



Technical Guide: Select VV27, VH27, VX27, VY27 to VV50, VH50, VX50, VY50

R-454B



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Description

The Select 27.5 ton to 50 ton platform is designed with all the flexibility needed for today's applications, while simultaneously meeting tomorrow's efficiency requirements. Realizing efficiency requirements are continuously pushing the envelope of technology, Select units exceed the latest U.S. Department of Energy (DOE) efficiency requirements and can meet up to the 2024 Consortium for Energy Efficiency (CEE) Advanced Tier. Utilizing IntelliSpeed and variable air volume (VAV) airflow options, Select models achieve up to 11.7 EER and 17.3 IEER, providing users with significant energy savings alongside impressive flexibility and unparalleled reliability.

All models are available with extensive options and accessories provided both through factory installation and field kits. Airflow requirements are met through IntelliSpeed discrete fan control and VAV blower configurations. All tonnages can be configured for cooling only, electric heating, staged gas heating, or modulating gas heating.

The units are tested in accordance with the following standards:

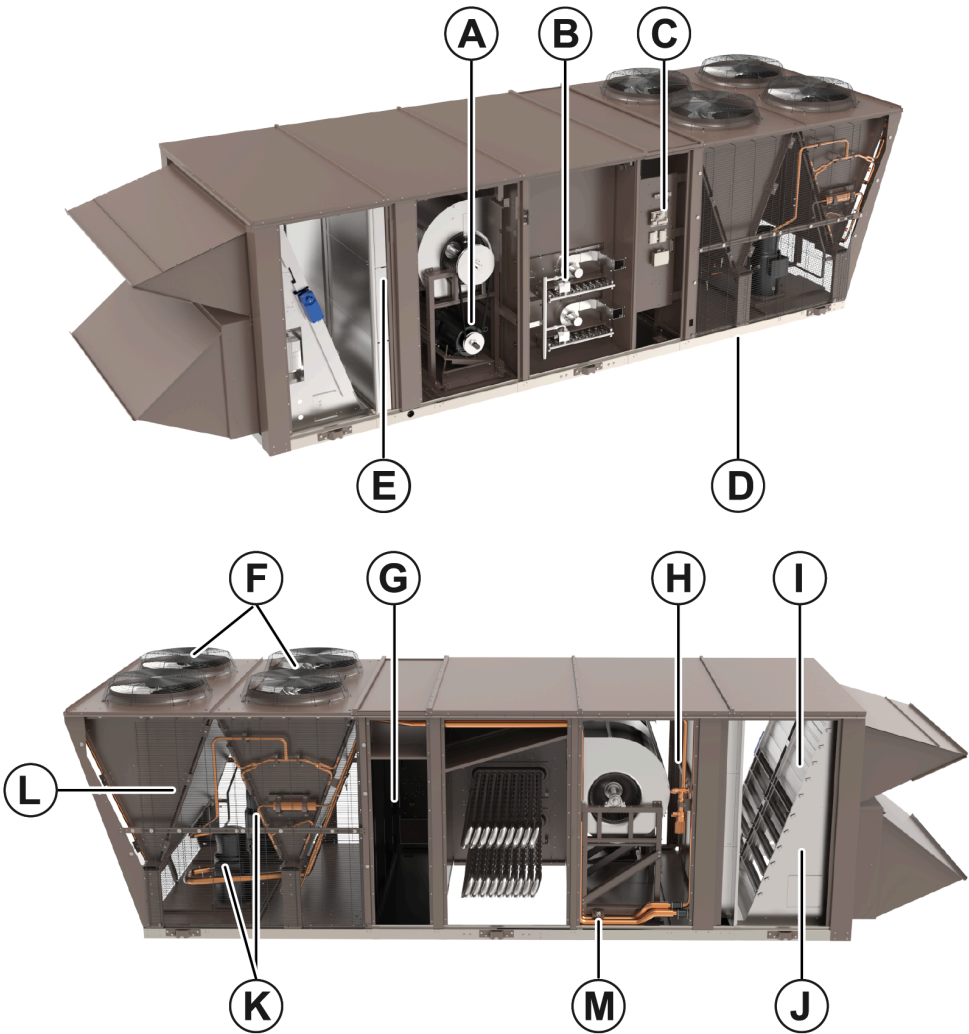


Product highlights

- Smart Equipment Controls: streamlines commissioning, integration, and service
- Two independent refrigerant circuits for true unit redundancy
- Two stages of cooling (IntelliSpeed) and four stages of cooling (IntelliSpeed and VAV) to meet advanced building code requirements
- Four unique airflow options in each tonnage: 2-stage IntelliSpeed, 4-stage IntelliSpeed, and VAV
- Footprint design allows for direct replacement of the Trane Voyager III product family without a transition curb
- Reliability designed into all products and tested at the component and system level at the Advanced Technology Lab in Norman, Oklahoma
- Factory-installed staged gas or electric heat
- Optional modulating gas heat furnace with standard stainless steel heat exchangers
- Optional modulating hot gas reheat for maximum humidity control. The reheat option added to the base model allows for increased flexibility.

Unit components

Figure 1: Component location



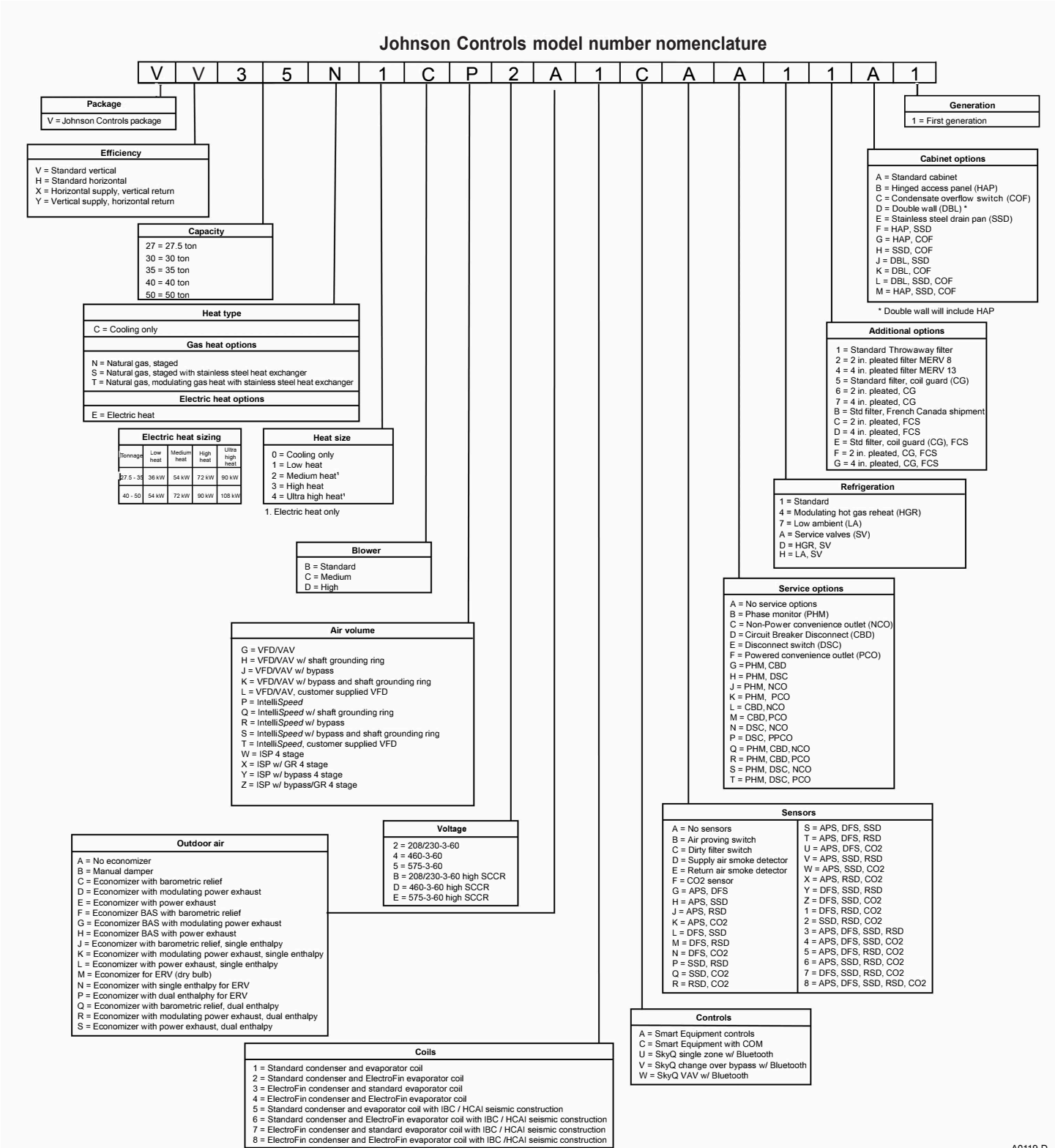
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Table 1: Component location table

Item	Description	Item	Description
A	Belt drive blower motor with dual centrifugal fan design	H	Copper tube/aluminum fin evaporator coil
B	Optional staged or modulating gas heat with aluminized or stainless steel heat exchanger. Optional electric heat not shown.*	I	Optional economizer. Optional manual outside air dampers not shown.
C	Smart Equipment controls	J	Optional powered exhaust or barometric relief location (not visible)
D	Full perimeter base rails with attached lifting lugs	K	Scroll compressors in various arrangements to produce two stages or four stages of cooling, depending on the selected model
E	Filter access, 2 in. or 4 in. filter options	L	MicroChannel condenser coils
F	Condenser fans	M	Refrigerant Detection System (RDS) sensor
G	Optional variable frequency drive location (VFD not shown)		
① Note: *Electric heat is only available for standard horizontal and standard vertical airflow			

Nomenclature

Figure 2: Product nomenclature



A0119-D

Features and benefits

Standard features

Select units have the following standard features.

Efficiency

Available in standard efficiency cooling only and gas heat, Select units achieve up to 11.7 EER. IEER ratings as high as 17.3 are specific to each model's heat type and indoor airflow selection to provide dialed in efficiencies for every model classification.

Indoor airflow options

Each tonnage has an industry-leading selection of indoor airflow options available for maximum customization to meet the needs of each job site. IntelliSpeed and variable air volume (VAV) configurations each have a dedicated airflow and compressor staging algorithm designed to maximize efficiency and reliability. Variable airflow models, IntelliSpeed or VAV, include a factory-installed variable frequency drive (VFD) to modulate the blower airflow.

Refrigerant circuits

All models contain a dual circuit refrigeration design with multiple compressor staging options dependent on the selected airflow option. Two-stage IntelliSpeed models have two stages of cooling operation, and four-stage IntelliSpeed and VAV models have four stages of cooling operation.

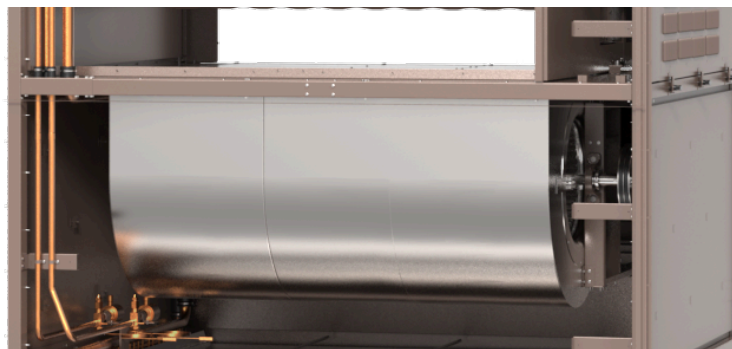
Variable frequency drive

Factory-installed VFD provide higher efficiency through both IntelliSpeed and VAV operation. All factory-installed VFDs come with a one-year manufacturer warranty and provide ease of commissioning with operation through the standard Smart Equipment control board and soft start capabilities for improved motor and belt life.

Indoor blower

The indoor blower is a single shaft, dual blower, forward curve centrifugal wheel design. All tonnages use a belt drive motor configuration with options for multiple levels of static resistance. The blower motor is mounted on a plate with vertical adjustment for simplified adjustments to belt tension and easier belt replacement.

Figure 3: Indoor blower



Evaporator coils

All units come with copper tube/aluminum fin evaporator coils.

Condenser coils

All units come with MicroChannel condenser coils.

Balanced staged heating

All gas heat units are of a tubular design with in-shot burners and induced draft. Standard controls provide two stages of capacity control with an additional option for modulating gas heat. Each section includes a durable

heat exchanger with aluminized steel or optional stainless steel tubes, a redundant gas valve, spark ignition, power venting, an ignition module for 100% shutoff, and all of the safety controls required to meet the latest ANSI standards. You can route the gas supply piping into the heating compartment through a hole in the base pan of the unit or through a hole in the piping panel on the front of the unit.

All electric heat models (factory or field-installed) include a bank of nickel chromium elements mounted at the discharge of the supply air blower to provide a high velocity and uniform distribution of air across the heating elements. Each element bank is fully protected against excessive current and temperature by fuses and two thermal limit switches.

Advanced, versatile controls

Smart Equipment control boards have standardized a number of features previously available only as options or by using additional controls.

Figure 4: Smart Equipment control board



A0209-A

All units are factory commissioned, configured, and run tested.

You can configure the Smart Equipment control for use with a standard thermostat or zone sensor using the convenient screw terminals. You can also configure the control to communicate with multiple BAS communication protocols to integrate with building automation systems.

Onboard USB port

The Smart Equipment control comes standard with an onboard USB port that accepts a common flash drive. You can use the port for features like data logging, listing current and previous system faults, and backing up or updating the software version. Self-test and start-up reports are also available through the USB port.

Built-in LCD

The Smart Equipment control board has an easy to read, built-in LCD and easy to use navigation joystick and buttons. Users can quickly navigate the menus to view unit status, options, current function, supply, return and outdoor temperatures, fault codes, and other information.

NOTICE

The Smart Equipment control board used in this product can effectively operate the cooling system down to 0°F when this product is applied in a comfort cooling application for people. An economizer is typically included in this type of application. When you apply this product for process cooling applications, such as computer rooms or switchgear, call the applications department for Ducted Systems at 1-877-874-SERV for guidance. Additional accessories may be needed for stable operation at temperatures below 30°F.

Reduced field-installed complexity

Each unit comes equipped with factory-installed supply air, return air, and outdoor air temperature sensors to provide key temperature readings and reduce field-installed complexity.

Standard factory warranty

All models include a 1 year limited warranty on the complete unit. Compressors and electric heater elements have a 5 year warranty. Aluminized steel heat exchangers have a 10 year warranty and stainless steel heat exchangers have a 15 year warranty.

Replacement opportunity with footprint

All tonnages have a meticulously designed footprint that provide the ability to directly replace, without the need for a transition curb, the existing 27.5 ton to 50 ton Trane Voyager footprint. When replacing the high gas heat model in 27.5 tons to 35 tons, a roof curb block-off kit may be required. This block-off kit is available directly from the Select unit manufacturer.

Dedicated duct configuration

All models are manufactured with a dedicated duct configuration for vertical, horizontal or crossflow airflow operation, allowing for quick and easy installation without removing or relocating panels. The desired duct configuration must be selected when the model is ordered from the factory.

Utility connections

Gas and electrical utility entries are supplied in the unit underside as well as the side of the unit. You can make utility connections quickly and with a minimum amount of field labor.

Sloped drain pan

All units are provided with a removable single direction sloped condensate drain pan with 1 in. I.D. female connection. Drain pans are sloped in accordance with ASHRAE 62 and are available in galvanized or stainless steel configurations.

Color-coded and numbered wiring

Wiring is color-coded and numbered to match the provided unit wiring diagram to enable easy troubleshooting and field installation.

Convertible filter rack

Units are provided with the selected 2 in. or 4 in. filter. With a simple conversion in the field, units can accept either size filter in the standard filter rack.

Full perimeter base rails

The permanently attached base rails provide a solid foundation for the entire unit and protect the unit during shipment. The rails offer rigging holes so that you can use an overhead crane to place the units on a roof.

Operating conditions

The units are capable of starting and running at 125°F outdoor temperature, exceeding the maximum load criteria of AHRI Standard 340/360. The compressor, with standard controls, is capable of operation down to 35°F outdoor temperature in all installations and as low as 0°F outdoor temperature with cyclic cooling cycles in certain

applications. The addition of a low ambient kit allows for cooling operation down to -20°F outdoor temperature. Gas heat is rated to operate in outdoor temperatures down to -40°F.

Safety monitoring

The control monitors the outdoor, supply, and return air temperatures and the high and low pressure switch status on the independent refrigerant circuits. On units with heating, the gas valve and high temperature limit switches are monitored on gas and electric heating units. The control also monitors the voltage supplied to the unit and protects the unit if low voltage occurs due to a brown out, or if other electrical issues occur.

Anti-short cycle protection

To aid compressor life, an anti-short cycle delay is incorporated into the standard control. Compressor reliability is further ensured by programmable minimum run times. For testing, you can temporarily override the anti-short cycle delay with the push of a button.

Fan delays

Fan on and fan off delays are fully programmable. The heating and cooling fan delay times are independent of one another. All units are programmed with default values based on their configuration of cooling and heating capacity.

Nuisance trip protection and three strikes

To prevent nuisance calls, the control board uses a **three times, you're out** philosophy. The high-pressure switch, low-pressure switch, antifreeze protection, or low voltage detection must trip three times within 2 hours before the unit control board locks out the associated compressor. The heating high limit switch must trip three times within one hour before the unit control board locks out heating operation. During a lock out an alarm message appears on the LCD.

Low limit control

When there is a demand for cooling during cold outside conditions, the low limit control (LLC) prevents the supply air from dropping below a specified setpoint. This is a programmable setpoint.

Refrigerant Detection System (RDS)

Integrated sensors providing R-454B leak detection. The RDS shall be connected into unit controls and automatically start a sequence to dilute refrigerant gas as well as alarm upon sensing the presence of refrigerant in the cabinet, indicating a leak equal to 25% of the Lower Flammability Limit. The RDS shall contain factory installed sensors that are located to ensure accurate and timely sensing of a leak.

Options and accessories

Non-electrical option or accessory	Factory option	Field-installed option
Roof curb, 14 in.		✓
Louvered hail guard	✓	✓
Hinged and toolless access panels	✓	
Double wall panels	✓	
Magna-Dry modulating hot gas reheat dehumidification	✓	
Aluminized steel gas heat exchanger	✓	
Stainless steel gas heat exchanger	✓	
Modulating gas heat	✓	
Flue exhaust extension		✓
Propane conversion		✓
High altitude kit for propane		✓
High altitude kit for natural gas		✓
Stainless steel drain pan	✓	
E-coat coil coating	✓	
Service valves	✓	
VFD grounding ring	✓	
MERV 8, 2 in. filter	✓	
MERV 13, 4 in. filter	✓	

Electrical option or accessory	Factory option	Field-installed option
IntelliSpeed discrete fan control	✓	
Multi-zone variable air volume (VAV)	✓	
CRSZ control single zone VAV	✓	
Electric heat*	✓	
Standard, medium, or high static indoor blower motor	✓	
Disconnect switch	✓	
Circuit breaker disconnect	✓	
Powered convenience outlet	✓	
Non-powered convenience outlet	✓	
65 kA high SCCR	✓	
Phase monitor	✓	
① Note: *Electric heat is only available for standard horizontal and standard vertical airflow		

Fresh air option or accessory	Factory option	Field-installed option
Manual outside air damper	✓	
Low leak economizer	✓	
Single or dual enthalpy economizer control	✓	
Barometric relief damper	✓	
Constant volume power exhaust	✓	
Modulating power exhaust	✓	
Bolt on energy recovery ventilator (ERV) - available only on vertical return units		✓

Controls option or accessory	Factory option	Field-installed option
Air proving switch	✓	✓
Dirty filter switch	✓	✓
CO ₂ sensor	✓	✓
Condensate overflow switch	✓	✓
Low ambient head pressure control	✓	
Supply and return air smoke detectors	✓	✓
Smart Equipment control communication card	✓	✓

Controls option or accessory	Factory option	Field-installed option
Connected Workflow Wireless Converter (CWCVT) for use with Smart Equipment control	✓	✓
SkyQ Controls	✓	✓

Factory and field-installed options

Select units have many factory options and field-installed accessories available for a wide range of application needs.

IntelliSpeed discrete fan control with VFD

Factory option

The IntelliSpeed blower control method uses a VFD to control staged modulation of the supply fan airflow in what is called multispeed fan control or discrete fan control. The VFD runs the supply fan at predetermined speeds set at the factory based on the number of cooling stages engaged by the cooling demand. This feature allows for higher part load efficiency and meets all requirements of ASHRAE 90.1-2022, 2021 IECC, and DOE 2023.

Multi-zone variable air volume (VAV)

Factory option

Intended for job applications where multiple zones are serviced by a single rooftop with zone dampers in the ductwork to control airflow to each zone. Similar to the IntelliSpeed blower control method, the VAV blower control option uses a VFD to control modulation of the supply fan airflow. Unlike IntelliSpeed, VAV operation provides full modulation of the supply fan speed to provide both a constant supply air temperature and a constant duct static pressure. This modulation is controlled by the VFD based on readings from a pressure transducer mounted in the unit supply duct.

Continuous Reset Single Zone Control (CRSZ) VAV

Factory option

A proprietary control logic for single-zone VAV applications, the CRSZ control option provides the industry's best temperature control of a single-zone VAV system. The CRSZ control airflow option uses compressor staging and fan speed, along with programmatic resetting of the supply air temperature setpoint, to deliver stable zone temperature and humidity control.

High static indoor blower motor

Factory option

For applications with high static restrictions, units are offered with optional indoor motors that provide higher static output to varying degrees based on the application requirements.

MagnaDry modulating hot gas reheat dehumidification

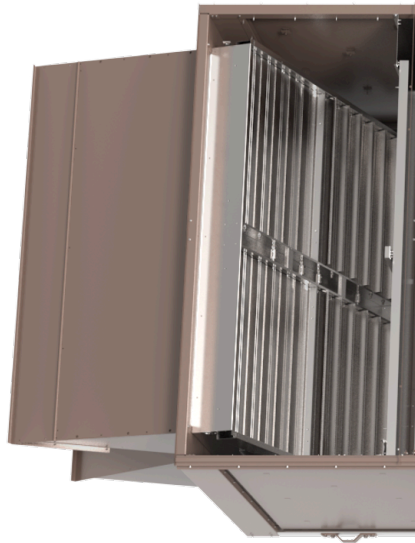
Factory option

Units optioned with reheat coils provide superior dehumidification at a wide range of outdoor temperatures to provide maximum comfort without overcooling the space. Unlike traditional on and off reheat systems, this system modulates dehumidification to more accurately meet the humidity and temperature setpoints.

Low leak economizer with fresh air hood

Factory option

All units offer a variety of optional factory-installed economizers that are shipped, installed, and wired with low leak dampers. The dampers are designed to meet ASHRAE 90.1, AMCA 511 Class 1A damper, and the International Energy Conservation Code (IECC) certification requirements by achieving leakage rates of 3 CFM/sq ft. at 1 in. of static pressure. Each economizer goes through a rigorous 60,000 cycle test. You can select dry bulb, single enthalpy, or dual enthalpy economizer control as a factory option. The economizer has spring return, fully modulating damper actuators and it is capable of introducing up to 100% outdoor air. As the outdoor air intake dampers open, the return air dampers close. The changeover from mechanical refrigeration to economizer operation is regulated by the outdoor air dry bulb temperature or the outdoor air enthalpy input.

Figure 5: Economizer**Single or dual enthalpy control**

Factory or field-installed option

Low leak economizers are available with standard dry bulb sensing. You can select the following configurations for true enthalpy control of the unit economizer:

- Single enthalpy control to monitor outdoor air humidity and temperature.
- Dual enthalpy control to monitor outdoor air and return air humidity and temperature.
- Single or dual enthalpy sensors are available factory installed.

Manual outside air damper

Factory option

The manual outdoor air damper includes a slide-in assembly with a manually adjustable opening for fresh air entry. The factory-installed damper has an opening range of 0% to 100%.

Barometric relief damper

Factory option

You can use this damper option to relieve internal building air pressure on units with an economizer or motorized damper without a power exhaust. This accessory includes a rain hood, a bird screen, and a fully assembled damper.

Constant volume power exhaust

Factory option

Units with an economizer are available with constant volume power exhaust. When the outdoor air intake dampers are opened for free cooling, the exhaust fan is energized to prevent the conditioned space from being over-pressurized during economizer operation.

Modulating power exhaust

Factory option

For more precise control over a unit's exhaust performance, you can select a modulating power exhaust as a factory option. The modulating power exhaust monitors fluctuations to the static pressure in the duct and works in conjunction with the unit economizer to equalize pressure changes caused by bringing in fresh air.

Bolt on energy recovery ventilator (ERV)

Field-installed option

An ERV uses an enthalpy wheel with silica gel to absorb heat and humidity, in either the intake or exhaust air, to condition the incoming outdoor air. Preconditioning the air significantly reduces the load on the packaged unit when compared to units without an ERV installed. This reduces a buildings' cooling and heating capacity requirements as the lower operational costs of the packaged unit equipment yields positive energy savings.

When used correctly, economizers generate significant savings by using cool outside air to condition a building without running the unit's compressors. While most ERV systems have limited economizer operation, the Select ERV has a separate set of economizer dampers that bypass the ERV during economizer operation. This means the Select ERV can run at 100% economizer operation.

A field-installed bolt-on ERV is available only for standard vertical airflow and crossflow (horizontal supply, vertical return) configuration Select units. The ERVs are available for cabinet sizes A41 (27.5 ton to 35 ton) and A42 (40 ton to 50 ton) and are available for economizer options only. For additional information, see the product *Nomenclature*. These units are designed for field installation on Select units, eliminating the cost of additional ductwork and dampers associated with indoor air quality (IAQ) applications.

The ERV comes equipped with solid base rails to support the product and to ensure correct fork truck lifting and crane rigging (refer to the *ERV Installation Manual*). For additional information on optional accessories and performance specifications, refer to the *ERV Technical Guide - 903106* and the *ERV Installation Manual* available on <http://www.solutionnavigator.com>.

Staged electric heat*

Factory option

Electric heat is available as a factory option in various sizes and is available in all voltage options of the base units. All heaters are single point power.

❶ **Note:** *Only available for standard horizontal and standard vertical airflow.

Staged gas heat

Factory option in aluminized steel or stainless steel

Staged gas heating is available in two sizes, each with two stages of operation. The standard gas heat exchanger comes in aluminized steel for applications in non-corrosive environments with an optional stainless steel gas heat exchanger available for application in corrosive environments.

Modulating gas heat

Factory option

For improved temperature control and to provide more exact heating operation, select a modulating gas heat furnace. With the same maximum heating capacity as the high-heat staged gas heat and a 4.4 to 1 (27.5 and 30 ton models) or 5.7 to 1 (35, 40, and 50 ton models) turndown ratio, the modulating gas heat option provides the same full load heating capabilities as the staged heating option and can also adjust the input rate to reflect the heating call. All modulating gas heat furnaces are equipped with stainless steel heat exchangers.

Flue exhaust extension

Field-installed option

In locations with wind or weather conditions that may interfere with the correct exhausting of furnace combustion products, this accessory can prevent the flue exhaust from entering nearby fresh air intakes.

Propane conversion kit

Field-installed option

Use this kit to convert a gas-fired heater from natural gas to propane. It contains the main burner orifices and gas valve replacement springs.

Gas heat high altitude kit

Field-installed option

Use this kit to convert a gas heat unit to operate at high altitudes from 2,000 ft to 10,000 ft. Conversion kits are available for natural gas and propane.

Louvered hail guard

Factory or field-installed option

A louvered hail guard protects the unit condenser coils and outdoor condenser area from a wide range of damage caused by events such as hail, tampering, and animal entry.

Figure 6: Louvered hail guard

**Hinged and toolless access panels**

Factory option

To reduce service time, hinged and toolless access panels provide quick and easy access to frequently inspected or service components and areas of the unit. Hinged panels provide access to the control box, filters, gas and electric heat controls, and indoor blower section.

Double wall cabinet

Factory option

Double wall sheet metal construction to provide smooth inner surfaces on all surfaces in the air stream for easy and effective cleaning to reduce risk of dirt and bacterial accumulation.

Stainless steel drain pan

Factory option

An optional rust-proof stainless steel drain pan is available to provide years of trouble-free operation in corrosive environments.

Circuit breaker disconnect

Factory option

A factory-installed circuit breaker disconnect provides both easy access to shut off power to the unit for safe servicing and also protects the unit from a short-circuit or overload condition.

Disconnect switch

Factory option

A factory-mounted service disconnect switch provides easy access to shut off power to the unit for safe servicing of the product.

Powered convenience outlet

Factory option

The powered convenience outlet option provides a 120 V single-phase GFCI outlet with a cover on the unit exterior. The outlet is powered by a stepdown transformer in the unit.

Non-powered convenience outlet

Factory option

The non-powered convenience outlet option provides a 120 V single-phase GFCI outlet with a cover on the exterior of the unit. The outlet requires the installer to provide the 120 V single-phase power source and wiring.

65 kA high SCCR

Factory option

The high SCCR electrical option replaces all necessary electrical components and wiring with higher rated components and larger gauge wiring to increase the short-circuit current rating to 65 kA from the standard unit 5 kA rating. This provides additional protection to the unit in the event of a short-circuit condition.

Supply and return air smoke detectors

Factory or field-installed option

The smoke detectors stop operation of the unit and provide a fault message to the control board. Smoke detectors are available for supply or return air configurations.

WARNING

Factory-installed smoke detectors may be subjected to extreme temperatures during off times due to outside air infiltration. These smoke detectors have an operational limit of -4°F to 158°F. Smoke detectors installed in areas that could be outside this range must be relocated to prevent false alarms.

Phase monitor

Factory option

Monitors the electrical phase to the unit to prevent damage from out-of-phase conditions.

Air proving switch

Factory or field-installed option

To ensure correct indoor blower operation, you can use an optional air proving switch to monitor whether supply air airflow is present when a cooling or heating cycle initiates. If the correct airflow is not detected at the beginning of a cycle or throughout operation, the call for heating or cooling is canceled and a unit alarm registered.

Dirty filter switch

Factory or field-installed option

This option includes a differential pressure switch that energizes the fault light on the unit thermostat, indicating that there is an abnormally high pressure drop across the filters.

CO₂ sensor

Factory or field-installed option

The provided CO₂ sensor detects CO₂ levels and automatically overrides the economizer when levels rise above the preset limits.

Condensate overflow switch

Factory or field-installed option

Mounted to the unit drain pan, the condensate overflow switch is a float switch that monitors the level of water in the drain pan to shut down unit operation and prevent drain pan overflow within the unit.

Low ambient head pressure control

Factory option

An integrated low-ambient control allows units to operate in the cooling mode down to 0°F outdoor ambient without additional components or intervention. The option includes a divider panel for the condenser section to isolate airflow through the condenser coils. Optionally, you can program the control board to lock out the compressors when the outdoor air temperature is low or when free cooling is available.

E-coat evaporator and condenser

Factory option

The evaporator or condenser coils are coated with an epoxy polymer coating to protect against corrosion.

Filters

Factory option

2 in. pleated MERV 8 or 4 in. pleated MERV 13 are available to meet LEED requirements. A 2 in. throwaway is shipped as standard.

Burglar bars

Field-installed option

Mount in the supply and return openings to prevent entry into the duct work.

Service valves

Factory option

Additional service valves with optimized location for easier service access.

Smart Equipment control with communication card

Factory or field-installed option

The communication option for the Smart Equipment control is a factory installed add-on card to expand the capabilities with a gateway to BACnet MS/TP (programmable to Modbus or N2 protocols). This communication card also features Bluetooth wireless connectivity, allowing users to conveniently view operating status, adjust settings, troubleshoot, analyze trends, and modify schedules with the GoTemp Pro mobile app.

Connected Workflow Wireless Converter (CWCVT) for use with Smart Equipment control

Field-installed option

Bluetooth with GoTemp Pro puts critical information right at your fingertips, including literature, start-up sheets, parts lists, warranty status, ratings, controls files, product registration, an RDS calculator, and more. GoTemp Pro leverages advanced mobile technology like camera integration and geolocation services to streamline your

workflow. It integrates the functionality previously provided by CWa and MAP, allowing you to utilize the on-board communication card or simply plug in the CWCVT to enable Bluetooth connectivity.

SkyQ Controls

Field-installed option

SkyQ is a comprehensive light-commercial control system designed for mechanical contractors, even those with minimal controls expertise. It enables contractors to expand their offerings by bundling equipment and controls into a single solution.

SkyQ integrates seamlessly with Smart Equipment controls, and its pre-programmed controllers along with desktop and mobile apps make system commissioning simple and efficient. Supporting single-zone constant volume, single-zone VAV, multi-zone changeover bypass, and multi-zone VAV configurations, SkyQ covers the full range of traditional rooftop applications.

Systems can optionally be connected to the Internet for remote monitoring, configuration, and alarm notifications. Additional features, such as wireless networking, third-party RTU integration, I/O controllers, and control enclosures, further enhance contractor capabilities and open new opportunities for bundled solutions.

Refrigerant Detection System (RDS)

Integrated sensors providing R-454B leak detection. The RDS shall be connected into unit controls and automatically start a sequence to dilute refrigerant gas as well as alarm upon sensing the presence of refrigerant in the cabinet, indicating a leak equal to 25% of the Lower Flammability Limit. The RDS shall contain factory installed sensors that are located to ensure accurate and timely sensing of a leak.

Physical data

Vertical supply unit physical data

Table 2: VV27, VY27, VV30, and VY30 - 27.5 ton to 30 ton vertical supply/vertical return or vertical supply/horizontal return airflow unit

Component	Models					
	VV27/VY27			VV30/VY30		
Nominal tonnage	27.5			30		
ARI cooling performance	Two stage		Four stage	Two stage		Four stage
Gross capacity at ARI A point (Btu)	312,000		314,000	340,000		336,000
ARI net capacity (Btu)	300,000		304,000	330,000		326,000
EER	11.1 ¹ / 10.7 ²		11.4 ¹ / 10.8 ²	10.7 ¹ / 10.6 ²		10.8 ¹ / 10.5 ²
IEER with Intellispeed	15.3 ¹ /14.8 ²		16.2 ¹ /15.1 ²	14.3 ¹ / 14.0 ²		15.4 ¹ /14.3 ²
IEER with VAV	n/a		16.3 ¹ / 14.8 ²	n/a		14.7 ¹ /14.6 ²
CFM	10,700		10,300	9,400		9,100
System power (kW)	31		24.1	32		27.9
Refrigerant type	R-454B		R-454B	R-454B		R-454B
Refrigerant charge (lb-oz)						
System 1	12-04		12-12	14-04		13-08
System 2	12-04		11-08	13-04		13-00
ARI heating performance						
Heating model	N(S)1	N(S)3	T3	N(S)1	N(S)3	T3
Heating type	Stg. Low	Stg. High	Mod. High	Stg. Low	Stg. High	Mod. High
1st stage heat input (kBtu)	320	400	140	320	400	140
2nd stage heat input (kBtu)	400	620	620	400	620	620
1st stage heat output (kBtu)	259	324	113	259	324	113
2nd stage heat output (kBtu)	324	502	502	324	502	502
Steady state efficiency (%)	81	81	81	81	81	81
Number of burners	9	9/5	9/5	9	9/5	9/5
Number of stages / Turn down	2/1.25	2/1.55	2/4.42	2/1.25	2/1.55	2/4.42
Temperature rise range (°F)	25-35	35-60	35-60	20-35	35-55	35-55
Gas limit setting (°F) (top/bottom)	150	150/150	210/210	150	150/170	210/210
Gas piping connection (in.)	3/4	1-1/4	1-1/14	3/4	1-1/4	1-1/14
Dimensions (in.)						
Length	180					
Width	90					
Height	70					
Operating weight (lb)	4,078			4,105		
Compressors	Two stage		Four stage	Two stage		Four stage
Type	Scroll		Scroll	Scroll		Scroll
Quantity	2		3	2		3
Unit capacity steps (%)	50 / 100		24 / 51 / 76 /100	50 / 100		24 / 52 / 76 /100
Condenser coil data						
Face area (sq. ft)	51.2			61.6		
Type	MCHX			MCHX		
Thickness (mm)	20			20		
FPI	23			23		
Circuitry type	2-Pass			2-Pass		
Evaporator coil data						
Face area (sq. ft)	34.4			34.4		
Rows	3			3		
Fins per in.	15			15		
Tube diameter	3/8			3/8		

Table 2: VV27, VY27, VV30, and VY30 - 27.5 ton to 30 ton vertical supply/vertical return or vertical supply/horizontal return airflow unit

Component	Models					
	VV27/VY27			VV30/VY30		
Nominal tonnage	27.5			30		
Circuitry type	Intertwined			Intertwined		
Refrigerant control	TXV			TXV		
Condenser fan data						
Quantity	4			4		
Fan diameter (in.)	30			30		
Type	Prop			Prop		
Drive type	Direct			Direct		
Number of motors	4			4		
Motor HP each	1			1		
RPM	1,140			1,140		
Nominal total CFM	28,530			29,800		
Belt drive evap fan data						
Quantity	2			2		
Fan size (in.)	18 x 18			18 x 18		
Type	Centrifugal			Centrifugal		
Static range	Std	Med	High	Std	Med	High
Motor sheave	1VP65	2VP60	2VP60	1VP60	1VP68	2VP60
Blower sheave	1B5V124	2B5V94	2B5V86	1B5V124	1B5V110	2B5V90
Belt	BX82	BX75	BX74	5VX830	5VX830	BX74
Motor HP each	7.5	10.0	15.0	7.5	10.0	15.0
Motor RPM	1,800	1,800	1,800	1,800	1,800	1,800
Frame size	213T	215T	254T	213T	215T	254T
Filters						
Quantity - size	9 - (20 x 20 x 2) ^{3,4}			9 - (20 x 20 x 2) ^{3,4}		
	9 - (20 x 20 x 4) ⁵			9 - (20 x 20 x 4) ⁵		
	3 - (20 x 25 x 2) ^{3,4}			3 - (20 x 25 x 2) ^{3,4}		
	3 - (20 x 25 x 4) ⁵			3 - (20 x 25 x 4) ⁵		
ID Blower power (kW)	2.8 ¹ / 3.5 ²		2.6 ¹ / 3.4 ²	3.1 ¹ / 3.4 ²		2.4 ¹ / 3.0 ²

1. Cooling only unit or cooling unit with electric heat.
2. Cooling unit with gas heat.
3. 2 in. throwaway, standard, MERV (Minimum Efficiency Reporting Value) 3
4. Optional 2 in. pleated, MERV 8
5. Optional 4 in. pleated, MERV 13

Table 3: VV35, VY35, VV40, and VY40 - 35 ton to 40 ton vertical supply/vertical return or vertical supply/horizontal return airflow unit

Component	Models					
	VV35/VY35			VV40/VY40		
Nominal tonnage	35			40		
ARI cooling performance	Two stage	Four stage		Two stage	Four stage	
Gross capacity at ARI A point (Btu)	400,000	405,000		435,000	435,000	
ARI net capacity (Btu)	388,000	388,000		410,000	410,000	
EER	11.7 ¹ / 11.0 ²	11.1 ¹ / 10.7 ²		10.8 ¹ / 10.5 ²	10.6 ¹ / 10.4 ²	
IEER with Intellispeed	16.3 ¹ / 14.8 ²	16.7 ¹ /16.0 ²		15.5 ¹ / 15.2 ²	17.3 ¹ / 17.0 ²	
IEER with VAV	n/a	16.8 ¹ / 15.7 ²		n/a	16.7 ¹ / 16.4 ²	
CFM	10,500	10,800		15,100	15,000	
System power (kW)	29.6	31.1		39	32	
Refrigerant type	R-454B	R-454B		R-454B	R-454B	
Refrigerant charge (lb-oz)						
System 1	17-00	17-00		24-08	25-00	
System 2	16-08	15-08		23-04	23-12	
ARI heating performance						
Heating model	N(S)1	N(S)3	T3	N(S)1	N(S)3	T3
Heating type	Stg. Low	Stg. High	Mod. High	Stg. Low	Stg. High	Mod. High
1st stage heat input (kBtu)	320	400	140	320	400	140
2nd stage heat input (kBtu)	400	800	800	400	800	800
1st stage heat output (kBtu)	259	324	113	259	324	113
2nd stage heat output (kBtu)	324	648	648	324	648	648
Steady state efficiency (%)	81	81	81	81	81	81
Number of burners	9	9/9	9/9	9	9/9	9/9
Number of stages/turn down	2/1.25	2/2	2/5.71	2/1.25	2/2	2/5.71
Temperature rise range (°F)	20-30	35-60	35-60	15-25	35-50	35-50
Gas limit setting (°F) (top/bottom)	140	140/160	170/210	170	140/140	170/170
Gas piping connection (in.)	3/4	1-1/4	1-1/14	3/4	1-1/4	1-1/14
Dimensions (in.)						
Length	180			232		
Width	90			90		
Height	70			77		
Operating weight (lb)	4,191			5,742		
Compressors	Two stage	Four stage		Two stage	Four stage	
Type	Scroll	Scroll		Scroll	Scroll	
Quantity	2	3		2	3	
Unit capacity steps (%)	50 / 100	25 / 50/ 75 / 100		50 / 100	25 / 50/ 75 / 100	
Condenser coil data						
Face area (sq. ft)	61.6			112.4		
Type	MCHX			MCHX		
Thickness (mm)	20			20		
FPI	23			23		
Circuitry type	2-Pass			2-Pass		

Table 4: VV35, VY35, VV40, and VY40 - 35 ton to 40 ton vertical supply/vertical return or vertical supply/horizontal return airflow unit (continued)

Component	Models					
	VV35/VY35			VV40/VY40		
Nominal tonnage	35			40		
Evaporator coil data						
Face area (sq. ft)	34.4			38.9		
Rows	4			4		
Fins per in.	15			15		
Tube diameter	3/8			3/8		
Circuitry type	Intertwined			Intertwined		
Refrigerant control	TXV			TXV		
Condenser fan data						
Quantity	4			4		
Fan diameter (in.)	30			30		
Type	Prop			Prop		
Drive type	Direct			Direct		
Number of motors	4			4		
Motor HP each	1			1		
RPM	1,140			1,140		
Nominal total CFM	29,800			34,109		
Belt drive evaporator fan data						
Quantity	2			2		
Fan size (in.)	18x18			20x18		
Type	Centrifugal			Centrifugal		
Static range	Std	Med	High	Std	Med	High
Motor sheave	1VP65	2VP60	2VP60	1VP60	1VP75	2VP60
Blower sheave	1B5V124	2B5V94	2B5V86	1B5V124	1B5V136	2B5V94
Belt	BX82	BX75	BX74	5VX830	5VX880	5VX780
Motor HP each	7.5	10.0	15.0	10.0	15.0	20.0
Motor RPM	1800	1,800	1,800	1,800	1,800	1,800
Frame size	213T	215T	254T	215T	254T	256T
Filters						
Quantity - size	9 - (20 x 20 x 2) ^{3,4}			4 - (20 x 20 x 2) ^{3,4}		
	9 - (20 x 20 x 4) ⁵			4 - (20 x 20 x 4) ⁵		
	3 - (20 x 25 x 2) ^{3,4}			8 - (20 x 25 x 2) ^{3,4}		
	3 - (20 x 25 x 4) ⁵			8 - (20 x 25 x 4) ⁵		
ID Blower power (kW)	3.5 ¹ / 4.1 ²		3.9 ¹ / 4.4 ²		6.5 ¹ / 7.4 ²	
					6.6 ¹ / 7.5 ²	

1. Cooling only unit or cooling unit with electric heat
2. Cooling unit with gas heat
3. 2 in. throwaway, standard, MERV (Minimum Efficiency Reporting Value) 3
4. Optional 2 in. pleated, MERV 8
5. Optional 4 in. pleated, MERV 13

Table 5: VV50 and VY50 - 50 ton vertical supply/vertical return or vertical supply/horizontal return airflow unit

Component	Models		
	VV50/VY50		
Nominal tonnage	50		
ARI cooling performance	Two stage		Four stage
Gross capacity at ARI A point (Btu)	560,000		560,000
ARI net capacity (Btu)	530,000		530,000
EER	10.7 ¹ / 10.4 ²		10.9 ¹ / 10.5 ²
IEER with Intellispeed	15.3 ¹ / 15.1 ²		16.9 ¹ /16.0 ²
IEER with VAV	n/a		16.6 ¹ / 16.0 ²
CFM	16,200		15,900
System power (kW)	42.7		41.3
Refrigerant type	R-454B		R-454B
Refrigerant charge (lb-oz)			
System 1	31-00		32-08
System 2	30-02		29-10
ARI heating performance			
Heating model	N(S)1	N(S)3	T3
Heating type	Stg. Low	Stg. High	Mod. High
1st stage heat input (kBtu)	320	400	140
2nd stage heat input (kBtu)	400	800	800
1st stage heat output (kBtu)	259	324	113
2nd stage heat output (kBtu)	324	648	648
Steady state efficiency (%)	81	81	81
Number of burners	9	9/9	9/9
Number of stages / turn down	2/1.25	2/2	2/5.71
Temperature rise range (°F)	15-20	30-40	30-40
Gas limit setting (°F) (top/bottom)	150	150/150	170/170
Gas piping connection (in.)	3/4	1-1/4	1-1/14
Dimensions (in.)			
Length	232		
Width	90		
Height	77		
Operating weight (lb)	5,984		
Compressors	Two stage		Four stage
Type	Scroll		Scroll
Quantity	2		3
Unit capacity steps (%)	50 / 100		25 / 50/ 75 / 100
Condenser coil data			
Face area (sq. ft)	112.4		
Type	MCHX		
Thickness (mm)	25		
FPI	23		
Circuitry type	2-Pass		

Table 6: VV50 and VY50 - 50 ton vertical supply/vertical return or vertical supply/horizontal return airflow unit (continued)

Component	Models		
	VV50/VY50		
Nominal tonnage	50		
Evaporator coil data			
Face area (sq. ft)	38.9		
Rows	5		
Fins per in.	15		
Tube diameter	3/8		
Circuitry type	Intertwined		
Refrigerant control	TXV		
Condenser fan data			
Quantity	4		
Fan diameter (in.)	30		
Type	Prop		
Drive type	Direct		
Number of motors	4		
Motor HP each	2		
RPM	1,200		
Nominal total CFM	41676		
Belt drive evaporator fan data			
Quantity	2		
Fan size (in.)	20x18		
Type	Centrifugal		
Static range	Std	Med	High
Motor sheave	1VP60	1VP75	2VP60
Blower sheave	1B5V124	1B5V136	2B5V94
Belt	5VX830	5VX880	5VX780
Motor HP each	10.0	15.0	20.0
Motor RPM	1,800	1,800	1,800
Frame size	215T	254T	256T
Filters			
Quantity - size	4 - (20 x 20 x 2) ^{3, 4}		
	4 - (20 x 20 x 4) ⁵		
	8 - (20 x 25 x 2) ^{3, 4}		
	8 - (20 x 25 x 4) ⁵		
ID Blower power (kW)	7.2 ¹ / 8.2 ²		7.8 ¹ / 8.9 ²

1. Cooling only unit or cooling unit with electric heat
2. Cooling unit with gas heat
3. 2 in. throwaway, standard, MERV (Minimum Efficiency Reporting Value) 3
4. Optional 2 in. pleated, MERV 8
5. Optional 4 in. pleated, MERV 13

Horizontal supply unit physical data

Table 7: VH27, VX27, VH30, and VX30 - 27.5 ton to 30 ton horizontal supply/horizontal return or horizontal supply/vertical return airflow unit

Component	Models					
	VH27/VX27			VH30/VX30		
Nominal tonnage	27.5			30		
ARI cooling performance	Two stage	Four stage		Two stage	Four stage	
Gross Capacity at ARI A point (Btu)	312,000	316,000		340,000	336,000	
ARI net capacity (Btu)	298,000	302,000		328,000	326,000	
EER	10.9 ¹ / 10.5 ²	11.3 ¹ / 10.9 ²		10.5 ¹ / 10.4 ²	10.7 ¹ / 10.4 ²	
IEER with Intellispeed	15.2 ¹ / 14.7 ²	16.1 ¹ / 15.8 ²		13.8 ¹ / 13.5 ²	15.3 ¹ / 15.1 ²	
IEER with VAV	n/a	16.2 ¹ / 15.9 ²		n/a	14.9 ¹ / 14.7 ²	
CFM	10,700	10,300		9,400	9,100	
System power (kW)	31	24.1		32	27.9	
Refrigerant type	R-454B	R-454B		R-454B	R-454B	
Refrigerants charge (lb-oz)						
System 1	12-04	12-12		14-04	13-08	
System 2	12-04	11-08		13-04	13-00	
ARI heating performance						
Heating model	N(S)1	N(S)3	T3	N(S)1	N(S)3	T3
Heating type	Stg. Low	Stg. High	Mod. High	Stg. Low	Stg. High	Mod. High
1st stage heat input (kBtu)	320	400	140	320	400	140
2nd stage heat input (kBtu)	400	620	620	400	620	620
1st stage heat output (kBtu)	259	324	113	259	324	113
2nd stage heat output (kBtu)	324	502	502	324	502	502
Steady state efficiency (%)	81	81	81	81	81	81
Number of burners	9	9/5	9/5	9	9/5	9/5
Number of stages / Turn down	2/1.25	2/1.55	2/4.42	2/1.25	2/1.55	2/4.42
Temperature rise range (°F)	25-35	35-60	35-60	20-35	35-55	35-55
Gas limit setting (°F) (top/bottom)	120	160/230	230/300	120	150/210	230/300
Gas piping connection (in.)	3/4	1 1/4	1 1/4	3/4	1 1/4	1 1/14
Dimensions (in.)						
Length	180					
Width	90					
Height	70					
Operating weight (lb)	4078			4105		
Compressors	Two stage	Four stage		Two stage	Four stage	
Type	Scroll	Scroll		Scroll	Scroll	
Quantity	2	3		2	3	
Unit capacity steps (%)	50 / 100	24 / 51 / 76 /100		50 / 100	24 / 52 / 76 /100	
Condenser coil data						
Face area (sq. ft)	51.2			61.6		
Type	MCHX			MCHX		
Thickness (mm)	20			20		
FPI	23			23		
Circuitry type	2-Pass			2-Pass		

Table 8: VH27, VX27, VH30, and VX30 - 27.5 ton to 30 ton horizontal supply/horizontal return or horizontal supply/vertical return airflow unit (continued)

Component	Models					
	VH27/VX27			VH30/VX30		
Nominal tonnage	27.5			30		
Evaporator coil data						
Face area (sq. ft)	34.4			34.4		
Rows	3			3		
Fins per inch	15			15		
Tube diameter	3/8			3/8		
Circuitry type	Intertwined			Intertwined		
Refrigerant control	TXV			TXV		
Condenser fan data						
Quantity	4			4		
Fan diameter (in.)	30			30		
Type	Prop			Prop		
Drive type	Direct			Direct		
Number of motors	4			4		
Motor HP each	1			1		
RPM	1140			1140		
Nominal total CFM	28530			29800		
Belt drive evap fan data						
Quantity	2			2		
Fan size (in.)	18x18			18x18		
Type	Centrifugal			Centrifugal		
Static range	Std	Med	High	Std	Med	High
Motor sheave	1VP65	2VP60	2VP60	1VP65	2VP60	2VP60
Blower sheave	1B5V124	2B5V94	2B5V86	1B5V124	2B5V94	2B5V86
Belt	BX82	BX75	BX74	BX82	BX75	BX74
Motor HP each	7.5	10.0	15.0	7.5	10.0	15.0
Motor RPM	1800	1800	1800	1800	1800	1800
Frame size	213T	215T	254T	213T	215T	254T
Filters						
Quantity - size	9 - (20 x 20 x 2) ^{3,4}			9 - (20 x 20 x 2) ^{3,4}		
	9 - (20 x 20 x 4) ⁵			9 - (20 x 20 x 4) ⁵		
	3 - (20 x 25 x 2) ^{3,4}			3 - (20 x 25 x 2) ^{3,4}		
	3 - (20 x 25 x 4) ⁵			3 - (20 x 25 x 4) ⁵		
ID Blower power (kW)	3.2 ¹ / 3.9 ²		3.0 ¹ / 3.7 ²	3.7 ¹ / 3.9 ²		2.6 ¹ / 3.2 ²

