Product Catalog

Water Source Heat Pump Axiom™ Rooftop

Standard Efficiency

12.5 to 25 Tons 60 Hz

September 2023

WSHP-PRC031B-EN

Introduction

Rooftop Water Source Heat Pumps

Trane's customers demand products that provide exceptional reliability, meet stringent performance requirements, and are competitively priced. Trane delivers with Axiom™ rooftop features.

Axiom™ rooftop features cutting edge technologies: reliable compressors, Trane-engineered Symbio controls, computer-aided run testing, and Integrated Comfort™ Systems. So, whether you're the contractor, the engineer, or the owner you can be certain Axiom™ rooftop products are built to meet your needs.

Through the years, Trane has designed and developed the most complete line of Packaged Rooftop products available in the market today. Trane was the first to introduce the Micro—microelectronic unit controls—and has continued to improve and revolutionize this design concept.

Symbio control platform offers the same great features and functionality as the original Micro, with additional benefits for greater application flexibility.

With its sleek, compact cabinet, Axiom™ rooftop continues to provide the highest standards in quality and reliability, comfort, ease of service, and the performance of Trane light commercial products.

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Revision History

- Streamlined Features and Benefits tables.
- Updated sccessories table in the Features and Benefits chapter.
- Updated Cabinet Integrity, Direct Drive Plenum Fans, and Hinged Access Doors images in the Features and Benefits chapter.
- Corrected digit 28 option A content in the Model Number Description chapter.
- Removed AHRI WLHP EER Ratings table in the General Data chapter.
- Updated Performance data –12.5 to 25 tons table in the General Data chapter.
- Updated gross cooling capacities table.
- Updated heating capacities table and removed methanol CP table in the Heating Capacities chapter.
- Updated CFM and EAT correction tables in the Evaporator Fan Performance chapter.
- Updated heating performance tables.
- Updated unit wiring and unit wiring with electric heat tables in the Electrical Data chapter.
- Updated unit clearance and roof opening image in the Dimensional Data chapter.
- Updated model weights, corner weights (lbs) and center of gravity dimensions table in the Weights chapter.

Table of Contents

Features and Benefits

Features

Note: *Equipment feature availability is dependent on unit configuration. For more information, see Water Source Heat Pump Axiom™ Quick Reference Support Guide (WSHP-PRC032*-EN), the ordering system, or contact product support.*

Table 1. Axiom™ rooftop features – standard and optional

	Standard Features	Options		
		Factory Installed	Factory or Field Installed	Field Installed
1-year Limited Parts Warranty	X			
5-year Limited Compressor Warranty	X			
2 inch Filter	X			
2 inch MERV 8 Filters		X		
2 inch MERV 13 Filters		X		
Access Doors		X		
Access Door (Control Box)	X			
Access Panels	X			
Anti-Short Cycle Timer (Standard with Symbio)	X			
Barometric Relief			X	
CO_2 Sensor				X
Clogged Filter Switch			X	
Condensate Overflow Switch			X	
Convertible Airflow	X			
Colored and Numbered Wiring	X			
Crankcase Heaters	X			
Direct Drive Plenum Fan	X			
Discharge Air Temperature Sensing Kit — MZVAV, SZVAV, Economizer	X			
Discharge Air Temperature Sensing Kit — Standard (Multispeed)			X	
Economizer: Low Leak — Downflow (12.5 to 25 Tons)			X	
Economizer: Low Leak — Horizontal (12.5 to 25 Tons)				X
Economizer: Standard — Downflow (12.5 to 25 Tons)			X	
Economizer: Standard — Horizontal (12.5 to 25 Tons)				X
Electric Heater			X	
Expansion Modules			X	
Fault Detection and Diagnostics (FDD)	X			
Filter Removal Tool	X			
Foil-Faced and Edge Protected Insulation	X			
Frostat™	X			
High Pressure Control	X			
High Static/Oversized Motor		X		
High Temperature Sensor				X
IAQ Dual Sloped Composite Drain Pan	X			
Liquid Line Refrigerant Drier	X			
Low Pressure Control	X			
Manual Outside Air Damper			X	
Motorized Outside Air Damper			X	
Multispeed Direct Drive Motors	X			
Multiple Zone VAV (Variable Air Volume)		X		

Table 1. Axiom™ rooftop features – standard and optional (continued)

	Standard Features	Options		
		Factory Installed	Factory or Field Installed	Field Installed
Operating Charge of R-410A	X			
Phase Balance/Loss/Reversal Protection	X			
Phase Monitor	X			
Powered Exhaust				X
Powered or Unpowered Convenience Outlet		X		
Quick Adapt Curbs				X
Reference or Comparative Enthalpy			X	
Roof Curb				X
Single Point Power	X			
Single Side Service	X			
Smoke Detector - Return		X		
Smoke Detector - Supply		X		
Stainless Steel Drain Pan		X		
Standardized Components	X			
Symbio Controls	X			
Thermal Expansion Valve	X			
Through-the-Base Electrical Access		X		
Through-the-Base Electrical with Circuit Breaker		X		
Through-the-Base Electrical with Disconnect Switch		X		
Variable Airflow (SZVAV)/Variable Air Flow (MZVAV)		X		
Ventilation Override				X

Control Options

Note: *For more information, see Water Source Heat Pump Axiom™ Features and Accessories (WSHP-PRC032*-EN), the ordering system, or contact product support.*

Table 2. Axiom™ rooftop control options — standard and optional

	Standard Features	Options		
		Factory Installed	Factory or Field Installed	Field Installed
Dual Thermistor Remote Zone Sensor				X
Symbio Service and Installation App	X			
Symbio 700 Advanced Module			X	
Humidity Sensor/Humidistat				X
Thermostat				X
Wireless Zone Sensor				X
Zone Sensor				X
LonTalk® Communication Interface (LCI)			X	
Trane® Air-Fi® Wireless Communication Interface (WCI)			X	

Note: For more information, reference the Controls chapter.

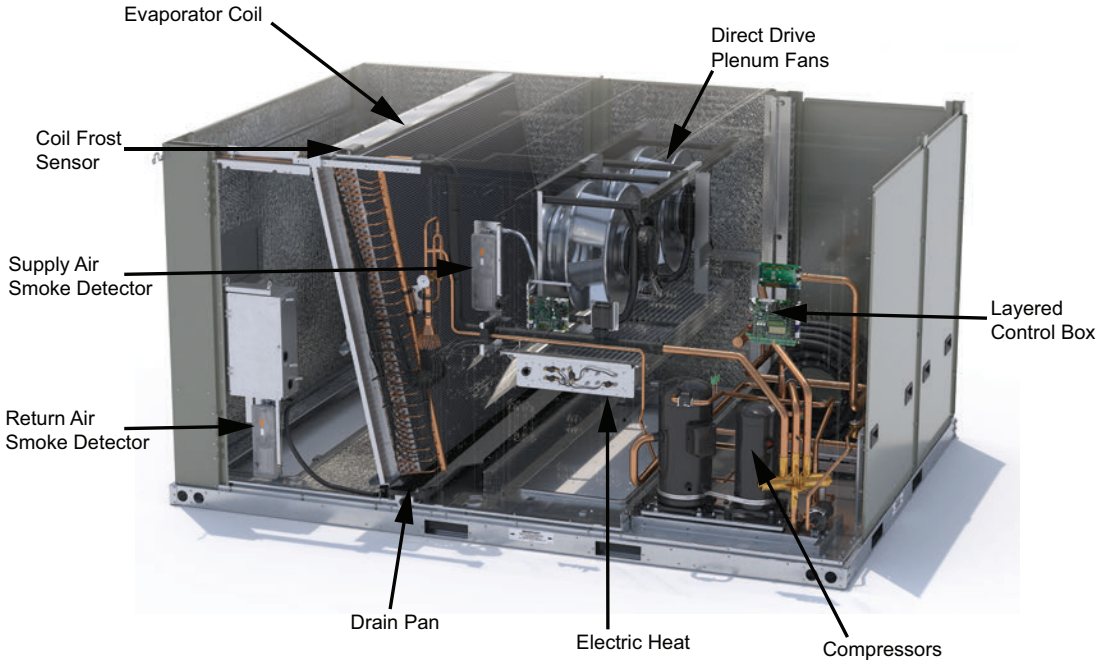
Accessories

Note: *Accessory availability is dependent on unit configuration. Some accessories may require additional accessories/options for full functionality. For more information, see Water Source Heat Pump Axiom™ Quick Reference Support Guide (WSHP-PRC032*-EN), the ordering system, or contact product support.*

Table 3. Accessories

FIA KIT #S	DESCRIPTION
FIAEHWD318*	18kW, 208-230V Electric Heater
FIAEHWD336*	36kW, 208-230V Electric Heater
FIAEHWD354*	54kW, 208-230V Electric Heater
FIAEHWD372*	72kW, 208-230V Electric Heater
FIAEHWD418*	18kW, 460V Electric Heater
FIAEHWD436*	36kW, 460V Electric Heater
FIAEHWD454*	54kW, 460V Electric Heater
FIAEHWD472*	72kW, 460V Electric Heater
FIAEHWDW18*	18kW, 575V Electric Heater
FIAEHWDW36*	36kW, 575V Electric Heater
FIAEHWDW54*	54kW, 575V Electric Heater
FIAEHWDW72*	72kW, 575V Electric Heater
FIABARM003*	Barometric Relief
FIAC02K001*	CO_2 (DCV) Wall Mounted Sensor
FIAC02K002*	CO_2 (DCV) Duct Mounted Sensor
FIACURB404*	14-inch Full Perimeter Knockdown Curb
FIACLFS003*	Clogged Filter Switch
FIACLFS004*	Clogged Filter Switch (MERV13)
FIADAST008*	Discharge Air Sensing Tube Kit
FIADFDB001*	Differential Dry Bulb Economizer Control
FIADMPR003*	Manual Damper
FIADMPR103*	Motorized Damper
FIAECON003*	Dry Bulb Downflow Economizer
FIAECON303*	Dry Bulb Horizonal Economizer
FIAECON103*	Dry Bulb Downflow Low Leak
FIAECON203*	Dry Bulb Horizontal Low Leak
FIAENTH001*	Reference Enthalpy Economizer Control
FIAENTH002*	Comparative Enthalpy Economizer Control
FIAHTST001*	High Temperature (Fire) Duct Mounted Stat
FIAHZDC001*	Horizontal Conversion Panel
FIALTCI001*	LonTalk Communication Interface
FIAOPTN001*	Indoor Options Module
FIAOPTN002*	Fresh Air Options Module
FIAOVFL001*	Condensate Overflow Switch
FIAPWRX303*	Power Exhaust 230V
FIAPWRX403*	Power Exhaust 460V
FIAPWRXW03*	Power Exhaust 575V
FIASCCM001*	Symbio Customer Connection Module
FIAXMOD030*	Symbio 700 XM30 Expansion Module
FIAXMOD032*	Symbio 700 XM32 Expansion Module

Key Benefits



Airflow Distribution

Airflow is outstanding. Axiom™ rooftop can replace an older machine with old ductwork and, in many cases, improve the comfort through better air distribution.

Cabinet Integrity

For added water integrity, Axiom™ rooftop has a raised 1 inch lip around the supply and return of the downflow units to prevent water from blowing into the ductwork.

CO_2 Sensor — Demand Control Ventilation (DCV)

Demand-controlled ventilation (DCV) is a control strategy that responds to the actual demand (need) for ventilation by regulating the rate at which the HVAC system brings outdoor air into the building. A CO_2 sensor measures the concentration (parts per million, ppm) of CO_2 (carbon dioxide) in the air. As the CO_2 concentration changes, the outside air damper modulates to meet the current ventilation needs of the zone. The CO_2 sensor kit is available as a field installed accessory and wires directly to the Symbio 700 controller.

Control Options

Note: *For more information, see Water Source Heat Pump Axiom™ Features and Accessories (WSHP-PRC032*-EN), the ordering system, or contact product support.*

Table 4. Axiom™ rooftop control options — standard and optional

	Standard Features	Options		
		Factory Installed	Factory or Field Installed	Field Installed
Dual Thermistor Remote Zone Sensor				X
Symbio Service and Installation App	X			
Symbio 700 Advanced Module			X	
Humidity Sensor/Humidistat				X
Thermostat				X
Wireless Zone Sensor				X
Zone Sensor				X
LonTalk® Communication Interface (LCI)			X	
Trane® Air-Fi® Wireless Communication Interface (WCI)			X	

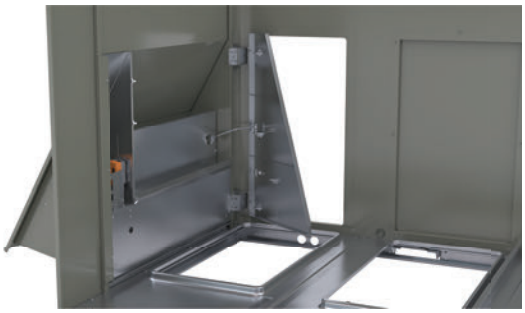
Note: For more information, reference the Controls chapter.

Convenience Outlet

This option is GFCI, 120V/15A, 2 plug, convenience outlet powered or GFCI, 120V/20A, 2 plug convenience outlet unpowered. This option can be ordered when through the base electrical with either the disconnect switch or circuit breaker option is ordered.

Convertible Units

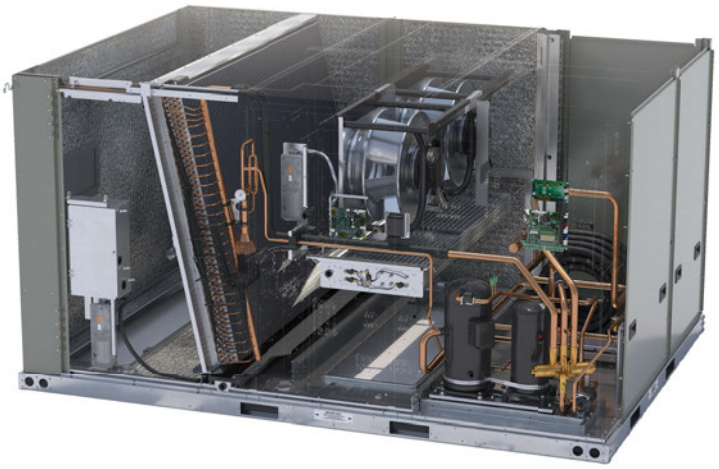
Units ship in a downflow configuration and can be easily converted to horizontal by simply removing two panels. Optional field accessory kits required for 12.5 to 25 ton units.



Direct Drive Plenum Fans

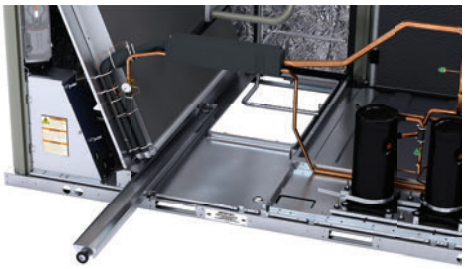
All 12.5 to 25 tons units are equipped with a direct drive plenum fan design with the following features.

- Backward-curved fan wheel
- External rotor direct drive variable speed indoor motor
- Variable speed adjustment available in Symbio controller
- Designed to slide out for ease of maintenance



Drain Pan

Every Axiom ™ rooftop unit has an easy-to-clean, composite removable dual-sloped drain pan (IAQ).



Fault Detection and Diagnostics (FDD)

This offering meets the mandatory requirement of CA Title 24 of fully configurable diagnostics allowing fault history and reading fault codes at the unit via Symbio™ 700 board or app. This feature provides detection of the following faults: Air temperature sensor failure/fault and notification of acceptable economizer mode. The FDD system shall be certified by the Energy Commission as meeting the requirements.

Flexibility

Axiom™ rooftop offers ultimate flexibility. Units are built to order in our standard ship cycle time.

High Efficiency Filtration

Axiom™ rooftop units offer a variety of high efficiency filtration options. MERV 8 and MERV 13 filters provide additional filtration beyond the capabilities of typical 2 inches throwaway filters.

High Static Motor

Available on 25 ton models, this high static motor option extends beyond the capability of the standard motor.

Hinged Access Doors

These doors permit easy access to the filter, fan and compressor/control sections. They reduce the potential roof damage from screws or sharp access door corners.

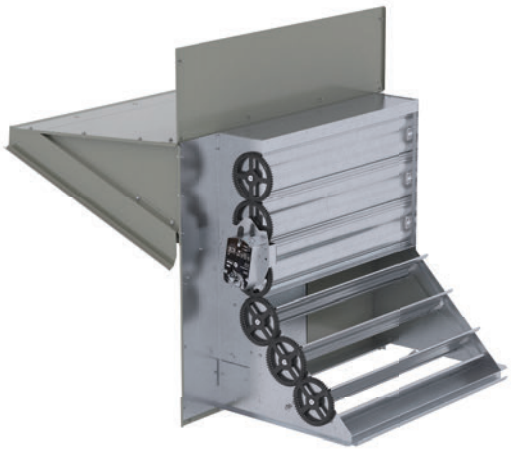
Humidity Sensor/Humidistat

The humidity sensor/humidistat, when used in conjunction with our dehumidification (hot gas reheat) units will provide outstanding humidity control and comfort. Humidity sensors can be wall or duct mounted. The humidity deadband can be set between 40% and 60% relative humidity.

Low Leak Economizer

This accessory meets low leak requirements for ASHRAE 90.1, IECC, and CA Title 24 standards (4 cfm/ft^2@1" wg exterior air/return air). This option allows 100% outdoor air supply from 0 to 100% modulating dampers and is standard with barometric relief. It can be paired with powered exhaust for additional building pressure relief. This option can be paired with or without fault detection and diagnostics (FDD) to meet current mandatory CA Title 24 requirements.

The economizers come with four control options, dry bulb, reference enthalpy, comparative enthalpy, or differential dry bulb.



Note: *Downflow low leak economizer is available as a factory installed option. Horizontal low leak economizer option is only available as a field installed option.*

Multi-Speed Indoor Fan System

This system incorporates a multi-speed fan control to change the speed of the fan to 66% of full airflow based off of compressor stages.

Multiple-Zone VAV Control

A multiple-zone VAV (MZVAV) system consists of a packaged rooftop unit that serves several individually controlled zones. Each zone is equipped with a VAV terminal unit that varies the quantity of air delivered to maintain the desired temperature in that zone. The rooftop unit controller varies the speed of the indoor fan to maintain the static pressure in the supply ductwork at a setpoint, ensuring that all zones receive the necessary quantity of air. In addition, cooling capacity is cycled to maintain the supply air temperature at the desired setpoint.

For decades, Trane has been an industry leader in rooftop VAV systems. Now, multiple-zone VAV control is available in the light commercial rooftop platform (12.5 to 25 tons).

Other Benefits

- Cabinet design ensures water integrity
- Ease of Service, Installation and Maintenance
- Mixed model build enables “fastest in the industry” ship cycle times
- Outstanding Airflow Distribution
- Symbio Controls

Quick Adapt Curbs

Enables easy upgrade of existing Voyager™ 12.5 to 25 tons units to Axiom™ rooftop units on replacement jobs.

Rigorous Testing

All of the Axiom™ rooftop designs were rigorously rain tested at the factory to ensure water integrity.

Actual shipping tests were performed to determine packaging requirements. Units were test shipped around the country to determine the best packaging design. Factory shake and drop tests were used as part of the package design process to help assure that the unit arrives at the job site in top condition.

Rigging tests include lifting a unit into the air and letting it drop one foot, assuring that the lifting lugs and rails hold up under stress.

We perform a 100% coil leak test at the factory. The assembled unit is leak tested to 465 psig.

All parts are inspected at the point of final assembly. Sub-standard parts are identified and rejected immediately.

Every unit receives a 100% unit run test before leaving the production line to make sure it meets rigorous requirements.

Single Zone VAV (SZVAV)

SZVAV is fully integrated into the control system. It provides the simplest and fastest commissioning in the industry through proven factory-installed, wired, and tested system controllers. All control modules, logic boards and sensors are factory installed and tested to ensure the highest quality and most reliable system available. This means no special programming of algorithms, or hunting at the jobsite for field installed sensors, boards, etc. SZVAV is a quick and simple solution for many applications and is available from your most trusted rooftop VAV system solution provider.

Building system modeling in energy simulation software such as TRACE is recommended to evaluate performance improvements for your application.

Supply/Return Air Smoke Detector

With this option installed, if smoke is detected, all unit operation will be shut down. Reset will be manual at the unit. In order for the supply air smoke detector or return air smoke detector to properly sense smoke in the supply air stream or the return air stream, the air velocity entering the smoke detector unit must be between 500 to 4000 feet per minute. Equipment covered in this manual will develop an airflow velocity that falls within these limits over the entire airflow range specified in the evaporator fan performance table. Supply and/or return smoke detectors may not be used with the plenum smoke detector.

Through-the-Base Electrical Access

An electrical service entrance shall be provided allowing electrical access for both control and main power connections inside the curb and through-the-base of the unit. Option will allow for field installation of liquid-tight conduit and an external field installed disconnect switch.

Model Number Description

Digit 1 — Unit Function

G = Rooftop Water Source Heat Pump

Digit 2 — Cooling Efficiency

S = Standard Efficiency

Digit 3 — Refrigerant

J = R-410A

Digit 4,5,6 — Nominal Gross Cooling Capacity (MBh)

150 = 12.5 Ton
180 = 15 Ton
240 = 20 Ton
300 = 25 Ton

Digit 7 — Design Sequence

Digit 8 — Voltage Selection

3 = 208–230/60/3
4 = 460/60/3
W = 575/60/3

Digit 9 — Unit Controls

S = Symbio™ 700

Digit 10 — Heat Type

0 = Base Model (None or Electric)

Digit 11 — Heating Capacity[1]

0 = No Heat
G = 18 kW Electric Heat
N = 36 kW Electric Heat
P = 54 kW Electric Heat
R = 72 kW Electric Heat

Digit 12, 13 — Service Sequence

****** = Factory Assigned

Digit 14 — Fresh Air Selection

0 = No Fresh Air
A = Manual Outside Air Damper 0–50%
B = Motorized Outside Air Damper 0–50%
C = Economizer, Dry Bulb 0–100% without Barometric Relief[2]
D = Economizer, Dry Bulb 0–100% with Barometric Relief[2]
E = Economizer, Reference Enthalpy 0–100% without Barometric Relief[2]
F = Economizer, Reference Enthalpy 0–100% with Barometric Relief[2]
G = Economizer, Comparative Enthalpy 0–100% without Barometric Relief[2]
H = Economizer, Comparative Enthalpy 0–100% with Barometric Relief[2]
K = Downflow Low Leak Economizer, Dry Bulb with Barometric Relief[2]
M = Downflow Low Leak Economizer, Reference Enthalpy with Barometric Relief[2]
P = Downflow Low Leak Economizer, Comparative Enthalpy with Barometric Relief[2]
R= Downflow Low Leak Economizer, Differential Dry Bulb with Barometric Relief[2]

Digit 15 — Supply Fan/Motor

0 = Multi-Speed Motor
1 = Optional Oversized/High Static Motor
2 = Single Zone Variable Air Volume with Standard Motor
3 = Single Zone Variable Air Volume with Oversized/High Static Motor
4 = Multiple Zone Variable Air Volume with Standard Motor
5 = Multiple Zone Variable Air Volume with Oversized/High Static Motor

Digit 16 — Hinged Access/Filters

0 = Standard Panels/Standard Filters
A = Hinged Access Panels/Standard Filters
B = Standard Panels/2 inch MERV 8 Filters
C = Hinged Access Panels/2 inch MERV 8 Filters
D = Standard Panels/2 inch MERV 13 Filters
E = Hinged Access Panels/2 inch MERV 13 Filters

Digit 17 — Coil

0 = Standard Coil

Digit 18 — Through-the-Base Provisions

0 = No Through-the-Base Provisions
A = Through-the-Base Electric

Digit 19 — Disconnect/Circuit Breaker

0 = No Disconnect/No Circuit Breaker
1 = Unit Mounted/Non-Fused Disconnect
2 = Unit Mounted Circuit Breaker

Digit 20— Convenience Outlet

0 = No Convenience Outlet
A = Unpowered 20A Convenience Outlet
B = Powered 15A Convenience Outlet

Digit 21— Communications Options

0 = No Communications Interface
1 = Advanced Controller with BACnet® Communications Interface
2 = Advanced Controller with LonTalk® Communications Interface
3 = Advanced Controller with Air-Fi® Communications Interface

Digit 22— Refrigeration System Option

0 = Standard Refrigeration System
A = Dehumidification Option[1, 3]

Digit 23— Controls Expansion Module

0 = None
1 = XM-30 Expansion Module
2 = XM-32 Expansion Module
3 = XM-30 and XM-32 Expansion Module
4 = XM–30 Expansion Module (Qty 2)
5 = XM–32 Expansion Module (Qty 2)

Digit 24— Smoke Detector

0 = No Smoke Detector
A = Return Air Smoke Detector[2]
B = Supply Air Smoke Detector[1]
C = Supply and Return Air Smoke Detectors[1, 2]

Digit 25— System Monitoring Controls

0 = No Monitoring Control
1 = Clogged Filter Switch[2]
2 = Condensate Overflow Switch[1]
3 = Discharge Air Sensing Tube
4 = Clogged Filter Switch and Condensate Overflow Switch[1, 2]
5 = Clogged Filter Switch and Discharge Air Sensing Tube[2]
6 = Condensate Overflow Switch and Discharge Air Sensing Tube[1]

Digit 26— Not Used

Digit 27— Hardware Enhancements

0 = No Enhancements
1 = Stainless Steel Drain Pan

Digit 28— Short Circuit Current Rating

0 = Standard (5k) SCCR Marking
A = Tier 2 (65K) SCCR Marking

Digit 29–40 — Not Used

Digit 41— Heat Exchanger

1 = Copper Water Coil
2 = Cupro-Nickel Water Coil
7 = Insulated Copper Water Coil
8 = Insulated Cupro-Nickel Water Coil

Digit 42 — Freeze Protection[4]

A = 20°F Freezestat (For Glycol Loop)
B = 35°F Freezestat (For Water Loop)

Digit 43 — Special

0 = Standard Unit
S = Special Unit

Model Number Notes
Notes:
1. Includes Symbio™ Indoor Module.
2. Includes Symbio Fresh Air Module.
3. Includes Symbio Customer Connection Module.
4. 20°F Freezestat is typically used in a geothermal application. 35°F Freezestat is typically used in a boiler/tower application.

