.60	44.9	4.7	59.6	4.7
	12.00	3.0	6.9	51.3	36.7	2.83	61.0	18.1	80.6	2.9	12.00	3.0	6.9	58.6	3.63	46.2	4.7	62.0	4.7
	6.00	0.7	1.5	49.5	36.5	3.35	60.9	14.8	101.3	4.5	6.00	0.5	1.2	61.1	3.74	48.3	4.8	63.1	4.8
80	9.00	1.8	4.2	49.4	36.1	3.23	60.4	15.3	94.1	3.9	9.00	1.7	4.0	62.5	3.77	49.7	4.9	68.4	5.0
	12.00	3.0	6.9	49.3	35.6	3.12	59.9	15.8	90.5	3.6	12.00	3.0	6.8	64.0	3.79	51.0	4.9	71.1	5.0
	6.00	0.6	1.5	47.0	34.9	3.67	59.5	12.8	110.9	5.6									
90	9.00	1.8	4.1	46.9	34.5	3.56	59.0	13.2	103.8	4.9	5.25	0.1	0.2	65.8	3.90	52.5	4.9	70.0	5.0
	12.00	3.0	6.8	46.8	34.0	3.44	58.5	13.6	100.3	4.6									
	6.00	0.6	1.4	44.4	33.1	4.04	58.2	11.0	120.6	6.9									
100	9.00	1.8	4.1	44.3	32.7	3.92	57.7	11.3	113.6	6.1	3.50	0.1	0.2	65.8	3.90	52.5	4.9	70.0	5.0
	12.00	2.9	6.8	44.2	32.2	3.81	57.2	11.6	110.1	5.7									
	6.00	0.6	1.4	42.1	31.5	4.45	57.2	9.5	130.4	8.5									
110	9.00	1.7	4.0	42.0	31.1	4.33	56.7	9.7	123.5	7.5	2.62	0.1	0.2	65.8	3.90	52.5	4.9	70.0	5.0
	12.00	2.9	6.7	41.9	30.6	4.22	56.3	9.9	120.0	7.0									
	6.00	0.5	1.3	40.3	30.4	4.92	57.0	8.2	140.5	10.4									
120	9.00	1.7	3.9	40.2	30.0	4.80	56.5	8.4	133.6	9.1	2.10	0.1	0.2	65.8	3.90	52.5	4.9	70.0	5.0
	12.00	2.9	6.6	40.1	29.5	4.68	56.1	8.6	130.1	8.6									

- Interpolation is permissible; extrapolation is not.
- All entering air conditions are 80°F (26.6°C) DB and 67°F (19.4°C) WB in cooling, and 70°F (21°C) DB in heating.
- AHRI/ISO certified conditions are 80.6°F (27°C) DB and 66.2°F (19°C) WB in cooling and 68°F (20°C) DB in heating. Table does not reflect fan or pump power corrections for AHRI/ISO conditions.
- All performance is based upon the lower voltage of dual voltage rated units.

 Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated.

- Operation below 50°F (10.0°C) EWT is based upon 15% methanol antifreeze solution.
 Operation below 60°F (15.5°C) EWT requires optional insulated water/refrigerant circuit.
 See performance correction tables for operating conditions other than those listed above.
- See Performance Data Selection Notes for operation in the shaded areas.
- Regular Cooling operation with an EWT of less than 50°F (10.0°C) is not recommended unless variable water flow is available.

 Regular Heating operation with an EWT of more than 90°F (32°C) is not recommended unless variable water flow is available.

 For quiet operation and long term reliability, it is recommended that systems be designed to avoid continuous operation in the outlined areas.
- Performance capacities shown in thousands of Btuh.
- The HWG option is available only on the Tranquility SJ.

1,500 CFM Rated Airflow

EWT		WPD			Cod	oling - E	AT 80/8	57°F		HWG		WPD			HE	ATING -	- EAT 70)°F	
°F	FLOW GPM	PSI	FT	TC	sc	Power kW	HR	EER	LWT	Cap	FLOW GPM	PSI	FT	нс	Power kW	HE	СОР	LWT	HWG Cap
20) nerati	on Not	Recomi	manda	d											
				perun		Kecomi	lieliue	u 			12.00	3.3	7.6	23.4	2.62	14.5	2.6	17.5	2.8
											6.00	1.1	2.4	27.9	2.60	19.0	3.1	23.4	2.9
30	3.39	0.5	1.2	45.3	31.8	1.64	50.9	27.7	60.0	1.8	9.00	2.2	5.1	28.7	2.61	19.8	3.2	25.4	2.9
											12.00	3.3	7.7	29.5	2.61	20.6	3.3	26.4	2.9
											6.00	0.6	1.5	35.4	2.60	26.5	4.0	35.8	3.0
40	5.27	0.6	1.4	47.4	34.4	1.55	52.7	30.5	60.0	1.8	9.00	1.8	4.1	36.2	2.60	27.3	4.1	38.7	3.1
											12.00	2.9	6.7	37.0	2.60	28.1	4.2	40.1	3.1
	6.00	0.7	1.7	47.7	35.6	1.71	53.5	27.9	68.6	1.8	6.00	0.4	1.0	37.6	2.61	28.7	4.2	40.0	3.2
50	9.00	1.7	3.9	47.5	35.0	1.62	53.0	29.3	62.3	1.8	9.00	1.6	3.6	38.4	2.61	29.5	4.3	43.2	3.3
	12.00	2.7	6.2	47.3	34.3	1.54	52.5	30.8	59.1	1.8	12.00	2.7	6.2	39.2	2.61	30.3	4.4	44.7	3.3
	6.00	0.6	1.3	47.1	36.4	1.96	53.8	24.1	78.7	2.3	6.00	0.1	0.2	41.7	2.62	32.7	4.7	48.6	3.4
60	9.00	1.5	3.6	46.9	35.7	1.87	53.3	25.1	72.4	1.9	9.00	1.2	2.7	42.5	2.62	33.5	4.7	52.2	3.5
	12.00	2.5	5.8	46.7	35.1	1.79	52.8	26.2	69.2	1.9	12.00	2.3	5.3	43.3	2.62	34.3	4.8	54.0	3.6
	6.00	0.5	1.1	45.6	36.1	2.26	53.3	20.2	88.6	3.2	6.00	0.1	0.2	45.6	2.65	36.6	5.0	57.3	3.7
70	9.00	1.4	3.3	45.4	35.5	2.17	52.8	20.9	82.3	2.7	9.00	0.8	1.9	46.4	2.65	37.4	5.1	61.3	3.8
	12.00	2.4	5.6	45.2	34.8	2.08	52.3	21.7	79.1	2.4	12.00	2.0	4.6	47.2	2.65	38.2	5.2	63.4	3.9
	6.00	0.4	1.0	43.4	35.2	2.60	52.3	16.7	98.3	4.2	6.00	0.1	0.2	49.6	2.69	40.4	5.4	65.9	4.0
80	9.00	1.4	3.2	43.2	34.5	2.51	51.8	17.2	92.1	3.6	9.00	0.7	1.7	50.4	2.70	41.2	5.5	70.4	4.2
	12.00	2.4	5.5	43.0	33.9	2.42	51.3	17.7	89.0	3.3	12.00	1.9	4.3	51.2	2.70	42.0	5.6	72.7	4.3
	6.00	0.4	0.9	40.8	33.8	2.97	51.0	13.8	107.9	5.4									
90	9.00	1.4	3.1	40.6	33.2	2.88	50.5	14.1	101.8	4.7	4.37	0.1	0.2	53.0	2.75	43.7	5.7	70.0	4.0
	12.00	2.3	5.4	40.4	32.5	2.80	50.0	14.5	98.8	4.4									
	6.00	0.4	0.8	38.2	32.3	3.37	49.7	11.3	117.6	6.8									
100	9.00	1.3	3.1	38.0	31.7	3.29	49.2	11.6	111.6	6.0	2.91	0.1	0.2	53.0	2.75	43.7	5.7	70.0	4.0
	12.00	2.3	5.3	37.8	31.0	3.20	48.7	11.8	108.6	5.6									
	6.00	0.3	0.7	35.8	31.0	3.79	48.7	9.4	127.4	8.5									
110	9.00	1.3	3.0	35.6	30.4	3.71	48.2	9.6	121.5	7.6	2.18	0.1	0.2	53.0	2.75	43.7	5.7	70.0	4.0
	12.00	2.3	5.2	35.4	29.7	3.62	47.8	9.8	118.5	7.1									
	6.00	0.2	0.5	33.9	30.2	4.23	48.3	8.0	137.4	10.3									
120	9.00	1.2	2.7	33.7	29.6	4.14	47.8	8.1	131.5	9.3	1.75	0.1	0.2	53.0	2.75	43.7	5.7	70.0	4.0
	12.00	2.2	5.0	33.5	28.9	4.06	47.3	8.3	128.5	8.8									