1. Cooling only unit or cooling unit with electric heat
2. Cooling unit with gas heat
3. Standard 2 in. throwaway, MERV 3 (Minimum Efficiency Reporting Value)
4. Optional 2 in. pleated, MERV 8
5. Optional 4 in. pleated, MERV 13

Table 9: VH35, VX35, VH40, and VX40 - 35 ton to 40 ton horizontal supply/horizontal return or horizontal supply/vertical return airflow unit

Component	Models					
	VH35/VX35			VH40/VX40		
Nominal tonnage	35			40		
ARI cooling performance	Two stage	Four stage		Two stage	Four stage	
Gross Capacity at ARI A point (Btu)	400,000	405,000		435,000	435,000	
ARI net capacity (Btu)	388,000	386,000		410,000	410,000	
EER	11.6 ¹ / 11.4 ²	10.8 ¹ / 10.6 ²		10.7 ¹ / 10.4 ²	10.5 ¹ / 10.2 ²	
IEER with Intellispeed	15.5 ¹ / 15.1 ²	16.5 ¹ / 16.1 ²		15.3 ¹ / 15.0 ²	17.2 ¹ / 17.0 ²	
IEER with VAV	n/a	16.5 ¹ / 16.1 ²		n/a	16.7 ¹ / 16.4 ²	
CFM	10,500	10,800		15,100	15,000	
System power (kW)	29.6	31.1		39	32	
Refrigerant type	R-454B	R-454B		R-454B	R-454B	
Refrigerants charge (lb-oz)						
System 1	17-00	17-00		24-08	25-00	
System 2	16-08	15-08		23-04	23-12	
ARI heating performance						
Heating model	N(S)1	N(S)3	T3	N(S)1	N(S)3	T3
Heating type	Stg. Low	Stg. High	Mod. High	Stg. Low	Stg. High	Mod. High
1st stage heat input (kBtu)	320	400	140	320	400	800
2nd stage heat input (kBtu)	400	800	800	400	800	800
1st stage heat output (kBtu)	259	324	113	259	324	113
2nd stage heat output (kBtu)	324	648	648	324	648	648
Steady state efficiency (%)	81	81	81	81	81	81
Number of burners	9	9/9	9/9	9	9/9	9/9
Number of stages / turn down	2/1.25	2/2	2/5.71	2/1.25	2/2	2/5.71
Temperature rise range (°F)	20-30	35-60	35-60	15-25	35-50	35-50
Gas limit setting (°F) (top/bottom)	170	240/190	180/270	130	260/230	200/270
Gas piping connection (in.)	3/4	1 1/4	1 1/4	3/4	1 1/4	1 1/14
Dimensions (in.)						
Length	180			232		
Width	90			90		
Height	70			77		
Operating weight (lb)	4191			5742		
Compressors	Two stage	Four stage		Two stage	Four stage	
Type	Scroll	Scroll		Scroll	Scroll	
Quantity	2	3		2	3	
Unit capacity steps (%)	50 / 100	25 / 50/ 75 / 100		50 / 100	25 / 50/ 75 / 100	
Condenser coil data						
Face area (sq. ft)	61.6			112.4		
Type	MCHX			MCHX		
Thickness (mm)	20			20		
FPI	23			23		
Circuitry type	2-Pass			2-Pass		

Table 10: VH35, VX35, VH40, and VX40 - 35 ton to 40 ton horizontal supply/horizontal return or horizontal supply/vertical return airflow unit (continued)

Component	Models					
	VH35/VX35			VH40/VX40		
Nominal tonnage	35			40		
Evaporator coil data						
Face area (sq. ft)	34.4			38.9		
Rows	4			4		
Fins per inch	15			15		
Tube diameter	3/8			3/8		
Circuitry type	Intertwined			Intertwined		
Refrigerant control	TXV			TXV		
Condenser fan data						
Quantity	4			4		
Fan diameter (in.)	30			30		
Type	Prop			Prop		
Drive type	Direct			Direct		
Number of motors	4			4		
Motor HP each	1			1		
RPM	1140			1140		
Nominal total CFM	29800			34109		
Belt drive evap fan data						
Quantity	2			2		
Fan size (in.)	18 x 18			20 x 18		
Type	Centrifugal			Centrifugal		
Static range	Std	Med	High	Std	Med	High
Motor sheave	1VP65	2VP60	2VP60	1VP60	1VP75	2VP60
Blower sheave	1B5V124	2B5V94	2B5V86	1B5V124	1B5V136	2B5V94
Belt	BX82	BX75	BX74	5VX830	5VX880	5VX780
Motor HP each	7.5	10.0	15.0	10.0	15.0	20.0
Motor RPM	1800	1800	1800	1800	1800	1800
Frame size	213T	215T	254T	215T	254T	256T
Filters						
Quantity - size	9 - (20 x 20 x 2) ^{3,4}			4 - (20 x 20 x 2) ^{3,4}		
	9 - (20 x 20 x 4) ⁵			4 - (20 x 20 x 4) ⁵		
	3 - (20 x 25 x 2) ^{3,4}			8 - (20 x 25 x 2) ^{3,4}		
	3 - (20 x 25 x 4) ⁵			8 - (20 x 25 x 4) ⁵		
ID Blower power (kW)	3.7 ¹ / 4.3 ²	4.7 ¹ / 5.2 ²		7.0 ¹ / 7.7 ²		6.9 ¹ / 7.8 ²

1. Cooling only unit or cooling unit with electric heat
2. Cooling unit with gas heat
3. Standard 2 in. throwaway, MERV 3 (Minimum Efficiency Reporting Value)
4. Optional 2 in. pleated, MERV 8
5. Optional 4 in. pleated, MERV 13

Table 11: VH50 and VX50 - 50 ton horizontal supply/horizontal return or horizontal supply/vertical return airflow unit

Component	Models		
	VH50/VX50		
Nominal tonnage	50		
ARI cooling performance	Two stage	Four stage	
Gross Capacity at ARI A point (Btu)	560,000	560,000	
ARI net capacity (Btu)	530,000	530,000	
EER	10.6 ¹ / 10.3 ²	10.7 ¹ / 10.5 ²	
IEER with Intellispeed	15.2 ¹ / 15.0 ²	16.9 ¹ / 16.7 ²	
IEER with VAV	n/a	16.5 ¹ / 16.3 ²	
CFM	16,200	15,900	
System power (kW)	42.7	41.3	
Refrigerant type	R-454B	R-454B	
Refrigerants charge (lb-oz)			
System 1	31-00	32-08	
System 2	30-02	29-10	
ARI heating performance			
Heating model	N(S)1	N(S)3	TS3
Heating type	Stg. Low	Stg. High	Mod. High
1st stage heat input (kBtu)	320	400	140
2nd stage heat input (kBtu)	400	800	800
1st stage heat output (kBtu)	259	324	113
2nd stage heat output (kBtu)	324	648	648
Steady state efficiency (%)	81	81	81
Number of burners	9	9/9	9/9
Number of stages / Turn down	2/1.25	2/2	2/5.71
Temperature rise range (°F)	15-20	30-40	30-40
Gas limit setting (°F) (top/bottom)	130	170/180	200/270
Gas piping connection (in.)	3/4	1 1/4	1 1/4
Dimensions (in.)			
Length	232		
Width	90		
Height	77		
Operating weight (lb)	5984		
Compressors	Two stage	Four stage	
Type	Scroll	Scroll	
Quantity	2	3	
Unit capacity steps (%)	50 / 100	25 / 50/ 75 / 100	
Condenser coil data			
Face area (sq. ft)	112.4		
Type	MCHX		
Thickness (mm)	25		
FPI	23		
Circuitry type	2-Pass		

Table 12: VH50 and VX50 - 50 ton horizontal supply/horizontal return or horizontal supply/vertical return airflow unit (continued)

Component	Models		
	VH50/VX50		
Nominal tonnage	50		
Evaporator coil data			
Face area (sq. ft)	38.9		
Rows	5		
Fins per inch	15		
Tube diameter	3/8		
Circuitry type	Intertwined		
Refrigerant control	TXV		
Condenser fan data			
Quantity	4		
Fan diameter (in.)	30		
Type	Prop		
Drive type	Direct		
Number of motors	4		
Motor HP each	2		
RPM	1200		
Nominal total CFM	41676		
Belt drive evap fan data			
Quantity	2		
Fan size (in.)	20 x 18		
Type	Centrifugal		
Static range	Std	Med	High
Motor sheave	1VP60	1VP75	2VP60
Blower sheave	1B5V124	1B5V136	2B5V94
Belt	5VX830	5VX880	5VX780
Motor HP each	10.0	15.0	20.0
Motor RPM	1800	1800	1800
Frame size	215T	254T	256T
Filters			
Quantity - size	4 - (20 x 20 x 2) ^{3,4}		
	4 - (20 x 20 x 4) ⁵		
	8 - (20 x 25 x 2) ^{3,4}		
	8 - (20 x 25 x 4) ⁵		
ID Blower power (kW)	7.6 ¹ / 8.7 ²		8.2 ¹ / 9.3 ²

1. Cooling only unit or cooling unit with electric heat
2. Cooling unit with gas heat
3. Standard 2 in. throwaway, MERV 3 (Minimum Efficiency Reporting Value)
4. Optional 2 in. pleated, MERV 8
5. Optional 4 in. pleated, MERV 13

Unit limitations

Table 13: Unit limitations

Unit voltage	Applied voltage (V)		Outdoor DB temperature
	Minimum	Maximum	Maximum (°F)
208/230-3-60	180	254	125
460-3-60	416	508	125
575-3-60	520	635	125

Capacity performance

The following tables show the capacity performance for the units. The total capacities and sensible capacities are gross ratings. For net capacity, deduct air blower motor, MBh = 3.415 x kW. See the appropriate blower performance table for the kW of the supply air blower motor.

① Note:

- Total capacity = TC
- Sensible capacity = SC
- Total input (kW) = TI

27.5 ton cooling capacity performance

Table 14: VH27, VY27, VX27 and VV27 cooling capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil																	
		Return Dry Bulb Temp (°F)																	
CFM	WB (°F)	90			85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
75 (°F)																			
6875	77.0	381.7	201.9	20.4	382.9	169.4	20.1	371.4	135.8	23.2	-	-	-	-	-	-	-	-	-
	72.0	351.5	236.7	20.2	351.7	203.0	20.2	352.3	172.8	20.3	352.1	138.9	20.3	-	-	-	-	-	-
	67.0	322.1	269.6	20.3	322.4	235.7	20.3	322.6	204.8	20.3	322.5	170.6	20.4	322.5	139.6	20.5	-	-	-
	62.0	301.1	289.6	20.3	295.2	269.7	20.3	294.9	235.4	20.4	295.0	204.3	20.4	294.7	172.9	20.5	294.4	138.7	20.5
	57.0	300.9	289.4	20.2	286.4	275.5	20.3	271.8	261.5	20.4	269.4	235.8	20.5	269.3	204.6	20.5	268.7	170.6	20.5
8250	77.0	396.7	221.3	20.2	397.1	183.4	20.3	397.3	145.2	20.4	-	-	-	-	-	-	-	-	-
	72.0	365.0	259.8	20.3	365.2	221.3	20.4	365.5	182.8	20.4	365.5	144.1	20.5	-	-	-	-	-	-
	67.0	336.0	300.6	20.4	335.3	261.2	20.5	336.0	223.0	20.5	335.9	184.2	20.6	335.7	145.3	20.7	-	-	-
	62.0	323.5	311.1	20.4	307.7	295.9	20.5	307.8	260.5	20.6	307.4	221.8	20.6	307.1	183.2	20.7	306.6	144.5	20.8
	57.0	323.3	311.0	20.4	307.5	295.8	20.5	291.7	280.6	20.6	280.8	259.3	20.6	280.5	221.3	20.7	280.2	183.3	20.8
9625	77.0	407.1	238.9	21.4	407.9	192.3	21.5	408.3	149.3	21.6	-	-	-	-	-	-	-	-	-
	72.0	374.9	284.9	21.6	375.6	238.5	21.6	375.7	195.2	21.7	375.7	148.2	21.8	-	-	-	-	-	-
	67.0	346.2	326.4	21.6	345.8	286.0	21.7	345.7	239.4	21.8	345.6	196.1	21.8	345.0	149.4	21.9	-	-	-
	62.0	342.1	329.1	21.6	325.3	312.9	21.7	317.7	287.2	21.8	317.1	240.9	21.9	316.8	195.0	21.9	315.9	151.9	22.0
	57.0	342.1	329.1	21.6	325.2	312.8	21.7	308.1	296.4	21.8	291.1	280.0	21.9	289.3	239.3	22.0	288.9	194.5	22.0
11000	77.0	416.2	256.2	22.3	416.0	204.1	22.3	415.3	151.8	22.4	-	-	-	-	-	-	-	-	-
	72.0	383.7	306.3	22.4	383.7	254.6	22.4	383.6	206.7	22.5	383.4	154.9	22.6	-	-	-	-	-	-
	67.0	358.2	344.6	22.4	353.8	306.3	22.5	353.3	258.3	22.6	353.2	207.2	22.7	352.5	156.0	22.8	-	-	-
	62.0	358.1	344.4	22.3	339.9	326.9	22.5	325.5	306.8	22.6	323.7	258.5	22.7	323.6	205.4	22.8	322.5	155.1	22.9
	57.0	357.9	344.3	22.3	339.7	326.8	22.5	321.7	309.4	22.6	303.7	292.2	22.7	297.1	257.2	22.8	295.9	207.7	22.9
12375	77.0	422.0	272.0	23.1	422.2	215.3	23.2	422.0	158.3	23.3	-	-	-	-	-	-	-	-	-
	72.0	390.5	326.8	23.2	389.6	273.6	23.3	390.0	217.6	23.4	389.3	157.3	23.5	-	-	-	-	-	-
	67.0	371.8	357.6	23.2	359.8	328.7	23.3	359.0	272.8	23.5	359.0	217.6	23.6	358.1	158.5	23.7	-	-	-
	62.0	371.6	357.4	23.2	352.3	338.9	23.3	333.5	320.8	23.5	330.4	273.3	23.6	329.4	218.6	23.7	328.0	160.9	23.8
	57.0	371.4	357.3	23.2	352.0	338.6	23.3	333.4	320.7	23.5	314.5	302.5	23.6	302.5	273.5	23.7	301.3	217.4	23.8
85 (°F)																			
6875	77	368.2	198.3	22.9	369.4	167.0	22.6	369.5	131.5	22.7	-	-	-	-	-	-	-	-	-
	72	339.4	231.8	22.6	339.7	199.3	22.7	339.9	166.8	22.7	340.0	134.1	22.8	-	-	-	-	-	-
	67	310.9	263.2	22.6	311.0	230.3	22.7	310.9	200.4	22.7	310.8	167.4	22.8	310.5	134.4	22.8	-	-	-
	62	292.6	281.5	22.6	284.0	262.3	22.6	283.7	231.9	22.7	284.0	199.4	22.7	283.6	166.4	22.8	283.2	133.5	22.8
	57	292.4	281.3	22.6	278.0	267.4	22.6	263.5	253.5	22.6	259.3	229.5	22.7	259.1	199.4	22.7	258.5	166.6	22.8
8250	77.0	382.4	217.0	22.8	382.5	176.6	22.8	382.6	139.9	22.9	-	-	-	-	-	-	-	-	-
	72.0	351.7	253.7	22.8	352.1	216.8	22.9	352.4	179.7	23.0	352.2	138.9	23.0	-	-	-	-	-	-
	67.0	323.4	292.4	22.8	323.0	254.8	22.9	323.6	217.9	22.9	323.4	180.4	23.0	322.8	139.7	23.1	-	-	-
	62.0	314.2	302.3	22.8	298.5	287.1	22.8	297.4	251.7	25.6	295.7	219.0	23.0	295.1	178.8	23.1	294.2	138.7	23.1
	57.0	314.1	302.1	22.7	298.3	286.9	22.8	282.6	271.8	22.9	270.1	254.6	22.9	269.3	217.6	23.0	269.0	178.6	23.0
9625	77.0	392.3	234.0	24.0	392.5	188.8	24.1	392.1	143.3	24.2	-	-	-	-	-	-	-	-	-
	72.0	361.0	277.8	24.1	361.8	233.2	24.1	361.9	188.0	24.2	361.6	146.1	24.3	-	-	-	-	-	-
	67.0	332.8	320.1	24.0	333.0	278.7	24.1	332.4	236.6	24.2	332.0	191.6	24.3	331.2	146.6	24.4	-	-	-
	62.0	332.1	319.4	24.0	315.3	303.3	24.1	305.0	278.7	24.1	304.3	234.1	24.3	304.0	190.0	24.3	303.0	145.7	24.4
	57.0	332.0	319.4	24.0	315.1	303.1	24.0	298.2	286.8	24.1	281.3	270.6	24.1	277.7	235.1	24.2	276.8	189.0	24.3

Table 14: VH27, VY27, VX27 and VV27 cooling capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil																	
CFM	WB (°F)	Return Dry Bulb Temp (°F)																	
		90			85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
11000	77.0	400.3	250.3	24.8	399.9	200.0	24.9	399.3	149.8	25.0	-	-	-	-	-	-	-	-	-
	72.0	369.1	301.8	24.8	369.2	252.2	25.0	369.2	198.9	25.0	368.6	148.9	25.2	-	-	-	-	-	-
	67.0	347.2	334.0	24.8	339.9	300.8	24.9	339.3	251.3	25.1	339.3	202.4	25.1	338.3	149.7	25.2	-	-	-
	62.0	347.1	333.9	24.8	329.3	316.8	24.9	312.3	297.4	25.0	310.9	251.2	25.1	310.1	199.9	25.2	309.1	148.7	25.3
	57.0	346.9	333.7	24.8	329.2	316.7	24.9	311.3	299.4	24.9	293.3	282.1	25.0	284.9	252.1	25.1	283.5	201.8	25.2
12375	77.0	407.8	266.7	25.8	406.5	211.2	25.8	406.1	152.3	26.0	-	-	-	-	-	-	-	-	-
	72.0	376.2	322.0	25.7	375.2	267.1	25.9	375.8	209.6	26.0	374.8	155.0	26.1	-	-	-	-	-	-
	67.0	360.7	347.0	25.7	347.2	320.6	25.8	345.9	269.5	26.0	345.4	212.7	26.1	344.4	155.7	26.2	-	-	-
	62.0	360.5	346.8	25.7	342.0	328.9	25.8	323.2	310.9	25.9	317.9	269.1	26.0	316.6	213.2	26.1	315.0	154.5	26.2
	57.0	360.3	346.6	25.6	341.8	328.8	25.8	323.2	310.9	25.9	304.5	292.9	25.9	290.6	268.4	26.0	289.3	211.5	26.1
95 (°F)																			
6875	77.0	353.6	190.5	25.6	355.0	160.5	25.3	354.9	126.3	25.4	-	-	-	-	-	-	-	-	-
	72.0	326.0	225.7	25.2	326.2	194.5	25.3	326.1	160.0	25.3	326.1	128.6	25.4	-	-	-	-	-	-
	67.0	298.6	258.5	25.1	298.2	226.6	25.2	298.2	195.0	25.3	297.9	160.5	25.3	297.5	128.8	25.4	-	-	-
	62.0	283.3	272.5	25.1	272.3	256.7	25.1	271.7	224.7	25.2	272.0	193.6	25.2	271.6	162.0	25.3	271.1	127.8	25.3
	57.0	283.1	272.3	25.1	268.7	258.5	25.1	254.5	244.8	25.0	248.3	224.5	25.0	247.9	193.1	25.1	247.4	159.4	25.1
8250	77.0	366.7	211.6	25.5	367.7	173.3	25.6	367.0	134.1	25.7	-	-	-	-	-	-	-	-	-
	72.0	337.2	249.8	25.5	337.6	211.1	25.5	337.7	172.1	25.6	337.4	133.1	25.7	-	-	-	-	-	-
	67.0	310.4	286.6	25.3	309.7	250.2	25.5	309.8	211.6	25.5	309.5	172.7	25.6	308.8	133.7	25.7	-	-	-
	62.0	303.9	292.3	25.3	288.3	277.3	25.3	283.7	251.1	25.4	282.7	212.1	25.5	282.2	173.7	25.5	281.4	135.3	25.6
	57.0	303.7	292.1	25.3	288.1	277.1	25.3	272.6	262.2	25.3	257.9	245.6	25.3	257.1	210.2	25.4	257.0	173.1	25.4
9625	77.0	375.8	227.8	26.7	376.2	184.5	26.9	375.7	137.3	27.0	-	-	-	-	-	-	-	-	-
	72.0	346.3	273.1	26.7	346.4	229.9	26.8	346.2	183.2	26.9	345.7	139.7	27.0	-	-	-	-	-	-
	67.0	321.2	308.9	26.6	318.7	272.8	26.7	317.8	229.3	26.8	317.3	183.1	26.9	316.3	140.0	27.0	-	-	-
	62.0	321.0	308.8	26.6	304.2	292.6	26.6	292.0	272.5	26.6	290.5	229.1	26.8	290.2	184.2	26.8	289.1	139.0	26.9
	57.0	320.8	308.6	26.6	303.4	291.8	26.6	287.2	276.3	26.6	270.6	260.3	26.6	265.1	227.0	26.7	264.0	182.8	26.7
11000	77.0	382.3	242.7	27.6	382.7	191.4	27.7	382.0	143.3	27.8	-	-	-	-	-	-	-	-	-
	72.0	353.7	296.0	27.5	353.3	244.7	27.6	353.2	193.6	27.7	352.1	142.3	27.9	-	-	-	-	-	-
	67.0	335.3	322.5	27.4	325.1	294.0	27.5	324.2	246.3	27.7	324.0	196.3	27.8	322.6	142.7	27.9	-	-	-
	62.0	335.2	322.4	27.4	317.5	305.4	27.5	299.8	288.4	27.5	297.0	245.7	27.6	296.0	193.6	27.7	294.4	144.4	27.8
	57.0	335.0	322.2	27.4	317.4	305.3	27.5	299.7	288.2	27.5	282.0	271.3	27.5	271.1	245.1	27.5	270.0	194.8	27.6
12375	77.0	389.3	262.1	28.5	390.0	202.6	28.6	389.3	146.0	28.8	-	-	-	-	-	-	-	-	-
	72.0	359.7	318.3	28.4	359.6	262.9	28.6	359.9	204.2	28.7	359.0	148.5	28.8	-	-	-	-	-	-
	67.0	348.9	335.6	28.3	332.2	316.4	28.4	331.5	264.7	28.6	330.7	206.7	28.7	329.3	148.9	28.8	-	-	-
	62.0	348.7	335.5	28.3	330.4	317.8	28.4	312.0	300.1	28.4	304.1	263.3	28.5	302.8	206.8	28.6	301.1	147.7	28.8
	57.0	348.6	335.3	28.3	330.2	317.6	28.4	311.9	300.0	28.4	293.3	282.2	28.4	278.0	259.4	28.4	276.4	204.7	28.5
105 (°F)																			
6875	77.0	338.5	185.6	28.3	339.5	153.5	28.1	339.5	120.8	28.2	-	-	-	-	-	-	-	-	-
	72.0	311.6	218.8	27.9	311.7	188.9	28.0	311.7	155.9	28.0	311.4	122.8	28.1	-	-	-	-	-	-
	67.0	285.6	252.7	27.7	284.6	219.0	27.8	284.7	189.0	27.9	284.3	155.9	28.0	283.8	122.9	28.0	-	-	-
	62.0	273.4	263.0	27.7	259.5	249.6	27.6	259.5	219.6	27.7	259.6	187.3	27.7	259.0	154.4	27.8	258.4	121.8	27.9
	57.0	273.2	262.8	27.7	259.1	249.2	27.6	245.1	235.8	27.5	236.4	218.3	27.5	236.3	186.4	27.6	235.7	154.2	27.7
8250	77.0	350.5	205.6	28.3	350.8	165.3	28.4	350.4	128.1	28.5	-	-	-	-	-	-	-	-	-
	72.0	321.9	244.6	28.2	322.4	204.7	28.2	322.1	167.3	28.3	321.4	126.8	28.4	-	-	-	-	-	-
	67.0	295.6	281.5	27.9	295.6	244.6	28.1	295.4	204.6	28.2	295.0	167.4	28.2	294.0	127.3	28.3	-	-	-
	62.0	293.0	281.8	27.9	277.5	266.9	27.9	269.9	244.0	27.9	269.2	204.6	28.0	268.7	168.0	28.1	267.7	128.8	28.3
	57.0	292.8	281.7	27.9	277.4	266.8	27.9	262.1	252.1	27.9	246.9	237.5	27.8	244.7	204.7	27.9	244.4	166.9	28.0
9625	77.0	359.0	221.0	29.5	358.9	176.1	29.7	358.2	130.9	29.8	-	-	-	-	-	-	-	-	-
	72.0	330.7	267.2	29.4	329.9	222.1	29.5	329.9	177.7	29.6	328.9	132.9	29.8	-	-	-	-	-	-
	67.0	309.4	297.6	29.3	303.4	265.6	29.3	302.3	223.9	29.5	301.9	177.1	29.5	300.7	133.1	29.7	-	-	-
	62.0	309.2	297.4	29.2	292.5	281.3	29.2	277.2	264.0	29.2	276.4	223.4	29.3	275.9	177.8	29.4	274.6	132.1	29.6
	57.0	308.9	297.1	29.2	292.3	281.2	29.2	275.8	265.3	29.2	259.4	249.5	29.1	252.1	220.7	29.2	250.6	176.0	29.4
11000	77.0	364.6	238.5	30.4	364.8	186.0	30.5	363.8	136.5	30.7	-	-	-	-	-	-	-	-	-
	72.0	337.1	288.6	30.2	336.1	239.3	30.4	336.1	187.5	30.5	335.0	138.6	30.7	-	-	-	-	-	-
	67.0	322.6	310.3	30.1	309.9	286.2	30.2	308.4	240.3	30.3	308.6	190.0	30.5	306.6	138.6	30.6	-	-	-
	62.0	322.5	310.2	30.1	305.0	293.4	30.1	287.6	276.7	30.1	282.5	239.1	30.2	281.0	189.2	30.3	279.3	137.0	30.6
	57.0	322.3	310.0	30.1	304.9	293.3	30.1	287.5	276.5	30.1	270.0	259.7	30.1	257.5	237.7	30.0	256.1	187.2	30.2

Table 14: VH27, VY27, VX27 and VV27 cooling capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil																	
CFM	WB (°F)	Return Dry Bulb Temp (°F)																	
		90			85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
12375	77.0	371.7	253.9	31.3	372.2	196.9	31.4	371.4	142.9	31.6	-	-	-	-	-	-	-	-	-
	72.0	343.8	310.9	31.1	343.2	257.5	31.3	343.3	198.2	31.4	342.1	141.5	31.6	-	-	-	-	-	-
	67.0	336.3	323.5	31.1	318.2	306.1	31.1	316.2	255.5	31.2	315.0	200.0	31.4	313.5	141.7	31.5	-	-	-
	62.0	336.1	323.3	31.1	318.1	306.0	31.1	299.7	288.3	31.1	289.4	256.1	31.1	288.2	199.6	31.3	286.5	143.3	31.5
	57.0	335.9	323.1	31.1	317.9	305.8	31.1	299.7	288.3	31.1	281.7	271.0	31.0	264.3	254.3	31.0	262.7	199.7	31.2
115 (°F)																			
6875	77.0	321.3	179.3	31.4	322.1	148.7	31.1	321.8	117.6	31.2	-	-	-	-	-	-	-	-	-
	72.0	295.4	213.1	30.9	295.5	181.9	30.9	295.2	150.5	31.0	294.9	116.3	31.1	-	-	-	-	-	-
	67.0	270.0	244.1	30.6	269.5	212.6	30.7	269.8	181.7	30.8	269.1	150.1	30.9	268.6	116.3	31.1	-	-	-
	62.0	262.2	252.2	30.5	248.3	238.9	30.5	245.9	212.8	30.5	245.4	181.7	30.7	244.9	148.4	30.8	244.0	115.0	31.0
	57.0	262.0	252.0	30.5	248.2	238.7	30.5	234.4	225.5	30.4	223.2	210.4	30.3	222.9	180.1	30.6	222.5	147.7	30.7
8250	77.0	332.2	198.1	31.3	332.2	159.8	31.4	331.4	121.2	31.6	-	-	-	-	-	-	-	-	-
	72.0	304.9	237.6	31.1	305.1	199.6	31.2	304.8	161.2	31.3	304.0	122.8	31.5	-	-	-	-	-	-
	67.0	280.8	270.1	30.9	280.0	237.0	31.0	282.1	200.8	31.1	278.7	160.9	31.2	277.7	122.9	31.4	-	-	-
	62.0	280.6	269.9	30.9	265.4	255.3	30.8	255.1	235.6	30.8	253.9	197.9	31.0	253.5	160.9	31.1	252.4	121.4	31.4
	57.0	280.5	269.8	30.9	265.3	255.2	30.8	250.3	240.8	30.7	235.5	226.5	30.7	231.0	197.7	30.8	230.2	159.4	31.0
9625	77.0	339.7	215.7	32.6	339.3	169.7	32.7	338.3	126.9	32.9	-	-	-	-	-	-	-	-	-
	72.0	313.1	259.0	32.4	311.9	216.0	32.5	311.6	170.8	32.6	310.4	125.4	32.8	-	-	-	-	-	-
	67.0	296.0	284.7	32.2	286.2	258.8	32.3	285.2	216.7	32.4	284.9	169.9	32.5	283.3	125.3	32.8	-	-	-
	62.0	295.8	284.5	32.2	279.3	268.6	32.2	263.1	253.1	32.1	260.9	215.9	32.2	259.8	169.9	32.5	258.3	126.7	32.8
	57.0	295.3	284.1	32.2	279.1	268.5	32.2	262.9	252.9	32.1	247.0	237.6	32.0	236.8	214.1	32.1	235.8	170.1	32.4
11000	77.0	344.4	231.9	33.5	344.7	182.4	33.6	343.4	128.8	33.8	-	-	-	-	-	-	-	-	-
	72.0	317.8	281.2	33.2	317.3	232.0	33.4	317.2	180.0	33.5	315.7	130.6	33.8	-	-	-	-	-	-
	67.0	308.2	296.4	33.1	292.0	278.0	33.1	291.1	232.4	33.3	289.8	181.2	33.4	288.4	130.4	33.8	-	-	-
	62.0	308.0	296.3	33.1	291.1	280.0	33.1	273.9	263.5	33.0	266.0	230.3	33.1	264.3	180.5	33.3	262.5	128.8	33.7
	57.0	307.9	296.2	33.1	290.8	279.7	33.1	273.8	263.3	33.0	256.9	247.1	33.0	242.1	228.3	33.0	240.6	180.5	33.3
12375	77.0	351.9	250.5	34.4	352.5	193.3	34.6	351.0	135.0	34.8	-	-	-	-	-	-	-	-	-
	72.0	325.9	304.1	34.1	324.9	250.0	34.3	324.5	193.5	34.5	323.1	136.8	34.8	-	-	-	-	-	-
	67.0	321.9	309.6	34.1	304.0	292.4	34.1	299.0	250.2	34.2	297.8	194.8	34.4	295.8	136.6	34.8	-	-	-
	62.0	321.7	309.5	34.1	304.0	292.4	34.1	286.2	275.3	34.0	273.6	250.0	34.0	272.0	193.6	34.3	270.2	135.1	34.7
	57.0	321.6	309.4	34.1	303.8	292.2	34.1	286.1	275.2	34.0	268.5	258.3	33.9	251.4	241.8	33.9	247.8	193.1	34.2
125 (°F)																			
6875	77.0	303.1	174.9	34.5	303.6	143.1	34.3	303.1	110.8	34.5	-	-	-	-	-	-	-	-	-
	72.0	278.1	206.0	34.0	278.4	174.1	34.0	278.1	141.8	34.2	277.3	109.4	34.4	-	-	-	-	-	-
	67.0	254.4	237.4	33.6	254.0	207.7	33.8	253.8	175.8	33.9	253.3	141.3	34.1	252.2	109.2	34.4	-	-	-
	62.0	250.2	240.7	33.6	236.7	227.7	33.5	231.4	207.0	33.6	230.5	172.9	33.8	229.8	141.5	34.0	228.9	110.1	34.3
	57.0	250.1	240.6	33.6	236.5	227.5	33.5	223.1	214.6	33.5	209.7	201.7	33.5	208.9	172.8	33.8	208.6	140.5	34.0
8250	77.0	312.7	192.5	34.5	312.5	153.3	34.6	311.7	113.9	34.9	-	-	-	-	-	-	-	-	-
	72.0	287.2	229.3	34.2	287.0	193.2	34.3	286.5	154.3	34.5	285.6	115.4	34.9	-	-	-	-	-	-
	67.0	267.6	257.4	33.9	263.2	230.4	34.0	262.0	191.6	34.3	261.6	153.5	34.4	260.2	115.1	34.8	-	-	-
	62.0	267.4	257.2	33.9	252.6	243.0	33.9	238.8	227.4	33.8	238.5	190.4	34.2	237.8	153.3	34.4	236.4	113.7	34.8
	57.0	267.3	257.1	33.9	252.4	242.8	33.9	237.7	228.7	33.8	223.2	214.7	33.8	216.5	189.5	33.9	215.3	151.2	34.3
9625	77.0	319.3	208.9	35.8	318.6	162.4	35.9	317.5	119.1	36.3	-	-	-	-	-	-	-	-	-
	72.0	294.3	251.9	35.5	292.6	208.3	35.7	292.4	163.1	35.9	291.0	120.3	36.3	-	-	-	-	-	-
	67.0	281.6	270.9	35.3	269.0	251.0	35.3	267.7	208.6	35.5	266.9	164.3	35.8	265.2	119.9	36.2	-	-	-
	62.0	281.5	270.8	35.3	265.3	255.2	35.2	249.5	240.0	35.2	244.5	207.0	35.4	242.9	163.5	35.7	0.0	0.0	0.0
	57.0	281.0	270.3	35.3	265.1	255.0	35.2	249.4	239.9	35.2	233.6	224.7	35.2	221.5	206.6	35.1	220.2	161.0	35.7
11000	77.0	323.3	223.9	36.7	323.6	174.3	36.8	322.1	123.9	37.2	-	-	-	-	-	-	-	-	-
	72.0	298.7	273.0	36.3	297.8	226.3	36.5	297.4	174.5	36.8	295.5	125.0	37.2	-	-	-	-	-	-
	67.0	293.0	281.8	36.2	276.0	265.5	36.2	273.0	223.2	36.3	271.6	175.0	36.7	269.7	124.5	37.2	-	-	-
	62.0	292.8	281.7	36.2	276.0	265.5	36.2	259.3	249.5	36.2	248.4	224.6	36.2	247.0	173.5	36.7	244.9	122.5	37.2
	57.0	292.7	281.5	36.2	275.8	265.3	36.2	259.2	249.4	36.2	242.8	233.6	36.1	226.7	218.0	36.2	224.1	172.5	36.6
12375	77.0	331.2	242.1	37.6	331.2	184.8	37.8	329.9	130.1	38.2	-	-	-	-	-	-	-	-	-
	72.0	306.3	294.6	37.2	306.1	241.4	37.4	305.0	187.7	37.7	303.3	128.4	38.2	-	-	-	-	-	-
	67.0	306.4	294.7	37.2	289.1	278.1	37.2	280.3	242.6	37.3	279.5	185.5	37.8	277.5	128.1	38.2	-	-	-
	62.0	306.0	294.3	37.2	289.0	278.0	37.2	271.7	261.3	37.1	256.5	241.8	37.2	254.9	186.4	37.6	253.1	129.0	38.2
	57.0	306.0	294.3	37.2	288.9	277.9	37.2	271.6	261.2	37.1	254.7	245.0	37.1	237.8	228.8	37.2	232.4	185.6	37.6

30 ton cooling capacity performance

Table 15: VH30, VY30, VX30 and VV30 cooling capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil																	
CFM	WB (°F)	Return Dry Bulb Temp (°F)																	
		90			85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
75 (°F)																			
7500	77.0	416.7	222.8	24.7	417.3	186.6	24.8	416.9	149.9	24.9	-	-	-	-	-	-	-	-	-
	72.0	382.3	256.4	24.7	382.4	223.0	24.8	382.3	185.8	24.8	382.4	152.4	24.9	-	-	-	-	-	-
	67.0	348.7	291.4	24.7	349.4	258.1	24.7	349.4	220.7	24.7	349.2	186.7	24.8	348.9	152.6	24.8	-	-	-
	62.0	324.3	315.2	24.5	319.5	291.9	24.5	319.0	257.3	24.6	319.0	223.3	24.6	318.8	185.9	24.6	318.2	151.6	24.7
	57.0	324.1	315.0	24.5	308.3	299.6	24.4	292.7	284.5	24.3	291.1	254.7	24.4	291.2	220.7	24.4	290.8	186.5	24.5
9000	77.0	432.8	239.8	25.3	433.0	197.8	25.3	432.6	159.8	25.4	-	-	-	-	-	-	-	-	-
	72.0	397.5	282.0	25.3	397.7	239.7	25.3	397.5	200.9	25.4	397.3	158.3	25.5	-	-	-	-	-	-
	67.0	365.2	323.1	25.2	364.3	283.3	25.3	364.5	240.9	25.3	364.2	201.8	25.4	363.7	159.1	25.4	-	-	-
	62.0	349.2	339.4	25.1	333.7	321.1	25.1	332.9	281.5	25.2	332.9	242.6	25.2	332.4	200.3	25.2	331.8	158.0	25.3
	57.0	349.0	339.2	25.1	331.5	322.2	25.1	314.2	305.4	25.0	304.2	280.8	25.0	303.8	242.1	25.0	303.3	200.4	25.1
10500	77.0	444.6	259.3	26.2	444.9	211.9	26.3	444.1	164.0	26.4	-	-	-	-	-	-	-	-	-
	72.0	409.2	306.3	26.3	409.5	258.7	26.3	409.3	210.8	26.4	408.6	162.8	26.5	-	-	-	-	-	-
	67.0	376.7	355.1	26.1	375.2	310.0	26.2	375.3	262.6	26.3	374.9	211.3	26.3	374.1	163.6	26.4	-	-	-
	62.0	369.9	359.5	26.1	351.1	341.3	26.1	344.9	308.4	26.1	343.7	260.5	26.2	343.0	213.4	26.2	342.1	166.2	26.3
	57.0	369.9	359.5	26.0	351.0	341.2	26.0	332.2	322.9	26.0	313.8	305.0	25.9	312.8	261.4	26.1	312.5	212.6	26.1
12000	77.0	453.8	277.9	27.4	453.8	220.5	27.4	453.0	167.3	27.6	-	-	-	-	-	-	-	-	-
	72.0	418.1	333.2	27.4	418.5	276.6	27.5	418.0	223.4	27.6	417.3	170.3	27.7	-	-	-	-	-	-
	67.0	387.9	377.0	27.3	385.3	333.3	27.4	384.0	279.9	27.5	383.7	223.8	27.6	382.5	171.0	27.6	-	-	-
	62.0	387.7	376.8	27.2	367.5	357.2	27.3	353.1	332.9	27.3	350.6	279.4	27.4	350.7	225.0	27.4	349.5	169.8	27.5
	57.0	387.5	376.6	27.2	367.3	357.0	27.3	347.3	337.6	27.2	327.7	318.5	27.2	321.8	278.4	27.2	320.5	224.3	27.4
13500	77.0	461.5	296.0	28.7	461.2	233.1	28.8	459.8	174.3	28.9	-	-	-	-	-	-	-	-	-
	72.0	426.0	356.1	28.7	425.3	297.6	28.8	424.9	235.4	28.9	423.7	173.0	29.0	-	-	-	-	-	-
	67.0	402.9	391.6	28.6	391.6	354.0	28.7	390.2	295.8	28.8	390.0	235.0	28.9	388.6	173.8	29.0	-	-	-
	62.0	402.7	391.4	28.6	381.5	370.8	28.6	360.3	350.2	28.6	357.9	295.7	28.7	357.0	236.0	28.8	355.5	176.2	28.9
	57.0	402.5	391.3	28.5	381.3	370.6	28.6	360.1	350.0	28.6	339.4	329.9	28.6	328.1	296.6	28.6	326.4	234.8	28.7
85 (°F)																			
7500	77.0	401.8	214.8	27.6	402.0	179.7	27.7	401.4	144.4	27.8	-	-	-	-	-	-	-	-	-
	72.0	368.4	250.7	27.5	368.5	214.9	27.5	368.4	182.6	27.6	368.1	146.7	27.6	-	-	-	-	-	-
	67.0	336.2	284.3	27.3	336.4	251.8	27.3	336.3	215.7	27.3	336.0	182.9	27.4	335.8	146.9	27.4	-	-	-
	62.0	314.9	306.1	27.0	307.4	283.8	27.0	306.8	250.5	27.1	306.9	214.8	27.1	306.6	181.8	27.2	306.1	145.8	27.3
	57.0	314.7	305.8	27.0	299.1	290.7	26.9	283.6	275.7	26.8	280.1	250.5	26.9	279.9	214.9	26.9	279.4	179.2	27.0
9000	77.0	416.9	235.0	28.2	417.0	194.5	28.3	416.7	153.9	28.4	-	-	-	-	-	-	-	-	-
	72.0	382.6	275.2	28.1	382.6	234.3	28.1	382.5	193.3	28.2	382.0	152.2	28.3	-	-	-	-	-	-
	67.0	351.6	317.8	27.8	349.9	275.5	27.9	350.5	235.1	28.0	350.1	194.0	28.0	349.4	152.8	28.1	-	-	-
	62.0	338.7	329.2	27.7	321.4	312.4	27.6	320.3	277.1	27.7	319.8	236.2	27.8	319.1	195.4	27.9	318.5	151.7	28.0
	57.0	338.5	329.0	27.7	321.2	312.2	27.6	304.3	295.7	27.5	291.9	275.2	27.5	291.5	235.1	27.6	291.1	192.4	27.7
10500	77.0	428.1	253.8	29.2	428.1	203.9	29.3	427.1	157.7	29.4	-	-	-	-	-	-	-	-	-
	72.0	392.6	301.4	29.1	393.3	252.3	29.1	393.2	206.4	29.2	392.4	156.4	29.3	-	-	-	-	-	-
	67.0	362.5	345.3	28.8	360.9	301.7	28.9	360.4	255.7	29.0	359.8	206.3	29.0	358.8	156.9	29.2	-	-	-
	62.0	358.5	348.5	28.7	339.9	330.4	28.7	330.5	302.0	28.7	329.5	256.2	28.8	329.0	207.9	28.9	327.7	159.3	29.1
	57.0	358.4	348.3	28.7	339.8	330.2	28.6	321.2	312.2	28.5	303.1	294.6	28.5	300.2	253.8	28.6	299.5	206.7	28.7
12000	77.0	436.6	271.6	30.4	436.3	216.3	30.5	435.1	160.7	30.6	-	-	-	-	-	-	-	-	-
	72.0	402.2	324.5	30.3	402.0	273.5	30.3	401.4	218.5	30.4	400.1	163.3	30.5	-	-	-	-	-	-
	67.0	375.7	365.1	30.0	369.9	327.2	30.1	368.4	272.1	30.2	367.9	218.1	30.3	366.7	163.9	30.4	-	-	-
	62.0	375.5	365.0	30.0	355.4	345.4	29.9	339.0	322.9	29.9	336.2	271.2	30.0	336.0	218.8	30.1	334.7	162.7	30.3
	57.0	375.3	364.8	30.0	355.2	345.3	29.9	335.6	326.2	29.8	316.2	307.4	29.7	308.3	272.7	29.8	306.9	217.7	30.0
13500	77.0	443.5	288.8	31.7	443.2	228.3	31.9	441.4	167.3	32.0	-	-	-	-	-	-	-	-	-
	72.0	409.6	346.3	31.6	408.2	289.6	31.7	407.8	229.9	31.8	406.3	169.8	31.9	-	-	-	-	-	-
	67.0	390.0	379.0	31.4	376.3	347.5	31.4	373.9	290.8	31.6	373.8	228.9	31.6	372.2	170.0	31.8	-	-	-
	62.0	389.9	379.0	31.4	368.8	358.5	31.3	348.0	338.3	31.3	343.4	290.3	31.4	341.9	229.3	31.5	340.2	168.6	31.7
	57.0	389.7	378.8	31.4	368.7	358.3	31.3	347.9	338.1	31.3	327.5	318.3	31.1	313.4	289.4	31.2	312.2	227.6	31.4
95 (°F)																			
7500	77.0	385.5	209.8	30.7	385.5	176.1	30.8	385.2	138.5	30.8	-	-	-	-	-	-	-	-	-
	72.0	353.4	243.9	30.4	353.4	209.5	30.5	353.1	175.0	30.5	352.9	140.7	30.7	-	-	-	-	-	-
	67.0	322.7	279.2	30.1	322.5	244.5	30.2	322.4	209.9	30.2	322.0	175.2	30.4	321.4	140.6	30.5	-	-	-
	62.0	304.7	296.2	29.8	294.1	277.3	29.8	293.4	245.3	30.0	294.0	208.6	30.0	293.5	174.0	30.1	292.8	139.4	30.3
	57.0	304.5	296.0	29.8	289.1	281.0	29.7	273.9	266.2	29.6	268.4	242.6	29.7	267.9	208.3	29.8	267.3	174.1	29.9

Table 15: VH30, VY30, VX30 and VV30 cooling capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil																	
CFM	WB (°F)	Return Dry Bulb Temp (°F)																	
		90			85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
75 (°F)																			
9000	77.0	399.3	229.0	31.4	399.2	186.2	31.4	398.5	147.2	31.5	-	-	-	-	-	-	-	-	-
	72.0	366.2	270.5	31.1	366.3	227.9	31.1	365.9	188.5	31.2	365.4	145.6	31.3	-	-	-	-	-	-
	67.0	335.3	309.6	30.7	334.9	270.1	30.8	335.3	228.2	30.9	335.0	188.8	31.0	334.0	146.1	31.2	-	-	-
	62.0	327.4	318.2	30.5	310.4	301.7	30.5	306.8	271.3	30.6	305.8	228.9	30.7	305.1	186.8	30.9	304.2	144.9	31.0
	57.0	327.2	318.0	30.5	310.0	301.3	30.4	293.4	285.2	30.4	279.3	266.0	30.3	278.0	227.0	30.5	278.0	186.4	30.6
10500	77.0	409.8	247.0	32.4	409.7	199.1	32.5	408.5	150.9	32.5	-	-	-	-	-	-	-	-	-
	72.0	375.7	295.8	32.1	376.0	248.5	32.1	375.5	200.7	32.2	374.9	153.0	32.4	-	-	-	-	-	-
	67.0	346.5	336.8	31.7	345.4	295.4	31.8	344.2	247.6	31.9	343.4	200.2	32.1	342.4	153.1	32.2	-	-	-
	62.0	346.3	336.6	31.7	327.8	318.6	31.5	315.7	294.6	31.5	314.1	247.3	31.8	313.9	201.4	31.9	312.5	151.9	32.1
	57.0	346.1	336.4	31.6	327.6	318.4	31.5	309.4	300.7	31.4	291.5	283.3	31.3	286.6	245.2	31.5	285.6	199.9	31.7
12000	77.0	417.3	263.6	33.6	417.0	210.8	33.7	415.7	157.6	33.8	-	-	-	-	-	-	-	-	-
	72.0	384.8	317.9	33.3	384.0	265.0	33.4	383.4	212.4	33.5	381.9	155.9	33.7	-	-	-	-	-	-
	67.0	362.3	352.1	33.0	352.4	318.6	33.0	351.3	266.3	33.2	351.0	211.5	33.3	349.5	156.3	33.6	-	-	-
	62.0	362.1	352.0	33.0	342.5	332.9	32.8	323.1	314.1	32.8	321.0	265.2	33.0	320.1	211.6	33.2	318.8	158.0	33.4
	57.0	361.9	351.8	33.0	342.4	332.8	32.8	323.0	313.9	32.7	303.9	295.4	32.7	293.8	265.6	32.7	292.2	210.2	33.0
13500	77.0	423.7	280.1	35.0	423.4	222.2	35.1	421.4	159.7	35.2	-	-	-	-	-	-	-	-	-
	72.0	391.5	342.4	34.6	389.3	283.8	34.8	389.2	223.2	34.8	387.6	162.0	35.1	-	-	-	-	-	-
	67.0	376.0	365.5	34.4	360.0	339.4	34.3	357.2	281.2	34.6	356.5	221.7	34.7	354.6	162.0	35.0	-	-	-
	62.0	375.9	365.3	34.4	355.1	345.1	34.3	334.6	325.3	34.2	327.4	283.2	34.3	325.9	221.7	34.6	323.9	160.6	34.8
	57.0	375.7	365.2	34.4	354.9	344.9	34.3	334.5	325.1	34.2	314.5	305.7	34.1	299.2	279.2	34.1	297.2	222.4	34.3
105 (°F)																			
7500	77.0	368.5	204.2	33.9	368.4	168.3	34.0	367.8	132.3	34.1	-	-	-	-	-	-	-	-	-
	72.0	337.7	239.6	33.6	337.7	203.5	33.7	337.4	170.5	33.8	336.8	134.2	34.0	-	-	-	-	-	-
	67.0	308.8	273.1	33.2	308.0	239.5	33.4	307.7	203.4	33.5	307.3	170.3	33.7	306.8	134.2	33.8	-	-	-
	62.0	294.1	285.8	33.0	280.8	270.2	32.9	280.0	236.8	33.2	280.4	204.4	33.3	280.0	168.7	33.4	279.3	133.0	33.6
	57.0	293.9	285.6	33.0	278.7	270.9	32.9	263.7	256.3	32.8	255.8	236.2	32.8	255.4	201.0	33.1	254.8	168.4	33.2
9000	77.0	381.2	222.3	34.6	380.9	181.4	34.7	380.1	140.4	34.8	-	-	-	-	-	-	-	-	-
	72.0	349.3	264.8	34.3	349.4	224.1	34.4	348.9	179.7	34.5	348.4	138.8	34.6	-	-	-	-	-	-
	67.0	321.2	302.9	33.8	319.5	264.0	34.0	319.7	223.7	34.2	319.1	183.0	34.4	318.1	139.1	34.6	-	-	-
	62.0	315.6	306.7	33.7	298.9	290.5	33.6	292.5	264.4	33.7	291.2	223.6	34.0	290.6	180.8	34.1	289.5	140.7	34.4
	57.0	315.4	306.6	33.7	298.7	290.3	33.6	282.2	274.3	33.6	266.0	258.6	33.5	264.6	221.2	33.8	264.4	179.9	33.9
10500	77.0	391.0	239.4	35.6	390.1	193.4	35.7	389.0	143.7	35.9	-	-	-	-	-	-	-	-	-
	72.0	358.7	289.3	35.2	358.3	240.3	35.4	357.5	194.6	35.6	356.6	145.6	35.8	-	-	-	-	-	-
	67.0	333.7	324.3	34.8	329.0	287.8	35.0	327.6	242.0	35.2	326.8	193.8	35.5	325.3	145.4	35.7	-	-	-
	62.0	333.5	324.1	34.8	315.2	306.3	34.7	300.7	286.4	34.7	298.7	240.9	35.0	298.3	194.3	35.2	296.9	144.3	35.5
	57.0	333.1	323.8	34.8	315.0	306.2	34.7	297.2	288.9	34.7	279.6	271.7	34.6	272.6	238.5	34.7	271.2	192.4	35.0
12000	77.0	397.4	258.8	36.8	397.0	204.5	37.0	395.3	149.8	37.3	-	-	-	-	-	-	-	-	-
	72.0	366.7	310.1	36.4	365.4	259.3	36.6	364.9	205.7	36.8	363.2	148.2	37.1	-	-	-	-	-	-
	67.0	348.5	338.8	36.1	336.0	310.2	36.1	333.8	259.5	36.5	333.6	204.3	36.7	331.9	151.6	36.9	-	-	-
	62.0	348.4	338.6	36.1	329.0	319.8	36.1	309.9	301.2	36.0	305.6	258.4	36.2	303.8	203.8	36.5	302.3	149.8	36.8
	57.0	348.1	338.4	36.1	328.8	319.6	36.1	309.8	301.1	36.0	291.2	283.0	35.9	278.4	257.0	35.9	277.2	202.1	36.3
13500	77.0	403.3	274.4	38.2	402.7	215.3	38.3	400.9	152.0	38.7	-	-	-	-	-	-	-	-	-
	72.0	371.3	335.7	37.8	370.0	276.9	38.0	369.7	215.6	38.2	368.2	153.9	38.5	-	-	-	-	-	-
	67.0	361.3	351.2	37.6	341.0	331.4	37.5	339.9	274.2	37.8	338.6	213.9	38.1	336.6	153.8	38.4	-	-	-
	62.0	361.1	351.0	37.6	340.8	331.3	37.5	320.9	311.9	37.4	311.1	275.1	37.6	309.2	213.4	37.9	307.2	155.3	38.2
	57.0	361.1	350.9	37.6	340.7	331.2	37.5	320.7	311.7	37.4	300.9	292.5	37.4	283.1	272.4	37.3	281.6	213.5	37.7
115 (°F)																			
7500	77.0	349.7	197.1	37.7	349.5	163.0	37.8	348.7	128.8	38.0	-	-	-	-	-	-	-	-	-
	72.0	320.3	230.4	37.3	320.2	196.1	37.5	319.8	161.6	37.7	319.3	127.3	37.9	-	-	-	-	-	-
	67.0	292.7	264.6	36.8	291.5	229.5	37.2	291.8	195.7	37.3	291.1	161.3	37.5	290.2	126.9	37.8	-	-	-
	62.0	282.2	274.2	36.8	267.2	259.8	36.7	265.6	229.8	37.0	265.3	195.9	37.1	264.9	162.2	37.3	264.0	125.8	37.6
	57.0	282.0	274.1	36.8	267.1	259.6	36.7	252.4	245.4	36.7	241.7	227.9	36.6	241.4	194.7	37.0	240.7	161.5	37.3
9000	77.0	361.1	214.1	38.4	360.9	175.4	38.5	359.6	132.8	38.8	-	-	-	-	-	-	-	-	-
	72.0	330.4	256.9	38.0	330.8	215.4	38.2	330.3	173.3	38.4	329.4	134.5	38.6	-	-	-	-	-	-
	67.0	302.6	294.1	37.5	303.0	256.2	37.8	302.3	214.5	38.0	301.7	175.9	38.2	300.5	134.4	38.6	-	-	-
	62.0	302.4	293.9	37.5	286.0	278.0	37.5	275.7	254.5	37.5	274.9	213.8	37.9	274.3	173.3	38.1	273.1	132.7	38.4
	57.0	302.3	293.8	37.5	285.8	277.8	37.5	269.7	262.1	37.4	253.8	246.7	37.4	249.8	213.7	37.7	249.2	172.0	38.0