General Data

Table 5. General data – 12.5 to 25 tons – standard efficiency

	12.5 Tons	15 Tons	20 Tons	25 Tons
	GSJ150	GSJ180	GSJ240	GSJ300
Unit Size				
Length (inches)	123.0	123.0	123.0	123.0
Width (inches)	87.0	87.0	87.0	87.0
Height (inches)	59.0	59.0	66.0	66.0
Max Net Weight (lbs)	1969.0	1969.0	2210.0	2210.0
Compressor				
Quantity/Type	2/Manifold Scroll	2/Manifold Scroll	2/Manifold Scroll	2/Manifold Scroll
Indoor Coil				
Type	RTPF Lanced	RTPF Lanced	RTPF Lanced	RTPF Lanced
Tube Size Dia. (in.) OD	0.313	0.313	0.313	0.313
Face Area (sq. ft.)	25.83	25.83	30.09	30.09
Rows/FPI	4/16	4/16	4/16	4/16
Refrigerant Control	TXV	TXV	TXV	TXV
Std. Drain Connection Size (in.) (NPT)	1.00 PVC Internal	1.00 PVC Internal	1.00 PVC Internal	1.00 PVC Internal
SS Drain Connection Size (in.) (NPT)	1.00 NPT	1.00 NPT	1.00 NPT	1.00 NPT
Water Connection				
Size (in.)	1.50	1.50	2	2
Indoor Fan				
Type	BC Plenum	BC Plenum	BC Plenum	BC Plenum
No. Used/Diameter (in.)	2/23x6	2/23x6	2/23x6	2/23x6
Drive Type/No. Speeds	Direct / Variable	Direct / Variable	Direct / Variable	Direct / Variable
Motor Quantity	2	2	2	2
Motor HP (Standard/Oversized)	2.9 / –	2.9 / –	2.9 / –	2.9 / 4.2
Motor RPM (Standard/Oversized)	1850	1850	1850	1850 / 1940
Filters				
Type	Throwaway	Throwaway	Throwaway	Throwaway
Quantity and Size Recommended: Horzontal and Downflow	(8) 20 x 24 x 2	(8) 20 x 24 x 3	(4) 20 x 24 x 2 (4) 20 x 30 x 2	(4) 20 x 24 x 2 (4) 20 x 30 x 2
Refrigerant R410A				
Circuits	1	1	1	1
Total lb R410a HP and HP with HGR	25	26	30.50	31

Table 6. Performance data –12.5 to 25 tons

ANSI/AHRI/ASHRAE/ISO 13256-1 WLHP, GWHP and GLHP performance - 12.5 to 25 tons														
Size	Rated GPM	Rated CFM	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump			
			Cooling 86° F		Heating 68° F		Cooling 59° F		Heating 50° F		Cooling 77° F		Heating 32° F	
			Capacity Btuh	EER	Capacity Btuh	COP	Capacity Btuh	EER	Capacity Btuh	COP	Capacity Btuh	EER	Capacity Btuh	COP
GSJ150	38.75	4375	164,000	18.1	184,000	5.69	174,000	25.1	152,000	4.99	170,000	20.4	119,165	4.30
GSJ180	46.50	6000	194,000	17.7	214,000	5.69	216,000	25.9	172,000	4.90	202,000	20.2	130,000	4.02
GSJ240	62.00	8000	258,000	17.2	302,000	5.49	292,000	25.9	244,000	4.70	268,000	19.8	186,000	3.88
GSJ300	77.50	10000	282,000	15.8	340,000	5.10	318,000	21.8	274,000	4.31	292,000	17.2	210,000	3.43

Notes:

1. Rated in accordance ANSI/AHRI/ASHRAE/ISO13256-1. Certified conditions are 80.6°F DB/66.2°F WB EAT in cooling and 68°F DB/59°F WB EAT in heating.

2. Models with capacities greater than 135,000 Btuh are not included in the ANSI/AHRI/ASHRAE/ISO13256-1 certification program.

Gross Cooling Capacities

Table 7. Gross cooling capacities — 12.5 to 25 tons

Model	EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp Pwr kW	Reject Mbtuh	LWT	Feet Head
GSJ150	45	25.2	196.20	134.06	0.68	6.01	216.71	62.32	3.94
		27.1	196.80	134.32	0.68	5.94	217.07	61.11	4.49
		29.1	197.31	134.55	0.68	5.89	217.39	60.06	5.08
		31.0	197.76	134.75	0.68	5.84	217.67	59.14	5.78
		33.0	198.16	134.93	0.68	5.79	217.92	58.33	6.35
		34.9	198.52	135.09	0.68	5.75	218.15	57.60	7.02
		36.8	198.86	135.23	0.68	5.72	218.37	56.95	7.73
		38.8	199.15	135.36	0.68	5.69	218.55	56.37	8.46
		40.7	199.42	135.48	0.68	5.66	218.73	55.84	9.22
		42.6	199.67	135.59	0.68	5.63	218.89	55.35	10.02
		44.6	199.90	135.70	0.68	5.61	219.04	54.91	10.84
		46.5	200.51	135.96	0.68	5.54	219.42	53.66	11.31
GSJ150	55	25.2	188.25	130.48	0.69	6.68	211.03	71.85	3.79
		27.1	188.72	130.69	0.69	6.61	211.26	70.67	4.33
		29.1	189.14	130.87	0.69	6.54	211.46	69.64	4.89
		31.0	189.50	131.03	0.69	6.49	211.65	68.74	5.49
		33.0	189.83	131.17	0.69	6.44	211.82	67.94	6.11
		34.9	190.12	131.30	0.69	6.40	211.97	67.23	6.76
		36.8	190.38	131.42	0.69	6.37	212.10	66.60	7.44
		38.8	190.62	131.52	0.69	6.34	212.23	66.03	8.14
		40.7	190.83	131.61	0.69	6.31	212.35	65.51	8.87
		42.6	191.03	131.70	0.69	6.28	212.45	65.04	9.64
		44.6	191.21	131.78	0.69	6.25	212.55	64.61	10.43
		46.5	191.38	131.85	0.69	6.23	212.64	64.21	11.24
GSJ150	65	25.2	180.65	127.08	0.70	7.42	205.96	81.43	3.66
		27.1	181.02	127.25	0.70	7.34	206.08	80.27	4.18
		29.1	181.34	127.39	0.70	7.28	206.18	79.26	4.72
		31.0	181.64	127.51	0.70	7.22	206.27	78.37	5.30
		33.0	181.90	127.63	0.70	7.17	206.37	77.60	5.90
		34.9	182.13	127.73	0.70	7.13	206.45	76.90	6.53
		36.8	182.34	127.82	0.70	7.09	206.52	76.28	7.18
		38.8	182.52	127.90	0.70	7.05	206.59	75.73	7.85
		40.7	182.69	127.97	0.70	7.02	206.65	75.22	8.56
		42.6	182.84	128.04	0.70	6.99	206.70	74.76	9.30
		44.6	182.98	128.10	0.70	6.97	206.76	74.34	10.06
		46.5	183.11	128.16	0.70	6.95	206.81	73.95	10.84

Table 7. Gross cooling capacities — 12.5 to 25 tons (continued)

Model	EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp Pwr kW	Reject Mbtuh	LWT	Feet Head
GSJ150	75	25.2	173.14	123.75	0.71	8.25	201.29	91.03	3.54
		27.1	173.45	123.88	0.71	8.17	201.32	89.89	4.04
		29.1	173.72	124.00	0.71	8.10	201.35	88.90	4.57
		31.0	173.96	124.10	0.71	8.04	201.38	88.04	5.12
		33.0	174.17	124.19	0.71	7.98	201.40	87.27	5.70
		34.9	174.35	124.27	0.71	7.94	201.43	86.59	6.31
		36.8	174.52	124.34	0.71	7.89	201.45	85.98	6.94
		38.8	174.66	124.40	0.71	7.86	201.47	85.45	7.59
		40.7	174.80	124.46	0.71	7.82	201.49	84.95	8.28
		42.6	174.92	124.52	0.71	7.79	201.51	84.50	8.99
		44.6	175.04	124.57	0.71	7.77	201.86	84.09	9.72
		46.5	175.14	124.61	0.71	7.74	201.55	83.71	10.48
GSJ150	85	25.2	163.33	127.21	0.78	9.16	194.60	100.45	3.44
		27.1	163.59	127.32	0.78	9.08	194.56	99.35	3.92
		29.1	163.80	127.41	0.78	9.00	194.52	98.39	4.43
		31.0	163.99	127.49	0.78	8.94	194.49	97.56	4.97
		33.0	164.15	127.56	0.78	8.88	194.46	96.82	5.53
		34.9	164.30	127.63	0.78	8.83	194.44	96.16	6.12
		36.8	164.43	127.68	0.78	8.79	194.41	95.57	6.73
		38.8	164.55	127.73	0.78	8.75	194.40	95.05	7.36
		40.7	164.65	127.78	0.78	8.71	194.38	94.57	8.02
		42.6	164.75	127.82	0.78	8.68	194.37	94.14	8.71
		44.6	164.83	127.86	0.78	8.65	194.35	93.74	9.42
		46.5	164.92	127.90	0.78	8.62	194.35	93.38	10.15
GSJ150	95	25.2	155.75	123.85	0.80	9.67	188.76	110.08	3.34
		27.1	155.97	123.95	0.79	9.58	188.67	109.00	3.81
		29.1	156.16	124.03	0.79	9.51	188.60	108.07	4.30
		31.0	156.32	124.10	0.79	9.44	188.53	107.25	4.82
		33.0	156.47	124.16	0.79	9.38	188.48	106.53	5.37
		34.9	156.60	124.22	0.79	9.33	188.43	105.88	5.94
		36.8	156.71	124.27	0.79	9.28	188.39	105.31	6.53
		38.8	156.81	124.31	0.79	9.24	188.35	104.80	7.14
		40.7	156.91	124.35	0.79	9.21	188.32	104.33	7.79
		42.6	156.99	124.39	0.79	9.17	188.29	103.91	8.45
		44.6	157.07	124.42	0.79	9.14	188.26	103.52	9.14
		46.5	157.13	124.45	0.79	9.12	188.24	103.17	9.85

Gross Cooling Capacities

Table 7. Gross cooling capacities — 12.5 to 25 tons (continued)

Model	EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp Pwr kW	Reject Mbtuh	LWT	Feet Head
GSJ150	105	25.2	147.83	120.39	0.81	10.21	182.67	119.71	3.25
		27.1	148.04	120.48	0.81	10.12	182.57	118.66	3.70
		29.1	148.22	120.55	0.81	10.04	182.47	117.74	4.19
		31.0	148.36	120.61	0.81	9.97	182.38	116.94	4.69
		33.0	148.50	120.67	0.81	9.91	182.32	116.24	5.22
		34.9	148.61	120.72	0.81	9.86	182.25	115.61	5.78
		36.8	148.71	120.77	0.81	9.81	182.19	115.05	6.35
		38.8	148.81	120.80	0.81	9.77	182.14	114.55	6.95
		40.7	148.89	120.84	0.81	9.73	182.10	114.10	7.57
		42.6	148.96	120.87	0.81	9.70	182.05	113.68	8.22
		44.6	149.03	120.90	0.81	9.67	182.02	113.30	8.89
		46.5	149.10	120.93	0.81	9.64	181.98	112.96	9.58
GSJ150	115	25.2	139.44	116.77	0.84	10.78	176.21	129.33	3.17
		27.1	139.63	116.85	0.84	10.68	176.08	128.30	3.61
		29.1	139.80	116.92	0.84	10.60	175.97	127.41	4.08
		31.0	139.95	116.98	0.84	10.53	175.89	126.63	4.57
		33.0	140.08	117.04	0.84	10.47	175.81	125.94	5.09
		34.9	140.18	117.08	0.84	10.42	175.73	125.33	5.63
		36.8	140.28	117.12	0.83	10.37	175.66	124.78	6.19
		38.8	140.37	117.16	0.83	10.33	175.60	124.30	6.77
		40.7	140.45	117.19	0.83	10.29	175.55	123.85	7.38
		42.6	140.52	117.22	0.83	10.25	175.50	123.45	8.01
		44.6	140.58	117.25	0.83	10.22	175.45	123.08	8.66
		46.5	140.64	117.28	0.83	10.19	175.41	122.74	9.33
GSJ150	120	25.2	134.87	114.32	0.85	11.37	173.67	134.11	3.13
		27.1	135.06	114.40	0.85	11.28	173.53	133.10	3.57
		29.1	135.23	114.48	0.85	11.20	173.43	132.22	4.03
		31.0	135.38	114.55	0.85	11.12	173.33	131.45	4.52
		33.0	135.50	114.60	0.85	11.06	173.25	130.78	5.02
		34.9	135.61	114.65	0.85	11.01	173.16	130.18	5.56
		36.8	135.70	114.69	0.85	10.96	173.09	129.64	6.11
		38.8	135.79	114.73	0.84	10.91	173.03	129.16	6.68
		40.7	135.37	115.13	0.85	10.88	172.48	128.70	7.28
		42.6	135.44	115.16	0.85	10.84	172.43	128.30	7.91
		44.6	135.51	115.18	0.85	10.81	172.38	127.94	8.55
		46.5	135.56	115.20	0.85	10.78	172.33	127.61	9.21

Table 7. Gross cooling capacities — 12.5 to 25 tons (continued)

Model	EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp Pwr kW	Reject Mbtuh	LWT	Feet Head
GSJ180	45	30.2	229.05	167.36	0.73	7.01	252.95	61.82	5.41
		32.5	229.35	167.48	0.73	6.92	252.98	60.61	6.17
		34.9	229.62	167.58	0.73	6.85	253.01	59.57	6.98
		37.2	229.85	167.67	0.73	6.79	253.03	58.66	7.83
		39.5	230.05	167.75	0.73	6.74	253.04	57.86	8.73
		41.9	230.24	167.84	0.73	6.69	253.07	57.14	9.66
		44.2	230.52	167.95	0.73	6.62	253.10	56.02	10.44
		46.5	230.76	168.04	0.73	6.55	253.12	55.09	11.29
		48.8	231.00	168.14	0.73	6.49	253.14	54.16	12.14
		51.2	231.23	168.23	0.73	6.43	253.16	53.23	12.99
		53.5	231.47	168.33	0.73	6.36	253.19	52.30	13.84
		55.8	231.71	168.42	0.73	6.30	253.21	51.38	14.69
GSJ180	55	30.2	222.45	164.41	0.74	7.82	249.14	71.58	5.21
		32.5	222.77	164.52	0.74	7.74	249.18	70.40	5.94
		34.9	223.04	164.63	0.74	7.67	249.19	69.37	6.72
		37.2	223.28	164.72	0.74	7.60	249.23	68.47	7.54
		39.5	223.48	164.80	0.74	7.55	249.23	67.68	8.40
		41.9	223.67	164.87	0.74	7.50	249.26	66.97	9.30
		44.2	223.83	164.94	0.74	7.46	249.27	66.34	10.23
		46.5	223.97	164.99	0.74	7.42	249.28	65.78	11.20
		48.8	224.10	165.05	0.74	7.38	249.29	65.26	12.22
		51.2	224.41	165.17	0.74	7.30	249.32	64.09	12.91
		53.5	224.61	165.25	0.74	7.25	249.34	63.31	13.79
		55.8	224.81	165.32	0.74	7.19	249.36	62.54	14.66
GSJ180	65	30.2	215.34	161.24	0.75	8.71	245.04	81.33	5.03
		32.5	215.64	161.36	0.75	8.62	245.04	80.16	5.74
		34.9	215.91	161.45	0.75	8.54	245.05	79.15	6.49
		37.2	216.13	161.54	0.75	8.47	245.04	78.26	7.28
		39.5	216.32	161.61	0.75	8.42	245.04	77.48	8.10
		41.9	216.49	161.68	0.75	8.37	245.03	76.78	8.97
		44.2	216.64	161.74	0.75	8.32	245.03	76.16	9.87
		46.5	216.78	161.79	0.75	8.28	245.03	75.60	10.81
		48.8	216.90	161.84	0.75	8.24	245.03	75.10	11.78
		51.2	217.02	161.89	0.75	8.21	245.03	74.64	12.79
		53.5	217.11	161.92	0.75	8.18	245.03	74.22	13.84
		55.8	217.20	157.68	0.73	8.15	245.02	73.84	14.91

Gross Cooling Capacities

Table 7. Gross cooling capacities — 12.5 to 25 tons (continued)

Model	EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp Pwr kW	Reject Mbtuh	LWT	Feet Head
GSJ180	75	30.2	207.51	157.81	0.76	9.67	240.51	91.04	4.86
		32.5	207.82	157.93	0.76	9.58	240.49	89.90	5.55
		34.9	208.08	158.02	0.76	9.50	240.48	88.90	6.27
		37.2	208.30	158.10	0.76	9.42	240.46	88.03	7.04
		39.5	208.49	158.18	0.76	9.36	240.44	87.26	7.84
		41.9	208.66	158.24	0.76	9.31	240.42	86.57	8.67
		44.2	208.81	158.30	0.76	9.26	240.41	85.96	9.54
		46.5	208.94	158.35	0.76	9.22	240.39	85.42	10.45
		48.8	209.06	158.39	0.76	9.18	240.38	84.92	11.39
		51.2	209.16	158.43	0.76	9.14	240.36	84.47	12.37
		53.5	209.26	158.47	0.76	9.11	240.35	84.05	13.38
		55.8	209.34	163.35	0.78	9.08	240.34	83.68	14.41
GSJ180	85	30.2	196.46	163.47	0.83	10.72	233.05	100.56	4.72
		32.5	196.74	163.57	0.83	10.62	232.98	99.44	5.38
		34.9	196.97	163.66	0.83	10.54	232.92	98.47	6.08
		37.2	197.18	163.74	0.83	10.46	232.88	97.63	6.82
		39.5	197.36	163.80	0.83	10.40	232.84	96.88	7.59
		41.9	197.51	163.86	0.83	10.34	232.80	96.22	8.40
		44.2	197.65	163.91	0.83	10.29	232.76	95.62	9.25
		46.5	197.77	163.96	0.83	10.24	232.73	95.09	10.12
		48.8	197.87	164.00	0.83	10.20	232.69	94.61	11.04
		51.2	197.98	164.04	0.83	10.17	232.66	94.17	11.98
		53.5	198.07	164.08	0.83	10.13	232.64	93.77	12.96
		55.8	198.15	161.45	0.81	10.10	232.62	93.41	13.96
GSJ180	95	30.2	187.56	159.61	0.85	11.31	226.14	110.24	4.58
		32.5	187.83	159.70	0.85	11.21	226.06	109.14	5.23
		34.9	188.05	159.79	0.85	11.12	225.98	108.19	5.91
		37.2	188.26	159.86	0.85	11.04	225.93	107.36	6.62
		39.5	188.43	159.92	0.85	10.97	225.87	106.63	7.37
		41.9	188.58	159.98	0.85	10.91	225.82	105.98	8.16
		44.2	188.71	160.03	0.85	10.86	225.76	105.40	8.98
		46.5	188.83	160.08	0.85	10.81	225.73	104.88	9.83
		48.8	188.94	160.12	0.85	10.77	225.69	104.41	10.71
		51.2	189.04	160.15	0.85	10.73	225.66	103.98	11.63
		53.5	189.13	160.18	0.85	10.70	225.63	103.59	12.58
		55.8	189.19	157.49	0.83	10.67	225.59	103.23	13.55

Table 7. Gross cooling capacities — 12.5 to 25 tons (continued)

Model	EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp Pwr kW	Reject Mbtuh	LWT	Feet Head
GSJ180	105	30.2	178.10	155.55	0.87	11.93	218.79	119.91	4.46
		32.5	178.34	155.64	0.87	11.82	218.68	118.84	5.08
		34.9	178.57	155.71	0.87	11.73	218.59	117.91	5.75
		37.2	178.75	155.79	0.87	11.65	218.50	117.09	6.44
		39.5	178.92	155.85	0.87	11.58	218.44	116.38	7.17
		41.9	179.06	155.90	0.87	11.52	218.37	115.74	7.94
		44.2	179.19	155.95	0.87	11.47	218.31	115.17	8.73
		46.5	179.31	155.99	0.87	11.42	218.26	114.66	9.56
		48.8	179.41	156.03	0.87	11.37	218.22	114.20	10.42
		51.2	179.50	156.06	0.87	11.33	218.18	113.78	11.31
		53.5	179.58	156.10	0.87	11.30	218.13	113.39	12.23
		55.8	179.67	152.54	0.85	11.27	218.10	113.04	13.18
GSJ180	115	30.2	167.98	150.40	0.90	12.58	210.89	129.56	4.35
		32.5	168.23	150.48	0.89	12.47	210.77	128.51	4.96
		34.9	168.43	150.56	0.89	12.38	210.65	127.60	5.60
		37.2	168.61	150.63	0.89	12.30	210.56	126.81	6.28
		39.5	168.77	150.69	0.89	12.22	210.48	126.11	6.99
		41.9	168.89	150.74	0.89	12.16	210.39	125.49	7.73
		44.2	169.01	150.78	0.89	12.11	210.31	124.93	8.51
		46.5	169.12	150.83	0.89	12.06	210.25	124.43	9.31
		48.8	169.21	150.86	0.89	12.01	210.20	123.98	10.15
		51.2	169.30	150.90	0.89	11.97	210.15	123.57	11.02
		53.5	169.38	150.92	0.89	11.93	210.10	123.19	11.91
		55.8	169.44	149.01	0.88	11.90	210.04	122.85	12.83
GSJ180	120	30.2	162.83	149.11	0.92	13.26	208.07	134.39	4.29
		32.5	163.05	149.19	0.91	13.15	207.93	133.35	4.90
		34.9	163.26	149.26	0.91	13.06	207.82	132.45	5.53
		37.2	163.43	149.32	0.91	12.98	207.71	131.67	6.20
		39.5	163.58	149.38	0.91	12.90	207.61	130.97	6.90
		41.9	163.72	149.43	0.91	12.84	207.53	130.36	7.64
		44.2	163.83	149.47	0.91	12.78	207.45	129.81	8.40
		46.5	163.94	149.51	0.91	12.73	207.38	129.32	9.19
		48.8	164.03	149.54	0.91	12.69	207.32	128.87	10.02
		51.2	164.12	149.57	0.91	12.65	207.27	128.46	10.88
		53.5	164.20	149.60	0.91	12.61	207.22	128.09	11.76
		55.8	164.27	136.72	0.83	12.57	207.17	127.76	12.67