- Interpolation is permissible; extrapolation is not.
 All entering air conditions are 80°F (26.6°C) DB and 67°F (19.4°C) WB in cooling, and 70°F (21°C) DB in heating.
- AHRI/ISO certified conditions are 80.6°F (27°C) DB and 66.2°F (19°C) WB in cooling and 68°F (20°C) DB in heating. Table does not reflect fan or pump power corrections for AHRI/ISO conditions.

- All performance is based upon the lower voltage of dual voltage rated units.

 Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated.
- Operation below 50°F (10.0°C) EWT is based upon 15% methanol antifreeze solution.
 Operation below 60°F (15.5°C) EWT requires optional insulated water/refrigerant circuit.
 See performance correction tables for operating conditions other than those listed above.
- See Performance Data Selection Notes for operation in the shaded areas.
- Regular Cooling operation with an EWT of less than 50°F (10.0°C) is not recommended unless variable water flow is available.
 Regular Heating operation with an EWT of more than 90°F (32°C) is not recommended unless variable water flow is available.
 For quiet operation and long term reliability, it is recommended that systems be designed to avoid continuous operation in the outlined areas.
- Performance capacities shown in thousands of Btuh.
- The HWG option is available only on the Tranquility SJ.

1,500 CFM Rated Airflow

EWT		WPD			Co	oling - E	AT 80/6	57°F		HWG		WPD			HE	ATING	- EAT 70)°F	
°F	FLOW GPM	PSI	FT	TC	sc	Power kW	HR	EER	LWT	Cap	FLOW GPM	PSI	FT	нс	Power kW	HE	СОР	LWT	HWG Cap
20			_) nerati	an Nat	Recomi	mende	d											
				perun		Kecoiiii		<u> </u>			15.00	7.1	16.3	40.0	3.84	26.9	3.1	16.2	3.5
											7.50	1.7	4.0	43.2	3.88	30.0	3.3	21.6	3.7
30	4.29	0.9	2.0	54.8	38.4	2.83	64.4	19.4	60.0	2.8	11.25	3.6	8.4	44.5	3.89	31.2	3.3	24.2	3.8
											15.00	5.5	12.7	45.8	3.91	32.4	3.4	25.5	3.8
											7.50	0.3	0.7	51.6	4.03	37.9	3.8	34.5	4.0
40	7.42	1.3	3.1	64.2	44.8	2.93	74.2	21.9	60.0	2.8	11.25	2.2	5.1	52.9	4.04	39.1	3.8	37.7	4.1
											15.00	4.1	9.4	54.2	4.06	40.3	3.9	39.4	4.2
	7.50	1.2	2.7	67.3	48.0	3.27	78.5	20.6	71.8	2.8	7.50	0.1	0.2	54.3	4.08	40.4	3.9	38.8	4.3
50	11.25	2.8	6.4	66.3	46.8	3.12	76.9	21.2	64.3	2.8	11.25	1.9	4.4	55.6	4.10	41.6	4.0	42.3	4.5
	15.00	4.3	10.0	65.2	45.6	2.97	75.4	21.9	60.5	2.8	15.00	3.8	8.7	56.9	4.12	42.9	4.1	44.0	4.6
	7.50	0.9	2.2	68.7	50.1	3.62	81.0	19.0	82.5	3.4	7.50	0.1	0.2	59.6	4.20	45.2	4.2	47.4	4.7
60	11.25	2.5	5.8	67.6	48.8	3.47	79.5	19.5	74.7	2.9	11.25	1.6	3.6	60.8	4.22	46.4	4.2	51.4	4.9
	15.00	4.1	9.5	66.6	47.6	3.33	78.0	20.0	70.8	2.7	15.00	3.4	7.9	62.1	4.23	47.7	4.3	53.4	5.0
	7.50	0.8	1.9	67.2	50.0	3.96	80.6	17.0	92.5	4.3	7.50	0.1	0.2	64.5	4.32	49.7	4.4	56.1	5.1
70	11.25	2.4	5.6	66.1	48.8	3.81	79.1	17.4	84.7	3.7	11.25	1.4	3.3	65.7	4.33	51.0	4.4	60.5	5.4
	15.00	4.0	9.2	65.1	47.5	3.66	77.6	17.8	80.8	3.4	15.00	3.3	7.6	67.0	4.35	52.2	4.5	62.7	5.5
	7.50	0.8	1.9	63.8	48.5	4.30	78.5	14.8	101.9	5.4	7.50	0.1	0.2	69.0	4.42	53.9	4.6	64.9	5.7
80	11.25	2.4	5.5	62.8	47.3	4.15	76.9	15.1	94.3	4.7	11.25	1.4	3.1	70.3	4.44	55.1	4.6	69.7	5.7
	15.00	4.0	9.2	61.7	46.1	4.01	75.4	15.4	90.5	4.3	15.00	3.2	7.5	71.6	4.46	56.4	4.7	72.1	5.7
	7.50	0.8	1.8	59.7	46.4	4.69	75.7	12.7	111.3	6.7									
90	11.25	2.4	5.5	58.6	45.2	4.54	74.1	12.9	103.9	5.8	5.64	0.1	0.2	71.8	4.49	56.4	4.7	70.0	5.7
	15.00	4.0	9.1	57.6	43.9	4.39	72.6	13.1	100.2	5.4									
	7.50	0.7	1.7	55.8	44.3	5.14	73.4	10.9	120.7	8.1									
100	11.25	2.3	5.4	54.8	43.1	4.99	71.8	11.0	113.5	7.2	3.76	0.1	0.2	71.8	4.49	56.4	4.7	70.0	5.7
	15.00	3.9	9.0	53.8	41.9	4.85	70.3	11.1	109.9	6.7									
	7.50	0.6	1.4	53.4	43.1	5.70	72.8	9.4	130.7	9.7									
110	11.25	2.2	5.1	52.3	41.9	5.55	71.2	9.4	123.5	8.7	2.82	0.1	0.2	71.8	4.49	56.4	4.7	70.0	5.7
	15.00	3.8	8.8	51.3	40.6	5.40	69.7	9.5	119.9	8.2									
	7.50	0.4	0.9	53.3	43.4	6.38	75.1	8.4	141.6	11.5									
120	11.25	2.0	4.5	52.2	42.1	6.23	73.5	8.4	134.1	10.4	2.26	0.1	0.2	71.8	4.49	56.4	4.7	70.0	5.7
	15.00	3.5	8.2	51.2	40.9	6.09	72.0	8.4	130.4	9.9									