Table 15: VH30, VY30, VX30 and VV30 cooling capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil																	
		Return Dry Bulb Temp (°F)																	
		90			85			80			75			70			65		
CFM	WB (°F)	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
75 (°F)																			
10500	77.0	369.8	233.6	39.4	368.9	186.4	39.6	367.4	139.3	40.0	-	-	-	-	-	-	-	-	-
	72.0	339.8	280.7	38.9	338.5	233.6	39.2	337.8	187.2	39.4	336.4	137.3	39.8	-	-	-	-	-	-
	67.0	319.2	310.3	38.6	310.2	280.4	38.6	308.8	234.1	39.0	308.4	185.8	39.3	306.8	137.2	39.7	-	-	-
	62.0	319.2	310.3	38.5	301.1	292.6	38.5	283.5	275.6	38.5	281.9	232.9	38.9	281.2	185.9	39.2	279.6	138.6	39.6
	57.0	318.6	309.7	38.5	300.9	292.5	38.5	283.4	275.5	38.5	266.3	258.8	38.5	256.9	232.2	38.5	255.2	183.6	39.1
12000	77.0	375.4	251.8	40.6	374.8	196.7	40.9	373.0	141.4	41.3	-	-	-	-	-	-	-	-	-
	72.0	346.3	303.0	40.1	344.6	251.2	40.5	344.0	197.2	40.8	342.3	143.0	41.1	-	-	-	-	-	-
	67.0	333.0	323.7	39.9	317.4	302.4	39.8	315.3	251.3	40.2	314.5	195.6	40.6	312.6	142.8	41.0	-	-	-
	62.0	332.9	323.5	39.9	314.0	305.2	39.8	295.2	286.9	39.8	288.2	249.3	40.0	286.2	194.8	40.5	284.3	140.9	40.8
	57.0	332.7	323.4	39.9	314.0	305.2	39.9	295.3	287.0	39.8	276.9	269.1	39.8	262.3	247.3	39.8	260.7	195.1	40.3
13500	77.0	380.5	266.3	42.1	380.4	207.0	42.3	378.0	147.0	42.7	-	-	-	-	-	-	-	-	-
	72.0	351.6	324.7	41.4	349.6	268.4	41.8	348.9	206.9	42.1	346.9	148.3	42.4	-	-	-	-	-	-
	67.0	345.1	335.4	41.3	325.2	316.1	41.3	320.8	268.2	41.6	319.0	207.7	42.0	316.8	147.8	42.5	-	-	-
	62.0	344.8	335.2	41.3	325.1	316.0	41.2	305.4	296.9	41.3	292.4	267.2	41.4	291.0	206.5	41.8	288.7	145.9	42.4
	57.0	344.7	335.0	41.3	325.0	315.8	41.2	305.3	296.7	41.3	286.1	278.1	41.3	267.5	260.0	41.2	264.2	205.4	41.8
125 (°F)																			
7500	77.0	330.1	189.3	41.8	329.7	153.8	42.1	328.9	121.5	42.3	-	-	-	-	-	-	-	-	-
	72.0	302.0	223.1	41.5	301.9	190.7	41.7	301.4	155.2	42.0	300.8	119.9	42.3	-	-	-	-	-	-
	67.0	275.6	257.2	40.9	274.9	224.4	41.5	274.9	189.7	41.6	274.3	154.6	41.9	273.3	119.5	42.3	-	-	-
	62.0	269.6	262.1	41.0	255.0	247.9	41.0	250.6	224.1	41.2	249.5	189.2	41.6	248.9	154.8	41.9	247.9	120.5	42.4
	57.0	269.5	261.9	41.0	254.9	247.7	41.0	240.4	233.7	41.1	226.3	220.0	41.2	226.3	187.0	41.9	226.0	153.8	42.2
9000	77.0	340.3	208.4	42.5	339.7	168.4	42.8	338.6	125.0	43.0	-	-	-	-	-	-	-	-	-
	72.0	311.7	248.4	42.1	311.6	209.0	42.4	310.9	166.2	42.7	309.4	126.3	43.4	-	-	-	-	-	-
	67.0	288.7	280.6	41.6	285.6	249.8	41.9	284.1	207.1	42.3	283.4	168.0	42.6	282.0	126.1	43.1	-	-	-
	62.0	288.6	280.5	41.6	272.5	264.8	41.7	259.5	247.1	41.7	258.0	208.1	42.2	257.6	165.3	42.6	256.3	124.5	43.0
	57.0	288.4	280.3	41.6	272.3	264.7	41.7	256.4	249.3	41.7	240.9	234.1	41.8	234.6	205.2	42.1	233.3	165.6	42.8
10500	77.0	348.1	226.7	43.5	346.7	178.6	43.9	345.1	130.8	44.4	-	-	-	-	-	-	-	-	-
	72.0	319.8	273.5	43.0	317.9	225.6	43.4	317.1	178.7	43.6	315.3	131.8	44.6	-	-	-	-	-	-
	67.0	304.3	295.7	42.7	292.0	272.5	42.7	290.0	225.5	43.3	289.5	177.2	43.7	287.6	131.4	44.3	-	-	-
	62.0	304.1	295.6	42.7	286.3	278.3	42.7	269.2	261.6	42.8	264.9	224.0	43.2	263.5	176.7	43.6	261.5	129.6	44.5
	57.0	303.5	295.0	42.7	286.1	278.1	42.7	269.0	261.4	42.8	252.3	245.2	42.9	240.0	221.6	43.0	238.7	176.3	43.9
12000	77.0	352.6	243.3	44.9	351.7	188.0	45.1	349.8	136.0	45.8	-	-	-	-	-	-	-	-	-
	72.0	325.0	297.0	44.2	323.5	242.1	44.6	322.9	188.3	45.0	320.8	134.1	45.7	-	-	-	-	-	-
	67.0	316.8	307.9	44.0	298.4	290.0	44.0	296.3	241.9	44.5	294.6	189.0	45.0	292.5	133.6	45.7	-	-	-
	62.0	316.6	307.8	44.0	298.3	289.9	44.0	280.1	272.3	44.1	269.6	241.1	44.3	267.9	187.4	45.0	265.5	134.2	45.9
	57.0	316.5	307.7	44.0	298.2	289.8	44.0	279.8	272.0	44.1	262.2	254.9	44.1	244.8	237.9	44.3	243.1	186.6	45.3
13500	77.0	357.2	260.4	46.2	357.1	197.8	46.5	354.3	137.8	47.2	-	-	-	-	-	-	-	-	-
	72.0	330.0	314.3	45.5	328.2	258.4	45.9	327.1	200.3	46.4	324.7	138.9	47.1	-	-	-	-	-	-
	67.0	327.7	318.5	45.5	308.4	299.8	45.5	300.7	260.1	45.8	298.9	200.4	46.4	296.2	138.2	47.2	-	-	-
	62.0	327.4	318.3	45.5	308.3	299.7	45.5	289.3	281.2	45.5	274.1	258.4	45.6	271.8	198.1	46.3	269.4	138.8	47.4
	57.0	327.6	318.4	45.5	308.3	299.6	45.5	289.2	281.1	45.5	270.6	263.0	45.6	252.4	245.4	45.7	246.9	196.7	46.6

35 ton cooling capacity performance

Table 16: VH35, VY35, VY35 and VV35 cooling capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil																	
CFM	WB (°F)	Return Dry Bulb Temp (°F)																	
		90			85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
75 (°F)																			
8750	77.0	503.4	275.6	28.8	505.5	231.4	28.9	506.7	186.6	29.0	-	-	-	-	-	-	-	-	-
	72.0	464.5	319.0	28.6	466.0	278.2	28.7	467.5	232.6	28.7	468.6	191.2	28.8	-	-	-	-	-	-
	67.0	428.2	366.4	28.4	429.1	324.6	28.5	430.2	278.3	28.6	430.8	235.8	28.7	431.1	193.1	28.8	-	-	-
	62.0	401.6	399.6	28.2	393.1	367.7	28.3	393.7	325.2	28.4	394.3	282.6	28.5	394.7	235.7	28.6	394.7	192.5	28.7
	57.0	401.3	399.3	28.2	383.1	381.2	28.2	364.8	363.0	28.2	361.0	326.9	28.3	361.3	280.5	28.4	361.2	237.3	28.5
10500	77.0	521.3	300.9	30.1	523.4	250.0	30.1	524.7	193.2	30.2	-	-	-	-	-	-	-	-	-
	72.0	482.0	355.0	29.8	483.8	303.3	29.9	485.3	251.1	30.0	486.6	198.5	30.1	-	-	-	-	-	-
	67.0	445.0	407.4	29.6	445.8	354.9	29.7	446.8	306.8	29.8	447.7	253.9	29.9	448.1	200.7	30.0	-	-	-
	62.0	430.8	428.7	29.5	412.1	406.0	29.5	411.2	360.1	29.6	411.5	307.1	29.7	411.7	254.0	29.8	411.5	200.7	30.0
	57.0	430.5	428.4	29.5	410.9	408.9	29.5	391.0	389.1	29.5	376.6	359.8	29.5	376.3	307.1	29.7	376.6	254.8	29.7
12250	77.0	534.3	324.4	31.4	536.5	261.6	31.5	538.0	203.4	31.6	-	-	-	-	-	-	-	-	-
	72.0	495.0	384.3	31.1	497.2	326.6	31.2	498.6	267.9	31.3	499.4	203.8	31.5	-	-	-	-	-	-
	67.0	458.4	447.1	30.9	459.0	388.2	31.0	459.7	329.4	31.1	460.6	270.4	31.2	460.9	206.4	31.4	-	-	-
	62.0	454.6	452.4	30.8	433.9	431.8	30.8	423.7	392.2	30.9	423.3	332.8	31.0	423.6	269.8	31.1	423.3	206.4	31.3
	57.0	454.5	452.3	30.8	433.7	431.6	30.8	412.4	410.4	30.8	390.9	389.0	30.8	388.9	332.8	30.9	388.3	270.5	31.1
14000	77.0	545.0	347.1	33.8	546.9	277.6	33.8	548.4	207.4	33.9	-	-	-	-	-	-	-	-	-
	72.0	505.0	417.1	33.5	506.8	348.0	33.6	508.4	278.2	33.6	509.5	213.0	33.8	-	-	-	-	-	-
	67.0	474.9	472.6	33.2	468.8	419.9	33.3	469.8	350.7	33.4	470.4	285.5	33.6	470.4	215.3	33.7	-	-	-
	62.0	474.6	472.3	33.2	452.9	450.7	33.2	433.7	423.0	33.2	433.1	353.5	33.3	433.0	284.4	33.5	432.5	215.2	33.6
	57.0	474.7	472.4	33.2	452.6	450.4	33.1	430.2	428.1	33.1	407.6	405.6	33.1	398.4	356.8	33.3	397.5	284.8	33.4
15750	77.0	553.1	368.8	36.7	555.0	292.7	36.8	556.6	216.0	36.9	-	-	-	-	-	-	-	-	-
	72.0	512.9	449.2	36.4	515.0	369.0	36.5	516.5	293.0	36.6	517.5	216.3	36.8	-	-	-	-	-	-
	67.0	492.0	489.7	36.2	476.9	450.9	36.2	478.0	375.8	36.4	478.5	300.0	36.5	478.5	219.0	36.7	-	-	-
	62.0	491.7	489.3	36.2	469.0	466.7	36.1	445.8	443.6	36.1	441.1	377.5	36.3	441.0	298.4	36.4	440.2	223.4	36.6
	57.0	491.5	489.1	36.2	468.9	466.6	36.1	445.5	443.4	36.1	421.8	419.8	36.1	405.9	375.7	36.2	404.4	301.8	36.4
85 (°F)																			
8750	77.0	487.3	266.7	32.0	489.0	223.9	32.1	490.0	180.4	32.2	-	-	-	-	-	-	-	-	-
	72.0	449.0	312.8	31.8	450.3	273.4	31.8	451.5	229.2	32.0	452.2	184.5	32.1	-	-	-	-	-	-
	67.0	413.5	358.0	31.5	414.1	317.3	31.6	414.9	272.5	31.7	415.3	227.3	31.8	415.7	186.1	32.0	-	-	-
	62.0	390.5	388.6	31.3	379.1	362.1	31.4	379.5	317.3	31.5	379.9	272.2	31.6	380.0	230.7	31.7	379.8	185.2	31.8
	57.0	390.2	388.4	31.3	372.1	370.3	31.3	353.9	352.2	31.3	347.3	318.0	31.3	347.4	273.2	31.4	347.6	228.3	31.5
10500	77.0	504.0	290.9	33.3	506.0	241.7	33.4	507.0	191.7	33.5	-	-	-	-	-	-	-	-	-
	72.0	465.6	347.5	33.0	467.0	297.4	33.1	468.1	242.3	33.2	469.0	191.4	33.4	-	-	-	-	-	-
	67.0	429.1	401.4	32.7	430.4	351.2	32.9	430.5	299.9	33.0	430.9	244.4	33.1	431.2	193.1	33.2	-	-	-
	62.0	418.5	416.4	32.6	399.0	397.1	32.6	395.9	350.6	32.7	395.8	299.4	32.9	395.8	248.2	33.0	395.5	192.9	33.1
	57.0	418.5	416.5	32.6	398.8	396.9	32.6	378.9	377.1	32.5	362.2	349.7	32.6	361.9	298.9	32.7	361.7	244.8	32.8
12250	77.0	515.9	313.2	34.6	518.0	257.7	34.7	519.1	196.3	34.9	-	-	-	-	-	-	-	-	-
	72.0	478.1	380.6	34.3	479.4	319.6	34.4	480.5	258.2	34.6	480.9	196.2	34.8	-	-	-	-	-	-
	67.0	443.4	436.8	34.0	442.2	382.8	34.2	442.4	321.4	34.3	443.1	260.2	34.4	442.9	198.3	34.6	-	-	-
	62.0	441.7	439.6	34.0	420.8	418.7	33.9	407.4	385.1	34.0	407.1	324.1	34.2	406.8	263.1	34.3	406.2	202.1	34.5
	57.0	441.8	439.7	33.9	420.6	418.6	33.9	399.3	397.4	33.9	378.0	376.2	33.9	372.1	322.2	34.0	372.5	263.2	34.2
14000	77.0	525.9	340.2	37.0	527.8	273.1	37.1	528.8	200.0	37.3	-	-	-	-	-	-	-	-	-
	72.0	487.2	412.1	36.6	488.2	340.1	36.8	489.6	272.9	36.9	490.2	204.9	37.1	-	-	-	-	-	-
	67.0	461.4	459.1	36.4	451.5	413.4	36.5	451.9	346.3	36.6	452.2	274.5	36.8	451.9	206.9	37.0	-	-	-
	62.0	461.2	458.9	36.3	439.1	437.0	36.3	418.1	411.9	36.3	416.1	347.8	36.5	415.7	277.2	36.7	414.6	206.3	36.8
	57.0	460.9	458.7	36.3	439.0	436.9	36.3	416.6	414.6	36.3	393.9	392.0	36.3	382.0	346.0	36.3	381.1	276.9	36.5
15750	77.0	534.1	361.4	14.7	536.4	282.9	14.7	537.3	208.5	14.7	-	-	-	-	-	-	-	-	-
	72.0	495.6	439.0	14.7	497.2	366.1	14.7	498.1	287.5	14.7	498.5	213.3	14.7	-	-	-	-	-	-
	67.0	478.6	476.3	14.7	460.4	444.4	14.7	460.5	366.6	14.7	460.6	288.8	14.7	460.2	210.6	14.7	-	-	-
	62.0	478.5	476.2	14.7	455.6	453.4	14.7	432.2	430.1	14.7	424.3	371.6	14.7	423.9	291.1	14.7	422.8	214.6	14.7
	57.0	478.3	476.0	14.7	455.3	453.1	14.7	432.1	430.0	14.7	408.3	406.3	14.7	389.9	368.6	14.7	388.3	293.7	14.7
95 (°F)																			
8750	77.0	468.7	261.2	35.6	470.3	220.0	35.7	470.8	173.4	35.8	-	-	-	-	-	-	-	-	-
	72.0	431.5	304.9	35.3	432.5	262.5	35.4	433.3	219.9	35.5	433.8	177.0	35.7	-	-	-	-	-	-
	67.0	396.9	351.5	35.0	397.2	308.4	35.1	398.0	265.3	35.2	398.3	222.0	35.3	398.3	178.4	35.5	-	-	-
	62.0	378.1	376.3	34.7	364.1	351.4	34.8	364.0	307.9	34.9	364.0	264.5	35.0	364.0	221.0	35.1	363.8	177.4	35.2
	57.0	377.8	376.0	34.7	359.9	358.2	34.7	341.9	340.2	34.6	332.7	311.2	34.6	332.9	265.0	34.8	332.8	221.9	34.9

Table 16: VH35, VY35, VY35 and VV35 cooling capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil																	
CFM	WB (°F)	Return Dry Bulb Temp (°F)																	
		90			85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
10500	77.0	484.4	284.4	36.9	486.0	232.1	37.0	486.4	183.9	37.2	-	-	-	-	-	-	-	-	-
	72.0	446.9	338.0	36.5	448.0	289.8	36.7	448.9	236.8	36.8	449.1	183.2	37.0	-	-	-	-	-	-
	67.0	411.8	393.4	36.2	412.1	340.4	36.3	412.2	291.3	36.5	412.6	238.1	36.6	412.5	184.7	36.8	-	-	-
	62.0	405.3	403.3	36.1	385.6	383.7	36.0	378.7	343.0	36.1	378.6	290.1	36.3	378.7	237.4	36.4	378.2	184.4	36.6
	57.0	405.0	403.1	36.1	385.4	383.5	36.0	365.7	363.9	36.0	347.5	342.4	35.9	346.1	289.3	36.0	345.6	237.3	36.2
12250	77.0	495.4	310.6	38.2	496.8	247.2	38.4	497.3	188.1	38.6	-	-	-	-	-	-	-	-	-
	72.0	458.5	369.6	37.9	459.2	310.8	38.0	460.0	251.8	38.2	460.2	192.3	38.4	-	-	-	-	-	-
	67.0	427.4	425.3	37.5	423.2	374.8	37.6	423.3	311.8	37.8	423.6	253.0	38.0	423.3	193.8	38.2	-	-	-
	62.0	427.2	425.1	37.4	406.2	404.3	37.4	389.6	376.1	37.4	389.1	313.7	37.6	388.6	255.2	37.8	387.7	192.9	37.9
	57.0	427.0	424.9	37.4	406.1	404.1	37.4	384.9	383.0	37.3	363.7	362.0	37.3	356.3	315.6	37.4	355.5	254.7	37.5
14000	77.0	504.4	331.3	40.6	505.9	261.8	40.7	506.4	196.5	41.0	-	-	-	-	-	-	-	-	-
	72.0	466.9	399.6	40.2	467.6	335.1	40.4	468.4	265.7	40.5	468.4	195.8	40.8	-	-	-	-	-	-
	67.0	445.7	443.6	39.9	432.1	404.2	40.0	432.0	335.3	40.2	431.9	266.5	40.3	431.2	197.4	40.6	-	-	-
	62.0	445.7	443.5	39.9	423.7	421.6	39.8	401.4	399.5	39.8	397.2	336.0	39.9	396.7	268.5	40.1	395.5	196.8	40.3
	57.0	445.3	443.2	39.8	423.5	421.5	39.8	401.3	399.3	39.7	379.0	377.1	39.7	364.5	337.4	39.7	363.5	267.7	39.9
15750	77.0	512.8	352.1	43.5	514.6	276.6	43.7	514.9	199.9	44.0	-	-	-	-	-	-	-	-	-
	72.0	475.8	430.9	43.1	476.6	355.7	43.3	477.0	280.1	43.5	477.1	204.1	43.8	-	-	-	-	-	-
	67.0	463.3	461.1	42.9	442.2	431.3	42.9	441.4	360.2	43.1	441.0	280.9	43.3	440.0	205.8	43.6	-	-	-
	62.0	463.1	460.9	42.9	440.1	438.0	42.8	417.0	415.0	42.8	405.9	363.5	42.9	405.2	282.3	43.1	403.9	205.0	43.4
	57.0	462.9	460.6	42.9	440.0	437.9	42.8	416.8	414.7	42.8	393.4	391.5	42.7	373.1	360.1	42.7	371.1	284.4	42.9
105 (°F)																			
8750	77.0	448.6	254.5	39.3	449.9	210.4	39.5	450.4	165.8	39.7	-	-	-	-	-	-	-	-	-
	72.0	412.7	299.8	39.0	413.4	255.1	39.1	414.0	214.2	39.2	414.5	169.1	39.4	-	-	-	-	-	-
	67.0	379.0	343.2	38.6	379.7	302.3	38.7	380.2	257.3	38.8	380.4	212.0	39.0	380.2	170.3	39.1	-	-	-
	62.0	365.0	363.3	38.4	348.9	343.7	38.3	347.3	300.7	38.4	347.5	259.3	38.6	347.3	214.3	38.7	347.0	169.2	38.8
	57.0	364.8	363.0	38.4	347.0	345.4	38.3	329.3	327.7	38.2	317.4	300.1	38.1	317.4	255.9	38.3	317.4	214.8	38.4
10500	77.0	463.1	276.5	40.6	464.4	226.5	40.8	464.6	175.7	41.0	-	-	-	-	-	-	-	-	-
	72.0	427.0	331.4	40.2	427.8	281.0	40.4	428.4	230.2	40.5	428.4	174.8	40.8	-	-	-	-	-	-
	67.0	394.4	384.6	39.8	393.4	332.8	40.0	393.2	281.7	40.1	393.4	231.0	40.3	393.0	176.0	40.5	-	-	-
	62.0	390.7	388.8	39.7	371.4	369.6	39.7	361.1	334.2	39.7	360.9	283.8	39.9	360.8	229.8	40.0	360.2	175.6	40.2
	57.0	390.5	388.6	39.7	371.2	369.4	39.7	351.7	350.0	39.6	332.4	330.8	39.5	329.7	282.2	39.5	329.0	229.2	39.7
12250	77.0	472.9	301.2	42.0	473.9	240.5	42.2	474.2	179.3	42.5	-	-	-	-	-	-	-	-	-
	72.0	437.5	361.4	41.6	437.9	305.1	41.8	438.6	244.4	41.9	438.2	183.2	42.2	-	-	-	-	-	-
	67.0	411.7	409.8	41.2	403.5	365.5	41.3	403.5	305.1	41.5	403.4	244.9	41.7	402.8	184.4	41.9	-	-	-
	62.0	411.6	409.6	41.2	390.6	388.7	41.1	371.9	362.7	41.0	370.3	305.8	41.2	369.6	246.5	41.4	368.6	183.4	41.6
	57.0	411.2	409.3	41.1	390.6	388.7	41.1	369.7	367.9	41.0	349.1	347.4	40.9	338.7	306.7	40.9	338.0	245.6	41.1
14000	77.0	481.3	320.9	44.4	482.7	254.6	44.6	482.5	187.3	44.9	-	-	-	-	-	-	-	-	-
	72.0	445.0	394.1	43.9	445.8	323.8	44.1	446.0	257.4	44.3	445.7	186.3	44.6	-	-	-	-	-	-
	67.0	429.1	427.1	43.6	411.7	393.4	43.6	411.2	327.4	43.8	410.9	257.6	44.0	409.7	187.6	44.3	-	-	-
	62.0	428.9	426.9	43.6	407.2	405.3	43.5	385.2	383.3	43.4	377.8	327.1	43.6	377.1	258.9	43.8	375.6	190.6	44.0
	57.0	428.8	426.7	43.6	407.1	405.1	43.5	385.1	383.2	43.4	363.2	361.4	43.3	346.2	327.3	43.3	345.2	261.1	43.5
15750	77.0	490.2	346.3	47.3	491.3	268.9	47.6	490.8	195.4	47.9	-	-	-	-	-	-	-	-	-
	72.0	454.5	425.1	46.8	454.7	348.5	47.1	455.1	271.7	47.3	454.7	194.6	47.7	-	-	-	-	-	-
	67.0	446.4	444.2	46.6	423.8	421.8	46.6	420.3	351.4	46.8	420.2	276.0	47.1	418.8	195.9	47.4	-	-	-
	62.0	446.4	444.2	46.6	423.7	421.7	46.6	400.9	398.9	46.5	387.0	354.3	46.5	385.8	276.4	46.8	384.5	199.0	47.0
	57.0	446.0	443.9	46.6	423.5	421.5	46.6	400.7	398.7	46.5	377.8	376.0	46.4	355.8	354.1	46.3	353.4	274.3	46.4
115 (°F)																			
8750	77.0	426.0	245.9	43.5	426.9	203.9	43.7	427.0	157.2	43.9	-	-	-	-	-	-	-	-	-
	72.0	391.4	292.1	43.1	392.2	245.9	43.2	392.5	203.1	43.4	392.6	160.2	43.6	-	-	-	-	-	-
	67.0	359.4	336.2	42.6	360.1	293.9	42.7	360.3	247.4	42.9	360.3	204.4	43.0	360.1	161.2	43.2	-	-	-
	62.0	350.2	348.5	42.4	332.7	331.1	42.3	328.9	291.3	42.4	329.0	248.9	42.5	328.8	206.2	42.6	328.1	160.0	42.9
	57.0	350.0	348.3	42.4	332.5	330.9	42.3	315.0	313.5	42.1	300.5	293.0	42.0	300.3	248.1	42.2	300.1	203.1	42.4
10500	77.0	438.1	270.3	44.8	440.0	218.9	45.1	440.0	166.4	45.3	-	-	-	-	-	-	-	-	-
	72.0	404.5	322.1	44.3	405.1	270.1	44.5	405.5	217.9	44.7	405.1	169.3	45.0	-	-	-	-	-	-
	67.0	374.6	372.8	43.9	372.4	326.1	44.0	371.9	273.9	44.2	372.1	222.2	44.4	371.3	166.3	44.6	-	-	-
	62.0	374.3	372.5	43.9	355.3	353.6	43.7	341.4	326.2	43.7	341.3	271.7	43.9	341.0	220.6	44.0	340.2	169.3	44.4
	57.0	374.1	372.3	43.9	355.1	353.4	43.7	336.0	334.4	43.6	317.2	315.6	43.4	311.2	272.5	43.4	310.5	219.4	43.6

Table 16: VH35, VY35, VY35 and VV35 cooling capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil																	
CFM	WB (°F)	Return Dry Bulb Temp (°F)																	
		90			85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
12250	77.0	447.7	294.1	46.2	448.3	232.0	46.4	448.1	173.9	46.8	-	-	-	-	-	-	-	-	-
	72.0	414.0	354.3	45.7	414.1	292.6	45.9	414.4	235.1	46.1	413.9	173.0	46.4	-	-	-	-	-	-
	67.0	394.0	392.1	45.3	381.2	356.6	45.4	381.1	295.8	45.5	380.9	235.0	45.8	380.0	173.9	46.0	-	-	-
	62.0	393.6	391.7	45.3	373.2	371.4	45.2	352.8	351.1	45.1	349.4	295.6	45.2	348.4	235.8	45.4	347.3	172.8	45.7
	57.0	393.3	391.4	45.3	373.0	371.2	45.2	352.6	350.9	45.1	332.4	330.8	44.9	319.2	295.4	44.8	318.4	234.5	45.1
14000	77.0	455.7	312.9	48.6	456.4	245.3	48.8	455.8	176.9	49.2	-	-	-	-	-	-	-	-	-
	72.0	420.7	385.2	48.0	421.0	314.2	48.2	421.2	247.3	48.5	420.3	179.8	48.9	-	-	-	-	-	-
	67.0	410.1	408.2	47.8	390.3	384.5	47.7	388.0	316.6	47.9	387.4	250.6	48.2	387.1	181.1	48.5	-	-	-
	62.0	410.0	408.1	47.8	388.6	386.8	47.7	367.2	365.4	47.5	356.2	319.0	47.6	355.3	251.0	47.8	353.8	179.6	48.3
	57.0	409.8	407.9	47.8	388.8	386.9	47.7	367.0	365.2	47.5	345.5	343.8	47.4	326.3	318.2	47.2	325.0	249.1	47.5
15750	77.0	463.8	336.9	51.5	465.2	263.9	51.8	464.3	184.8	52.3	-	-	-	-	-	-	-	-	-
	72.0	430.4	415.4	50.9	430.4	342.6	51.3	430.5	265.6	51.5	429.2	188.0	51.9	-	-	-	-	-	-
	67.0	427.3	425.2	50.8	405.1	403.1	50.7	397.3	344.0	50.9	397.2	264.8	51.2	395.4	188.9	51.6	-	-	-
	62.0	427.0	425.0	50.8	405.1	403.2	50.7	382.5	380.7	50.6	365.5	345.6	50.6	364.4	264.8	50.8	362.8	187.7	51.3
	57.0	426.8	424.8	50.8	404.7	402.7	50.7	382.4	380.5	50.6	360.1	358.4	50.4	338.3	336.7	50.3	333.5	265.5	50.5
125 (°F)																			
8750	77.0	401.9	235.9	7.1	402.5	192.3	7.1	402.4	152.2	7.1	-	-	-	-	-	-	-	-	-
	72.0	369.3	283.0	7.1	369.7	239.1	7.1	369.9	195.1	7.1	369.7	150.9	7.1	-	-	-	-	-	-
	67.0	339.1	327.3	7.1	339.1	283.5	7.1	339.3	239.8	7.1	339.4	195.9	7.1	338.9	151.8	7.1	-	-	-
	62.0	334.3	332.7	7.1	317.2	315.7	7.1	309.5	283.3	7.1	309.5	240.2	7.1	309.3	197.0	7.1	308.5	150.5	7.1
	57.0	334.1	332.5	7.1	317.0	315.5	7.1	299.9	298.4	7.1	283.1	281.8	7.1	281.8	238.4	7.1	281.6	196.2	7.1
10500	77.0	413.7	259.3	8.3	414.5	210.4	8.3	414.0	156.5	8.3	-	-	-	-	-	-	-	-	-
	72.0	380.8	314.5	8.3	381.0	261.6	8.3	383.5	209.9	8.3	380.9	159.2	8.3	-	-	-	-	-	-
	67.0	357.0	355.2	8.3	349.5	316.5	8.3	349.9	264.6	8.3	349.8	212.3	8.3	348.9	159.7	8.3	-	-	-
	62.0	356.7	355.0	8.3	338.2	336.5	8.3	321.4	313.5	8.3	320.6	264.8	8.3	320.2	210.3	8.3	319.2	158.8	8.3
	57.0	356.6	354.9	8.3	338.0	336.3	8.3	319.3	317.8	8.3	301.0	299.6	8.3	291.9	264.3	8.3	291.3	211.6	8.3
12250	77.0	421.3	285.1	9.5	421.5	222.3	9.5	420.7	163.3	9.5	-	-	-	-	-	-	-	-	-
	72.0	389.1	344.7	9.5	389.2	286.6	9.5	389.3	224.7	9.5	388.7	162.5	9.5	-	-	-	-	-	-
	67.0	375.3	373.5	9.5	358.3	345.9	9.5	357.6	284.7	9.5	357.3	224.0	9.5	356.2	163.1	9.5	-	-	-
	62.0	375.1	373.3	9.5	354.6	352.9	9.5	334.8	333.2	9.5	327.5	286.8	9.5	326.6	224.2	9.5	325.0	164.9	9.5
	57.0	374.4	372.6	9.5	354.4	352.7	9.5	334.6	333.0	9.5	314.9	313.3	9.5	298.6	285.3	9.5	297.9	225.3	9.5
14000	77.0	428.2	306.8	11.8	428.7	238.9	11.8	427.6	170.2	11.8	-	-	-	-	-	-	-	-	-
	72.0	395.4	373.8	11.8	395.1	306.7	11.8	395.0	239.8	11.8	396.1	169.5	11.8	-	-	-	-	-	-
	67.0	389.9	388.0	11.8	369.1	367.3	11.8	363.9	307.8	11.8	363.4	238.7	11.8	362.0	169.3	11.8	-	-	-
	62.0	389.7	387.8	11.8	368.9	367.1	11.8	347.9	346.2	11.8	333.5	308.7	11.8	332.8	238.5	11.8	330.8	171.2	11.8
	57.0	389.5	387.7	11.8	368.7	366.9	11.8	347.7	346.1	11.8	326.8	325.3	11.8	306.5	305.0	11.8	303.8	238.9	11.8
15750	77.0	437.0	330.5	14.7	437.6	252.6	14.7	436.6	173.8	14.7	-	-	-	-	-	-	-	-	-
	72.0	407.0	405.0	14.7	404.7	330.2	14.7	404.5	253.6	14.7	403.6	176.7	14.7	-	-	-	-	-	-
	67.0	406.6	404.6	14.7	385.0	383.1	14.7	373.4	334.5	14.7	373.1	256.2	14.7	371.5	177.5	14.7	-	-	-
	62.0	406.5	404.5	14.7	384.8	383.0	14.7	363.2	361.4	14.7	343.5	335.0	14.7	342.1	258.7	14.7	339.7	179.2	14.7
	57.0	406.3	404.3	14.7	384.7	382.8	14.7	363.0	361.2	14.7	341.5	339.9	14.7	320.4	318.8	14.7	312.7	258.3	14.7

40 ton cooling capacity performance

Table 17: VH40, VY40, VX40 and VV40 cooling capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil																	
CFM	WB (°F)	Return Dry Bulb Temp (°F)																	
		90			85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
75 (°F)																			
10000	77.0	541.0	306.7	26.9	544.6	259.1	27.0	548.2	205.3	27.0	-	-	-	-	-	-	-	-	-
	72.0	492.0	358.6	26.7	495.3	310.9	26.8	498.3	257.3	26.8	501.2	208.0	27.0	-	-	-	-	-	-
	67.0	448.1	408.3	26.6	450.4	360.2	26.6	453.5	307.6	26.7	456.2	258.6	26.9	458.5	208.9	27.2	-	-	-
	62.0	425.0	430.3	26.4	410.2	407.0	26.4	412.1	358.8	26.7	414.3	310.4	26.9	416.5	257.2	27.1	418.4	207.6	27.4
	57.0	421.8	427.0	26.4	403.7	408.7	26.4	385.5	390.2	26.6	375.8	357.6	26.8	378.0	309.9	27.0	380.1	257.8	27.2
12000	77.0	559.2	334.0	28.6	562.8	279.2	28.6	566.3	217.8	28.7	-	-	-	-	-	-	-	-	-
	72.0	509.9	397.5	28.4	513.1	337.6	28.5	516.1	276.9	28.5	518.7	215.3	28.7	-	-	-	-	-	-
	67.0	465.8	452.7	28.2	467.6	397.6	28.3	470.1	337.9	28.4	472.8	277.6	28.6	474.8	216.3	28.9	-	-	-
	62.0	455.7	461.3	28.1	435.4	440.8	28.1	428.7	399.3	28.3	430.3	339.8	28.6	432.8	280.4	28.7	434.4	215.5	29.0
	57.0	452.3	457.9	28.1	432.3	437.6	28.1	412.0	417.1	28.2	393.2	394.0	28.3	393.2	338.4	28.6	394.7	279.7	28.9
14000	77.0	573.0	365.4	30.8	576.2	291.7	30.9	579.2	222.8	31.0	-	-	-	-	-	-	-	-	-
	72.0	523.9	434.9	30.7	526.3	367.6	30.7	529.2	294.7	30.8	531.5	226.0	30.9	-	-	-	-	-	-
	67.0	484.9	490.9	30.5	480.7	433.1	30.5	482.6	366.4	30.6	485.2	294.7	30.9	487.0	226.8	31.2	-	-	-
	62.0	481.2	487.2	30.4	458.9	464.6	30.4	441.2	433.3	30.4	442.3	367.1	30.8	444.2	296.8	31.0	445.6	225.6	31.3
	57.0	477.8	483.7	30.4	455.7	461.3	30.4	433.9	439.3	30.4	412.1	417.2	30.6	405.1	365.0	30.8	406.3	296.2	31.1
16000	77.0	583.1	389.6	33.8	586.6	308.8	33.9	589.0	232.6	34.0	-	-	-	-	-	-	-	-	-
	72.0	534.4	470.7	33.6	536.2	390.9	33.7	539.1	311.1	33.8	540.9	230.0	34.0	-	-	-	-	-	-
	67.0	506.6	512.8	33.5	491.0	472.2	33.5	492.9	394.2	33.6	494.9	315.7	33.8	496.2	231.1	34.2	-	-	-
	62.0	502.9	509.1	33.4	479.0	484.9	33.4	455.4	461.0	33.4	451.6	393.2	33.7	453.4	312.1	34.0	454.5	234.7	34.3
	57.0	499.4	505.6	33.4	475.6	481.5	33.4	452.2	457.8	33.4	429.1	434.4	33.6	413.9	393.9	33.8	414.6	314.8	34.1
18000	77.0	591.6	413.3	37.6	594.5	325.0	37.7	596.5	235.5	37.8	-	-	-	-	-	-	-	-	-
	72.0	544.1	506.7	37.4	545.3	419.6	37.5	547.0	326.7	37.6	548.3	238.7	37.8	-	-	-	-	-	-
	67.0	525.3	531.8	37.3	501.8	503.0	37.3	500.9	420.9	37.4	502.4	330.6	37.7	503.2	239.4	38.2	-	-	-
	62.0	521.8	528.2	37.3	496.3	502.4	37.2	471.2	477.0	37.2	459.6	418.8	37.5	460.7	331.1	37.8	461.2	238.1	38.3
	57.0	518.2	524.6	37.2	493.0	499.1	37.2	468.2	474.0	37.2	443.5	449.0	37.4	421.7	418.3	37.5	421.4	328.5	37.9
85 (°F)																			
10000	77.0	519.9	300.0	30.2	523.3	249.0	30.4	526.7	197.3	30.7	-	-	-	-	-	-	-	-	-
	72.0	472.8	349.4	30.1	476.2	298.9	30.3	479.0	252.2	30.6	481.4	199.8	30.9	-	-	-	-	-	-
	67.0	430.4	400.9	30.0	432.6	350.4	30.2	435.5	299.8	30.4	437.9	252.7	30.7	439.9	200.4	31.0	-	-	-
	62.0	411.6	416.7	29.9	395.2	396.1	30.0	395.6	348.4	30.3	397.4	301.8	30.5	399.3	250.6	30.6	401.0	198.9	31.2
	57.0	408.5	413.6	29.8	390.6	395.4	30.0	372.6	377.2	30.1	360.3	350.2	30.3	362.1	300.6	30.6	364.2	250.7	30.9
12000	77.0	536.9	326.1	31.9	540.0	267.9	32.0	543.3	209.0	32.4	-	-	-	-	-	-	-	-	-
	72.0	489.9	386.8	31.7	492.6	329.1	32.0	495.7	271.0	32.3	497.4	206.5	32.6	-	-	-	-	-	-
	67.0	447.9	444.4	31.5	448.7	390.6	31.8	450.7	328.5	32.1	453.2	270.7	32.4	455.0	207.3	32.8	-	-	-
	62.0	441.1	446.5	31.4	421.0	426.2	31.6	411.0	391.1	31.9	412.4	329.8	32.2	414.5	268.5	32.5	415.9	210.5	32.9
	57.0	437.8	443.2	31.4	417.7	422.9	31.6	397.9	402.8	31.8	378.1	382.7	31.9	376.5	327.8	32.3	377.8	267.7	32.6
14000	77.0	549.4	356.0	34.2	552.5	285.3	34.3	555.0	213.5	34.7	-	-	-	-	-	-	-	-	-
	72.0	502.7	422.4	33.9	504.6	357.6	34.2	507.6	287.8	34.5	509.3	216.5	34.9	-	-	-	-	-	-
	67.0	468.8	474.6	33.7	461.0	424.7	34.0	462.6	355.9	34.4	464.8	287.0	34.7	466.2	217.1	35.0	-	-	-
	62.0	465.4	471.1	33.7	443.4	448.9	33.9	423.8	424.7	34.1	423.4	355.8	34.4	424.9	288.2	34.8	425.9	215.6	35.3
	57.0	462.1	467.8	33.6	440.2	445.7	33.8	418.7	423.8	34.0	397.3	402.2	34.2	387.2	356.7	34.5	388.5	287.1	35.0
16000	77.0	558.8	379.0	37.2	561.9	301.5	37.3	564.2	222.7	37.8	-	-	-	-	-	-	-	-	-
	72.0	512.3	461.6	36.9	514.2	385.2	37.2	516.5	303.3	37.5	517.7	225.4	38.0	-	-	-	-	-	-
	67.0	489.8	495.9	36.7	471.3	462.8	36.9	471.9	382.2	37.3	473.8	307.0	37.7	474.5	225.8	38.2	-	-	-
	62.0	486.3	492.3	36.7	462.5	468.3	36.8	439.3	444.7	37.1	432.2	385.0	37.4	433.4	302.8	37.8	434.1	224.1	38.4
	57.0	482.7	488.7	36.7	459.3	465.0	36.8	436.2	441.6	37.0	413.3	418.4	37.2	395.8	384.6	37.4	395.9	304.6	37.9
18000	77.0	566.7	407.4	41.0	569.3	317.0	41.2	571.1	231.3	41.7	-	-	-	-	-	-	-	-	-
	72.0	521.1	495.9	40.7	522.4	407.2	41.0	523.8	318.2	41.4	524.7	228.4	41.9	-	-	-	-	-	-
	67.0	507.5	513.8	40.6	482.5	488.4	40.7	479.1	407.5	41.1	480.6	321.1	41.5	481.0	228.9	42.1	-	-	-
	62.0	503.9	510.1	40.6	479.1	485.1	40.6	454.2	459.8	40.9	439.8	409.6	41.2	440.1	320.8	41.7	440.2	231.7	42.3
	57.0	500.5	506.7	40.5	475.8	481.7	40.6	451.0	456.6	40.8	427.0	432.2	41.0	403.7	404.6	41.2	402.5	321.9	41.8
95 (°F)																			
10000	77.0	497.1	291.9	34.4	500.2	243.1	34.7	503.3	193.6	35.1	-	-	-	-	-	-	-	-	-
	72.0	452.0	338.6	34.3	455.2	290.3	34.5	457.8	241.0	34.9	459.7	190.8	35.3	-	-	-	-	-	-
	67.0	411.4	391.5	34.0	413.6	339.2	34.3	415.9	290.5	34.6	418.2	241.3	35.0	419.6	191.2	35.5	-	-	-
	62.0	397.2	402.1	33.9	379.3	384.0	34.0	377.3	339.9	34.4	379.2	291.7	34.8	381.0	243.0	35.1	382.0	189.5	35.8
	57.0	394.1	399.0	33.9	376.5	381.1	34.0	358.7	363.1	34.2	343.7	341.0	34.3	345.1	290.0	34.8	346.9	238.8	35.3

Table 17: VH40, VY40, VX40 and VV40 cooling capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil																	
CFM	WB (°F)	Return Dry Bulb Temp (°F)																	
		90			85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
12000	77.0	512.6	316.6	36.1	515.7	261.0	36.4	518.3	199.4	36.9	-	-	-	-	-	-	-	-	-
	72.0	467.9	378.9	35.9	470.1	318.9	36.2	472.7	258.4	36.6	474.3	201.7	37.1	-	-	-	-	-	-
	67.0	429.0	434.3	35.6	428.3	377.2	35.9	429.7	321.9	36.4	432.1	262.5	36.7	433.3	197.4	37.3	-	-	-
	62.0	425.3	430.5	35.5	405.2	410.2	35.7	391.7	380.7	35.9	393.2	322.4	36.4	394.7	259.7	36.8	395.5	200.2	37.5
	57.0	422.0	427.3	35.5	402.1	407.1	35.7	382.6	387.3	35.9	363.0	367.5	36.1	358.3	319.2	36.5	359.4	258.3	37.0
14000	77.0	524.1	344.9	38.4	526.8	277.3	38.8	529.1	208.9	39.3	-	-	-	-	-	-	-	-	-
	72.0	479.2	417.2	38.1	481.1	345.8	38.5	483.6	279.1	38.9	484.6	206.1	39.6	-	-	-	-	-	-
	67.0	451.6	457.2	37.8	439.5	413.8	38.1	441.1	348.3	38.6	442.7	277.8	39.1	443.4	206.5	39.7	-	-	-
	62.0	448.3	453.8	37.8	426.7	432.0	38.0	405.1	410.1	38.2	403.1	346.8	38.7	404.2	278.2	39.2	404.7	204.8	39.9
	57.0	445.0	450.5	37.8	423.6	428.8	38.0	402.2	407.2	38.2	381.0	385.7	38.4	368.1	346.6	38.7	369.0	276.4	39.4
16000	77.0	533.0	372.3	41.4	535.7	292.8	41.8	537.1	212.1	42.5	-	-	-	-	-	-	-	-	-
	72.0	489.0	450.5	41.0	490.0	372.1	41.5	491.6	293.6	41.9	492.4	214.3	42.7	-	-	-	-	-	-
	67.0	471.1	477.0	40.8	450.4	446.8	41.0	449.7	373.3	41.5	450.8	296.6	42.1	451.1	214.7	42.9	-	-	-
	62.0	467.7	473.5	40.8	444.9	450.4	41.0	421.8	427.0	41.2	411.3	374.7	41.6	411.7	295.9	42.3	412.0	212.7	43.1
	57.0	464.4	470.2	40.8	441.6	447.1	40.9	418.8	424.0	41.2	396.2	401.1	41.4	376.4	373.4	41.6	376.0	293.1	42.3
18000	77.0	540.7	399.6	45.2	542.8	307.7	45.7	543.4	220.0	46.4	-	-	-	-	-	-	-	-	-
	72.0	497.6	483.6	44.7	497.5	397.9	45.3	498.5	312.9	45.8	498.2	221.9	46.7	-	-	-	-	-	-
	67.0	488.1	494.2	44.6	463.4	469.1	44.9	456.4	402.0	45.3	456.8	309.8	46.0	456.2	221.7	47.2	-	-	-
	62.0	484.7	490.7	44.6	460.2	465.9	44.8	436.0	441.4	45.1	418.1	402.1	45.4	418.0	313.1	46.1	417.5	219.8	47.1
	57.0	481.3	487.3	44.6	457.1	462.7	44.8	433.1	438.5	45.0	409.0	414.0	45.3	385.5	390.3	45.5	381.8	309.2	46.2
105 (°F)																			
10000	77.0	473.5	282.8	39.1	476.1	231.3	39.5	478.6	184.1	40.1	-	-	-	-	-	-	-	-	-
	72.0	430.3	331.1	38.8	433.2	280.7	39.2	435.2	233.5	39.7	436.7	181.3	40.4	-	-	-	-	-	-
	67.0	391.4	380.4	38.5	393.6	330.7	38.9	395.5	284.3	39.3	397.3	233.3	39.9	398.3	181.5	40.6	-	-	-
	62.0	381.9	386.7	38.3	364.3	368.8	38.5	358.5	330.3	39.0	359.8	280.5	39.5	361.5	230.6	40.0	362.3	179.7	41.1
	57.0	379.1	383.7	38.3	361.5	366.0	38.5	343.7	348.0	38.8	327.3	328.1	39.0	327.4	281.7	39.5	328.5	229.4	40.2
12000	77.0	487.5	310.9	40.7	490.0	248.0	41.2	491.9	189.2	42.0	-	-	-	-	-	-	-	-	-
	72.0	444.6	369.1	40.4	446.5	311.9	41.0	448.8	249.9	41.4	449.6	191.2	42.6	-	-	-	-	-	-
	67.0	411.7	416.8	40.0	406.7	370.6	40.5	408.1	309.9	41.1	409.9	249.0	41.6	410.7	191.3	42.5	-	-	-
	62.0	408.4	413.5	40.0	388.7	393.5	40.2	372.2	369.3	40.4	372.9	309.5	41.1	373.9	249.8	41.8	374.4	189.5	42.7
	57.0	405.5	410.5	40.0	385.8	390.6	40.2	366.5	371.0	40.5	347.1	351.4	40.8	339.2	309.1	41.2	339.9	247.7	42.1
14000	77.0	498.0	337.8	43.1	500.4	268.5	43.6	501.5	198.0	44.6	-	-	-	-	-	-	-	-	-
	72.0	455.2	405.6	42.6	456.8	337.6	43.1	458.9	269.5	43.9	459.0	195.2	44.8	-	-	-	-	-	-
	67.0	433.6	438.9	42.3	417.7	405.9	42.6	418.2	338.7	43.3	419.4	267.5	44.0	419.5	195.4	45.0	-	-	-
	62.0	430.1	435.5	42.3	409.0	414.0	42.6	387.7	392.4	42.8	381.7	336.2	43.5	382.3	267.1	44.1	382.2	197.3	45.3
	57.0	427.1	432.4	42.3	406.0	411.0	42.5	384.9	389.7	42.8	364.1	368.6	43.1	348.3	338.5	43.3	348.5	268.2	44.4
16000	77.0	506.4	364.0	46.1	508.3	283.0	46.7	508.7	206.0	47.7	-	-	-	-	-	-	-	-	-
	72.0	464.0	441.6	45.6	464.9	362.4	46.2	465.9	283.0	46.9	465.9	202.8	47.9	-	-	-	-	-	-
	67.0	451.9	457.5	45.3	429.0	434.3	45.6	426.0	362.3	46.0	426.9	285.3	47.2	426.1	202.8	48.3	-	-	-
	62.0	448.7	454.2	45.3	426.0	431.2	45.6	403.3	408.3	45.9	389.6	362.9	46.3	389.3	283.8	47.3	388.6	204.6	48.9
	57.0	445.5	451.0	45.3	422.9	428.2	45.6	400.4	405.4	45.8	378.1	382.8	46.2	356.4	360.8	46.4	355.1	284.0	47.4
18000	77.0	513.3	389.7	49.9	514.6	302.1	50.5	514.1	208.2	51.8	-	-	-	-	-	-	-	-	-
	72.0	473.4	469.7	49.2	471.6	391.5	50.0	472.2	301.2	50.7	471.2	209.9	52.1	-	-	-	-	-	-
	67.0	467.8	473.6	49.2	443.5	449.0	49.5	432.5	389.7	50.0	432.2	301.9	51.0	431.2	209.5	52.3	-	-	-
	62.0	464.3	470.0	49.1	440.3	445.8	49.4	416.4	421.6	49.7	396.6	389.4	50.1	395.3	300.1	51.2	393.0	210.9	53.1
	57.0	461.2	466.9	49.1	437.3	442.7	49.4	413.7	418.8	49.7	390.2	395.0	50.1	367.1	371.6	50.4	360.2	299.0	51.3
115 (°F)																			
10000	77.0	447.0	271.5	44.6	448.9	222.7	45.3	450.9	173.5	46.2	-	-	-	-	-	-	-	-	-
	72.0	406.1	320.7	44.3	408.7	273.1	45.1	410.0	224.1	45.5	410.9	170.5	46.6	-	-	-	-	-	-
	67.0	370.4	367.5	43.7	370.5	322.6	44.3	372.2	271.3	45.1	373.5	223.1	45.9	374.0	170.4	47.1	-	-	-
	62.0	364.8	369.3	43.7	347.1	351.4	44.0	337.5	321.2	44.6	338.4	270.7	45.3	339.4	223.4	46.2	339.2	171.7	47.6
	57.0	361.9	366.4	43.7	344.5	348.8	44.0	327.1	331.1	44.4	309.9	313.7	44.8	306.9	270.3	45.5	307.5	221.0	46.4
12000	77.0	459.3	297.6	46.3	461.5	238.3	47.1	462.4	177.9	48.3	-	-	-	-	-	-	-	-	-
	72.0	418.9	360.5	45.9	420.1	302.0	46.6	421.9	239.2	47.3	422.2	179.5	48.6	-	-	-	-	-	-
	67.0	392.5	397.4	45.4	382.8	360.4	45.9	383.9	299.2	46.6	384.7	241.5	47.7	384.6	179.1	49.1	-	-	-
	62.0	389.5	394.3	45.4	370.1	374.6	45.7	350.9	355.2	46.1	349.9	301.1	46.9	350.3	241.1	48.0	349.7	177.0	49.5
	57.0	386.4	391.2	45.3	367.3	371.9	45.8	348.2	352.5	46.1	329.0	333.1	46.5	317.4	298.9	47.0	317.6	238.0	48.4