Gross Cooling Capacities

Table 7. Gross cooling capacities — 12.5 to 25 tons (continued)

Model	EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp Pwr kW	Reject Mbtuh	LWT	Feet Head
GSJ240	45	40.3	308.00	224.14	0.73	9.25	339.54	61.90	5.37
		43.4	308.49	224.37	0.73	9.13	339.65	60.70	6.13
		46.5	308.91	224.57	0.73	9.03	339.73	59.65	6.93
		49.6	309.30	224.75	0.73	8.95	339.84	58.74	7.77
		52.7	309.67	224.92	0.73	8.88	339.96	57.94	8.66
		55.8	309.97	225.06	0.73	8.81	340.05	57.22	9.58
		58.9	310.44	225.28	0.73	8.71	340.15	56.10	10.35
		62.0	310.83	225.46	0.73	8.62	340.25	55.17	11.20
		65.1	311.22	225.64	0.73	8.54	340.35	54.24	12.04
		68.2	311.62	225.83	0.72	8.45	340.45	53.31	12.88
		71.3	312.01	226.01	0.72	8.36	340.55	52.38	13.72
		74.4	312.41	226.19	0.72	8.28	340.65	51.45	14.56
GSJ240	55	40.3	298.66	219.72	0.74	10.40	334.14	71.64	5.17
		43.4	299.09	219.92	0.74	10.27	334.15	70.45	5.90
		46.5	299.44	220.08	0.73	10.17	334.14	69.42	6.67
		49.6	299.77	220.23	0.73	10.08	334.15	68.52	7.48
		52.7	300.05	220.36	0.73	10.00	334.16	67.72	8.33
		55.8	300.30	220.48	0.73	9.93	334.18	67.02	9.22
		58.9	300.53	220.58	0.73	9.87	334.19	66.39	10.15
		62.0	300.73	220.68	0.73	9.81	334.22	65.82	11.11
		65.1	300.91	220.76	0.73	9.76	334.22	65.30	12.11
		68.2	301.33	220.95	0.73	9.64	334.23	64.13	12.80
		71.3	301.60	221.08	0.73	9.56	334.24	63.35	13.67
		74.4	301.88	221.21	0.73	9.49	334.25	62.57	14.54
GSJ240	65	40.3	288.81	215.09	0.74	11.68	328.65	81.37	4.99
		43.4	289.21	215.28	0.74	11.55	328.61	80.20	5.69
		46.5	289.55	215.43	0.74	11.43	328.56	79.19	6.44
		49.6	289.85	215.57	0.74	11.34	328.53	78.30	7.22
		52.7	290.11	215.69	0.74	11.25	328.50	77.52	8.04
		55.8	290.34	215.79	0.74	11.17	328.47	76.82	8.89
		58.9	290.55	215.89	0.74	11.11	328.44	76.20	9.79
		62.0	290.73	215.97	0.74	11.05	328.42	75.64	10.72
		65.1	290.89	216.05	0.74	10.99	328.40	75.13	11.68
		68.2	291.04	216.11	0.74	10.94	328.38	74.67	12.68
		71.3	291.17	216.17	0.74	10.90	328.37	74.25	13.72
		74.4	291.29	216.23	0.74	10.86	328.35	73.86	14.79

Table 7. Gross cooling capacities — 12.5 to 25 tons (continued)

Model	EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp Pwr kW	Reject Mbtuh	LWT	Feet Head
GSJ240	75	40.3	278.01	210.09	0.76	13.11	322.74	91.08	4.83
		43.4	278.43	210.28	0.76	12.97	322.67	89.93	5.51
		46.5	278.77	210.43	0.75	12.84	322.59	88.94	6.23
		49.6	279.08	210.57	0.75	12.74	322.54	88.06	6.98
		52.7	279.34	210.68	0.75	12.65	322.49	87.29	7.77
		55.8	279.57	210.79	0.75	12.56	322.44	86.61	8.60
		58.9	279.78	210.88	0.75	12.49	322.40	86.00	9.46
		62.0	279.96	210.96	0.75	12.43	322.36	85.45	10.36
		65.1	280.12	211.03	0.75	12.37	322.32	84.95	11.29
		68.2	280.27	211.10	0.75	12.31	322.29	84.49	12.26
		71.3	280.41	211.16	0.75	12.27	322.27	84.08	13.26
		74.4	280.53	211.22	0.75	12.22	322.24	83.70	14.29
GSJ240	85	40.3	262.92	217.20	0.83	14.70	313.07	100.60	4.68
		43.4	263.33	217.38	0.83	14.55	312.97	99.48	5.34
		46.5	263.68	217.54	0.83	14.42	312.88	98.51	6.04
		49.6	264.00	217.68	0.82	14.31	312.81	97.67	6.77
		52.7	264.26	217.80	0.82	14.21	312.73	96.92	7.53
		55.8	264.48	217.90	0.82	14.12	312.66	96.26	8.33
		58.9	264.68	217.99	0.82	14.04	312.60	95.66	9.17
		62.0	264.86	218.06	0.82	13.97	312.54	95.13	10.04
		65.1	265.02	218.14	0.82	13.91	312.48	94.64	10.94
		68.2	265.16	218.20	0.82	13.85	312.43	94.20	11.88
		71.3	265.29	218.26	0.82	13.80	312.39	93.80	12.85
		74.4	265.41	218.31	0.82	13.76	312.34	93.43	13.85
GSJ240	95	40.3	250.36	211.47	0.84	15.58	303.51	110.27	4.55
		43.4	250.79	211.66	0.84	15.42	303.41	109.17	5.19
		46.5	251.15	211.81	0.84	15.29	303.31	108.23	5.86
		49.6	251.46	211.95	0.84	15.17	303.22	107.40	6.57
		52.7	251.73	212.06	0.84	15.07	303.14	106.66	7.31
		55.8	251.97	212.17	0.84	14.98	303.07	106.01	8.09
		58.9	252.17	212.26	0.84	14.90	303.00	105.43	8.90
		62.0	252.36	212.34	0.84	14.83	302.94	104.91	9.74
		65.1	252.52	212.41	0.84	14.76	302.89	104.44	10.62
		68.2	252.67	212.47	0.84	14.70	302.83	104.01	11.53
		71.3	252.81	212.53	0.84	14.65	302.79	103.61	12.47
		74.4	252.93	212.58	0.84	14.60	302.75	103.25	13.44

Gross Cooling Capacities

Table 7. Gross cooling capacities — 12.5 to 25 tons (continued)

Model	EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp Pwr kW	Reject Mbtuh	LWT	Feet Head
GSJ240	105	40.3	236.76	205.36	0.87	16.50	293.08	119.92	4.43
		43.4	237.20	205.54	0.87	16.34	292.96	118.85	5.05
		46.5	237.56	205.70	0.87	16.21	292.86	117.92	5.70
		49.6	237.87	205.83	0.87	16.09	292.76	117.11	6.39
		52.7	238.15	205.95	0.86	15.98	292.68	116.39	7.11
		55.8	238.40	206.05	0.86	15.89	292.61	115.76	7.87
		58.9	238.60	206.14	0.86	15.81	292.54	115.19	8.66
		62.0	238.80	206.22	0.86	15.73	292.48	114.68	9.48
		65.1	238.97	206.30	0.86	15.67	292.43	114.22	10.33
		68.2	239.13	206.36	0.86	15.61	292.38	113.80	11.21
		71.3	239.27	206.42	0.86	15.55	292.33	113.41	12.12
		74.4	239.40	206.48	0.86	15.50	292.29	113.06	13.07
GSJ240	115	40.3	222.02	197.85	0.89	17.48	281.66	129.53	4.32
		43.4	222.44	198.04	0.89	17.32	281.52	128.49	4.92
		46.5	222.81	198.20	0.89	17.18	281.41	127.58	5.56
		49.6	223.28	199.35	0.89	17.05	281.47	126.80	6.23
		52.7	223.56	199.47	0.89	16.95	281.39	126.10	6.93
		55.8	223.82	199.57	0.89	16.85	281.32	125.49	7.67
		58.9	224.02	199.66	0.89	16.77	281.24	124.93	8.43
		62.0	224.21	199.74	0.89	16.69	281.17	124.43	9.23
		65.1	223.31	199.52	0.89	16.62	280.03	123.95	10.06
		68.2	223.47	199.58	0.89	16.56	279.98	123.54	10.92
		71.3	224.52	198.96	0.89	16.51	280.84	123.19	11.81
		74.4	224.65	199.02	0.89	16.46	280.80	122.85	12.73
GSJ240	120	40.3	214.43	195.47	0.91	18.51	277.57	134.33	4.26
		43.4	214.87	195.65	0.91	18.34	277.45	133.30	4.86
		46.5	215.23	195.80	0.91	18.20	277.33	132.41	5.49
		49.6	215.56	195.94	0.91	18.08	277.23	131.64	6.15
		52.7	215.83	196.06	0.91	17.97	277.13	130.95	6.85
		55.8	216.08	196.16	0.91	17.87	277.06	130.34	7.57
		58.9	216.30	196.25	0.91	17.79	276.98	129.79	8.33
		62.0	216.49	196.33	0.91	17.71	276.91	129.30	9.12
		65.1	216.66	196.40	0.91	17.64	276.84	128.86	9.94
		68.2	216.82	196.47	0.91	17.58	276.79	128.45	10.78
		71.3	216.97	196.53	0.91	17.52	276.74	128.08	11.66
		74.4	217.10	196.59	0.91	17.47	276.69	127.75	12.57

Table 7. Gross cooling capacities — 12.5 to 25 tons (continued)

Model	EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp Pwr kW	Reject Mbtuh	LWT	Feet Head
GSJ300	45	50.4	346.18	264.41	0.76	10.58	382.27	60.04	7.97
		54.3	346.40	264.50	0.76	10.52	382.31	59.51	8.53
		58.1	346.62	264.60	0.76	10.47	382.34	58.97	9.09
		62.0	346.85	264.69	0.76	10.41	382.38	58.44	9.65
		65.9	347.07	264.78	0.76	10.36	382.42	57.90	10.21
		69.8	347.29	264.87	0.76	10.30	382.45	57.36	10.77
		73.6	347.52	264.97	0.76	10.25	382.49	56.83	11.34
		77.5	347.74	265.06	0.76	10.19	382.52	56.29	11.90
		81.4	347.96	265.15	0.76	10.14	382.56	55.76	12.46
		85.2	348.19	265.25	0.76	10.08	382.60	55.22	13.02
		89.1	348.41	265.34	0.76	10.03	382.63	54.69	13.58
		93.0	348.63	265.43	0.76	9.97	382.67	54.15	14.14
GSJ300	55	50.4	335.81	260.11	0.77	11.85	376.25	69.84	7.67
		54.3	336.19	260.26	0.77	11.73	376.22	68.78	8.75
		58.1	336.52	260.40	0.77	11.63	376.21	67.86	9.89
		62.0	336.79	260.51	0.77	11.54	376.17	67.05	11.09
		65.9	337.15	260.66	0.77	11.43	376.15	66.07	12.20
		69.8	337.47	260.79	0.77	11.33	376.13	65.14	13.33
		73.6	337.80	260.93	0.77	11.23	376.10	64.21	14.47
		77.5	338.13	261.06	0.77	11.12	376.08	63.29	15.61
		81.4	338.46	261.20	0.77	11.02	376.05	62.36	16.75
		85.2	338.78	261.33	0.77	10.92	376.03	61.43	17.88
		89.1	339.11	261.47	0.77	10.81	376.00	60.51	19.02
		93.0	339.44	261.60	0.77	10.71	375.98	59.58	20.16
GSJ300	65	50.4	325.08	255.69	0.79	13.28	370.38	79.64	7.41
		54.3	325.44	255.84	0.79	13.15	370.30	78.59	8.44
		58.1	325.75	255.96	0.79	13.04	370.23	77.68	9.54
		62.0	326.01	256.07	0.79	12.94	370.17	76.89	10.69
		65.9	326.24	256.16	0.79	12.86	370.11	76.19	11.90
		69.8	326.44	256.25	0.78	12.78	370.06	75.56	13.17
		73.6	326.78	256.38	0.78	12.66	369.98	74.59	14.23
		77.5	327.05	256.49	0.78	12.56	369.91	73.78	15.38
		81.4	327.32	256.60	0.78	12.47	369.85	72.97	16.54
		85.2	327.59	256.71	0.78	12.37	369.78	72.16	17.69
		89.1	327.86	256.82	0.78	12.27	369.72	71.35	18.84
		93.0	328.13	256.93	0.78	12.17	369.65	70.53	20.00

Gross Cooling Capacities

Table 7. Gross cooling capacities — 12.5 to 25 tons (continued)

Model	EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp Pwr kW	Reject Mbtuh	LWT	Feet Head
GSJ300	75	50.4	313.21	250.85	0.80	14.86	363.91	89.41	7.16
		54.3	313.59	251.00	0.80	14.72	363.81	88.37	8.17
		58.1	313.90	251.13	0.80	14.60	363.72	87.48	9.23
		62.0	314.18	251.24	0.80	14.50	363.64	86.70	10.34
		65.9	314.40	251.33	0.80	14.41	363.55	86.01	11.51
		69.8	314.61	251.41	0.80	14.32	363.48	85.40	12.73
		73.6	314.79	251.49	0.80	14.25	363.42	84.85	14.01
		77.5	314.96	251.56	0.80	14.19	363.37	84.35	15.34
		81.4	315.10	251.61	0.80	14.13	363.32	83.91	16.71
		85.2	315.46	251.76	0.80	13.99	363.21	82.89	17.66
		89.1	315.69	251.85	0.80	13.91	363.13	82.21	18.85
		93.0	315.92	251.94	0.80	13.82	363.06	81.53	20.05
GSJ300	85	50.4	297.03	261.41	0.88	16.61	353.71	99.03	6.94
		54.3	297.40	261.56	0.88	16.46	353.58	98.02	7.92
		58.1	297.72	261.69	0.88	16.34	353.46	97.15	8.94
		62.0	298.00	261.80	0.88	16.22	353.35	96.39	10.02
		65.9	298.24	261.90	0.88	16.13	353.26	95.72	11.15
		69.8	298.44	261.98	0.88	16.04	353.18	95.12	12.34
		73.6	298.64	262.06	0.88	15.97	353.11	94.58	13.57
		77.5	298.80	262.13	0.88	15.90	353.04	94.10	14.86
		81.4	298.95	262.19	0.88	15.83	352.98	93.67	16.19
		85.2	299.08	262.24	0.88	15.78	352.92	93.27	17.57
		89.1	299.19	262.29	0.88	15.73	352.86	92.91	19.00
		93.0	299.29	262.33	0.88	15.68	352.80	92.58	20.49
GSJ300	95	50.4	297.61	261.65	0.88	18.59	361.06	97.56	6.74
		54.3	297.77	261.71	0.88	18.44	360.68	97.08	7.69
		58.1	297.93	261.78	0.88	18.30	360.38	96.61	8.68
		62.0	298.00	261.80	0.88	18.18	360.04	96.39	9.73
		65.9	298.24	261.90	0.88	18.08	359.92	95.72	10.83
		69.8	298.44	261.98	0.88	17.99	359.82	95.12	11.97
		73.6	298.64	262.06	0.88	17.91	359.74	94.58	13.17
		77.5	298.80	262.13	0.88	17.83	359.65	94.10	14.42
		81.4	298.95	262.19	0.88	17.77	359.57	93.67	15.71
		85.2	299.08	262.24	0.88	17.71	359.50	93.27	17.05
		89.1	299.19	262.29	0.88	17.65	359.43	92.91	18.44
		93.0	299.29	262.33	0.88	17.60	359.36	92.58	19.88

Table 7. Gross cooling capacities — 12.5 to 25 tons (continued)

Model	EWT	GPM	Gross Mbtuh	Sen Mbtuh	SHR	Comp Pwr kW	Reject Mbtuh	LWT	Feet Head
GSJ300	105	50.4	268.21	249.81	0.93	20.79	339.13	118.47	6.56
		54.3	268.56	249.95	0.93	20.62	338.93	117.51	7.48
		58.1	268.90	250.08	0.93	20.48	338.79	116.67	8.45
		62.0	269.19	250.20	0.93	20.36	338.66	115.94	9.46
		65.9	269.28	248.90	0.92	20.26	338.39	115.29	10.53
		69.8	269.64	250.38	0.93	20.16	338.43	114.72	11.64
		73.6	269.82	250.45	0.93	20.08	338.32	114.20	12.81
		77.5	270.00	250.51	0.93	20.00	338.24	113.74	14.02
		81.4	270.16	250.58	0.93	19.93	338.16	113.32	15.28
		85.2	270.30	250.63	0.93	19.87	338.09	112.94	16.58
		89.1	270.43	250.68	0.93	19.81	338.03	112.60	17.93
		93.0	270.53	250.73	0.93	19.76	337.96	112.28	19.33
GSJ300	115	50.4	252.17	241.70	0.96	23.16	331.18	128.17	6.39
		54.3	252.54	241.86	0.96	23.00	331.00	127.22	7.29
		58.1	252.86	241.99	0.96	22.86	330.85	126.40	8.23
		62.0	253.12	242.10	0.96	22.74	330.70	125.69	9.22
		65.9	253.48	243.97	0.96	22.63	330.69	125.06	10.26
		69.8	253.69	244.06	0.96	22.53	330.58	124.50	11.34
		73.6	253.86	244.12	0.96	22.45	330.46	124.00	12.48
		77.5	254.04	244.19	0.96	22.37	330.38	123.54	13.66
		81.4	254.19	244.25	0.96	22.31	330.30	123.13	14.88
		85.2	254.33	244.31	0.96	22.24	330.23	122.76	16.15
		89.1	254.46	244.36	0.96	22.19	330.17	122.43	17.46
		93.0	254.57	244.40	0.96	22.13	330.09	122.11	18.82
GSJ300	120	50.4	243.81	238.19	0.98	24.39	327.02	133.01	6.32
		54.3	244.17	238.34	0.98	24.23	326.85	132.07	7.20
		58.1	244.49	238.47	0.98	24.10	326.71	131.26	8.13
		62.0	244.84	240.58	0.98	23.98	326.64	130.56	9.11
		65.9	245.08	240.68	0.98	23.87	326.53	129.94	10.13
		69.8	245.29	240.76	0.98	23.78	326.43	129.38	11.20
		73.6	245.48	240.83	0.98	23.70	326.34	128.89	12.32
		77.5	245.64	240.89	0.98	23.62	326.24	128.44	13.49
		81.4	245.79	240.95	0.98	23.56	326.17	128.04	14.69
		85.2	245.93	241.01	0.98	23.50	326.10	127.67	15.95
		89.1	246.06	241.06	0.98	23.44	326.03	127.33	17.24
		93.0	246.17	241.10	0.98	23.39	325.98	127.03	18.59

Heating Capacities

Table 8. Heating capacities – 12.5 to 25 tons

Model	EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp Pwr kW	LWT	Feet Head
GSJ150	25	25.2	99.25	74.12	7.37	18.80	5.23
		27.1	99.94	74.76	7.38	19.19	5.94
		29.1	100.55	75.32	7.40	19.53	6.70
		31.0	101.10	75.82	7.41	19.84	7.49
		32.9	101.58	76.27	7.42	20.11	8.33
		34.9	102.03	76.68	7.43	20.36	9.20
		36.8	102.43	77.05	7.44	20.58	10.10
		38.8	102.80	77.39	7.45	20.78	11.05
		40.7	103.14	77.70	7.46	20.97	12.02
		42.6	103.44	77.97	7.46	21.14	13.04
		44.6	103.72	78.24	7.47	21.29	14.09
		46.5	103.99	78.48	7.48	21.44	15.18
GSJ150	35	25.2	114.75	88.38	7.73	27.58	5.01
		27.1	115.62	89.18	7.75	28.05	5.70
		29.1	116.38	89.88	7.77	28.46	6.42
		31.0	117.06	90.51	7.78	28.82	7.18
		32.9	117.68	91.07	7.80	29.15	7.98
		34.9	118.23	91.58	7.81	29.44	8.81
		36.8	118.73	92.04	7.82	29.71	9.68
		38.8	119.19	92.46	7.83	29.95	10.58
		40.7	119.60	92.84	7.84	30.17	11.51
		42.6	119.98	93.19	7.85	30.37	12.48
		44.6	120.34	93.52	7.86	30.56	13.49
		46.5	120.67	93.82	7.87	30.73	14.53
GSJ150	45	25.2	137.08	108.21	8.46	36.51	3.94
		27.1	138.21	109.27	8.48	37.04	4.49
		29.1	139.15	110.16	8.50	37.48	5.08
		31.0	140.09	110.98	8.53	37.92	5.70
		33.0	140.89	111.71	8.55	38.29	6.35
		34.9	141.61	112.37	8.57	38.62	7.02
		36.8	142.26	112.97	8.58	38.92	7.73
		38.8	142.85	113.52	8.60	39.20	8.46
		40.7	143.40	113.98	8.62	39.44	9.22
		42.6	143.89	114.44	8.63	39.68	10.02
		44.6	144.35	114.86	8.64	39.89	10.84
		46.5	145.54	115.95	8.67	40.45	11.31
GSJ150	55	25.2	155.76	125.40	8.90	45.09	3.79
		27.1	157.10	126.64	8.93	45.70	4.33
		29.1	158.28	127.73	8.96	46.24	4.89
		31.0	159.34	128.70	8.98	46.72	5.49
		33.0	160.27	129.56	9.00	47.15	6.11
		34.9	161.13	130.35	9.02	47.54	6.76
		36.8	161.90	131.06	9.04	47.89	7.44
		38.8	162.60	131.70	9.05	48.21	8.14
		40.7	163.24	132.29	9.07	48.51	8.87
		42.6	163.82	132.84	9.08	48.77	9.64
		44.6	164.37	133.34	9.09	49.02	10.43
		46.5	164.86	133.79	9.11	49.25	11.24

Table 8. Heating capacities – 12.5 to 25 tons (continued)

Model	EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp Pwr kW	LWT	Feet Head
GSJ150	65	25.2	174.55	142.74	9.33	53.62	3.66
		27.1	176.04	144.11	9.36	54.32	4.18
		29.1	177.37	145.33	9.39	54.94	4.72
		31.0	178.54	146.42	9.41	55.49	5.30
		33.0	179.58	147.38	9.44	55.99	5.90
		34.9	180.52	148.25	9.46	56.43	6.53
		36.8	181.36	149.03	9.48	56.84	7.18
		38.8	182.13	149.74	9.49	57.21	7.85
		40.7	182.83	150.38	9.51	57.54	8.56
		42.6	183.46	151.01	9.51	57.85	9.30
		44.6	184.04	151.60	9.51	58.14	10.06
		46.5	183.21	150.77	9.51	57.73	10.84
GSJ150	75	25.2	192.36	159.91	9.51	62.17	3.54
		27.1	193.67	161.22	9.51	62.88	4.04
		29.1	194.97	162.53	9.51	63.59	4.57
		31.0	196.28	163.84	9.51	64.31	5.12
		33.0	197.27	163.75	9.83	64.87	5.70
		34.9	198.14	164.55	9.84	65.38	6.31
		36.8	198.91	165.26	9.86	65.84	6.94
		38.8	199.60	165.91	9.87	66.26	7.59
		40.7	200.21	166.47	9.89	66.64	8.28
		42.6	200.76	166.98	9.90	67.00	8.99
		44.6	201.25	167.44	9.91	67.32	9.72
		46.5	201.69	167.85	9.92	67.62	10.48
GSJ150	85	25.2	206.44	172.24	10.02	70.94	3.44
		27.1	208.00	173.66	10.06	71.82	3.92
		29.1	209.33	174.88	10.10	72.60	4.43
		31.0	210.40	175.85	10.12	73.30	4.97
		33.0	211.26	176.64	10.15	73.94	5.53
		34.9	211.95	177.27	10.16	74.51	6.12
		36.8	212.46	177.75	10.18	75.03	6.73
		38.8	212.84	178.09	10.18	75.50	7.36
		40.7	213.34	178.55	10.20	75.93	8.02
		42.6	213.97	179.12	10.21	76.31	8.71
		44.6	214.53	179.64	10.23	76.66	9.42
		46.5	215.04	180.10	10.24	76.98	10.15
GSJ180	25	30.2	124.35	95.77	8.38	19.12	7.17
		32.5	125.17	96.53	8.39	19.49	8.16
		34.9	125.89	97.20	8.41	19.82	9.20
		37.2	126.53	97.80	8.42	20.11	10.29
		39.5	127.10	98.34	8.43	20.37	11.44
		41.8	127.62	98.83	8.44	20.60	12.64
		44.2	128.10	99.28	8.45	20.82	13.89
		46.5	128.53	99.68	8.46	21.01	15.19
		48.8	128.92	100.04	8.46	21.18	16.54
		51.2	129.28	100.38	8.47	21.34	17.94
		53.5	129.61	100.68	8.48	21.49	19.38
		55.8	129.91	100.97	8.48	21.63	20.87