- Interpolation is permissible; extrapolation is not.
 All entering air conditions are 80°F (26.6°C) DB and 67°F (19.4°C) WB in cooling, and 70°F (21°C) DB in heating.
 AHRI/ISO certified conditions are 80.6°F (27°C) DB and 66.2°F (19°C) WB in cooling and 68°F (20°C) DB in heating.
- Table does not reflect fan or pump power corrections for AHRI/ISO conditions.
- All performance is based upon the lower voltage of dual voltage rated units.

 Performance stated is at the rated power supply; performance may vary as the power supply varies from the rated.
- Operation below 50°F (10.0°C) EWT is based upon 15% methanol antifreeze solution.
- Operation below 60°F (15.5°C) EWT requires optional insulated water/refrigerant circuit.
- See performance correction tables for operating conditions other than those listed above. See Performance Data Selection Notes for operation in the shaded areas.
- Regular Cooling operation with an EWT of less than 50°F (10.0°C) is not recommended unless variable water flow is available.

 Regular Heating operation with an EWT of more than 90°F (32°C) is not recommended unless variable water flow is available.

 For quiet operation and long term reliability, it is recommended that systems be designed to avoid continuous operation in the outlined areas.
- Performance capacities shown in thousands of Btuh.
- The HWG option is available only on the Tranquility SJ.

Models: SJ/SP/SA/SK 024-060

Blower Performance: CV EC Standard Unit

CV EC MOTOR ADVANTAGE

A major benefit of the CV EC motor over other blower motor types is its ability to adjust airflow remotely through the iGate 2 web portal/mobile app or directly at the unit with a communicating diagnostic service tool. Airflow levels can be adjusted in increments of 25 CFM from the unit's minimum and maximum CFM range (see the Blower Performance: CV EC Blower Motor Standard Unit table for details).

Blower Performance: CV EC Blower Motor Standard Unit

Model	Max ESP	Fan	Airflow	Coolin	ng Mode	Dehumi	id Mode	Heating	g Mode	Fan	Aux/
Model	(in. wg)	Motor (hp)	Range	Stage 2	Stage 1	Stage 2	Stage 1	Stage 2	Stage 1	Only Mode	Emerg Mode
			Minimum	600	450	600	450	600	450	300	700
SA024	1	1/2	Default	750	575	650	500	750	575	350	850
			Maximum	850	650	800	600	850	850	850	1,000
			Minimum	900	600	900	600	900	600	450	1,350
SA036	0.9	1/2	Default	1,125	750	975	650	1,125	750	525	1,350
			Maximum	1,250	950	1,200	800	1,250	1,250	1,250	1,500
			Minimum	1,200	900	1,200	900	1,200	900	600	1,350
SA048	1	1	Default	1,500	1,125	1,300	975	1,500	1,125	700	1,500
			Maximum	1,700	1,300	1,600	1,200	1,700	1,700	1,700	2,000
			Minimum	1,500	1,200	1,500	1,200	1,500	1,200	750	1,500
SA060	0.7	1	Default	1,875	1,500	1,625	1,300	1,875	1,500	875	1,875
			Maximum	2,100	1,700	2,000	1,600	2,100	2,100	2,100	2,300

Electrical Data

Table 1: SJ Standard with Modulating Valve

	Voltage		Voltage	С	ompre	ssor A		Total	Min	Max
Model	Code	Rated Voltage	Min/Max	мсс	RLA	LRA	Qty	Unit FLA	Circ Amp	Fuse/ HACR
SJ024	J	208/230-1-60	187/252	16.0	10.3	62.0	1	10.3	12.9	20
SJ036	J	208/230-1-60	187/252	22.7	14.6	76.0	1	14.6	18.3	30
SJ048	J	208/230-1-60	187/252	28.6	18.3	138.0	1	18.3	22.9	40
SJ060	J	208/230-1-60	187/252	34.8	22.3	149.0	1	22.3	27.9	50

Table 2: SJ with HWG Pump

Madal	Voltage	Date d Voltage	Voltage	С	ompre	essor A		HWG	Total	Min	Max
Model	Code	Rated Voltage	Min/Max	мсс	RLA	LRA	Qty	Pump FLA	Unit FLA	Circ Amp	Fuse/ HACR
SJ024	J	208/230-1-60	187/252	16.0	10.3	62.0	1	0.28	10.6	13.2	20
SJ036	J	208/230-1-60	187/252	22.7	14.6	76.0	1	0.28	14.9	18.5	30
SJ048	J	208/230-1-60	187/252	28.6	18.3	138.0	1	0.28	18.6	23.2	40
SJ060	J	208/230-1-60	187/252	34.8	22.3	149.0	1	0.28	22.6	28.2	50

Table 3: SJ with Standard Head Flow Controller

Madal	Voltage	Date d Voltage	Voltage	С	ompre	essor A		GEO	Total	Min Circ Amp 13.5 18.9	Max
Model	Code	Rated Voltage	Min/Max	мсс	RLA	LRA	Qty	Pump FLA	Unit FLA		Fuse/ HACR
SJ024	J	208/230-1-60	187/252	16.0	10.3	62.0	1	0.64	10.9	13.5	20
SJ036	J	208/230-1-60	187/252	22.7	14.6	76.0	1	0.64	15.2	18.9	30
SJ048	J	208/230-1-60	187/252	28.6	18.3	138.0	1	0.64	18.9	23.5	40
SJ060	J	208/230-1-60	187/252	34.8	22.3	149.0	1	0.64	22.9	28.5	50

Table 4: SJ with High Head Flow Controller

	Voltage		Voltage	С	ompre	ssor A		UPMXL		Min	Max
Model	Code	Rated Voltage	Min/Max	мсс	RLA	LRA	Qty	Pump FLA	Unit FLA	Circ Amp	Fuse/ HACR
SJ024	J	208/230-1-60	187/252	16.0	10.3	62.0	1	1.44	11.7	14.3	20
SJ036	J	208/230-1-60	187/252	22.7	14.6	76.0	1	1.44	16.0	19.7	30
SJ048	J	208/230-1-60	187/252	28.6	18.3	138.0	1	1.44	19.7	24.3	40
SJ060	J	208/230-1-60	187/252	34.8	22.3	149.0	1	1.44	23.7	29.3	50