Table 17: VH40, VY40, VX40 and VV40 cooling capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil																	
CFM	WB (°F)	Return Dry Bulb Temp (°F)																	
		90			85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
14000	77.0	468.8	327.5	48.7	470.7	257.3	49.5	470.8	185.9	51.1	-	-	-	-	-	-	-	-	-
	72.0	428.9	395.1	47.9	429.6	326.2	48.8	430.6	257.2	49.7	430.1	187.2	51.3	-	-	-	-	-	-
	67.0	412.9	418.0	47.7	393.8	390.7	48.0	392.9	326.1	49.0	393.2	258.7	50.1	392.1	186.6	51.7	-	-	-
	62.0	409.7	414.8	47.7	388.7	393.5	48.1	367.9	372.4	48.5	358.1	326.3	49.1	357.6	257.0	50.5	356.5	184.1	52.3
	57.0	406.8	411.8	47.7	385.9	390.7	48.1	365.3	369.9	48.4	344.6	348.9	49.0	326.1	323.6	49.3	325.4	253.6	50.8
16000	77.0	476.8	352.4	51.6	477.5	275.6	52.6	476.7	193.1	54.2	-	-	-	-	-	-	-	-	-
	72.0	437.0	429.1	50.7	436.9	353.9	51.9	437.2	274.4	52.9	435.5	194.0	54.8	-	-	-	-	-	-
	67.0	430.1	435.4	50.7	407.4	412.5	51.2	399.5	351.9	52.0	399.8	275.2	53.2	397.8	193.3	55.3	-	-	-
	62.0	426.9	432.2	50.7	404.5	409.5	51.1	382.3	387.0	51.6	364.8	354.5	52.3	364.4	273.0	53.4	361.5	190.3	56.0
	57.0	424.0	429.2	50.6	401.6	406.6	51.2	379.7	384.4	51.5	358.0	362.4	51.9	336.1	340.3	52.5	331.4	271.8	53.8
18000	77.0	482.8	376.4	55.4	483.0	288.5	56.5	481.0	199.7	58.9	-	-	-	-	-	-	-	-	-
	72.0	448.2	453.7	54.7	443.5	377.1	55.6	442.8	291.4	56.9	440.2	200.5	59.1	-	-	-	-	-	-
	67.0	445.0	450.5	54.6	420.9	426.1	55.1	405.5	377.6	55.6	404.8	291.0	57.0	402.3	199.6	59.2	-	-	-
	62.0	441.6	447.0	54.6	418.2	423.4	55.1	394.7	399.6	55.5	371.7	376.3	55.9	369.2	287.8	57.4	365.7	196.2	60.0
	57.0	438.3	443.7	54.7	415.1	420.3	55.1	392.0	396.9	55.5	369.1	373.7	55.9	346.0	350.3	56.5	335.8	288.9	57.7
125 (°F)																			
10000	77.0	404.0	249.5	47.1	406.4	205.7	47.2	408.9	157.3	47.5	-	-	-	-	-	-	-	-	-
	72.0	368.3	298.3	46.6	370.8	251.5	46.7	372.6	203.7	46.9	374.4	159.2	47.2	-	-	-	-	-	-
	67.0	335.8	340.0	46.0	336.8	296.7	46.2	338.5	250.2	46.4	340.4	203.3	46.6	341.9	159.2	46.9	-	-	-
	62.0	333.0	337.2	46.0	317.3	321.2	45.9	306.9	295.2	45.8	309.3	250.5	46.0	310.6	204.4	46.3	311.4	157.6	46.7
	57.0	330.4	334.5	46.0	314.9	318.8	45.9	299.4	303.1	45.7	283.8	287.3	45.5	281.4	250.7	45.7	282.5	203.1	46.0
12000	77.0	415.1	273.1	48.8	417.6	219.8	49.0	419.6	165.7	49.4	-	-	-	-	-	-	-	-	-
	72.0	379.1	330.0	48.3	380.8	277.5	48.5	382.9	221.0	48.7	384.2	163.3	49.1	-	-	-	-	-	-
	67.0	356.6	361.0	47.9	347.0	330.2	47.9	349.0	275.6	48.1	350.7	220.1	48.4	351.4	163.6	48.9	-	-	-
	62.0	353.8	358.1	47.9	336.8	341.0	47.8	319.7	323.6	47.6	318.5	274.1	47.8	319.4	219.9	48.1	320.4	165.4	48.5
	57.0	351.1	355.5	47.9	334.3	338.4	47.7	317.4	321.3	47.6	300.5	304.2	47.4	289.8	272.9	47.4	291.3	218.2	47.8
14000	77.0	423.1	299.9	51.1	425.3	232.5	51.4	426.7	168.5	51.8	-	-	-	-	-	-	-	-	-
	72.0	387.1	360.5	50.6	388.9	299.2	50.8	391.0	233.5	51.1	391.6	170.5	51.6	-	-	-	-	-	-
	67.0	373.8	378.5	50.3	356.0	360.4	50.2	357.0	300.0	50.5	358.2	235.7	50.7	358.5	170.6	51.4	-	-	-
	62.0	370.9	375.5	50.3	352.7	357.1	50.2	334.4	338.6	50.0	325.9	300.2	50.1	327.0	235.0	50.5	326.9	168.8	51.0
	57.0	368.3	372.9	50.3	350.2	354.5	50.2	332.0	336.2	50.0	313.8	317.7	49.8	296.9	297.6	49.7	297.3	234.7	50.2
16000	77.0	429.5	321.8	54.1	431.7	249.1	54.4	433.7	175.6	55.2	-	-	-	-	-	-	-	-	-
	72.0	393.6	390.5	53.5	394.7	319.7	53.8	396.7	249.0	54.1	396.9	176.8	54.7	-	-	-	-	-	-
	67.0	388.1	392.9	53.5	368.9	373.4	53.3	362.5	322.9	53.5	363.7	250.4	53.8	363.4	176.6	54.6	-	-	-
	62.0	385.3	390.1	53.5	366.2	370.7	53.3	346.7	351.0	53.2	331.6	322.3	53.1	333.0	249.4	53.5	332.5	175.0	54.2
	57.0	382.5	387.3	53.5	363.6	368.0	53.3	344.2	348.5	53.2	325.3	329.3	53.0	306.3	310.1	52.8	303.3	248.7	53.3
18000	77.0	434.7	343.2	58.0	436.4	260.7	58.3	438.4	182.0	59.1	-	-	-	-	-	-	-	-	-
	72.0	403.5	408.5	57.4	400.3	344.5	57.7	402.0	264.5	58.0	401.8	183.0	58.8	-	-	-	-	-	-
	67.0	400.6	405.6	57.4	380.2	384.9	57.3	367.7	342.5	57.3	368.9	265.1	57.7	368.4	182.7	58.5	-	-	-
	62.0	397.9	402.8	57.4	377.5	382.2	57.3	357.4	361.8	57.1	337.3	341.5	56.9	337.7	263.3	57.3	336.2	180.4	58.2
	57.0	395.1	400.0	57.4	375.0	379.6	57.3	355.0	359.4	57.1	334.9	339.0	56.9	315.0	318.9	56.8	308.8	262.6	56.9

50 ton cooling capacity performance

Table 18: VH50, VY50, VX50 and VV50 cooling capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil																	
CFM	WB (°F)	Return Dry Bulb Temp (°F)																	
		90			85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	T	TC	SC	TI
75 (°F)																			
12000	77.0	715.3	370.1	37.1	721.6	312.3	37.3	728.0	253.4	37.4	-	-	-	-	-	-	-	-	-
	72.0	652.5	429.7	37.3	658.2	377.7	37.4	663.5	318.3	37.5	668.2	257.8	37.6	-	-	-	-	-	-
	67.0	594.5	492.2	37.3	598.8	433.8	37.4	603.7	374.8	37.5	608.2	320.4	37.6	612.1	259.2	37.7	-	-	-
	62.0	557.6	524.6	37.3	544.8	492.0	37.4	548.8	433.7	37.4	552.5	379.4	37.5	556.4	319.3	37.6	559.8	258.1	37.7
	57.0	553.4	520.6	37.2	530.9	499.5	37.3	508.0	477.9	37.3	501.3	433.9	37.4	505.0	375.3	37.5	508.3	315.6	37.5
15000	77.0	740.0	403.8	40.2	746.4	337.1	40.3	752.7	269.1	40.5	-	-	-	-	-	-	-	-	-
	72.0	677.7	478.2	40.3	683.4	411.5	40.4	688.6	336.9	40.5	693.1	267.3	40.7	-	-	-	-	-	-
	67.0	618.7	547.2	40.3	622.9	480.6	40.5	627.4	413.2	40.6	631.8	338.8	40.7	635.6	269.1	40.8	-	-	-
	62.0	598.8	563.3	40.3	574.0	540.0	40.4	572.4	484.7	40.5	575.6	411.6	40.6	579.3	343.4	40.7	582.3	268.4	40.9
	57.0	594.4	559.2	40.3	569.8	536.1	40.4	544.6	512.3	40.4	523.8	482.9	40.5	526.8	411.3	40.6	529.7	343.9	40.7
17500	77.0	758.7	442.5	42.7	764.9	359.8	42.8	770.8	275.5	43.1	-	-	-	-	-	-	-	-	-
	72.0	695.7	523.6	42.8	701.0	441.9	42.9	706.2	358.8	43.1	710.6	280.8	43.3	-	-	-	-	-	-
	67.0	638.1	600.3	42.8	641.1	524.7	43.0	645.1	443.0	43.1	649.2	360.3	43.3	652.5	276.3	43.4	-	-	-
	62.0	633.3	595.8	42.8	605.8	569.9	42.9	589.6	526.9	43.1	592.1	445.7	43.2	595.5	364.2	43.3	598.2	281.4	43.5
	57.0	628.8	591.6	42.7	601.4	565.8	42.9	574.1	540.1	43.0	547.0	514.6	43.1	543.5	444.8	43.2	546.2	364.8	43.3
20000	77.0	772.6	472.4	47.4	778.8	381.0	47.5	784.2	280.4	47.8	-	-	-	-	-	-	-	-	-
	72.0	710.6	568.2	47.5	715.2	477.7	47.6	720.1	379.3	47.8	723.7	285.9	48.0	-	-	-	-	-	-
	67.0	667.2	627.7	47.4	655.8	567.6	47.6	659.5	477.8	47.8	663.4	380.7	48.0	665.8	288.1	48.2	-	-	-
	62.0	662.4	623.1	47.4	633.2	595.7	47.6	603.9	568.1	47.7	605.7	478.7	47.9	608.7	383.7	48.1	610.8	287.3	48.3
	57.0	657.9	619.0	47.4	628.8	591.6	47.6	599.5	564.0	47.7	570.3	536.5	47.8	556.3	481.5	47.9	557.8	383.1	48.1
85 (°F)																			
12000	77.0	688.9	362.9	41.8	695.1	307.3	41.9	700.7	243.9	42.1	-	-	-	-	-	-	-	-	-
	72.0	628.4	425.7	41.7	633.6	363.6	41.8	638.7	306.4	41.9	643.2	248.1	42.1	-	-	-	-	-	-
	67.0	572.4	479.2	41.6	576.1	422.8	41.7	580.7	366.0	41.8	584.9	308.1	41.9	588.2	249.0	42.0	-	-	-
	62.0	540.5	508.5	41.5	523.1	482.3	41.5	527.1	426.5	41.6	530.6	369.4	41.7	534.2	306.6	41.7	537.5	247.8	41.8
	57.0	536.4	504.6	41.4	513.9	483.5	41.4	491.4	462.3	41.4	480.8	425.2	41.4	484.3	364.5	41.4	487.7	307.4	41.5
15000	77.0	711.9	395.2	44.9	717.9	324.2	45.1	723.7	258.7	45.2	-	-	-	-	-	-	-	-	-
	72.0	651.7	466.0	44.8	656.8	401.7	45.0	661.6	329.9	45.1	665.6	256.7	45.3	-	-	-	-	-	-
	67.0	595.3	537.7	44.7	599.0	473.4	44.8	603.0	402.8	44.9	607.1	331.3	45.0	610.3	258.4	45.2	-	-	-
	62.0	580.6	546.2	44.6	555.3	522.4	44.6	549.4	470.3	44.7	552.3	400.1	44.8	555.7	329.3	44.9	558.3	257.4	45.1
	57.0	576.4	542.2	44.6	551.2	518.5	44.6	526.2	495.0	44.6	501.5	471.8	44.5	504.9	403.7	44.6	507.5	329.5	44.7
17500	77.0	729.8	432.5	47.5	735.5	346.0	47.7	740.4	264.7	47.9	-	-	-	-	-	-	-	-	-
	72.0	668.4	509.4	47.4	673.1	430.6	47.6	678.0	350.8	47.7	681.5	269.3	47.9	-	-	-	-	-	-
	67.0	618.3	581.7	47.2	615.8	515.6	47.4	619.4	437.1	47.5	623.1	351.7	47.7	625.9	270.9	47.9	-	-	-
	62.0	613.8	577.4	47.2	586.4	551.6	47.2	565.2	515.8	47.3	567.7	437.9	47.4	570.5	354.2	47.6	572.8	269.4	47.7
	57.0	609.3	573.2	47.1	582.2	547.7	47.2	554.7	521.9	47.2	527.6	496.4	47.2	520.5	435.8	47.3	522.6	354.0	47.4
20000	77.0	742.5	461.0	52.2	748.0	365.9	52.4	752.7	276.2	52.7	-	-	-	-	-	-	-	-	-
	72.0	682.6	552.2	52.1	686.5	465.0	52.3	690.9	370.5	52.5	693.7	274.1	52.7	-	-	-	-	-	-
	67.0	645.9	607.7	51.9	629.8	556.9	52.1	633.0	464.5	52.3	636.5	371.3	52.4	638.2	276.2	52.7	-	-	-
	62.0	641.2	603.3	51.9	612.6	576.3	52.0	583.0	548.4	52.0	580.5	469.7	52.2	583.1	373.0	52.3	584.6	280.5	52.5
	57.0	637.0	599.3	51.9	608.4	572.3	51.9	579.0	544.8	52.0	550.1	517.5	52.0	532.4	465.8	52.0	533.4	371.3	52.2
95 (°F)																			
12000	77.0	660.1	354.0	46.7	665.5	294.3	46.8	670.8	233.5	47.0	-	-	-	-	-	-	-	-	-
	72.0	601.6	413.2	46.4	606.6	353.8	46.5	611.2	299.0	46.6	615.3	237.3	46.8	-	-	-	-	-	-
	67.0	548.1	469.2	46.1	551.9	415.4	46.2	556.1	355.7	46.3	559.9	300.2	46.4	563.1	238.4	46.5	-	-	-
	62.0	522.5	491.5	45.9	499.7	470.1	45.8	504.1	412.6	45.9	507.4	358.0	46.0	510.6	297.8	46.1	513.4	236.7	46.2
	57.0	518.4	487.7	45.9	495.9	466.6	45.8	473.7	445.6	45.7	459.2	414.7	45.6	462.6	356.8	45.7	465.6	297.8	45.7
15000	77.0	680.9	384.3	49.9	686.5	316.5	50.0	691.5	247.2	50.2	-	-	-	-	-	-	-	-	-
	72.0	623.2	457.3	49.6	627.8	389.8	49.7	632.3	321.2	49.9	635.8	245.2	50.1	-	-	-	-	-	-
	67.0	568.9	524.5	49.3	572.4	457.7	49.4	576.2	390.3	49.5	580.0	321.9	49.6	583.0	246.8	49.8	-	-	-
	62.0	560.4	527.2	49.2	535.8	504.1	49.1	524.8	459.2	49.1	527.5	392.0	49.2	530.8	319.6	49.4	532.9	250.7	49.5
	57.0	556.3	523.3	49.2	531.8	500.3	49.1	506.8	476.8	49.0	481.9	453.4	48.8	481.7	389.7	48.9	483.9	318.7	49.0
17500	77.0	697.6	420.0	52.5	702.8	337.2	52.7	707.0	252.8	52.9	-	-	-	-	-	-	-	-	-
	72.0	638.3	498.4	52.2	642.8	423.3	52.4	647.4	341.1	52.5	650.3	256.9	52.8	-	-	-	-	-	-
	67.0	595.9	560.6	51.9	588.3	503.7	52.0	591.1	422.6	52.2	594.6	341.2	52.3	596.8	258.3	52.5	-	-	-
	62.0	591.4	556.4	51.9	564.9	531.5	51.8	539.4	502.4	51.7	542.1	423.3	51.9	544.3	343.1	52.0	546.1	256.9	52.2
	57.0	587.3	552.5	51.9	560.9	527.7	51.8	534.2	502.6	51.7	507.0	476.9	51.6	496.0	424.6	51.6	497.8	341.9	51.7

Table 18: VH50, VY50, VX50 and VV50 cooling capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil																	
CFM	WB (°F)	Return Dry Bulb Temp (°F)																	
		90			85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	T	TC	SC	TI
20000	77.0	709.6	447.3	57.2	714.6	356.3	57.4	718.1	263.5	57.8	-	-	-	-	-	-	-	-	-
	72.0	651.9	545.8	56.9	655.0	449.8	57.1	658.8	359.5	57.3	661.2	267.5	57.6	-	-	-	-	-	-
	67.0	622.4	585.5	56.7	600.9	542.7	56.7	603.7	454.4	56.9	606.6	359.5	57.1	608.0	263.1	57.4	-	-	-
	62.0	617.8	581.2	56.7	589.7	554.8	56.6	561.0	527.7	56.6	553.7	458.4	56.7	556.0	360.9	56.8	556.8	267.2	57.0
	57.0	613.5	577.2	56.7	585.6	550.9	56.6	557.2	524.2	56.5	528.3	497.0	56.4	506.6	457.5	56.4	507.8	363.1	56.5
105 (°F)																			
12000	77.0	630.0	343.8	51.6	634.9	286.7	51.8	639.6	228.6	52.0	-	-	-	-	-	-	-	-	-
	72.0	574.1	399.7	51.2	578.6	342.9	51.3	582.8	285.1	51.5	586.4	226.2	51.6	-	-	-	-	-	-
	67.0	522.2	456.9	50.7	526.3	401.1	50.8	530.0	344.0	51.0	533.7	286.2	51.1	536.6	227.2	51.2	-	-	-
	62.0	503.5	473.7	50.6	481.4	452.9	50.4	480.8	402.6	50.4	483.9	346.0	50.5	486.9	288.6	50.6	489.4	225.6	50.7
	57.0	499.6	470.0	50.6	477.7	449.4	50.4	455.6	428.7	50.2	437.4	403.3	50.0	440.3	343.8	50.0	443.1	283.5	50.1
15000	77.0	648.9	378.5	54.9	653.8	307.5	55.0	658.4	235.4	55.3	-	-	-	-	-	-	-	-	-
	72.0	593.8	446.9	54.4	597.8	376.8	54.6	602.0	305.8	54.7	604.8	239.0	55.0	-	-	-	-	-	-
	67.0	543.3	511.2	53.9	545.3	446.3	54.1	548.5	376.7	54.2	551.9	306.4	54.3	554.5	234.7	54.5	-	-	-
	62.0	539.3	507.4	53.9	515.1	484.6	53.7	498.6	450.3	53.6	502.4	378.1	53.8	505.1	308.9	53.9	507.0	238.5	54.1
	57.0	535.3	503.6	53.9	511.3	481.0	53.7	487.0	458.2	53.5	462.6	435.2	53.3	457.9	379.1	53.3	460.2	307.4	53.4
17500	77.0	664.1	406.1	57.5	668.9	327.2	57.7	672.5	246.7	58.0	-	-	-	-	-	-	-	-	-
	72.0	607.7	491.6	57.1	611.6	408.5	57.2	615.7	330.2	57.4	618.0	244.2	57.7	-	-	-	-	-	-
	67.0	572.9	539.0	56.7	559.6	489.6	56.7	562.1	412.5	56.9	565.1	329.6	57.1	566.9	245.3	57.3	-	-	-
	62.0	568.6	534.9	56.7	542.6	510.4	56.5	516.0	485.5	56.4	515.2	412.0	56.5	517.5	331.0	56.6	518.8	244.0	56.8
	57.0	564.4	530.9	56.7	538.6	506.7	56.5	512.5	482.1	56.4	486.1	457.3	56.1	471.1	412.2	56.0	472.8	329.2	56.2
20000	77.0	675.0	438.2	62.3	679.4	345.1	62.5	682.3	250.3	62.9	-	-	-	-	-	-	-	-	-
	72.0	620.2	531.0	61.8	622.9	439.5	62.0	626.1	347.5	62.2	627.7	253.9	62.6	-	-	-	-	-	-
	67.0	597.7	562.3	61.6	571.1	531.9	61.5	573.7	442.6	61.7	576.1	352.3	61.9	577.1	255.2	62.2	-	-	-
	62.0	593.2	558.1	61.5	565.8	532.3	61.4	537.7	505.9	61.3	526.1	445.5	61.3	527.7	352.5	61.5	528.2	253.4	61.7
	57.0	589.1	554.2	61.5	561.7	528.5	61.4	534.0	502.4	61.3	506.1	476.1	61.0	481.1	443.6	60.8	482.0	349.2	61.0
115 (°F)																			
12000	77.0	596.5	331.1	57.1	601.2	271.5	57.2	605.5	216.5	57.5	-	-	-	-	-	-	-	-	-
	72.0	543.4	388.5	56.5	547.8	335.0	56.6	551.5	275.0	56.8	554.8	214.0	57.0	-	-	-	-	-	-
	67.0	493.6	445.8	55.8	498.2	389.0	56.0	501.4	334.9	56.1	504.7	275.4	56.2	507.3	214.8	56.4	-	-	-
	62.0	482.2	453.6	55.7	460.6	433.3	55.5	453.9	392.8	55.4	457.7	331.5	55.6	460.5	272.9	55.7	462.7	213.3	55.9
	57.0	478.4	450.0	55.7	457.0	430.0	55.5	435.6	409.8	55.2	414.1	389.5	54.9	416.0	332.6	55.0	418.7	271.8	55.1
15000	77.0	613.5	363.6	60.3	618.0	296.5	60.5	621.8	222.3	60.8	-	-	-	-	-	-	-	-	-
	72.0	561.1	432.8	59.7	564.9	366.7	59.9	568.7	294.3	60.1	571.2	225.7	60.3	-	-	-	-	-	-
	67.0	519.8	489.0	59.2	515.4	436.4	59.2	518.2	365.6	59.4	521.2	299.1	59.6	523.3	226.4	59.8	-	-	-
	62.0	515.8	485.2	59.2	492.1	462.9	59.0	471.0	434.3	58.7	474.4	366.0	58.8	476.5	295.9	59.0	478.1	224.9	59.3
	57.0	511.8	481.5	59.2	488.4	459.5	58.9	464.7	437.2	58.7	441.2	415.1	58.4	431.9	365.7	58.3	434.3	294.2	58.4
17500	77.0	627.6	395.6	63.0	631.6	314.9	63.3	634.6	232.8	63.6	-	-	-	-	-	-	-	-	-
	72.0	574.0	475.2	62.4	577.3	396.5	62.6	580.8	316.9	62.8	582.7	230.2	63.1	-	-	-	-	-	-
	67.0	547.1	514.7	62.0	528.0	476.9	61.9	530.6	399.3	62.1	532.9	315.9	62.3	534.2	231.2	62.6	-	-	-
	62.0	542.9	510.8	62.0	517.6	486.9	61.8	491.9	462.8	61.5	486.1	397.8	61.6	487.8	316.6	61.7	488.5	234.4	62.1
	57.0	539.1	507.2	62.0	513.9	483.4	61.8	488.5	459.6	61.5	462.9	435.5	61.2	443.4	400.4	61.0	445.5	318.6	61.2
20000	77.0	637.3	425.7	67.8	641.1	331.7	68.1	643.1	242.0	68.5	-	-	-	-	-	-	-	-	-
	72.0	585.3	517.6	67.1	587.7	425.7	67.4	590.5	333.3	67.6	591.2	239.2	68.0	-	-	-	-	-	-
	67.0	570.5	536.7	67.0	543.1	510.9	66.8	540.7	427.3	66.9	543.0	337.2	67.2	543.2	240.2	67.6	-	-	-
	62.0	566.2	532.6	67.0	539.2	507.3	66.7	512.2	481.8	66.5	495.9	429.2	66.4	497.0	336.7	66.6	496.9	243.1	67.1
	57.0	562.2	528.9	66.9	535.3	503.6	66.7	508.4	478.3	66.5	481.3	452.8	66.2	454.4	427.5	65.9	453.8	337.3	66.1
125 (°F)																			
12000	77.0	561.9	317.2	62.7	566.1	261.0	62.9	570.0	203.8	63.2	-	-	-	-	-	-	-	-	-
	72.0	511.9	375.6	61.9	515.6	320.2	62.1	519.3	263.8	62.3	522.1	201.4	62.7	-	-	-	-	-	-
	67.0	464.1	436.6	61.2	468.9	379.4	61.4	471.8	319.6	61.5	475.2	263.8	61.8	476.9	201.9	62.1	-	-	-
	62.0	460.0	432.7	61.2	438.9	412.9	60.9	426.4	381.1	60.7	430.4	319.9	60.9	433.1	260.8	61.2	435.2	204.7	61.7
	57.0	456.4	429.4	61.2	435.5	409.7	60.9	414.7	390.1	60.6	393.6	370.3	60.3	391.0	320.0	60.4	393.4	262.8	60.8
15000	77.0	576.8	352.7	66.0	580.9	284.2	66.2	584.3	208.9	66.6	-	-	-	-	-	-	-	-	-
	72.0	528.0	422.2	65.2	531.3	354.9	65.4	534.6	281.6	65.6	536.6	212.0	66.2	-	-	-	-	-	-
	67.0	494.9	465.6	64.7	484.3	423.8	64.6	487.0	352.8	64.8	489.5	285.5	65.1	491.1	212.5	65.7	-	-	-
	62.0	491.3	462.2	64.7	468.0	440.3	64.4	444.8	418.5	64.1	445.3	356.1	64.3	447.3	286.2	64.6	448.5	211.0	65.3
	57.0	487.5	458.7	64.7	464.5	437.0	64.4	441.6	415.4	64.1	418.6	393.8	63.8	405.3	354.6	63.7	407.6	283.8	64.2

Table 18: VH50, VY50, VX50 and VV50 cooling capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil																	
CFM	WB (°F)	Return Dry Bulb Temp (°F)																	
		90			85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	T	TC	SC	TI
17500	77.0	589.2	382.4	68.7	593.0	301.3	69.0	595.5	218.5	69.6	-	-	-	-	-	-	-	-	-
	72.0	539.3	461.7	67.9	541.9	382.4	68.1	545.0	302.5	68.4	546.4	221.0	69.1	-	-	-	-	-	-
	67.0	520.3	489.5	67.6	495.3	466.0	67.3	497.8	384.1	67.6	500.3	305.9	67.9	500.6	221.3	68.5	-	-	-
	62.0	516.2	485.7	67.6	491.5	462.4	67.3	466.8	439.1	67.0	455.7	385.8	66.9	457.4	305.5	67.4	457.7	219.6	68.3
	57.0	512.5	482.1	67.6	488.0	459.1	67.3	463.4	436.0	67.0	438.6	412.6	66.7	415.2	386.7	66.4	417.4	302.3	66.9
20000	77.0	598.2	416.4	73.5	601.7	322.7	73.8	603.1	226.9	74.5	-	-	-	-	-	-	-	-	-
	72.0	549.3	506.4	72.7	551.8	415.3	73.0	554.1	323.2	73.3	554.0	229.3	74.1	-	-	-	-	-	-
	67.0	541.6	509.6	72.6	515.3	484.8	72.3	507.0	415.0	72.4	509.0	325.6	72.8	508.5	229.6	73.8	-	-	-
	62.0	537.7	505.9	72.6	511.6	481.3	72.3	485.0	456.3	72.0	464.4	415.0	71.8	465.3	323.9	72.2	464.6	227.3	73.4
	57.0	533.9	502.3	72.6	507.9	477.8	72.3	481.8	453.2	72.0	455.5	428.5	71.6	429.4	403.9	71.4	424.8	323.7	71.8

27.5 ton hot gas reheat capacity performance

Table 19: VH27, VY27, VX27 and VV27 hot gas reheat capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil														
		Return Dry Bulb Temp (°F)														
CFM	WB (°F)	85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
85 (°F)																
6875	72.0	147.3	89.9	24.8	148.1	75.5	24.8	149.6	61.3	24.7	-	-	-	-	-	-
	67.0	132.2	101.8	24.0	133.3	89.3	23.9	134.2	75.1	23.9	135.4	60.9	23.8	-	-	-
	62.0	118.5	113.8	23.1	119.6	100.5	23.1	120.7	88.1	23.1	121.3	74.0	23.0	122.3	59.9	23.0
	57.0	114.2	114.2	22.9	109.0	109.0	22.4	108.4	98.6	22.3	109.2	86.2	22.2	109.5	72.3	22.2
8250	72.0	154.8	99.1	25.0	156.2	82.8	24.8	157.3	64.5	24.7	-	-	-	-	-	-
	67.0	139.2	114.1	24.1	140.9	98.6	24.1	141.3	82.0	24.0	142.8	64.3	23.9	-	-	-
	62.0	126.4	126.4	23.4	126.7	112.8	23.3	127.5	96.9	23.3	128.5	81.0	23.2	129.2	63.3	23.2
	57.0	124.0	124.0	23.4	118.7	118.7	22.9	114.6	111.2	22.5	115.3	95.7	22.5	115.8	78.7	22.5
9625	72.0	162.8	109.1	25.3	162.2	87.6	25.2	163.3	68.6	25.1	-	-	-	-	-	-
	67.0	145.1	126.3	24.5	144.9	105.8	24.5	147.3	86.9	24.4	147.8	66.5	24.3	-	-	-
	62.0	135.1	135.1	24.1	131.8	123.9	23.8	132.7	106.1	23.7	133.0	86.4	23.7	134.4	67.2	23.6
	57.0	133.3	133.3	24.1	126.7	126.7	23.6	120.4	120.4	23.1	120.0	103.2	23.0	120.1	84.1	23.0
11000	72.0	165.4	117.4	25.8	166.6	93.3	25.7	167.4	70.3	25.6	-	-	-	-	-	-
	67.0	150.1	136.6	25.0	150.3	115.8	25.0	151.6	92.5	25.0	152.5	70.1	24.8	-	-	-
	62.0	141.3	141.3	24.8	136.2	133.5	24.3	136.6	113.3	24.3	137.5	92.1	24.2	138.2	69.1	24.2
	57.0	140.5	140.5	24.8	133.6	133.6	24.3	126.6	126.6	23.8	123.6	111.3	23.6	124.6	91.0	23.6
12375	72.0	169.0	125.1	26.5	170.3	98.8	26.5	171.0	73.5	26.3	-	-	-	-	-	-
	67.0	153.7	147.6	25.8	153.9	123.1	25.8	154.2	97.1	25.7	155.3	73.0	25.6	-	-	-
	62.0	148.8	148.8	25.7	141.4	141.4	25.2	140.1	121.9	25.1	140.7	97.1	25.1	141.3	72.0	25.0
	57.0	146.9	146.9	25.7	139.4	139.4	25.2	132.0	132.0	24.8	127.3	119.6	24.5	127.7	95.8	24.4
75 (°F)																
6875	72.0	155.6	94.9	23.6	156.8	80.0	23.5	158.1	64.8	23.4	-	-	-	-	-	-
	67.0	139.8	107.6	22.8	140.9	93.0	22.7	142.1	79.6	22.6	143.2	64.4	22.6	-	-	-
	62.0	125.9	119.6	21.9	126.8	106.5	21.9	127.8	92.0	21.9	127.9	78.0	21.8	129.5	63.5	21.7
	57.0	119.9	119.9	21.7	114.6	114.6	21.2	114.8	104.4	21.1	115.7	90.3	21.1	116.6	76.9	21.0
8250	72.0	163.7	104.8	23.7	165.3	85.9	23.6	166.2	68.2	23.5	-	-	-	-	-	-
	67.0	147.8	119.7	22.9	148.6	102.5	22.9	150.0	85.5	22.8	151.1	68.0	22.7	-	-	-
	62.0	131.7	131.7	22.2	134.0	117.9	22.1	135.0	101.3	22.1	135.9	84.3	22.0	136.9	67.1	22.0
	57.0	131.4	131.4	22.2	124.8	124.8	21.7	121.2	116.4	21.4	122.3	100.3	21.3	123.0	83.7	21.3
9625	72.0	170.2	114.1	24.0	171.4	92.6	23.9	172.4	72.4	23.8	-	-	-	-	-	-
	67.0	152.5	131.1	23.3	154.7	112.9	23.3	156.1	92.1	23.2	156.4	70.4	23.1	-	-	-
	62.0	141.9	141.9	22.8	140.1	130.3	22.6	140.8	111.2	22.5	141.6	90.7	22.5	142.7	71.3	22.4
	57.0	139.9	139.9	22.8	133.3	133.3	22.4	126.5	126.5	21.9	127.1	109.3	21.8	128.3	89.8	21.8
11000	72.0	174.9	122.5	24.5	176.2	98.7	24.4	177.4	74.5	24.3	-	-	-	-	-	-
	67.0	158.8	142.9	23.8	159.5	121.2	23.8	160.5	97.9	23.7	160.9	74.0	23.6	-	-	-
	62.0	149.5	149.5	23.5	143.8	139.5	23.1	144.5	118.5	23.1	145.2	95.8	23.0	146.5	73.3	22.9
	57.0	147.6	147.6	23.5	139.8	139.8	23.1	133.1	133.1	22.6	131.8	117.3	22.4	132.3	95.3	22.4
12375	72.0	177.9	129.9	25.3	180.0	104.4	25.2	180.9	76.0	25.0	-	-	-	-	-	-
	67.0	162.0	153.9	24.6	162.9	128.7	24.5	164.1	103.4	24.5	165.1	75.9	24.4	-	-	-
	62.0	156.3	156.3	24.5	148.5	148.5	24.0	148.6	127.8	23.9	148.6	101.1	23.9	149.9	76.4	23.8
	57.0	154.3	154.3	24.5	146.5	146.5	24.0	139.0	139.0	23.6	134.9	125.5	23.3	135.6	100.4	23.2
65 (°F)																
6875	72.0	166.4	99.9	22.4	167.8	85.6	22.3	167.3	68.6	22.2	-	-	-	-	-	-
	67.0	148.8	113.1	21.6	151.3	99.9	21.5	152.6	83.9	21.4	152.8	68.8	21.4	-	-	-
	62.0	135.3	127.2	20.8	136.6	113.4	20.7	137.6	99.1	20.7	137.4	82.4	20.7	139.0	68.1	20.6
	57.0	128.4	128.4	20.5	123.0	123.0	20.1	124.1	111.7	20.0	125.4	97.8	20.0	126.0	83.2	19.9
8250	72.0	175.4	110.5	22.5	176.8	91.9	22.3	176.6	72.4	22.2	-	-	-	-	-	-
	67.0	159.1	128.9	21.7	159.1	109.7	21.7	161.4	92.0	21.6	160.5	72.2	21.5	-	-	-
	62.0	143.4	142.0	21.0	144.0	126.7	20.9	145.7	109.2	20.9	146.5	90.8	20.9	147.4	72.2	20.8
	57.0	140.1	140.1	21.0	134.1	134.1	20.6	131.8	125.2	20.2	132.7	107.4	20.2	133.5	90.8	20.2
9625	72.0	182.4	120.4	22.8	183.7	99.2	22.7	183.5	75.2	22.6	-	-	-	-	-	-
	67.0	164.1	139.5	22.1	166.5	119.9	22.1	168.9	99.6	22.0	167.5	75.4	21.9	-	-	-
	62.0	151.9	151.9	21.6	151.2	139.1	21.4	152.0	118.6	21.3	152.9	97.9	21.3	153.5	76.7	21.2
	57.0	149.9	149.9	21.6	143.1	143.1	21.2	137.4	136.0	20.7	137.8	117.2	20.7	138.7	97.1	20.7
11000	72.0	187.9	129.7	23.3	188.8	105.7	23.2	188.5	79.2	23.0	-	-	-	-	-	-
	67.0	170.7	151.9	22.6	171.7	128.8	22.6	172.9	105.5	22.5	172.5	79.4	22.4	-	-	-
	62.0	159.5	159.5	22.3	155.7	149.4	22.0	156.1	128.0	21.9	156.8	103.5	21.9	157.7	78.9	21.8
	57.0	158.1	158.1	22.3	149.8	149.8	21.9	143.5	143.5	21.5	142.8	125.7	21.3	143.7	103.5	21.2

Table 19: VH27, VY27, VX27 and VV27 hot gas reheat capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil														
CFM	WB (°F)	Return Dry Bulb Temp (°F)														
		85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
12375	72.0	192.1	138.3	24.0	191.9	109.4	24.0	191.1	80.3	23.8	-	-	-	-	-	-
	67.0	174.9	164.5	23.4	175.7	137.0	23.3	176.7	109.6	23.3	174.8	80.4	23.2	-	-	-
	62.0	167.2	167.2	23.3	159.4	159.4	22.8	160.3	136.2	22.7	161.4	109.8	22.7	161.5	82.4	22.6
	57.0	165.2	165.2	23.2	157.5	157.5	22.8	149.8	149.8	22.4	146.9	135.1	22.1	146.9	108.7	22.1
55 (°F)																
6875	72.0	173.3	104.0	21.2	173.8	88.6	21.1	173.6	71.2	21.0	-	-	-	-	-	-
	67.0	156.9	119.2	20.4	158.3	104.5	20.4	158.5	87.2	20.3	158.3	71.3	20.2	-	-	-
	62.0	141.5	131.6	19.7	143.0	117.3	19.6	144.1	102.3	19.6	144.6	86.8	19.6	144.8	71.0	19.5
	57.0	133.7	133.7	19.4	128.3	128.3	19.0	129.9	116.9	18.9	131.3	102.4	18.9	132.1	87.2	18.8
8250	72.0	183.2	115.4	21.3	183.3	95.3	21.2	183.2	75.1	21.1	-	-	-	-	-	-
	67.0	166.3	133.0	20.5	167.6	114.0	20.5	167.6	95.5	20.5	167.4	75.3	20.4	-	-	-
	62.0	150.1	148.6	19.9	151.0	131.3	19.8	152.3	114.2	19.8	153.1	94.9	19.8	152.6	74.8	19.7
	57.0	145.8	145.8	19.9	139.7	139.7	19.4	138.1	129.8	19.2	139.2	112.8	19.1	139.7	93.6	19.1
9625	72.0	190.2	125.6	21.7	190.4	102.8	21.5	189.4	77.6	21.4	-	-	-	-	-	-
	67.0	172.2	144.6	21.0	174.3	123.7	20.9	174.3	101.1	20.9	173.8	78.2	20.8	-	-	-
	62.0	157.4	157.4	20.5	157.8	143.6	20.3	159.3	124.2	20.2	159.4	102.0	20.2	159.1	79.6	20.1
	57.0	154.2	154.2	20.5	149.2	149.2	20.1	144.3	142.9	19.7	145.0	123.2	19.6	145.8	100.6	19.6
11000	72.0	195.6	135.0	22.1	195.4	107.5	22.0	195.2	82.0	21.9	-	-	-	-	-	-
	67.0	178.3	158.7	21.5	179.7	134.8	21.4	179.2	107.5	21.4	179.1	82.4	21.3	-	-	-
	62.0	166.8	166.8	21.2	162.9	156.3	20.8	164.0	132.8	20.8	164.3	108.4	20.7	163.9	82.0	20.7
	57.0	163.8	163.8	21.2	157.2	157.2	20.8	150.0	150.0	20.3	149.7	131.7	20.2	150.4	106.8	20.2
12375	72.0	199.6	143.7	22.9	199.7	113.8	22.8	199.1	83.6	22.6	-	-	-	-	-	-
	67.0	183.3	170.4	22.2	183.5	143.2	22.2	183.1	113.5	22.2	182.9	84.1	22.0	-	-	-
	62.0	174.5	174.5	22.1	167.8	166.2	21.7	168.1	141.2	21.6	168.1	112.6	21.6	167.4	83.7	21.5
	57.0	171.9	171.9	22.1	164.1	164.1	21.7	156.7	156.7	21.3	153.0	139.3	21.1	154.1	112.5	21.0
45 (°F)																
6875	72.0	178.4	107.1	20.1	178.1	89.0	20.1	177.3	72.7	20.0	-	-	-	-	-	-
	67.0	161.9	121.5	19.4	163.4	106.2	19.3	163.3	89.8	19.2	163.1	73.4	19.2	-	-	-
	62.0	146.5	136.2	18.6	148.2	121.5	18.6	149.3	106.0	18.6	149.3	89.6	18.5	148.2	72.6	18.5
	57.0	137.8	137.8	18.4	133.4	132.1	18.0	134.7	119.9	17.9	136.2	104.9	17.9	136.3	90.0	17.8
8250	72.0	188.0	118.5	20.2	186.7	97.1	20.1	187.0	76.7	20.0	-	-	-	-	-	-
	67.0	171.7	137.4	19.5	172.4	117.2	19.5	171.7	97.9	19.4	172.4	77.6	19.3	-	-	-
	62.0	155.1	152.0	18.8	156.7	134.7	18.8	158.3	117.2	18.8	158.0	98.0	18.7	157.2	77.0	18.7
	57.0	150.1	150.1	18.8	144.1	144.1	18.4	143.1	134.5	18.1	144.4	117.0	18.1	144.2	96.6	18.1
9625	72.0	195.4	127.0	20.6	195.3	103.5	20.5	195.2	80.1	20.3	-	-	-	-	-	-
	67.0	178.1	149.6	19.9	178.4	126.7	19.9	179.0	103.8	19.8	178.4	80.3	19.7	-	-	-
	62.0	162.8	162.8	19.4	163.6	148.8	19.2	164.6	126.7	19.2	164.5	103.7	19.2	162.8	79.8	19.1
	57.0	160.6	160.6	19.4	153.4	153.4	19.0	149.4	146.4	18.6	150.8	126.7	18.6	150.7	104.0	18.5
11000	72.0	200.8	136.6	21.0	200.7	110.4	21.0	198.7	83.4	20.8	-	-	-	-	-	-
	67.0	183.3	161.3	20.4	184.2	136.3	20.4	183.7	110.2	20.3	184.0	84.6	20.2	-	-	-
	62.0	171.3	171.3	20.1	169.1	160.6	19.8	169.7	137.5	19.7	169.4	110.1	19.7	169.1	84.6	19.6
	57.0	169.1	169.1	20.1	162.0	162.0	19.7	154.9	154.9	19.3	154.9	134.8	19.2	155.4	110.3	19.1
12375	72.0	205.7	146.1	21.8	205.1	116.9	21.7	204.8	86.0	21.6	-	-	-	-	-	-
	67.0	188.6	173.5	21.2	189.0	145.5	21.1	188.7	117.0	21.1	187.7	86.3	21.0	-	-	-
	62.0	178.2	178.2	21.0	173.0	171.2	20.6	174.8	146.8	20.6	173.2	116.1	20.5	173.0	86.5	20.4
	57.0	176.6	176.6	21.0	169.0	169.0	20.6	161.4	161.4	20.2	159.4	145.0	20.0	158.6	115.8	20.0
35 (°F)																
6875	72.0	183.4	110.0	19.1	183.4	91.7	19.0	183.2	75.1	18.9	-	-	-	-	-	-
	67.0	167.0	125.2	18.4	167.0	108.5	18.3	167.1	91.9	18.2	165.9	74.7	18.1	-	-	-
	62.0	151.2	139.1	17.6	152.5	125.1	17.6	152.1	108.0	17.6	152.6	91.5	17.5	152.5	74.7	17.5
	57.0	142.3	142.3	17.4	138.8	137.4	17.0	140.2	124.7	16.9	140.0	107.8	16.9	139.6	90.7	16.9
8250	72.0	193.6	120.0	19.2	193.5	100.6	19.1	193.0	79.1	19.0	-	-	-	-	-	-
	67.0	177.2	140.0	18.5	176.7	120.2	18.5	176.9	99.1	18.4	175.5	79.0	18.3	-	-	-
	62.0	161.0	157.8	17.8	161.7	139.1	17.8	161.2	119.3	17.8	160.5	99.5	17.7	161.3	79.1	17.6
	57.0	155.0	155.0	17.8	148.9	148.9	17.4	147.6	137.3	17.2	147.8	118.3	17.1	147.7	99.0	17.1
9625	72.0	201.1	130.7	19.5	201.0	106.6	19.4	200.6	82.2	19.3	-	-	-	-	-	-
	67.0	183.3	153.9	18.9	184.1	130.7	18.8	184.0	106.7	18.8	183.9	82.7	18.7	-	-	-
	62.0	166.9	166.9	18.5	168.0	152.9	18.2	168.4	129.6	18.2	168.2	106.0	18.2	167.6	82.1	18.1
	57.0	165.9	165.9	18.4	158.9	158.9	18.0	154.0	149.4	17.7	154.6	129.8	17.6	153.6	106.0	17.6

Table 19: VH27, VY27, VX27 and VV27 hot gas reheat capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil														
		Return Dry Bulb Temp (°F)														
		85			80			75			70			65		
CFM	WB (°F)	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
11000	72.0	206.9	140.7	20.0	207.0	113.9	19.9	206.9	86.9	19.8	-	-	-	-	-	-
	67.0	189.3	166.6	19.4	189.6	140.3	19.3	189.5	113.7	19.3	189.2	87.1	19.2	-	-	-
	62.0	177.4	177.4	19.1	173.6	164.9	18.8	174.0	139.2	18.7	173.1	112.5	18.7	173.0	86.5	18.6
	57.0	175.0	175.0	19.1	166.7	166.7	18.7	159.3	159.3	18.3	158.4	137.9	18.2	158.9	112.9	18.2
12375	72.0	212.6	150.9	20.7	211.8	118.6	20.7	210.9	88.6	20.5	-	-	-	-	-	-
	67.0	194.5	178.9	20.2	194.3	149.6	20.1	193.9	118.3	20.1	193.3	88.9	20.0	-	-	-
	62.0	185.2	185.2	20.0	177.6	174.0	19.6	177.7	149.3	19.5	177.8	119.1	19.5	177.4	88.7	19.4
	57.0	182.9	182.9	20.0	174.9	174.9	19.6	165.4	165.4	19.2	162.8	148.2	19.0	162.4	118.6	19.0