Heating Capacities

Table 8. Heating capacities – 12.5 to 25 tons (continued)

Model	EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp Pwr kW	LWT	Feet Head
GSJ180	35	30.2	143.54	113.71	8.74	27.90	6.87
		32.5	144.57	114.67	8.76	28.35	7.82
		34.9	145.48	115.52	8.78	28.74	8.81
		37.2	146.30	116.29	8.80	29.09	9.86
		39.5	147.02	116.96	8.81	29.41	10.96
		41.8	147.68	117.58	8.82	29.69	12.11
		44.2	148.28	118.14	8.83	29.94	13.30
		46.5	148.83	118.65	8.84	30.17	14.55
		48.8	149.31	119.10	8.85	30.38	15.84
		51.2	149.77	119.53	8.86	30.57	17.17
		53.5	150.19	119.93	8.87	30.75	18.56
		55.8	150.58	120.29	8.88	30.91	19.98
GSJ180	45	30.2	169.26	137.06	9.44	36.87	5.41
		32.5	170.56	138.28	9.46	37.37	6.17
		34.9	171.73	139.37	9.48	37.82	6.98
		37.2	172.76	140.34	9.50	38.22	7.83
		39.5	173.69	141.21	9.52	38.58	8.73
		41.9	174.52	141.98	9.54	38.90	9.66
		44.2	175.76	143.14	9.56	39.37	10.44
		46.5	176.81	144.12	9.58	39.78	11.29
		48.8	177.86	145.10	9.60	40.18	12.14
		51.2	178.91	146.08	9.62	40.59	12.99
		53.5	179.95	147.07	9.64	40.99	13.84
		55.8	181.00	148.04	9.66	41.39	14.69
GSJ180	55	30.2	192.07	159.74	9.48	45.45	5.21
		32.5	193.65	161.07	9.55	46.05	5.94
		34.9	195.04	162.47	9.55	46.57	6.72
		37.2	196.28	163.64	9.57	47.04	7.54
		39.5	197.39	164.74	9.57	47.45	8.40
		41.9	198.39	165.73	9.57	47.83	9.30
		44.2	199.30	166.72	9.55	48.17	10.23
		46.5	200.12	167.49	9.56	48.48	11.20
		48.8	200.87	168.20	9.58	48.76	12.22
		51.2	224.41	169.73	9.59	49.35	12.91
		53.5	224.61	170.79	9.60	49.76	13.79
		55.8	224.81	171.84	9.61	50.16	14.66
GSJ180	65	30.2	215.31	182.90	9.50	53.99	5.03
		32.5	217.12	184.67	9.51	54.67	5.74
		34.9	218.71	186.23	9.52	55.27	6.49
		37.2	220.12	187.61	9.53	55.81	7.28
		39.5	221.38	188.84	9.54	56.29	8.10
		41.9	222.51	189.94	9.55	56.72	8.97
		44.2	223.53	190.92	9.56	57.11	9.87
		46.5	224.46	191.82	9.57	57.47	10.81
		48.8	225.31	192.63	9.58	57.80	11.78
		51.2	226.07	193.36	9.59	58.10	12.79
		53.5	226.80	194.05	9.60	58.37	13.84
		55.8	227.44	194.67	9.61	58.62	14.91

Table 8. Heating capacities – 12.5 to 25 tons (continued)

Model	EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp Pwr kW	LWT	Feet Head
GSJ180	75	30.2	237.99	204.31	9.87	62.53	4.86
		32.5	239.91	206.14	9.90	63.31	5.55
		34.9	241.59	207.72	9.93	63.99	6.27
		37.2	243.06	209.11	9.95	64.61	7.04
		39.5	244.36	210.34	9.97	65.15	7.84
		41.9	245.51	211.43	9.99	65.65	8.67
		44.2	246.55	212.40	10.01	66.09	9.54
		46.5	247.52	213.32	10.02	66.50	10.45
		48.8	248.41	214.16	10.04	66.87	11.39
		51.2	249.24	214.94	10.05	67.21	12.37
		53.5	249.99	215.66	10.06	67.52	13.38
		55.8	250.70	216.32	10.07	67.81	14.41
GSJ180	85	30.2	259.51	224.31	10.32	71.12	4.72
		32.5	261.79	226.46	10.35	71.98	5.38
		34.9	263.76	228.34	10.38	72.74	6.08
		37.2	265.51	229.98	10.41	73.41	6.82
		39.5	267.00	231.40	10.44	74.02	7.59
		41.9	268.34	232.66	10.46	74.57	8.40
		44.2	269.52	233.77	10.48	75.07	9.25
		46.5	270.58	234.77	10.50	75.52	10.12
		48.8	271.52	235.65	10.51	75.94	11.04
		51.2	272.37	236.45	10.53	76.32	11.98
		53.5	273.18	237.21	10.54	76.66	12.96
		55.8	273.91	237.89	10.55	76.98	13.96
GSJ240	25	40.3	169.93	128.42	12.16	18.75	7.13
		43.4	171.05	129.47	12.19	19.14	8.11
		46.5	172.04	130.40	12.20	19.49	9.15
		49.6	172.92	131.22	12.22	19.80	10.23
		52.7	173.72	131.97	12.24	20.08	11.37
		55.8	174.44	132.65	12.25	20.32	12.56
		58.9	175.11	133.27	12.26	20.55	13.80
		62.0	175.71	133.83	12.27	20.75	15.09
		65.1	176.25	134.34	12.28	20.94	16.43
		68.2	176.75	134.81	12.29	21.11	17.82
		71.3	177.21	135.23	12.30	21.26	19.25
		74.4	177.63	135.64	12.31	21.41	20.73
GSJ240	35	40.3	194.92	151.83	12.63	27.51	6.84
		43.4	196.32	153.15	12.65	27.98	7.78
		46.5	197.57	154.31	12.68	28.39	8.77
		49.6	198.66	155.34	12.70	28.76	9.81
		52.7	199.66	156.28	12.72	29.09	10.89
		55.8	200.56	157.11	12.73	29.39	12.03
		58.9	201.36	157.87	12.75	29.65	13.22
		62.0	202.10	158.56	12.76	29.90	14.45
		65.1	202.78	159.20	12.77	30.12	15.73
		68.2	203.40	159.78	12.78	30.32	17.06
		71.3	203.96	160.31	12.79	30.51	18.43
		74.4	204.49	160.81	12.80	30.68	19.85

Heating Capacities

Table 8. Heating capacities – 12.5 to 25 tons (continued)

Model	EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp Pwr kW	LWT	Feet Head
GSJ240	45	40.3	230.69	183.82	13.74	36.41	5.37
		43.4	232.50	185.52	13.77	36.95	6.13
		46.5	234.12	187.04	13.80	37.41	6.93
		49.6	235.55	188.38	13.82	37.83	7.77
		52.7	236.84	189.59	13.85	38.21	8.66
		55.8	238.00	190.69	13.87	38.54	9.58
		58.9	239.72	192.30	13.90	39.05	10.35
		62.0	241.18	193.66	13.92	39.47	11.20
		65.1	242.63	195.03	13.95	39.90	12.04
		68.2	244.09	196.40	13.98	40.32	12.88
		71.3	245.55	197.77	14.00	40.74	13.72
		74.4	247.01	199.14	14.03	41.17	14.56
GSJ240	55	40.3	260.73	212.04	14.27	44.95	5.17
		43.4	262.90	214.08	14.31	45.57	5.90
		46.5	264.81	215.88	14.34	46.12	6.67
		49.6	266.50	217.46	14.37	46.61	7.48
		52.7	268.02	218.89	14.40	47.04	8.33
		55.8	269.38	220.17	14.42	47.44	9.22
		58.9	270.61	221.34	14.44	47.79	10.15
		62.0	271.74	222.40	14.46	48.12	11.11
		65.1	272.76	223.36	14.48	48.41	12.11
		68.2	274.92	225.39	14.52	49.03	12.80
		71.3	276.40	226.79	14.54	49.46	13.67
		74.4	277.89	228.19	14.57	49.89	14.54
GSJ240	65	40.3	290.83	240.37	14.79	53.44	4.99
		43.4	293.24	242.64	14.83	54.16	5.69
		46.5	295.35	244.63	14.86	54.79	6.44
		49.6	297.21	246.39	14.90	55.35	7.22
		52.7	298.86	247.94	14.92	55.85	8.04
		55.8	300.34	249.34	14.95	56.30	8.89
		58.9	301.69	250.62	14.97	56.72	9.79
		62.0	302.90	251.76	14.99	57.09	10.72
		65.1	304.01	252.80	15.01	57.43	11.68
		68.2	305.01	253.75	15.02	57.74	12.68
		71.3	305.92	254.61	15.04	58.03	13.72
		74.4	306.77	255.41	15.05	58.30	14.79
GSJ240	75	40.3	319.07	267.00	15.26	61.97	4.83
		43.4	321.44	269.24	15.30	62.79	5.51
		46.5	323.48	271.16	15.33	63.51	6.23
		49.6	325.26	272.85	15.36	64.15	6.98
		52.7	326.82	274.31	15.39	64.72	7.77
		55.8	328.18	275.60	15.41	65.24	8.60
		58.9	329.38	276.73	15.43	65.71	9.46
		62.0	330.45	277.74	15.45	66.14	10.36
		65.1	331.40	278.64	15.46	66.53	11.29
		68.2	332.42	279.59	15.48	66.88	12.26
		71.3	333.34	280.46	15.50	67.21	13.26
		74.4	334.18	281.24	15.52	67.51	14.29

Table 8. Heating capacities – 12.5 to 25 tons (continued)

Model	EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp Pwr kW	LWT	Feet Head
GSJ240	85	40.3	343.23	289.70	15.69	70.66	4.68
		43.4	345.16	291.50	15.73	71.59	5.34
		46.5	346.72	292.96	15.76	72.40	6.04
		49.6	347.79	293.95	15.78	73.14	6.77
		52.7	348.42	294.56	15.79	73.80	7.53
		55.8	348.81	294.94	15.79	74.40	8.33
		58.9	349.12	295.23	15.79	74.94	9.17
		62.0	349.14	295.28	15.79	75.44	10.04
		65.1	348.92	295.09	15.78	75.90	10.94
		68.2	348.44	294.67	15.76	76.32	11.88
		71.3	347.93	294.22	15.74	76.70	12.85
		74.4	347.44	293.78	15.72	77.06	13.85
GSJ300	25	50.4	184.18	138.32	13.44	19.52	10.53
		54.3	185.29	139.35	13.46	19.87	11.98
		58.1	186.27	140.26	13.48	20.18	13.50
		62.0	187.13	141.07	13.50	20.45	15.11
		65.9	187.90	141.79	13.51	20.69	16.79
		69.8	188.60	142.44	13.53	20.91	18.54
		73.6	189.29	143.08	13.54	21.11	20.37
		77.5	189.85	143.61	13.55	21.29	22.27
		81.4	190.38	144.10	13.56	21.45	24.25
		85.2	190.87	144.56	13.57	21.60	26.29
		89.1	191.31	144.97	13.58	21.74	28.41
		93.0	191.73	145.36	13.59	21.87	30.61
GSJ300	35	50.4	212.21	164.51	13.98	28.41	10.09
		54.3	213.60	165.81	14.01	28.82	11.48
		58.1	214.82	166.94	14.03	29.19	12.94
		62.0	215.91	167.96	14.05	29.52	14.47
		65.9	216.88	168.87	14.07	29.81	16.08
		69.8	217.75	169.69	14.09	30.07	17.76
		73.6	218.55	170.44	14.10	30.31	19.51
		77.5	219.28	171.12	14.12	30.53	21.33
		81.4	219.93	171.72	14.13	30.72	23.21
		85.2	220.54	172.29	14.14	30.90	25.17
		89.1	221.10	172.81	14.15	31.07	27.20
		93.0	221.62	173.30	14.16	31.22	29.29
GSJ300	45	50.4	252.70	200.56	15.28	37.41	7.97
		54.3	255.74	203.42	15.34	38.21	8.53
		58.1	256.11	203.76	15.34	38.31	9.09
		62.0	257.53	205.10	15.37	38.68	9.65
		65.9	258.81	206.30	15.39	39.01	10.21
		69.8	259.97	207.38	15.41	39.31	10.77
		73.6	260.99	208.35	15.43	39.59	11.34
		77.5	261.94	209.24	15.45	39.83	11.90
		81.4	262.81	210.06	15.46	40.06	12.46
		85.2	263.59	210.79	15.47	40.27	13.02
		89.1	264.32	211.48	15.49	40.46	13.58
		93.0	265.00	212.11	15.50	40.63	14.14

Heating Capacities

Table 8. Heating capacities – 12.5 to 25 tons (continued)

Model	EWT	GPM	Gross Mbtuh	Absorb Mbtuh	Comp Pwr kW	LWT	Feet Head
GSJ300	55	50.4	287.01	232.81	15.89	46.07	7.67
		54.3	289.18	234.85	15.92	46.63	8.75
		58.1	291.10	236.66	15.96	47.12	9.89
		62.0	292.79	238.25	15.99	47.56	11.09
		65.9	294.30	239.68	16.01	47.95	12.20
		69.8	295.65	240.95	16.03	48.31	13.33
		73.6	296.87	242.10	16.05	48.62	14.47
		77.5	297.99	243.15	16.07	48.91	15.61
		81.4	298.99	244.09	16.09	49.18	16.75
		85.2	299.92	244.97	16.10	49.42	17.88
		89.1	300.78	245.78	16.12	49.64	19.02
		93.0	301.55	246.51	16.13	49.85	20.16
GSJ300	65	50.4	321.41	265.23	16.47	54.69	7.41
		54.3	323.80	267.49	16.51	55.34	8.44
		58.1	325.89	269.45	16.54	55.91	9.54
		62.0	327.72	271.19	16.57	56.41	10.69
		65.9	329.36	272.73	16.60	56.87	11.90
		69.8	330.78	274.09	16.62	57.28	13.17
		73.6	332.09	275.32	16.64	57.65	14.23
		77.5	333.28	276.44	16.66	57.98	15.38
		81.4	334.34	277.44	16.68	58.29	16.54
		85.2	335.29	278.35	16.69	58.57	17.69
		89.1	336.17	279.17	16.70	58.83	18.84
		93.0	336.98	279.94	16.72	59.07	20.00
GSJ300	75	50.4	353.35	295.32	17.01	63.36	7.16
		54.3	355.84	297.65	17.06	64.10	8.17
		58.1	358.00	299.67	17.10	64.74	9.23
		62.0	359.90	301.44	17.13	65.32	10.34
		65.9	361.64	303.06	17.17	65.83	11.51
		69.8	363.20	304.52	17.20	66.30	12.73
		73.6	364.63	305.85	17.23	66.71	14.01
		77.5	365.89	307.03	17.25	67.09	15.34
		81.4	367.03	308.08	17.27	67.44	16.71
		85.2	368.04	309.03	17.29	67.76	17.66
		89.1	368.93	309.86	17.31	68.05	18.85
		93.0	369.74	310.62	17.33	68.32	20.05
GSJ300	85	50.4	383.86	323.65	17.64	72.08	6.94
		54.3	386.38	325.97	17.70	72.90	7.92
		58.1	388.49	327.91	17.75	73.63	8.94
		62.0	390.36	329.62	17.80	74.28	10.02
		65.9	391.89	331.02	17.84	74.86	11.15
		69.8	393.16	332.18	17.87	75.39	12.34
		73.6	394.22	333.14	17.90	75.86	13.57
		77.5	395.07	333.92	17.92	76.29	14.86
		81.4	395.77	334.55	17.94	76.69	16.19
		85.2	396.36	335.08	17.96	77.05	17.57
		89.1	396.99	335.66	17.98	77.38	19.00
		93.0	397.49	336.11	17.99	77.69	20.49

Note: Rated in accordance with ANSI/AHRI/ASHRAE/ISO13256-1. Certified conditions are 80.6F DB/66.2F WB EAT in cooling and 68F DB/59F WB EAT in heating. For conditions other than what is tabulated, multipliers must be used to correct performance. See performance correction tables for fan correction factors for CFM other than rated and the cooling correction factors for variations in entering air temperature. GPM 38.8; Minimum CFM 4000; Rated CFM 4750; Maximum CFM 6000.

Table 9. Antifreeze

Antifreeze	% mixture by volume	Cooling Capacity	Heating Capacity	WPD
Ethylene Glycol	0	1.000	1.000	1.000
	5	0.998	0.996	1.008
	10	0.996	0.993	1.024
	15	0.993	0.989	1.044
	20	0.991	0.985	1.068
	25	0.989	0.981	1.095
	30	0.987	0.977	1.124
	35	0.985	0.973	1.155
	40	0.983	0.969	1.188
	45	0.981	0.965	1.223
	50	0.979	0.961	1.263
Propylene Glycol	0	1.000	1.000	1.000
	5	0.997	0.993	1.018
	10	0.993	0.986	1.040
	15	0.990	0.980	1.067
	20	0.987	0.973	1.098
	25	0.984	0.967	1.133
	30	0.980	0.960	1.174
	35	0.977	0.954	1.220
	40	0.974	0.948	1.273
	45	0.971	0.941	1.334
	50	0.968	0.935	1.405
Methanol	0	1.000	1.000	1.000
	5	0.999	0.998	1.009
	10	0.998	0.995	1.023
	15	0.997	0.992	1.039
	20	0.997	0.990	1.057
	25	0.996	0.987	1.074
	30	0.995	0.985	1.091
	35	0.994	0.982	1.106
	40	0.993	0.979	1.122
	45	0.992	0.977	1.140
	50	0.992	0.974	1.160

Evaporator Fan Performance

Fan Curve Limits:

- GSJ150–300 Std Motor, Max 5.8 hp or 1850 rpm
- GSJ300 High static, Max 8.4 hp or 1940 rpm
- Maximum CFM — 480 cfm/ton
- Maximum ESP = 2.0 in-H_2O @ 400 cfm/ton

The fan curve graphs include standard filter and a wet indoor coil. Available external static pressure is reduced with options based on the accessory table component pressure drop. To determine available static pressure at rpm/cfm with other options/accessories, select intersection point of the RPM vs CFM and then reduce available static pressure shown in graph by the sum of additional option static pressure drop listed in the fan performance accessory table section. For more detailed and precise RPM, BHP, and CFM operating points, see evaporator tables below.

12.5 to 25 Ton Units — Downflow

Figure 1. Fan curves — 12.5 to 25 tons, GSJ downflow

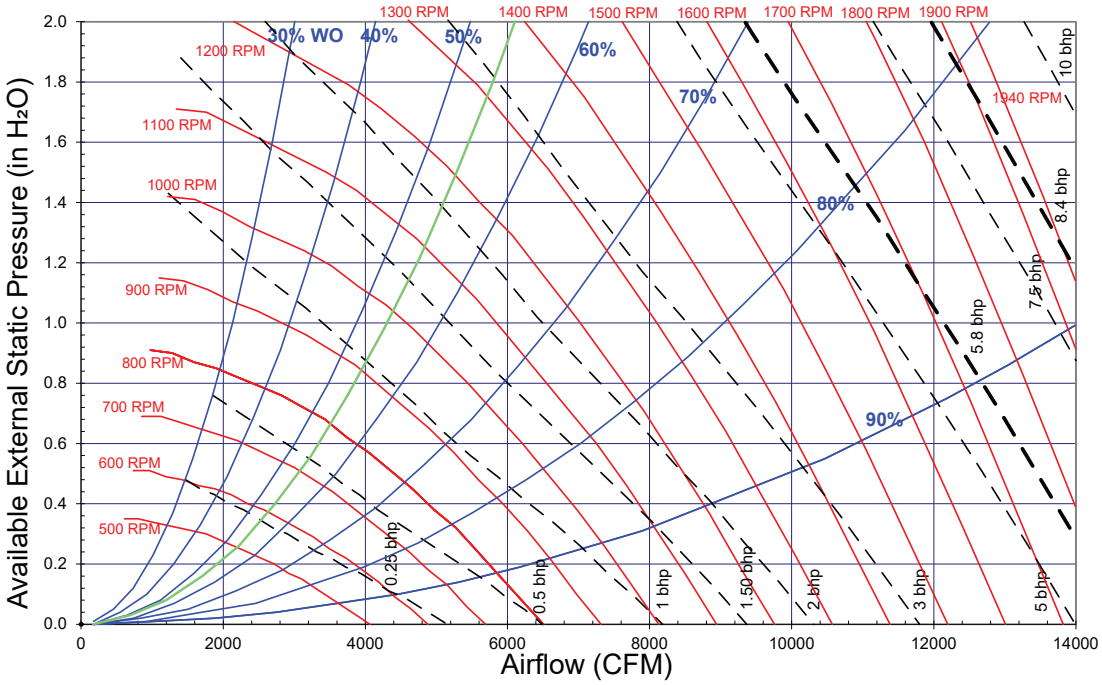


Table 10. Evaporator fan performance – 12.5 ton, model GSJ, downflow

Available External Static Pressure (Inches of Water Gauge)																				
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3750	541	0.19	604	0.28	661	0.37	713	0.47	761	0.58	807	0.69	850	0.80	891	0.91	930	1.03	968	1.16
4000	568	0.21	629	0.31	684	0.41	734	0.51	781	0.62	825	0.74	868	0.85	908	0.97	947	1.10	983	1.22
4500	625	0.28	679	0.38	731	0.49	779	0.61	823	0.73	866	0.85	905	0.97	944	1.10	982	1.23	1018	1.37
5000	683	0.35	732	0.47	780	0.58	826	0.71	868	0.84	908	0.97	947	1.11	983	1.24	1018	1.38	1053	1.53
5500	742	0.45	786	0.57	831	0.69	874	0.83	915	0.97	953	1.11	989	1.26	1025	1.40	1059	1.55	1092	1.70
6000	801	0.55	842	0.68	883	0.82	924	0.96	962	1.11	999	1.26	1035	1.42	1068	1.58	1102	1.74	1133	1.90
Available External Static Pressure (Inches of Water Gauge)																				
	1.10"		1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3750	1005	1.29	1040	1.43	1074	1.57	1106	1.71	1137	1.86	1168	2	1198	2.15	1228	2.31	1257	2.46	1285	2.62
4000	1019	1.36	1054	1.5	1088	1.64	1120	1.79	1152	1.94	1182	2.09	1211	2.24	1240	2.4	1269	2.56	1297	2.72
4500	1052	1.51	1085	1.65	1117	1.79	1149	1.95	1180	2.1	1211	2.26	1240	2.43	1268	2.59	1296	2.76	1323	2.93
5000	1087	1.67	1120	1.82	1151	1.98	1182	2.13	1211	2.29	1240	2.45	1269	2.62	1297	2.79	1325	2.97	1352	3.15
5500	1123	1.86	1155	2.02	1186	2.18	1216	2.34	1246	2.51	1274	2.68	1302	2.85	1328	3.02	1354	3.2	1381	3.38
6000	1164	2.06	1194	2.23	1223	2.4	1252	2.57	1281	2.74	1309	2.92	1336	3.1	1363	3.28	1389	3.47	1414	3.66

Notes:

1. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. To determine static pressure drop due to other options/accessories, refer to the applicable table in the fan performance section.
4. Direct drive fan motor heat is negligible.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 11. Evaporator fan performance – 15 ton, model GSJ, downflow