Table 5: SJ with Standard Head Flow Controller and HWG Pump

AAI - I	Voltage	Doube of Wolfers	Voltage	C	ompre	ssor A		GEO	HWG	Total	Min	Max
Model	Code	Rated Voltage	Min/Max	мсс	RLA	LRA	Qty		Pump FLA	Unit FLA	Circ Amp	Fuse/ HACR
SJ024	J	208/230-1-60	187/252	16.0	10.3	62.0	1	0.64	0.28	11.2	13.8	20
SJ036	J	208/230-1-60	187/252	22.7	14.6	76.0	1	0.64	0.28	15.5	19.2	30
SJ048	J	208/230-1-60	187/252	28.6	18.3	138.0	1	0.64	0.28	19.2	23.8	40
SJ060	J	208/230-1-60	187/252	34.8	22.3	149.0	1	0.64	0.28	23.2	28.8	50

Electrical Data

Table 6: SJ with High Head Flow Controller and HWG Pump

	Voltage		Voltage	С	ompre	ssor A		UPMXL		Total	Min	Max
Model	Code	Rated Voltage	Min/Max	мсс	RLA	LRA	Qty	Pump FLA	Pump FLA	Unit FLA	Circ Amp	Fuse/ HACR
SJ024	J	208/230-1-60	187/252	16.0	10.3	62.0	1	1.44	0.28	12.0	14.6	20
SJ036	J	208/230-1-60	187/252	22.7	14.6	76.0	1	1.44	0.28	16.3	20.0	30
SJ048	J	208/230-1-60	187/252	28.6	18.3	138.0	1	1.44	0.28	20.0	24.6	40
SJ060	J	208/230-1-60	187/252	34.8	22.3	149.0	1	1.44	0.28	24.0	29.6	50

Table 7: SP Standard

Madal	Voltage	Date d Voltage	Voltage	С	ompre	ssor A		Total	Min	Max
Model	Code	Rated Voltage	Min/Max	мсс	RLA	LRA	Qty	Unit FLA	Circ Amp	Fuse/ HACR
SP024	G	208/230-1-60	187/252	16.0	10.3	62.0	1	10.3	12.9	20
SP036	G	208/230-1-60	187/252	22.7	14.6	76.0	1	14.6	18.3	30
SP048	G	208/230-1-60	187/252	28.6	18.3	138.0	1	18.3	22.9	40
SP060	G	208/230-1-60	187/252	34.8	22.3	149.0	1	22.3	27.9	50

Table 8: SP with Standard Head Flow Controller

44l - l	Voltage	Date d Voltage	Voltage	С	ompre	ssor A		GEO	Total	Min	Max
Model	Code	Rated Voltage	Min/Max	мсс	RLA	LRA	Qty	Pump FLA	Unit FLA	Circ Amp	Fuse/ HACR
SP024	G	208/230-1-60	187/252	16.0	10.3	62.0	1	0.64	10.9	13.5	20
SP036	G	208/230-1-60	187/252	22.7	14.6	76.0	1	0.64	15.2	18.9	30
SP048	G	208/230-1-60	187/252	28.6	18.3	138.0	1	0.64	18.9	23.5	40
SP060	G	208/230-1-60	187/252	34.8	22.3	149.0	1	0.64	22.9	28.5	50

Table 9: SP with High Head Flow Controller

	Voltage		Voltage	C	ompre	ssor A		UPMXL	Total	Min	Max
Model	Code	Rated Voltage	Min/Max	мсс	RLA	LRA	Qty	Pump FLA	Unit FLA	Circ Amp	Fuse/ HACR
SP024	G	208/230-1-60	187/252	16.0	10.3	62.0	1	1.44	11.7	14.3	30
SP036	G	208/230-1-60	187/252	22.7	14.6	76.0	1	1.44	16.0	19.7	30
SP048	G	208/230-1-60	187/252	28.6	18.3	138.0	1	1.44	19.7	24.3	40
SP060	G	208/230-1-60	187/252	34.8	22.3	149.0	1	1.44	23.7	29.3	50

Table 10: SA Standard

Model	Voltage Code	Rated Voltage	Voltage Min/Max	Fan Motor FLA	Total Unit FLA	Min Circ Amp	Max Fuse/ HACR
SA024	J	208/230-1-60	187/252	4.20	4.20	5.3	15
SA036	J	208/230-1-60	187/252	5.90	5.90	7.4	15
SA048	J	208/230-1-60	187/252	5.90	5.90	7.4	15
SA060	J	208/230-1-60	187/252	7.50	7.50	9.4	15

Part Load Performance: Correction Tables

Cooling Corrections

Entering	Total	S	ensible (Cooling	Capacity	/ Multipl	ier - Ente	ring DB	°F	Power	Heat of	
Air WB°F	Capacity	65	70	75	80	85	90	95	100	rower	Rejection	
45	0.876	1.302	1.389	*	*	*	*	*	*	0.981	0.895	
50	0.883	1.099	1.241	*	*	*	*	*	*	0.985	0.901	
55	0.903	0.871	1.060	1.271	*	*	*	*	*	0.989	0.918	
60	0.935	0.617	0.844	1.079	1.319	*	*	*	*	0.993	0.945	
65	0.979		0.595	0.849	1.096	1.342	*	*	*	0.998	0.982	
67	1.000		0.486	0.747	1.000	1.245	1.481	*	*	1.000	1.000	
70	1.035			0.583	0.842	1.090	1.327	1.552	*	1.003	1.030	
75	1.105				0.552	0.811	1.057	1.290	1.510	1.008	1.086	

^{• * =} Sensible capacity equals total capacity.

Entering Air Heating Correction

Entering Air DB°F	Heating Capacity	Power	Heat of Extraction
40	1.084	0.732	1.161
45	1.073	0.764	1.14
50	1.060	0.802	1.117
55	1.046	0.846	1.090
60	1.031	0.893	1.061
65	1.016	0.945	1.031
68	1.006	0.978	1.013
70	1.000	1.000	1.000
75	0.995	1.058	0.968
80	0.968	1.117	0.936

AHRI/ISO/ASHRAE 13256-1 uses entering air conditions of Cooling - 80.6°F DB/66.2°F WB, 1 and Heating - 68°F DB/59°F WB entering air temperature