30 ton hot gas reheat capacity performance

Table 20: VH30, VY30, VX30 and VV30 Hot gas reheat capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil														
		Return Dry Bulb Temp (°F)														
CFM	WB (°F)	85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
85 (°F)																
7500	72.0	160.9	98.2	29.2	162.3	82.8	29.0	163.4	67.0	29.0	-	-	-	-	-	-
	67.0	145.1	111.7	27.9	145.9	96.3	27.8	146.7	82.2	27.8	148.4	66.8	27.6	-	-	-
	62.0	130.6	124.1	26.7	131.3	110.3	26.6	132.5	95.4	26.6	133.3	81.3	26.5	134.1	65.7	26.5
	57.0	125.1	125.1	26.4	119.5	119.5	25.7	119.1	108.4	25.5	120.0	94.8	25.5	120.8	79.8	25.5
9000	72.0	169.1	108.2	29.5	170.4	90.3	29.4	171.6	70.3	29.2	-	-	-	-	-	-
	67.0	152.5	125.0	28.3	154.2	106.4	28.3	155.2	88.4	28.2	156.3	70.4	28.1	-	-	-
	62.0	138.1	138.1	27.2	138.8	123.6	27.1	139.7	106.2	27.1	140.8	87.3	27.1	141.3	69.3	27.0
	57.0	135.4	135.4	27.2	129.9	129.9	26.6	125.6	120.6	26.1	126.5	103.8	26.1	127.3	86.6	26.0
10500	72.0	175.0	117.3	30.0	175.7	94.9	29.9	178.1	74.8	29.7	-	-	-	-	-	-
	67.0	157.4	135.4	28.9	160.4	117.1	28.8	159.3	94.0	28.8	162.1	73.0	28.6	-	-	-
	62.0	147.4	147.4	28.1	143.7	133.6	27.8	145.7	115.1	27.7	146.2	93.6	27.7	146.5	73.3	27.6
	57.0	145.6	145.6	28.1	138.4	138.4	27.4	131.6	131.6	26.8	131.5	113.0	26.7	132.3	92.6	26.7
12000	72.0	180.1	126.0	30.6	181.9	101.9	30.5	182.8	76.8	30.3	-	-	-	-	-	-
	67.0	164.1	147.7	29.6	164.7	125.1	29.5	165.7	101.1	29.5	166.6	76.7	29.3	-	-	-
	62.0	155.4	155.4	29.1	149.6	145.1	28.6	149.1	123.8	28.5	150.5	99.3	28.4	151.0	75.5	28.3
	57.0	153.3	153.3	29.1	145.8	145.8	28.5	137.9	137.9	27.8	136.2	121.2	27.6	136.7	98.4	27.5
13500	72.0	184.5	134.7	31.7	184.8	107.2	31.7	186.0	80.0	31.4	-	-	-	-	-	-
	67.0	168.7	160.2	30.7	168.0	132.7	30.6	169.2	106.6	30.6	169.1	77.8	30.4	-	-	-
	62.0	162.2	162.2	30.5	154.1	154.1	29.8	153.5	132.0	29.6	154.0	104.7	29.6	154.6	78.8	29.5
	57.0	160.9	160.9	30.5	152.2	152.2	29.8	142.2	142.2	29.2	138.9	129.2	28.7	139.9	103.6	28.7
75 (°F)																
7500	72.0	169.9	102.0	27.8	171.5	87.5	27.7	172.8	70.8	27.6	-	-	-	-	-	-
	67.0	152.5	115.9	26.7	154.4	101.9	26.6	155.3	85.4	26.5	155.8	70.1	26.5	-	-	-
	62.0	138.2	129.9	25.5	139.2	115.5	25.4	140.2	101.0	25.4	141.3	84.8	25.4	142.2	69.7	25.3
	57.0	131.4	131.4	25.1	125.6	125.6	24.5	126.1	113.5	24.4	127.2	99.2	24.3	126.8	83.7	24.3
9000	72.0	178.9	112.7	28.1	180.3	93.8	28.0	181.4	74.4	27.9	-	-	-	-	-	-
	67.0	162.0	131.3	27.0	163.1	112.6	27.0	164.2	93.6	26.9	165.6	74.5	26.8	-	-	-
	62.0	146.0	144.6	26.0	146.8	129.2	25.9	148.1	111.0	25.9	149.0	92.4	25.8	148.7	72.9	25.8
	57.0	143.0	143.0	26.0	136.6	136.6	25.3	133.4	126.7	24.9	134.3	110.1	24.9	134.6	91.5	24.9
10500	72.0	185.7	122.6	28.6	187.3	101.1	28.5	188.8	77.4	28.3	-	-	-	-	-	-
	67.0	167.9	142.7	27.5	169.4	122.0	27.5	170.5	100.6	27.4	172.8	77.8	27.3	-	-	-
	62.0	153.4	153.4	26.9	153.6	141.3	26.5	154.2	120.3	26.5	155.2	99.3	26.5	156.3	78.1	26.4
	57.0	152.9	152.9	26.8	145.7	145.7	26.2	138.6	137.2	25.6	139.3	118.4	25.6	139.6	97.7	25.5
12000	72.0	191.2	131.9	29.3	192.3	107.7	29.2	194.4	81.6	29.0	-	-	-	-	-	-
	67.0	173.5	154.4	28.3	174.5	130.9	28.2	175.5	107.1	28.2	176.5	81.2	28.0	-	-	-
	62.0	162.5	162.5	27.8	158.1	153.4	27.3	158.4	129.9	27.2	159.7	105.4	27.2	160.5	80.3	27.1
	57.0	161.1	161.1	27.8	153.4	153.4	27.2	145.6	145.6	26.6	144.3	128.5	26.4	144.3	103.9	26.3
13500	72.0	195.5	140.7	30.3	196.3	111.9	30.2	197.8	83.1	30.0	-	-	-	-	-	-
	67.0	177.6	167.0	29.4	178.4	140.9	29.3	179.4	111.2	29.3	180.4	83.0	29.1	-	-	-
	62.0	170.3	170.3	29.2	162.3	162.3	28.5	162.5	138.1	28.4	163.3	111.1	28.4	164.1	83.7	28.3
	57.0	168.3	168.3	29.1	159.9	159.9	28.5	150.7	150.7	27.9	147.9	136.1	27.6	148.6	109.9	27.5
65 (°F)																
7500	72.0	181.7	109.0	26.5	183.4	93.5	26.4	183.4	75.2	26.3	-	-	-	-	-	-
	67.0	163.9	124.6	25.4	165.9	109.5	25.4	167.1	91.9	25.3	167.5	75.4	25.2	-	-	-
	62.0	148.5	138.1	24.3	150.0	124.5	24.3	151.1	107.3	24.3	150.8	90.5	24.3	153.2	75.1	24.1
	57.0	140.6	140.6	24.0	134.7	134.7	23.4	136.2	122.6	23.3	137.4	107.2	23.3	138.6	91.4	23.2
9000	72.0	191.8	120.8	26.8	193.3	100.5	26.7	192.8	79.0	26.6	-	-	-	-	-	-
	67.0	174.2	139.4	25.7	175.4	119.3	25.7	176.0	100.3	25.7	177.2	79.8	25.5	-	-	-
	62.0	157.6	156.0	24.8	158.1	137.5	24.8	159.8	119.8	24.7	160.7	99.6	24.7	161.7	79.2	24.6
	57.0	153.1	153.1	24.8	146.6	146.6	24.2	144.5	135.8	23.8	145.5	117.8	23.8	146.2	97.9	23.8
10500	72.0	199.2	131.5	27.2	201.3	108.7	27.1	201.1	82.5	27.0	-	-	-	-	-	-
	67.0	180.3	153.2	26.3	182.3	129.4	26.2	183.7	106.5	26.2	183.9	82.7	26.0	-	-	-
	62.0	165.7	165.7	25.6	165.1	150.3	25.4	166.6	129.9	25.3	167.5	107.2	25.3	167.5	83.7	25.2
	57.0	163.7	163.7	25.6	156.4	156.4	25.0	150.8	147.8	24.5	151.2	128.5	24.4	152.5	105.2	24.4
12000	72.0	204.9	141.4	27.9	207.4	114.1	27.8	206.4	86.7	27.6	-	-	-	-	-	-
	67.0	186.6	166.1	27.0	188.0	141.0	26.9	189.3	113.6	26.9	189.1	87.0	26.7	-	-	-
	62.0	174.8	174.8	26.6	170.1	163.3	26.1	171.4	138.8	26.0	172.6	113.9	26.0	173.1	86.6	25.9
	57.0	171.9	171.9	26.6	163.3	163.3	26.0	156.8	156.8	25.4	156.2	137.5	25.3	157.3	111.7	25.2

Table 20: VH30, VY30, VX30 and VV30 Hot gas reheat capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil														
		Return Dry Bulb Temp (°F)														
CFM	WB (°F)	85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
13500	72.0	210.1	151.3	28.9	211.2	120.4	28.8	211.5	88.8	28.6	-	-	-	-	-	-
	67.0	191.6	178.2	28.1	192.4	150.0	28.0	193.6	120.1	28.0	192.5	88.6	27.8	-	-	-
	62.0	181.9	181.9	27.9	175.1	173.3	27.3	175.1	147.1	27.2	176.4	118.2	27.1	176.8	88.4	27.1
	57.0	180.2	180.2	27.8	171.8	171.8	27.3	162.8	162.8	26.7	160.9	146.4	26.4	161.1	117.6	26.4
55 (°F)																
7500	72.0	190.4	114.2	25.2	191.2	95.6	25.1	190.7	78.2	25.0	-	-	-	-	-	-
	67.0	172.4	129.3	24.2	173.8	113.0	24.1	174.5	96.0	24.1	174.5	78.5	24.0	-	-	-
	62.0	155.6	144.7	23.2	157.3	129.0	23.2	158.5	112.6	23.2	159.3	95.6	23.1	159.3	78.1	23.0
	57.0	146.5	146.5	22.9	141.6	140.2	22.4	142.7	127.0	22.3	144.3	111.1	22.3	145.4	94.5	22.2
9000	72.0	200.9	124.5	25.4	199.7	103.9	25.4	201.3	82.5	25.2	-	-	-	-	-	-
	67.0	182.6	144.2	24.5	183.8	125.0	24.5	183.8	104.7	24.4	184.5	83.0	24.3	-	-	-
	62.0	164.7	161.4	23.7	165.8	142.6	23.6	166.7	123.4	23.6	168.3	104.4	23.5	168.0	82.3	23.5
	57.0	159.6	159.6	23.6	152.9	152.9	23.1	151.5	142.4	22.8	152.8	123.7	22.8	153.5	102.9	22.7
10500	72.0	208.7	135.6	25.9	209.3	110.9	25.7	208.7	85.6	25.6	-	-	-	-	-	-
	67.0	189.2	158.9	25.0	191.0	135.6	25.0	191.6	111.1	24.9	191.3	86.1	24.8	-	-	-
	62.0	172.9	172.9	24.4	173.3	157.7	24.2	174.9	134.7	24.1	175.3	110.4	24.1	173.8	85.2	24.0
	57.0	170.8	170.8	24.4	163.2	163.2	23.9	158.2	155.0	23.4	159.3	133.8	23.4	160.2	110.5	23.3
12000	72.0	215.0	146.2	26.5	215.1	118.3	26.4	214.5	90.1	26.2	-	-	-	-	-	-
	67.0	195.5	172.0	25.7	197.2	145.9	25.6	197.2	118.3	25.6	196.4	90.3	25.5	-	-	-
	62.0	182.1	182.1	25.3	179.3	170.3	24.9	180.3	144.2	24.9	180.7	117.4	24.8	180.3	90.1	24.7
	57.0	179.9	179.9	25.3	170.1	170.1	24.8	163.9	163.9	24.3	164.2	142.8	24.2	164.5	116.8	24.1
13500	72.0	219.3	155.7	27.5	219.6	125.2	27.4	219.0	92.0	27.2	-	-	-	-	-	-
	67.0	201.0	184.9	26.8	202.1	155.6	26.7	201.9	125.2	26.7	201.1	92.5	26.5	-	-	-
	62.0	190.1	190.1	26.6	184.2	182.4	26.1	184.0	154.5	26.0	184.2	123.4	25.9	184.5	92.3	25.9
	57.0	187.9	187.9	26.6	179.4	179.4	26.0	170.9	170.9	25.6	168.8	153.6	25.3	168.9	123.3	25.3
45 (°F)																
7500	72.0	196.9	118.1	23.9	196.4	98.2	23.8	196.3	80.5	23.7	-	-	-	-	-	-
	67.0	178.2	133.6	22.9	180.2	117.2	22.9	180.5	99.2	22.8	179.0	80.6	22.8	-	-	-
	62.0	161.2	148.3	22.1	163.4	134.0	22.0	164.7	116.9	22.0	163.9	98.3	22.0	164.7	80.7	21.9
	57.0	151.4	151.4	21.8	147.5	146.0	21.3	149.1	132.7	21.2	150.3	115.7	21.2	150.6	97.9	21.2
9000	72.0	207.6	128.7	24.1	205.9	107.1	24.0	207.5	85.1	23.8	-	-	-	-	-	-
	67.0	189.1	149.4	23.2	190.3	129.4	23.2	190.5	106.7	23.1	190.3	85.6	23.0	-	-	-
	62.0	171.6	166.5	22.5	172.9	148.7	22.4	172.9	127.9	22.5	173.6	105.9	22.4	174.2	85.3	22.3
	57.0	164.8	164.8	22.5	157.6	157.6	22.0	156.9	145.9	21.8	159.1	127.3	21.7	159.3	106.7	21.7
10500	72.0	215.3	139.9	24.4	215.3	114.1	24.3	215.0	88.2	24.2	-	-	-	-	-	-
	67.0	196.6	163.2	23.7	197.9	140.5	23.6	197.8	114.7	23.6	197.7	89.0	23.5	-	-	-
	62.0	178.4	178.4	23.2	179.7	161.8	23.0	180.8	139.2	22.9	180.3	113.6	22.9	181.6	89.0	22.8
	57.0	176.2	176.2	23.2	168.7	168.7	22.7	164.2	159.3	22.3	165.9	137.7	22.3	166.1	114.6	22.2
12000	72.0	221.9	150.9	25.0	221.8	122.0	24.9	221.4	93.0	24.8	-	-	-	-	-	-
	67.0	202.0	175.7	24.4	203.8	150.8	24.3	203.6	122.2	24.3	202.6	93.2	24.1	-	-	-
	62.0	187.9	187.9	24.0	186.3	175.1	23.7	187.5	150.0	23.6	187.2	121.7	23.6	186.7	93.4	23.5
	57.0	185.6	185.6	24.0	177.9	177.9	23.6	169.6	169.6	23.2	170.7	148.5	23.0	171.0	121.4	23.0
13500	72.0	226.9	161.1	26.0	226.9	127.0	26.0	226.5	95.1	25.8	-	-	-	-	-	-
	67.0	207.1	190.5	25.4	209.1	161.0	25.3	208.0	126.9	25.3	207.9	95.6	25.2	-	-	-
	62.0	195.8	195.8	25.3	190.4	186.6	24.8	191.7	159.1	24.7	191.7	128.4	24.7	190.9	95.5	24.6
	57.0	193.5	193.5	25.2	185.4	185.4	24.8	176.9	176.9	24.4	174.3	156.9	24.2	175.5	126.4	24.1
35 (°F)																
7500	72.0	202.5	119.5	22.4	202.7	101.3	22.3	202.6	83.1	22.2	-	-	-	-	-	-
	67.0	185.0	138.8	21.6	185.0	120.3	21.6	184.8	101.7	21.6	184.9	83.2	21.4	-	-	-
	62.0	167.3	153.9	20.9	169.3	137.1	20.8	169.1	120.1	20.8	169.3	101.6	20.8	169.3	83.0	20.7
	57.0	157.1	157.1	20.6	153.6	152.1	20.2	155.9	137.2	20.1	155.4	119.7	20.1	155.4	101.0	20.1
9000	72.0	214.6	133.0	22.5	214.5	109.4	22.4	213.7	87.6	22.3	-	-	-	-	-	-
	67.0	195.9	154.7	21.8	195.9	131.3	21.8	195.9	109.7	21.7	195.8	88.1	21.7	-	-	-
	62.0	177.8	172.5	21.2	179.4	152.5	21.2	180.7	131.9	21.1	179.0	109.2	21.1	176.2	86.3	21.0
	57.0	170.5	170.5	21.2	163.6	163.6	20.8	164.0	152.5	20.6	164.5	131.6	20.5	164.2	110.0	20.5
10500	72.0	223.1	145.0	22.9	222.5	117.9	22.8	222.6	91.3	22.6	-	-	-	-	-	-
	67.0	204.3	169.5	22.2	204.1	142.9	22.2	203.5	118.0	22.2	203.6	91.6	22.1	-	-	-
	62.0	185.5	183.6	21.9	186.1	167.5	21.7	186.7	141.9	21.6	186.2	117.3	21.6	186.3	91.3	21.5
	57.0	182.1	182.1	21.9	174.6	174.6	21.5	171.2	166.1	21.1	171.0	142.0	21.1	171.0	116.3	21.1

Table 20: VH30, VY30, VX30 and VV30 Hot gas reheat capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil														
		Return Dry Bulb Temp (°F)														
CFM	WB (°F)	85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
12000	72.0	229.6	153.8	23.4	229.5	123.9	23.3	228.9	96.2	23.2	-	-	-	-	-	-
	67.0	209.6	182.4	22.9	209.5	152.9	22.9	209.7	123.7	22.8	209.0	96.1	22.7	-	-	-
	62.0	193.6	193.6	22.7	192.3	180.7	22.4	192.6	154.1	22.3	191.9	124.8	22.3	191.5	95.7	22.2
	57.0	191.9	191.9	22.7	183.8	183.8	22.3	176.5	174.8	21.9	176.4	151.7	21.8	176.9	123.8	21.8
13500	72.0	235.2	164.7	24.4	234.7	131.4	24.4	234.5	98.5	24.2	-	-	-	-	-	-
	67.0	216.2	196.7	23.9	215.5	163.8	23.9	214.3	130.7	23.8	214.1	98.5	23.7	-	-	-
	62.0	203.4	203.4	23.8	197.5	193.5	23.5	196.9	163.4	23.4	197.2	130.2	23.4	196.2	98.1	23.3
	57.0	201.0	201.0	23.8	191.8	191.8	23.5	182.8	182.8	23.1	180.0	162.0	22.9	180.3	129.8	22.9

35 ton hot gas reheat capacity performance

Table 21: VH35, VY35, VX35 and VV35 Hot gas reheat capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil														
		Return Dry Bulb Temp (°F)														
CFM	WB (°F)	85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
85 (°F)																
8750	72.0	194.1	118.4	33.5	198.4	101.2	33.4	199.5	81.8	33.3	-	-	-	-	-	-
	67.0	174.6	134.4	32.4	179.6	118.5	32.2	180.5	101.1	32.1	181.4	81.6	32.1	-	-	-
	62.0	161.5	153.4	31.0	162.0	136.1	31.0	162.3	116.8	31.0	163.7	99.8	31.0	166.5	81.6	30.9
	57.0	157.9	157.9	30.7	150.5	150.5	30.1	146.9	133.7	29.9	146.3	115.6	30.0	148.8	98.2	29.9
10500	72.0	205.9	131.8	33.9	207.3	109.9	33.8	209.2	85.8	33.7	-	-	-	-	-	-
	67.0	187.1	153.4	32.7	188.0	131.6	32.7	188.1	107.2	32.6	190.6	85.8	32.5	-	-	-
	62.0	172.8	172.8	31.7	170.9	152.1	31.6	171.4	130.3	31.6	172.6	107.0	31.5	173.8	85.2	31.4
	57.0	170.3	170.3	31.6	162.8	162.8	31.0	155.2	149.0	30.6	155.5	127.5	30.6	155.7	105.9	30.6
12250	72.0	212.4	142.3	35.5	213.6	115.4	35.3	214.5	87.9	35.2	-	-	-	-	-	-
	67.0	189.5	164.8	34.4	191.7	139.9	34.3	189.9	112.1	34.3	193.5	87.1	34.1	-	-	-
	62.0	180.3	180.3	33.6	173.5	163.1	33.2	173.1	136.8	33.2	173.6	111.1	33.2	173.3	86.6	33.1
	57.0	177.4	177.4	33.6	167.7	167.7	32.9	158.9	158.9	32.3	156.2	134.3	32.3	155.8	109.0	32.3
14000	72.0	218.4	152.9	36.6	220.3	123.4	36.5	221.3	92.9	36.3	-	-	-	-	-	-
	67.0	198.9	181.0	35.5	200.0	152.0	35.4	201.5	122.9	35.4	201.7	92.8	35.3	-	-	-
	62.0	193.2	193.2	35.0	180.6	178.8	34.5	183.1	152.0	34.4	183.5	123.0	34.4	184.4	92.2	34.3
	57.0	190.6	190.6	35.0	181.7	181.7	34.4	172.2	172.2	33.8	167.4	150.6	33.5	167.5	120.6	33.5
15750	72.0	223.4	165.3	38.9	224.7	130.3	38.8	225.5	97.0	38.6	-	-	-	-	-	-
	67.0	204.9	196.7	37.8	205.4	164.3	37.8	205.8	129.6	37.7	205.7	94.6	37.6	-	-	-
	62.0	199.7	199.7	37.6	190.7	190.7	37.0	187.6	161.3	36.8	187.4	129.3	36.8	188.2	96.0	36.7
	57.0	198.6	198.6	37.6	187.0	187.0	37.0	179.3	179.3	36.3	171.3	161.0	35.9	169.4	127.0	35.9
75 (°F)																
8750	72.0	205.5	125.3	32.0	208.7	106.4	31.9	210.7	86.4	31.8	-	-	-	-	-	-
	67.0	188.0	142.8	30.7	188.3	124.3	30.7	191.8	105.5	30.6	191.8	86.3	30.5	-	-	-
	62.0	170.2	160.0	29.5	170.2	141.2	29.5	172.4	124.1	29.5	165.4	100.9	29.7	173.8	85.2	29.4
	57.0	164.2	164.2	29.2	158.0	158.0	28.5	155.7	140.2	28.5	156.6	122.2	28.4	155.6	102.7	28.5
10500	72.0	217.8	137.2	32.4	221.2	115.0	32.3	220.8	90.5	32.2	-	-	-	-	-	-
	67.0	196.0	158.8	31.3	198.7	137.1	31.2	200.6	114.3	31.1	199.6	89.8	31.1	-	-	-
	62.0	181.4	181.4	30.1	180.7	159.0	30.1	180.3	135.2	30.1	182.7	113.2	30.0	183.6	90.0	30.0
	57.0	179.1	179.1	30.1	170.1	170.1	29.5	163.6	155.5	29.1	163.6	134.2	29.1	166.2	113.0	29.0
12250	72.0	225.4	151.0	34.0	227.2	122.7	33.9	227.0	93.1	33.7	-	-	-	-	-	-
	67.0	203.7	175.2	32.8	202.6	145.9	32.8	205.4	121.2	32.7	206.4	92.9	32.6	-	-	-
	62.0	189.9	189.9	32.1	185.0	172.0	31.7	184.5	145.8	31.7	184.9	118.3	31.7	186.3	91.3	31.6
	57.0	189.1	189.1	32.0	176.9	176.9	31.4	167.0	167.0	30.8	166.8	141.8	30.8	166.5	116.5	30.8
14000	72.0	230.8	161.6	35.1	232.5	130.2	35.0	233.8	98.2	34.8	-	-	-	-	-	-
	67.0	211.4	190.3	34.0	211.2	160.5	34.0	213.1	130.0	33.9	213.8	98.3	33.8	-	-	-
	62.0	202.8	202.8	33.5	193.4	189.5	33.0	193.4	158.6	32.9	194.3	128.2	32.9	195.3	97.7	32.8
	57.0	199.6	199.6	33.5	190.9	190.9	32.8	181.2	181.2	32.2	176.9	157.4	32.0	177.4	127.7	32.0
15750	72.0	235.8	172.1	37.4	237.6	137.8	37.3	238.4	100.1	37.2	-	-	-	-	-	-
	67.0	213.5	202.8	36.4	216.8	171.3	36.3	216.9	136.6	36.4	218.3	100.4	36.1	-	-	-
	62.0	208.8	208.8	36.1	200.9	200.9	35.4	197.9	170.2	35.3	198.6	135.1	35.3	199.3	101.7	35.2
	57.0	206.9	206.9	36.1	198.8	198.8	35.4	188.5	188.5	34.8	181.2	168.5	34.5	180.1	133.3	34.5
65 (°F)																
8750	72.0	221.3	132.8	30.6	223.0	113.7	30.5	223.9	91.8	30.4	-	-	-	-	-	-
	67.0	201.2	152.9	29.4	202.2	133.4	29.3	206.4	113.5	29.2	204.5	92.0	29.2	-	-	-
	62.0	183.3	172.3	28.1	182.8	151.7	25.5	183.7	130.4	28.1	186.3	111.8	28.1	186.8	91.5	28.0
	57.0	175.9	175.9	27.8	168.7	168.7	24.5	167.4	150.7	27.1	167.5	130.6	27.1	167.7	110.7	27.1
10500	72.0	232.1	146.2	31.1	233.4	121.4	31.0	233.8	95.8	30.9	-	-	-	-	-	-
	67.0	210.2	168.1	29.9	212.3	146.5	29.8	213.4	121.6	29.8	215.2	96.8	29.7	-	-	-
	62.0	194.8	192.8	28.7	193.8	168.6	28.7	194.5	145.9	28.7	195.8	121.4	28.7	197.0	96.5	28.6
	57.0	190.9	190.9	26.1	180.1	180.1	28.1	174.5	165.8	27.8	177.0	143.4	27.7	178.5	119.6	27.7
12250	72.0	239.4	158.0	32.7	241.7	130.5	32.5	242.2	99.3	32.4	-	-	-	-	-	-
	67.0	219.5	186.6	31.5	219.0	157.6	31.5	222.1	131.0	31.4	222.0	99.9	31.3	-	-	-
	62.0	205.9	205.9	30.7	201.4	185.3	30.4	201.4	157.1	30.4	202.7	129.7	30.3	203.9	99.9	30.3
	57.0	205.1	205.1	30.7	193.2	193.2	30.0	184.5	182.6	29.5	184.8	157.0	29.4	185.5	128.0	29.4
14000	72.0	245.5	169.4	33.8	248.6	136.7	33.7	248.4	104.3	33.5	-	-	-	-	-	-
	67.0	225.8	201.0	32.7	225.4	169.1	32.7	226.2	135.7	32.6	228.5	105.1	32.4	-	-	-
	62.0	215.2	215.2	32.2	206.9	200.7	31.6	207.5	168.1	31.6	208.6	137.7	31.6	209.6	104.8	31.5
	57.0	213.7	213.7	32.1	203.7	203.7	31.5	193.7	193.7	30.9	189.5	166.7	30.7	190.9	135.6	30.7

Table 21: VH35, VY35, VX35 and VV35 Hot gas reheat capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil														
CFM	WB (°F)	Return Dry Bulb Temp (°F)														
		85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
15750	72.0	250.6	180.4	36.1	253.4	144.4	36.0	253.0	106.3	35.9	-	-	-	-	-	-
	67.0	228.8	215.1	35.1	231.7	180.8	35.0	232.6	144.2	35.0	232.9	107.1	34.8	-	-	-
	62.0	225.1	225.1	34.8	214.2	214.2	34.1	211.9	180.1	34.0	213.4	145.1	34.0	213.8	106.9	33.9
	57.0	222.5	222.5	34.7	210.8	210.8	34.1	201.0	201.0	33.4	194.6	179.1	33.1	195.1	144.4	33.1
55 (°F)																
8750	72.0	231.2	138.7	29.4	232.7	116.4	29.3	230.9	94.7	29.3	-	-	-	-	-	-
	67.0	208.6	158.5	28.1	211.5	137.5	28.1	211.9	116.5	28.0	211.9	95.3	28.0	-	-	-
	62.0	191.2	177.8	24.3	191.7	157.2	26.9	192.0	136.3	26.9	194.6	116.8	26.9	194.4	95.3	26.8
	57.0	183.5	183.5	26.5	175.1	175.1	25.9	175.5	156.2	25.8	174.5	134.4	25.9	178.0	115.7	25.8
10500	72.0	242.5	152.8	29.9	244.0	126.9	29.8	243.7	99.9	29.7	-	-	-	-	-	-
	67.0	217.6	174.1	28.8	222.8	151.5	28.6	222.9	127.1	28.6	223.0	100.4	28.5	-	-	-
	62.0	201.4	199.4	27.6	202.0	175.7	27.5	203.4	150.5	27.5	204.7	126.9	27.5	203.9	99.9	27.4
	57.0	198.2	198.2	27.5	191.2	191.2	26.8	183.9	172.9	26.6	186.0	150.7	26.5	187.3	125.5	26.5
12250	72.0	250.2	165.2	31.5	251.7	133.4	31.4	251.7	103.2	31.3	-	-	-	-	-	-
	67.0	229.1	192.5	30.3	230.8	163.9	30.3	230.3	133.6	30.3	231.3	104.1	30.1	-	-	-
	62.0	214.0	214.0	29.5	210.7	191.7	29.2	209.8	163.7	29.2	211.6	133.3	29.2	212.2	104.0	29.1
	57.0	211.3	211.3	29.5	202.2	202.2	28.9	192.1	190.1	28.3	193.5	162.5	28.2	194.6	134.2	28.2
14000	72.0	257.1	177.4	32.7	258.3	142.1	32.6	257.6	108.2	32.4	-	-	-	-	-	-
	67.0	234.2	208.4	31.6	235.5	176.6	31.5	237.9	142.7	31.4	237.5	109.3	31.3	-	-	-
	62.0	224.8	224.8	31.0	216.7	208.1	30.5	217.2	175.9	30.4	218.2	141.8	30.4	217.8	108.9	30.3
	57.0	221.6	221.6	31.0	212.2	212.2	30.3	201.1	201.1	29.7	197.0	173.4	29.6	200.3	142.2	29.5
15750	72.0	262.4	189.0	35.0	261.9	149.3	34.9	262.3	110.1	34.8	-	-	-	-	-	-
	67.0	241.7	224.8	33.9	242.0	188.7	33.9	242.9	150.6	33.8	242.0	111.3	33.7	-	-	-
	62.0	232.0	232.0	33.6	223.5	223.5	32.9	222.4	186.8	32.8	222.7	149.2	32.8	222.3	111.2	32.7
	57.0	231.6	231.6	33.6	220.4	220.4	32.9	209.9	209.9	32.3	204.6	186.1	31.9	204.7	149.4	31.9
45 (°F)																
8750	72.0	238.5	143.1	28.5	238.8	119.4	28.4	238.8	97.9	28.3	-	-	-	-	-	-
	67.0	217.2	162.9	27.1	218.9	142.3	27.1	218.7	120.3	27.0	218.8	98.4	27.0	-	-	-
	62.0	197.5	181.7	25.9	199.1	163.3	25.9	200.7	142.5	25.9	201.3	120.8	25.8	201.0	98.5	25.8
	57.0	189.5	189.5	25.4	180.8	180.8	24.8	184.0	163.7	24.8	183.3	141.1	24.8	184.2	119.7	24.7
10500	72.0	249.2	154.5	29.0	250.1	130.1	28.9	250.7	102.8	28.8	-	-	-	-	-	-
	67.0	226.0	178.5	27.8	229.7	156.2	27.7	230.5	129.1	27.6	229.7	103.4	27.5	-	-	-
	62.0	208.6	204.4	26.6	209.9	180.5	26.5	211.0	156.2	26.5	209.7	130.0	26.5	211.4	103.6	26.4
	57.0	205.4	205.4	26.4	196.6	196.6	23.2	192.6	179.1	25.5	192.7	154.2	25.5	194.2	130.1	25.4
12250	72.0	258.4	168.0	30.6	260.2	137.9	30.5	261.1	107.1	30.4	-	-	-	-	-	-
	67.0	234.7	197.1	29.5	238.5	169.3	29.4	238.9	138.6	29.3	238.1	107.2	29.2	-	-	-
	62.0	221.7	221.7	28.5	218.4	198.8	28.2	219.3	168.9	28.2	219.9	138.6	28.2	217.7	106.7	28.1
	57.0	216.0	216.0	28.5	207.6	207.6	27.8	200.3	196.3	27.3	200.8	168.7	27.2	201.4	139.0	27.2
14000	72.0	266.8	181.4	31.8	266.7	146.7	31.7	266.1	111.8	31.5	-	-	-	-	-	-
	67.0	241.4	212.5	30.6	244.8	181.2	30.6	245.2	147.1	30.5	244.3	112.4	27.9	-	-	-
	62.0	230.5	230.5	30.0	224.3	213.0	29.5	224.7	179.8	29.5	227.1	147.6	29.4	225.1	112.5	29.3
	57.0	227.7	227.7	30.0	220.4	220.4	29.3	206.8	206.8	28.7	207.1	180.1	28.5	207.4	147.3	28.5
15750	72.0	270.1	191.8	34.2	271.8	154.9	34.0	271.3	113.9	33.9	-	-	-	-	-	-
	67.0	247.9	230.6	33.0	249.7	192.2	32.9	249.9	154.9	32.9	248.0	114.1	32.8	-	-	-
	62.0	240.8	240.8	32.6	230.1	230.1	31.9	230.3	193.4	31.9	230.3	154.3	31.9	229.5	114.8	31.8
	57.0	238.0	238.0	32.6	227.5	227.5	31.9	216.9	216.9	31.3	210.9	191.9	31.0	210.5	153.7	30.9
35 (°F)																
8750	72.0	248.4	146.6	27.7	247.1	123.5	27.6	247.5	101.5	27.5	-	-	-	-	-	-
	67.0	225.4	169.0	26.3	226.5	147.2	26.3	225.4	123.9	26.2	225.0	101.3	26.2	-	-	-
	62.0	205.3	188.9	25.1	206.3	167.1	25.0	206.8	146.8	25.0	206.1	123.7	25.0	206.1	101.0	24.9
	57.0	194.8	194.8	24.6	188.0	188.0	23.9	185.7	163.4	24.1	190.8	146.9	23.9	189.3	123.1	23.9
10500	72.0	259.9	161.2	28.2	259.9	132.5	28.1	258.3	105.9	28.1	-	-	-	-	-	-
	67.0	234.6	185.4	27.0	237.7	161.6	26.9	237.5	133.0	26.8	236.1	106.2	26.8	-	-	-
	62.0	215.3	211.0	25.8	216.5	186.2	25.7	217.3	160.8	23.1	216.8	132.2	25.7	219.6	107.6	25.5
	57.0	211.7	211.7	25.6	201.9	201.9	25.0	199.9	185.9	24.6	199.5	159.6	22.0	200.1	134.1	24.6
12250	72.0	269.0	174.9	29.9	268.8	142.5	29.8	268.1	109.9	29.6	-	-	-	-	-	-
	67.0	246.3	204.5	28.6	246.8	175.2	28.6	244.0	141.5	28.6	247.0	111.2	28.4	-	-	-
	62.0	228.1	228.1	27.7	226.2	203.6	27.5	225.0	173.3	27.4	225.8	142.3	27.4	225.4	110.4	27.3
	57.0	223.4	223.4	27.7	215.7	215.7	27.0	207.9	203.7	26.4	206.6	171.5	26.4	206.5	142.5	26.4

Table 21: VH35, VY35, VX35 and VV35 Hot gas reheat capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil														
		Return Dry Bulb Temp (°F)														
CFM	WB (°F)	85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
14000	72.0	276.5	188.0	31.1	274.2	150.8	31.0	275.1	115.5	30.8	-	-	-	-	-	-
	67.0	254.6	221.5	29.8	252.9	187.1	29.8	252.7	151.6	29.8	252.2	113.5	29.6	-	-	-
	62.0	239.9	239.9	29.2	232.7	221.0	28.7	231.0	184.8	28.7	231.7	150.6	28.6	231.5	115.8	28.6
	57.0	237.1	237.1	29.2	226.5	226.5	28.5	216.0	216.0	27.8	213.1	185.4	27.7	212.7	151.0	27.7
15750	72.0	281.5	199.9	33.5	281.3	157.5	33.4	280.0	117.6	33.2	-	-	-	-	-	-
	67.0	259.2	238.4	32.3	258.8	199.3	32.2	258.4	157.6	32.2	257.2	118.3	32.0	-	-	-
	62.0	250.5	250.5	31.9	239.9	237.5	31.2	237.7	197.3	31.1	237.1	158.9	31.1	236.4	118.2	31.0
	57.0	247.7	247.7	31.9	235.4	235.4	31.1	224.2	224.2	30.5	218.5	196.6	30.1	217.8	159.0	30.1

40 ton hot gas reheat capacity performance

Table 22: VH40, VX40, VY40 and VV40 Hot gas reheat capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil														
		Return Dry Bulb Temp (°F)														
CFM	WB (°F)	85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
85 (°F)																
10000	72.0	200.3	126.2	28.2	201.5	104.8	28.1	203.7	83.5	28.0	-	-	-	-	-	-
	67.0	181.2	145.0	27.1	181.4	123.3	27.1	184.5	105.1	27.0	185.4	83.5	26.9	-	-	-
	62.0	163.9	162.3	26.2	165.3	143.8	26.1	166.2	123.0	26.1	167.7	104.0	26.1	167.7	82.2	26.0
	57.0	159.4	159.4	26.2	152.2	152.2	25.6	146.9	139.5	25.3	151.1	122.4	25.2	152.0	101.9	25.2
12000	72.0	207.7	139.1	30.0	211.1	114.0	29.9	212.3	87.0	29.7	-	-	-	-	-	-
	67.0	189.6	163.1	29.0	190.0	136.8	29.0	192.9	113.8	28.9	193.9	87.2	28.8	-	-	-
	62.0	175.2	175.2	28.4	173.2	161.1	28.1	172.9	136.6	28.0	175.8	112.5	28.0	176.7	86.6	27.9
	57.0	173.0	173.0	28.4	164.9	164.9	27.8	155.4	155.4	27.3	156.9	133.4	27.3	159.1	111.3	27.2
14000	72.0	213.6	149.5	30.6	216.2	121.1	30.4	217.6	91.4	30.3	-	-	-	-	-	-
	67.0	193.1	175.7	29.6	192.2	146.1	29.5	197.2	120.3	29.4	196.4	90.3	29.3	-	-	-
	62.0	182.2	182.2	29.2	175.3	171.8	28.7	175.7	145.8	28.6	176.2	116.3	28.6	176.6	88.3	28.5
	57.0	178.4	178.4	29.2	168.6	168.6	28.7	160.3	160.3	28.1	159.3	146.6	29.8	158.2	113.9	27.9
16000	72.0	221.3	163.8	32.8	222.7	129.2	32.7	223.9	96.3	32.5	-	-	-	-	-	-
	67.0	199.5	191.5	31.9	201.6	161.3	31.8	204.1	128.6	31.7	205.0	94.3	31.6	-	-	-
	62.0	194.6	194.6	31.8	185.7	185.7	31.1	185.1	161.1	30.9	185.9	128.3	30.9	187.1	95.4	30.8
	57.0	192.8	192.8	31.7	184.8	184.8	31.1	174.2	174.2	30.6	169.1	158.9	30.2	169.8	127.3	30.1
18000	72.0	225.4	175.8	35.2	226.6	138.2	35.1	228.2	98.1	35.0	-	-	-	-	-	-
	67.0	206.1	206.1	34.4	207.2	174.0	34.2	208.0	137.3	34.2	209.8	98.6	34.1	-	-	-
	62.0	203.4	203.4	34.4	191.1	191.1	33.7	189.4	172.3	33.4	190.4	135.2	33.4	190.8	97.3	33.3
	57.0	201.8	201.8	34.4	189.7	189.7	33.8	181.6	181.6	33.2	172.4	169.0	32.7	173.2	135.1	32.7
75 (°F)																
10000	72.0	211.5	131.2	26.6	211.8	110.1	26.5	214.7	88.0	26.4	-	-	-	-	-	-
	67.0	191.6	151.4	25.6	193.2	131.4	25.5	193.9	108.6	25.5	196.2	88.3	25.4	-	-	-
	62.0	172.7	169.2	24.7	173.9	149.5	24.6	175.7	130.1	24.6	177.1	109.8	24.5	178.2	87.3	24.5
	57.0	167.3	167.3	24.6	159.9	159.9	24.1	158.0	148.5	23.8	159.9	127.9	23.7	160.6	107.6	23.7
12000	72.0	221.2	146.0	28.5	223.2	120.5	28.3	224.3	92.0	28.2	-	-	-	-	-	-
	67.0	198.3	168.5	27.5	202.3	145.7	27.4	202.9	117.7	27.3	203.5	91.6	27.3	-	-	-
	62.0	181.8	181.8	26.9	182.6	168.0	26.5	184.8	144.2	26.5	186.0	119.0	26.5	187.0	91.6	26.4
	57.0	181.4	181.4	26.8	172.8	172.8	26.2	166.6	165.0	25.8	167.8	142.6	25.7	168.8	116.4	25.7
14000	72.0	223.3	154.1	29.1	227.1	127.2	28.9	227.8	95.7	28.7	-	-	-	-	-	-
	67.0	205.4	184.8	28.0	204.0	153.0	28.0	205.2	125.2	27.9	205.1	94.4	27.8	-	-	-
	62.0	189.9	189.9	27.7	184.0	178.5	27.2	183.5	150.4	27.1	184.8	122.0	27.1	186.6	93.3	27.0
	57.0	186.0	186.0	27.7	177.1	177.1	27.1	168.1	168.1	26.6	166.3	148.0	26.4	166.5	119.9	26.3
16000	72.0	233.7	170.6	31.2	235.1	136.4	31.2	235.6	99.0	31.0	-	-	-	-	-	-
	67.0	213.8	203.1	30.3	216.6	171.1	30.3	215.6	135.8	30.2	216.7	99.7	30.1	-	-	-
	62.0	205.1	205.1	30.2	192.7	192.7	29.6	195.6	168.3	29.4	196.5	133.6	29.4	197.9	100.9	29.3
	57.0	202.9	202.9	30.2	193.3	193.3	29.6	183.6	183.6	29.0	178.7	166.2	28.7	179.9	133.1	28.7
18000	72.0	238.4	183.5	33.7	239.5	143.7	33.6	240.6	103.4	33.4	-	-	-	-	-	-
	67.0	218.0	215.8	32.9	218.7	181.5	32.7	219.5	142.7	32.7	221.0	103.9	32.6	-	-	-
	62.0	213.5	213.5	32.8	203.3	203.3	32.2	198.6	178.7	32.0	201.3	142.9	31.9	202.1	103.1	31.8
	57.0	211.4	211.4	32.8	201.0	201.0	32.2	189.4	189.4	31.7	182.7	177.2	31.2	183.6	141.4	31.2
65 (°F)																
10000	72.0	225.9	140.0	25.2	227.7	116.1	25.1	228.6	93.7	25.0	-	-	-	-	-	-
	67.0	203.6	160.9	24.2	206.3	138.2	24.2	211.5	118.5	24.0	209.4	94.2	24.0	-	-	-
	62.0	184.4	178.8	23.3	186.8	160.6	23.2	188.1	137.3	23.2	190.0	115.9	23.1	189.6	92.9	23.1
	57.0	178.4	178.4	23.2	170.8	170.8	22.7	170.1	158.2	22.4	172.0	137.6	22.4	173.3	116.1	22.3
12000	72.0	235.7	153.2	27.1	237.8	126.1	27.0	238.4	97.7	26.9	-	-	-	-	-	-
	67.0	213.2	179.1	26.1	216.4	153.6	26.1	217.6	126.2	26.0	219.1	98.6	25.9	-	-	-
	62.0	194.2	194.2	25.5	196.5	178.8	25.2	198.5	152.8	25.1	199.5	125.7	25.1	200.5	98.2	25.0
	57.0	193.5	193.5	25.4	185.1	185.1	24.9	179.1	175.6	24.4	180.6	151.7	24.3	181.7	125.4	24.3
14000	72.0	247.1	170.5	27.7	246.5	135.6	27.5	246.0	103.3	27.4	-	-	-	-	-	-
	67.0	227.1	202.2	26.7	225.9	169.5	26.6	225.0	135.0	26.6	226.0	104.0	26.5	-	-	-
	62.0	211.4	211.4	26.3	204.2	196.0	25.9	208.3	168.7	25.8	207.9	137.2	25.7	206.6	103.3	25.6
	57.0	207.5	207.5	26.3	198.3	198.3	25.7	189.3	189.3	25.2	189.6	166.8	25.0	190.4	135.2	25.0
16000	72.0	248.5	178.9	30.0	251.2	143.2	29.8	251.6	105.7	29.6	-	-	-	-	-	-
	67.0	226.2	212.6	29.1	229.9	179.3	28.9	231.3	143.4	28.9	231.3	106.4	28.7	-	-	-
	62.0	219.0	219.0	28.8	210.1	210.1	28.2	210.3	178.8	28.1	211.3	143.7	28.0	212.2	106.1	27.9
	57.0	216.5	216.5	28.8	206.5	206.5	28.2	195.3	195.3	27.7	192.4	177.0	27.3	192.6	142.5	27.3

Table 22: VH40, VX40, VY40 and VV40 Hot gas reheat capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil														
		Return Dry Bulb Temp (°F)														
CFM	WB (°F)	85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
18000	72.0	254.8	193.6	32.4	256.2	153.7	32.3	255.9	110.0	32.1	-	-	-	-	-	-
	67.0	233.2	228.5	31.5	234.3	192.1	31.4	235.7	153.2	31.4	235.8	110.8	31.2	-	-	-
	62.0	227.4	227.4	31.5	216.5	216.5	30.9	214.6	191.0	30.6	216.3	151.4	30.5	216.4	110.4	30.5
	57.0	225.1	225.1	31.5	213.7	213.7	30.8	202.7	202.7	30.3	197.0	191.1	29.9	197.4	150.1	29.8
55 (°F)																
10000	72.0	233.3	144.6	24.1	238.0	121.4	24.0	238.0	97.6	23.9	-	-	-	-	-	-
	67.0	213.0	166.1	23.0	215.6	144.4	23.0	217.7	121.9	22.9	214.6	96.6	22.8	-	-	-
	62.0	193.1	187.3	22.1	195.5	166.2	22.0	197.4	144.1	22.0	198.9	121.3	21.9	198.0	97.0	21.9
	57.0	185.4	185.4	22.0	178.3	178.3	21.4	179.2	164.8	21.2	180.3	142.4	21.1	181.5	121.6	21.1
12000	72.0	246.7	160.4	26.0	248.1	131.5	25.8	247.8	101.6	25.7	-	-	-	-	-	-
	67.0	224.2	186.1	25.0	226.4	160.8	24.9	227.3	131.8	24.8	227.1	102.2	24.7	-	-	-
	62.0	204.2	204.2	24.2	205.3	184.8	24.0	207.6	159.8	23.9	208.8	131.6	23.9	208.5	102.2	23.8
	57.0	201.6	201.6	24.2	190.7	190.7	23.6	187.6	183.8	23.2	188.7	156.6	23.1	190.7	131.6	23.1
14000	72.0	255.4	173.7	26.5	255.4	140.5	26.4	255.3	107.2	26.3	-	-	-	-	-	-
	67.0	235.9	207.6	25.6	235.8	174.5	25.5	235.6	141.3	25.4	235.0	108.1	25.3	-	-	-
	62.0	218.7	218.7	25.1	214.9	204.1	24.6	216.4	175.3	24.6	216.1	140.4	24.6	215.0	107.5	24.5
	57.0	211.8	211.8	25.1	204.6	204.6	24.5	195.8	195.8	24.0	197.2	171.5	23.8	198.1	140.7	23.8
16000	72.0	260.2	187.4	28.8	261.4	149.0	28.7	260.8	109.5	28.5	-	-	-	-	-	-
	67.0	235.3	221.2	27.9	240.4	187.5	27.8	241.2	149.5	27.7	240.5	110.6	27.6	-	-	-
	62.0	227.8	227.8	27.6	219.0	216.8	27.0	220.2	184.9	26.9	221.1	150.4	26.9	220.7	110.4	26.8
	57.0	225.4	225.4	27.6	215.2	215.2	27.0	205.1	205.1	26.4	200.3	184.3	26.2	203.3	148.4	26.1
18000	72.0	265.7	199.2	31.3	266.0	157.0	31.2	265.4	114.1	31.0	-	-	-	-	-	-
	67.0	243.6	236.3	30.4	244.7	200.7	30.3	245.6	157.2	30.2	245.0	115.2	30.1	-	-	-
	62.0	236.3	236.3	30.3	226.3	226.3	29.7	224.1	197.2	29.5	225.8	158.1	29.4	225.1	114.8	29.3
	57.0	234.5	234.5	30.3	223.3	223.3	29.7	213.0	213.0	29.1	206.6	198.3	28.7	206.8	157.1	28.6
45 (°F)																
10000	72.0	242.5	147.9	23.2	244.6	124.7	23.0	243.2	99.7	23.0	-	-	-	-	-	-
	67.0	221.3	172.6	22.1	224.5	150.4	22.0	224.3	125.6	21.9	224.1	100.9	21.8	-	-	-
	62.0	200.2	192.2	21.1	202.6	170.2	21.0	203.4	148.5	21.0	206.3	125.8	20.9	205.7	100.8	20.9
	57.0	192.0	192.0	20.9	184.4	184.4	20.4	183.3	168.7	20.2	187.2	147.9	20.1	188.1	124.2	20.1
12000	72.0	253.4	164.7	25.1	253.5	134.3	25.0	254.9	104.5	24.8	-	-	-	-	-	-
	67.0	231.3	192.0	24.0	233.9	163.8	24.0	234.3	135.9	23.9	233.2	105.0	23.8	-	-	-
	62.0	210.9	210.9	23.2	213.5	192.2	23.0	215.4	163.7	23.0	215.8	136.0	22.9	215.3	105.5	22.8
	57.0	207.9	207.9	23.2	199.6	199.6	22.6	194.9	189.1	22.2	196.7	163.2	22.1	197.5	134.3	22.1
14000	72.0	263.6	179.3	25.7	263.4	144.8	25.5	261.9	110.0	25.4	-	-	-	-	-	-
	67.0	240.4	209.2	24.9	240.5	178.0	24.6	242.9	145.7	24.5	241.9	111.3	24.4	-	-	-
	62.0	214.7	214.7	24.3	201.0	192.9	27.5	223.0	178.4	23.7	223.3	145.1	23.6	222.8	111.4	23.5
	57.0	224.0	224.0	24.1	220.3	220.3	24.6	205.3	205.3	23.0	205.3	178.6	22.8	205.0	145.5	22.8
16000	72.0	270.0	191.7	27.9	269.0	153.3	27.8	268.7	112.9	27.7	-	-	-	-	-	-
	67.0	245.9	228.7	26.9	248.4	191.2	26.9	248.2	153.9	26.8	247.7	113.9	26.7	-	-	-
	62.0	234.4	234.4	26.7	226.6	222.0	26.1	228.2	191.7	25.9	228.5	153.1	25.9	228.0	114.0	25.8
	57.0	231.6	231.6	26.6	222.2	222.2	26.0	212.3	212.3	25.5	209.7	190.9	25.1	210.4	153.6	25.1
18000	72.0	274.9	206.2	30.4	274.5	161.9	30.3	273.5	117.6	30.1	-	-	-	-	-	-
	67.0	250.5	243.0	29.5	253.3	205.1	29.4	252.9	161.8	29.3	252.1	118.5	29.2	-	-	-
	62.0	244.2	244.2	29.4	233.1	233.1	28.7	233.1	205.1	28.5	233.1	160.8	28.4	232.4	118.5	28.4
	57.0	241.1	241.1	29.4	230.4	230.4	28.7	220.2	220.2	28.1	214.2	203.5	27.7	214.3	160.8	27.7
35 (°F)																
10000	72.0	252.6	154.1	22.4	252.1	128.6	22.3	251.8	103.2	22.3	-	-	-	-	-	-
	67.0	230.2	177.3	21.3	230.6	154.5	21.3	230.3	129.0	21.2	229.1	103.1	21.1	-	-	-
	62.0	207.8	199.5	20.3	210.1	176.5	20.2	210.9	154.0	20.2	211.9	129.2	20.1	210.6	103.2	20.1
	57.0	197.9	197.9	20.1	190.5	190.5	19.5	192.8	175.4	19.3	193.1	152.5	19.3	193.3	127.6	19.2
12000	72.0	263.8	168.8	24.4	263.7	139.7	24.3	263.1	107.9	24.1	-	-	-	-	-	-
	67.0	241.0	197.6	23.3	241.9	169.3	23.2	240.0	139.2	23.2	239.9	107.9	23.1	-	-	-
	62.0	216.8	214.7	22.4	220.9	196.6	22.2	221.4	168.3	22.2	221.2	139.3	22.1	220.4	108.0	22.1
	57.0	214.8	214.8	22.4	204.1	204.1	21.8	201.8	195.8	21.3	202.9	168.4	21.3	202.9	138.0	21.3
14000	72.0	271.3	184.5	25.0	270.7	148.9	24.9	272.1	114.3	24.7	-	-	-	-	-	-
	67.0	250.0	217.5	23.9	254.0	185.4	23.8	250.1	147.5	23.8	249.4	112.2	23.7	-	-	-
	62.0	233.2	233.2	23.4	229.1	215.3	22.9	229.1	183.2	22.9	229.5	149.2	22.8	227.6	113.8	22.8
	57.0	230.0	230.0	23.4	220.0	220.0	22.7	210.5	210.5	22.2	210.3	183.0	22.0	210.2	147.1	22.0

Table 22: VH40, VX40, VY40 and VV40 Hot gas reheat capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil														
		Return Dry Bulb Temp (°F)														
CFM	WB (°F)	85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
16000	72.0	279.6	198.5	27.3	278.6	158.8	27.2	277.2	116.4	27.0	-	-	-	-	-	-
	67.0	256.4	235.9	26.2	256.1	197.2	26.2	255.6	158.5	26.1	255.5	117.5	26.0	-	-	-
	62.0	242.7	242.7	25.9	235.5	230.8	25.3	234.7	197.2	25.2	235.2	157.6	25.2	234.6	117.3	25.1
	57.0	240.2	240.2	25.9	229.6	229.6	25.3	219.7	219.7	24.7	215.8	196.4	24.4	215.7	157.5	24.3
18000	72.0	283.5	209.8	29.8	284.1	167.6	29.7	283.2	121.8	29.5	-	-	-	-	-	-
	67.0	260.1	249.7	28.9	260.5	211.0	28.8	261.1	167.1	28.7	259.6	122.0	28.5	-	-	-
	62.0	254.6	254.6	28.6	241.7	241.7	28.0	239.9	208.7	27.8	239.8	165.4	27.7	238.8	121.8	27.7
	57.0	250.6	250.6	28.7	242.7	242.7	28.0	227.8	227.8	27.4	219.8	208.8	26.9	220.1	165.1	26.9