Available External Static Pressure (Inches of Water Gauge)																				
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4500	625	0.28	679	0.38	731	0.49	779	0.61	823	0.73	866	0.85	905	0.97	944	1.10	982	1.23	1018	1.37
4800	660	0.32	711	0.43	760	0.54	807	0.67	850	0.79	891	0.92	930	1.05	967	1.18	1003	1.32	1039	1.46
5400	730	0.43	775	0.54	821	0.67	864	0.80	905	0.94	944	1.08	981	1.22	1017	1.37	1051	1.52	1084	1.67
6000	801	0.55	842	0.68	883	0.82	924	0.96	962	1.11	999	1.26	1035	1.42	1068	1.58	1102	1.74	1133	1.90
6600	873	0.71	911	0.85	948	1.00	985	1.15	1022	1.31	1057	1.47	1091	1.63	1123	1.81	1155	1.98	1185	2.16
7200	945	0.89	981	1.04	1014	1.20	1049	1.36	1083	1.53	1116	1.70	1148	1.88	1180	2.06	1210	2.25	1239	2.43
Available External Static Pressure (Inches of Water Gauge)																				
	1.10"		1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4500	1052	1.51	1085	1.65	1117	1.79	1149	1.95	1180	2.1	1211	2.26	1240	2.43	1268	2.59	1296	2.76	1323	2.93
4800	1073	1.61	1106	1.75	1137	1.90	1168	2.05	1198	2.21	1228	2.37	1257	2.54	1286	2.71	1313	2.88	1340	3.06
5400	1115	1.82	1148	1.98	1179	2.14	1209	2.3	1239	2.46	1267	2.63	1295	2.80	1322	2.97	1348	3.15	1375	3.33
6000	1164	2.06	1194	2.23	1223	2.40	1252	2.57	1281	2.74	1309	2.92	1336	3.10	1363	3.28	1389	3.47	1414	3.66
6600	1215	2.33	1244	2.51	1272	2.69	1300	2.87	1326	3.05	1352	3.24	1379	3.43	1405	3.62	1431	3.82	1456	4.02
7200	1268	2.63	1295	2.82	1323	3.01	1350	3.2	1376	3.4	1401	3.6	1426	3.79	1450	4.00	1474	4.2	1498	4.41

Notes:

1. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. To determine static pressure drop due to other options/accessories, refer to the applicable table in the fan performance section.
4. Direct drive fan motor heat is negligible.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Evaporator Fan Performance

Table 12. Evaporator fan performance – 20 ton, model GSJ, downflow

Available External Static Pressure (Inches of Water Gauge)																				
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	785	0.51	827	0.64	868	0.77	907	0.91	945	1.05	981	1.20	1016	1.35	1049	1.50	1081	1.65	1112	1.80
6400	831	0.61	872	0.74	911	0.88	948	1.02	984	1.17	1019	1.33	1053	1.48	1085	1.64	1116	1.80	1146	1.96
7200	925	0.83	962	0.97	997	1.13	1031	1.28	1064	1.45	1096	1.61	1128	1.79	1158	1.96	1188	2.14	1217	2.32
8000	1020	1.09	1054	1.26	1086	1.42	1117	1.60	1148	1.77	1177	1.95	1206	2.14	1235	2.33	1263	2.52	1290	2.72
8800	1115	1.42	1146	1.60	1176	1.78	1205	1.96	1233	2.15	1261	2.35	1288	2.55	1314	2.75	1341	2.96	1367	3.17
9600	1211	1.81	1240	2.00	1268	2.20	1295	2.39	1321	2.60	1347	2.81	1372	3.02	1397	3.24	1421	3.46	1445	3.68
Available External Static Pressure (Inches of Water Gauge)																				
	1.10"		1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	1141	1.95	1170	2.1	1198	2.25	1227	2.41	1255	2.57	1282	2.74	1308	2.9	1333	3.07	1358	3.24	1383	3.41
6400	1175	2.12	1203	2.28	1231	2.44	1257	2.6	1284	2.77	1311	2.94	1337	3.11	1362	3.29	1387	3.46	1411	3.64
7200	1245	2.49	1272	2.67	1299	2.85	1324	3.03	1349	3.21	1374	3.39	1397	3.57	1421	3.76	1445	3.95	1469	4.14
8000	1317	2.91	1343	3.11	1369	3.31	1394	3.5	1418	3.7	1442	3.9	1465	4.1	1487	4.31	1510	4.5	1532	4.7
8800	1392	3.38	1417	3.59	1442	3.81	1466	4.02	1489	4.24	1512	4.46	1534	4.68	1557	4.89	1578	5.11	1599	5.33
9600	1469	3.9	1493	4.13	1517	4.37	1539	4.6	1562	4.83	1584	5.07	1606	5.31	1627	5.54	1648	5.78	-	-

Notes:

1. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. To determine static pressure drop due to other options/accessories, refer to the applicable table in the fan performance section.
4. Direct drive fan motor heat is negligible.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 13. Evaporator fan performance – 25 ton, model GSJ, downflow

Available External Static Pressure (Inches of Water Gauge)																				
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	3-hp Standard Motor																			
7500	961	0.92	996	1.07	1030	1.23	1063	1.40	1095	1.56	1126	1.74	1157	1.91	1187	2.09	1216	2.28	1244	2.46
8000	1020	1.09	1054	1.26	1086	1.42	1117	1.60	1148	1.77	1177	1.95	1206	2.14	1235	2.33	1263	2.52	1290	2.72
9000	1139	1.51	1170	1.69	1199	1.88	1227	2.06	1255	2.26	1282	2.46	1309	2.66	1335	2.87	1360	3.07	1386	3.29
10000	1259	2.02	1287	2.23	1314	2.43	1340	2.64	1365	2.84	1390	3.06	1415	3.28	1439	3.51	1463	3.73	1486	3.96
11000	1379	2.65	1405	2.87	1430	3.09	1454	3.32	1478	3.54	1501	3.77	1523	4.01	1546	4.25	1568	4.50	1590	4.75
12000	1500	3.39	1524	3.63	1547	3.87	1570	4.12	1592	4.37	1613	4.61	1634	4.86	1655	5.12	1676	5.39	1696	5.65
Available External Static Pressure (Inches of Water Gauge)																				
	1.10"		1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	3-hp Standard Motor																			
7500	1272	2.65	1299	2.83	1325	3.02	1350	3.2	1375	3.39	1399	3.58	1422	3.77	1446	3.96	1468	4.15	1491	4.34
8000	1317	2.91	1343	3.11	1369	3.31	1394	3.5	1418	3.7	1442	3.9	1465	4.1	1487	4.31	1510	4.5	1532	4.7
9000	1411	3.5	1436	3.72	1460	3.94	1484	4.16	1507	4.38	1530	4.61	1552	4.83	1574	5.05	1596	5.27	1617	5.5
10000	1509	4.19	1532	4.43	1555	4.67	1577	4.91	1599	5.15	1621	5.4	1643	5.64	-	-	-	-	-	-
11000	1611	4.99	1633	5.25	1653	5.5	1674	5.76	-	-	-	-	-	-	-	-	-	-	-	-
12000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

1. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. To determine static pressure drop due to other options/accessories, refer to the applicable table in the fan performance section.
4. Direct drive fan motor heat is negligible.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 14. Evaporator fan performance – 25 ton, downflow, model GSJ, high static drive

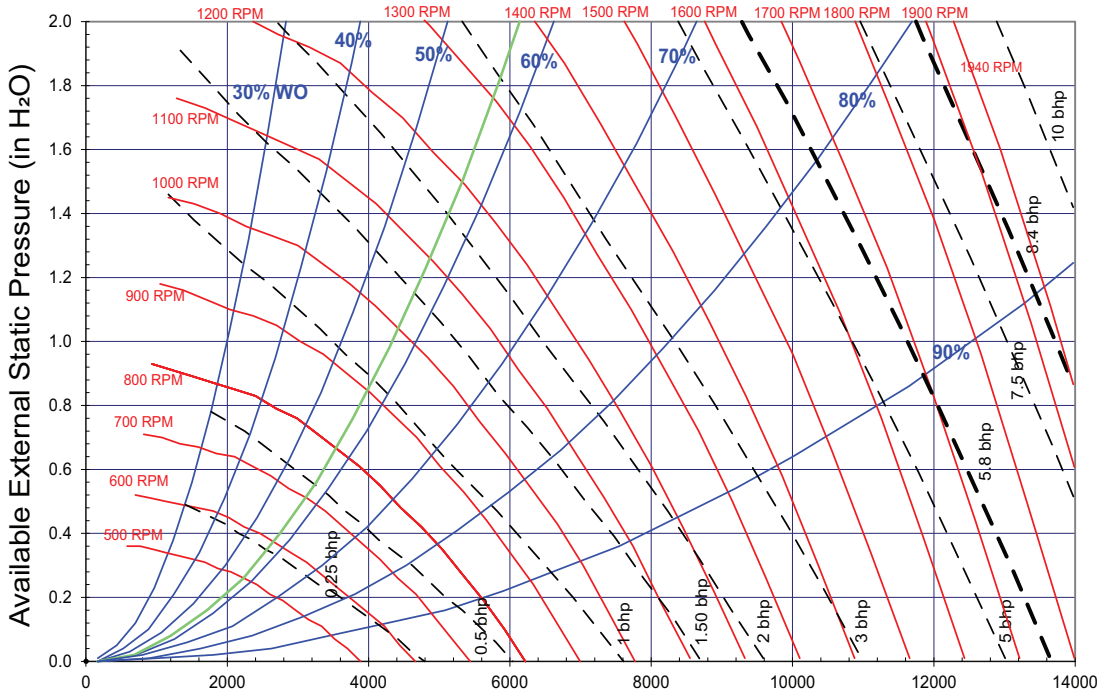
Available External Static Pressure (Inches of Water Gauge)																		
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	5-hp Oversized Motor																			
7500	983	0.94	1019	1.10	1053	1.26	1086	1.42	1117	1.59	1148	1.76	1179	1.94	1209	2.11	1238	2.29	1266	2.47
8000	1044	1.12	1078	1.28	1110	1.45	1142	1.63	1171	1.80	1200	1.98	1230	2.17	1259	2.36	1287	2.55	1314	2.74
9000	1166	1.55	1197	1.73	1226	1.92	1255	2.11	1283	2.30	1309	2.50	1335	2.70	1361	2.91	1387	3.12	1413	3.33
10000	1289	2.08	1317	2.28	1344	2.48	1370	2.69	1396	2.91	1421	3.12	1445	3.34	1468	3.56	1491	3.79	1515	4.02
11000	1412	2.72	1438	2.94	1463	3.16	1487	3.39	1511	3.62	1534	3.86	1557	4.09	1579	4.33	1601	4.58	1622	4.82
12000	1535	3.48	1560	3.72	1583	3.97	1605	4.21	1628	4.46	1650	4.72	1671	4.97	1692	5.23	1712	5.49	1732	5.75
Available External Static Pressure (Inches of Water Gauge)																		
	1.10"		1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	5-hp Oversized Motor																			
7500	1294	2.66	1321	2.84	1346	3.03	1371	3.21	1396	3.4	1419	3.6	1442	3.79	1466	3.98	1489	4.18	1511	4.37
8000	1341	2.93	1367	3.12	1392	3.32	1417	3.52	1441	3.72	1464	3.92	1487	4.12	1509	4.32	1531	4.53	1553	4.74
9000	1438	3.54	1463	3.76	1487	3.97	1510	4.19	1534	4.41	1556	4.62	1579	4.85	1600	5.07	1622	5.29	1642	5.52
10000	1539	4.25	1562	4.49	1585	4.72	1607	4.96	1629	5.2	1651	5.43	1672	5.68	1693	5.92	1714	6.16	1734	6.4
11000	1643	5.07	1665	5.32	1686	5.58	1707	5.84	1728	6.1	1749	6.36	1769	6.61	1789	6.88	1809	7.14	1829	7.4
12000	1752	6.02	1771	6.28	1790	6.55	1810	6.83	1830	7.11	1850	7.39	1869	7.67	1888	7.96	1907	8.24	-	-

Notes:

1. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. To determine static pressure drop due to other options/accessories, refer to the applicable table in the fan performance section.
4. Direct drive fan motor heat is negligible.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

12.5 to 25 Ton Units — Horizontal

Figure 2. Fan curves — 12.5 to 25 tons, GSJ horizontal



Evaporator Fan Performance

Table 15. Evaporator fan performance – 12.5 ton, model GSJ, horizontal

Available External Static Pressure (Inches of Water Gauge)																				
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3750	562	0.22	618	0.30	672	0.39	723	0.49	771	0.59	815	0.70	858	0.81	898	0.93	936	1.04	972	1.16
4000	592	0.25	646	0.34	696	0.44	745	0.54	792	0.65	835	0.76	877	0.87	916	0.99	954	1.11	990	1.24
4500	653	0.33	701	0.43	748	0.54	792	0.64	835	0.76	877	0.88	917	1.00	955	1.13	991	1.26	1027	1.39
5000	716	0.43	759	0.54	802	0.65	843	0.77	882	0.89	922	1.02	959	1.15	996	1.29	1031	1.43	1065	1.57
5500	779	0.55	819	0.67	858	0.79	896	0.92	933	1.04	969	1.17	1005	1.32	1039	1.46	1073	1.61	1106	1.76
6000	842	0.69	879	0.82	915	0.95	951	1.08	985	1.22	1020	1.36	1052	1.50	1085	1.66	1117	1.82	1149	1.98
Available External Static Pressure (Inches of Water Gauge)																				
	1.10"		1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3750	1007	1.29	1042	1.42	1075	1.55	1107	1.69	1138	1.83	1168	1.97	1197	2.11	1225	2.26	1253	2.41	1280	2.56
4000	1024	1.36	1057	1.49	1090	1.63	1122	1.77	1153	1.91	1183	2.06	1212	2.21	1240	2.36	1268	2.51	1294	2.66
4500	1060	1.53	1093	1.67	1124	1.81	1155	1.95	1184	2.1	1213	2.25	1242	2.41	1270	2.56	1298	2.73	1324	2.89
5000	1098	1.71	1130	1.86	1161	2.01	1191	2.16	1220	2.32	1248	2.47	1275	2.63	1302	2.79	1328	2.96	1355	3.13
5500	1138	1.91	1169	2.07	1199	2.23	1228	2.39	1256	2.55	1284	2.72	1311	2.89	1338	3.06	1364	3.23	1389	3.4
6000	1180	2.14	1210	2.3	1239	2.47	1267	2.64	1295	2.81	1322	2.99	1348	3.16	1375	3.34	1400	3.52	1425	3.7

Notes:

1. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. To determine static pressure drop due to other options/accessories, refer to the applicable table in the fan performance section.
4. Direct drive fan motor heat is negligible.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 16. Evaporator fan performance – 15 ton, model GSJ, horizontal

Available External Static Pressure (Inches of Water Gauge)																				
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4500	653	0.33	701	0.43	748	0.54	792	0.64	835	0.76	877	0.88	917	1.00	955	1.13	991	1.26	1027	1.39
4800	690	0.39	736	0.49	780	0.60	822	0.72	863	0.83	903	0.96	942	1.09	979	1.22	1015	1.36	1049	1.50
5400	766	0.53	807	0.64	846	0.76	885	0.88	923	1.01	959	1.14	995	1.28	1030	1.43	1065	1.57	1098	1.72
6000	842	0.69	879	0.82	915	0.95	951	1.08	985	1.22	1020	1.36	1052	1.50	1085	1.66	1117	1.82	1149	1.98
6600	919	0.90	953	1.03	986	1.17	1019	1.32	1051	1.47	1082	1.62	1114	1.77	1144	1.93	1173	2.09	1203	2.26
7200	997	1.13	1028	1.28	1058	1.43	1089	1.59	1118	1.75	1148	1.91	1177	2.08	1205	2.25	1233	2.42	1261	2.59
Available External Static Pressure (Inches of Water Gauge)																				
	1.10"		1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4500	1060	1.53	1093	1.67	1124	1.81	1155	1.95	1184	2.1	1213	2.25	1242	2.41	1270	2.56	1298	2.73	1324	2.89
4800	1083	1.64	1115	1.78	1146	1.93	1176	2.07	1205	2.23	1234	2.38	1261	2.53	1289	2.7	1316	2.86	1342	3.03
5400	1130	1.87	1161	2.03	1191	2.18	1220	2.34	1249	2.5	1277	2.67	1304	2.83	1331	3	1356	3.17	1382	3.34
6000	1180	2.14	1210	2.3	1239	2.47	1267	2.64	1295	2.81	1322	2.99	1348	3.16	1375	3.34	1400	3.52	1425	3.7
6600	1232	2.44	1261	2.61	1289	2.79	1317	2.97	1343	3.15	1370	3.34	1396	3.53	1421	3.71	1445	3.9	1469	4.1
7200	1288	2.77	1315	2.96	1342	3.15	1368	3.34	1394	3.53	1420	3.73	1445	3.92	1469	4.12	1493	4.33	1517	4.53

Notes:

1. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. To determine static pressure drop due to other options/accessories, refer to the applicable table in the fan performance section.
4. Direct drive fan motor heat is negligible.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 17. Evaporator fan performance – 20 ton, model GSJ, horizontal

Available External Static Pressure (Inches of Water Gauge)																				
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	810	0.60	847	0.72	883	0.84	920	0.97	956	1.10	989	1.23	1022	1.37	1054	1.52	1085	1.66	1114	1.80
6400	860	0.71	894	0.84	928	0.96	962	1.10	997	1.23	1029	1.37	1061	1.52	1092	1.67	1122	1.82	1150	1.98
7200	958	0.98	990	1.11	1020	1.26	1050	1.40	1081	1.55	1112	1.71	1141	1.86	1169	2.02	1197	2.18	1225	2.35
8000	1058	1.30	1087	1.46	1114	1.61	1142	1.77	1168	1.93	1196	2.10	1224	2.27	1251	2.44	1277	2.62	1303	2.80
8800	1158	1.70	1185	1.87	1210	2.04	1235	2.21	1260	2.38	1284	2.56	1309	2.74	1335	2.93	1359	3.12	1384	3.32
9600	1259	2.17	1283	2.35	1307	2.54	1330	2.72	1353	2.91	1376	3.11	1398	3.30	1420	3.50	1444	3.70	1467	3.91
Available External Static Pressure (Inches of Water Gauge)																				
	1.10"		1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	1142	1.94	1170	2.09	1197	2.24	1223	2.39	1250	2.54	1276	2.7	1302	2.86	1327	3.02	1352	3.19	1377	3.36
6400	1178	2.13	1204	2.28	1231	2.43	1256	2.59	1282	2.75	1306	2.91	1331	3.07	1356	3.24	1381	3.41	1404	3.59
7200	1252	2.53	1278	2.7	1303	2.87	1327	3.04	1350	3.21	1374	3.39	1397	3.56	1420	3.74	1442	3.92	1464	4.09
8000	1327	2.97	1352	3.16	1377	3.35	1401	3.55	1424	3.74	1446	3.93	1468	4.12	1490	4.31	1511	4.5	1532	4.69
8800	1407	3.51	1431	3.7	1453	3.9	1476	4.1	1498	4.31	1520	4.52	1542	4.74	1563	4.95	1584	5.15	1604	5.36
9600	1490	4.12	1512	4.33	1533	4.53	1555	4.75	1575	4.96	1596	5.17	1617	5.4	1637	5.63	-	-	-	-

Notes:

1. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. To determine static pressure drop due to other options/accessories, refer to the applicable table in the fan performance section.
4. Direct drive fan motor heat is negligible.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 18. Evaporator fan performance – 25 ton, model GSJ, horizontal

Available External Static Pressure (Inches of Water Gauge)																				
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	3-hp Standard Motor																			
7500	996	1.09	1026	1.23	1055	1.38	1084	1.53	1113	1.69	1143	1.85	1172	2.01	1200	2.17	1227	2.34	1253	2.51
8000	1058	1.30	1087	1.46	1114	1.61	1142	1.77	1168	1.93	1196	2.10	1224	2.27	1251	2.44	1277	2.62	1303	2.80
9000	1183	1.81	1209	1.98	1234	2.15	1259	2.33	1283	2.51	1307	2.69	1330	2.87	1356	3.07	1380	3.26	1404	3.46
10000	1309	2.44	1333	2.63	1356	2.82	1378	3.01	1400	3.21	1422	3.41	1443	3.61	1464	3.81	1486	4.02	1509	4.23
11000	1436	3.21	1457	3.41	1478	3.62	1499	3.83	1519	4.05	1539	4.26	1559	4.48	1579	4.70	1598	4.92	1617	5.14
12000	1562	4.12	1582	4.34	1602	4.57	1621	4.80	1640	5.03	1658	5.26	1676	5.5	1695	5.74	-	-	-	-
Available External Static Pressure (Inches of Water Gauge)																				
	1.10"		1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	3-hp Standard Motor																			
7500	1280	2.69	1305	2.87	1330	3.05	1354	3.23	1378	3.4	1401	3.58	1423	3.76	1445	3.94	1467	4.13	1489	4.31
8000	1327	2.97	1352	3.16	1377	3.35	1401	3.55	1424	3.74	1446	3.93	1468	4.12	1490	4.31	1511	4.5	1532	4.69
9000	1428	3.65	1451	3.85	1473	4.05	1495	4.25	1517	4.46	1539	4.68	1561	4.9	1582	5.11	1602	5.33	1622	5.54
10000	1531	4.45	1553	4.67	1574	4.88	1595	5.1	1616	5.32	1636	5.54	1655	5.77	-	-	-	-	-	-
11000	1637	5.38	1658	5.61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

1. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. To determine static pressure drop due to other options/accessories, refer to the applicable table in the fan performance section.
4. Direct drive fan motor heat is negligible.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Evaporator Fan Performance

Table 19. Evaporator fan performance – 25 ton, model GSJ, horizontal, high static drive

Available External Static Pressure (Inches of Water Gauge)																				
	0.10"		0.20"		0.30"		0.40"		0.50"		0.60"		0.70"		0.80"		0.90"		1.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	5-hp Oversized Motor																			
7500	1023	1.11	1054	1.27	1086	1.42	1119	1.59	1149	1.76	1177	1.92	1205	2.09	1233	2.25	1259	2.42	1286	2.59
8000	1087	1.33	1117	1.49	1145	1.65	1177	1.83	1207	2.02	1234	2.19	1260	2.36	1286	2.54	1312	2.71	1337	2.89
9000	1216	1.85	1242	2.03	1268	2.21	1294	2.40	1323	2.60	1350	2.80	1374	3.00	1398	3.20	1421	3.39	1444	3.59
10000	1346	2.50	1369	2.69	1393	2.89	1416	3.09	1440	3.30	1465	3.53	1490	3.75	1513	3.98	1535	4.19	1556	4.41
11000	1476	3.28	1497	3.48	1519	3.70	1540	3.92	1561	4.15	1583	4.38	1606	4.63	1628	4.88	1650	5.13	1671	5.37
12000	1606	4.22	1626	4.44	1645	4.67	1665	4.91	1685	5.15	1704	5.4	1723	5.65	1745	5.92	1766	6.19	1786	6.47
Available External Static Pressure (Inches of Water Gauge)																				
	1.10"		1.20"		1.30"		1.40"		1.50"		1.60"		1.70"		1.80"		1.90"		2.00"	
CFM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	5-hp Oversized Motor																			
7500	1311	2.76	1336	2.93	1360	3.11	1384	3.3	1408	3.48	1432	3.67	1454	3.86	1477	4.04	1500	4.23	1522	4.42
8000	1362	3.07	1386	3.25	1410	3.44	1432	3.63	1455	3.82	1478	4.01	1501	4.21	1523	4.41	1544	4.61	1565	4.81
9000	1467	3.79	1490	3.99	1512	4.19	1534	4.39	1555	4.59	1576	4.8	1597	5.01	1617	5.22	1637	5.44	1658	5.66
10000	1576	4.63	1597	4.85	1618	5.07	1639	5.29	1659	5.51	1679	5.73	1699	5.95	1718	6.18	1737	6.41	1756	6.65
11000	1690	5.61	1710	5.85	1728	6.09	1747	6.33	1766	6.57	1785	6.81	1804	7.05	1822	7.29	1841	7.54	1859	7.78
12000	1806	6.74	1825	7	1843	7.26	1860	7.52	1877	7.78	1894	8.04	1911	8.31	-	-	-	-	-	-

Notes:

1. Available External Static Pressure is the static pressure difference between the return duct and the supply duct plus the static pressure drop caused by accessories and options.
2. Data includes pressure drop due to standard filters and wet coils. No accessories or options are included in pressure drop data.
3. To determine static pressure drop due to other options/accessories, refer to the applicable table in the fan performance section.
4. Direct drive fan motor heat is negligible.
5. Factory supplied motors, in commercial equipment, are definite purpose motors, specifically designed and tested to operate reliably and continuously at all cataloged conditions. Using the full horsepower range of our fan motors as shown in our tabular data will not result in nuisance tripping or premature motor failure. Our product's warranty will not be affected.