Airflow Correction

Airflow		Hed	ating		Cooling						
% of Nominal	Htg Cap	Power	Heat of Extraction	Total Cap	Sens Cap	S/T	Power	Heat of Rejection			
60.00	0.946	1.153	0.896	0.896 0.925		0.852	0.913	0.922			
68.75	0.959	1.107	0.924	0.946	0.829	0.876	0.926	0.942			
75.00	0.969	1.078	0.942	0.96	0.861	0.897	0.937	0.955			
81.25	0.977	1.053	0.959	0.972	0.895	0.921	0.950	0.968			
87.50	0.985	1.032	0.974	0.983	0.930	0.946	0.965	0.979			
93.75	0.993	1.014	0.988	0.992	0.965	0.973	0.982	0.990			
100.00	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
106.25	1.006	0.989	1.011	1.007	1.033	1.027	1.020	1.009			
112.50	1.012	0.982	1.019	1.012	1.064	1.052	1.042	1.018			
118.75	1.018	0.979	1.027	1.016	1.092	1.075	1.066	1.025			
125.00	1.022	0.977	1.033	1.018	1.116	1.096	1.091	1.032			
130.00	1.026	0.975	1.038	1.019	1.132	1.110	1.112	1.037			

Full Load Performance: Correction Tables

Cooling Corrections

Entering	Total	S	ensible (Cooling	Capacity	/ Multipli	ier - Ente	ring DB	°F	Power	Heat of	
Air WB°F	Capacity	65	70 75		80	85	90	95	100	rower	Rejection	
45	0.832	1.461	1.603	*	*	*	*	*	*	0.946	0.853	
50	0.850	1.174	1.357	*	*	*	*	*	*	0.953	0.870	
55	0.880	0.902	1.115	1.331	*	*	*	*	*	0.964	0.896	
60	0.922		0.875	1.103	1.329	*	*	*	*	0.977	0.932	
65	0.975		0.639	0.869	1.096	1.320	*	*	*	0.993	0.979	
67	1.000		0.545	0.774	1.000	1.223	1.444	*	*	1.000	1.000	
70	1.040			0.630	0.853	1.075	1.297	1.517	*	1.010	1.036	
75	1.117				0.601	0.821	1.046	1.275	1.510	1.032	1.100	

^{• * =} Sensible capacity equals total capacity.

Entering Air Heating Correction

Entering Air DB°F	Heating Capacity	Power	Heat of Extraction
40	1.052	0.779	1.12
45	1.043	0.808	1.102
50	1.035	0.841	1.084
55	1.027	0.877	1.065
60	1.019	0.915	1.045
65	1.010	0.957	1.023
68	1.004	0.982	1.010
70	1.000	1.000	1.000
75	0.989	1.045	0.974
80	0.976	1.093	0.946

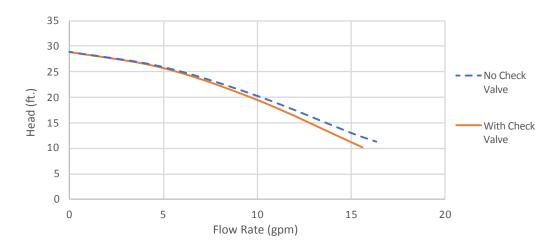
AHRI/ISO/ASHRAE 13256-1 uses entering air conditions of Cooling - 80.6°F DB/66.2°F WB, 1 and Heating - 68°F DB/59°F WB entering air temperature

Airflow Correction

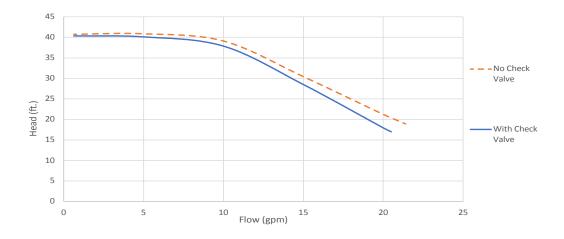
Airflow		Hed	ating		Cooling						
% of Nominal	Htg Cap	Power	Heat of Extraction	Total Cap	Sens Cap	S/T	Power	Heat of Rejection			
60.00	0.946	1.153	0.896	0.896 0.925		0.852	0.913	0.922			
68.75	0.959	1.107	0.924	0.946	0.829	0.876	0.926	0.942			
75.00	0.969	1.078	0.942	0.96	0.861	0.897	0.937	0.955			
81.25	0.977	1.053	0.959	0.972	0.895	0.921	0.950	0.968			
87.50	0.985	1.032	0.974	0.983	0.930	0.946	0.965	0.979			
93.75	0.993	1.014	0.988	0.992	0.965	0.973	0.982	0.990			
100.00	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000			
106.25	1.006	0.989	1.011	1.007	1.033	1.027	1.020	1.009			
112.50	1.012	0.982	1.019	1.012	1.064	1.052	1.042	1.018			
118.75	1.018	0.979	1.027	1.016	1.092	1.075	1.066	1.025			
125.00	1.022	0.977	1.033	1.018	1.116	1.096	1.091	1.032			
130.00	1.026	0.975	1.038	1.019	1.132	1.110	1.112	1.037			

High Head and Standard Variable Pump Performance

Standard Head Variable Pump Performance



High Head Variable Pump Performance



Antifreeze Correction Table

Antifra and Type	Antifreeze		Cooling EWT 90°F		Hea EWT		WPD Corr. Fct.
Antifreeze Type	%	Total Cap	Sens Cap	Power	Htg Cap	Power	EWT 30°F
Water	0	1.000	1.000	1.000	1.000	1.000	1.000
	5	0.995	0.995	1.003	0.989	0.997	1.070
Propylene Glycol	15	0.986	0.986	1.009	0.968	0.990	1.210
	25	0.978	0.978	1.014	0.947	0.983	1.360
	5	0.997	0.997	1.002	0.989	0.997	1.070
Methanol	15	0.990	0.990	1.007	0.968	0.990	1.160
	25	0.982	0.982	1.012	0.949	0.984	1.220
	5	0.998	0.998	1.002	0.981	0.994	1.140
Ethanol	15	0.994	0.994	1.005	0.944	0.983	1.300
	25	0.986	0.986	1.009	0.917	0.974	1.360
	5	0.998	0.998	1.002	0.993	0.998	1.040
Ethylene Glycol	15	0.994	0.994	1.004	0.980	0.994	1.120
	25	0.988	0.988	1.008	0.966	0.990	1.200

Physical Data

Tranquility SJ/SP Physical Data

Model Size	024	036	048	060					
Compressor (1 each)	Scroll								
Factory Charge R-454B - (oz.) ¹	60	96	100	136					
Refrigerant Leak Detection System	R ²	R ²	R ²	R ²					
Number of Sensors	1	1	1	1					
Water Connection Size									
Swivel (NPSH) (SJ)	1"	1"	1"	1"					
Swivel (NPSH) (SP) ⁴	3/4''	3/4"	1"	1"					
SJ Weight									
Weight - Operating lbs.	233	251	280	295					
Weight - Packaged lbs.	248	266	295	310					
SP Weight									
Weight - Operating lbs.	245	263	309	337					
Weight - Packaged lbs.	260	278	324	352					
Hot Water Generator ³									
Swivel (SJ)	1	1	1	1					

- All dimensions displayed above are in inches unless otherwise marked. All units have TXV expansion device
- NPSH = National Pipe Straight Hose
- O = Optional, R = Required
- The factory charge is sized for a nominal 25 ft (7.62 m) line set. See the IOM for more information.
- RDS is required on all Tranquility SJ sizes
- Tranquility SJ only
 SP water connections are made with factory-installed hose kits. The field connection is 3/4-NPSH swivel for sizes 024-036 and 1-inch NPSH swivel for sizes 048-060.