50 ton hot gas reheat capacity performance

Table 23: VH50, VY50, VY50 and VV50 Hot gas reheat capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil														
		Return Dry Bulb Temp (°F)														
CFM	WB (°F)	85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
85 (°F)																
12500	72.0	262.5	162.7	44.1	265.1	135.2	44.0	266.4	109.2	43.9	-	-	-	-	-	-
	67.0	235.9	184.0	42.5	239.1	160.2	42.4	241.0	134.9	42.3	241.8	108.8	42.3	-	-	-
	62.0	214.3	207.8	40.9	216.2	183.8	40.9	217.6	158.8	40.8	221.1	134.9	40.7	218.3	107.0	40.7
	57.0	208.2	208.2	40.7	199.8	199.8	39.7	195.7	182.0	39.3	197.6	158.1	39.3	197.5	132.3	39.2
15000	72.0	275.2	178.9	45.7	276.9	146.8	45.6	278.6	114.2	45.4	-	-	-	-	-	-
	67.0	249.9	207.4	44.2	251.2	178.3	44.1	250.8	145.4	44.0	254.1	114.3	43.9	-	-	-
	62.0	226.1	226.1	43.0	226.5	206.1	42.7	226.8	174.6	42.7	230.6	145.3	42.6	231.6	113.5	42.5
	57.0	227.0	227.0	43.0	216.3	216.3	42.0	205.9	201.8	41.2	207.7	174.5	41.2	209.2	144.3	41.1
17500	72.0	284.1	193.2	48.4	286.2	157.4	48.3	287.7	120.8	48.1	-	-	-	-	-	-
	67.0	259.6	228.4	46.9	260.3	192.6	46.8	259.9	155.9	46.8	262.9	120.9	46.6	-	-	-
	62.0	244.8	244.8	46.2	237.2	227.7	45.5	236.8	191.8	45.4	237.8	154.6	45.4	239.5	119.7	45.2
	57.0	240.4	240.4	46.2	230.2	230.2	45.2	216.9	216.9	44.3	216.4	190.4	44.0	217.6	154.5	44.0
20000	72.0	290.7	209.3	52.7	292.7	166.8	52.5	293.9	123.4	52.3	-	-	-	-	-	-
	67.0	266.6	247.9	51.2	269.9	210.6	51.1	267.5	165.8	51.1	270.0	124.2	50.9	-	-	-
	62.0	256.0	256.0	50.8	246.3	246.3	49.9	242.8	206.4	49.8	244.2	166.1	49.7	246.4	123.2	49.6
	57.0	255.2	255.2	50.8	240.6	240.6	50.0	230.2	230.2	49.0	221.6	203.8	48.5	223.8	163.4	48.4
75 (°F)																
12500	72.0	277.1	169.0	42.0	280.0	142.8	41.9	281.8	115.5	41.8	-	-	-	-	-	-
	67.0	252.9	197.3	40.5	253.0	169.5	40.4	254.9	142.7	40.3	256.4	115.4	40.2	-	-	-
	62.0	226.5	217.5	39.0	228.7	192.1	38.9	230.1	167.9	38.9	230.4	140.5	38.8	233.6	114.5	38.7
	57.0	219.3	219.3	38.7	210.0	210.0	37.8	207.9	191.3	37.5	209.3	165.3	37.5	210.9	139.2	37.4
15000	72.0	290.6	186.0	43.6	288.0	152.7	43.5	294.8	120.9	43.3	-	-	-	-	-	-
	67.0	263.2	218.5	42.2	265.2	185.7	42.1	265.9	154.2	42.0	269.0	121.0	41.9	-	-	-
	62.0	241.1	241.1	41.0	240.9	216.8	40.7	242.3	184.1	40.7	243.6	153.4	40.6	245.4	120.3	40.5
	57.0	238.6	238.6	40.9	226.4	226.4	40.1	219.2	212.6	39.3	218.6	181.5	39.3	221.7	150.7	39.3
17500	72.0	300.3	204.2	46.2	302.6	166.4	46.1	303.1	127.3	45.9	-	-	-	-	-	-
	67.0	273.0	240.2	44.9	274.4	203.0	44.8	276.7	166.0	44.7	277.3	124.8	44.6	-	-	-
	62.0	256.8	256.8	44.1	250.1	237.6	43.5	250.9	200.8	43.5	252.4	164.1	43.4	253.2	126.6	43.3
	57.0	254.2	254.2	44.1	242.2	242.2	43.2	230.3	230.3	42.4	229.3	199.5	42.2	230.7	163.8	42.1
20000	72.0	313.7	222.8	50.4	309.8	176.6	50.3	311.5	130.8	50.1	-	-	-	-	-	-
	67.0	279.5	257.1	49.2	282.9	217.8	49.1	284.1	176.1	49.0	285.6	131.4	48.8	-	-	-
	62.0	270.0	270.0	48.8	257.7	257.7	47.9	256.9	215.8	47.9	258.3	173.1	47.8	260.7	130.3	47.7
	57.0	267.7	267.7	48.8	254.6	254.6	47.9	240.4	240.4	47.0	236.6	215.3	46.6	237.1	173.1	46.5
65 (°F)																
12500	72.0	295.1	180.0	39.8	296.8	151.4	39.7	299.3	122.7	39.6	-	-	-	-	-	-
	67.0	267.1	205.7	38.5	268.6	177.3	38.4	271.9	152.3	38.3	273.6	123.1	38.2	-	-	-
	62.0	242.4	230.3	37.0	244.0	205.0	37.0	244.7	176.2	37.0	246.6	150.4	36.9	249.5	122.3	36.8
	57.0	233.6	233.6	36.7	222.5	222.5	36.0	222.9	202.8	35.7	224.4	177.2	35.7	224.0	147.8	35.7
15000	72.0	308.3	197.3	41.4	309.2	163.9	41.3	313.2	128.4	41.1	-	-	-	-	-	-
	67.0	279.9	229.5	40.1	283.0	198.1	40.0	281.5	160.5	39.9	285.2	128.4	39.8	-	-	-
	62.0	255.9	255.9	38.9	255.8	227.7	38.8	258.9	196.7	38.7	260.9	164.4	38.7	262.4	128.6	38.6
	57.0	253.0	253.0	38.9	242.1	242.1	38.1	234.9	225.5	37.5	236.3	193.7	37.5	237.9	161.7	37.5
17500	72.0	319.7	214.2	44.0	322.2	174.0	43.8	324.1	136.1	43.6	-	-	-	-	-	-
	67.0	291.1	253.3	42.8	292.3	213.4	42.7	294.7	173.9	42.6	295.6	133.0	42.5	-	-	-
	62.0	272.8	272.8	42.0	264.5	248.6	41.6	268.3	211.9	41.5	270.0	175.5	41.4	274.7	137.4	41.3
	57.0	271.7	271.7	42.0	257.6	257.6	41.2	245.3	245.3	40.5	246.0	211.6	40.3	246.7	172.7	40.3
20000	72.0	325.8	231.3	48.2	329.8	184.7	48.0	331.6	139.3	47.8	-	-	-	-	-	-
	67.0	295.4	271.8	47.1	300.9	231.7	47.0	299.3	182.6	47.0	304.3	140.0	46.8	-	-	-
	62.0	287.1	287.1	46.6	275.2	272.5	45.9	275.7	228.8	45.8	277.6	186.0	45.8	280.0	140.0	45.6
	57.0	285.0	285.0	46.6	270.8	270.8	45.8	257.5	257.5	45.1	252.6	227.4	44.7	253.1	184.7	44.7
55 (°F)																
12500	72.0	307.3	187.4	37.6	310.9	158.6	37.5	313.3	128.5	37.4	-	-	-	-	-	-
	67.0	280.1	215.7	36.4	279.9	184.7	36.3	284.1	156.3	36.2	287.4	129.3	36.1	-	-	-
	62.0	254.0	241.3	35.1	256.7	213.1	35.1	258.1	185.8	35.1	261.2	156.7	35.0	262.4	128.6	34.9
	57.0	242.3	242.3	34.8	233.1	233.1	34.1	233.7	212.7	33.9	235.3	183.5	33.9	236.9	156.4	33.9

Table 23: VH50, VY50, VY50 and VV50 Hot gas reheat capacity performance

Air On Evaporator Coil		Temperature Of Air On Condenser Coil														
		Return Dry Bulb Temp (°F)														
CFM	WB (°F)	85			80			75			70			65		
		TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI	TC	SC	TI
15000	72.0	321.3	205.6	39.1	324.0	168.5	39.0	327.6	134.3	38.9	-	-	-	-	-	-
	67.0	293.9	238.1	38.0	295.9	204.2	37.9	298.6	170.2	37.8	300.6	135.3	37.7	-	-	-
	62.0	267.0	267.0	36.9	269.9	237.5	36.8	270.4	202.8	36.8	273.5	169.6	36.7	275.3	134.9	36.6
	57.0	260.7	260.7	37.0	252.0	252.0	36.2	246.5	236.7	35.7	247.7	203.1	35.7	249.7	169.8	35.6
17500	72.0	334.2	223.9	41.7	336.4	181.7	41.6	337.8	138.5	41.4	-	-	-	-	-	-
	67.0	304.2	261.7	40.6	306.6	223.8	40.6	308.7	182.1	40.5	311.1	140.0	40.3	-	-	-
	62.0	283.9	283.9	39.9	279.8	260.2	39.5	281.1	222.1	39.5	283.1	181.2	39.4	284.9	142.5	39.3
	57.0	280.4	280.4	39.9	267.2	267.2	39.3	256.2	256.2	38.6	258.0	221.9	38.4	259.4	181.6	38.4
20000	72.0	342.6	239.8	45.9	345.1	193.2	45.7	347.1	145.8	45.5	-	-	-	-	-	-
	67.0	313.4	285.2	44.9	315.5	239.8	44.8	315.3	192.3	44.8	319.1	146.8	44.6	-	-	-
	62.0	297.3	297.3	44.5	287.4	281.6	43.8	289.9	237.7	43.8	291.4	192.3	43.7	292.6	146.3	43.6
	57.0	295.9	295.9	44.5	282.3	282.3	43.8	269.0	269.0	43.1	264.6	235.5	42.8	266.0	191.5	42.8
45 (°F)																
12500	72.0	318.6	191.2	35.3	321.5	164.0	35.2	321.7	131.9	35.1	-	-	-	-	-	-
	67.0	290.7	220.9	34.2	293.0	193.4	34.1	295.6	162.6	34.1	292.9	131.8	34.0	-	-	-
	62.0	263.9	248.1	33.1	265.9	220.7	33.1	268.3	193.1	33.0	270.3	162.2	33.0	268.9	131.8	33.0
	57.0	252.6	252.6	32.9	241.6	241.6	32.3	243.0	218.7	32.1	245.0	191.1	32.1	246.6	162.8	32.0
15000	72.0	334.1	210.5	36.8	336.9	175.2	36.6	334.3	137.1	36.5	-	-	-	-	-	-
	67.0	302.2	244.8	35.8	311.3	214.8	35.9	310.3	176.9	35.6	308.4	138.8	35.5	-	-	-
	62.0	277.7	275.0	34.8	280.4	246.7	34.7	282.4	211.8	34.7	286.1	177.4	34.6	284.1	139.2	34.6
	57.0	272.5	272.5	34.9	261.6	261.6	34.2	256.3	243.5	33.8	257.9	208.9	33.8	260.9	177.4	33.7
17500	72.0	345.7	228.2	39.3	348.4	188.2	39.2	346.4	142.0	39.1	-	-	-	-	-	-
	67.0	314.4	267.2	38.4	316.7	228.0	38.4	320.3	189.0	38.2	319.2	143.6	38.1	-	-	-
	62.0	293.4	293.4	37.8	290.3	267.1	37.4	292.3	228.0	37.4	294.1	188.2	37.3	294.1	144.1	37.2
	57.0	290.9	290.9	37.8	278.3	278.3	37.2	266.4	266.4	36.6	268.4	228.2	36.5	270.0	189.0	36.5
20000	72.0	354.3	248.0	43.5	356.7	199.8	43.3	356.5	149.7	43.2	-	-	-	-	-	-
	67.0	325.2	292.7	42.6	324.8	246.9	42.6	326.4	199.1	42.5	327.6	150.7	42.3	-	-	-
	62.0	308.0	308.0	42.3	296.2	290.3	41.7	300.8	246.7	41.6	302.7	199.8	41.6	301.1	150.5	41.5
	57.0	305.0	305.0	42.3	292.3	292.3	41.6	279.1	279.1	41.1	275.7	245.4	40.8	277.7	200.0	40.8
35 (°F)																
12500	72.0	331.1	198.7	32.8	332.1	169.4	32.7	333.1	136.6	32.6	-	-	-	-	-	-
	67.0	300.4	228.3	31.9	303.8	200.5	31.8	304.1	167.3	31.8	304.2	136.9	31.7	-	-	-
	62.0	273.2	256.8	31.0	275.3	228.5	31.0	277.8	197.2	30.9	276.4	165.9	30.9	277.3	135.9	30.8
	57.0	260.3	260.3	30.8	250.3	250.3	30.3	252.6	227.3	30.1	254.8	198.7	30.1	254.1	167.7	30.1
15000	72.0	348.7	219.7	34.2	348.2	181.1	34.1	349.8	143.4	33.9	-	-	-	-	-	-
	67.0	316.2	253.0	33.4	319.4	220.4	33.3	317.8	181.1	33.3	318.0	143.1	33.1	-	-	-
	62.0	287.1	284.2	32.7	290.0	252.3	32.5	291.5	218.7	32.5	292.3	181.2	32.5	291.2	142.7	32.4
	57.0	282.0	282.0	32.7	269.8	269.8	32.2	265.6	252.3	31.8	267.7	216.8	31.8	267.6	179.3	31.7
17500	72.0	360.8	238.1	36.7	362.5	195.8	36.6	360.2	147.7	36.4	-	-	-	-	-	-
	67.0	328.3	279.1	36.0	329.7	237.4	35.9	329.1	194.2	35.8	329.0	148.0	35.7	-	-	-
	62.0	303.5	303.5	35.5	300.9	276.8	35.2	303.5	236.7	35.2	303.1	194.0	35.1	302.1	148.0	35.0
	57.0	300.3	300.3	35.5	287.3	287.3	35.0	275.5	272.7	34.5	277.8	236.1	34.4	277.8	191.7	34.4
20000	72.0	369.8	255.1	40.9	368.7	202.8	40.7	367.9	154.5	40.6	-	-	-	-	-	-
	67.0	337.7	300.6	40.1	341.9	256.4	40.0	339.5	203.7	40.0	340.3	156.5	39.8	-	-	-
	62.0	319.4	319.4	39.9	309.0	299.7	39.4	310.8	251.8	39.5	311.7	205.7	39.3	310.9	155.4	39.2
	57.0	312.6	312.6	39.9	302.2	302.2	39.4	287.4	287.4	39.0	285.7	251.4	38.7	285.6	205.6	38.7

Airflow performance

Vertical supply units

Table 24: VV27/VY27 bottom duct application

Air flow (cfm)	Available external static pressure - IWG																									
	0.3		0.4		0.6		0.8		1		1.2		1.4		1.6		1.8		2		2.2		2.4		2.5	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	Standard 7.5hp and field drive						Standard 7.5hp and drive						Medium 10hp and drive						High 15 hp and drive							
8,000	573	2.29	599	2.53	649	2.98	696	3.39	742	3.78	786	4.16	828	4.55	869	4.95	910	5.36	949	5.79	988	6.25	1,026	6.75	1,045	7.00
9,000	606	2.92	631	3.15	678	3.59	724	4.01	768	4.41	810	4.82	851	5.24	892	5.67	931	6.13	970	6.60	1,007	7.12	1,045	7.66	1,063	7.95
10,000	642	3.62	665	3.85	711	4.29	754	4.72	796	5.15	837	5.58	877	6.04	916	6.51	955	7.00	992	7.53	1,029	8.09	1,066	8.69	1,084	9.01
11,000	680	4.41	702	4.64	745	5.09	787	5.54	827	6.00	867	6.47	906	6.96	943	7.47	981	8.01	1,017	8.59	1,054	9.21	1,089	9.87	1,107	10.21
12,000	721	5.31	741	5.55	782	6.02	822	6.50	861	6.99	899	7.49	936	8.02	973	8.58	1,009	9.18	1,045	9.81	1,080	10.49	1,115	11.21	1,132	11.58
13,000	763	6.36	783	6.60	822	7.10	860	7.61	897	8.14	933	8.69	969	9.26	1,005	9.88	1,040	10.52	1,075	11.22	1,109	11.95	1,143	12.74	-	-

- ① **Note:** Blower performance includes gas heat exchangers and 2 in. filters. See static resistance for additional applications. See rpm selection to determine the required motor sheave setting and to determine the maximum continuous bhp. $\text{kW} = \text{bhp} \times 0.93$.

Table 25: VV30/VY30 bottom duct application

Air flow (cfm)	Available external static pressure - IWG																									
	0.3		0.4		0.6		0.8		1		1.2		1.4		1.6		1.8		2		2.2		2.4		2.5	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	Standard 7.5hp and field drive						Standard 7.5hp and drive						Medium 10hp and drive						High 15 hp and drive							
8,000	540	1.98	567	2.24	618	2.71	667	3.13	713	3.53	757	3.91	800	4.29	842	4.68	882	5.076	922	5.49	961	5.93	999	6.39	1,018	6.64
9,000	565	2.52	591	2.77	640	3.24	687	3.67	732	4.08	775	4.49	817	4.89	858	5.31	898	5.742	937	6.20	975	6.68	1,012	7.19	1,031	7.45
10,000	594	3.14	619	3.39	666	3.85	711	4.29	754	4.72	796	5.15	837	5.59	877	6.03	916	6.50	954	7.00	992	7.52	1,029	8.08	1,047	8.38
11,000	626	3.85	650	4.09	695	4.56	738	5.02	780	5.47	821	5.92	860	6.39	899	6.87	937	7.383	975	7.92	1,011	8.49	1,048	9.10	1,066	9.42
12,000	662	4.65	684	4.9	727	5.38	768	5.86	809	6.34	848	6.82	887	7.32	924	7.85	961	8.40	998	8.99	1,034	9.61	1,069	10.27	1,087	10.62
13,000	700	5.59	721	5.84	762	6.34	802	6.84	841	7.35	879	7.87	916	8.42	952	8.99	988	9.585	1,024	10.22	1,059	10.89	1,094	11.61	1,111	11.99
14,000	742	6.68	761	6.94	800	7.47	838	8.00	875	8.54	912	9.10	948	9.69	983	10.3	1,018	10.96	1,053	11.64	1,087	12.38	-	-	-	-

- ① **Note:** Blower performance includes gas heat exchangers and 2 in. filters. See static resistance tables for additional applications. See rpm selection to determine the required motor sheave setting and to determine the maximum continuous bhp. $\text{kW} = \text{bhp} \times 0.93$.

Table 26: VV35/VY35 bottom duct application

Air flow (cfm)	Available external static pressure - IWG																													
	0.3		0.4		0.6		0.8		1		1.2		1.4		1.6		1.8		2		2.2		2.4		2.5					
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp				
	Standard 7.5hp and field drive						Standard 7.5hp and drive								Medium 10hp and drive								High 15 hp and drive							
9,000	611	2.96	636	3.2	683	3.63	729	4.05	772	4.46	815	4.87	856	5.29	896	5.72	935	6.18	974	6.66	1,012	7.17	1,049	7.72	1,067	8.01				
10,000	648	3.68	671	3.91	716	4.34	760	4.77	802	5.2	843	5.64	882	6.1	921	6.57	960	7.07	997	7.6	1,034	8.17	1,071	8.78	1,089	9.1				
11,000	687	4.48	709	4.71	752	5.16	793	5.61	834	6.07	873	6.54	912	7.04	949	7.55	987	8.1	1,023	8.69	1,059	9.31	1,095	9.98	1,113	10.3				
12,000	729	5.41	749	5.64	790	6.11	830	6.59	868	7.08	906	7.59	943	8.13	980	8.69	1,016	9.3	1,052	9.93	1,087	10.6	1,121	11.3	1,139	11.7				
13,000	772	6.47	792	6.72	831	7.22	868	7.73	905	8.26	942	8.82	977	9.4	1,013	10	1,048	10.7	1,082	11.4	1,116	12.1	1,150	12.9	-	-				
14,000	818	7.72	837	7.98	873	8.51	909	9.06	944	9.64	979	10.2	1,014	10.9	1,048	11.6	1,082	12.3	1,115	13	1,149	13.9	-	-	-	-				
15,000	865	9.17	883	9.45	918	10	952	10.6	986	11.2	1,019	11.9	1,052	12.6	1,085	13.3	1,118	14.1	-	-	-	-	-	-	-	-				
16,000	914	10.9	931	11.2	964	11.8	996	12.4	1,029	13.1	1,061	13.8	1,093	14.6	1,125	15.4	-	-	-	-	-	-	-	-	-	-				

- ① **Note:** Blower performance includes gas heat exchangers and 2 in. filters. See static resistance for additional applications. See rpm selection to determine the required motor sheave setting and to determine the maximum continuous bhp. $\text{kW} = \text{bhp} \times 0.93$.

Table 27: VV40/VY40 bottom duct application

Air flow (cfm)	Available external static pressure - IWG																							
	0.4		0.6		0.8		1		1.2		1.4		1.6		1.8		2		2.2		2.4		2.5	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	Standard 10hp and field drive				Std 10hp and drive										Medium 15hp and drive						High 20 hp and drive			
12,000	600	4.41	633	4.818	666	5.255	699	5.72	731	6.227	764	6.765	796	7.34	828	7.95	860	8.59	892	9.28	924	10	940	10.4
13,000	621	5.08	654	5.536	687	6.023	720	6.54	753	7.10	785	7.692	817	8.32	850	8.99	882	9.7	914	10.4	945	11.2	961	11.6
14,000	645	5.89	678	6.391	711	6.928	743	7.50	776	8.11	809	8.763	841	9.45	873	10.2	905	11	937	11.8	969	12.6	985	13.1
15,000	670	6.84	703	7.393	736	7.982	769	8.61	802	9.28	834	10.00	866	10.8	899	11.6	931	12.4	963	13.3	994	14.3	1,010	14.8
16,000	698	7.95	731	8.554	764	9.20	797	9.89	829	10.63	862	11.42	894	12.3	926	13.1	958	14.1	990	15.1	1,022	16.2	1,038	16.7
17,000	727	9.23	760	9.885	793	10.60	826	11.36	859	12.18	891	13.05	923	14	956	15	988	16	1,020	17.2	1,051	18.4	-	-
18,000	759	10.7	792	11.41	825	12.20	857	13.05	890	13.96	922	14.95	955	16	987	17.1	1,019	18.3	1,051	19.6	-	-	-	-
19,000	792	12.3	825	13.15	858	14.04	890	15.00	923	16.04	956	17.16	988	18.4	1,020	19.7	1,052	21	-	-	-	-	-	-
20,000	827	14.2	860	15.16	892	16.17	925	17.28	958	18.48	990	19.78	1,023	21.2	1,055	22.7	-	-	-	-	-	-	-	-

- ① **Note:** Blower performance includes gas heat exchangers and 2 in. filters. See static resistance for additional applications. See rpm selection to determine the required motor sheave setting and to determine the maximum continuous bhp. $\text{kW} = \text{bhp} \times 0.93$.

Table 28: VV50/VY50 bottom duct application

Air flow (cfm)	Available external static pressure - IWG																							
	0.4		0.6		0.8		1		1.2		1.4		1.6		1.8		2		2.2		2.4		2.5	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	Standard 10hp and field drive				Standard 10hp and drive										Medium 15hp and drive						High 20 hp and drive			
12,000	616	4.61	649	5.02	681	5.47	714	5.95	746	6.47	778	7.02	811	7.61	843	8.24	875	8.9	907	9.6	939	10.3	954	10.7
13,000	639	5.33	672	5.8	705	6.3	737	6.84	770	7.41	802	8.02	834	8.67	866	9.35	898	10.1	930	10.9	962	11.7	978	12.1
14,000	665	6.2	698	6.72	731	7.27	763	7.87	796	8.5	828	9.17	860	9.89	892	10.6	924	11.4	956	12.3	988	13.2	1004	13.7
15,000	693	7.22	726	7.79	759	8.41	791	9.06	824	9.76	856	10.5	888	11.3	920	12.1	952	13	984	14	1,016	14.9	1,032	15.5
16,000	723	8.41	756	9.04	789	9.72	821	10.4	854	11.2	886	12	918	12.9	950	13.9	982	14.8	1,014	15.9	1,046	17	1,062	17.6
17000	756	9.79	788	10.5	821	11.2	853	12	886	12.9	918	13.8	950	14.8	983	15.9	1,015	17	1,046	18.2	-	-	-	-
18,000	790	11.4	822	12.1	855	13	888	13.9	920	14.9	952	15.9	985	17	1,017	18.2	1,049	19.5	-	-	-	-	-	-
19,000	826	13.2	858	14.1	891	15	924	16.1	956	17.2	988	18.4	1,020	19.7	1,053	21	-	-	-	-	-	-	-	-
20,000	863	15.3	896	16.3	929	17.4	961	18.6	994	19.9	1,026	21.3	-	-	-	-	-	-	-	-	-	-	-	-

- ① **Note:** Blower performance includes gas heat exchangers and 2 in. filters. See static resistance for additional applications. See rpm selection to determine the required motor sheave setting and to determine the maximum continuous bhp. $\text{kW} = \text{bhp} \times 0.93$.

Horizontal supply units

Table 29: VH27/VX27 side duct application

Air Flow (cfm)	Available external static pressure - IWG																									
	0.3		0.4		0.6		0.8		1		1.2		1.4		1.6		1.8		2		2.2		2.4		2.5	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	Std 7.5 hp and field drive						Std 7.5 hp and drive						Medium 10hp and drive						High 15 hp and drive							
8000	609	2.62	636	2.86	687	3.30	734	3.71	780	4.11	823	4.50	865	4.90	905	5.31	944	5.73	981	6.17	1018	6.64	1053	7.13	1071	7.39
9000	658	3.40	683	3.63	730	4.07	775	4.49	819	4.91	860	5.33	900	5.76	938	6.21	976	6.69	1012	7.18	1048	7.70	1082	8.26	1099	8.55
10000	707	4.25	730	4.48	775	4.93	817	5.37	858	5.82	898	6.28	936	6.76	973	7.26	1009	7.78	1045	8.34	1079	8.92	1113	9.54	1129	9.86
11000	756	5.20	778	5.44	820	5.91	860	6.39	899	6.87	937	7.38	974	7.91	1010	8.46	1044	9.05	1078	9.66	1112	10.31	1144	11.00	1161	11.35
12000	805	6.29	825	6.54	865	7.04	904	7.56	941	8.09	977	8.65	1012	9.23	1047	9.84	1080	10.49	1113	11.17	1146	11.89	-	-	-	-
13000	854	7.53	873	7.80	911	8.34	947	8.91	983	9.49	1018	10.11	1052	10.75	1085	11.43	1117	12.14	1149	12.89	-	-	-	-	-	-

- ① **Note:** Blower performance includes gas heat exchangers and 2 in. filters. See the static resistance table for additional applications. See the rpm selection table to determine the required motor sheave setting and to determine the maximum continuous bhp. $\text{kW} = \text{bhp} \times 0.93$

Table 30: VH30/VX30 side duct application

Air Flow (cfm)	Available external static pressure - IWG																									
	0.3		0.4		0.6		0.8		1		1.2		1.4		1.6		1.8		2		2.2		2.4		2.5	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	Std 7.5hp and field drive						Std 7.5hp and drive						Medium 10 hp and drive						High 15 hp and drive							
8000	608	2.61	635	2.85	686	3.3	735	3.72	780	4.12	824	4.51	866	4.91	906	5.32	945	5.744	982	6.19	1019	6.65	1054	7.15	1072	7.4
9000	656	3.38	681	3.62	729	4.06	775	4.48	819	4.91	860	5.33	900	5.77	939	6.22	977	6.695	1013	7.19	1048	7.72	1083	8.27	1100	8.56
10000	705	4.23	728	4.46	774	4.92	817	5.36	858	5.82	898	6.28	936	6.76	974	7.26	1010	7.79	1045	8.35	1080	8.93	1113	9.55	1130	9.87
11000	753	5.18	776	5.42	818	5.89	859	6.37	899	6.86	937	7.37	974	7.91	1010	8.46	1044	9.05	1079	9.66	1112	10.3	1145	11	-	-
12000	802	6.26	823	6.51	863	7.02	902	7.54	940	8.08	976	8.64	1012	9.22	1046	9.84	1080	10.49	1113	11.2	1146	11.9	-	-	-	-
13000	851	7.49	871	7.77	909	8.32	946	8.88	982	9.47	1017	10.1	1051	10.7	1084	11.4	1117	12.13	1149	12.9	-	-	-	-	-	-
14000	900	8.92	918	9.21	955	9.81	990	10.4	1024	11.1	1058	11.8	1091	12.5	1123	13.2	-	-	-	-	-	-	-	-	-	-

- ① **Note:** Blower performance includes gas heat exchangers and 2 in. filters. See the static resistance table for additional applications. See the rpm selection table to determine the required motor sheave setting and to determine the maximum continuous bhp. $\text{kW} = \text{bhp} \times 0.93$

Table 31: VH35/VX35 side duct application

Air Flow (cfm)	Available external static pressure - IWG																									
	0.3		0.4		0.6		0.8		1		1.2		1.4		1.6		1.8		2		2.2		2.4		2.5	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	Std 7.5 hp and field drive						Std 7.5 hp and drive						Medium 10 hp and drive						High 15 hp and drive							
9000	684	3.64	708	3.86	754	4.28	798	4.70	840	5.12	880	5.55	920	5.99	958	6.45	995	6.94	1031	7.45	1066	8.00	1101	8.57	1118	8.88
10000	735	4.53	758	4.76	801	5.20	842	5.64	882	6.10	921	6.57	959	7.06	995	7.57	1031	8.12	1066	8.69	1100	9.30	1134	9.95	1150	10.29
11000	788	5.55	809	5.78	849	6.25	888	6.74	926	7.23	963	7.75	999	8.30	1035	8.88	1069	9.48	1103	10.13	1136	10.81	-	-	-	-
12000	840	6.72	860	6.97	898	7.48	935	8.01	972	8.56	1007	9.14	1041	9.75	1075	10.39	1108	11.07	1141	11.78	-	-	-	-	-	-
13000	893	8.09	912	8.36	948	8.92	983	9.50	1018	10.11	1052	10.75	1085	11.43	1117	12.14	1149	12.89	-	-	-	-	-	-	-	-
14000	947	9.67	964	9.97	998	10.59	1032	11.23	1065	11.91	1097	12.62	1129	13.37	-	-	-	-	-	-	-	-	-	-	-	-
15000	1000	11.51	1017	11.84	1049	12.52	1081	13.23	1113	13.99	1144	14.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16000	1054	13.64	1069	14.01	1100	14.77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- ① **Note:** Blower performance includes gas heat exchangers and 2 in. filters. See the static resistance table for additional applications. See the rpm selection table to determine the required motor sheave setting and to determine the maximum continuous bhp. $\text{kW} = \text{bhp} \times 0.93$

Table 32: VH40/VX40 side duct application

Air Flow (cfm)	Available external static pressure - IWG																									
	0.4		0.6		0.8		1		1.2		1.4		1.6		1.8		2		2.2		2.4		2.5			
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	Std 10 hp and field drive						Std 10 hp and drive						Medium 15 hp and drive						High 20 hp and drive							
12000	602	4.43	642	4.94	682	5.48	720	6.06	758	6.67	795	7.32	831	8.00	866	8.71	900	9.45	934	10.22	966	11.02	982	11.42		
13000	627	5.16	667	5.73	707	6.33	746	6.98	783	7.66	820	8.38	856	9.13	891	9.92	926	10.74	959	11.58	991	12.45	1007	12.90		
14000	654	6.03	694	6.66	734	7.33	773	8.05	810	8.80	847	9.59	883	10.43	918	11.29	952	12.19	986	13.12	1018	14.09	1034	14.58		

Table 32: VH40/VX40 side duct application

Air Flow (cfm)	Available external static pressure - IWG																							
	0.4		0.6		0.8		1		1.2		1.4		1.6		1.8		2		2.2		2.4		2.5	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
15000	682	7.04	723	7.74	762	8.48	801	9.27	839	10.10	876	10.98	912	11.90	947	12.86	981	13.86	1014	14.89	1047	15.96	1063	16.50
16000	712	8.21	753	8.97	792	9.79	831	10.67	869	11.59	905	12.57	941	13.59	977	14.66	1011	15.77	1044	16.92	-	-	-	-
17000	743	9.54	784	10.39	823	11.29	862	12.26	900	13.30	937	14.39	973	15.53	1008	16.73	1042	17.99	-	-	-	-	-	-
18000	776	11.05	816	11.99	856	13.01	894	14.09	932	15.26	969	16.49	1005	17.79	1040	19.16	-	-	-	-	-	-	-	-
19000	810	12.76	850	13.82	890	14.97	928	16.21	966	17.54	1003	18.95	1039	20.44	-	-	-	-	-	-	-	-	-	-
20000	844	14.72	885	15.93	924	17.25	963	18.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

① **Note:** Blower performance includes gas heat exchangers and 2 in. filters. See the static resistance table for additional applications. See the rpm selection table to determine the required motor sheave setting and to determine the maximum continuous bhp. $\text{kW} = \text{bhp} \times 0.93$

Table 33: VH50/VX50 side duct application

Air Flow (cfm)	Available external static pressure - IWG																							
	0.4		0.6		0.8		1		1.2		1.4		1.6		1.8		2		2.2		2.4		2.5	
	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp	rpm	bhp
	Std 10 hp and field drive				Std 10 hp and drive										Medium 15 hp and drive						High 20 hp and drive			
12000	622	4.68	661	5.19	700	5.74	737	6.33	775	6.95	811	7.62	847	8.31	882	9.04	916	9.81	949	10.60	982	11.43	998	11.85
13000	650	5.47	689	6.05	727	6.67	765	7.33	802	8.02	839	8.76	874	9.53	909	10.34	944	11.19	977	12.06	1010	12.97	1026	13.44
14000	679	6.41	718	7.06	757	7.75	795	8.49	832	9.26	868	10.08	904	10.94	939	11.83	973	12.77	1007	13.74	1039	14.74	1056	15.26
15000	710	7.52	750	8.24	788	9.00	826	9.82	863	10.68	900	11.59	935	12.54	970	13.54	1005	14.58	1038	15.67	-	-	-	-
16000	743	8.79	783	9.59	821	10.45	859	11.35	896	12.32	933	13.33	968	14.40	1003	15.52	1037	16.69	-	-	-	-	-	-
17000	778	10.25	817	11.14	856	12.10	894	13.12	931	14.20	967	15.35	1003	16.56	1038	17.83	-	-	-	-	-	-	-	-
18000	814	11.92	853	12.93	892	14.01	929	15.16	966	16.40	1003	17.71	1039	19.09	-	-	-	-	-	-	-	-	-	-
19000	851	13.84	890	14.99	929	16.23	967	17.56	1004	18.98	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20000	889	16.07	929	17.40	967	18.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

① **Note:** Blower performance includes gas heat exchangers and 2 in. filters. See the static resistance table for additional applications. See the rpm selection table to determine the required motor sheave setting and to determine the maximum continuous bhp. $\text{kW} = \text{bhp} \times 0.93$

RPM selection and static resistance

Table 34: VV27 to VV50 and VY27 to VY50 vertical supply RPM selection

Tonnage	HP	Max BHP	Motor sheave	Blower sheave	6 turns open	5 turns open	4 turns open	3 turns open	2 turns open	1 turn open	Fully closed
27.5	7.5	8.24	1VP65 - 1 3/8	1B5V124	717	745	772	800	827	855	882
	10	10.90	2VP60- 1 3/8	2B5V94	848	884	920	956	992	1028	1064
	15	16.13	2VP60- 1 5/8	2B5V86	945	985	1026	1066	1106	1147	-
30	7.5	8.24	1VP60 - 1 3/8	1B5V124	658	686	714	742	770	798	826
	10	10.90	1VP68 - 1 3/8	1B5V110	820	850	880	911	941	971	1001
	15	16.13	2VP60 - 1 5/8	2B5V90	884	922	959	997	1035	1072	1110
35	7.5	8.24	1VP65 - 1 3/8	1B5V124	717	745	772	800	827	855	882
	10	10.90	2VP60- 1 3/8	2B5V94	848	884	920	956	992	1028	1064
	15	16.13	2VP60- 1 5/8	2B5V86	945	985	1026	1066	1106	1147	-
40	10	10.90	1VP60 - 1 3/8	1B5V124	658	686	714	742	770	798	826
	15	16.13	1VP75 - 1 5/8	1B5V136	792	818	843	869	894	920	945
	20	21.50	2VP60 - 1 5/8	2B5V94	866	903	940	977	1013	1050	-
50	10	10.90	1VP60 - 1 3/8	1B5V124	658	686	714	742	770	798	826
	15	16.13	1VP75 - 1 5/8	1B5V136	792	818	843	869	894	920	945
	20	21.50	2VP60 - 1 5/8	2B5V94	866	903	940	977	1013	1050	-

Table 35: VH27 to VH50 and VX27 to VX50 horizontal supply RPM selection

Tonnage	HP	Max BHP	Motor sheave	Blower sheave	6 turns open	5 turns open	4 turns open	3 turns open	2 turns open	1 turn open	Fully closed
27.5	7.5	8.24	1VP65 - 1 3/8	1B5V124	717	745	772	800	827	855	882
	10	10.90	2VP60- 1 3/8	2B5V94	848	884	920	956	992	1028	1064
	15	16.13	2VP60- 1 5/8	2B5V86	945	985	1026	1066	1106	1147	-

Table 35: VH27 to VH50 and VX27 to VX50 horizontal supply RPM selection

Tonnage	HP	Max BHP	Motor sheave	Blower sheave	6 turns open	5 turns open	4 turns open	3 turns open	2 turns open	1 turn open	Fully closed
30	7.5	8.24	1VP65 - 1 3/8	1B5V124	717	745	772	800	827	855	882
	10	10.90	2VP60- 1 3/8	2B5V94	848	884	920	956	992	1028	1064
	15	16.13	2VP60- 1 5/8	2B5V86	945	985	1026	1066	1106	1147	-
35	7.5	8.24	1VP65 - 1 3/8	1B5V124	717	745	772	800	827	855	882
	10	10.90	2VP60- 1 3/8	2B5V94	848	884	920	956	992	1028	1064
	15	16.13	2VP60- 1 5/8	2B5V86	945	985	1026	1066	1106	1147	-
40	10	10.90	1VP60 - 1 3/8	1B5V124	658	686	714	742	770	798	826
	15	16.13	1VP75 - 1 5/8	1B5V136	792	818	843	869	894	920	945
	20	21.50	2VP60 - 1 5/8	2B5V94	866	903	940	977	1013	1050	-
50	10	10.90	1VP60 - 1 3/8	1B5V124	658	686	714	742	770	798	826
	15	16.13	1VP75 - 1 5/8	1B5V136	792	818	843	869	894	920	945
	20	21.50	2VP60 - 1 5/8	2B5V94	866	903	940	977	1013	1050	-

Additional static resistance

The following note refers to vertical, horizontal and crossflow units.

Note:

- For cooling only models, add the cooling only value to the available static resistance in the respective blower performance tables.
- For models with electric heat, add the electric heat value for your heater size to the available static resistance in the respective blower performance tables.
- If the unit contains a reheat coil or economizer, deduct the corresponding value from the available external static pressure shown in the respective blower performance tables.
- The pressure drop through the economizer is greater for 100% outdoor air than for 100% return air. If the resistance of the return air duct is less than 0.25 IWG, the unit delivers less CFM during full economizer operation.

Table 36: Additional static resistance - vertical supply

Model	CFM	Cooling only	Economizer, efficiency = V	Economizer, efficiency = Y	Reheat coil	Electric heat kW*				
						36	54	72	90	108
VV27 VV30 VV35 VY27 VY30 VY35	6000	0.18	0.09	0.02	0.04	0.04	0.06	0.08	0.08	---
	7000	0.21	0.12	0.02	0.06	0.05	0.08	0.10	0.10	---
	8000	0.23	0.15	0.04	0.07	0.06	0.09	0.12	0.12	---
	9000	0.26	0.19	0.05	0.09	0.07	0.11	0.15	0.15	---
	10,000	0.28	0.23	0.06	0.11	0.08	0.13	0.17	0.17	---
	11,000	0.30	0.28	0.08	0.13	0.09	0.14	0.19	0.19	---
	12,000	0.32	0.33	0.10	0.15	0.10	0.16	0.21	0.21	---
	13,000	0.33	0.38	0.12	0.18	0.11	0.17	0.23	0.23	---
	14,000	0.35	0.44	0.14	0.20	0.12	0.19	0.25	0.25	---
	15,000	0.36	0.50	0.17	0.23	0.13	0.20	0.26	0.26	---
VV40 VV50 VY40 VY50	16,000	0.37	0.57	0.20	0.26	0.14	0.21	0.28	0.28	---
	10,000	0.18	0.08	0.02	0.07	---	0.13	0.17	0.17	0.17
	11,000	0.21	0.10	0.03	0.07	---	0.14	0.19	0.19	0.19
	12,000	0.23	0.11	0.04	0.08	---	0.16	0.21	0.21	0.21
	13,000	0.26	0.13	0.04	0.09	---	0.17	0.23	0.23	0.23
	14,000	0.29	0.15	0.05	0.10	---	0.19	0.25	0.25	0.25
	15,000	0.32	0.17	0.06	0.11	---	0.20	0.26	0.26	0.26
	16,000	0.35	0.20	0.07	0.12	---	0.21	0.28	0.28	0.28
	17,000	0.39	0.22	0.08	0.14	---	0.22	0.30	0.30	0.30
	18,000	0.42	0.25	0.09	0.15	---	0.24	0.31	0.31	0.31
	19,000	0.46	0.27	0.10	0.16	---	0.25	0.33	0.33	0.33
	20,000	0.50	0.30	0.11	0.17	---	0.26	0.34	0.34	0.34

Note: *Electric heat is only available if the nomenclature's second digit (efficiency) is standard vertical or standard horizontal.

Table 37: Additional static resistance - horizontal airflow

Model	CFM	Cooling only	Economizer, efficiency = H	Economizer, efficiency = X	Reheat coil	Electric heat kW*				
						36	54	72	90	108
VH27 VH30 VH35 VX27 VX30 VX35	6000	0.21	0.02	0.09	0.04	0.04	0.06	0.08	0.08	---
	7000	0.27	0.02	0.12	0.06	0.05	0.08	0.10	0.10	---
	8000	0.34	0.04	0.15	0.07	0.06	0.09	0.12	0.12	---
	9000	0.42	0.05	0.19	0.09	0.07	0.11	0.15	0.15	---
	10,000	0.50	0.06	0.23	0.11	0.08	0.13	0.17	0.17	---
	11,000	0.59	0.08	0.28	0.13	0.09	0.14	0.19	0.19	---
	12,000	0.69	0.10	0.33	0.15	0.10	0.16	0.21	0.21	---
	13,000	0.79	0.12	0.38	0.18	0.11	0.17	0.23	0.23	---
	14,000	0.90	0.14	0.44	0.20	0.12	0.19	0.25	0.25	---
	15,000	1.01	0.17	0.50	0.23	0.13	0.20	0.26	0.26	---
	16,000	1.13	0.20	0.57	0.26	0.14	0.21	0.28	0.28	---
VH40 VH50 VX40 VX50	10,000	0.27	0.02	0.08	0.07	---	0.13	0.17	0.17	0.17
	11,000	0.32	0.03	0.10	0.07	---	0.14	0.19	0.19	0.19
	12,000	0.36	0.04	0.11	0.08	---	0.16	0.21	0.21	0.21
	13,000	0.41	0.04	0.13	0.09	---	0.17	0.23	0.23	0.23
	14,000	0.46	0.05	0.15	0.10	---	0.19	0.25	0.25	0.25
	15,000	0.51	0.06	0.17	0.11	---	0.20	0.26	0.26	0.26
	16,000	0.56	0.07	0.20	0.12	---	0.21	0.28	0.28	0.28
	17,000	0.61	0.08	0.22	0.14	---	0.22	0.30	0.30	0.30
	18,000	0.66	0.09	0.25	0.15	---	0.24	0.31	0.31	0.31
	19,000	0.71	0.10	0.27	0.16	---	0.25	0.33	0.33	0.33
	20,000	0.76	0.11	0.30	0.17	---	0.26	0.34	0.34	0.34

① **Note:** *Electric heat is only available if the nomenclature's second digit (efficiency) is standard vertical or standard horizontal.

Drive selection

1. Determine the required airflow.
2. Calculate or measure the amount of external static pressure.
3. With the operating point determined from the previous steps, locate this point on the appropriate supply air blower performance table. Linear interpolation may be necessary.
4. Note the RPM and BHP from the previous step and locate the appropriate motor or drive.
5. Review the BHP compared to the motor options available. Select the appropriate motor or drive.
6. Review the RPM range for the motor options available. Select the appropriate drive if multiple drives are available for the chosen motor.
7. Determine the turns open to obtain the required operation point.

Example:

1. 9000 CFM
2. 1.2 IWG
3. Using the supply air blower performance table below, the following data point was located: 810 RPM and 4.82 BHP.
4. Using the following RPM selection table, Size X and Model Y is found.
5. 4.82 BHP does not exceed the maximum continuous BHP rating of any of the three motor options, so all three motors are still eligible for selection.
6. 810 RPM falls within the range of the 7.5 HP drive.
7. Using the 7.5-HP motor, 2.5 turns open achieves 810 RPM.

Table 38: Example supply air blower performance

Air flow (CFM)	Available external static pressure - IWG																									
	0.3		0.4		0.6		0.8		1		1.2		1.4		1.6		1.8		2		2.2		2.4		2.5	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
	Standard 7.5 HP and field drive						Standard 7.5 HP and drive						Medium 10 HP and drive						High 20 HP and drive							
8000	573	2.29	599	2.53	649	2.98	696	3.39	742	3.78	786	4.16	828	4.55	869	4.95	910	5.36	949	5.79	988	6.25	1026	6.75	1045	7.00
9000	606	2.92	631	3.15	678	3.59	724	4.01	768	4.41	810	4.82	851	5.24	892	5.67	931	6.13	970	6.60	1007	7.12	1045	7.66	1063	7.95
10000	642	3.62	665	3.85	711	4.29	754	4.72	796	5.15	837	5.58	877	6.04	916	6.51	955	7.00	992	7.53	1029	8.09	1066	8.69	1084	9.01
11000	680	4.41	702	4.64	745	5.09	787	5.54	827	6.00	867	6.47	906	6.96	943	7.47	981	8.01	1017	8.59	1054	9.21	1089	9.87	1107	10.21
12000	721	5.31	741	5.55	782	6.02	822	6.50	861	6.99	899	7.49	936	8.02	973	8.58	1009	9.18	1045	9.81	1080	10.49	1115	11.21	1132	11.58
13000	763	6.36	783	6.60	822	7.10	860	7.61	897	8.14	933	8.69	969	9.26	1005	9.88	1040	10.52	1075	11.22	1109	11.95	1143	12.74	-	-

- ① **Note:** Blower performance includes gas heat exchangers and 2 in. filters. See the *Static resistance tables* in [Additional static resistance](#) for additional applications. See the *RPM selection tables* in [RPM selection and static resistance](#) to determine the required motor sheave setting and to determine the maximum continuous BHP.
 $\text{kW} = \text{BHP} \times 0.93$.

Table 39: Example RPM selection

Model	HP	Max BHP	Motor sheave	Blower sheave	6 turns open	5 turns open	4 turns open	3 turns open	2 turns open	1 turn open	Fully closed
VV27	7.5	8.24	1VP65 - 1 3/8	1B5V124	717	745	772	800	827	855	882
	10	10.90	2VP60- 1 3/8	2B5V94	848	884	920	956	992	1028	1064
	15	16.13	2VP60- 1 5/8	2B5V86	945	985	1026	1066	1106	1147	n/a

Airflow specifications

Table 40: Altitude and temperature correction factors

Air temp.	Altitude (ft)										
	0	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000
40	1.060	1.022	0.986	0.950	0.916	0.882	0.849	0.818	0.788	0.758	0.729
50	1.039	1.002	0.966	0.931	0.898	0.864	0.832	0.802	0.772	0.743	0.715
60	1.019	0.982	0.948	0.913	0.880	0.848	0.816	0.787	0.757	0.729	0.701
70	1.000	0.964	0.930	0.896	0.864	0.832	0.801	0.772	0.743	0.715	0.688
80	0.982	0.947	0.913	0.880	0.848	0.817	0.787	0.758	0.730	0.702	0.676
90	0.964	0.929	0.897	0.864	0.833	0.802	0.772	0.744	0.716	0.689	0.663
100	0.946	0.912	0.880	0.848	0.817	0.787	0.758	0.730	0.703	0.676	0.651

Figure 7: Altitude/temperature correction factors

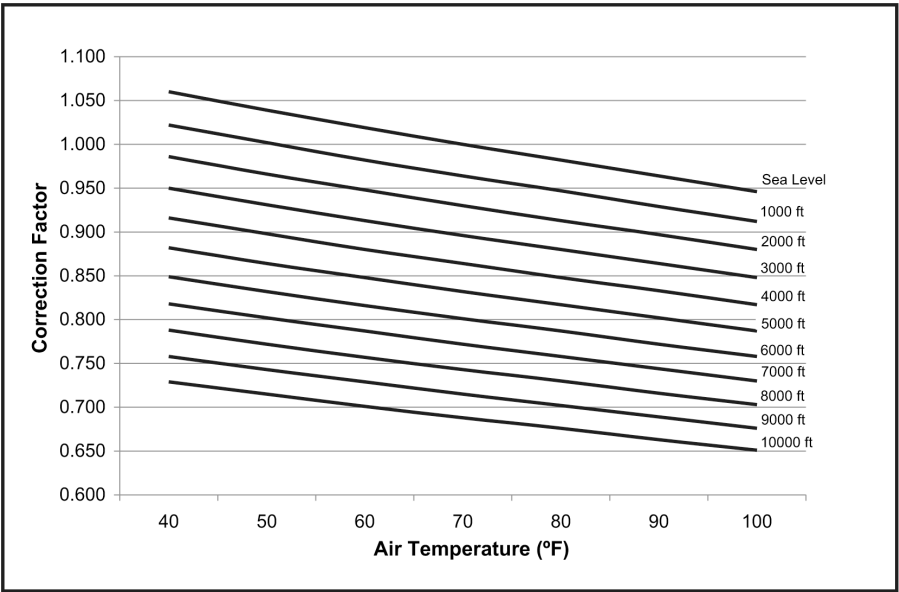


Table 41: Gas heat allowable air flow

Size (ton)	Heat size	Supply air (CFM) heating	
		Min.	Max.
27.5	(N,S)1	8250	12375
	(N,S)3	8250	12375
	T3	6875	12375
30	(N,S)1	9000	13500
	(N,S)3	9000	13500
	T3	7500	13500
35	(N,S)1	10500	15750
	(N,S)3	10500	15750
	T3	8750	15750
40	(N,S)1	12000	18000
	(N,S)3	12000	18000
	T3	10000	18000
50	(N,S)1	15000	20000
	(N,S)3	15000	20000
	T3	12500	20000

⚠ CAUTION

For units with VFD and staged gas heat, the speed of the indoor blower motor continues to be controlled by duct static pressure through the VAV control board. If there are VAV boxes present in the duct system, the boxes must be driven to the full-open position using a customer-supplied power source to ensure adequate airflow across the gas heat furnace.

Table 42: Electric heat minimum airflow requirements*

Size (tons)	Heat size (kW)				
	36	54	72	90	108
27.5	8,250	8,250	8,250	8,250	-
30	9,000	9,000	9,000	9,000	-
35	10,500	10,500	10,500	10,500	-
40	-	12,000	12,000	12,000	12,000
50	-	15,000	15,000	15,000	15,000

① **Note:** *Only applicable for standard horizontal and standard vertical airflow

⚠ CAUTION

For units with VFD and electric heat, the speed of the indoor blower motor continues to be controlled by duct static pressure through the VAV control board. If there are VAV boxes present in the duct system, the boxes must be driven to the full-open position using a customer-supplied power source to ensure adequate airflow across the electric heating elements.