Table 20. CFM correction

Model	Entering CFM	Cooling Capacity	Sensible Capacity	Cooling Input Watts	Heating Capacity	Heating Input Watts
GSJ150	3500	0.96	0.89	1.00	0.98	1.09
GSJ150	3544	0.96	0.90	1.00	0.98	1.09
GSJ150	3588	0.96	0.90	1.00	0.98	1.08
GSJ150	3631	0.97	0.91	1.00	0.98	1.08
GSJ150	3675	0.97	0.91	1.00	0.98	1.07
GSJ150	3719	0.97	0.92	1.00	0.98	1.07
GSJ150	3763	0.97	0.92	1.00	0.99	1.06
GSJ150	3806	0.97	0.93	1.00	0.99	1.06
GSJ150	3850	0.98	0.93	1.00	0.99	1.05
GSJ150	3894	0.98	0.94	1.00	0.99	1.04
GSJ150	3938	0.98	0.95	1.00	0.99	1.04
GSJ150	3981	0.98	0.95	1.00	0.99	1.04
GSJ150	4025	0.99	0.96	1.00	0.99	1.03
GSJ150	4069	0.99	0.96	1.00	0.99	1.03
GSJ150	4113	0.99	0.97	1.00	0.99	1.02
GSJ150	4156	0.99	0.97	1.00	1.00	1.02
GSJ150	4200	0.99	0.98	1.00	1.00	1.02
GSJ150	4244	0.99	0.98	1.00	1.00	1.01
GSJ150	4288	1.00	0.99	1.00	1.00	1.01
GSJ150	4331	1.00	0.99	1.00	1.00	1.00
GSJ150	4375	1.00	1.00	1.00	1.00	1.00
GSJ150	4419	1.00	1.01	1.00	1.00	1.00
GSJ150	4463	1.00	1.01	1.00	1.00	0.99
GSJ150	4506	1.01	1.02	1.00	1.00	0.99

Table 20. CFM correction (continued)

Model	Entering CFM	Cooling Capacity	Sensible Capacity	Cooling Input Watts	Heating Capacity	Heating Input Watts
GSJ150	4550	1.01	1.02	1.00	1.00	0.99
GSJ150	4550	1.01	1.02	1.00	1.00	0.99
GSJ150	4638	1.01	1.03	1.00	1.01	0.98
GSJ150	4681	1.01	1.04	1.00	1.01	0.98
GSJ150	4725	1.01	1.04	1.00	1.01	0.97
GSJ150	4769	1.01	1.05	1.00	1.01	0.97
GSJ150	4813	1.02	1.05	1.00	1.01	0.97
GSJ150	4856	1.02	1.06	1.00	1.01	0.96
GSJ150	4900	1.02	1.06	1.00	1.01	0.96
GSJ150	4944	1.02	1.07	1.00	1.01	0.96
GSJ150	4988	1.02	1.08	1.00	1.01	0.96
GSJ150	5031	1.02	1.08	1.00	1.01	0.95
GSJ150	5075	1.02	1.09	1.00	1.01	0.95
GSJ150	5119	1.03	1.09	1.00	1.01	0.95
GSJ150	5163	1.03	1.10	1.00	1.01	0.94
GSJ150	5206	1.03	1.10	1.00	1.02	0.94
GSJ150	5250	1.03	1.11	1.00	1.02	0.94
GSJ180	4800	0.96	0.88	1.00	0.98	1.08
GSJ180	4860	0.97	0.89	1.00	0.98	1.08
GSJ180	4920	0.97	0.90	1.00	0.98	1.07
GSJ180	4980	0.97	0.90	1.00	0.99	1.07
GSJ180	5040	0.97	0.91	1.00	0.99	1.06
GSJ180	5100	0.97	0.91	1.00	0.99	1.06
GSJ180	5160	0.98	0.92	1.00	0.99	1.05
GSJ180	5220	0.98	0.93	1.00	0.99	1.05
GSJ180	5280	0.98	0.93	1.00	0.99	1.04
GSJ180	5340	0.98	0.94	1.00	0.99	1.04
GSJ180	5400	0.98	0.94	1.00	0.99	1.04
GSJ180	5460	0.99	0.95	1.00	0.99	1.03
GSJ180	5520	0.99	0.95	1.00	0.99	1.03
GSJ180	5580	0.99	0.96	1.00	0.99	1.02
GSJ180	5640	0.99	0.97	1.00	1.00	1.02
GSJ180	5700	0.99	0.97	1.00	1.00	1.02
GSJ180	5760	0.99	0.98	1.00	1.00	1.01
GSJ180	5820	1.00	0.98	1.00	1.00	1.01
GSJ180	5880	1.00	0.99	1.00	1.00	1.01
GSJ180	5940	1.00	0.99	1.00	1.00	1.00
GSJ180	6000	1.00	1.00	1.00	1.00	1.00
GSJ180	6060	1.00	1.01	1.00	1.00	1.00
GSJ180	6120	1.00	1.01	1.00	1.00	0.99
GSJ180	6180	1.00	1.02	1.00	1.00	0.99
GSJ180	6240	1.01	1.02	1.00	1.00	0.99
GSJ180	6240	1.01	1.02	1.00	1.00	0.99
GSJ180	6360	1.01	1.03	1.00	1.00	0.98
GSJ180	6420	1.01	1.04	1.00	1.00	0.98
GSJ180	6480	1.01	1.05	1.00	1.01	0.98
GSJ180	6540	1.01	1.05	1.00	1.01	0.97
GSJ180	6600	1.01	1.06	1.00	1.01	0.97
GSJ180	6660	1.01	1.06	1.00	1.01	0.97
GSJ180	6720	1.02	1.07	1.00	1.01	0.97
GSJ180	6780	1.02	1.07	1.00	1.01	0.96

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Table 20. CFM correction (continued)

Model	Entering CFM	Cooling Capacity	Sensible Capacity	Cooling Input Watts	Heating Capacity	Heating Input Watts
GSJ180	6840	1.02	1.08	1.00	1.01	0.96
GSJ180	6900	1.02	1.09	1.00	1.01	0.96
GSJ180	6960	1.02	1.09	1.00	1.01	0.96
GSJ180	7020	1.02	1.10	1.00	1.01	0.96
GSJ180	7080	1.02	1.10	1.00	1.01	0.95
GSJ180	7140	1.02	1.11	1.00	1.01	0.95
GSJ180	7200	1.03	1.11	1.00	1.01	0.95
GSJ240	6400	0.96	0.88	1.00	0.98	1.09
GSJ240	6480	0.97	0.89	1.00	0.98	1.08
GSJ240	6560	0.97	0.90	1.00	0.98	1.08
GSJ240	6640	0.97	0.90	1.00	0.98	1.07
GSJ240	6720	0.97	0.91	1.00	0.98	1.07
GSJ240	6800	0.97	0.91	1.00	0.98	1.06
GSJ240	6880	0.98	0.92	1.00	0.99	1.06
GSJ240	6960	0.98	0.92	1.00	0.99	1.05
GSJ240	7040	0.98	0.93	1.00	0.99	1.05
GSJ240	7120	0.98	0.94	1.00	0.99	1.04
GSJ240	7200	0.98	0.94	1.00	0.99	1.04
GSJ240	7280	0.99	0.95	1.00	0.99	1.03
GSJ240	7360	0.99	0.95	1.00	0.99	1.03
GSJ240	7440	0.99	0.96	1.00	0.99	1.03
GSJ240	7520	0.99	0.97	1.00	0.99	1.02
GSJ240	7600	0.99	0.97	1.00	1.00	1.02
GSJ240	7680	0.99	0.98	1.00	1.00	1.01
GSJ240	7760	1.00	0.98	1.00	1.00	1.01
GSJ240	7840	1.00	0.99	1.00	1.00	1.01
GSJ240	7920	1.00	0.99	1.00	1.00	1.00
GSJ240	8000	1.00	1.00	1.00	1.00	1.00
GSJ240	8080	1.00	1.01	1.00	1.00	1.00
GSJ240	8160	1.00	1.01	1.00	1.00	0.99
GSJ240	8240	1.00	1.02	1.00	1.00	0.99
GSJ240	8320	1.01	1.02	1.00	1.00	0.99
GSJ240	8320	1.01	1.02	1.00	1.00	0.99
GSJ240	8480	1.01	1.03	1.00	1.00	0.98
GSJ240	8560	1.01	1.04	1.00	1.01	0.98
GSJ240	8640	1.01	1.05	1.00	1.01	0.97
GSJ240	8720	1.01	1.05	1.00	1.01	0.97
GSJ240	8800	1.01	1.06	1.00	1.01	0.97
GSJ240	8880	1.02	1.06	1.00	1.01	0.97
GSJ240	8960	1.02	1.07	1.00	1.01	0.96
GSJ240	9040	1.02	1.07	1.00	1.01	0.96
GSJ240	9120	1.02	1.08	1.00	1.01	0.96
GSJ240	9200	1.02	1.09	1.00	1.01	0.96
GSJ240	9280	1.02	1.09	1.00	1.01	0.95
GSJ240	9360	1.02	1.10	1.00	1.01	0.95
GSJ240	9440	1.02	1.10	1.00	1.01	0.95
GSJ240	9520	1.03	1.11	1.00	1.01	0.95
GSJ240	9600	1.03	1.12	1.00	1.01	0.94
GSJ300	8000	0.97	0.88	1.00	0.98	1.07
GSJ300	8100	0.97	0.89	1.00	0.98	1.07
GSJ300	8200	0.97	0.89	1.00	0.98	1.06

Table 20. CFM correction (continued)

Model	Entering CFM	Cooling Capacity	Sensible Capacity	Cooling Input Watts	Heating Capacity	Heating Input Watts
GSJ300	8300	0.97	0.90	1.00	0.98	1.06
GSJ300	8400	0.97	0.90	1.00	0.99	1.06
GSJ300	8500	0.98	0.91	1.00	0.99	1.05
GSJ300	8600	0.98	0.92	1.00	0.99	1.05
GSJ300	8700	0.98	0.92	1.00	0.99	1.04
GSJ300	8800	0.98	0.93	1.00	0.99	1.04
GSJ300	8900	0.98	0.93	1.00	0.99	1.04
GSJ300	9000	0.98	0.94	1.00	0.99	1.03
GSJ300	9100	0.99	0.95	1.00	0.99	1.03
GSJ300	9200	0.99	0.95	1.00	0.99	1.03
GSJ300	9300	0.99	0.96	1.00	0.99	1.02
GSJ300	9400	0.99	0.96	1.00	1.00	1.02
GSJ300	9500	0.99	0.97	1.00	1.00	1.02
GSJ300	9600	0.99	0.98	1.00	1.00	1.01
GSJ300	9700	1.00	0.98	1.00	1.00	1.01
GSJ300	9800	1.00	0.99	1.00	1.00	1.01
GSJ300	9900	1.00	0.99	1.00	1.00	1.00
GSJ300	10000	1.00	1.00	1.00	1.00	1.00
GSJ300	10100	1.00	1.01	1.00	1.00	1.00
GSJ300	10200	1.00	1.01	1.00	1.00	0.99
GSJ300	10300	1.00	1.02	1.00	1.00	0.99
GSJ300	10400	1.01	1.02	1.00	1.00	0.99
GSJ300	10400	1.01	1.02	1.00	1.00	0.99
GSJ300	10600	1.01	1.04	1.00	1.00	0.98
GSJ300	10700	1.01	1.04	1.00	1.00	0.98
GSJ300	10800	1.01	1.05	1.00	1.01	0.98
GSJ300	10900	1.01	1.05	1.00	1.01	0.98
GSJ300	11000	1.01	1.06	1.00	1.01	0.97
GSJ300	11100	1.02	1.07	1.00	1.01	0.97
GSJ300	11200	1.02	1.07	1.00	1.01	0.97
GSJ300	11300	1.02	1.08	1.00	1.01	0.97
GSJ300	11400	1.02	1.08	1.00	1.01	0.96
GSJ300	11500	1.02	1.09	1.00	1.01	0.96
GSJ300	11600	1.02	1.10	1.00	1.01	0.96
GSJ300	11700	1.02	1.10	1.00	1.01	0.96
GSJ300	11800	1.02	1.11	1.00	1.01	0.96
GSJ300	11900	1.02	1.11	1.00	1.01	0.95
GSJ300	12000	1.03	1.12	1.00	1.01	0.95

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Table 21. EAT correction

Model	Entering Air WB F	Cooling Cap.	Sensible vs Entering Dry Bulb Multiplier									Input Watt Multiplier	Entering Air DB F	Heating Cap. Multiplier	Input Watts Multiplier
			50.0	55.0	60.0	65.0	70.0	75.0	80.6	85.0	90.0				
GSJ150	46.0	0.876	0.601	0.787	0.903	0.995	1.078	1.291	1.429	1.608	1.595	0.983	55.00	1.038	0.884
	50.0	0.899	–	0.607	0.830	0.965	1.028	1.092	1.158	1.501	1.514	0.992	57.00	1.032	0.900
	56.0	0.900	–	–	0.611	0.799	0.984	1.093	1.159	1.226	1.294	0.993	60.00	1.023	0.926
	60.0	0.903	–	–	–	0.650	0.837	1.024	1.163	1.228	1.296	0.993	62.00	1.014	0.953
	63.0	0.945	–	–	–	0.537	0.724	0.912	1.099	1.231	1.297	0.996	65.00	1.009	0.972
	66.2	1.000	–	–	–	–	0.610	0.798	1.000	1.168	1.301	1.000	68.00	1.000	1.000
	72.0	1.106	–	–	–	–	–	0.564	0.753	0.942	1.129	1.008	70.00	0.994	1.020
	77.0	1.204	–	–	–	–	–	–	0.554	0.744	0.933	1.014	75.00	0.980	1.071
	79.0	1.243	–	–	–	–	–	–	0.472	0.663	0.853	1.017	80.00	0.967	1.124
GSJ180	46.0	0.914	0.577	0.777	0.868	0.928	1.051	1.259	1.397	1.559	1.520	0.981	55.00	1.034	0.884
	50.0	0.926	–	0.583	0.822	0.929	0.990	1.053	1.117	1.457	1.448	0.993	57.00	1.029	0.901
	56.0	0.927	–	–	0.586	0.786	0.983	1.054	1.118	1.184	1.250	0.993	60.00	1.021	0.927
	60.0	0.928	–	–	–	0.626	0.827	1.028	1.119	1.185	1.251	0.993	62.00	1.016	0.945
	63.0	0.950	–	–	–	0.505	0.706	0.906	1.108	1.186	1.252	0.995	65.00	1.008	0.972
	66.2	1.000	–	–	–	–	0.583	0.784	1.000	1.187	1.253	1.000	68.00	1.000	1.000
	72.0	1.103	–	–	–	–	–	0.534	0.736	0.937	1.139	1.011	70.00	0.995	1.019
	77.0	1.197	–	–	–	–	–	–	0.523	0.726	0.929	1.021	75.00	0.981	1.070
	79.0	1.235	–	–	–	–	–	–	0.437	0.640	0.844	1.026	80.00	0.968	1.123
GSJ240	46.0	0.915	0.575	0.776	0.873	0.934	1.057	1.267	1.408	1.575	1.539	0.996	55.00	1.037	0.876
	50.0	0.927	–	0.581	0.782	0.935	0.997	1.061	1.126	1.470	1.465	0.999	57.00	1.032	0.894
	56.0	0.928	–	–	0.584	0.785	0.988	1.062	1.127	1.193	1.261	0.999	60.00	1.023	0.921
	60.0	0.929	–	–	–	0.625	0.825	1.024	1.128	1.195	1.262	0.999	62.00	1.018	0.940
	63.0	0.952	–	–	–	0.594	0.704	0.905	1.109	1.195	1.263	0.999	65.00	1.009	0.970
	66.2	1.000	–	–	–	–	0.581	0.783	1.000	1.188	1.264	1.000	68.00	1.000	1.000
	72.0	1.103	–	–	–	–	–	0.533	0.736	0.937	1.140	1.003	70.00	0.994	1.021
	77.0	1.198	–	–	–	–	–	–	0.523	0.726	0.929	1.005	75.00	0.979	1.075
	79.0	1.237	–	–	–	–	–	–	0.436	0.640	0.844	1.007	80.00	0.963	1.131
GSJ300	46.0	0.939	0.561	0.773	0.836	0.894	0.954	1.223	1.357	1.498	1.447	0.992	55.00	1.037	0.882
	50.0	0.945	–	0.607	0.818	0.895	0.954	1.015	1.078	1.402	1.384	0.998	57.00	1.032	0.900
	56.0	0.946	–	–	0.568	0.777	0.962	1.016	1.079	1.143	1.207	0.998	60.00	1.023	0.926
	60.0	0.947	–	–	–	0.609	0.818	1.026	1.080	1.143	1.208	0.998	62.00	1.018	0.944
	63.0	0.958	–	–	–	0.482	0.691	0.901	1.092	1.144	1.209	0.998	65.00	1.009	0.971
	66.2	1.000	–	–	–	–	0.563	0.773	1.000	1.156	1.210	1.000	68.00	1.000	1.000
	72.0	1.098	–	–	–	–	–	0.513	0.724	0.933	1.146	1.005	70.00	0.994	1.020
	77.0	1.191	–	–	–	–	–	–	0.503	0.715	0.926	1.010	75.00	0.979	1.071
	79.0	1.230	–	–	–	–	–	–	0.414	0.626	0.837	1.012	80.00	0.963	1.124

Fan Performance

Table 22. Static pressure drop through accessories (inches water column) - standard efficiency- economizer

Tons	Unit Model Number	cfm[a]	Standard Filters[b]	2" MERV 8 Filter[c]	2" MERV 13 Filter[c]	Reheat Coil	Economizer with OA/RA Dampers[d]							
							Downflow		Horizontal		Low Leak Downflow		Low Leak Horizontal	
							100% OA	100% RA	100% OA	100% RA	100% OA	100% RA	100% OA	100% RA
12.5	GSJ150A	3750	0.02	0.04	0.07	0.02	0.10	0.02	0.10	0.02	0.11	0.09	0.05	0.09
		5000	0.03	0.06	0.10	0.04	0.15	0.03	0.15	0.03	0.17	0.13	0.09	0.14
		6000	0.04	0.08	0.13	0.04	0.20	0.04	0.20	0.04	0.23	0.17	0.12	0.18
15	GSJ180A	4500	0.03	0.05	0.09	0.04	0.13	0.02	0.13	0.02	0.14	0.11	0.07	0.12
		6000	0.04	0.08	0.13	0.04	0.20	0.04	0.20	0.04	0.23	0.17	0.12	0.18
		7200	0.06	0.10	0.17	0.02	0.27	0.05	0.27	0.05	0.32	0.23	0.16	0.25
20	GSJ240A	6000	0.04	0.08	0.13	0.04	0.20	0.04	0.20	0.04	0.23	0.17	0.12	0.18
		8000	0.07	0.12	0.21	0.02	0.32	0.06	0.32	0.06	0.39	0.27	0.19	0.30
		9600	0.09	0.16	0.27	0.05	0.44	0.07	0.44	0.07	0.54	0.37	0.27	0.41
25	GSJ300A	7500	0.06	0.11	0.19	0.02	0.29	0.05	0.29	0.05	0.34	0.24	0.17	0.27
		10000	0.09	0.17	0.29	0.06	0.48	0.08	0.48	0.08	0.58	0.40	0.29	0.45
		12000	0.12	0.23	0.39	0.06	0.66	0.11	0.66	0.11	0.82	0.55	0.39	0.62

[a] See below for restrictions:
Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 300 cfm/ton during low speed airflow operation.

[b] Tested with: 2-in filters 12.5 to 25 tons.

[c] Difference in pressure drop should be considered when utilizing optional 2-in pleated filters.

[d] OA = Outside Air and RA = Return Air.

Table 23. Static pressure drop through accessories (inches water column) - standard efficiency- electric

Tons	Unit Model Number	cfm[a]	Electric Heater			
			Accessory (kW)			
			18	36	54	72
12.5	GSJ150A	3750	0	0.01	0.01	N/A
		5000	0.01	0.03	0.03	N/A
		6000	0.01	0.04	0.04	N/A
15	GSJ180A	4500	0.01	0.02	0.02	N/A
		6000	0.01	0.04	0.04	N/A
		7200	0.02	0.06	0.06	N/A
20	GSJ240A	6000	N/A	0.04	0.04	0.04
		8000	N/A	0.08	0.08	0.08
		9600	N/A	0.12	0.12	0.12
25	GSJ300A	7500	N/A	0.07	0.07	0.07
		10000	N/A	0.13	0.13	0.13
		12000	N/A	0.20	0.20	0.20

[a] See below for restrictions:
Multi-speed, single zone VAV or multi-zone VAV applications are capable of running below 300 cfm/ton during low speed airflow operation.

Heating Performance

Table 24. Auxiliary electric heat capacity

Tons	Unit Model Number	Total[a]		No. of Stages	Stage 1		Stage 2	
		kw Input[b]	MBh Output		kw Input	MBh Output	kw Input	MBh Output
12.5 to 15	GS*150*3,4,W GS*180*3,4,W	18	61.47	1	18	61.47	–	–
		36	122.94	2	18	61.47	18	61.47
		54	184.41	2	36	122.94	18	61.47
20 to 25	GS*240*3,4,W GS*300*3,4,W	36	122.94	2	18	61.47	18	61.47
		54	184.41	2	36	122.94	18	61.47
		72	245.88	2	36	122.94	36	122.94

[a] Heaters are rated at 240V, 480V, and 600V. For other than rated voltage, CAP = (voltage/rated voltage)2 x rated cap.

[b] For all input/output categories, does not include fan power or heat.

Table 25. Auxiliary electric heat - air temperature rise

kW	Stages	12.5 Tons 3750 cfm	15 Tons 4500 cfm	20 Tons 6000 cfm	25 Tons 7500 cfm
		Three Phase GS*150*3,4,W	Three Phase GS*180*3,4,W	Three Phase GS*240*3,4,W	Three Phase GS*300*3,4,W
18	1	15.17	12.64	-	-
27	2	22.76	-	-	-
36	2	30.35	25.28	18.96	15.17
54	2	45.52	37.93	28.45	22.76
72	2	-	-	37.93	30.34

Note: For minimum design airflow, see airflow performance table for each unit. To calculate temp. rise at different airflow, use the following formula:
Temp. rise across electric heater = (kW x 3414)/(1.08 x cfm).

Controls

Enhanced BAS Integration and Connectivity

- Symbio™ 700 integrates seamlessly with Trane® Tracer® Synchrony and Tracer Ensemble® to deliver optimized building automation and building management features and functions.
- Easily integrate with open standard protocols to connect seamlessly to a BAS (whether that is Trane or non-Trane).
- Digit 21 must equal 1, 2, or 3 for communication support.

BACnet® Communications

Symbio™ 700 includes native BACnet communications which allows the unit to communicate directly with a Tracer or non-Trane Building Automation System via open protocol BACnet MS/TP or IP.

Modbus Communications

Symbio 700 includes native Modbus communications which allows the unit to communicate directly with a Tracer or non-Trane Building Automation System via open protocol Modbus RTU or TCP/IP.

LonTalk® Communications

The optional LonTalk® communications module allows the unit to communicate directly with a Tracer or non-Trane Building Automation System via open protocol LonTalk.

Air-Fi® Wireless Communications

The optional Air-Fi communications module allows the unit to communicate directly with a Tracer Building Automation System via open protocol BACnet over Zigbee wireless.