Tranquility SA Physical Data

Model	024	036	048	060
Water Connection Size				
Liquid I.D. (in.)	3/8	3/8	3/8	3/8
Suction I.D. (in.)	3/4	7/8	7/8	7/8
Refrigerant Leak Detection System	R ¹	R ¹	R ¹	R ¹
Number of Sensors	1	1	1	1
Fan Motor - CV EC				
Filter Standard 1" Throwaway	16 x 20	20 :	< 20	20 x 24
Weight - Operating lbs.	80	173 180		198
Weight - Packaged lbs.	96	198	218	236

^{1.} The RDS is factory installed on all Tranquility SA sizes.

Physical Data

Tranquility SK Physical Data

Model Size	024	036	048	060
Refrigerant Circuit				
Liquid I.D. (in.)	3/8	3/8	3/8	3/8
Suction I.D. (in.)	3/4	7/8	7/8	7/8
Refrigerant Leak Detection System	R ¹	R ¹	R ¹	R ¹
Number of Sensors	1	1	1	1
Cased Coil Dimensions				
A - Width - in.	17 1/2	21	21	24 1/2
B - Coil Height (in.)	14 1/2	25 7/8	25 7/8	30
C- Height (in.)	20	28	28	32
Weight				
Coil Weight lbs.	43	71	71	100
Shipping Weight lbs.	48	78	78	110

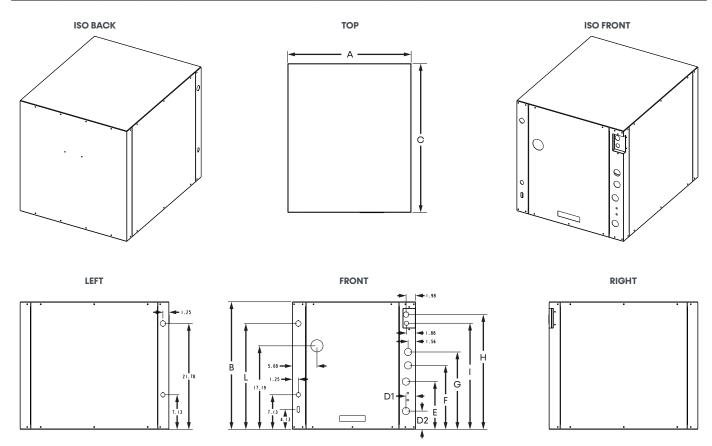
^{1.} The RDS is factory installed on all Tranquility SK sizes.

Unit Maximum Water Working Pressure

Options	Max Pressure PSIG [kPa]					
Base Unit	300 [2,068]					
Internal Modulating Valve	300 [2,068]					

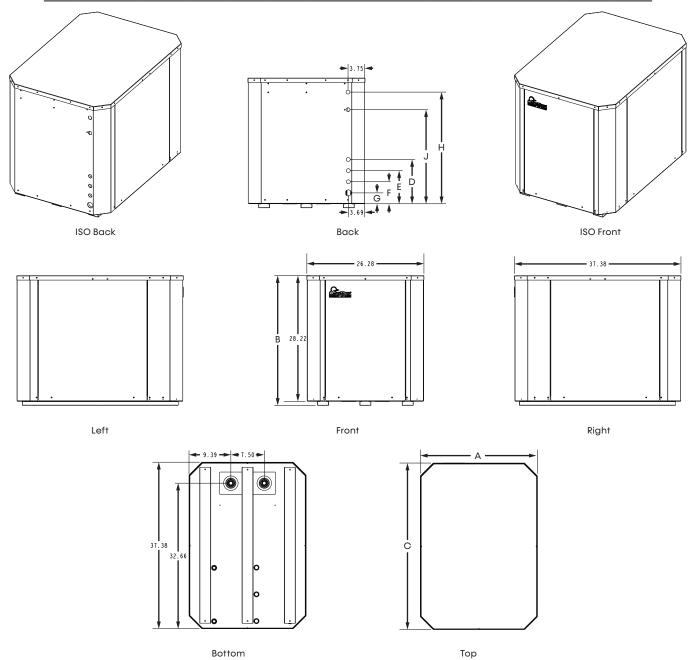
Tranquility SJ Dimensional Data

		Ove	rall Cab	inet		Water Connections							igerant	Connecti	on	Electrical Knockouts			
Model		A Width			1 Water In/ Out	2 HWG In/ Out	D1 Water In	D2 Water In	E Water Out	F HWG In	G HWG Out	3 Suction	4 Liquid	H Suction	l Liquid	J	K	L	M
					Swi	vel													
024	in	25.4	26.3	30.6	1"	1"	2.0	3.8	8.4	15.4	18.7	7/8"	3/8"	23.6	21.8	4.4	5.9	7.4	1.7
024	cm	64.5	66.8	165.1	1"	1"	5.1	9.7	21.3	39.1	47.5	7/8"	3/8"	59.9	55.4	11.2	15.0	18.8	4.3
027	in	25.4	26.3	30.6	1"	1"	2.0	3.8	8.4	15.4	18.7	7/8"	3/8"	23.6	21.8	4.4	5.9	7.4	1.7
036	cm	64.5	66.8	165.1	1"	1"	5.1	9.7	21.3	39.1	47.5	7/8"	3/8"	59.9	55.4	11.2	15.0	18.8	4.3
048	in	25.4	26.3	30.6	1"	1"	2.0	3.8	8.4	15.4	18.7	7/8"	3/8"	23.6	21.8	4.4	5.9	7.4	1.7
048	cm	64.5	66.8	165.1	1"	1"	5.1	9.7	21.3	39.1	47.5	7/8"	3/8"	59.9	55.4	11.2	15.0	18.8	4.3
0.40	in	25.4	26.3	30.6	1"	1"	2.0	3.8	8.4	15.4	18.7	7/8''	1/2"	23.6	21.8	4.4	5.9	7.4	1.7
060	cm	64.5	66.8	165.1	1"	1"	5.1	9.7	21.3	39.1	47.5	7/8"	1/2"	59.9	55.4	11.2	15.0	18.8	4.3



Tranquility SP Dimensional Data

	Overall Cabinet			Refrigerant Line Connections					Electrical Knockouts					
Mod	del	A Width	B Height	C Depth	D	E	3 Liquid Line	4 Vapor Line	F	G	Line Voltage	Low Voltage	Н	J
024	in	26.3	29.1	37.4	9.9	7.4	3/8"	3/4"	4.9	2.4	0.875	0.875	25.1	21.1
024	cm	66.8	73.9	95.0	25.1	18.8	3/8"	3/4"	12.4	6.1	0.875	0.875	63.8	53.6
036	in	26.3	29.1	37.4	9.9	7.4	3/8"	7/8"	4.9	2.4	0.875	0.875	25.1	21.1
036	cm	66.8	73.9	95.0	25.1	18.8	3/8"	7/8"	12.4	6.1	0.875	0.875	63.8	53.6
048	in	26.3	29.1	37.4	9.9	7.4	3/8"	7/8"	4.9	2.4	0.875	0.875	25.1	21.1
040	cm	66.8	73.9	95.0	25.1	18.8	3/8"	7/8"	12.4	6.1	0.875	0.875	63.8	53.6
060	in	26.3	29.1	37.4	9.9	7.4	1/2"	7/8"	4.9	2.4	0.875	0.875	25.1	21.1
	cm	66.8	73.9	95.0	25.1	18.8	1/2"	7/8"	12.4	6.1	0.875	0.875	63.8	53.6