Indoor blower specifications**Table 43: Indoor blower specifications - vertical supply**

Model	Motor					Motor sheave			Blower sheave			Belt	
	HP	RPM	Eff.	SF	Frame	Datum Dia. (in.)	Bore (in.)	Model	Datum Dia. (in.)	Bore (in.)	Blower sheave	Model	Qty.
VW27 VY27	7.5	1770	91.00	1.3	213T	4.8-6	1 3/8	1VP65	12.4	1 11/16	1B5V124	BX82	1
	10.0	1770	91.70	1.3	215T	4.3-5.5	1 3/8	2VP60	9.4	1 11/16	2B5V94	BX75	2
	15.0	1765	93.00	1.3	254T	4.7-5.9	1 5/8	2VP60	8.7	1 11/16	2B5V86	5VX780	2
VW30 VY30	7.5	1770	91.00	1.3	213T	4.7-5.9	1 3/8	1VP60	12.4	1 11/16	1B5V124	5VX830	1
	10.0	1770	91.70	1.3	215T	5.2-6.4	1 3/8	1VP68	11.1	1 11/16	1B5V110	5VX830	1
	15.0	1765	93.00	1.3	254T	4.3-5.5	1 5/8	2VP60	9.0	1 11/16	2B5V90	BX76	2
VW35 VY35	7.5	1770	91.00	1.3	213T	4.8-6	1 3/8	1VP65	12.4	1 11/16	1B5V124	BX82	1
	10.0	1770	91.70	1.3	215T	4.3-5.5	1 3/8	2VP60	9.4	1 11/16	2B5V94	BX75	2
	15.0	1765	93.00	1.3	254T	4.7-5.9	1 5/8	2VP60	8.7	1 11/16	2B5V86	5VX780	2
VW40 VY40	10.0	1770	91.70	1.3	215T	4.7-5.9	1 3/8	1VP60	12.5	1 11/16	1B5V124	5VX830	1
	15.0	1765	93.00	1.3	254T	6.2-7.4	1 5/8	1VP75	13.7	1 11/16	1B5V136	5VX880	1
	20.0	1765	93.00	1.3	256T	4.7-5.9	1 5/8	2VP60	9.5	1 11/16	2B5V94	5VX780	2
VW50 VY50	10.0	1770	91.70	1.3	215T	4.7-5.9	1 3/8	1VP60	12.5	1 11/16	1B5V124	5VX830	1
	15.0	1765	93.00	1.3	254T	6.2-7.4	1 5/8	1VP75	13.7	1 11/16	1B5V136	5VX880	1
	20.0	1765	93.00	1.3	256T	4.7-5.9	1 5/8	2VP60	9.5	1 11/16	2B5V94	5VX780	2

Table 44: Indoor blower specifications - horizontal supply

Model	Motor					Motor sheave			Blower sheave			Belt	
	HP	RPM	Eff.	SF	Frame	Datum Dia. (in.)	Bore (in.)	Model	Datum Dia. (in.)	Bore (in.)	Blower sheave	Model	No. of qty
VH27 VX27	7.5	1770	91.00	1.3	213T	4.8-6	1 3/8	1VP65	12.4	1 11/16	1B5V124	BX82	1
	10.0	1770	91.70	1.3	215T	4.3-5.5	1 3/8	2VP60	9.4	1 11/16	2B5V94	BX75	2
	15.0	1765	93.00	1.3	254T	4.7-5.9	1 5/8	2VP60	8.7	1 11/16	2B5V86	5VX780	2

Table 44: Indoor blower specifications - horizontal supply

Model	Motor					Motor sheave			Blower sheave			Belt	
	HP	RPM	Eff.	SF	Frame	Datum Dia. (in.)	Bore (in.)	Model	Datum Dia. (in.)	Bore (in.)	Blower sheave	Model	No. of qty
VH30 VX30	7.5	1770	91.00	1.3	213T	4.8-6	1 3/8	1VP65	12.4	1 11/16	1B5V124	BX82	1
	10.0	1770	91.70	1.3	215T	4.3-5.5	1 3/8	2VP60	9.4	1 11/16	2B5V94	BX75	2
	15.0	1765	93.00	1.3	254T	4.7-5.9	1 5/8	2VP60	8.7	1 11/16	2B5V86	5VX780	2
VH35 VX35	7.5	1770	91.00	1.3	213T	4.8-6	1 3/8	1VP65	12.4	1 11/16	1B5V124	BX82	1
	10.0	1770	91.70	1.3	215T	4.3-5.5	1 3/8	2VP60	9.4	1 11/16	2B5V94	BX75	2
	15.0	1765	93.00	1.3	254T	4.7-5.9	1 5/8	2VP60	8.7	1 11/16	2B5V86	5VX780	2
VH40 VX40	10.0	1770	91.70	1.3	215T	4.7-5.9	1 3/8	1VP60	12.5	1 11/16	1B5V124	5VX830	1
	15.0	1765	93.00	1.3	254T	6.2-7.4	1 5/8	1VP75	13.7	1 11/16	1B5V136	5VX880	1
	20.0	1765	93.00	1.3	256T	4.7-5.9	1 5/8	2VP60	9.5	1 11/16	2B5V94	5VX780	2
VH50 VX50	10.0	1770	91.70	1.3	215T	4.7-5.9	1 3/8	1VP60	12.5	1 11/16	1B5V124	5VX830	1
	15.0	1765	93.00	1.3	254T	6.2-7.4	1 5/8	1VP75	13.7	1 11/16	1B5V136	5VX880	1
	20.0	1765	93.00	1.3	256T	4.7-5.9	1 5/8	2VP60	9.5	1 11/16	2B5V94	5VX780	2

Electric heat multipliers

❶ **Note:** Only applicable for standard horizontal and standard vertical airflow.

Electric heaters are rated at nominal voltage. Use [Table 45](#) to determine the electric heat capacity for heaters applied at lower voltages.

Table 45: Electric heat multipliers

Voltage		kW capacity multipliers
Nominal	Applied	
240	208	0.75
	230	0.92
480	460	0.92
600	575	0.92

Power exhaust airflow

Table 46: Non-modulating power exhaust airflow

Tonnage	Available return static (IWG)														
	0.1			0.2			0.3			0.4			0.5		
	CFM	Watts	RPM	CFM	Watts	RPM	CFM	Watts	RPM	CFM	Watts	RPM	CFM	Watts	RPM
27.5	11680	1887	1140	10504	1913	1140	8675	1939	1140	6593	1965	1140	4658	1991	1140
30	11680	1887	1140	10504	1913	1140	8675	1939	1140	6593	1965	1140	4658	1991	1140
35	11680	1887	1140	10504	1913	1140	8675	1939	1140	6593	1965	1140	4658	1991	1140
40	15493	2659	1140	14447	2736	1140	13513	2814	1140	12760	2892	1140	12259	2970	1140
50	15493	2659	1140	14447	2736	1140	13513	2814	1140	12760	2892	1140	12259	2970	1140

Table 47: Modulating power exhaust airflow: 1 HP airflow data - 27.5 ton, 30 ton, and 35 ton

ESP	0.1			0.2			0.3			0.4			0.5		
	CFM	Watt	RPM	Watt	RPM	Watt	RPM	Watt	RPM	Watt	RPM	Watt	RPM	Watt	RPM
2000		282	626	649	783	727	831	1084	911	1070	912				
2500		388	654	686	805	805	856	1108	937	1146	957				
3000		480	682	729	828	893	881	1144	963	1258	1001				
3500		561	710	779	850	990	906	1194	989	1415	1046				
4000		632	738	834	872	1093	932	1261	1015	1624	1091				
4500		695	766	896	895	1200	957	1347	1041	1893	1140*				
5000		753	794	962	917	1309	982	1454	1067	—	—				
5500		807	822	1033	940	1417	1007	1585	1093	—	—				
6000		858	850	1109	962	1522	1033	1742	1119	—	—				
6500		910	878	1188	984	1622	1058	1927	1140*	—	—				
7000		963	906	1271	1007	1715	1083	—	—	—	—				

Table 47: Modulating power exhaust airflow: 1 HP airflow data - 27.5 ton, 30 ton, and 35 ton

ESP	0.1		0.2		0.3		0.4		0.5	
CFM	Watt	RPM	Watt	RPM	Watt	RPM	Watt	RPM	Watt	RPM
7500	1019	933	1357	1029	1797	1108	—	—	—	—
8000	1081	961	1446	1051	1867	1133	—	—	—	—
8500	1151	989	1536	1074	1923	1140*	—	—	—	—
9000	1230	1017	1629	1096	—	—	—	—	—	—
9500	1319	1045	1723	1118	—	—	—	—	—	—
10000	1422	1073	1817	1140*	—	—	—	—	—	—
10500	1540	1101	—	—	—	—	—	—	—	—
11000	1674	1129	—	—	—	—	—	—	—	—
11500	1827	1140*	—	—	—	—	—	—	—	—

*rounded off to motor max RPM

Table 48: Modulating power exhaust airflow: 2 HP airflow data - 40 ton and 50 ton

ESP	0.1		0.2		0.3		0.4		0.5	
CFM	Watt	RPM	Watt	RPM	Watt	RPM	Watt	RPM	Watt	RPM
2000	445	521	867	651	929	705	1056	764	1830	899
2500	497	545	875	670	953	725	1092	782	1835	912
3000	548	568	885	690	982	744	1136	801	1842	924
3500	597	591	898	709	1017	764	1186	819	1852	936
4000	646	615	915	728	1058	783	1242	838	1865	948
4500	694	638	936	748	1103	802	1305	856	1882	960
5000	743	661	961	767	1154	822	1373	875	1903	973
5500	792	685	990	787	1210	841	1447	893	1928	985
6000	842	708	1025	806	1271	861	1526	912	1959	997
6500	894	731	1065	826	1338	880	1609	931	1996	1009
7000	948	755	1111	845	1409	900	1696	949	2038	1022
7500	1005	778	1163	864	1486	919	1788	968	2087	1034
8000	1064	801	1221	884	1568	939	1882	986	2143	1046
8500	1128	824	1287	903	1656	958	1980	1005	2207	1058
9000	1195	848	1360	923	1748	978	2081	1023	2278	1070
9500	1267	871	1440	942	1846	997	2184	1042	2358	1083
10000	1344	894	1529	962	1949	1017	2290	1060	2446	1095
10500	1426	918	1626	981	2056	1036	2397	1079	2544	1107
11000	1515	941	1732	1000	2169	1055	2505	1097	2652	1119
11500	1610	964	1848	1020	2288	1075	2614	1116	2770	1131
12000	1711	988	1973	1039	2411	1094	2724	1135	2899	1140*
12500	1821	1011	2108	1059	2539	1114	2835	1140*	—	—
13000	1938	1034	2253	1078	2672	1133	—	—	—	—
13500	2064	1058	2409	1098	2810	1140*	—	—	—	—
14000	2199	1081	2577	1117	—	—	—	—	—	—
14500	2343	1104	2756	1136	—	—	—	—	—	—
15000	2497	1128	2946	1140*	—	—	—	—	—	—
15500	2661	1140*	—	—	—	—	—	—	—	—

*rounded off to motor max RPM

Sound performance

Indoor sound performance

Table 49: Indoor sound performance

Tonnage	CFM	Type	Sound power, dB (10 ⁻¹²) watts							
			Octave band centerline frequency (Hz)							
			63	125	250	500	1000	2000	4000	8000
27.5	11000	Ducted discharge	84	82	78	79	77	76	72	64
		Ducted inlet	82	75	64	66	67	65	64	54
30	12000	Ducted discharge	87	83	79	79	78	76	72	65
		Ducted inlet	86	75	64	66	68	65	65	55
35	14000	Ducted discharge	87	87	83	83	84	82	78	72
		Ducted inlet	83	78	68	70	72	70	67	58
40	16000	Ducted discharge	90	84	80	80	79	76	70	62
		Ducted inlet	85	78	68	66	64	61	61	53
50	20000	Ducted discharge	92	84	81	81	80	77	71	65
		Ducted inlet	87	80	70	67	66	64	62	55

Note:

- 30 ton and 50 ton models are tested in accordance with AHRI 260-2017. 27.5 ton, 35 ton, and 40 ton models interpolated from tests made in accordance with AHRI 260-2017.
- Ratings include duct end correction E1.
- Ratings include compressor noise.

Outdoor sound

Table 50: Outdoor sound performance

Tonnage	Sound power, dB (10 ⁻¹²) watts								
	Sound rating (dBA)	Octave band centerline frequency (Hz)							
		63	125	250	500	1000	2000	4000	8000
27.5	89	91.5	85.0	85.5	86.0	85.0	81.0	78.5	74.0
30	89	91.5	85.0	85.5	86.0	85.0	81.0	78.5	74.0
35	89	91.5	85.0	85.5	86.0	85.0	81.0	78.5	74.0
40	89	91.5	85.0	85.5	86.0	85.0	81.0	78.5	74.0
50	91	96.0	91.0	86.5	87.0	86.5	84.0	79.5	75.0

Note:

- 30 ton and 50 ton models are tested in accordance with AHRI 370-2015. 27.5 ton, 35 ton, and 40 ton models interpolated from tests made in accordance with AHRI 370-2015.
- Ratings include compressor noise.

Electrical data

Electrical service sizing

In order to determine the electrical service required for the Select rooftop unit, refer to the appropriate calculations from *U.L. 60335-2-40* listed in this section. Based on the configuration of the unit, the calculations yield different minimum circuit ampacity (MCA) and maximum overcurrent protection (MOP).

Using the following load definitions and calculations, determine the correct electrical sizing for the unit. All concurrent load conditions must be considered in the calculations, and the highest value for any combination of loads must be used.

LOAD definitions:

- LOAD1 is the current of the largest motor – compressor or fan motor.
- LOAD2 is the sum of the remaining motor currents that may run concurrently with LOAD1.
- LOAD3 is the current of the electric heaters – zero for cooling only units.
- LOAD4 is the sum of any remaining currents greater than or equal to 1.0 amp.

Use the following calculations to determine MCA and MOP for units:

For units without an Electric heater, use the following formulae to calculate the MCA and MOP Values.

$$\text{MCA} = (1.25 \times \text{LOAD1}) + \text{LOAD2} + \text{LOAD4}$$

For units with an Electric heater, use the following formulae to calculate the MCA and MOP Values.

Step 1: MCA Cooling = $(1.25 \times \text{LOAD1}) + \text{LOAD2} + \text{LOAD4}$

Step 2: MCA Heating = $(1.25 \times \text{LOAD1}) + \text{LOAD2} + (1.25 \times \text{LOAD3}) + \text{LOAD4}$

① **Note:** Exception: LOAD3 should be multiplied by 1 if the electric heater is greater than 50kW

Step 3: For units with electric heaters, the MCA of the unit is the highest of the MCA heating/ MCA cooling values calculated in Step 1 and 2.

Use the following formulae to calculate MOP:

$$\text{MOP} = (2.25 \times \text{LOAD1}) + \text{LOAD2} + \text{LOAD3} + \text{LOAD4}$$

① **Note:** For electric heat applications, the nameplate MCA/MOP value is the larger of the cooling mode or the heating mode value calculated.

If the MOP does not equal a standard current rating of an overcurrent protective device, then the marked maximum rating is to be the next lower standard rating. However, if the device selected for MOP is less than the MCA, then select the lowest standard maximum fuse size greater than or equal to the MCA.

Compressor data

Table 51: Two-stage Intellispeed/constant volume compressor data

Model	Compressor	Nominal voltage					
		208-230/3/60		460/3/60		575/3/60	
		RLA	LRA	RLA	LRA	RLA	LRA
27.5	Compressor 1	45.7	304	21.4	147	18.6	122
	Compressor 2	45.7	304	21.4	147	18.6	122
30	Compressor 1	49.3	315	23.6	158	20.7	136
	Compressor 2	49.3	315	23.6	158	20.7	136
35	Compressor 1	53.6	351	27.6	197	25	135
	Compressor 2	53.6	351	27.6	197	25	135
40	Compressor 1	53.6	351	27.6	197	25	135
	Compressor 2	53.6	351	27.6	197	25	135
50	Compressor 1	75.0	485	36.0	227	28.0	175
	Compressor 2	75.0	485	36.0	227	28.0	175

Table 52: Four-stage Intellispeed/constant volume compressor data

Model	Compressor	Nominal voltage					
		208-230/3/60		460/3/60		575/3/60	
		RLA	LRA	RLA	LRA	RLA	LRA
27.5	Compressor 1	45.7	304	21.4	147	18.6	122
	Compressor 2	22.4	166.2	8.8	74.6	7.5	54
	Compressor 3	22.4	166.2	8.8	74.6	7.5	54
30	Compressor 1	49.3	315	23.6	158	20.7	136
	Compressor 2	25	200	11.9	103	9.4	78
	Compressor 3	25	200	11.9	103	9.4	78
35	Compressor 1	53.6	351	27.6	197	25	135
	Compressor 2	28.7	207.5	12.4	100.2	9.0	78
	Compressor 3	28.7	207.5	12.4	100.2	9.0	78
40	Compressor 1	53.6	351	27.6	197	25	135
	Compressor 2	28.7	207.5	12.4	100.2	9.0	78
	Compressor 3	28.7	207.5	12.4	100.2	9.0	78
50	Compressor 1	75	485	36.0	227	28.0	175
	Compressor 2	43.6	267	20.7	142	17.1	103
	Compressor 3	43.6	267	20.7	142	17.1	103

Electric heat

① **Note:** Only applicable for standard horizontal and standard vertical airflow.

Table 53: Electric heat amp draw

Capacity	Type of heat	Heater nominal kW	Stage 1 kW	Stage 2 kW	Steps	208V/3Ph/60Hz	230V/3Ph/60Hz	460V/3Ph/60Hz	575V/3Ph/60Hz
						Amps	Amps	Amps	Amps
27.5-35 ton	Low heat	36	18	18	2	74.9	86.6	43.3	-
	Med heat	54 (208V/230V)	36	18	2	112.7	129.9	-	-
		54 (460V/575V)	27	27	2	-	-	65.0	52.0
	High heat	72	36	36	2	-	-	86.6	69.3
	Ultra high heat	90 (480V)	60	30	2	-	-	108.3	86.6
		90 (600V)	45	45	2	-	-	108.3	86.6
40-50 ton	Low heat	54 (208V/230V)	36	18	2	112.7	129.9	-	-
		54 (460V/575V)	27	27	2	-	-	65.0	52.0
	Med heat	72	36	36	2	-	-	86.6	69.3
	High heat	90 (480V)	60	30	2	-	-	108.3	86.6
		90 (600V)	45	45	2	-	-	108.3	86.6
	Ultra high heat	108	72	36	2	-	-	129.9	103.9

Condenser fan motor

Table 54: Condenser fan motor standard ambient

Unit configurations			Each motor data	208V/3Ph/60Hz		230V/3Ph/60Hz		460V/3Ph/60Hz		575V/3Ph/60Hz	
				SS FLA	SS LRA	SS FLA	SS LRA	SS FLA	SS LRA	SS FLA	SS LRA
			27.5 ton - 40 ton	4	24.8	4.2	24.8	2.1	12.7	1.6	8.8
			50 ton	7.2	40.7	6.8	40.7	3.4	20.4	2.7	16.4
Condenser fan option	Unit size (ton)	Total quantity of fans	Quantity of SS fans	Total fan amps							
Standard ambient	27.5	4	4	16	99.2	16.8	99.2	8.4	50.8	6.4	35.2
	30	4	4	16	99.2	16.8	99.2	8.4	50.8	6.4	35.2
	35	4	4	16	99.2	16.8	99.2	8.4	50.8	6.4	35.2
	40	4	4	16	99.2	16.8	99.2	8.4	50.8	6.4	35.2
	50	4	4	28.8	162.8	27.2	162.8	13.6	81.6	10.8	65.6

Table 55: Condenser fan motor low ambient

Unit configurations			Each VFD Data	208V/3Ph/60Hz		230V/3Ph/60Hz		460V/3Ph/60Hz		575V/3Ph/60Hz	
				VFD I/P A	LRA	VFD I/P A	LRA	VFD I/P A	LRA	VFD I/P A	LRA
			27.5 ton - 40 ton	8.6	24.8	7.2	24.8	3.9	12.7	3.5	8.8
			50 ton	14.1	40.7	12.0	40.7	6.8	20.4	5.6	16.4
Condenser fan option	Unit size (ton)	Total quantity of fans	Quantity of SS fans	Total VFD input amps							
Low ambient	27.5	4	2	17.2	99.2	14.4	99.2	7.8	50.8	7.0	35.2
	30	4	2	17.2	99.2	14.4	99.2	7.8	50.8	7.0	35.2
	35	4	2	17.2	99.2	14.4	99.2	7.8	50.8	7.0	35.2
	40	4	2	17.2	99.2	14.4	99.2	7.8	50.8	7.0	35.2
	50	4	2	28.2	162.8	24.0	162.8	13.6	81.6	11.2	65.6

Supply fan and exhaust fan motor data

Table 56: Supply fan motor data

Motor hp		Nominal voltage						Blower static
		208-230/3/60 ¹		460/3/60		575/3/60		
		FLA	LRA	FLA	LRA	FLA	LRA	
	27.5 ton to 30 ton							
ISP/VAV unit	With VFD							
	7.5	22	144.4	11	72.2	9	59.1	Std static
	10	28	173.4	14	86.7	11	71.8	Med static
	15	42	234	21	117	18	95.9	High static
	40 ton to 50 ton							
ISP/VAV unit	With VFD							
	10	28	173.4	14	86.7	11	71.8	Std static
	15	42	234	21	117	18	95.9	Med static
	20 HP - 40 ton	59.4	312	27	156	22	126	High static
	20 HP - 50 ton	74.8	312	27	156	22	126	High static

Table 57: Exhaust fan motor data without VFD

Capacity			Nominal voltage							
			208/3/60		230/3/60		460/3/60		575/3/60	
			FLA	LRA	FLA	LRA	FLA	LRA	FLA	LRA
Amps without VFD ¹										
27.5-30 ton	1	2	4	24.8	4.2	24.8	2.1	12.7	1.6	8.8
35-50 ton	2	2	7.2	40.7	6.8	40.7	3.4	20.4	2.7	16.4
① Note: 1. Amps without VFD are shown per motor.										

Table 58: Exhaust fan motor data with VFD

Capacity			Nominal voltage							
			208/3/60		230/3/60		460/3/60		575/3/60	
			FLA	LRA	FLA	LRA	FLA	LRA	FLA	LRA
Amps with VFD ¹										
27.5-30 ton	1	2	8.6	24.8	7.2	24.8	3.9	12.7	3.5	8.8
35-50 ton	2	2	14.1	40.7	15.2	40.7	6.8	20.4	5.6	16.4
① Note: 1. Single VFD is provided to power both exhaust fan motors. Amps with VFD include amperage for both exhaust fan motors.										

Miscellaneous data

Table 59: 27.5-50 ton data

Nominal voltage				
Description	208/3/60	230/3/60	460/3/60	575/3/60
	Amps	Amps	Amps	Amps
Convenience outlet	14.4	13	6.5	5.2
Control transformer 27.5, 30, 35 ton cooling and electric heat	0.7	0.7	0.3	0.3
Control transformer 27.5, 30, 35 ton - gas heat	1.2	1	0.5	0.4
Control transformer 40, 50 ton - cooling, EH and gas heat	1.2	1	0.5	0.4
Crankcase heater 90 W ^{1,2}	0.4	0.4	0.2	0.2
Crankcase heater 70 W ³	0.3	0.3	0.2	0.1
1. Quantity two for all 2 stage units and quantity of one for all 4 stage units 2. For 50 ton 4 stage units, quantity three of 90 W heaters are used 3. Quantity two for all 4 stage units				

Typical wiring diagrams

Figure 8: Cooling unit 4 stage - elementary diagram power circuit

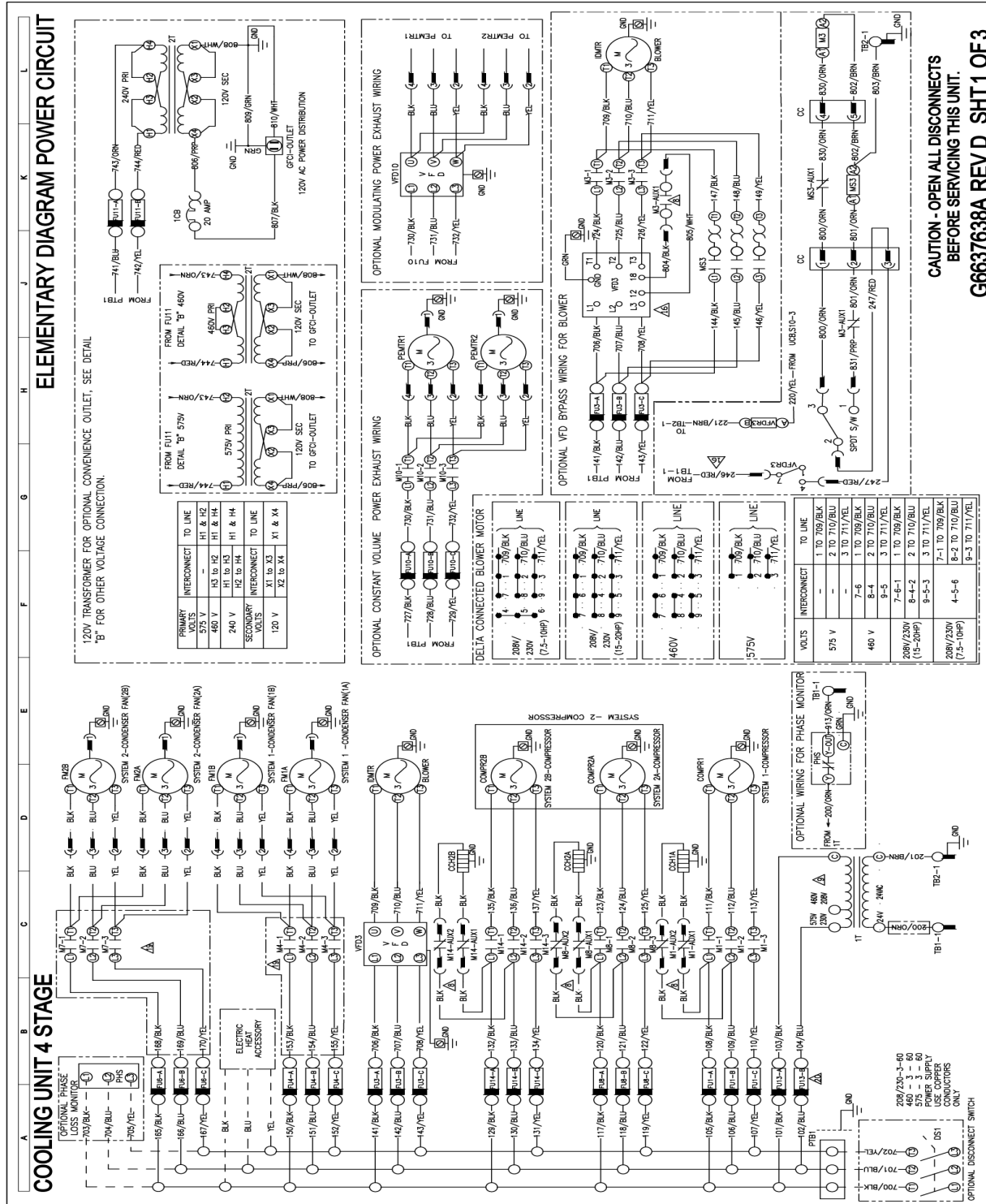


Figure 9: Cooling unit 4 stage - elementary diagram control circuit

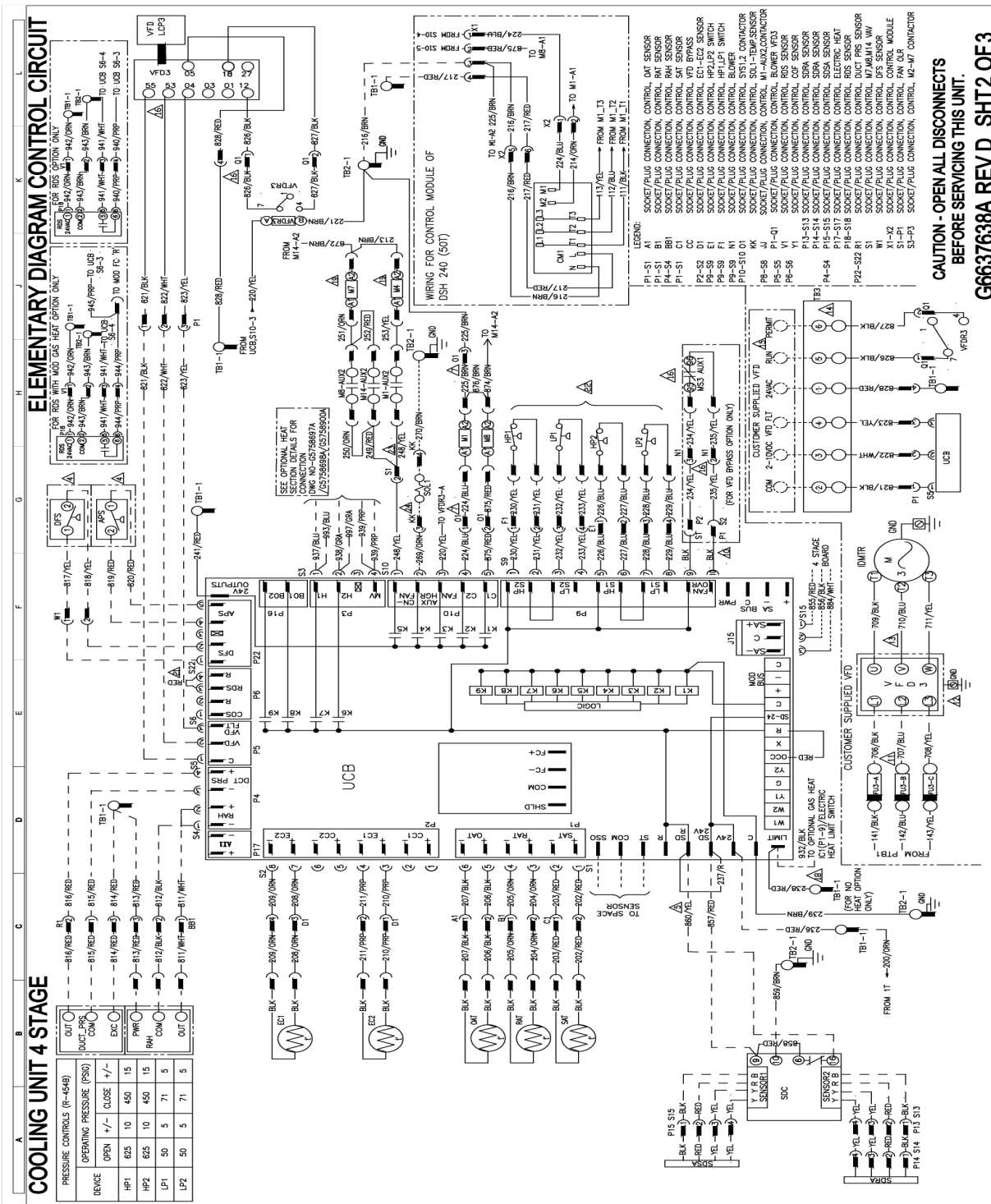
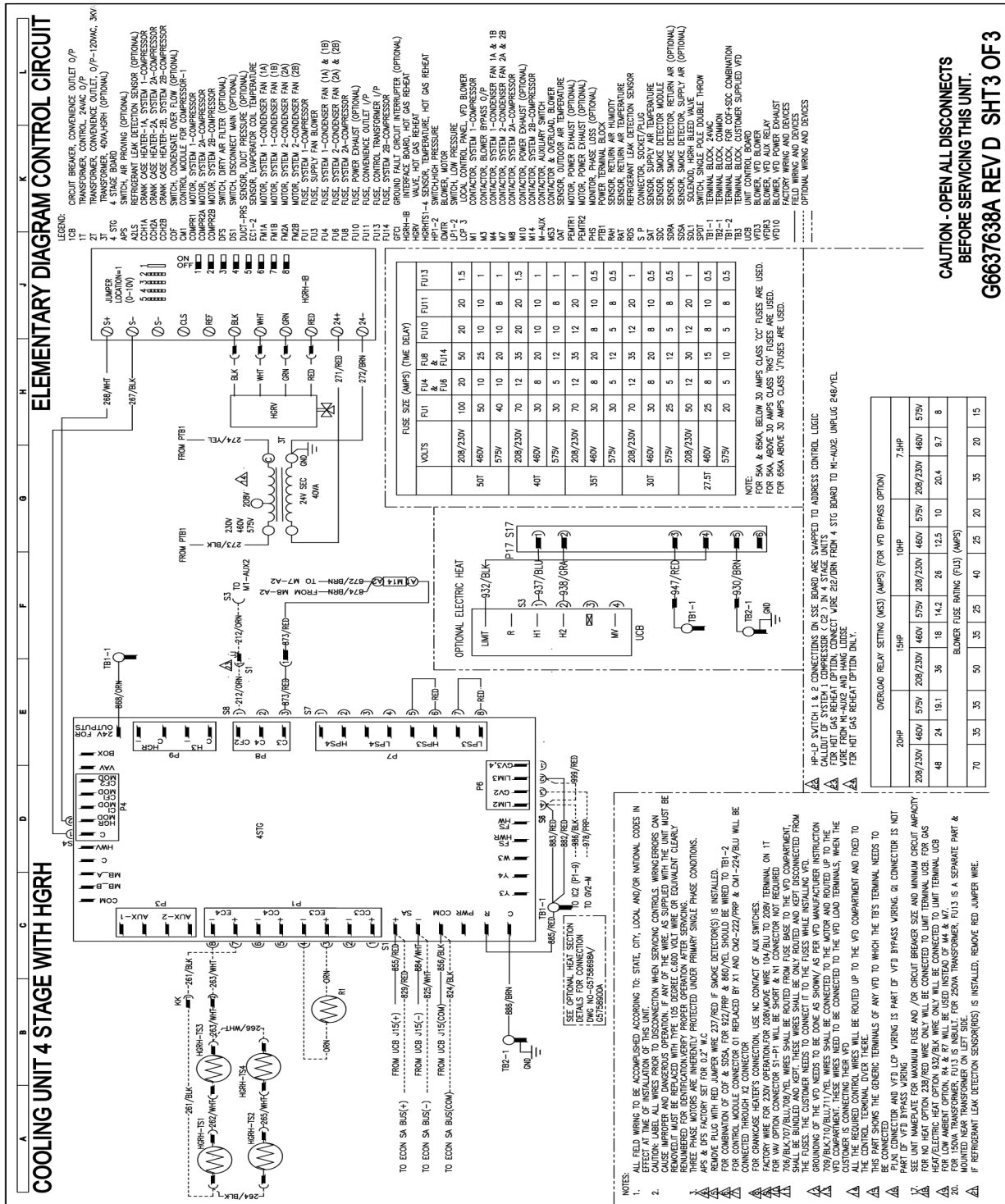


Figure 10: Cooling unit 4 stage with HGRH - elementary diagram control circuit





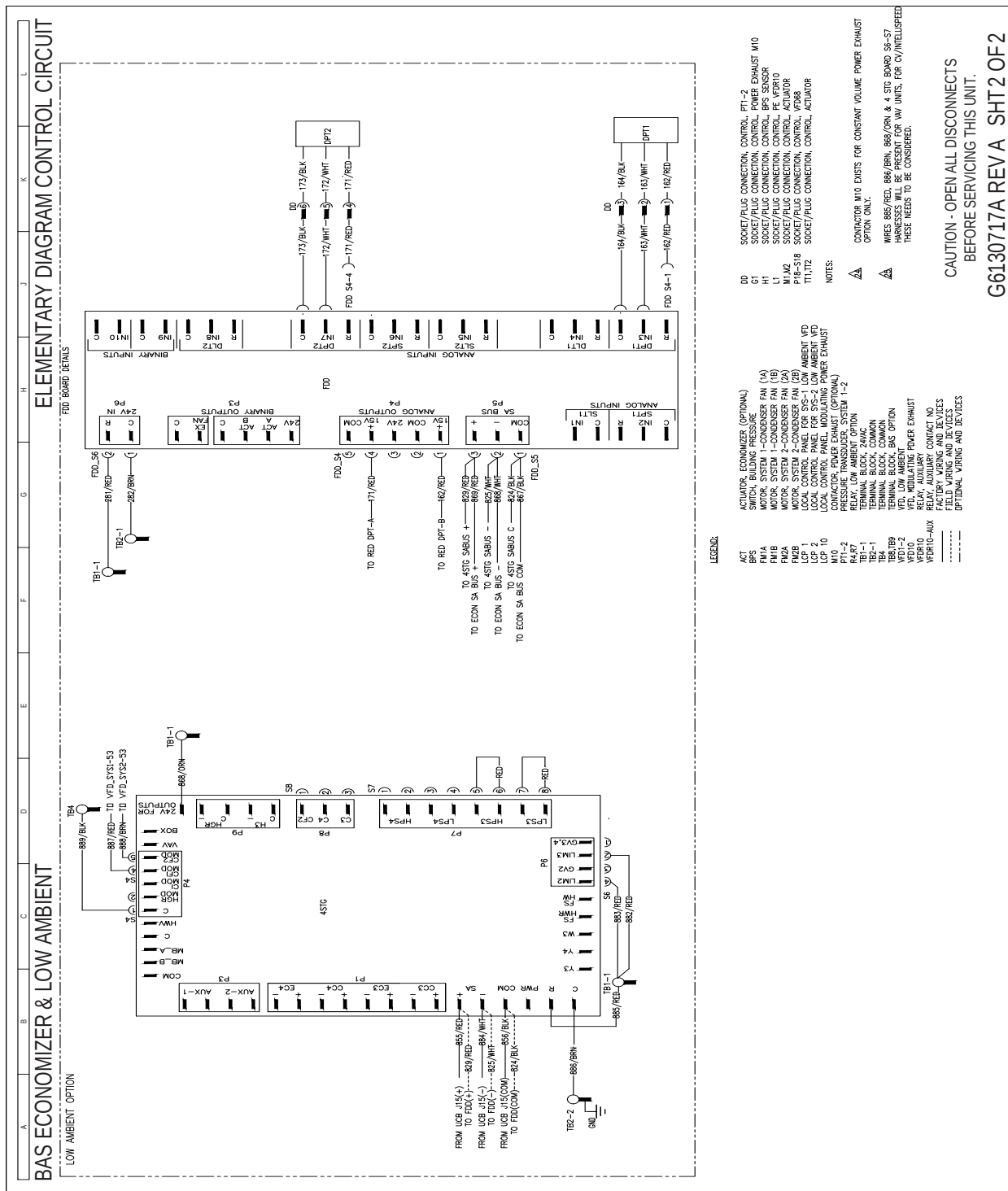
G6432972A REVC SHT2 OF3





G6130717A REV A SHT10F2

Figure 15: BAS Economizer - Low ambient elementary diagram control circuit continued



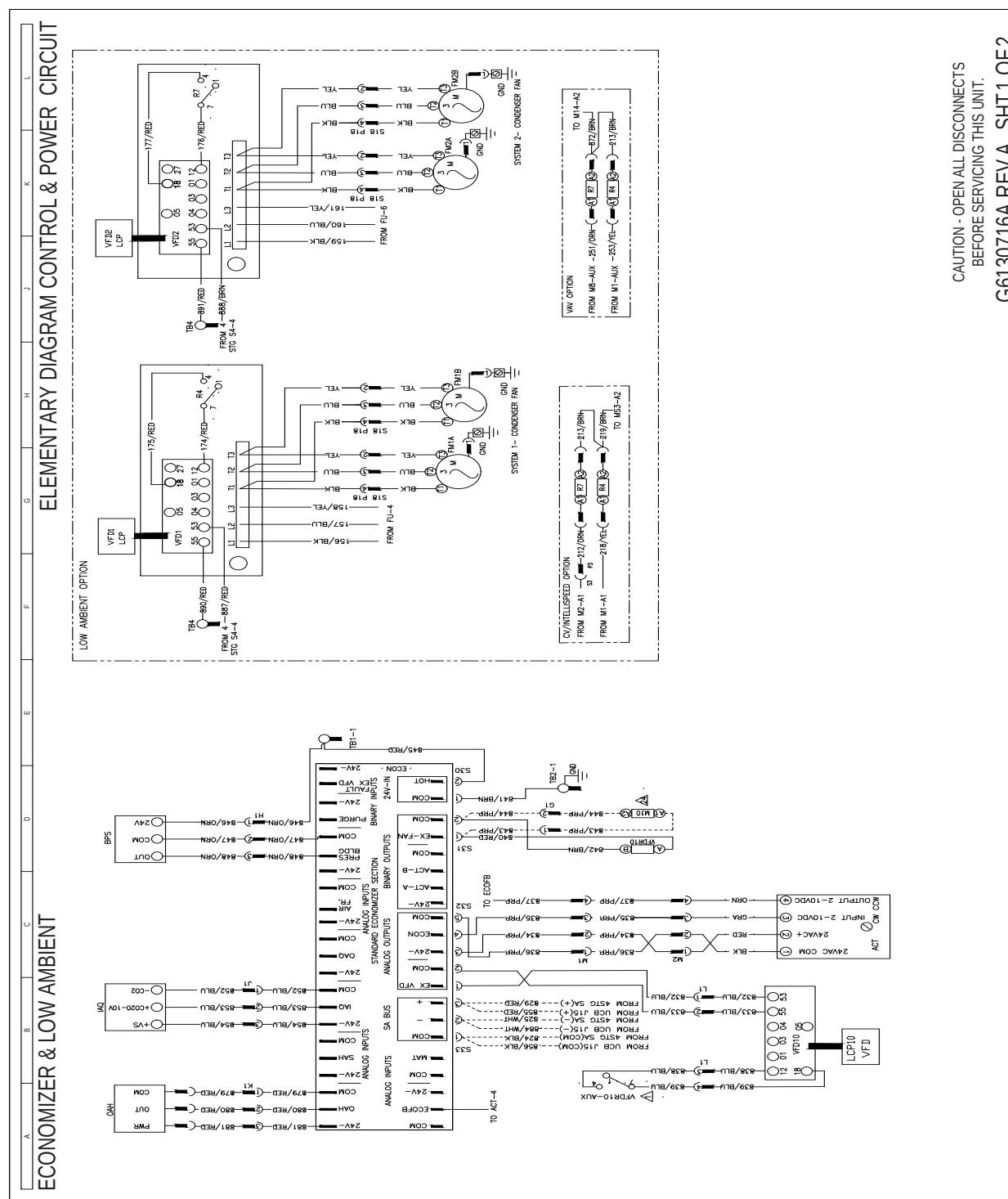


Figure 17: Economizer - Low ambient elementary diagram control circuit continued

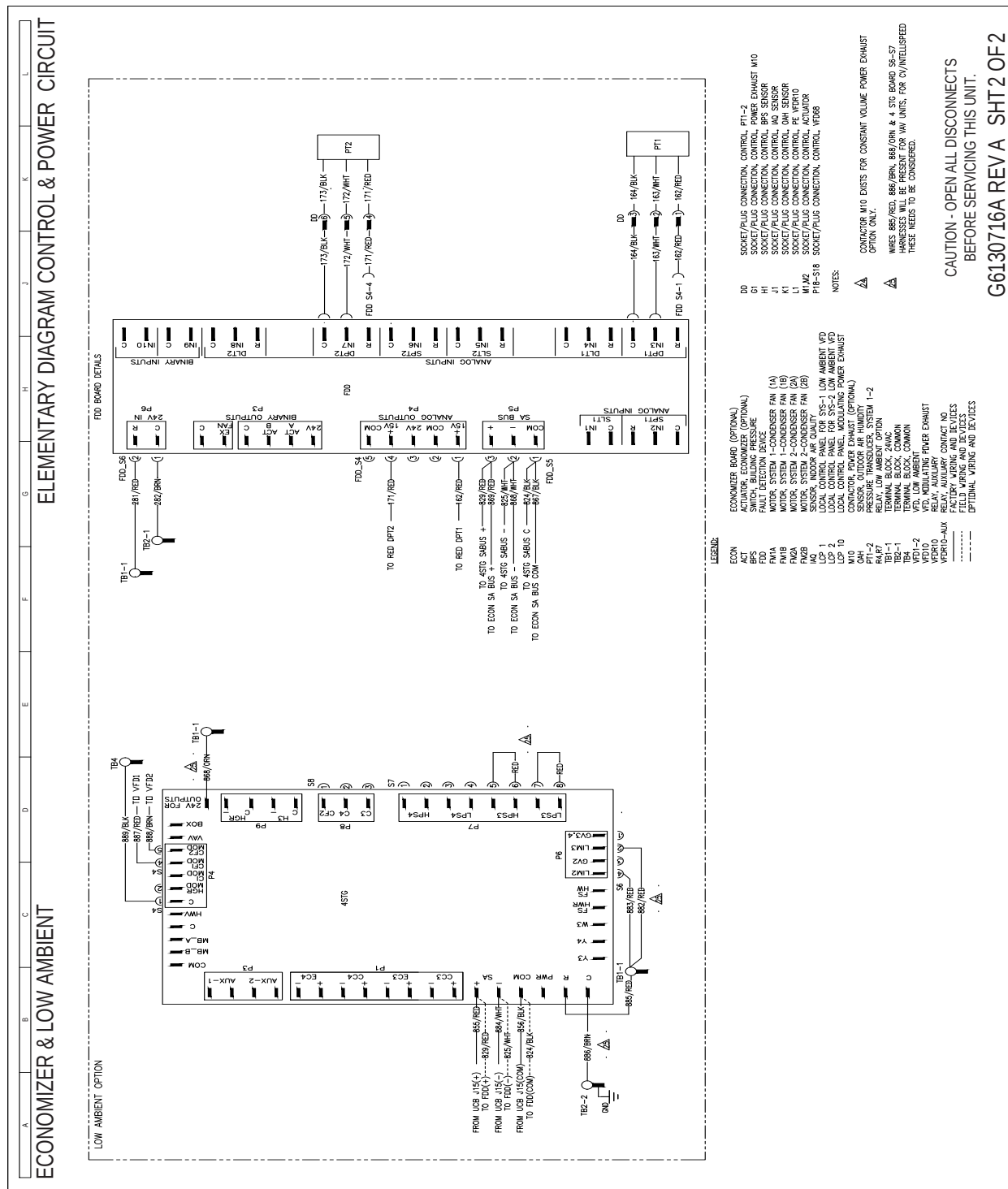


Figure 18: Low heat gas unit - elementary diagram control and power circuit

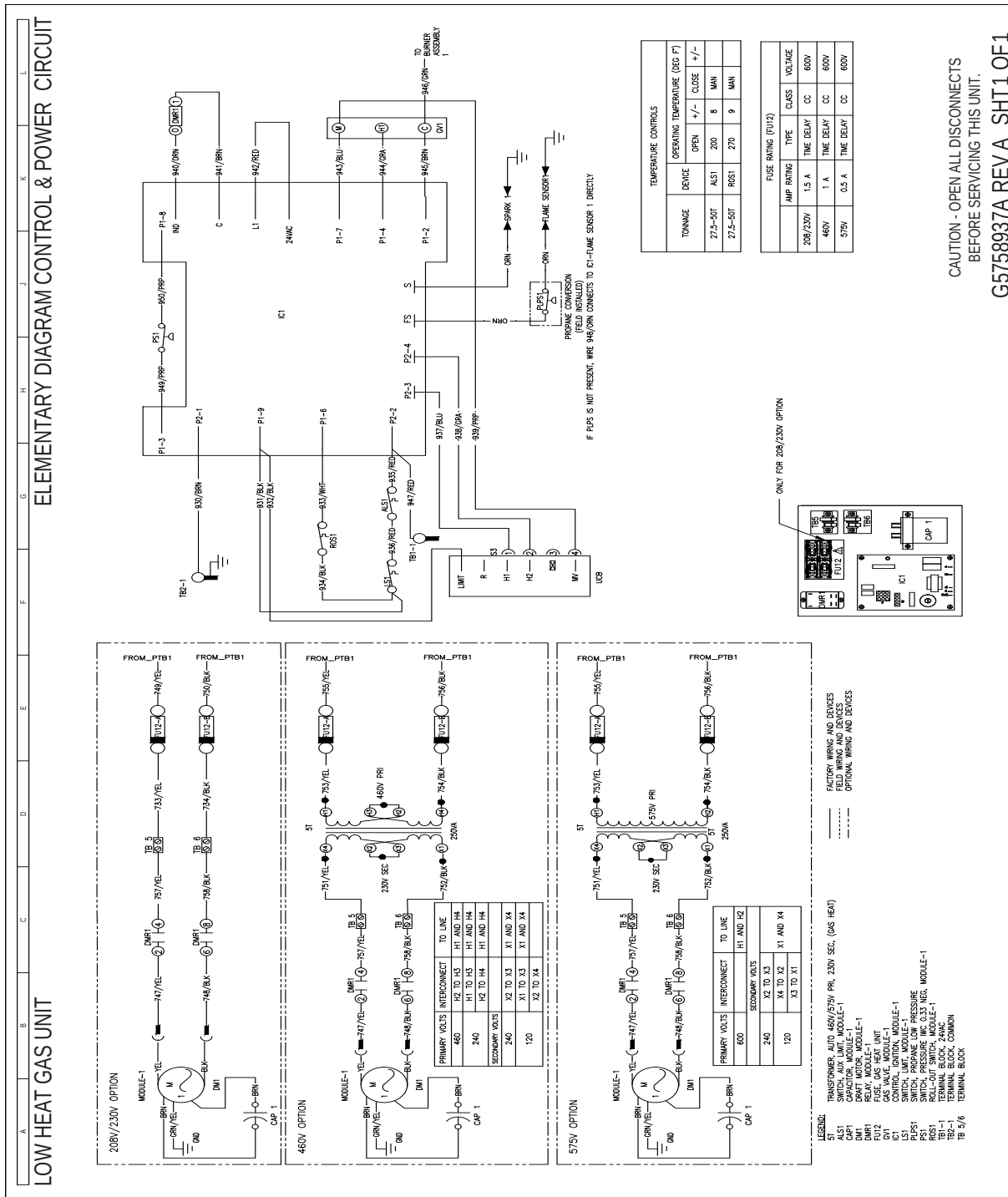
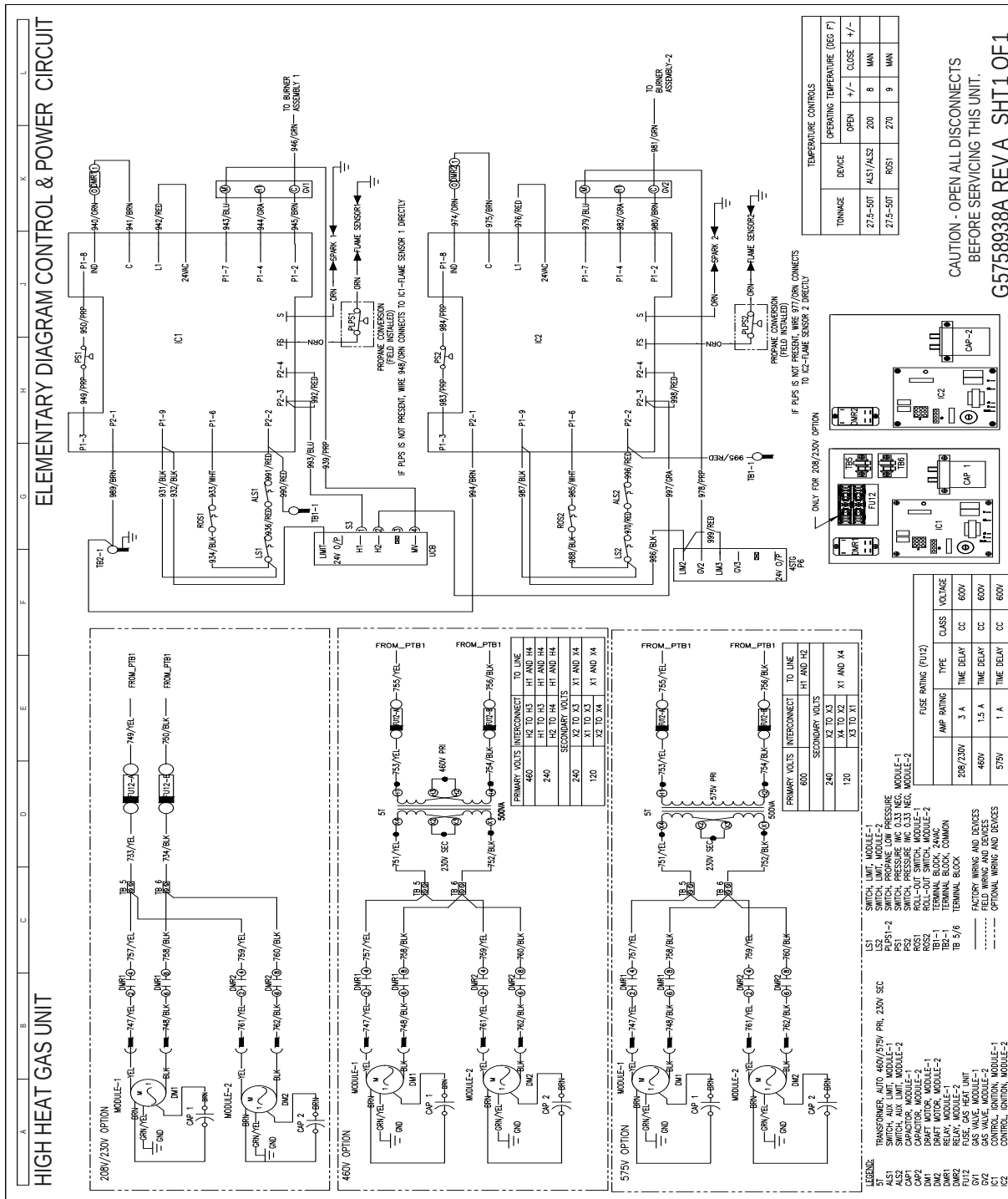
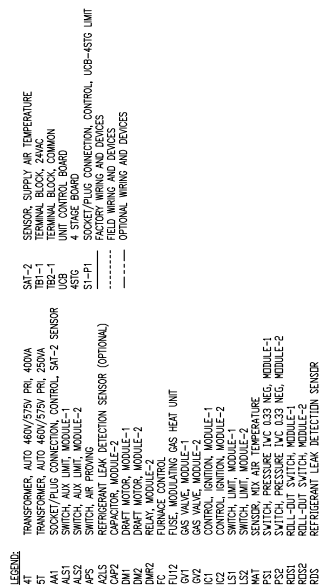


Figure 19: High heat gas unit - elementary diagram control and power circuit





ELEMENTARY DIAGRAM CONTROL & POWER CIRCUIT



CAUTION - OPEN ALL DISCONNECTS BEFORE SERVICING THIS UNIT.