Secure Remote Connectivity with Trane Connect

The Symbio controller enables secure remote connectivity via Trane Connect to Trane Intelligent Services and remote monitoring. Trane Connect provides anywhere/anytime access to monitor and manage with secure remote access and connectivity options through a multitude of platforms. Peace of mind that the system will be operational and provide comfort to customers.

Serviceability

Symbio Service and Installation Mobile App

The Symbio Service and Installation mobile app is accessible through mobile devices (phones and tablets) via Bluetooth connectivity or via Trane Connect. The intuitive mobile app feels natural to technicians and operators. They'll quickly be able to view equipment status and alarms, perform startup tasks, change configurations, test the equipment's performance in specific modes—and much more. Free for download from App Store (Apple iOS) and Google Play (Android devices).

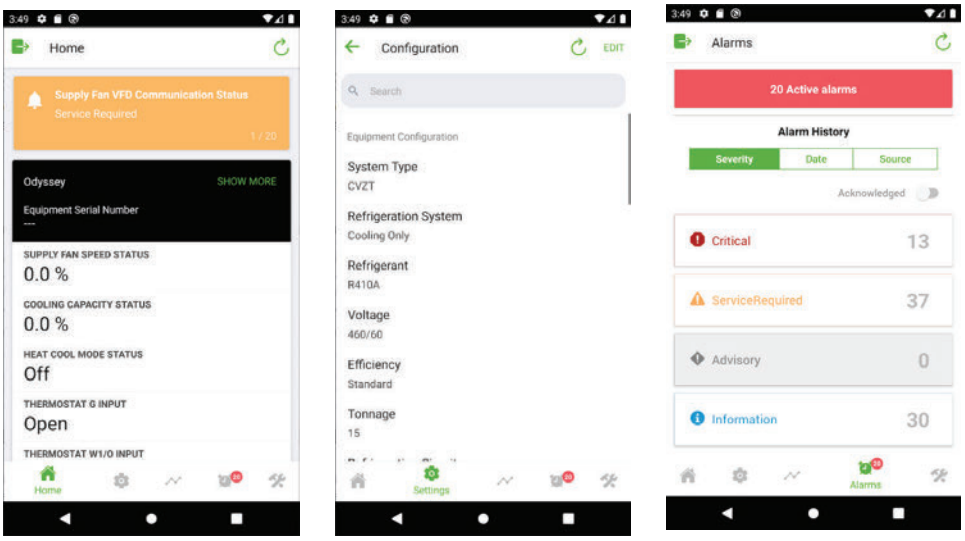
To download the Symbio Service and Installation Mobile App use the links below or scan the code with your mobile phone camera.

Apple download link (https://apps.apple.com/us/app/symbio-service-installation/id1309310176)

Google Play (Android) download link (https://play.google.com/store/apps/details?id=com.trane.mobileservicetool)

Figure 3. Scan code

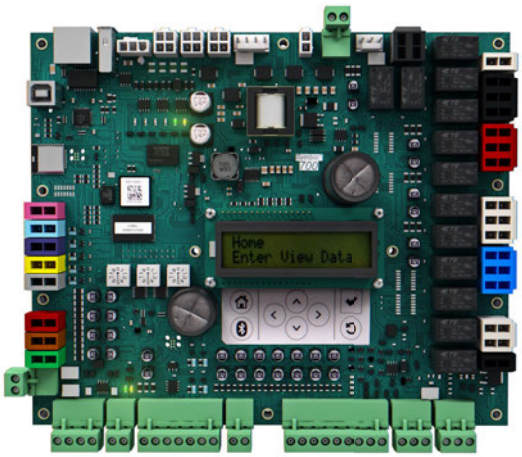
Figure 4. Symbio™ service and installation mobile app



Onboard User Interface

An integrated onboard user interface that makes setup and continued operation easy. It provides real time operational performance, status, data, and alarms. It also allows the user to interact with, service, troubleshoot, and control their equipment without additional service software tools or when a mobile interface is not available.

Figure 5. Onboard user interface



Service Test Mode

Symbio 700 requires no special tools to run the unit through its paces. Simply navigate to the ‘Service’ section of the on-board user interface or the ‘Tools’ section of the Symbio Service and Installation Mobile App and enter the ‘Service Test Mode’ section. Here the unit can be placed in the desired operating condition for a pre-determined amount of time supporting troubleshooting efforts in the field. The Symbio 700 will return to normal control when the user exits test mode or when the pre-determined, user-selected Service Test time has expired.

Symbio 700 controls with upgradeable software

Trane’s equipment and systems feature engineered, tested, and proven applications that meet industry energy standards and provide the flexibility to customize and update over the life of the equipment. Professional operational algorithms are embedded within the Symbio 700 controller at the Trane factory. Symbio 700 standardizes each equipment unit to maintain standards for comfort, efficiency, and air quality, without additional field programming. Symbio 700 provides the flexibility over the life of the equipment to meet changing customer needs and/or industry standards.

Flexibility

Expansion Modules (requires Tracer® TU)

- XM30 – Provides 4 universal inputs or analog outputs
- XM32 – Provides 4 binary outputs

Field Programming via TGP2 (requires Tracer TU)

- Control ancillary equipment
- Custom sequences

TGP2 and XM Limitations:

- Programs will only have access to available BACnet® points. (Ensures system reliability.)
- TGP2 programs will not have direct I/O control access for factory components. (Compressors will not be able to be directly controlled On/Off without going through factory provided protection sequences.)
- Onboard I/O will not be available to custom applied TGP2 programs. If additional I/O is required for a new control loop, a separate expansion module will be required.
- Customer applied I/O will be limited to a maximum combination of 2 XM modules. Only XM30 or XM32 modules will be supported by the Symbio 700 UC.
- Tracer TU will be required to configure XMs and to create, view, or modify TGP2 programs.

Economizer Controls

There are four options for economizer control, Dry Bulb Temperature, Comparative Enthalpy, Reference Enthalpy and Differential Dry Bulb Temperature.

Dry Bulb Temperature Control

The dry bulb system measures outdoor temperature comparing it to the economizer enable setpoint. If the outdoor temperature is below the economizer enable setpoint, the economizer will operate freely. This system is best suited for arid regions where the humidity levels of outside air would not be detrimental to building comfort and indoor air quality.

Comparative Enthalpy Control

The comparative enthalpy system measures the temperature and humidity of both return air and outside air to determine which source has lower enthalpy. This system allows true comparison of outdoor air and return air enthalpy by measurement of outdoor air and return air temperature and humidity.

Reference Enthalpy Control

The reference enthalpy system compares outdoor air temperature and humidity to the economizer enthalpy enable setpoint. If outdoor air temperature and humidity are below the economizer enthalpy

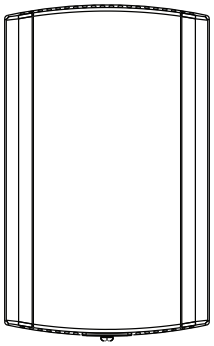
enable setpoint, the economizer will operate freely. This system provides more sophisticated control where outdoor air humidity levels may not be acceptable for building comfort and indoor air quality.

Differential Dry Bulb Temperature Control

The differential dry bulb system measures the temperature of both return air and outside air to determine when to economize. If outdoor air temperature is below the return air temperature minus a differential, the economizer will operate freely. This system is best suited for arid regions where the humidity levels of outside air would not be detrimental to building comfort and indoor air quality.

Zone Sensors

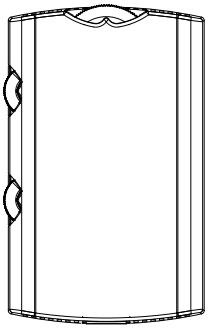
Zone Temperature Only



BAYSENS077

Provides temperature input only. Can be used as a secondary remote temperature input for thermostats.

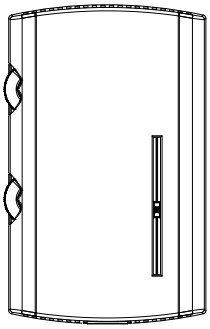
Manual Changeover



BAYSENS106

Heat, Cool or Off System Switch. Fan Auto or Off Switch. Single temperature setpoint thumbwheel.

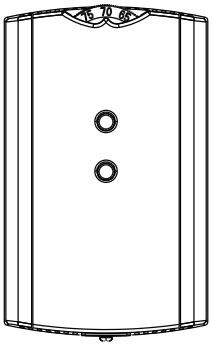
Manual/Automatic Changeover



BAYSENS108

Auto, Heat, Cool or Off System Switch. Fan Auto or Off Switch. Dual temperature setpoint sliders

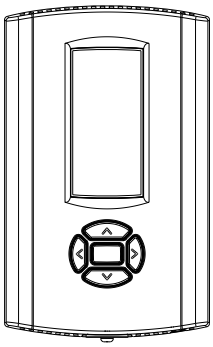
Integrated Comfort™ System



BAYSENS073 / BAYSENS074 / BAYSENS075

Sensor(s) available with optional temperature adjustment and override buttons to provide central control through a Trane Integrated Comfort system.

Wired Display Sensor



BAYSENS135

LCD display that provides heat, cool, auto, or off. Includes two temperature setpoints and a lockable setting with °F or °C indicators.

Touchscreen Digital Display Communicating Sensor

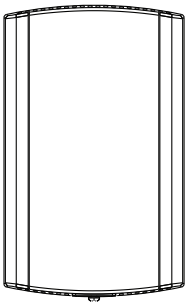
BAYSENS800

Uses BACnet® MS/TP link to communicate zone temperature and setpoints. Auto, Heat, Cool or Off System Switch. Fan Auto or On Switch. 7-day programmable thermostat with night setback.

Note: *Not compatible with VAV units. Requires BACnet communications. For use with standalone applications only.*

Air-Fi Wireless Communicating Zone Sensors

Wireless Zone Temperature Only

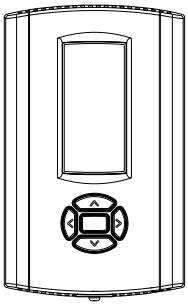


BAYSENS203

Measures temperature and optional humidity (with WCS-SH) for use in public spaces where no local user interface is preferred.

Note: *Requires BACnet communications.*

Wireless Display Sensor

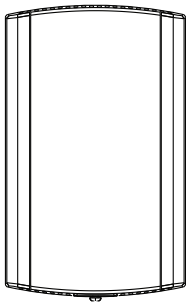


BAYSENS202

Easy-to-use interface for clear and simple monitoring and control. Can be configured for any Trane system or to meet the customer's preference.

Note: *Requires BACnet communications.*

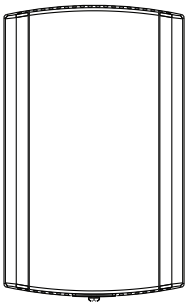
Wired CO_2 Sensor



FIACO2K001 wall mount CO_2 Sensor
FIACO2K002 duct mount CO_2 Sensor

The maintenance-free carbon dioxide (CO_2) sensor is primarily used for demand control ventilation applications.

Wired Zone Temperature and Humidity Sensor

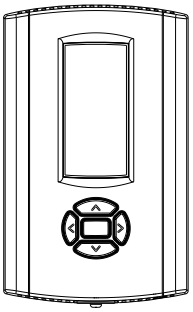


BAYSENS036

Measures temperature and relative humidity. Relative humidity input is used to control activation of dehumidification.

Thermostats

Digital Display Programmable Thermostat (3H/2C)

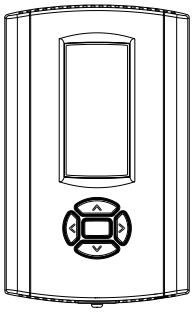


BAYSTAT150

Three Heat/Two Cool Auto changeover digital display thermostat. 7-day programmable thermostat with night setback.

Note: *Not compatible with VAV units.*

Digital Display Programmable Thermostat (1H/1C)

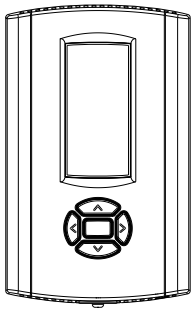


BAYSTAT151

One Heat/One Cool Auto changeover digital display thermostat.

Note: *Not compatible with VAV units.*

Digital Display Thermostat (3H/2C)

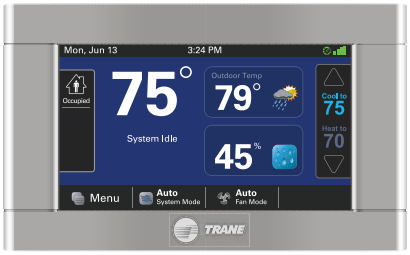


BAYSTAT155

Three Heat/Two Cool Auto changeover display thermostat.

Note: *Not compatible with VAV units.*

Pivot® Web Enabled Smart Thermostat (3H/2C)



BAYSTAT814

Our Pivot Smart Thermostat system is great for commercial buildings. With its intuitive touchscreen and customizable display, it is easy for occupants to use. The Trane Pivot mobile app enables users to control multiple buildings remotely, making changes in seconds to all systems.

Note: *Not compatible with VAV units.*

Touchscreen Programmable Thermostat with Relative Humidity Sensor (3H/2C)

BAYSTAT152

Three Heat, Two Cool digital display thermostat with built-in humidity control. This thermostat combines both humidity and temperature into one.

Note: *Not compatible with VAV units.*

Electrical Data

Table 26. Unit wiring

Tons	Unit Model Number	Voltage Range	Standard Indoor Fan Motor		Oversized/High Static Indoor Fan Motor		Optional Power Exhaust Standard Indoor Fan Motor		Optional Power Exhaust Oversized/High Static Indoor Fan Motor	
			MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker
12.5	GSJ150A3	187-253	68	90	-	-	73	100	-	-
	GSJ150A4	414-506	34	45	-	-	38	50	-	-
	GSJ150AW	517-633	27	35	-	-	29	40	-	-
15	GSJ180A3	187-253	73	100	-	-	79	100	-	-
	GSJ180A4	414-506	39	50	-	-	42	50	-	-
	GSJ180AW	517-633	30	40	-	-	32	40	-	-
20	GSJ240A3	187-253	98	150	-	-	104	125	-	-
	GSJ240A4	414-506	49	70	-	-	52	70	-	-
	GSJ240AW	517-633	43	60	-	-	45	60	-	-
25	GSJ300A3	187-253	110	150	114	150	115	150	120	150
	GSJ300A4	414-506	54	70	56	70	57	80	59	80
	GSJ300AW	517-633	42	60	44	60	45	60	46	60

Table 27. Unit wiring with electric heat

Tons	Unit Model Number	Heater Model Number	Heater kW Rating	Control Stages	Standard Indoor Fan Motor[a]		Oversized/High Static Indoor Fan Motor		Optional Power Exhaust Standard Indoor Fan Motor		Optional Power Exhaust Oversized/High Static Indoor Fan Motor	
					MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker
208/230 Volts Three Phase												
12.5	GSJ150A3	FIAEHWD318AA	13.5/18	1	115/122	125/125	-	-	120/128	125/150	-	-
		FIAEHWD336AA	27/36	2	162/176	175/200	-	-	167/182	175/200	-	-
		FIAEHWD354AA	40.6/54	2	208/198	225/225	-	-	204/203	225/225	-	-
15	GSJ180A3	FIAEHWD318AA	13.5/18	1	120/127	125/150	-	-	126/133	150/150	-	-
		FIAEHWD336AA	27/36	2	167/181	175/200	-	-	173/187	175/200	-	-
		FIAEHWD354AA	40.6/54	2	214/203	225/225	-	-	220/209	225/225	-	-
20	GSJ240A3	FIAEHWD336AA	27/36	2	192/206	200/225	-	-	198/212	200/225	-	-
		FIAEHWD354AA	40.6/54	2	239/228	250/250	-	-	245/234	250/250	-	-
		FIAEHWD372AA	54/72	2	248/271	250/300	-	-	254/277	300/300	-	-
25	GSJ300A3	FIAEHWD336AA	27/36	2	203/218	225/225	208/222	225/225	209/224	225/250	213/228	225/250
		FIAEHWD354AA	40.6/54	2	250/240	250/250	255/244	300/250	256/245	300/250	260/250	300/250
		FIAEHWD372AA	54/72	2	260/283	300/300	264/287	300/300	265/288	300/300	270/293	300/300

Table 27. Unit wiring with electric heat (continued)

Tons	Unit Model Number	Heater Model Number	Heater kW Rating	Control Stages	Standard Indoor Fan Motor[a]		Oversized/High Static Indoor Fan Motor		Optional Power Exhaust Standard Indoor Fan Motor		Optional Power Exhaust Oversized/High Static Indoor Fan Motor	
					MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker	MCA	Max Fuse Size or Max Circuit Breaker
460 Volts Three Phase												
12.5	GSJ150A4	FIAEHWD418AA	18	1	62	70	-	-	65	70	-	-
		FIAEHWD436AA	36	2	89	90	-	-	92	100	-	-
		FIAEHWD454AA	54	2	99	110	-	-	103	110	-	-
15	GSJ180A4	FIAEHWD418AA	18	1	66	70	-	-	69	70	-	-
		FIAEHWD436AA	36	2	93	100	-	-	96	100	-	-
		FIAEHWD454AA	54	2	104	110	-	-	107	110	-	-
20	GSJ240A4	FIAEHWD436AA	36	2	103	110	-	-	106	110	-	-
		FIAEHWD454AA	54	2	114	125	-	-	117	125	-	-
		FIAEHWD472AA	72	2	135	150	-	-	138	150	-	-
25	GSJ300A4	FIAEHWD436AA	36	2	108	110	110	110	111	125	113	125
		FIAEHWD454AA	54	2	119	125	121	125	122	125	124	125
		FIAEHWD472AA	72	2	141	150	142	150	144	150	146	150
575 Volts Three Phase												
12.5	GSJ150AW	FIAEHWDW18AA	18	1	49	50	-	-	51	60	-	-
		FIAEHWDW36AA	36	2	70	70	-	-	73	80	-	-
		FIAEHWDW54AA	54	2	79	90	-	-	81	90	-	-
15	GSJ180AW	FIAEHWDW18AA	18	1	51	60	-	-	53	60	-	-
		FIAEHWDW36AA	36	2	73	80	-	-	75	80	-	-
		FIAEHWDW54AA	54	2	81	90	-	-	84	90	-	-
20	GSJ240AW	FIAEHWDW36AA	36	2	86	90	-	-	89	100	-	-
		FIAEHWDW54AA	54	2	95	110	-	-	97	110	-	-
		FIAEHWDW72AA	72	2	112	125	-	-	115	125	-	-
25	GSJ300AW	FIAEHWDW36AA	36	2	86	90	87	90	88	90	89	100
		FIAEHWDW54AA	54	2	94	110	86	110	97	110	98	110
		FIAEHWDW72AA	72	2	112	125	113	125	114	125	115	125

[a] The standard motor is a multispeed, direct drive motor.

Table 28. Electrical characteristics - compressor motor

Tons	Unit Model Number	No.	Compressor Motors					
			Volts	Phase	hp[a]	rpm	Amps	
							RLA	LRA
12.5	GSJ150A3	2	208/230	3	7.6/3.5	3500/3500	28.4/14.1	191.0/83.1
	GSJ150A4	2	460	3	7.6/3.5	3500/3500	14.6/6.5	100/41
	GSJ150AW	2	575	3	7.6/3.5	3500/3500	11.9/5.4	78/33
15	GSJ180A3	2	208/230	3	8.7/4.3	3500/3500	30.9/16.4	240/110
	GSJ180A4	2	460	3	8.7/4.3	3500/3500	16.7/8.2	130/52
	GSJ180AW	2	575	3	8.7/4.3	3500/3500	12.8/6.6	93.7/38.9
20	GSJ240A3	2	208/230	3	11.4/6.3	3500/3500	43.1/26.1	270/167
	GSJ240A4	2	460	3	11.4/6.3	3500/3500	21.3/12.2	147/84
	GSJ240AW	2	575	3	11.4/6.3	3500/3500	21.3/9.6	109/60
25	GSJ300A3	2	208/230	3	12.8/7.6	3500/3500	49.5/29.6	335.5/223.0
	GSJ300A4	2	460	3	12.8/7.6	3500/3500	23.9/14.4	141/100
	GSJ300AW	2	575	3	12.8/7.6	3500/3500	19.8/10.8	109/70

[a] Hp for each compressor.

Table 29. Electrical characteristics - indoor fan motor

Tons	Unit Model Number	No.	Volts	Phase	hp	Amps[a]
						FLA / LRA
12.5	GSJ150A3	2	208/230	3	3	8.8
	GSJ150A4	2	460	3	3	4.6
	GSJ150AW	2	575	3	3	3.2
15	GSJ180A3	2	208/230	3	3	8.8
	GSJ180A4	2	460	3	3	4.6
	GSJ180AW	2	575	3	3	3.2
20	GSJ240A3	2	208/230	3	3	8.8
	GSJ240A4	2	460	3	3	4.6
	GSJ240AW	2	575	3	3	3.2
25	GSJ300A3	2	208/230	3	3	8.8
	GSJ300A4	2	460	3	3	4.6
	GSJ300AW	2	575	3	3	3.2

[a] Amp draw for each motor (compressor and **indoor** fan motor); multiply value by number of motors to determine total amps.

Table 30. Electrical characteristics - oversized indoor fan motor

Tons	Unit Model Number	No.	Volts	Phase	hp	Amps[a]
						FLA / LRA
25	GSJ300A3	2	208/230	3	5	11.0
	GSJ300A4	2	460	3	5	5.5
	GSJ300AW	2	575	3	5	3.9

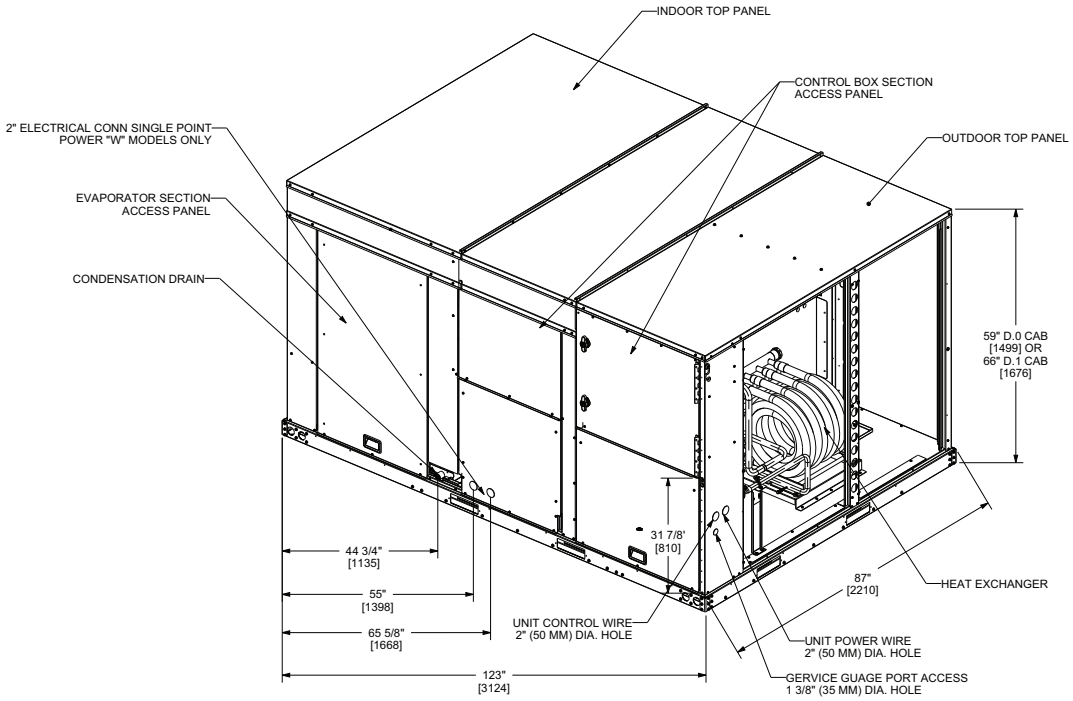
[a] Amp draw for each motor (compressor and **indoor** fan motor); multiply value by number of motors to determine total amps.