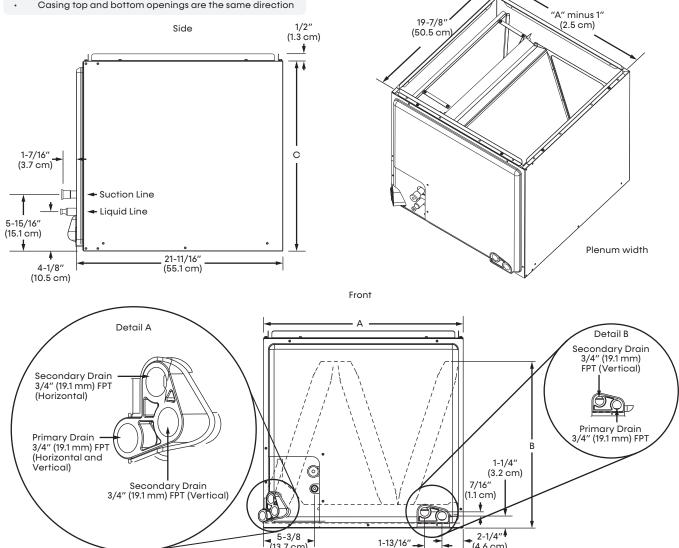
Tranquility SK Dimensional Data

Model Size	024	036	048	060			
Refrigerant Circuit	Refrigerant Circuit						
Liquid I.D. (in.)	3/8	3/8	3/8	3/8			
Suction I.D. (in.)	3/4	7/8	7/8	7/8			
Refrigerant Leak Detection System	R ¹	R ¹	R ¹	R1			
Number of Sensors	1	1	1	1			
Cased Coil Dimensions							
A - Width - in.	17 1/2	21	21	24 1/2			
B - Coil Height (in.)	14 1/2	25 7/8	25 7/8	30			
C- Height (in.)	20	28	28	32			
Weight							
Coil Weight lbs.	43	71	71	100			
Shipping Weight lbs.	48	78	78	110			

The RDS is factory installed on all Tranquility SK sizes.

NOTES:

- Flanges are provided for field installation
- Casing top and bottom openings are the same direction

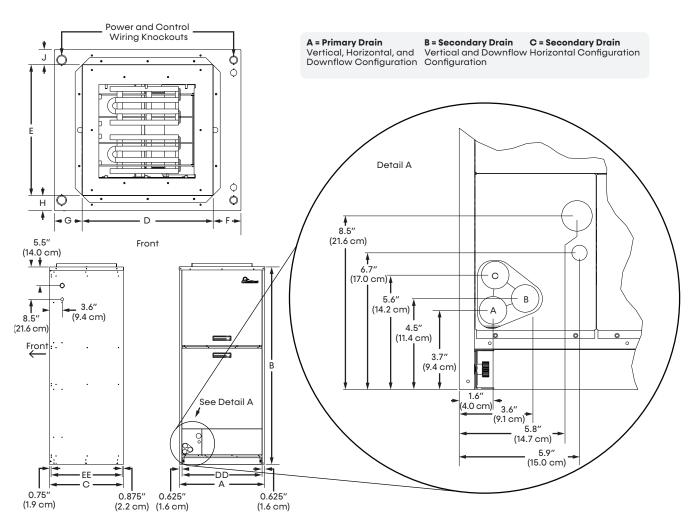


ClimateMaster works continually to improve its products. As a result, the design and specifications of each product at the time of order may be changed without notice and may not be as described herein. Please contact ClimateMaster's Customer Service Department at 800-299-9747 for specific information on the current design and specifications. Statements and other information contained herein are not express warranties and do not form the basis of any bargain between the parties, but are merelly ClimateMaster's opinion or commendation of its products. The latest version of this document is available at www.climatemaster.com. Engineered and assembled in the USA. © ClimateMaster, Inc. All Rights Reserved 2024

(4.6 cm)

Tranquility SA Dimensional Data

Cabine	+	Overall Cabinet		Supply Air Opening		Return Air Opening						
Size	•	A Width	B Height	C Depth	D Width	E Depth	DD Width	EE Depth	F	G	Н	J
10042	in.	18.5	44.0	22.0	14.0	14.0	17.3	20.4	2.3	2.3	4.1	4.1
SA024	cm.	47.0	111.8	55.9	35.6	35.5	43.9	51.8	5.8	5.8	10.3	10.3
SA036	in.	22.0	55.0	22.0	18.0	18.0	20.8	20.4	2.1	2.1	2.1	2.1
SA048	cm.	55.9	139.7	55.9	45.7	45.7	52.8	51.8	5.2	5.2	5.2	5.2
SA060	in.	25.5	59.0	22.0	18.0	18.0	24.3	20.4	3.8	3.8	2.1	2.1
3AU6U	cm.	64.8	149.9	55.9	45.7	45.7	61.7	51.8	9.9	9.9	5.2	5.2



Minimum Installation Area

MINIMUM INSTALLATION AREA

Minimum installation area for units that do not have a blower (e.g. w-w) where you do not need mechanical/natural ventilation.

Model	Charge		Minimum Installation Area ft² [A _{min}]				
	(oz)	Floor	Window	Wall	Ceiling		
SJ024	60	290	115	66	54		
\$J036	96	743	231	105	87		
SJ048	106	906	282	117	96		
\$J060	136	1,492	464	153	123		

A _{min} =	Minimum area where the unit is installed where ventilation is not required.
h_{inst} (floor) =	0.0 ft (0.0 m)
h_{inst} (window) =	
h_{inst} (wall) =	5.9 ft (1.8 m)
h _{inst} (ceiling) =	7.2 ft (2.2 m)
	· · · · · · · · · · · · · · · · · · ·

Minimum area where the unit can be installed if it has a blower so that you do not need mechanical/natural ventilation.

Model	Charge	Minimum Installation Area ft² [Amin]					
	(oz)	Floor	Window	Wall	Ceiling		
SA/SK024	60	206	115	66	54		
SA/SK036	96	330	184	106	87		
SA/SK048	106	364	203	117	96		
SA/SK060	136	467	261	150	123		

Minimum CFM of unit that has a blower needed for mitigation mode.

Model	Charge (oz)	Minimum CFM [Q _{min}]
SA/SK024	60	101.5
SA/SK036	96	162.4
SA/SK048	106	179.3
SA/SK060	136	230.0

Q_{min} = Minimum CFM provided by unit

Minimum area and CFM requirements for the conditioned space (with a blower).