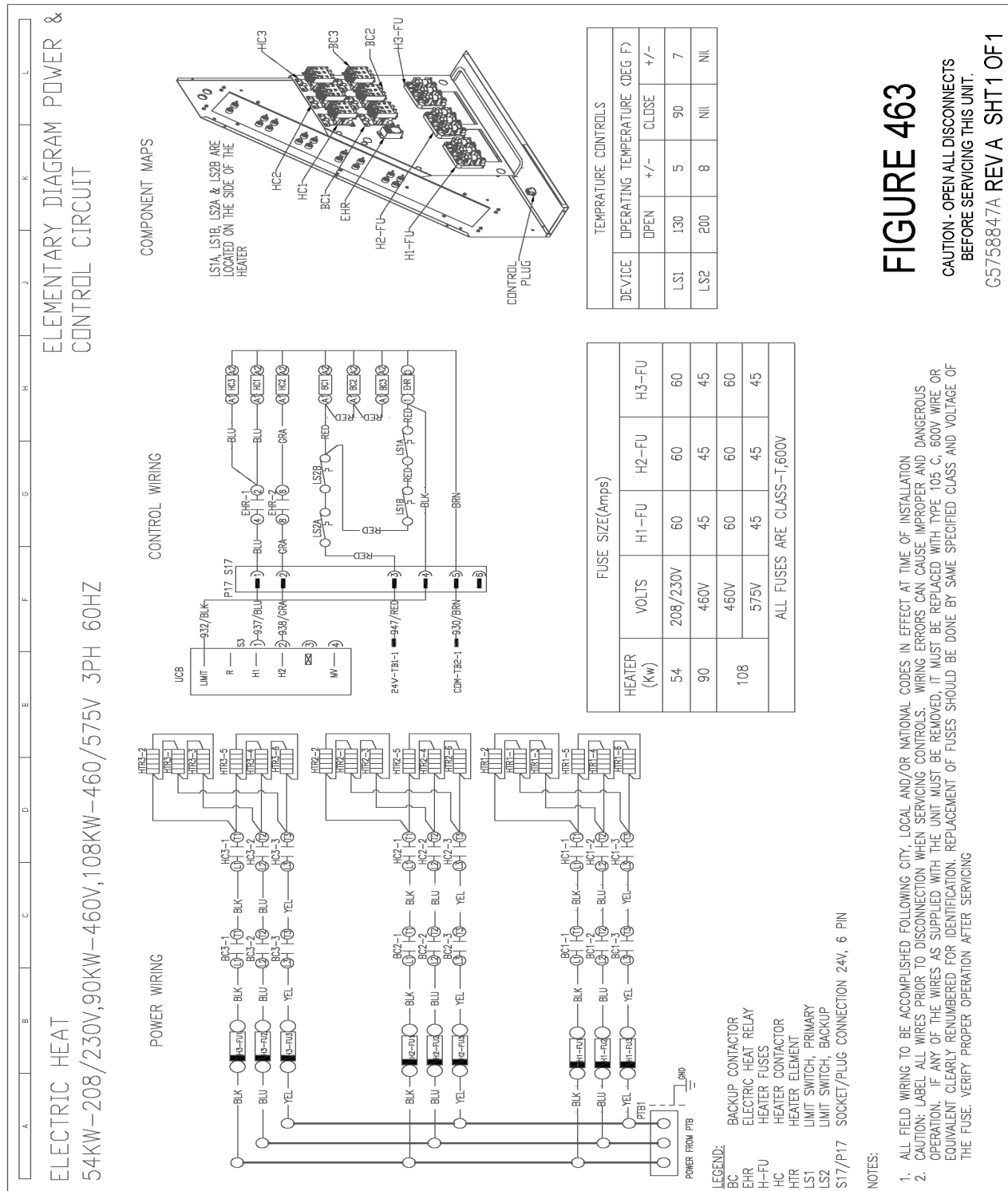
G6432974A REV B SHT2 OF 2



CAUTION - OPEN ALL DISCONNECTS BEFORE SERVICING THIS UNIT.

G5758848A REV A SHT1 OF 1

Figure 22: Electric heat - elementary diagram control and power circuit



Unit weights and dimensions

Figure 23: VV27/VH27 to VV35/VH35 physical dimensions

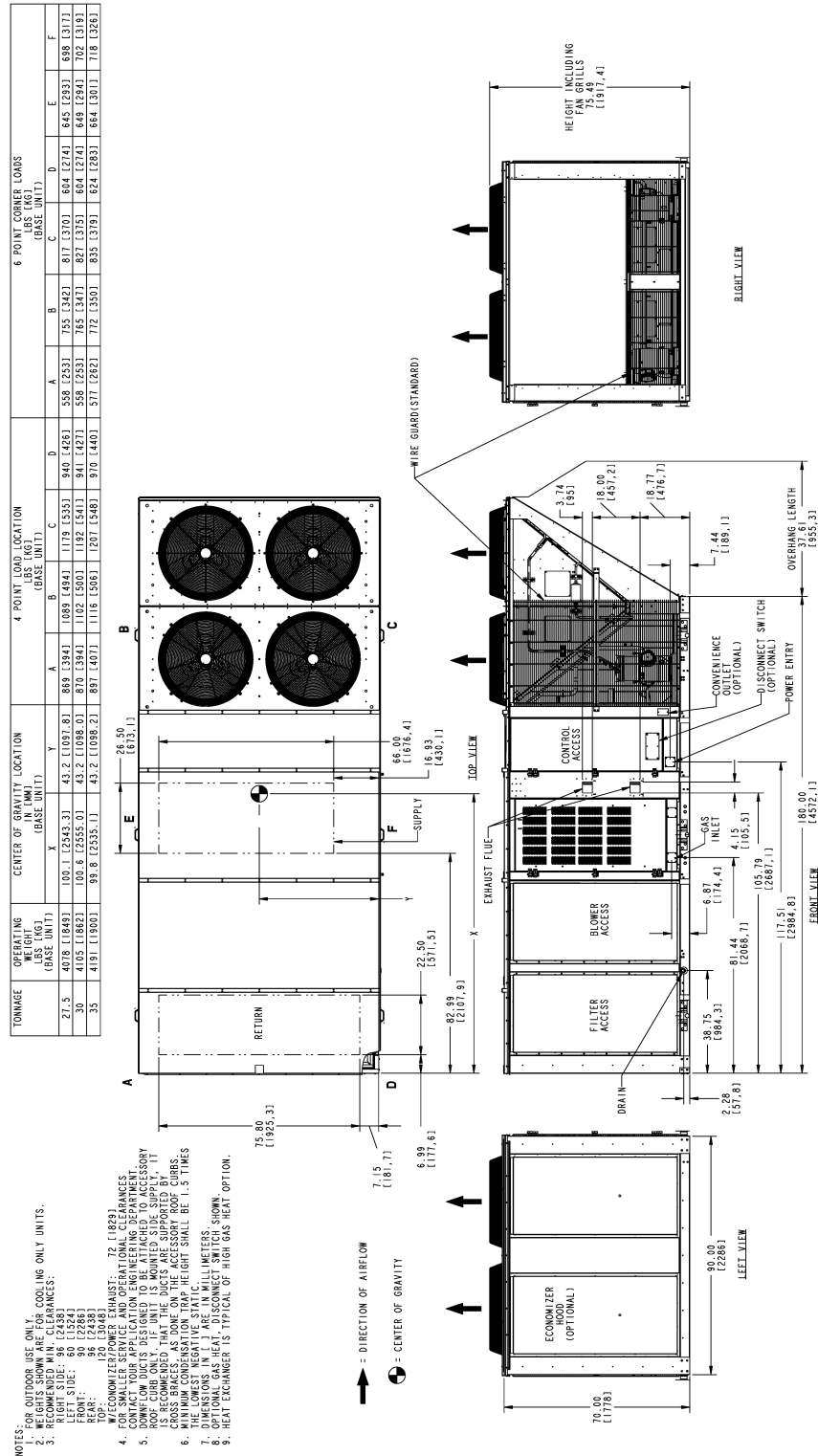


Figure 24: VV27/VH27 to VV35/VH35 physical dimensions continued

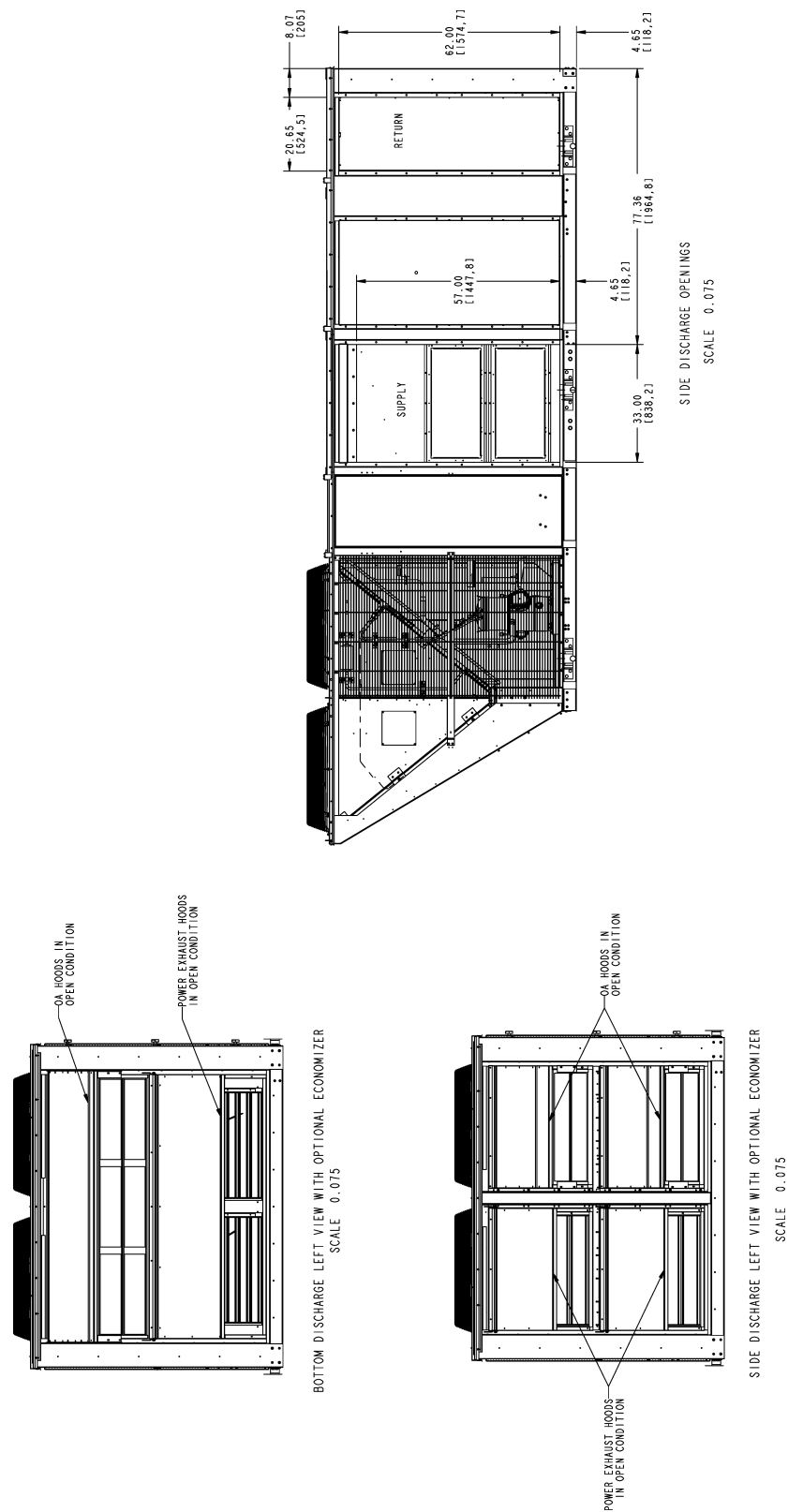


Figure 25: VX27 to VX35 physical dimensions

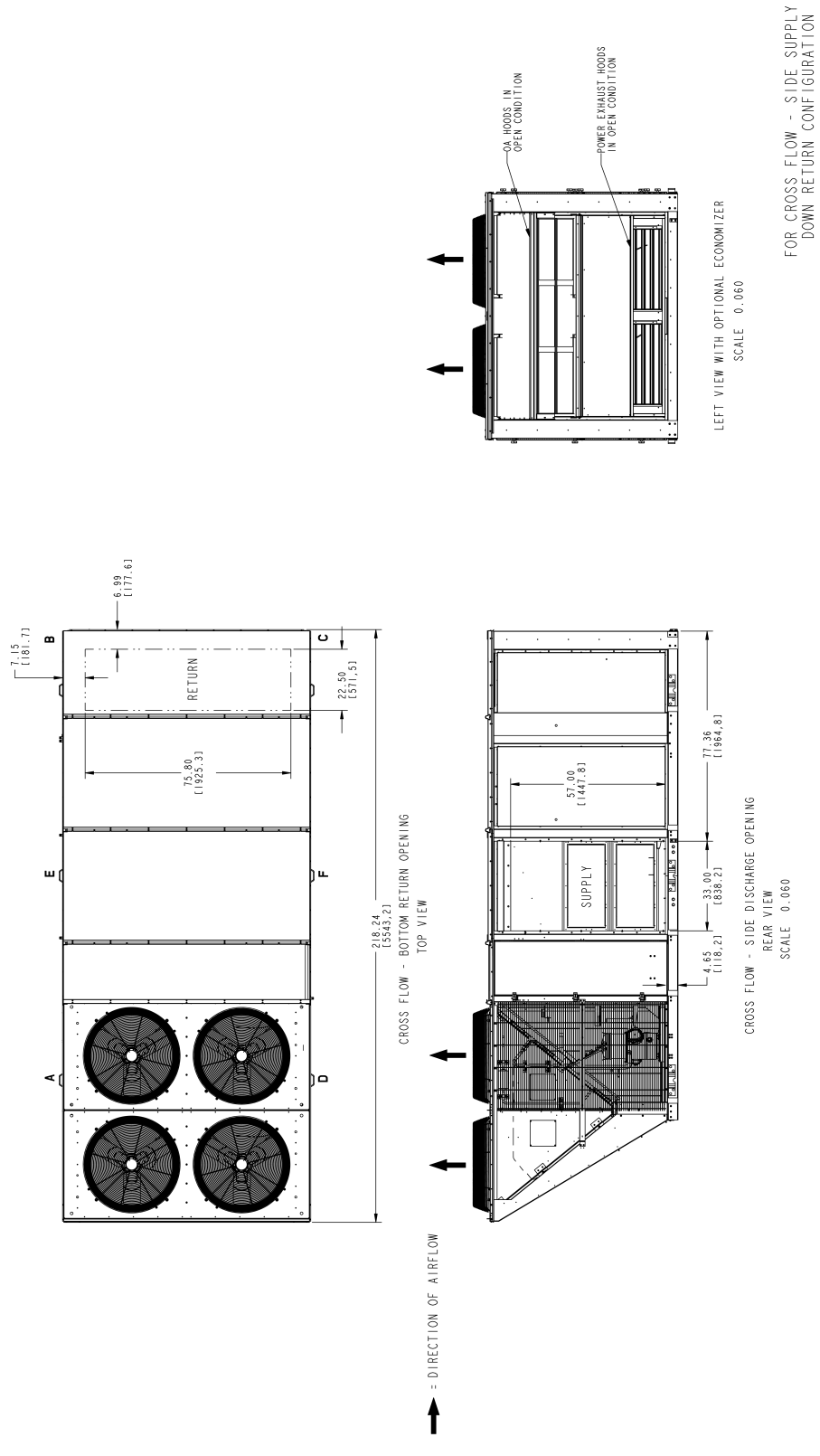


Figure 26: VY27 to VY35 physical dimensions

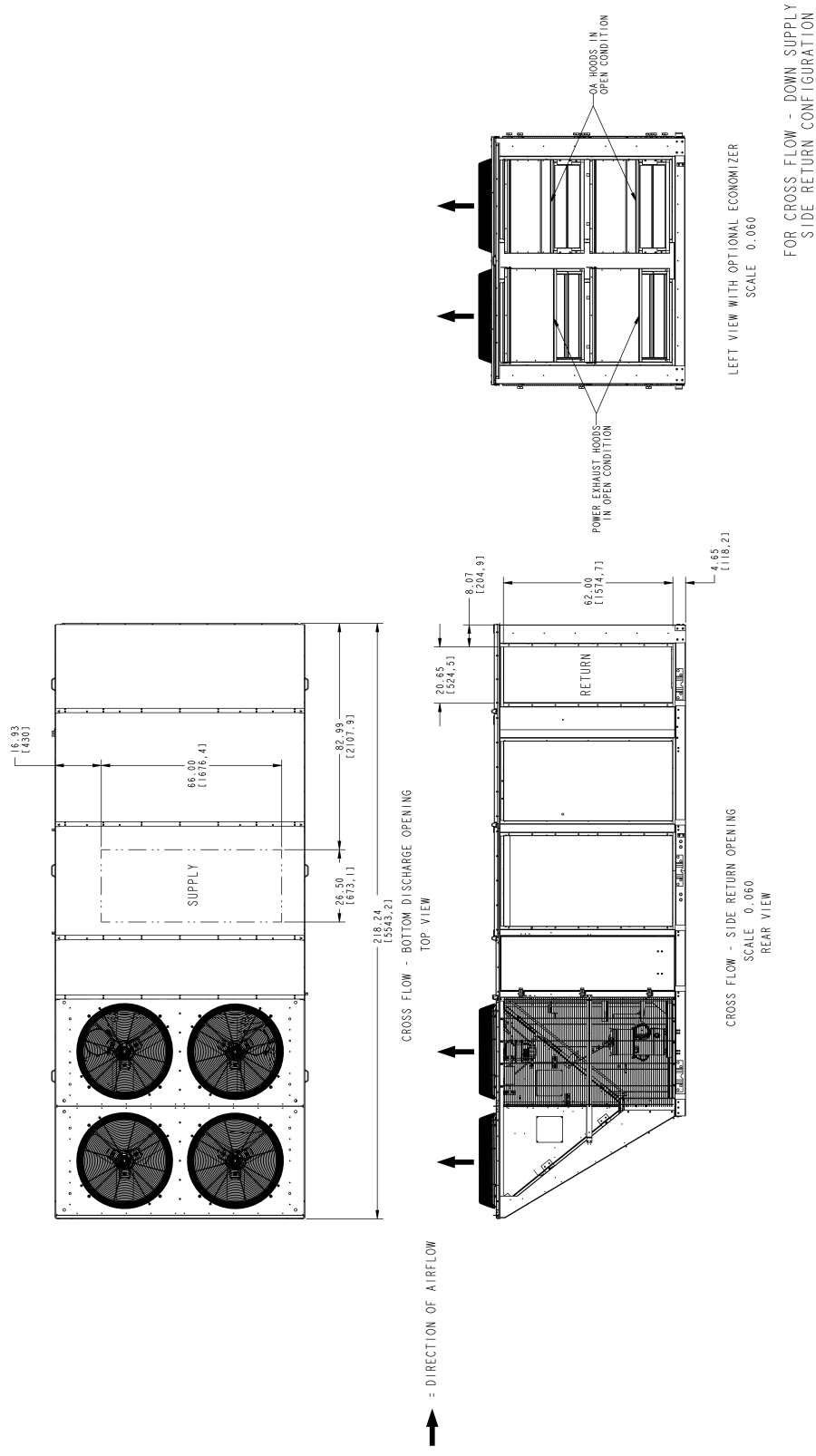


Figure 27: VV40/VH40 to VV50/VH50 physical dimensions

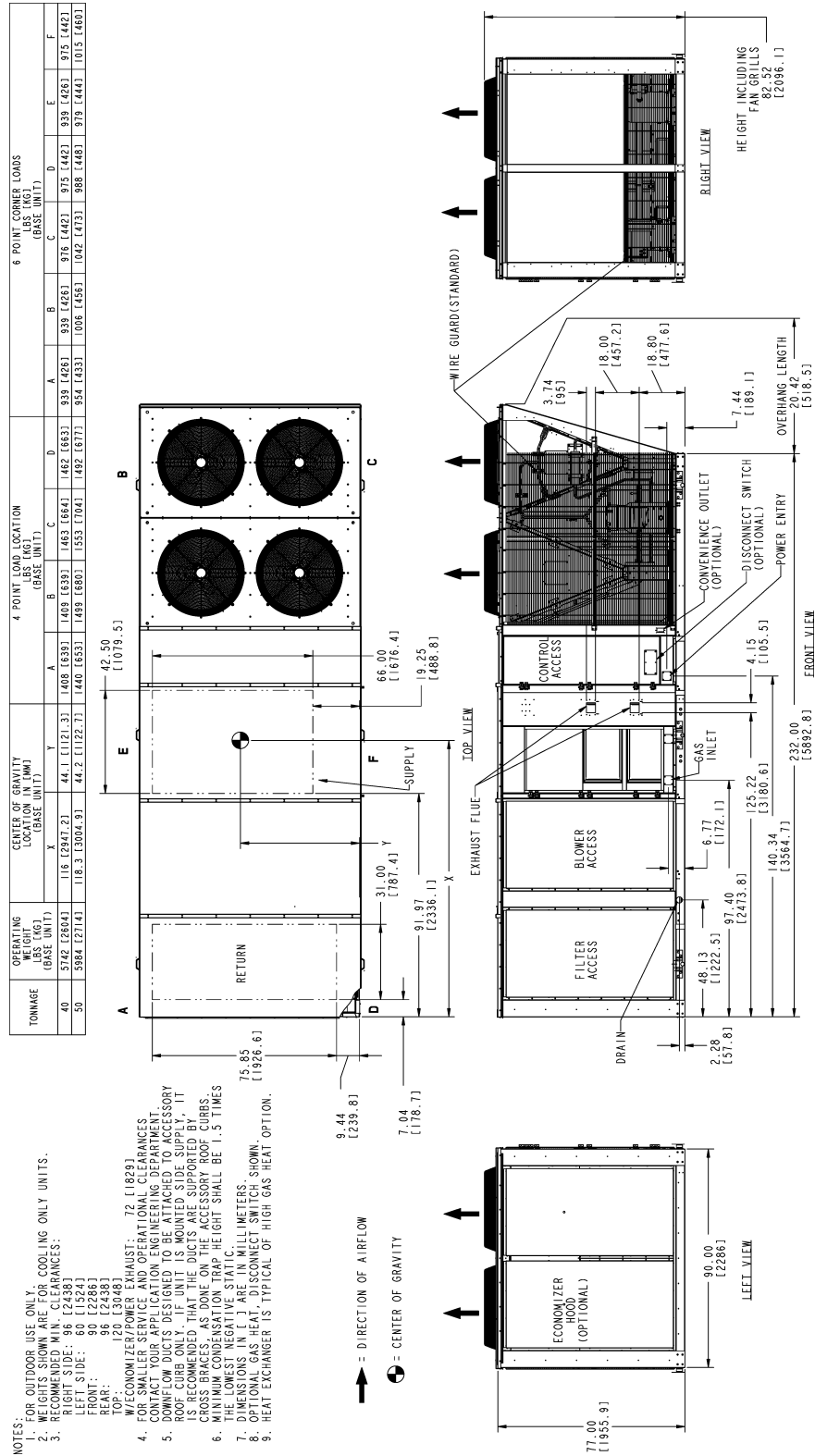


Figure 28: VV40/VH40 to VV50/VH50 physical dimensions continued

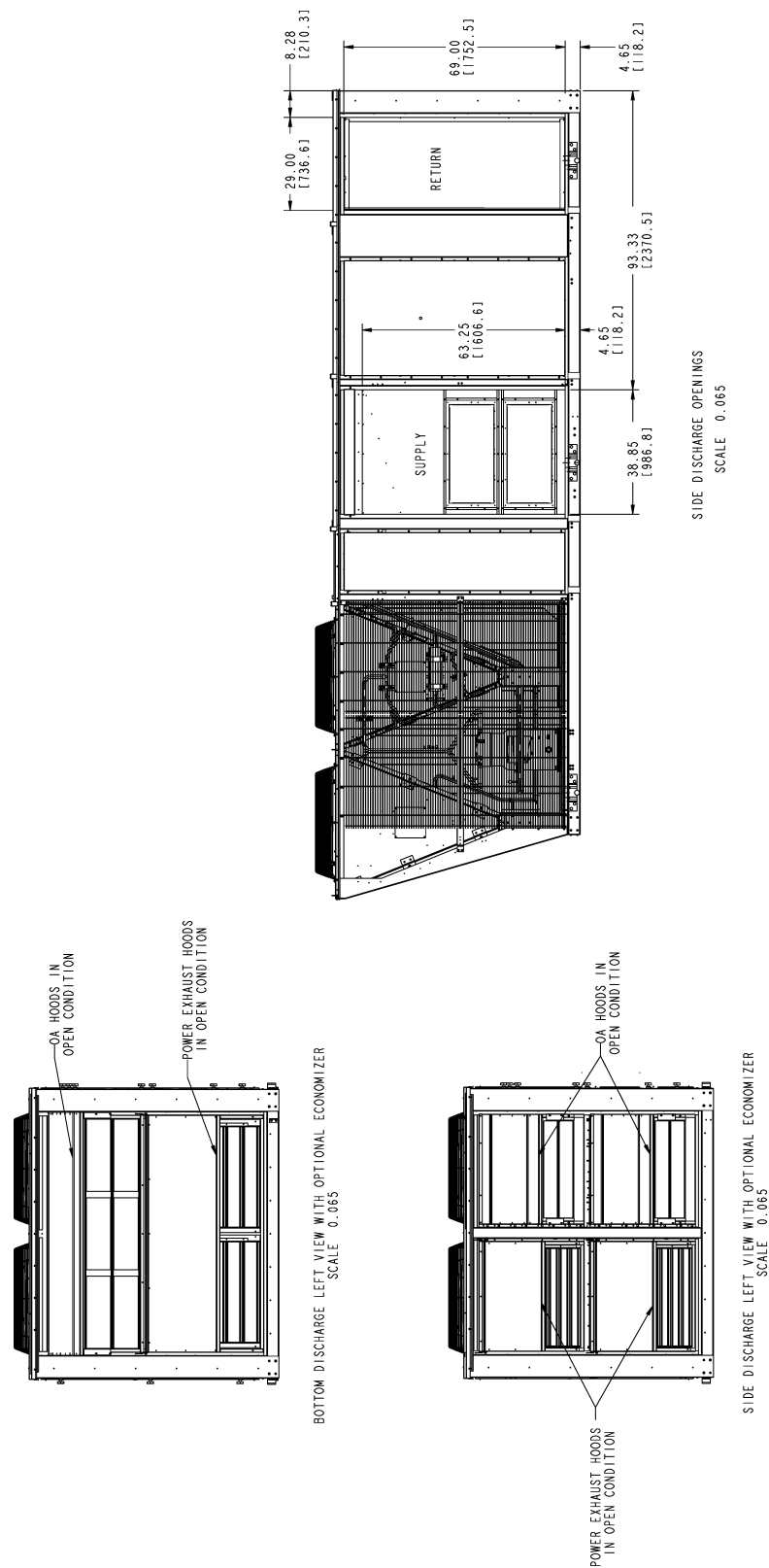
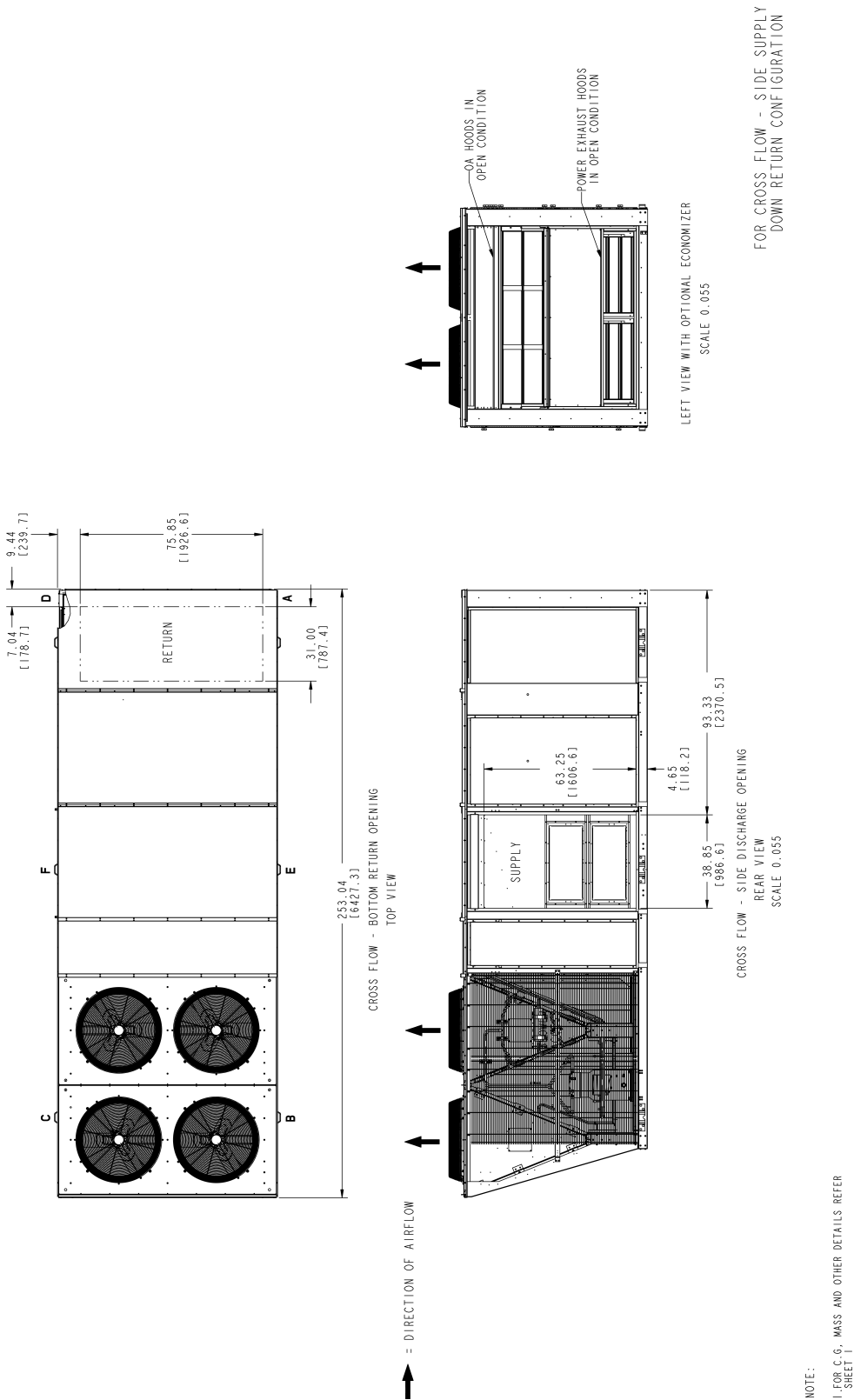


Figure 29: VX40 to VX50 physical dimensions

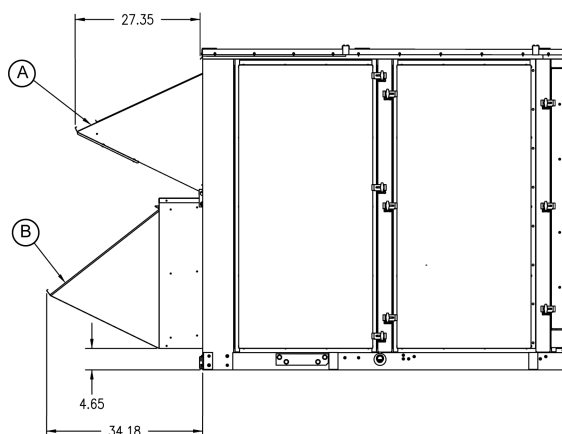




Rain hood dimensions

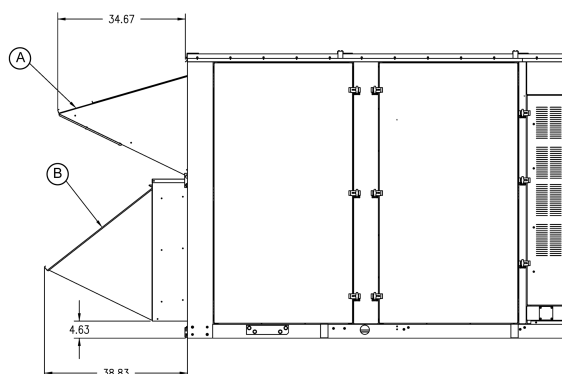
Vertical return rain hood dimensions

Figure 31: 27.5 ton to 35 ton rain hood dimensions



Item	Description
A	Economizer and manual damper rain hood
B	Power exhaust rain hood

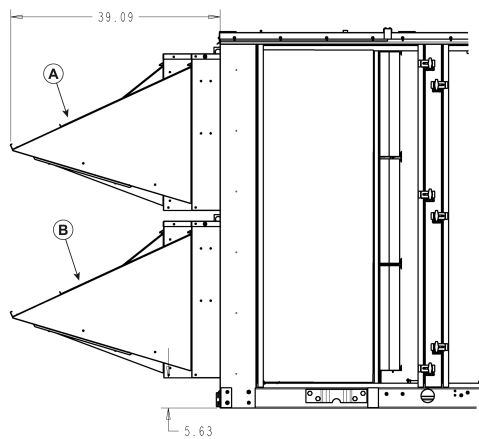
Figure 32: 40 ton to 50 ton rain hood dimensions



Item	Description
A	Economizer and manual damper rain hood
B	Power exhaust rain hood

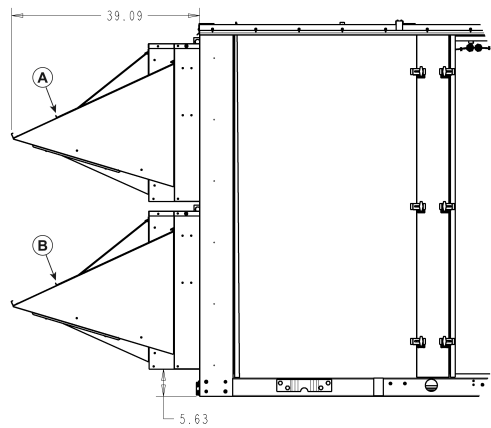
Horizontal return rain hood dimensions

Figure 33: 27.5 ton to 35 ton horizontal return economizer hood

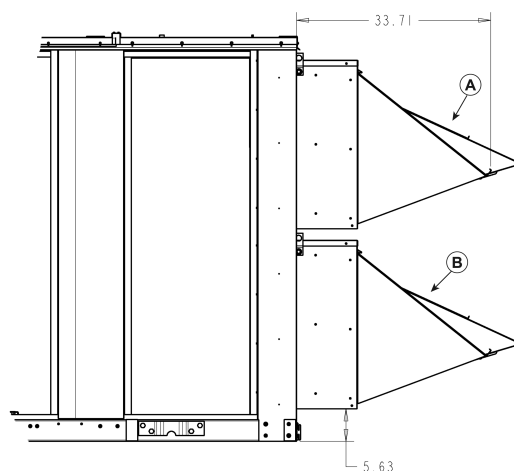


Item	Description
A	Top economizer outdoor air hood
B	Bottom economizer outdoor air hood

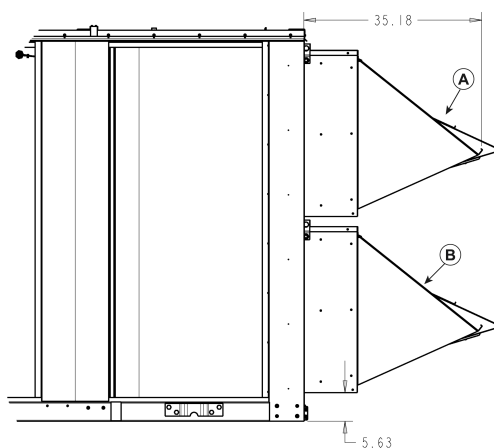
Figure 34: 40 ton to 50 ton horizontal return economizer hood



Item	Description
A	Top economizer outdoor air hood
B	Bottom economizer outdoor air hood

Figure 35: 27.5 ton to 35 ton horizontal return exhaust hood

Item	Description
A	Top exhaust hood
B	Bottom exhaust hood

Figure 36: 40 ton to 50 ton horizontal return exhaust hood

Item	Description
A	Top exhaust hood
B	Bottom exhaust hood

Utilities entry

Table 60: Utilities entry

Entry description		Opening size diameter (in.)
Control wiring	Bottom	1 in. knockout for field drilling
Power wiring	Front	Field drilled to maximum of 3 in.
	Bottom	Field drilled to maximum of 3 in.
Gas piping	Front ^{1, 2}	2 5/8 in. hole with 1 1/2 in. grommet
	Bottom ³	1/4 in. pilot hole in gas heat base pan
Condensate drain	Front ^{2, 4}	2 1/2 in. hole with one 1/2 in. grommet

1 1 1/4 in. NPT gas piping is required.

2 You must insert the piping through the factory-installed grommet for a watertight seal.

3 Factory provided pilot hole shows the hole location to facilitate the drilling of entry holes.

4 1 in. NPT male connection piping is required.

Note: You must field-seal all entry holes to prevent rain water entry into the building.

Accessory weights

Table 61: Unit accessory weights for vertical supply units

Unit accessory	Unit size				
	27.5 ton	30 ton	35 ton	40 ton	50 ton
Economizer, efficiency = V	307	307	307	359	359
Economizer, efficiency = Y	398	398	398	425	425
Power exhaust, efficiency = V	314	314	314	390	390
Power exhaust, efficiency = Y	211	211	211	225	225
Manual damper	85	85	85	120	120
Barometric damper, efficiency = V	230	230	230	285	285
Barometric damper, efficiency = Y	90	90	90	104	104
Gas heat (largest)	155	155	220	220	220
Hail guard	80	80	80	121	121
Roof curb	475	475	475	520	520
Electric heat (largest)	80	80	80	90	90
Hot gas reheat	56	56	56	75	79

Table 62: Unit accessory weights for horizontal supply units

Unit accessory	Unit size				
	27.5 ton	30 ton	35 ton	40 ton	50 ton
Economizer, efficiency = H	398	398	398	425	425
Economizer, efficiency = X	307	307	307	359	359
Power exhaust, efficiency = H	211	211	211	225	225
Power exhaust, efficiency = X	314	314	314	390	390
Manual damper	85	85	85	120	120
Barometric damper efficiency = H	90	90	90	104	104
Barometric damper, efficiency = X	230	230	230	285	285
Gas heat (largest)	155	155	220	220	220
Hail guard	80	80	80	121	121
Roof curb	475	475	475	520	520
Electric heat (largest)	80	80	80	90	90
Hot gas reheat	56	56	56	75	79

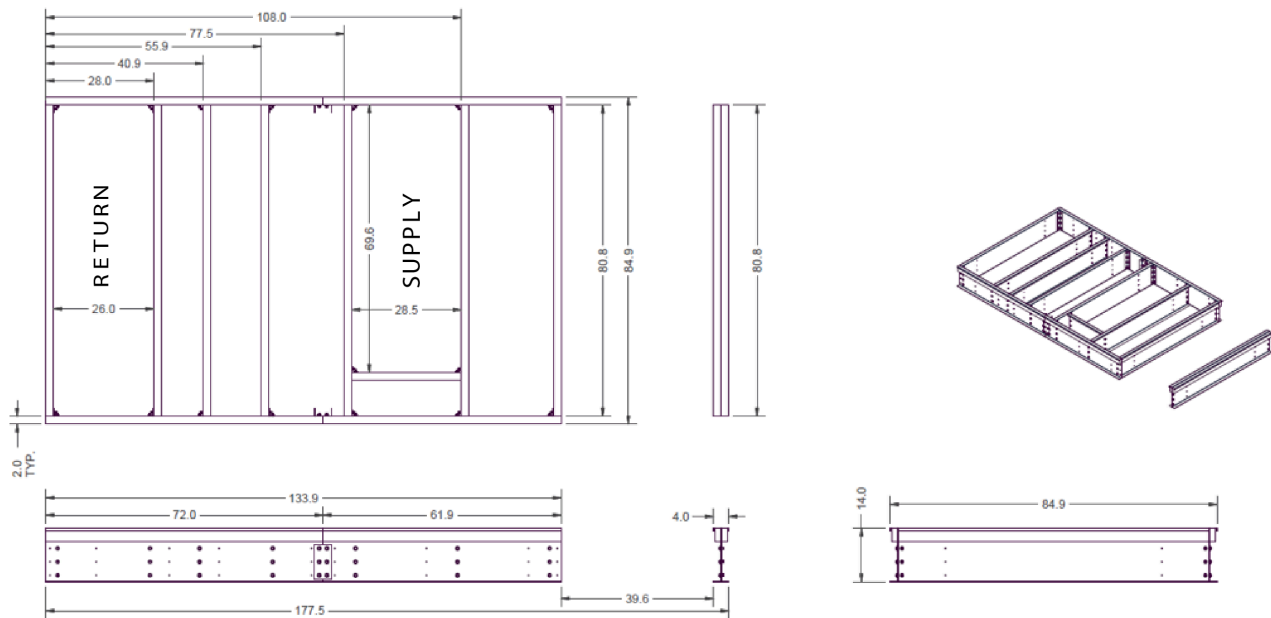
Table 63: Supply fan VFD weights

Supply fan motor	208/230 V	460 V	575 V
7.5 HP	17.4	9.9	14.6
10 HP	17.4	9.9	14.6
15 HP	20.9	17.4	26.5
20 HP	54	17.4	26.5

Roof curbs

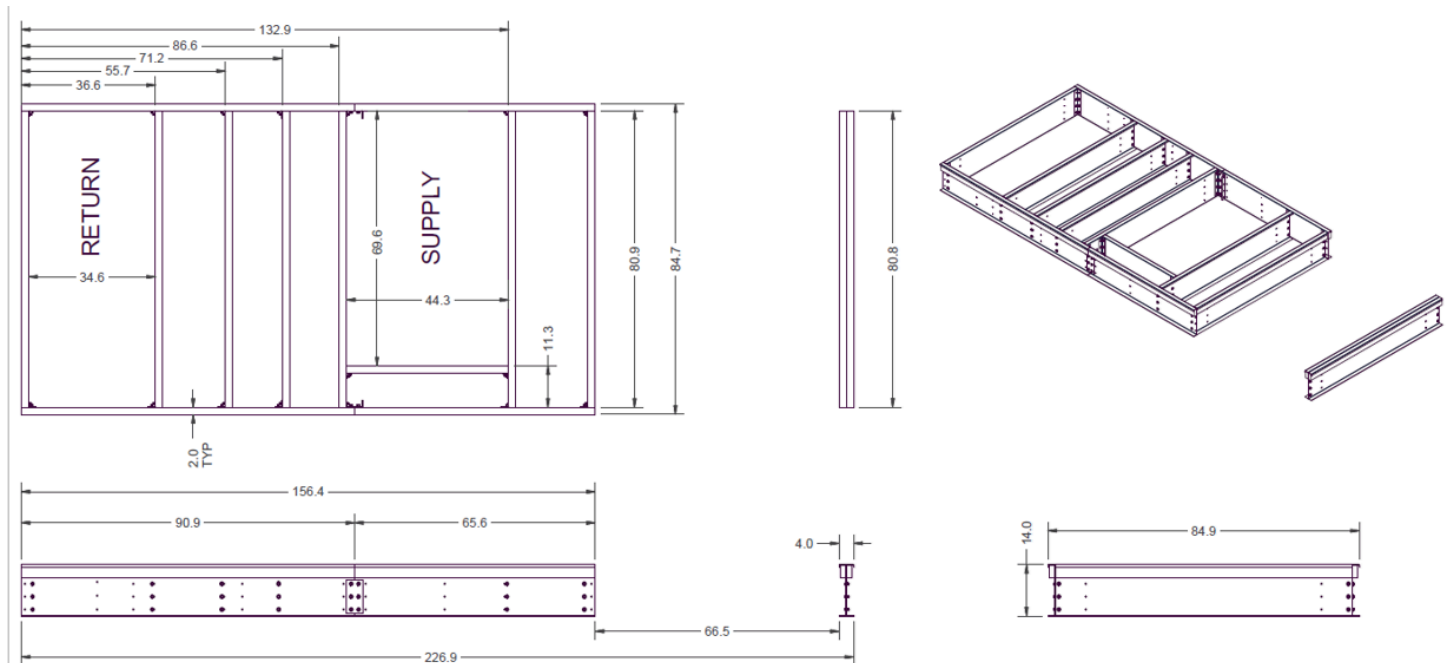
The following figures show the roof curbs for the units. All dimensions are in inches.

Figure 37: 1RC0450 roof curb dimensions



Compatible units with 1RC0450 roof curbs: 27.5 ton, 30 ton, 35 ton.

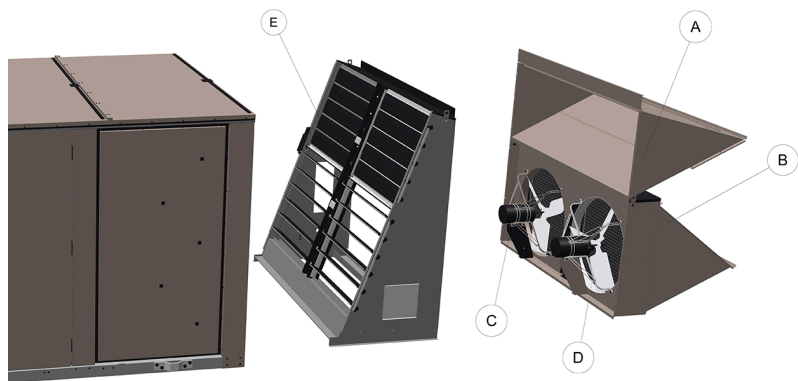
Figure 38: 1RC0451 roof curb dimensions



Compatible units with 1RC0451 roof curbs: 40 ton, 50 ton.

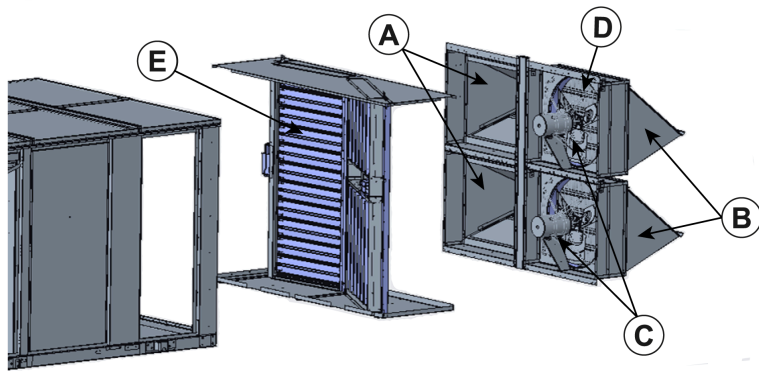
Economizer options

Figure 39: Vertical return economizer details



Callout	Description
A	Fresh air hood
B	Power exhaust hood
C	Power exhaust
D	Power exhaust damper
E	Low leak economizer

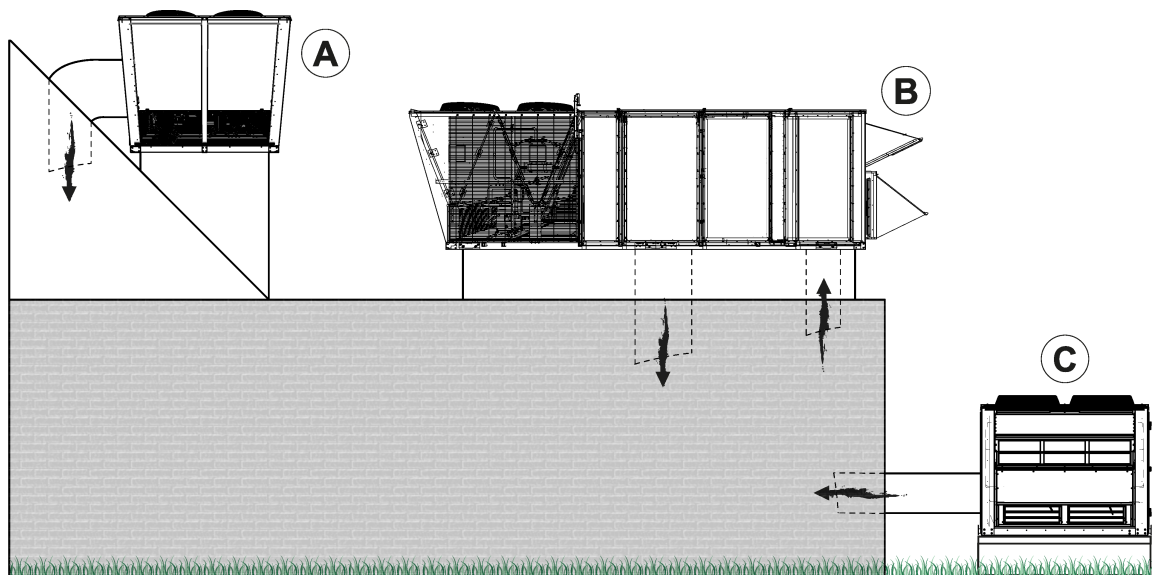
Figure 40: Horizontal return economizer details



Callout	Description
A	Fresh air hood
B	Power exhaust hood
C	Power exhaust
D	Power exhaust damper
E	Low leak economizer

Typical installation

The following figure shows the typical installations for the unit.



Item	Description
A	Roof jack installation
B	Roof curb installation
C	Slab on ground installation