Table 31. Electrical characteristics - power exhaust

Tons	Volts	Phase	hp	rpm	FLA	LRA
12.5 to 25	208-230	1	0.87	1075	5.7	13.6
12.5 to 25	460	1	0.87	1075	3.3	7.2
12.5 to 25	575	1	0.80	1075	2.3	5.8

Dimensional Data

Figure 6. 12.5 to 15 tons standard efficiency



Note: *Cabinet size for 12.5 to 15 ton units: D0. Cabinet size for 20 to 25 ton units: D1.*

Figure 7. 12.5 to 25 tons standard efficiency – downflow airflow supply/return, through-the-base utilities

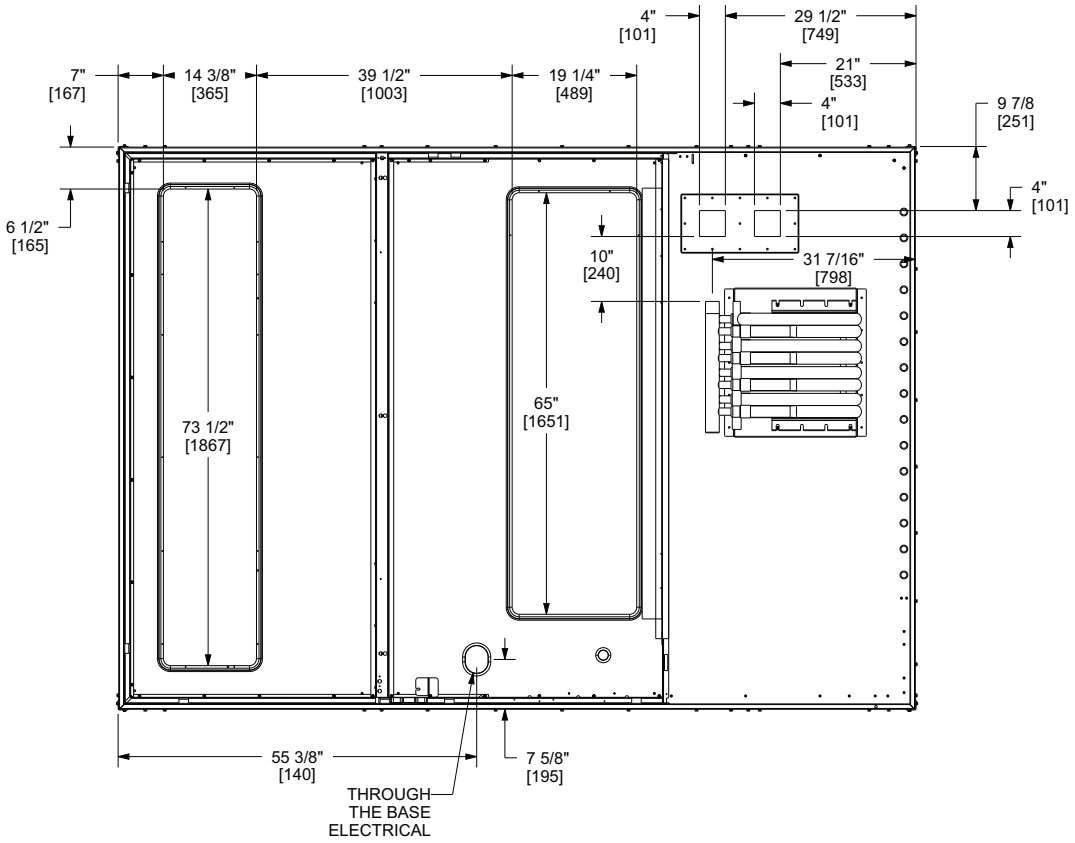


Figure 8. 12.5 to 25 tons standard efficiency – horizontal airflow supply/return

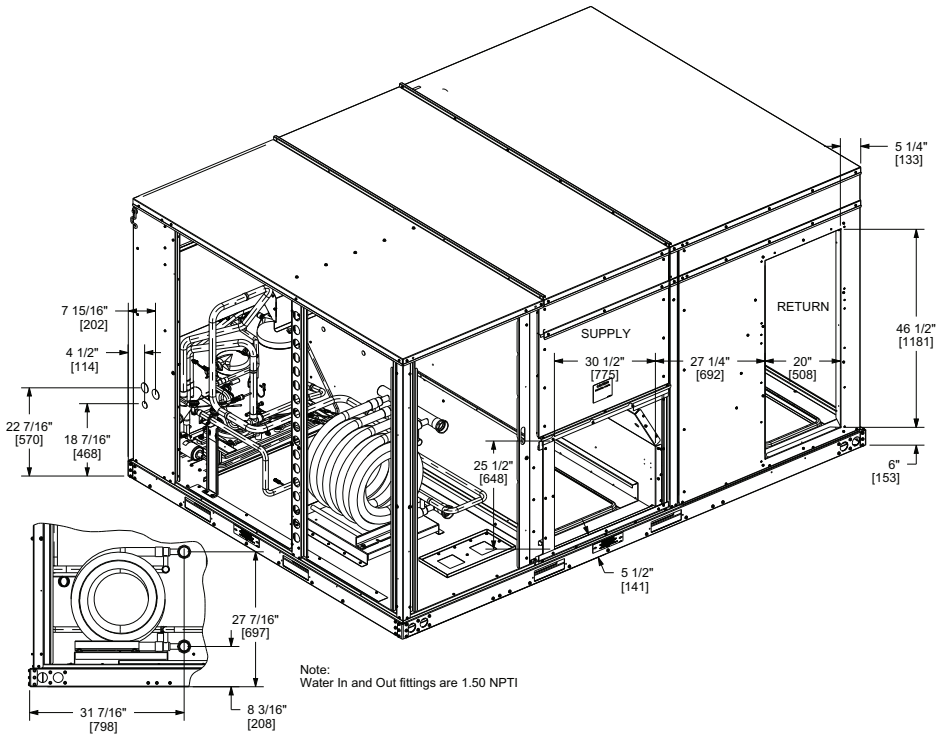


Figure 9. 12.5 to 25 tons standard efficiency – power exhaust

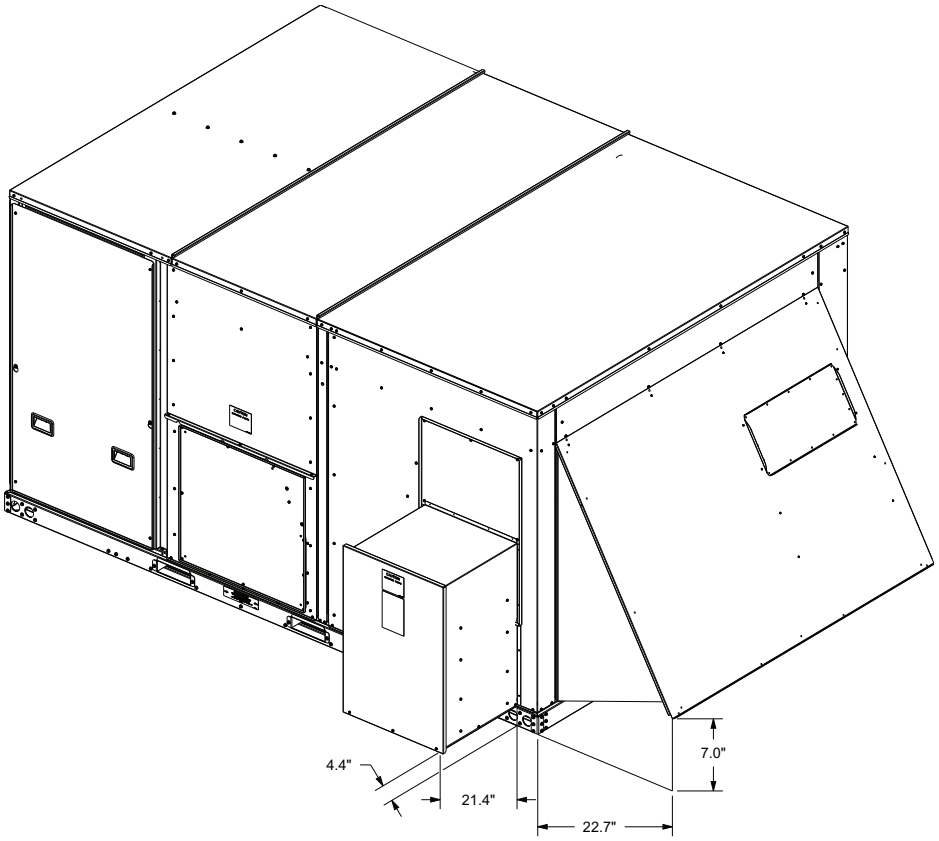


Figure 10. 12.5 to 25 tons standard efficiency – unit clearance and roof opening

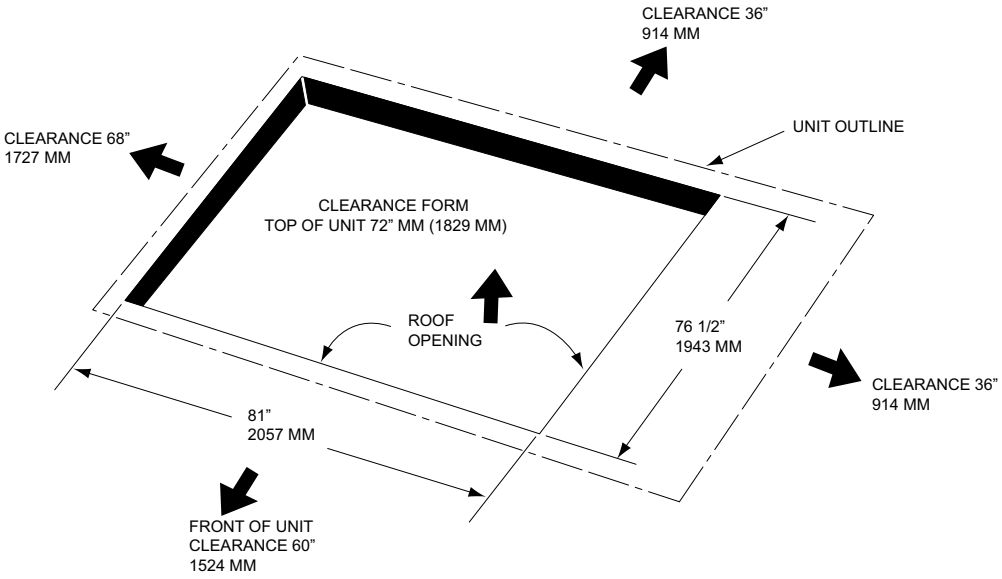


Figure 11. 12.5 to 25 tons standard efficiency – roof curb

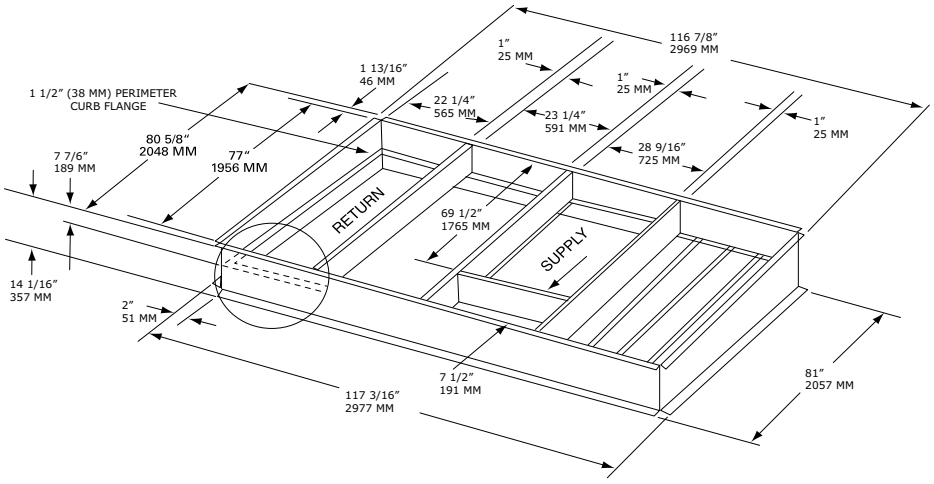
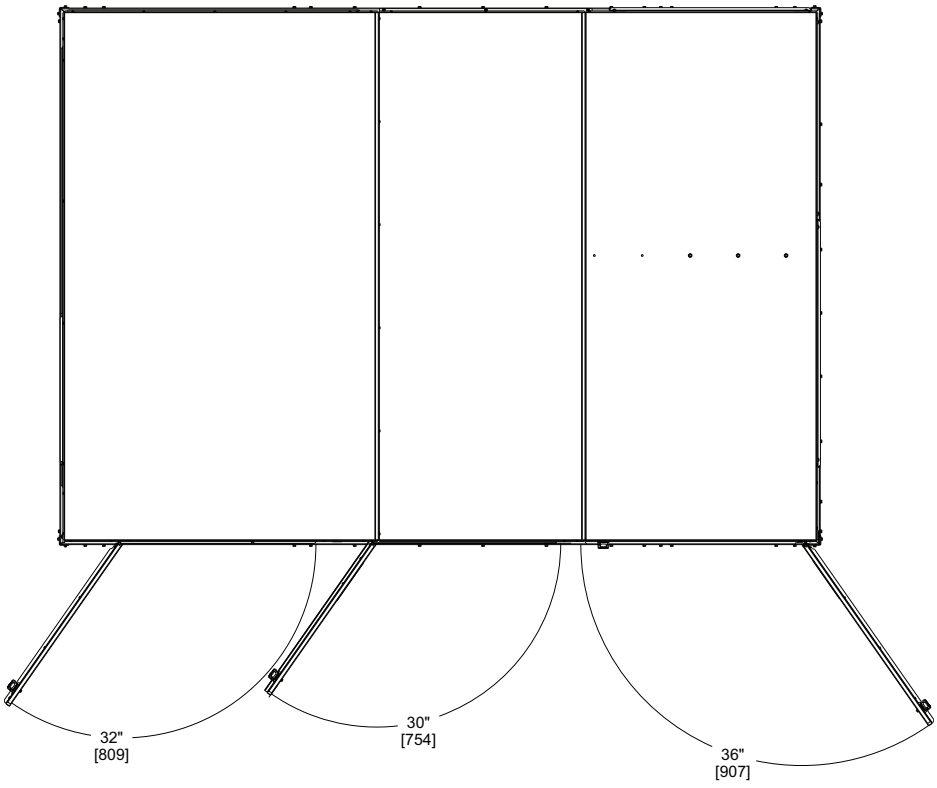


Figure 12. 12.5 to 25 ton standard efficiency – swing diameter for hinged door(s) option



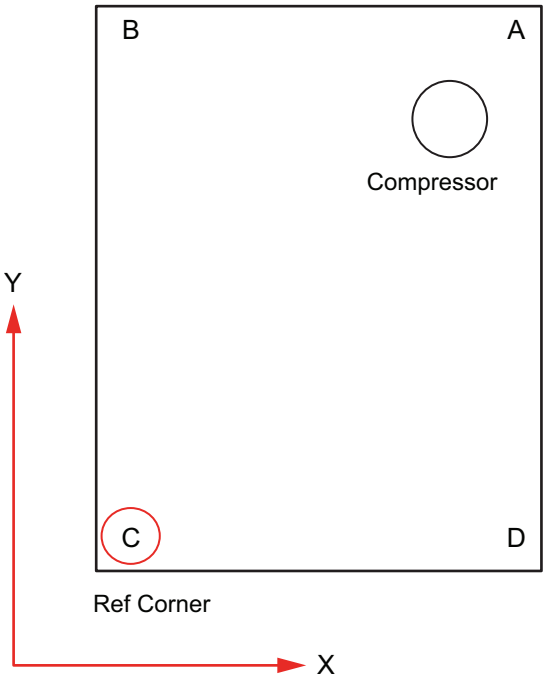
Weights

Table 32. Model weights, corner weights (lbs) and center of gravity dimensions (in.)

Model	Width (inches)	Depth (inches)	Height (inches)	Weight (LBS)[a]	Shipping Weight (LBS)	Corner Weights				Center of Gravity		Water In / Out NPTI (inches)
						A	B	C	D	X (inches)	Y (inches)	
GSJ150	123.0	87.0	59.0	1969	2219	675	495	429	370	50	70	1.50 NPTI
GSJ180	123.0	87.0	59.0	1969	2219	675	495	429	370	50	70	
GSJ240	123.0	87.0	66.0	2210	2460	731	537	403	539	50	71	2.00 NPTI
GSJ300	123.0	87.0	66.0	2210	2460	731	537	403	539	50	71	

[a] Weights are approximate. Weights do not include additional factory or field installed options/accessories. For option/accessory additional weights to be added to unit weight, reference the following table.

Figure 13. Center of gravity



Note: *Corner weights and center of gravity do not include accessories.*

Table 33. Factory installed options (FIOPS)/accessory net weights (lb)

Accessory	GSJ150-180	GSJ240-300
	12.5, 15 Tons	20, 25 Tons
Barometric Relief	40	40
Economizer	91	91
Electric Heaters	75	75
Hinged Doors	20	30
Low Leak Economizer - Downflow	150	150
Low Leak Economizer - Horizontal	180	180
Manual Outside Air Damper	15	15
Motorized Outside Air Damper	82	82
Oversized Motor	–	30
Powered Convenience Outlet	50	50
Powered Exhaust	110	110
Reheat Coil	100	100

Table 33. Factory installed options (FIOPS)/accessory net weights (lb) (continued)

Accessory	GSJ150-180	GSJ240-300
	12.5, 15 Tons	20, 25 Tons
Roof Curb	235	235
Smoke Detector, Supply	5	5
Smoke Detector, Return	5	5
Through-the-Base Electrical	10	10
Unit Mounted Circuit Breaker	10	10
Unit Mounted Disconnect	10	10

Notes:

1. Weights for options not listed are less than 5 pounds.
2. Net weight should be added to unit weight when ordering factory-installed accessories.
3. Weights are approximate.

Mechanical Specifications

General

- Packaged rooftop units cooling, heating capacities, and efficiencies are AHRI Certified within scope of AHRI Standard 13256–1.. Units 135,000 BTUH and below are certified to ANSI/AHRI/ASHRAE/ ISO 13256-1. Units greater than 135,000 BTUH are outside the scope of the program and are rated in accordance with ANSI/AHRI/ASHRAE/ISO 13256-1.
  - Units 135,000 BTUH and below are certified to ANSI/AHRI/ASHRAE/ISO 13256-1.
  - Units greater than 135,000 BTUH are outside the scope of the program and are rated in accordance with ANSI/AHRI/ASHRAE/ISO 13256-1.
- Convertible airflow.
- The refrigerant flow metering is made through the thermal expansion valve (TXV). This allows the unit to operate with an entering fluid temperature from 25°F to 86°F in the heating mode and 45°F to 120°F in the cooling mode.
- Factory assembled, internally wired, fully charged with R-410A, and 100 percent run tested to check cooling and heat pump operation, fan and blower rotation, and control sequence before leaving the factory.
- Colored and numbered wiring internal to the unit for simplified identification.
- Units ETL and CETL are listed, labeled, and classified in accordance to UL 1995/C 22.2, 236-05 4th Edition.

Casing

- Zinc coated, heavy gauge, galvanized steel.
- Weather resistant pre-painted metal with galvanized substrate.
- Meets ASTM B117, 672 hour salt spray test.
- Removable single side maintenance access panels.
- Lifting handles in maintenance access panels (can be removed and reinstalled by removing fasteners while providing a water and air tight seal).
- Exposed vertical panels and top covers in the indoor air section insulated with a cleanable foil-faced, fire-retardant permanent, odorless glass fiber material.
- Base pan shall have no penetrations within the perimeter of the curb other than the raised 1 inch high downflow supply/return openings to provide an added water integrity precaution, if the condensate drain backs up.
- Base of the unit insulated with 1/8 inch, foil-faced, closed-cell insulation.
- Unit base provisions for forklift and/or crane lifting on three sides of unit.

Coils

Evaporator

- Internally finned, 5/16-inch copper tubes mechanically bonded to a configured aluminum plate fin are standard.
- Coils are leak tested at the factory to ensure integrity.
- Evaporator coil is leak tested to 600 psig.
- Assembled unit is leak tested to 465 psig.
- Composite, dual-sloped, removable condensate drain pan is standard.

Compressors

- All units have direct-drive, hermetic, scroll type compressors with centrifugal type oil pumps.
- Suction gas-cooled motor with voltage utilization range of plus or minus 10 percent of unit nameplate voltage.
- Internal overloads standard with scroll compressors.
- Crankcase heaters are standard on all compressors.
- All units have dual compressors.

- Three stages of cooling available on 12.5 to 17.5 tons units and four stages of cooling available on 20 and 25 tons units.

Filters

- Standard throwaway filters
- Optional 2 inch MERV 8 and MERV 13 filters

Frostat™

- Utilized as a safety device.
- Opens to prevent freezing temperatures on evaporator coil.
- Temperature will need to rise to 50°F before closing.
- Utilized in low airflow or high outside air applications (cooling only).

Indoor Fan

- Direct drive plenum fan design –12.5 to 25 tons units.
- Plenum fan design — backward-curved fan wheel along with an external rotor direct drive variable speed indoor motor.
- Supply fan speed adjustments can be made using the Symbio 700 or Mobile App.
- Motors are electronically protected.
- Variable speed direct drive motors are high efficiency – 12.5 to 25 tons.

Powered or Unpowered Convenience Outlet

- Powered GFCI, 120V/15A, 2 plug, convenience outlet or unpowered GFCI, 120V/20A, 2 plug, convenience outlet.
- When convenience outlet is powered, a service receptacle disconnect will be available.
- Convenience outlet is powered from the line side of the disconnect or circuit breaker, and therefore will not be affected by the position of the disconnect or circuit breaker.
- Available to order when through-the-base electrical with disconnect switch or circuit breaker option is ordered.

Through-the-Base Electrical with Circuit Breaker

- Thermal magnetic, molded case, HACR circuit breaker with provisions for through-the-base electrical connections.
- Circuit breaker installed within unit in water tight enclosure.
- Wiring provided from the switch to the unit high voltage terminal block.
- Circuit breaker will provide overcurrent protection, sized per NEC and cULus guidelines, and agency recognized by cULus.

Through-the-Base Electrical with Disconnect Switch

- 3-pole, molded case, disconnect switch with provisions for through-the-base electrical connections.
- Disconnect switch installed within unit in a water tight enclosure.
- Wiring provided from the switch to the unit high voltage terminal block.
- Switch cULus agency recognized.

Note: *Disconnect switch sized per NEC and cULus guidelines but will not be used in place of unit overcurrent protection*

Economizer (Standard)

- Available with or without barometric relief.
- Fully modulating 0-100 percent motor and dampers, minimum position setting, preset linkage, wiring harness with plug, spring return actuator and fixed dry bulb control.

- Barometric relief shall provide a pressure operated damper that shall be gravity closing.
- Barometric relief shall prohibit entrance of outside air during the equipment “off” cycle.
- Optional solid state or differential enthalpy control.
- Arrives in shipping position and shall be moved to the operating position by the installing contractor.

Manual Outside Air Damper

Rain hood and screen shall provide up to 50 percent outside air.

Motorized Outside Air Damper

- Once set, when indoor fan starts, outdoor air dampers shall open to set position.
- When indoor fan shuts down, damper shall close to the full closed position.

Powered Exhaust

- Available for 12.5 to 25 ton units.
- Shall provide exhaust of return air, when using an economizer.
- Maintain better building pressurization.

Roof Curb

- Designed to mate with the unit’s downflow supply and return.
- Provide support and a water tight installation when installed properly.
- Shall allow field-fabricated rectangular supply/return ductwork to be connected directly to the curb.
- Curb shall be shipped knocked down for field assembly.
- Shall include wood nailer strips.

Ventilation Override Operation

- Unit can be set to transition up to 3 different pre-programmed sequences for smoke purge, pressurization, and exhaust.
- Transition occurs when binary input on the Symbio is closed (shorted) (typically hard wired relay output from a smoke detector/ fire control panel.

  Note: *Requires Symbio™Customer Connection Module, FIASCCM001*.*

Notes

The AHRI Certified mark indicates Trane U.S. Inc. participation in the AHRI Certification program. For verification of individual certified products, go to ahridirectory.org.

Trane - by Trane Technologies (NYSE: TT), a global innovator - creates comfortable, energy efficient indoor environments for commercial and residential applications. For more information, please visit trane.com or tranetechnologies.com.

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