Model	Charge	Conditioned Area				
Model	(oz)	TA _{min} ft ²	Q _{min} (ft²/min)			
SA/SK024	60	101.5	3.07			
SA/SK036	96	162.4	4.92			
SA/SK048	106	179.3	5.43			
SA/SK060	136	230.0	6.97			

Minimum conditioned area for venting leaked refrigerant Minimum ventilation flow rate for conditioned space if space is less than TAmin

Minimum area of opening for natural ventilation to the outdoors (with or without a blower).

Model	Charge (oz)	A _{nv} in²
SA/SK/SJ/SP024	60	104.0
SA/SK/SJ/SP036	96	131.6
SA/SK/SJ/SP048	106	138.3
SA/SK/SJ/SP060	136	156.6

= Minimum natural ventilation area opening to the outdoors

Models: SJ/SP/SA/SK 024-060

Minimum Installation Area

When the openings for connected rooms or natural ventilation are required, the following conditions shall be applied:

- The area of any openings above 11.8 inches (300 mm) from the floor shall not be considered in determining compliance with Anv_{min} .
- At least 50% of the required opening area Anv_{min} shall be below 7.8 inches (200 mm) from the floor.
- The bottom of the lowest openings shall not be higher than the point of release when the unit is installed and not more than 3.9 inches (100 mm) from the floor.
- Openings are permanent openings which cannot be closed.
 - For openings extending to the floor, the height shall not be less than 0.78 inch (20 mm) above the surface of the floor covering.
- A second higher opening shall be provided. The total size of the second opening shall not be less than 50% of minimum opening area for Anv_{min} and shall be at least 3.3 ft (1.5 m) above the floor.

Accessories and Options

ACCESSORIES AND OPTIONS

Hot Water Generator

An optional insulated heat-reclaiming desuperheater coil of vented double-wall copper construction suitable for potable water shall be provided. The coil, hot-water circulating pump, and associated controls shall be factory mounted inside the unit cabinet. Sensors mounted on the compressor-discharge line and the potable water inlet shall transmit temperatures to the unit microprocessor where internal logic will determine when hot-water generation is feasible. The microprocessor shall cycle the pump periodically during unit operation to sample the DHW tank temperature. The microprocessor shall include multiple temperature set points to select from for hot water generation control.

iGate 2 Smart Tank

An optional 50, 85, or 105 gallon storage tank shall be provided for connection to the hot water generator (desuperheater) for storage of hot water generation. The tank shall feature a polyurethane shell, thick polyurethane foam insulation, polybutene tank, titanium electric backup elements in either 3,800W or 4,500W sizes, temperature sensors, front-mounted water connections, and the WXM communicating control board for seamless communication the DXM2.5 Advanced Communicating Controls. The addition of the iGate 2 Smart Tank requires an iGate 2 Communicating (AWC) Thermostat for hot water mode and temperature control.

Cupro-Nickel Heat Exchanger

An optional corrosion-resistant CuNi coaxial heat exchanger shall be factory installed in lieu of standard copper construction.

Thermostat (field installed)

An electronic communicating LCD thermostat shall be provided. The thermostat shall offer three stages of heating and two stages of cooling with precise temperature control and have a four-wire connection to the unit. The thermostat shall be capable of manual or automatic change-over operation and shall operate in standard or programmable mode. An integrated humidity-control feature shall be included to control a humidifier and/or a dehumidifier. The thermostat shall include a utility demand reduction feature to be initiated by an independent time program or an external input.

The thermostat shall have a comprehensive installation setup menu to include configuration of the unit CFM for each mode of operation and configuration of the water flow rate through the unit, including variation of the water flow rate based on the stage of unit operation.

The thermostat shall display system faults with probable cause and troubleshooting guidance. Comprehensive service diagnostics menus shall display, system inputs, system outputs, configuration settings, Geo-source inlet and outlet temperatures, compressor-discharge line temperature, liquid line temperature, leaving air temperature, and entering potable-water temperature (on units equipped with a Hot Water Generator). The thermostat shall allow for immediate manual control of all DXM2.5 outputs at the thermostat for rapid troubleshooting.

Auxiliary Heater (field installed)

An external, field-installed electric heater shall provide supplemental and/or emergency heating capability when used with the three-stage heating thermostat.

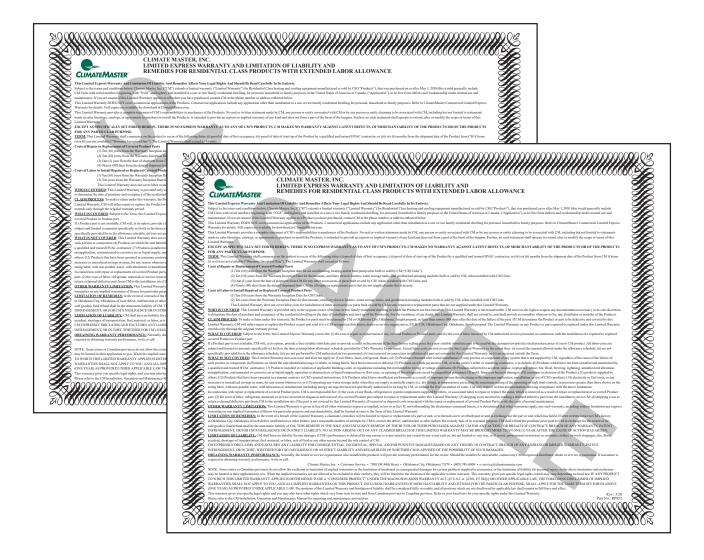
WARRANTY INFORMATION

ClimateMaster residential class heat pumps are backed by a ten-year limited warranty on all unit parts, including the following accessories when installed with ClimateMaster units: thermostats and electric heaters. Warranty Certificate RP851 for specific coverage and limitation.

ClimateMaster goes even further to back up its commitment to quality by including a service labor allowance for the first five years on unit parts and thermostats, auxiliary electric heaters and geothermal pumping modules.

The Optional Extended Factory Service Labor Allowance Warranty offers additional length of term protection to the consumer by offsetting service labor costs for 10 years.

To order this warranty, contact your ClimateMaster distributor. This coverage must be purchased within 90 days of unit installation. See Limited Express Extended Labor Warranty Certificate RP852 for details.



Revision History

Date	Item	Action
	Features, Options, and Accessories	Added iGate 2 Smart Tank
	iGate 2 Smart Tank	Added section
		Removed Max Fuse/HACR (calc) column from all tables
		Updated column headers to reflect standard and high head pump options
05/00/05	Electrical Data	Updated the SJ with Standard Head Flow Controller table
05/02/25		Updated the SJ with High Head Flow Controller table
		Updated the SJ with High Head Flow Controller and HWG table
	Physical Data	Added a note concerning the factory refrigerant charge
	Accessories and Options	Added iGate 2 Smart Tank content
	All	Reorganized the document's sections
01/13/25	Minimum Installation Area	Updated minimum installation area
12/11/24	Minimum Installation Area	Updated minimum installation area
11/26/24	All	Created









A NIBE GROUP MEMBER

7300 SW 44th St | Oklahoma City, OK 73179 Phone: 800.299.9747

www.climatemaster.com